CHAPTER-I
INTRODUCTION

“Education is the capacity to feel pleasure and pain at the right moment. It develops in the body and in the soul of the pupil, all the beauty and all the perfection of which she is capable of.”

-Plato

Education is a life long process. Man becomes a man through education. Education makes a man at a perfect person for the society. In the wider sense education is life and life is education. According to Rigveda, “Education is that which makes a man self reliant and self less.” Education is the mean to achieve the goal. Education is a process of promoting the harmonious development of a person capable of exercising such responsibilities in the society as her powers allow and directed towards the merger of the individual self with her universal self as the final end. During her studies a student passes through various stages of education i.e. primary, middle, secondary and higher. Secondary education is the backbone of entire educational system. Education after primary stage and prior to the university level is regarded as secondary education. The present system of education which originated in pre-independence era has been a conservative one. It has divided secondary education in many parts, which have been known as vernacular, middle, matriculation, high school, intermediate etc. A relative study in current educational systems in other advanced countries reveals that broadly speaking there are only three division of education namely the primary, secondary and higher education. The scope of each of these divisions differs in foreign countries. Generally, the primary stage lasts up to class 8th and higher education starts after class 12th. In this way the three or four years of education between classes 9th and 12th is called secondary education.

The origin of secondary education in India can be traced to the efforts of Christian Missionaries. They established private institutions in Bengal during the later part of 18th and beginning of 19th century with the main purpose of spreading English
Education, European culture and Christian faith amongst the natives. Historically, secondary education in India made a dent with Charter Act of 1813 putting the responsibility of education on East India Company, which was ruling over some parts of India. Macaulay’s Minute of 1835, laid down, “The great objective of British Government ought to be the promotion of European literature and science amongst the natives in India; and that all the funds appropriated for the purpose of education would be best employed English Education alone.” Supported by the resolution, the government set up English schools 1835 to 1854 with the obvious aim of creating a class of people- Indian in blood but English in culture. The wood’s dispatch (1854) gave it further impetus relegating the mother into the background and making English the medium of instruction with secondary education. The recommendation of Hunter commission (1882), helped in the growth of secondary schools with academic curriculum by 1902 there were about 5124 schools with an enrolment of 6,22,868. The number of secondary or high schools and intermediate colleges increased tremendously as the result of the Calcutta university commission of 1917. By 1935, the grant-in-aid system started, technical schools grew up and the idea of diversification developed.

It was for the first time that the Sargeant report (1944) recommended that secondary education should not be considered a preliminary stage to university education but a stage complete in itself; schools be organized on technical and academic basis; mother-tongue be the medium of instruction; salary of the teacher be increased; girls education be encouraged; and high school entry be made selective. In the post-independence era, the Central Advisory Board of Education in their 14th meeting in 1848 recommended the appointment of Secondary Education Commission to look into its problems. Tarachand Committee (1948-49) discovered that, “Our secondary education remains the weakest link in our educational machinery and needs urgent reform.”

The union government appointed the Secondary Education Commission in 1952, under the chairmanship of Mudiali on the suggestion of Tarachand Committee and Central Advisory Board of Education (CABE) and Mudiali Commission thoroughly examine the then prevailing secondary education system and gave a number of suggestions, important ones among these were the diversification of the
curriculum, and setting of a large number of multipurpose schools. The shortcomings of secondary education in India came to light after the Second World War. India became free two years after the Second World War was over. Despite many changes effected in the education system, the pattern of education generally remained unchanged, even after India’s independence. Secondary education only enabled students to get admission in universities. In practical life this education proved of no help. Consequently, the Govt. appointed a number of committees and commissions with the aim of reorganizing secondary education.

Secondary education is sure to be affected by the expansion of primary education. Accordingly, the number of students in secondary classes had gone up and the main objective of secondary education at present is to make available more facilities in high and higher schools. The number of students in secondary classes is 15 times more than what was in the beginning of the century. But with the fulfillment of the objective of compulsory primary education the number of students in secondary classes will increase so much that the present institutions will not be able to admit majority of these students.

1.1 SOCIO-PSYCHOLOGICAL CORRELATES

In the present study the socio-psychological correlate is a variable which is taken as an independent variable which includes the variables like, Socio includes socio-economic status and Psychological correlates include personality variables.

SOCIO-ECONOMIC STATUS

Socio-economic status (SES) and health are intimately connected. Generally speaking, people with higher SES enjoy better health and lead longer lives (Goode, 1999). Consider three possibilities (Adler, 1994). One is that there is no causal connection between health and SES. Perhaps both SES and health reflect genetic factors. For example, “good genes” might lead both to good health and to high social standing. Second, poor health might lead to socio economic “drift” (that is, loss of social standing). Third, SES might affect biological functions that, in turn, influence health.
1.1.1 Concept of Socio-Economic Status

People with high SES tend to maintain intellectual functioning more adequately than people with low SES. High SES is also connected with above-average income and levels of education, a history of stimulating occupational pursuits, maintenance of intact families, and better health. The influence of social class on personality test response and found that the high social status men were significantly less neurotics, more self-sufficient and more dominant than low social status men.

The term “Socio Economic Status” means any group of persons coming closer to each other on the continuum of occupation, income, education, and culture (Kulshreshta, 1975). Chapin (1928) defines it as the position that on individual or family occupies with reference to the prevailing average standard of cultural possessions, effective income, material possessions and participation in group activity of the community. The SES scale used in the present study has the following component variables:-

a. Education  
b. Occupation  
c. Income  
d. Cultural living or cultural standard  
e. Social participation

One’s social and financial level, as indicated by measures such as income, level of education, and occupational status. Socio economic status is defined in part in terms of education. That is, people who attain low levels of education are also likely to have low SES. Less well educated people are more likely to smoke (Winkleby et al., 1991) and smoking has been linked to many physical illnesses. People with lower SES are also less likely to exercise and more likely to be obese—both of which, again, are linked to poor health outcomes (Ford, 1991).

