CHAPTER – 1
INTRODUCTION

1.1 INTRODUCTION

Education is not a simple unitary concept. The concept of education is used in a variety of context and with different schools of universe. Similarly schools have different types of atmosphere. The important aim of education is “The all round development of the child.”

Achievement refers to the proficiency attained in some specific area concerning academic work and level of success. Quality of performance has become the key factor for personal progress, where achievement is a very important variable. Among the key developmental tasks confronting the children during the middle childhood years are the development of various intellectual and academic skills and the motivation to master them. “Academic or scholastic achievement has become an index of child’s future in this highly competitive world. It is only a drop in the vast sea of education and many students would appear not to give themselves credit commensurate with their known or rated abilities. Many times students of undoubted average or abilities excel (Katyal and Bindra, 1995).”

1.2 ACADEMIC ACHIEVEMENT

Academic achievement is the core of the whole educational growth. It is regarded as an important goal of education. Academic achievement is considered as outcome of the instructions provided to the students in schools which is determined by the grades or marks, obtained by the students in their examinations. It usually indicates students’ learning outcomes which require a series of organised and planned experiences. Academic achievement is the most important and perennial responsibility of a school or any other educational institution established by the society to promote whole scholastic growth and development of a child.
Academic achievement plays major role in the attainment of the harmonious development of the child. The prediction of academic achievement has assumed enormous importance to its practical view. In our community, academic achievement is considered as a key criterion to judge one’s total capacities and potentialities. It forms the main basis of admission and promotion in a class. It is also essential for obtaining a diploma/degree or getting a job.

Singh et al. (2007) pointed out that “Academic achievement is related to the acquisition of principles and generalizations and the ability to perform objectives, efficiently certain manipulations, symbols and ideas.” The assessment of academic achievement has been largely confined to the evaluation in terms of information, knowledge and understanding. Academic achievement is the ability of students shown in school subjects for which they have taken instruction. The grades or test scores assigned to the students on the basis of their performance in the achievement test determine the status of students in the classroom. While, Driver (1989) stated that “In a classroom, students are involved in developing and reconstructing knowledge through experience, motivation, cooperation, explorating talk and teacher’s intervention”.

According to “Blumenfield (1993) “Students need opportunities to construct knowledge by solving real problems through asking and refining questions, designing and conducting investigations, gathering, analyzing and interpreting information and data, drawing conclusions and reported findings”. At every step in the school, some degree of accomplishment are set as a determinant of the students status and as a key stone for the opinion about the moreover opportunities for learning to be acquired in upcoming stages. In the present field of education, success in academic subjects is the main affair of the teachers, parents and students.

Achievement in academic subjects is significant as it assists the students to understand the hierarchy based on it, i.e., higher the achievement, more are the openings for the students and they can go for better streams and better jobs in all fields like science and technology, medicine, management, literature, education etc. As higher achievement is of paramount importance for progress and
promotion in any field, students with higher level of achievement can have a better chance to get jobs of higher level and the type of work that is given to them provides still better chance in their respective field. So, the need for measuring academic achievement is due to differences within the individual from time to time known as behaviour oscillation, i.e., academic achievement of the same individual differs from time to time, from one class to another and from one educational level to another. Although, there are individual differences, individuals of the same age group, of the same grade, usually differ in their potential abilities and academic proficiency.

The universe is reaching to the mounts in competition and the level of achievement has become the main factor for school and personal programme. Parents desire progeny to excel in the field of performance. This desire of reaching to the mounts has created their attitude towards the educational system. In the present system, the concept of providing education is changed from enhancing the achievement in subjects to harmonious development of learner. Now parents want that their kids must get admission in that school which has facilities like smart classrooms, smart boards, computer based learning and hi-tech language laboratories. “Academic achievement is the unique responsibility of educational institution established by the society to promote the development of learners. The development of the learners is possible only if proper individual attention is given to them for enhancing the knowledge attained or skills developed in school subjects usually reflected by test scores or marks assigned by the teachers or by both (Stephen, 1958).”

Thus, there are various aspects of academic achievement which have a great bearing on the personality of students. From an early age, a sense of achievement is a source of good feeling and self esteem and failure as a source of disgrace and self reproach. It is concerned with the quality and quantity of learning in a subject or group of subjects, assessed by examination marks (Pandey, 1992). It is the status or level of a person’s skills, the range and depth of his knowledge or his proficiency in a designated area of learning or behaviour (Horrock, 1969). In fact, it appears that the entire system of education revolves
around the students’ academic achievement. Thus, a lot of efforts and dedication by the school is to be done for boosting the students to perform better in their academic attempts.

1.2.1 Factors affecting Academic Achievement

Academic achievement is a multi-faceted and multi-dimensional phenomenon. There are too many factors which directly affect academic achievement, viz. motivation, intelligence, school environment, home environment, personality, heredity, learning experiences at school, aptitudes, interests, socio-economic status of the parents, family background, and many more. Sinha (1970) reported that hard work, intelligence, memory, good health, availability of books, methods of study, financial security and interest in social and practical work affect the academic scores. Dave (1975) reviewed that “intelligence, socio-economic status of the family, physical health, gender, caste, distance of school from home and leisure time activities directly affect academic achievement”. Balasubramaniam (1993) reported that locality and medium of instruction also influence academic achievement. Guha et al. (1995) observed that mother’s education had significant impact on academic achievement. Lakshmi (1997) revealed that children belonging to more educated parents were academically more motivated, whereas Taj (1999) found that parent-child interaction, social class and dependency behaviour had significant impact on academic achievement. Dangwal (2000) noted that obstacle dominance affected negatively and ego defense related positively to academic achievement. Avinashilingan et al. (2005) revealed that “classroom factors followed by environmental and developmental factor play a major role in affecting the students’ academic performance. The competency of teacher, students’ inner urge, absence of physical distracters, like mindedness and colleagues’ contact make students more competent to succeed in life. However, most of the above mentioned factors have been considered and studied for research under the classification of subjective and objective factors. Subjective factors are related to the individual himself, while influencing one’s achievement as learning ability, intelligence, learning style, self-concept, self efficacy, creativity, study habits,
level of aspiration, locus of control etc., whereas objective factors are related to
the environment of the individual as socio-economic status, family environment,
educational system, evaluation system, value system, teachers’ efficiency, school
situation and environment”. Aggarwal et al. (1991) reported that main factors
affecting academic achievement are affective factors viz. cognitive style,
motivation, anxiety, study habits, level of aspiration, stress, value, perseverance,
self efficacy, emotional maturity, attitude, adjustment, interest, need and curiosity;
cognitive factors viz. ability, intelligence, creativity, problem solving, reasoning
ability and learning rate; school related factors viz. type of school, school climate,
teacher’s personality, home work, alienation, teachers’ expectation and attitude,
training strategies, teachers’ experience, medium of instruction, teachers’
behaviour and competency and class room environment; home related factors viz.
family size, birth order, socio economic status of family, gender bias, parental
involvement, parental support, deprivation, child rearing practices, working
networking parents, parental aptitude and expectations. Thus, we can say that there
are so many factors responsible for academic achievement of student as:

- Cognitive factor
- Affective factors
- Psycho-motor factors
- School related factors
- Home related factors

1.3 PERSONALITY

Personality may be taken to be an individual’s most striking or dominant
characteristic. In that sense a person may be said to be a “shy personality” or a
“neurotic personality”, meaning that his/her dominant attribute appears to be
shyness or neurosis. In popular usage, personality is often equated with social
adroitness and effectiveness. In this usage, personality is the ability to elicit
positive reactions from other people in one’s typical dealings with them.
“Personality is the dynamic organization within the individual of those psychophysical systems by which his unique adjustment with environment is determined (Allport, 1937).”

“An individual’s personality, then, is his unique pattern of traits... a trait is any distinguishable, relatively enduring way in which one individual differs from another (Guilford, 1959).”

Personality can be defined as the construct of some traits. It is described in the terms of ‘Extraversion’ and ‘Introversion’. The term extraversion and introversion was first used by Carl Jung. Virtually all compressive models of personality include these concepts in various forms. Extraversion and introversion are typically viewed as a single continuum thus to be on one. It is necessary to be low on the other. Jung defined introversion as an “attitude-type characterized by orientation in life through subjective psychic contents” (focus on one’s inner psychic activity) and extraversion as “an attitude-type characterized by concentration of interest on the external object” (outside the world).

An introvert remains more inclined to his internal ideas and experiences. He is not much interested to take part in worldly affairs. In this way we see that an interest is more of a thinker. An extrovert differs from an introvert. He is more active. He wants to work according to social needs. He does not like to remain engaged in solving intellectual problems. An extrovert is comparatively more successful than an introvert in worldly affairs. An extrovert does not pay more attention to other’s criticism. He has less reluctance in his emotional display. Whatever comes to his mind he utters-unhesitatingly. An extrovert does not get discouraged like introvert in phase of failures. He is not so much interested in self-introspection of self criticism as in the case with an introvert. These two qualities are present among everyone up to some extent. But in some, the introvert qualities pre-dominate, while in others extrovert qualities pre-dominate.

Basic dimensions derived by Eysenck through his work are-

1. Introversion – Extroversion
2. Neuroticism
3. Psychoticism
Eysenck (1958) developed his model of personality and temperament with three dimensions: ‘Psychoticism’, ‘Extraversion’, and ‘Neuroticism’. This became known as the "PEN" model of personality. Originally, Eysenck only theorized about neuroticism and extraversion, but later he realized that psychoticism was also a contributing factor of personality. He then added psychoticism into his theory as the third factor of his model giving birth to his BIG-Three model of personality.

Psychoticism as it Relates to Creativity

Many proposals have been given linking Eysenck’s psychoticism scale to the level of creativity in people. It has been generally found that more creative people generally have higher psychoticism scores than people with a lower creativity. Eysenck (1993) stated, “I argue that intelligence is essentially characterized as a search process in order to discover a noegenetic solution, to use. Spearman’s (1923, 1927) term, bringing together different ideas from memory to produce new answers to problems” (p.147).

Eysenck (1993) poses his argument in relation relevance by saying that “there are individual differences to the definition. By this he means that some people are over inclusive in their thinking, meaning they have a very broad conception of relevance, as opposed to people who have a much more narrow conception of what is relevant (Eysenck, 1993).” He continues by stating that “unusual responses to word association test could be used as a measure of this hypothetical quality (Eysenck, 1993).” he suggested that “individuals with an over-inclusive style of thinking have a larger sample of ideas on which a conclusion can be based. He concludes that these people are able to come up with innovative, creative and unusual ideas more easily than people who have a more conventional view of relevance to a problem. Ultimately, he considered that this could be possibly the base of creativity”.

On the psychophysiological side, “Eysenck (1993) finds that the over inclusive thinker is more likely to have a personality which relates to that of a schizophrenic or general psychotic disorder.” The difference is that although the psychoticism score of the creative person is high just as that of someone diagnosed
with a psychotic disorder, the creative person not necessarily diagnosable as a psychotic.

1.3.1 Personality as a Stimulus

Some psychologists define personality in terms of its social stimulus value. How an individual affects other persons with whom he comes in contact, whether he is impressive or repulsive, or has a dominating or submissive personality. Personality, from this point of view, becomes identical to reputation and impression, mostly in terms of physical appearance, clothing, conversation and etiquette.

(I) Sumative Approach

This approach of defining personality emphasizes the importance of sum total of different processes and activities of the individual as, for example, innate dispositions, habits, impulses and emotions, etc.

(II) Integrative Approach

The definition of this category lay emphasis on the integrative personality and its definite pattern of organization. “Personality is the integrative organization of all the cognitive, affective, conative and physical characteristics of an individual as it manifests itself in focal distinction from others.”