1.1.2 Nature of Socio-Economic Status

A family’s socioeconomic status is based on family income, parental education
level, parental occupation, and social status in the community (such as contacts within the community, group associations, and the community’s perception of the family). Demarest, Reisner, Anderson, Humphrey, Farquhar, and Stein (1993). Families with high socioeconomic status often have more success in preparing their young children for school because they typically have access to a wide range of resources to promote and support young children’s development. They are able to provide their young children with high-quality child care, books, and toys to encourage children in various learning activities at home. Also, they have easy access to information regarding their children’s health, as well as social, emotional, and cognitive development. In addition, families with high socioeconomic status often seek out information to help them better prepare their young children for school. Crnic and Lamberty (1994) discuss the impact of socioeconomic status on children’s readiness for school: “The segregating nature of social class, ethnicity, and race may well reduce the variety of enriching experiences thought to be prerequisite for creating readiness to learn among children. Social class, ethnicity, and race entail a set of “contextual givens” that dictate neighborhood, housing, and access to resources that affect enrichment or deprivation as well as the acquisition of specific value systems.” Ramey and Ramey (1994) describe the relationship of family socioeconomic status to children’s readiness for school: “Across all socioeconomic groups, parents face major challenges when it comes to providing optimal care and education for their children. For families in poverty, these challenges can be formidable. Sometimes, when basic necessities are lacking, parents must place top priority on housing, food, clothing, and health care. Educational toys, games, and books may appear to be luxuries, and parents may not have the time, energy, or knowledge to find innovative and less-expensive ways to foster young children’s development. Even in families with above-average incomes, parents often lack the time and energy to invest fully in their children’s preparation for school, and they sometimes face a limited array of options for high-quality child care—both before their children start school and during the early school years. Kindergarten teachers throughout the country report that children are increasingly arriving at school inadequately prepared.” Families with low socioeconomic status often lack the financial, social, and educational supports that characterize families with high socioeconomic status. Poor families also may have inadequate or limited
access to community resources that promote and support children’s development and school readiness. Parents may have inadequate skills for such activities as reading to and with their children, and they may lack information about childhood immunizations and nutrition. Zill, Collins, West, and Hausken (1995) state that “low maternal education and minority-language status are most consistently associated with fewer signs of emerging literacy and a greater number of difficulties in preschoolers.” Having inadequate resources and limited access to available resources can negatively affect families’ decisions regarding their young children’s development and learning. As a result, children from families with low socioeconomic status are at greater risk of entering kindergarten unprepared than their peers from families with median or high socioeconomic status. In developed countries, socioeconomic status has been identified as one of the most important demographic and social determinants of older adult health. The relationship has not been well studied or contrasted across much of the developing world. Yet, with population aging occurring rapidly in much of Asia, understanding the factors that distinguish between those in better and worse health becomes important.

1.2 PERSONALITY

Personality of an individual plays very important role in adjustment of a person in required environment. Each of us has unique personality. If all people were exactly alike there would be no need of talking about personality. Man is a social animal. The individual and society both reach upon each other. An individual can learn very little by herself. The learning situation is also effected by the personality and behaviour of teacher for the student’s response to what is being taught is determined largely by the response of the teacher.

Resultantly her basic attitude and action, her likes, dislikes tastes on her students. It is the responsibility of the teacher to make major and desirable changes in the society through her students by leading them in a proper channel for the well being and prosperity of the nation. The teacher is expected to be a related balanced personality perfectly sound in body and mind. He/She must be a man of her moral character. He/She must have a competency for developing the feeling of democratic values among students.
She should be capable of recognizing the potentialities of the students. She must have a genuine love for children without making a parade for it.

Good activities help the teacher in developing the balanced personality. The personality of a teacher plays an important role in shaping the behaviour of the students having the balanced personality. Teacher can develop different qualities and values in students emotional disturbed teacher is a source of frustration for the child while dedicated and intellectually active teacher is a source of attraction for the, child. All these differences in personality traits of a teacher may be due to heredity and environment. The personality of the rural teacher is very much different from the teacher living in urban area.

The word personality often is used to describe a person's physical appearance, form of speech or manner or amount of it or grammar she possessed. To some people personality is that some thing with which an individual is born which is unaffected by environmental influences and which permits all her actions other regard an individual’s personality as the person herself and they are the two terms, personality and person interchangeably.

1.2.1 Concept of Personality

The term “personality” is derived from the Latin word *persona*, which was the name given to the masks that actors wore and the characters they portrayed. The meaning of the word personality has changed little since classical times and comments like what does she see in her? She has such a poor personality”, or “look at that young woman, what a fine personality she has” are quite common. Remarks like this make us believe that personality is a thing or quality that is possessed by all of us and we can paste labels such as fine, good or poor on it on the basis of the physical make-up, manner of walking, talking, dressing and a host of other similar characteristics of individuals. However, this is a very limited view and the psychological concept of personality goes further and deeper than mere appearance or outward behaviour. The question of how best to interpret or define personality has long exercised the minds of psychologists. Watson (1930), the father of behaviourism, on the basis of her behavioural studies, concluded:
“Personality is the sum of activities that can be discovered by actual observations over a long enough period of time to give reliable information.”

The word personality probably Latin verb “personare” which means to sound through. This term was used to describe the voice of an actor speaking through mask. At the first the term “persona” referred directly to the mask worn by the actor, later it came to be applied to the actor themselves. During early Roman times than personality was regarded as constituting what a person seemed to be.

Although, there are so many definitions of personality and it is very difficult to define personalities with in the framework of single definition yet various attempts had been made to define personality from various angles by different psychologists, educationists. A few of them are following.

According to Bargers, “Personality is the integration of all traits which determine 'role and the status of the person in the society”. This definition indicates that personality might be social effectiveness.

According to J.F. Deshiell, “Aman’s personality is the total picture of her organized behaviour especially as it can be characterized by her fellow men in a consistent way.”

According to J.B. Watson, “Our personality is thus the result of what we start with and what we have lived through. It is the reaction mass as a whole.”

According to R.B. Cattell, “Personality is that which permits a predication of what a person will do in a given situation.”

According To G.W. Allport, “Personality is the dynamic organization with in the individual of those psycho-physical systems that determine her unique adjustment to her environment.”

According to Allport, “Personality is the dynamic organization with in the individual of those psycho-physical systems that determine her unique adjustment to her environment”.

In estimating personality traits or qualities, Traxler’s definition has special significance. “Personality is defined as Sum total of an individual’s behaviour in
social situations. Behaviour includes not only overt acts but inward feeling tone produced by the situation as interpreted by the individual introspection.”

Some confusion has arisen concerning the relative meaning of the terms temperaments, dispositions character and personality. As used especially by some of the older theorist's temperaments refers more particularly to a form of emotional response that is in born disposition has been regarded as an element of personality reflecting ancestral tendencies or past experiences. Although the term character has been used as the synonym for personality, it may be regarded rather as an aspect of the integrated whole or personality character is associated with moral or ethical values more definitely than other aspects of personality.

In this way she tried to make the word personality synonymous with the consistent behaviour patterns of an individual. This, however, reflected a very narrow meaning of the term personality. During the same years, Morton Prince (1929) tried to give personality a broader base by accepting the role of both environmental and hereditary factors in constituting what is termed as personality. In her words: “Personality is the sum total of all the biological innate dispositions. Impulses, tendencies, appetites and instincts of the individual and the dispositions and tendencies acquired by experience.

1.2.2 Nature of Personality

The results of various experimental studies and observations have led to the identification of the following characteristics of personality. Personality is something unique and specific. Everyone of us is a unique person in oneself. Everyone of us has specific characteristics for making adjustments. However, the uniqueness of an individual's personality does not mean that she has nothing to share with others in terms of traits and characteristics of personality. She may have certain characteristics which she may share with others and at the same time many others which are unique to him. Personality exhibits self consciousness as one of its main characteristics. Man is described as a person or as having a personality when the idea of 'self' enters into her consciousness. In this connection Bhatia (1968) writes: “We do not attribute personality to a dog and even a child cannot be described as a personality because it has only a vague sense of personal identity” (Allport, 1948).
It is not only the assumed, the external and the non-essential but also the vital. It includes everything about a person. It is all what a person has about him. Therefore, it includes all the behaviour patterns, i.e. conative, cognitive and affective and covers not only the conscious activities but goes deeper to the semiconscious and unconscious also. Personality has following characteristics:

- **Personality is a Dynamic Whole** The definition of personality given by Allport reveals that personality is a dynamic whole. A simple addition of different aspects of an individual does not constitute her personality.

- **Personality is an Integration of the various Aspects of an Individual.** The definitions of Munn and others point out that there is a proper integration of the various aspects of an individual e.g. behaviour, interests, attitudes, capacities, abilities and aptitudes are properly integrated and this unique integration constitutes personality.

- **Unique Organization and Integration of Personality.** Every individual is unique because the organization and integration of the various aspects of personality occur in a unique way. This explains why two individuals do not possess the same personality.

- **Personality Measurement can be used to Predict One’s Behaviour in a given Situation.** Personality of an individual is more or less stable and enduring and hence can help us in making predictions about one’s behaviour in a given situation.

- **Personality is the Outcome of the Interaction of Heredity and Environment.**

The areas of Dimensional Personality Inventory are described as below-

(I) **Activity-Passivity Trait** — The person is active, energetic, enthusiastic, regular, persistent and busy with ability to concentrate for long duration of time, on the one hand and passive, dull, inactive, slow and irregular in working, deviation with constructive output, delayed reactions in work, unwillingness to act on the other hand. Higher score on this dimension shows Activity trait of one's personality whereas lower score tends the passiveness of an individual.
(II) **Enthusiastic and Non-Enthusiastic Trait** — It indicates the tendency to be happy-go-lucky, warm-hearted person, enjoying life, fond of being in company of others, social and outgoing, mixing easily in the company of others, witty, loves enthusiastic and courageous work, open-hearted, ability to move persons for various functions. This is indicated by the cyclothymic temperament and higher score indicates the greater tendency. On the other hand, lower score indicates non-enthusiastic trend by expressing reservedness, shyness, inhibited, cold, keeping aloof, feeling difficulty to contact other people, slow spoken, non-participation of various functions and also known as schizothymic personality.

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

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

(V) **Depressive-Non-Depressive** — High score on this personality trait indicates feeling of helplessness, hopelessness, worthlessness, depressed, unwanted, unloved, suicidal ideas, feeling of inferiority, highly frustrated, lack of self-confidence, sad on misdeeds and mistakes done in the past, jealous about others happiness, restless and full of tense. Whereas low score tends to be non-depressive characterized by
relaxedness, unfrustrated, composed and satisfied.