1.3.2 Personality Theories

Alongwith the ways of observing and assessing personality, theories of personality and its development have evolved. Such theories classify personalities into a series of types, or classify the basic traits that make up personality, so they are called type and trait theories, respectively. Other theories are called dynamic theories of personality, and are addressed to such questions as how people react to inner or outer conflicts, how they handle stress, and what processes, like defense mechanisms, they use in dealing with their conflicts. The earliest ideas about personality were expressed as type theories; and dynamic theories. Types refer to categories that are distinct and discontinuous. An overview of Personality type taxonomies are provide in the following section.
(i) The Four Humors - ancient Greeks (2000 BC – 0 ADT)

Ancient Greek philosophers such as Hippocrates 400 BC and Galen, 140/150 AD classified four types of ‘humors’ in people. Each type was believed to be due to an excess of one of four bodily fluids, corresponding to their character. The personalities were termed “humors”.

<table>
<thead>
<tr>
<th>Character</th>
<th>Humor</th>
<th>Fluid</th>
<th>Corresponding Trait in the Big 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irritable</td>
<td>Choleric</td>
<td>Yellow bile</td>
<td>Agreeableness</td>
</tr>
<tr>
<td>Depressed</td>
<td>Melancholic</td>
<td>Black bile</td>
<td>Neuroticism</td>
</tr>
<tr>
<td>Optimistic</td>
<td>Sanguine</td>
<td>Blood</td>
<td>Openness to experience</td>
</tr>
<tr>
<td>Calm</td>
<td>Phlegmatic</td>
<td>Phlegm</td>
<td>Neuroticism</td>
</tr>
</tbody>
</table>

(ii) Somatotypes – William Sheldon, 1940’s.

William Sheldon (1940, 1942, cited in Phares, 1991) classified personality according to body type. He called this a person’s somatotype.

Sheldon identified three main somatotypes:

<table>
<thead>
<tr>
<th>Sheldon’s Somatotype</th>
<th>CHARACTER</th>
<th>SHAPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endomorph [sclerotonic]</td>
<td>RELAXED, SOCIABLE, tolerant, comfort-loving, peaceful</td>
<td>Plump, buxom, developed visceral structure</td>
</tr>
<tr>
<td>Mesomorph [somatotonic]</td>
<td>ACTIVE, ASSERTIVE, vigorous, combative</td>
<td>Muscular</td>
</tr>
<tr>
<td>Ectomorph [cerebrotonic]</td>
<td>Quiet, Fragile, Restrained, Non-Assertive, Sensitive</td>
<td>Lean, delicate, poor muscles</td>
</tr>
</tbody>
</table>
Ayurvedic Body Types (Doshas) (India, 3000 BC to present)

<table>
<thead>
<tr>
<th>Ayurvedic Doshas (Shyeldon Somatotype)</th>
<th>CHARACTER</th>
<th>SHAPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vata (Ectomorph)</td>
<td>Changeability, unpredictability, variability-in size, shape, mood, and action moody, enthusiastic, imaginative, and impulsive, quick to grasp ideas and good initiating things but poor at finishing them, energy fluctuates, with jagged peaks and valleysable, tolerant, comfort-loving, peaceful</td>
<td>Slender with prominent features, joints and veins, with cool, dry skin eat and sleep erratically prone to anxiety, insomnia, premenstrual syndrome, and constipation</td>
</tr>
<tr>
<td>Pita (Mesomorph)</td>
<td>Relatively predictable, quick, articulate, biting intelligence, and can be critical or passionate with short, explosive tempers, efficient and moderate in daily habits, eats and sleeps regularly</td>
<td>Medium build, strength, And endurance, well-proportioned and easily maintains a stable Weight, often fair haired, red or blond, ruddy complexion tends to perspire heavily and are warm and often thirsty, prone to acne, ulcers, hemorrhoids, and stomach ailments.</td>
</tr>
<tr>
<td>Kapha (Endomorph)</td>
<td>Relaxed slow to anger, slow to eat, slow to act. They sleep long and heavily, tends to procrastinate and be obstinate.</td>
<td>Solid, heavy and strong, with a tendency to be overweight, slow digestion and somewhat oily hair, and cool, damp, pale skin. prone to high cholesterol, obesity, allergies.</td>
</tr>
</tbody>
</table>

Hippocrates’ types of personalities, so simple yet so all-encompassing, were given wide currency by the Greek physician Galen, who practiced and wrote medical treaties in Rome in the second century A.D., and were influential during the Middle Ages and down to modern times. For a time Alfred Adler, one of the early followers of Freud, even used the four Hippocratic types in his “individual psychology”.

A type theory of personality very popular during the nineteenth century in Europe and the United States moved back from the starts to the human body, in this instance the bumps on the head.

The “science” of phrenology, which claimed that four character types can be identified by means of the size and shape of the skull, has been exploded as based on no justifiable evidence. And during the 1920s and 1930s a German psychiatrist, Ernst Kretschmer, and an American anthropologist, W.H. Sheldon, worked out three personality types based on many measurements of body build. The endomorphic type of person has rounds in body build, large digestive and other body cavities, and often fat deposits, but is weak in bony and muscular development. Endomorphs, said Sheldon, are relaxed and enjoy eating. They are sociable and need other people when troubled. The mesomorphic type is athletic, with large bones and muscles, broad shoulders and narrow hips, and a squarish build. Mesomorphs are energetic, competitive and action-oriented. They love adventure, take risks and are generally noisy, needing action when troubled. Ectomorphic types have a liner build, with long, slender arms and legs, small body cavities, and lack muscular development. Ectomorphs tend to be intellectual, antisocial, sensitive, and secretive. They have rapid reactions, may be anxious and inhibited, and want solitude when troubled. The trouble is that correlations between such body types and personality trait have turned out to be very low and undependable.

In fact, none of these type theories of personality has proved sound under investigation. Such theories assume that everyone will fit into a limited number of classes, an over-simplification. Sheldon finally found himself with some 70 different types of body build as he worked further with his theory, and at that point they simply related much too tenuously to personality traits.