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

Most of the psychologists are of the view that personality is the net result of the interaction of hereditary characters and environmental factors. Hereditary factors i.e. genes determine the limits while environmental factors affect the growth and development of various aspects physical, social, emotional and moral etc. Development of personality depends mainly upon physique, appearance, weight, health, size, proportion and chemique (effect of endocrine glands and environmental factors etc.) Herenhahn (1994) asserts that factors like genetics traits, culture, learning, personal choice of the individual, unconscious mechanisms and cognitive processes effect the development of personality. Various Theories of motivation contribute to understanding of the dynamics of personality. Motives, ego-involvement, incentives, etc. affect the overall behaviour of an individual. An individual’s knowledge, understanding, application, analysis, synthesis and evaluation abilities constitute her cognitive traits, Non-cognitive traits are interest applications, attitudes, values, moral skills etc.

1.2.3 Theories of Personality:

Personality theorists, starting from the Greek personality theory based on bodily liquid, to C. Rogers, C. Jung, S. Freud, G. Allport, R. Cattell, H. Eysenck, L. Goldberg, and J. L. Holland have all proposed different definitions of personality, and have proposed different dimensions which make up personality.
Psychodynamic theory

Perhaps the most influential proponent of psychodynamic theory was Sigmund Freud (1933). Two distinguishing characteristics of the psychodynamic approach to personality have been its emphasis upon in-depth examination of the whole person, and its emphasis upon unconscious motives. In Freud’s view, the id, ego, and superego form the tripartite structure of personality. The id represents the unconscious instinctual core of personality; in a sense, the id is the pleasure seeking mechanism. In contrast, the ego represents the conscious, logical, reality-oriented aspect of the personality. The superego represents the conscience of the individual; it is the internalized moral standards of society impressed upon the person by parental control and the process of socialization. The individual’s unconscious sexual and aggressive instincts are major determinants of behaviours, according to Freud. Aggression in human beings represents a potential example of this approach.

Behaviorist Theory

The behaviorist school was developed by B.F. Skinner (1938). This theory emphasizes the “mutual interaction of the person with its environment”. The contributions of John. B. Watson, father of American Behaviorism, and of I. P. Pavlov have greatly influenced these theories that explain personality in terms of reactions to external stimuli.

Cognitive and Social Learning Theory

From the viewpoint of social learning theory (Bandura, 1977), behavior is not simply a function of unconscious motives (as in psychoanalytic theory) or underlying predisposition. Rather, human behavior is a function of social learning and the strength of the situation. An individual behaves according to how she has learned to behave, as this is consistent with environmental constraints. If the environmental situation is prominent, the effect of personality traits or unconscious motives upon behavior should be minimal. Two of the primary mechanisms through which individuals learn are modeling and social reinforcement. Modeling, or imitative behavior, refers to the phenomenon of learning through observation. Social reinforcement is based upon the notion that rewarded behaviors are likely to be repeated. Martens (1975) has defined social reinforcement as verbal and nonverbal
communication passing between two individuals that can increase the strength of a response.

**Humanistic Theory**

At the centre of the humanistic theory of personality is the concept of *self-actualization* (Maslow, 1998; Rogers, 1961). The human organism possesses an innate drive or tendency to enhance itself, to realize capacities, and to act to become a better and more self-fulfilled person. It is not necessarily the experience that shapes the individual, but also the individual’s perception of that experience. Self-actualization is an ongoing process of seeking congruence between one’s experiences and one’s self-concept.

**Trait Theory**

The basic position of trait or factor theory is that personality can be described in terms of traits possessed by individuals (Allport, 1937; Cattell, 1965; Eysenck & Eysenck, 1968; Jung, 1921). These traits are considered synonymous with pre-dispositions to act in a certain way. Traits are considered to be stable, enduring, and consistent across a variety of differing situations. Those who exhibit the trait or need to achieve success, for example, can be expected to have a predisposition toward competitiveness and assertiveness in many situations. Built on the work of Cattell and other traits theorists, Lewis Goldberg proposed a five dimension personality model, nowadays, known as the Big Five. This five-dimension personality model is subject to various research and has aroused the interest of professionals interested in personality psychology studies.

1.3 **LEARNING-THINKING STYLE**

The style literature contains different style labels such as learning styles, cognitive styles and thinking styles. These styles although different, have one thing in common; they are individuals' preferred way of processing information and using abilities that they have. Styles are not abilities. The research in difference in the way of thinking of individuals resulted in the formation of theories of thinking styles. Thinking style is our preferred way of thinking and managing our activities. Sternberg (1997) defines thinking style as a personality attribute to utilization of abilities.
Schools and other institutions value certain ways of thinking more than some others. Pupils whose ways of thinking do not match Intelligence Quotient (IQ) those valued by the institutions are usually penalized. For example, in university students, even after age, gender and academic discipline were controlled, particular thinking styles predisposed students to particular teaching style (Zhang, 2002). It is necessary that schools take into account student's style and consider the chances between the way of teaching a subject and the way the student thinks. Since science is a body of knowledge, way of investigation and way of thinking, the process aspect of science mainly concentrates on the way of thinking. The awareness of style of thinking is useful in perceiving the students as she/he is. ‘We should teach students how to think instead of teaching what to think’ Clemen and Lochhead (1979) argued that styles contribute to achievement beyond what can be expected by student’s intelligence.

1.3.1 Concept of Learning-Thinking Style

Learning-thinking is an incredibly complex process and the most difficult concept in psychology to define or explain (Valentine, 1965). However, it has not deterred the thinkers, and many different definitions exist. Some of them are given here. In strict psychological discussion it is well to keep the learning-thinking for an activity which consists essentially of a connected flow of ideas which are directed towards some end or purpose (Ross, 1951).

All the foregoing definitions fall into two categories: One class of definitions maintains that thinking is a process of internal representation of external events, belonging to the past, present or future, and may even concern a thing or an event which is not being actually observed or experienced by the thinker. The second category of definitions describes learning-thinking in terms of problem-solving behaviour. These latter definitions are more concrete as well as more definite because they do not rely on unobservable internal representations and define thinking as problem-solving activity that can be readily studied and measured (Fantino and Reynolds, 1975).

Whatever the apparent difference may be, both classes of definitions actually tell the same story. The internal representation of external factors influences problem-solving behaviour and the problem-solving behaviour provides evidence for the existence of internal representation. Therefore, what is representational may be used
as functional and vice versa. The process of thinking and the product of thinking are both actually assessed by what is obtained as a result of learning and thinking. The lines along which individuals think must, therefore, always be inferred from the way they behave. Internal representation or mental explanation of the thing or events i.e., internal behaviour, should be made an essential aspect of the thinking process used in the problem-solving behaviour. Therefore, a workable definition of learning-thinking must combine internal behaviour and the product of thinking or the aims or purposes of thinking. *Learning-Thinking may thus be defined as a pattern of behaviour in which we make use of internal representations (symbols, signs etc.) of things and events for the solution of some specific, purposeful problem.*

1.3.2 Nature of Learning-Thinking Style

What we have discussed about the meaning of the term learning-thinking so far has brought out the following aspects of its nature: Learning-Thinking is essentially a cognitive activity. It is always directed towards achieving some purpose. In genuine thinking we cannot let our thoughts wander aimlessly as happens in the case of day-dreaming and fantasizing. Learning-Thinking is described as a problem-solving behaviour, from the beginning till end. There is some problem around which the whole process of thinking resolves. But every problem-solving behaviour is not thinking. It is related only to the inner cognitive behaviour. In learning-thinking, there is mental exploration rather than motor exploration. One has to suspend one's overt or motor activities while engaging in thinking through some kind of mental exploration or the other. Learning-Thinking is a symbolic activity. In learning-thinking, a mental solution of the problem is carried out through some signs, symbols and mental images. Learning-Thinking can shift instantaneously over a span of time and space.

1.3.3 Theories of Learning-Thinking Style

Various theoretical viewpoints have been put forward by different psychologists from time to time to explain the nature, mechanism and development of thinking. Let us now examine some of the more influential theoretical approaches.

**Behaviouristic Learning Theory**

According to this theory, thinking behaviour is learned or acquired in much the same way as other modes of behaviour, interests, attitudes, knowledge and skills
etc. J.B. Watson, an associationist, opined that there is association between the
movement of one's tongue or vocal cords with one's thoughts. As an S-R mechanism,
the response, an outcome of one's thinking is the product of the associated stimuli.
The stimulus thus generates the process of thinking. The same stimuli generate the
same type of thought and the organism thus becomes conditioned. Not only the
classical conditioning propagated by Watson and Pavlov, but also the theory of
operant conditioning propounded by B.F. Skinner viewed thinking as that private
behaviour which was determined by stimulus control and reinforcement in the same
way as overt behaviour.

The Gestalt and Holistic Theory

This theory emphasized the importance of the organisation of the perceptual
field in the process of thinking leading to problem solving behaviour. According to it,
thinking behaviour is always purposeful and goal-oriented. While thinking, one gets
to look at the whole field or context in which the thinking is occurring. With this
wider perception, one is set for the reorganisation and restructuring of the perceived
field for an optimal solution of the problem in hand. The acts of such restructuring or
reorganisation of the perceptual field belong to the process and product of thinking.

Piaget's Developmental Theory

Piaget tried to provide a satisfactory explanation of the development of
thinking in man through the successive stages of cognitive development, the sensory-
motor, pre-operational, concrete operational and formal operational stages. These are
again briefly touched upon now for the sake of continuity. In the beginning, at the
sensorymotor stage (up to 2 years) a child's behaviour exhibits more sensory-motor
activities than the mental manipulation of objects. She cannot distinguish between
animate and inanimate objects. Anything out of sight has no existence for her. She
does not differentiate between the world and herself. The sun moves because she
moves, the rain must stop because she needs to go out to play, etc. Gradually, she
develops a sense of object permanence (a toy, though concealed, exists), the ability to
categorize things and differentiate between her self and the world. At the
preoperational stage (2 to 7 years), the child begins to use words and symbols for
representing things and events and also tries to form images of every thing she
encounters. At the concrete operational stage (7 to 11 years) she begins to think logically by learning some distinctive logical operations like combining, acquiring the basic cognitive concepts such as numbers, classification and conservation. However, at this stage she can only think in terms of concrete things. The formal operational stage (12 years and after) is the last stage of one's cognitive development. The thinking at this stage is characterized by the development of the ability to think in abstract terms, test hypotheses and deal with problems that are not physically present in the environment. It is, in fact, the highest stage of intellectual functioning. The stage at which one's thought processes are said to be functioning to the maximum at the most advanced level.