(IV) Eysenck’s Super Traits

Eysenck began with a theory of personality which he based on two super traits extraversion, introversion and neuroticism.
Introversion/Extraversion:

“Introversion involves directing attention on inner experiences, while extraversion relates to focusing attention outward on other people and the environment. So, a person high in introversion might be quiet and reserved, while an individual high in extraversion might be sociable and outgoing (Eysenck, 1983).”

Neuroticism/Emotionally Stability:

The dimension of Eysenck’s trait theory is related to moodiness versus even-temperedness. Neuroticism refers to “an individual’s tendency to become upset or emotional, while stability refers to the tendency to remain emotionally consistent (Eysenck 1983).”

Psychoticism:

Later, after studying individual’s suffering from mental illness, Eysenck added a personality dimension called – psychoticism to his trait theory. “Individuals who are high on this trait tend to have difficulty in dealing with reality and may be antisocial, hostile and non-empathetic and manipulative. Eysenck viewed the super traits of extraversion and neuroticism as independent, and believed that different personalities arise from different combinations of the two super traits (Eysenck 1983).”

Introverts and Extraverts Required Different Learning Environments

“One issue routinely faced by school administrators is the degree to which a school system should adapt to the needs of individual students and the degree to which the student should be forced to adapt to the needs of the system, which is designed for the average student. Some aspects of students’ learning styles are modifiable (Schmeck, 1981).” Thus, teachers can bend a little to meet the needs of a particular students style while simultaneously trying to shape that style into one they believe to be more efficient. However, if the individual difference is not modifiable, then we have a special problem. He further say that “if we try to change students in ways they cannot change, then we do them a great disservice. One such individual difference may be the introversion-extraversion personality dimension (Schmeck, 1981).”
Introversion-extraversion has been identified as a reliable dimension of personality by at least two of the most famous researchers in the field of personality psychology: Raymond Cattell and Hans Eysenck. Both of these researchers use sophisticated statistical methods to define personality and both have created personality tests that they believe measure personality constructs similar to introversion-extraversion. “Eysenck’s test is called the Eysenck Personality Questionnaire; Cattell’s is called the Sixteen Personality Factor Questionnaire (or 16 PF)” (Schmeck 1983).

At present, the most commonly accepted theory for explaining individual differences on the dimension of introversion-extraversion is provided by Eysenck (Blass, 1977; Eysenck and Claridge, 1962; Prentsky, 1979). Eysenck’s theory places great emphasis on the assumption that there are inherited differences between people in the ways their nervous systems function. He reported that “Introverts are assumed to have such weak neural inhibition that stimulation of the senses easily prompts activity in the brain, while extraverts have strong neural inhibition, which makes it more difficult for sensory stimulation to activate the brain (Eysenck, 1983).” In other words, because it takes very little stimulation for introverts to perceive a stimulus, their brains become easily over-stimulated. Thus, they tend to seek out an environmental where there is relatively little stimulation. Extraverts, on the other hand, require strong stimulation to perceive a stimulus and tend to seek out environments that provide relatively large amounts of stimulation. Research with identical twins (Shields, 1976) has supported Eysenck’s assumption that a person’s position on the introversion-extraversion continuum is determined by heredity and thus not very subject to change.

Introverts are more influenced by punishments than by rewards, and they are more sensitive than extraverts to social prohibitions. All of this tends to make the introvert more restrained and inhibited. Furthermore, introverts are more sensitive than extraverts to pain, more prone to fatigue, and their performance suffers more when they are excited. This should not be taken to indicate that introverts have lower grades than extraverts in school; research indicates just the opposite.
“It seems likely that many classrooms reward the student who works quietly and alone. This is probably due to the fact that most teachers are more introverted than most of their students. Research has shown that people tend to become more introverted as they grow older. Since teachers are always older than their students, they will also tend, in general, to be more introverted (Biehler, 1978).”

**Appreciating Differences**

If you find yourself wanting to say that either the introverted or extraverted behaviour pattern is “right” or “better,” your own behavior probably fits that pattern. As is true of most personality characteristics, it is easiest for introverts to appreciate the style of other introverts and for extraverts to appreciate the style of extraverts. There are some individual differences that teachers should not only tolerate but also put to their best advantage. For example, “extraverted students should periodically be provided with an opportunity to discuss the material even if that is not the teacher’s normal style. Likewise, introverted students might need periodically to be sheltered from others so they can find the peace they need in order to learn (Schmeck, 1983).”

Perhaps the greatest danger lies in failing to provide a favourable environment for the extraverted student. We noted earlier that teachers will invariably tend to become more introverted than many of their students. Thus, they may become less tolerant toward extraverts. Also, we know that introverts already fare well in our current educational system. Thus, we might give a little extra thought to whether our classrooms provide opportunities for the kind of interactive, stimulating learning experiences that extraverted students seem to need.

1.4 **ACHIEVEMENT MOTIVATION**

The need and desire to achieve is a basic and natural in human beings as the other biological or socio-psychological needs and desires. The need and desire to achieve is a spring-board of the achievement motivation. However, in the competitive society or set up the desire to excel over society or set up the desire to excel over other or achieve a higher level than one’s peers is intensified, which in turn may lead to a stronger derive or motive to achieve something or everything
that is essential to beat the others in the race and consequently experience a sense of pride and pleasure in the achievement.

In recent years achievement motivation is an object of considerable concern. It has great significance in understanding human behaviour. Motivation is considered as a result of the grouped power of will, internal will motives and activity. Motivation is a fundamental part of the psychologist's efforts to achieve a valid psychology of social and human behaviour.

The present century must be called, ‘the century of motivation’, whether in education or in industry, in general learning or doing a sophisticated job. “Achievement motivation is confined by one’s early training experience, and subsequent learning. In general achievement motivation is expectancy at finding satisfaction in mastery of difficult and challenging performances, whereas, in the field of education it particularly stands for the pursuit of excellence (Dutt and Subharawat, 1998).”