**Sullivan's Basic Modes Theory**

The leading psychoanalyst H.S. Sullivan has postulated three basic developmental stages referred to as the modes of thought process for explaining man's cognitive development. These are the prototaxic mode, parataxic mode and syntactic mode. In infancy, during the prototaxic mode, there is no evidence of any definite structure of the thought process of the individual. This is vaguely manifested mainly in the form of feelings such as pleasure at sucking the nipple and apprehension at being separated from the persons who take care of the individual. During the parataxic mode, the child begins to differentiate between her self and the world. She is able to discriminate, distinguish and differentiate between the objects and the persons around her. Her thinking at this stage is quite elementary and operative in the concrete manipulation of the things and objects. Moreover, while parataxic thinking makes sense to the individual, it is not necessarily logical to others e.g., the child may say that movement of the clouds causes the wind to blow, the sun moves because it is being pushed by the clouds and so on. The final stage, comprising the syntactic mode reflects the development of the logical thought processes, incorporating the use of symbolic representation, images, and abstract reasoning and involving the use of the developed logical operations commonly agreed to by a group of people.

**Bruner's Theory of Cognitive Development**

Jerome S. Bruner like the other developmentalists Piaget and Sullivan, hypothesized that one's thought processes evolve as a result of maturation, training
and experiences through a series of sequential stages. The stages of cognitive development enumerated by him for this purpose were enactive, iconic and symbolic representation. The first enactive representation stage is characterized by the child's representation of things and events in terms of appropriate motor responses and activities. At this stage, she is unable to make use of language images or other symbolic representations for carrying out her thought processes and 'acts out' and represents them through nonverbal activities based on motor actions and movements.

The next iconic representation stage of cognitive development is characterized by the child's representation of things and events in terms of sensory images or mental pictures. The final symbolic representation stage is that stage of one's cognitive development when thought about things and events is not necessarily dependent upon the motor activities or sensory images and mental pictures. During this stage, symbolic representations in the form of words, symbols and other imaginary abstract phenomena take the place of motor manipulation or concrete visualization. For instance, to understand a question like: "if a child has four apples and her sister has three, how many apples do they have between them?" One does not now need to actually have these apples (in physical terms) nor to draw a mental picture of these apples for the counting. One may just write the numbers 4 and 3 or mentally visualize these numbers to add them up.

**The Information Processing Theory**

According to this theory, thinking is connected with the information one receives from the environment through one's senses and the nature of the thought process depends on how it is utilized by the individual from the time she perceives it until the time she processes it at various depth levels in solving her problem or chalking out a strategy or plan. This theory identifies a series of steps in the way we process the information. The salient stages of this processing may be: registering information, retrieving material related to this information from memory and using both kinds of knowledge purposefully.

**Freud’s Psychoanalytic Theory of Thinking**

The key concepts in Freud's psychoanalytic system may be described as the inherent desire for satisfaction of the sex urge and the role of the unconscious in
molding and shaping of one’s behaviour. The thinking behaviour is also governed through these two factors. If the goal is pleasure through sex gratification, the thought process would be naturally colored accordingly and since nine-tenths of one’s psyche consists of the unconscious and sub-conscious, the major portion of Olle’s thinking must emerge from it. The wish fulfillment, dreaming and unconscious morbid thinking, should thus be considered to be a major part and parcel of one's thought process influencing one’s interests, attitudes and overall behaviour.

In the process of development of thinking, the new-born infant does not show any sign of thought-related activities. In fact, her mental life is chaotic at this stage and is driven by a set of psycho-physiological drives, for example, when she is hungry, she cries. Gradually, Freud maintains, the infant develops a kind of self-centred thinking termed as narcissistic thinking. Her behaviour is almost entirely dominated by the Id and the pleasure principle and the thoughts of the infant are highly coloured by instinctual impulses demonstrating a total disregard of realities and logic. As the child grows older, another part of her personality, the ego comes into play. She then begins to pay attention to people and her environment in order to be able to cope with it effectively. She now begins to operate according to the reality principle and her thought processes become more rational and logical. Symbols and words also become involved in her thinking but she still remains egocentric. With the entry of another component of her personality, the super-ego, her thinking is now fashioned in accordance with the mores and ideals of society. It becomes more objective. The development of creative thinking, enrichment of fantasy, imagination and abstract thinking is the outcome of emergence of the super-ego and the subsequent expansion of the child's thinking apparatus.

1.4 CREATIVITY

“Creativity is the capacity of a person to produce compositions, products or ideas which are essentially new or novel and previously unknown to the producer”.

Dravadahal

Thus creativity is the capacity or ability of an individual to create, discover or produce a new idea or object including the rearrangements or reshaping of what is
already known to him. The term creativity can not be used synonymously with
giftedness. Creativity in all shapes and all forms is the highest expression of
giftedness that may or may not be found in a particular gifted child. It is universally
acknowledged fact that the progress of any nation depends mainly on the utilization of
potential of its intellectually gifted and creatively talented individuals to the
maximum. According to Chavo (1991), “the gifted are considered to be a valuable
human resource which can enhance the standard of living and promised better life for
the country. Now-a-days, most of countries in the world are concentrating their efforts
on maximizing the potential of their gifted and talented in order to meet the special
needs of gifted individual on the one hand and to enhance national competitiveness in
the world on the other hand”. A large amount of research is available on creativity and
creative individual. Still researchers remain engaged in exploring new dimensions in
the concerned fields. Investigations related to stylistic variations among creative
students have recently drawn the attention of researchers.

Creative students were significantly better in abstract thinking, emotional
stability, independence, self-sufficiency, self-concept and intelligence and were more
venturesome, relaxed, controlled and doubting (Jhag, 1979)

Psychologically speaking personality is all that a person is. It is the totality of
one’s behaviour towards oneself and others as well. It includes everything about the
person, her physical, emotional, social, mental and spiritual makeup. It is all that a
person has about herself. The term personality signifies something deeper than mere
appearance or outwards behaviour. How should it be given a proper meaning or
definition, is a difficult problem. Actually its subjective nature does not allow
reaching a clear cut, well agreed definition. That is why; it has been defined by so
many psychologists in so many ways according to their own points of views. As
according to Watson, “Personality is the sum of the activities that can be discovered
by actual observations over a long enough period of time to give reliable
information.” In this manner Watson gives emphasis upon the behaviour of an
individual and says that personality is nothing but the useful effect one makes upon
the person coming into her close contact.
1.4.1 Concept of Creativity

The cultural, scientific and the social progress of any country depends on the extent of the development of creativity among its citizens. Creative men and women are born in different social, economic and political circumstances. Now what is this creativity? What are the characteristics found in poets like Tulsidas and Kalidas by which their activity could be inferred? In the history of the world there had been several philosophers, poets, writers and painters who were turned out of their school classes, condemned as backward students, but who created great works in their later life. Hence, in modern times the progressive nations try to develop activity in their new generations. The concept of activity, therefore, occupies a very important place in educational psychology. Psychologists have presented various definitions to explain the meaning of creativity. In 1953, Morgan pointed out 25 definitions of creativity scattered in literature. One thing was common in these definitions and that was the uniqueness of creativity, though all the scientists do not consider uniqueness to be the necessary characteristic of activity. These definitions also reveal that there had been not one single criterion to define creativity. This is so since the researchers have looked to creativity from different aspects. In the process, the individual, the efforts and results of creativity different definitions have laid emphasis on one or the other aspect. Every researcher has studied creative behaviour from her own particular standpoint.

The different experiments conducted in this field have thrown light upon the nature of creativity. The following definitions of creativity will help in the understanding of its meaning. According to Guilford, “Creativity sometimes refers to creativity potential sometimes to creative production, and sometimes to creative productivity.” Here creative potential means the personal disposition of the individual in which there are some more or less permanent qualities which help him in creative thinking. Creative thinking leads to new ideas. Creative production does not mean production of concrete things. It means the processes of productive thinking. Creative productivity means productivity according to socially confirmed forms of words, thoughts and phrases, etc. This definition of creativity establishes creative thinking is its primary characteristics emphasizing this element in creativity.
Creativity is the ability to produce work that is both novel (i.e. original, unexpected) and appropriate. “To create” means “to make or bring into existence something new”. Creativity is a topic of wide scope that is important at both the individual and society levels. When one think of creative activity perhaps the work of highly talented or creative geniuses comes to mind; the creations of great sculptures, dance composers, painters, writers, scientists, mathematicians, inventors, at one extreme are gifted people such as those, whose work may change the course of civilization or character of an art; at the other extreme is the vast majority of people who follow the customs of their culture faithfully, rarely acting in an original manner. From this point of view, some people are highly creative but most of them being followers are highly uncreative.

The notion that creative ideas flow from a higher source rather than from the mind of man is not entirely new. We find traces of it in Greco-Roman culture as well as in writings of various new age mystics. Psychologically speaking, the creative process involves a voluntary relaxing of ego-controls after consciously analyzing the subject at hand. In other words, it is a think-hard-then-let-go process. This ‘letting go’ also helps the preconscious to operate freely on ideas. And it is in this frame of mind that the moment of serenity, the magical ‘eureka’ experience, dawns. Torrance (1962) on the basis of an analysis of the diverse ways of defining creativity, defined it as “a process of becoming sensitive to problems deficiencies, gaps in knowledge, missing elements, disharmonies, making judgements or formulating hypotheses about the deficiencies testing and re-testing them and finally communicating the results.”

According to Lester-a-Lefton (1964), “It is a characteristic of thought and of problem solving, generally considered to include originality, novelty and appropriateness.” Morri’s Stein (1974) has defined creativity as a process involving three stages hypotheses formulation, hypotheses testing and communication of results. In hypotheses formulation, creative person tries to formulate a new response to a problem. They have to explore paths that have not been explored before and think in new ways. Furthermore, people cannot pluck successful ideas from thin air. They must have certain skills and a background in the relevant field on which they base their ideas. Creative individuals sometimes experience a sudden brilliant illumination, but more often their new ideas come about through a slow intuitive understanding.
field of endeavour. Their background allows them to be constructively creative. At the second stage, a creative person applies the criterion of appropriateness e.g. an artist takes brush in hand and transposes visualizations on the canvas. The person can move towards the third stage, the communication of results. Communicating the ideas is some times relatively straight forward e.g. un-covering of canvas by an artist.

According to Adler (1930), “The intellectual drive for self realization is similar to Freud’s idea of ego and Jung’s notion of self concept. To Adler, life is a conscious struggle to achieve superiority. Thus she denied the importance of sexual instincts and substituted aggressive tendencies in their place. Freud and Jung emphasized the unconscious, unknowable inner influences on behaviours. Adler believed that most of us are only unaware as why we do and what we do. We see our own inferiority and strive to overcome them. We have an instinct for self realization, for completion and perfection, that Adler thought, was the driving force to life itself. Adler called this force creative power and thought it was the “first cause” of all human behaviour.