Achievement-Motivation is defined by “McClelland et al (1953) as an internalized tendency to strive for standard of excellence. It attempts to account for the determinants of the direction, magnitude and persistence of behavior. It applies only when an individual known that his performance will be evaluated. Evaluation can be done by himself/herself or by the others in terms of standards of excellence and consequences of his action will be either a favourable evaluation (success) or unfavourable evaluation (failure).”

According to Murray (1938), “The motive that concerns with a person to perform a particular task is needed. Whenever a will or wish arises internally and gives us encouragement, energy to do a specific work by which the need can be achieved.” In the list of Murray's psychogenesis needs, achievement is an elementary ego need which may act alone or to be fused with other needs such as superiority, recognition dominance etc, and this ego system is that which controls an individuals deepest motivating force to achieve or excel over others and is termed as achievement motivation or need for achievement.

Achievement incentive is present when a person anticipates that his or her skill and the standard of excellence may consist of one or more of following alternatives such as competition with others, I surpassing ones own previous level of performance, unique accomplishment in profession.
In view of Irving Scruff (1989) “Achievement motivation is defined in terms of the way and individual orients himself towards objects and completeness, on the performance of a task will be evaluated and good performance will produce a feeling of pride in accomplishment (Irving 1989).”

The most suitable definition of achievement motivation concern with the present study is given by Prayag Mehta (1999) according to him, “The achievement motivation is the inclination of an individual to be concerned with, to plan and to endeavor for the successful acquisition of some standard of excellence circumstances where his/her performance has to be appraised positively or negatively.”

Psychologists suggest that there is energy beside the initiative ability, which alters the scholastic achievement of students and is referred to as achievement motivation. To understand the term of achievement motivation, study of human behavior is must. Human being is a complex form of behavioral differences. Different people behave differently in the same situation. The explanatory construct of motivation can be used to understand this human behaviour.

Motivation is considered as a result of the grouped power of will, internal motives and activity. Motivation is a fundamental part of the psychologists’ efforts to achieve a valid psychology of social and human behavior. Achievement motivation has been an object of considerable concern and discussion in recent years. It has great significance in understanding human behavior as well as changing it with the application of psychology in the field of education and industry.

Achievement motivation is essentially a type of motivation that is personal in nature. The basis of achievement motivation is achievement motive, i.e., motive to achieve. Those who engage themselves on achievement motive are said to work under the spirit of achievement motivation. In general, “Achievement motivation is expectancy of finding satisfaction in mastery of difficult and challenging performance, whereas in the field of education, in particular, it stands for the pursuit of excellence. A motive comes into picture when an individual knows that his performance will be evaluated and that the
consequences of his actions will be either a success or failure and that good performance will produce a feeling of pride in accomplishment” (Kavyakishore, 2013).

Motivation is a multifaceted characteristic possessed by humans that initiates, directs, and drives persistence on a particular task. Motivation influences what task or project an individual may elect to do, how much time and resources they are willing to put into it and their personal feelings toward that particular task (Urdan & Schoenfelder, 2006). For many decades, teachers at all levels have focused on increasing student motivation with the reasonable assumption that this would enhance academic achievement. Teachers are very aware that one of their main roles is to motivate students to learn. The objective is to expand students' minds and promote independent thinking in preparation for future education and life after school. Over the years, many teachers have wondered why some students were engaged and motivated with respect to their schoolwork while others were not. This chronic problem in education persists to this day (Hidi & Harackiewicz, 2000).

Thus, it can be said that for any human planning a study of human behavior is must. To analyze the complexity of human behaviors, theory of motivation through understanding of achievement motivation is indispensable and the role of achievement motivation cannot be ignored in case of development of individual personality.

1.4.1 Meaning and Nature of Motivation

Some of the important terms used in this study are explained as under:

**MOTIVATION:** The word motivation originates from Latin word "MOVEER" which means to move, i.e., motivation is the process of an arousing movement in the organism. Some of the primary causes that generate motivation or movement in organism are:

(a) Some environmental determinant that produce a certain behavior.

(b) The internal wish urge desire, feeling, needs or motive that becomes instrumental in such action

(c) The incentive goal or object value that attracts the organism. On the basis
of the three elements the "Model of Motivation" may be presented as:

An arousal state of person-Goal seeking behavior-Goal Attainment Reduction of arousal state.

Motivation may be defined more formally as psycho-physiological or eternal process, initiated by some need which leads to the activity and satisfies that need. We also have an incentive which is administrated by the internal causes and which determine the nature and direction of human activity.

According to H.W. Bernard:

Motivation relates to all those qualities which produce essential encouragements to achieve or attain some specific objectives while there is no movement towards to these objectives before motivation.

According to Atkinson:

The term ‘motivation’ refers to the arousal of tendency to act to produce one or more effects.

Maslow defines motivation as a quality which is present in every creature. It is infinite, firm and complex.

A simple but accurate definition of motivation is not easy. It must be able to include terms that refer to such diverse states as desires, wishes, plans, goals, intents, impulses and purposes. Some of these states imply a deliberate and calculated process involving reasons whenever others convey a flavor of spontaneity.

Motivation is thought of as some kind of internal force which processes, regulates and sustains all our important actions. It is an internal action which cannot be studied directly.

Human beings are capable of being motivated not only by organized needs that are immediately present and felt but also by the mere anticipation of such needs.

John E Cry has given a formula:

Knowledge + Ability x Motivation = Success.

All the three components of the above formula are important you must have or be willing to acquire the knowledge. You must have the ability to put that
knowledge to good use. But more important you must be motivated to the point where you will spend time and put necessary effort to learn and acquire that knowledge and those abilities so necessary to become eminently successful.

That is why he used the 'X' or multiplier symbol for the motivation component of the formula. The more highly motivated you are or the more knowledge you will force yourself to acquire and constantly the better and more refined your techniques will become. One should apply his powers and abilities harder to become successful.

1.4.2 Concept of Achievement Motivation

Achievement motivation key aspects of man’s personality. Being Achievement motivated gives self-respect and keeps us productive. The prosperity of a country depends upon the people’s need for achievement, which in turn determines its economic growth. In order to be successful in this competitive world the child must be Achievement-motivated.

McClelland (1985) defined achievement motivation “as the extent to which individuals differ in their need to strive to attain rewards, such as physical satisfaction, praise from others and feelings of personal mastery. Theories of the underlying processes of achievement motivation range from a cognitive focus on individual personality traits and reaction to task difficulty to more socially based views on the role that parenting has on the development of achievement motivation. These approaches to studying achievement motivation vary in theoretical framework, yet each approach views achievement motivation as a process that occurs at the individual level”.

Other researchers have described achievement motivation as a dynamic, multidimensional construct. Dweck and Leggett (1988) propose “a goal-centered theory in which they explain that different kinds of achievement motivation manifest depending on the type of goals an individual is pursuing. Mastery goals have to do with mastering a particular task, learning skills and seeking intrinsic rewards (Dweck and Leggett, 1988).” Performance goals, on the other hand, have to do with demonstrating one’s ability in performing a task, gaining positive
evaluation from others and seeking extrinsic rewards. “It has been found that “individuals who seek mastery goals have more positive performance outcomes such as challenge seeking, and mastery-oriented responses to failure than individuals who maintain a more performance goal orientation (Dweck & Leggett, 1988).”

Achievement motivation consists of four elements, i.e., mastery of needs, work orientation, competition, and personal unconcern. After further studies, they found that “the interaction of the first three elements is the key reason that contributes to excellent performance of individuals. It is highly related to personal achievements (Spence and Helmreich, 1978).”

1. **Mastery of needs**: An individual prefers jobs that are intellectually demanding, challenging and thought-oriented. He/she enjoys playing a leadership role in groups and is able to complete tasks already started.

2. **Work orientation**: An individual takes a proactive attitude toward work and loves what he/she does. He/she obtains a sense of satisfaction from work and pursues self-realization and growth”.

3. **Competition**: An individual hopes for victory and has the desire to win over others”.

4. **Personal unconcern**: An individual does not consider success or stellar performance to be the cause of being rejected by others. In other words, there is no fear of success.

According to Murray (1938), “The motive that concerns with a person to perform a particular task is needed. Whenever a will or wish arises internally and gives us encouragement, energy to do a specific work by which the need can be achieved.” In the list of Murray's psychogenesis needs, achievement is an elementary ego need which may act alone or to be fused with other needs such as superiority, recognition dominance etc, and this ego system is that which controls an individuals deepest motivating force to achieve or excel over others and is termed as achievement motivation or need for achievement.

The most suitable definition of achievement motivation concern with the present study is given by Mehta (1999) according to him, “The achievement
motivation is the inclination of an individual to be concerned with, to plan and to endeavor for the successful acquisition of some standard of excellence circumstances where his/her performance has to be appraised positively or negatively.”

An education system should develop a spirit of competition and excellence amongst adolescents in this era of achievement race. In this context, every individual has an instinctive wish to achieve high academic achievement and represent himself as a winner of achievement race. The emphasis by both the parents and the society is on the attainment of higher academic success of the child and those who succeed in it would get recognition in a great extent. Generally, the instinctive ability to become a winner is omnipresent in every individual of society. Academic achievement of every pupil differs from one another inspite of their best efforts and facilities.

Psychologists suggest that there is energy beside the initiative ability, which alters the scholastic achievement of students and is referred to as achievement motivation. To understand the term of achievement motivation, study of human behavior is must. Human being is a complex form of behavioral differences. Different people behave differently in the same situation. The explanatory construct of motivation can be used to understand this human behaviour. Achievement motivation has been an object of considerable concern and discussion in recent years. It has great significance in understanding human behavior as well as changing it with the application of psychology in the field of education and industry.

Hence, the theory of achievement motivation is related with the determination of the direction, persistence of behaviour and magnitude in the limited range but a very important domain of human activities. It applies only when an individual knows that his/her performance will be evaluated (by himself/herself or by other) in erms of some standard of excellence and that the consequences of his/her action will be either a favorable evaluation (Success) or an unfavorable evaluation (Failure).
1.2.3 Characteristics of a Person Having High Achievement Motivation:

1) The aspiration level of an individual with high achievement motivation is found to be higher;
2) The high achievement motivated individual shows greater determination to work related to achievement.
3) The high achievement motivated individuals are found to derive more pleasure from success than an individual who has achievement motivation.
4) The high achievement motivated individuals show more competence of a higher level of accomplishment.
5) The high achievement motivated individuals have strong desire to shine and beat others or to perform the best in material terms among such persons.
6) The high achievement motivated individuals are found to have more anxiety about receiving success in comparison to weak achievement motivated peoples.

The Researchers Concerning Achievement Motivation Have shown That:

(1) Achievement motivation is a drive which can be aroused by including a situation of ego involvement of achievement orientation. This situation produces the same kind of effect or the subject’s projection as is in the case of manipulation of hunger and sex deprivation.
(2) Achievement motive varies from person to person, group to group and is open to cultural influence. Achievement motivation may be acquired through social and cultural malice and trading programmers.
(3) The achievement is acquired by following the same process as the case of reward and punishment.

1.4.3 Factors of Achievement Motivation:

Mastery: The preference for challenging tasks and for meeting internal standards of performance.
Work: The desire to work hard and do a good job

Competitiveness: The enjoyment of interpersonal competition and the desire to do better than others.

1.5 INTELLIGENCE

In our day-to-day conversation we often comment that a particular child or individual is very intelligent or is not intelligent. All such comments are based on our observation of the performance or behaviour of the individual concerned in comparison to other of his group? Interest, attitude, the desire for knowledge and similar other attributes contribute towards his performance or behaviour. However, there is something else which is also responsible to a large degree. In psychological this is termed, intelligence in ancient India our great rishies and seers name it Viveka. An individual is said to be intelligent in proportion as he is successful in meeting general life situations.

“Intelligence derives from the Latin verb intelligere, to comprehend or perceive. A form of this verb, intellectus, became the medieval technical term for understanding, and a translation for the Greek philosophical term ‘nous’. This term was however strongly linked to the metaphysical and cosmological theories of teleological scholasticism, including theories of the immortality of the soul, and the concept of the Active Intellect (also known as the Active Intelligence). This entire approach to the study of nature was strongly rejected by the early modern philosophers such as Francis Bacon, Thomas Hobbes, John Locke, and David Hume, all of whom preferred the word ‘understanding’ in their English philosophical works (Neisser, Boodoo, Bouchard, Boykin, et al., 1996).”

Gottfredson (1997) stated that “A very general mental capability that, among other things, involves the ability to reason, plan, solve problems, think abstractly, comprehend complex ideas, learn quickly and learn from experience. It is not merely book learning, a narrow academic skill, or test-taking smarts. Rather, it reflects a broader and deeper capability for comprehending our surroundings—‘catching on’, ‘making sense’ of things, or ‘figuring out’ what to do (Gottfredson, 1997).”
During last 60 years, more researches have been done in the various field of subject of intelligence including the meaning and nature of intelligence. A lot of literature has been produced by the psychologists of fame on this topic. In psychological literature, intelligence has been treated as a construct, no one knows what intelligence is. In this regard E. Hine says “Intelligence is that which cannot be defined.” There is no end to the definition of intelligence just as there is no end to the definition of education, life, love and God. Many questions like, is intelligence a single ability or a combination of several different abilities. Can a person be highly intelligent is some respect but below average in others? It is, therefore, clear how a complex and inexact concept of intelligence is due to its vagueness. In recent years concept of intelligence has become less acceptable and more expose to criticism by psychologists. Several definitions have been advanced by the psychologists but they do not agree among themselves. There are different opinions. Ross, Burt, Stern, Woodworth, Alfred Binet, MC Dougall, Godard, William James and many other psychologists have emphasized adjustment, others like Buckingham, Dearon, Thorndike have taken ability to learn as the criterion, while the other psychologists Spearman, Terman etc. have emphasized the abstract thinking in defining intelligence. There are few names, which are known for giving comprehensive definition of intelligence.

Sternberg (1985) quoted in “Viewed narrowly, there seem to be almost as many definitions of intelligence as there were experts asked to define it.” Legg and Hutter (2006) pointed out that “Despite a long history of research and debate, there is still no standard definition of intelligence. This has lead some to believe that intelligence may be approximately described, but cannot be fully defined. We believe that this degree of pessimism is too strong. Although, there is no single standard definition, if one surveys the definitions that have been proposed, strong similarities between many of the definitions quickly become obvious. In many cases different definitions, suitably interpreted, actually say the same thing but in different words. This observation leads us to believe that a single general and encompassing definition for arbitrary systems was possible. Indeed we have constructed a formal definition of intelligence, called universal
intelligence, which has strong connections to the theory of optimal learning agents”.

### 1.5.1 Definitions

Allwords Dictionary (2006), defined intelligence “The capacity to acquire and apply knowledge.”

Cambridge Advance Learner’s Dictionary, (2006) stated intelligence “The ability to learn, understand and make judgments or have opinions that are based on reason”

“Intelligence is not a single, unitary ability, but rather a composite of several functions. The term denotes that combination of abilities required for survival and advancement within a particular culture (Anastasi, 1992).”

While Wechsler (1958) defined “intelligence is a global concept that involves an individual’s ability to act purposefully, think rationally, and deal effectively with the environment”.

“Intelligence is that facet of mind underlying our capacity to think, to solve novel problems, to reason and to have knowledge of the world (Anderson, 2006).”

On the basis of above definitions we can conclude that intelligence is an individuals ability to interact to succeed and to adapt to different objectives and environment.

### 1.5.2 Intelligence and Academic Achievement

Intelligence has been regarded as an essential factor in the academic achievement of the students. It has been recognised as an inherent quality with unified and stable characteristics, distributed normally among individuals.

Intelligence may be interpreted as the ability for knowledge and understanding, especially as applied to the handling of novel situations and successfully adjusting to the total situation. Intelligence can be defined as an ability to learn a wide variety of intellectual skills and use this learning in its way. Intelligence also gives insight and direction to the human potential for achieving the goal.

Intelligence is considered the most important factor for higher chances of success out of a large number of factors affecting academic achievement. Studies
revealed that intelligence relates more strongly to students’ achievement than any other characteristic. Intelligence is directly related to the mental mechanism of the person. The process of mental mechanism is the best way to increase the academic achievement of the person. Thus, the importance of intelligence has been regarded as an essential factor influencing the academic achievement of the student. Its importance is prominently related with academic in all professional domains which is well established for the achievement of the students.

The performance of the students is largely influenced by intelligence. Hence, the correlation between intelligence and academic achievement of students cannot be ignored. In case of school students, intelligence is the ability to learn and succeed in school education. A teacher should therefore teach his lesson in consonance with intellectual abilities of all kind of children in the classroom. With the recognition of intelligence as an inherent, unified and a stable characteristic distributed equally among individuals, it was supposed that the differences in the academic achievement of students could be easily accounted for. Therefore, there is reason to believe that more intelligent students could learn more quickly, retain for longer period of time, perform better in all academic affairs and so could obtain high positions in their classes compared to the less intelligent students.

Test of general mental ability have widely been used as the predictor of academic achievement of students. Chauncey (1929), Edds and McCall (1933), Durflinger (1943) and Harper (1967) has reported significant correlation ranging from .315 to .600 between intelligence and scholastic success. Showing the relationship between the scores of intelligence tests and high school marks, Pinter arrived with the correlation of 0.28 and 0.60, with few below 0.409. For evaluating the predictive value of cumulative test Aaron summarised the results of 24 studies where correlation ranged from 0.25 to 0.65 with a median of 0.48. While, Binet-Simon and Terman (1916) in their findings revealed that co-efficient of correlation commonly fall in the range of 0.40 and 0.50.
1.6 RATIONALE OF THE STUDY

Adolescent is a decisive age and a difficult period in young person’s life they face many challenges in this period like physical, developmental, psychological need, attitudes, parental behaviour, career, conflict, frustration, anxiety and stress. When adolescents are physically and mentally fit, they perform better in their academic achievement.

Personality traits also play an important role in academic achievement of students. Personality traits are the consistent traits of an individual which make him/her different from other individuals. “Correlations between academic performance and personality measures would mirror corresponding correlations of intelligence with personality. The measures of personality based on the Five Factor Model should be correlated with academic performance relate to the evidence supporting the importance of personality factors for predicting socially valued behaviors and on the recognition of personality as a component of an individual’s willingness to perform. At the same time, intelligence should be considered in order to adequately assess these relationships (Chamorro-Premuzic and Furnham (2006)).”

According to Binet (1905) and Zenderland (1998), “intelligence is a concept which has affected the life of every individual in all spheres of life. It is responsible for the academic outcome and finally the success in life. It helps us in combating the challenges of life and be a winner. There are individual differences in educational outcomes and to predict these differences, the first broad test of cognitive ability was developed”. Many studies revealed the major impact of intelligence on academic achievement of students. Ian, Strand, Smith and Fernandes (2007) found a strong and positive relationship between intelligence and academic achievement”.

Academic achievement is strongly linked with achievement motivation. The highly achievement motivated students have insight into what constitutes competency and are more likely to look for academic assistance if they have academic problems, because they see the seeking behaviour as being a competent action, implying a problem-solving approach to learning. There is even less research on how achievement motivation compare with academic achievement.
So, personality, intelligence and achievement motivation play a significant role in academic achievement of the students. Hence, the researcher will make humble attempt to study the factors – personality, intelligence and achievement motivation which effect the academic achievement of senior secondary school students.

1.7 DEFINITIONS OF THE TERMS TO BE USED

1.7.1 Personality

“Personality is the dynamic organization within the individual of those psychophysical systems by which his unique adjustment with environment is determined. Personality, in the present study, can be defined as a construct of some traits as measured by Aziz and Gupta. Two personality factors are – introvert and extrovert”.

1.7.2 Intelligence:

“Intelligence means the ability to learn or understand or to deal with new or trying situations”.

1.7.3 Achievement Motivation

“Achievement motivation typically refers to the level of one’s motivation to engage in achievement behaviors, based on the interaction of such parameters as need for achievement, expectancy of success, and the incentive value of success.”

1.7.4 Academic Achievement

“Academic achievement is the outcome of education — the extent to which a student, teacher or institution has achieved their educational goals”.

1.8 STATEMENT OF THE PROBLEM

ACADEMIC ACHIEVEMENT OF SENIOR SECONDARY SCHOOL STUDENTS IN RELATION TO THEIR PERSONALITY, INTELLIGENCE AND ACHIEVEMENT MOTIVATION.
1.9 OBJECTIVES OF THE STUDY

1. To compare the academic achievements of male and female the senior secondary school students.
2. To compare the academic achievements of government and private senior secondary school students.
3. To compare the academic achievements of male and female students of government schools.
4. To compare the academic achievements of male and female students of private schools.
5. To compare the academic achievements of male students of government and private schools.
6. To compare the academic achievements of female students of government and private schools.
7. To compare the academic achievement of senior secondary school students having introvert and extrovert type of personality traits.
8. To compare the academic achievement of senior secondary school students having high and low level of intelligence.
9. To compare the academic achievement of senior secondary school students having high and average level of intelligence.
10. To compare the academic achievement of senior secondary school students having low and average level of intelligence.
11. To compare the academic achievement of senior secondary school students having high and low level of achievement motivation.
12. To compare the academic achievement of senior secondary school students having high and average level of achievement motivation.
13. To compare the academic achievement of senior secondary school students having low and average level of achievement motivation.
14. To know the relationship between academic achievements and personality factors:
(a) To know the relationship between academic achievement and personality factor (introvert type) of senior secondary school students.

(b) To know the relationship between academic achievement and personality factor (extrovert type) of senior secondary school students.

15. To know the relationship between academic achievements and intelligence of senior secondary school students.

16. To know the relationship between academic achievements and achievement motivation of senior secondary school students.

17. To study the combined interaction effect of gender and type of school, of senior secondary school students on their academic achievement.

1.10 HYPOTHESES OF THE STUDY

1. There is no significant difference in academic achievements of male and female the senior secondary school students.

2. There is no significant difference in academic achievements of government and private senior secondary school students.

3. There is no significant difference in academic achievements of male and female students of government schools.

4. There is no significant difference in academic achievements of male and female students of private schools.

5. There is no significant difference in academic achievements of male students of government and private schools.

6. There is no significant difference in academic achievements of female students of government and private schools.

7. There is no significant difference in academic achievement of senior secondary school students having introvert and extrovert type of personality traits.
8. There is no significant difference in academic achievement of senior secondary school students having high and low level of intelligence.

9. There is no significant difference in academic achievement of senior secondary school students having high and average level of intelligence.

10. There is no significant difference in academic achievement of senior secondary school students having low and average level of intelligence.

11. There is no significant difference in academic achievement of senior secondary school students having high and low level of achievement motivation.

12. There is no significant difference in academic achievement of senior secondary school students having high and average level of achievement motivation.

13. There is no significant difference in academic achievement of senior secondary school students having low and average level of achievement motivation.

14. There is no significant relationship between academic achievements and personality factors:

(a) There is no significant relationship between academic achievement and personality factor (introvert type) of senior secondary school students.

(b) There is no significant relationship between academic achievement and personality factor (extrovert type) of senior secondary school students.

15. There is no significant relationship between academic achievements and intelligence of senior secondary school students.

16. There is no significant relationship between academic achievements and achievement motivation of senior secondary school students.

17. There is no significant combined interaction effect of gender and type of school, of senior secondary school students on their academic achievement.
1.11 **DELIMITATIONS:**

1. The study is delimited to the XIIth class only.
2. The study is delimited to the sample of 400 students only.
3. The study is delimited to academic achievements, personality, intelligence, and achievement motivation only.
4. The study is delimited to Gurgaon and Rohtak districts of Haryana only.