1.4.2 Nature of Creativity

Nature of creativity can be derived from its meaning. Different theories have explained the nature of creativity differently. According to Psychoanalytic theory the creative person satisfies frustrated ambitions and desires through creative processes. According to associative theory the creative person forms new associations or recognizes old ones. According to Campbell creativity involves change and choice. According to Gestalt theory creative thinking involves change of central point, change of meaning and a novel organization. It involve, insight which is the cause of sudden emergence of new ideas. Existentialists have presented a theory similar to the Gestalt theory. According to them creativity involves perception of new objects and struggle for understanding. In the words of May, “A creative act is a process, doing specifically, a process inter-relating the person and her world.” The personalists defined creativity in terms of inter-personal relationship. In the words of C.R. Roger, “Creativity is an emergence in action of novel relational product growing out of the uniqueness of the individual on the one hand, the materials events, people or circumstances of her life on the other” The Trait theory considers particular trait as
characteristic of creativity. For example, according to Guilford the most important traits of creativity are consciousness of the problem, continuity of thinking continuity of words, continuity of association continuity of expression, flexibility of thinking and accommodation, originality and re-definition, etc.

Creativity is too complex in nature. It is something that comes across everyday. One hears of creative people, admires creative objects of art or reads creative books. Yet despite our ability to recognize creativity manifesting itself, there is considerable confusion about what creativity really is. Wertheniner (1945) suggested that creative thinking involved breaking down and restructuring our knowledge about a phenomenon in order to gain new insights into its nature. Kelly (1955) and Rogers (1954) both maintained that we could be creative by gaining an insight into our own understanding of a subject. Creativity occurs when we organise our thoughts in a way that leads readily to a different angle of understanding of a situation. Creative thinking is an important feature of decision making. It is the phenomenon of awakening new thoughts, rearranging old learning and examining assumption to formulate new theories and paradigm or creative awareness. It is the process of revealing, selecting, swapping around and blending one’s stock of facts, ideas and skills.

1.4.3 Theories of Creativity

The Psychoanalytic Theory

The main proponents of this theory include -Freud, Jung, Kris, Rank, Adler and Hammer and the general argument is that people become creative in reaction to difficult circumstances or repressed emotions.

The Mental Illness Theory

The proponents of this theory include Briggs, Eisenman, Goodwin, Jamison, Richards, and Martindale; and the major tenet is that some type of mental illness is actually necessary in order to make the people creative, even if that illness is exceptionally mild called manic-depressive syndromes, where sufferers undergo extreme mood swings that perhaps contribute to enhanced creativity expression.
Eysenck’s Theory of Psychoticism

The main proponent of this theory was the late Hans Eysenck, who argued that highly creative individuals possessed a quality termed “Psychoticism” – a disposition for psychotic tendencies. Eysenck also maintained that these psychotic tendencies were the foundation for creative personalities from conventional to highly social altruistic.

The Humanistic Theory

The main supporters of this theory include Maslow, Rogers, and Fromm, though the theory is based mainly upon Maslow’s Hierarchy of needs, that must be met in order to reach maximum potential for self actualization.

People’s lower needs, however, must met in order for them to progress to the next highest level and only upon reaching the uppermost level, self-actualization, where needs are related to purpose and identity, are they at last free enough and comfortable enough to express themselves creatively.

Behaviourism Theory

The idea of operant conditioning, which suggests the idea of positive and negative reinforcement through reward and punishment influences behaviours over time, is the key to the idea of behaviourism. Combining this idea with unconscious memories, the explanation for creativity is born. B.F. Skinner viewed the creative act as a cognitive behaviour pattern that first starts with access of arbitrary unconscious maternal and synthesizing them in response of a stimulus, such as a problem. Operant conditioning occurs when a successful solution alleviates tension as a reward. Additional operant conditioning such as praise from others may reinforce the creative behaviours even more

Cognitive Theory

Many of these theories are supported by humanists, who view humans as conscious and self-directed beings. Creativity, in their view, is essential to the growth of the individual. Abraham, H. Maslow suggested three categories: Primary creativity, secondary creativity and integrated creativity. The first category identifies with Freud’s theory, describing creativity that flows from the primary processes and urges.
Analysis, discipline and hard work are the products of secondary creativity, formulated by higher thought processes. In the final category, the primary and the secondary fuses and results in great works of originality. In 1964, Arthur Koestler coined the term ‘bisociation’ as the source of creativity. She believed that by being able to think on more than one plane simultaneously, joining unrelated, or even conflicting information in a new way create new ideas. Not surprisingly, many creative people show a strong interest in disorder, contradiction, and imbalance. They consider asymmetry and chaos a challenge.

**Gestalt Theory of Creativity**

The supporters of this theory hold the view that creativity involves restructurization of patterns or Gestalts that suffer from structural deficiency. A creative thinker senses the gaps of missing elements in the existing knowledge very quickly. This sensitivity towards gaps and missing elements give a push to her creativity.

**Kris’ Theory of Primary Process Cognition**

Kris proposed that creative individuals are better able to alternate between primary process and secondary process modes of thought than are uncreative people.

According to Kris Creatine inspiration involves a “regression” to primary process of state of consciousness. Because primary process cognition is associative, it facilitates the discovery of new combinations of mental elements. On the other hand, creative elaboration involves a return to secondary process state. Because uncreative people are more or less “stuck” at one point on the primary process – secondary process continuum, they are unable to think of creative ideas.

**1.5 RATIONALE OF THE STUDY:**

During the last few decades, there has been a radical change in every field on account of scientific inventions and technological advancement. To meet the challenges and requirements of this fast developing society, young people need to grow in the ability to think rationally and to express their thoughts clearly. Independent thinking, careful analysis and objective assessment contribute to the success in any field.
Thinking is related to the learning because Knowledge of a person affects one’s thinking pattern. Thinking is one of the most important aspects of one’s cognitive behaviour. It is universally acknowledged fact that the progress of any nation depends mainly on the utilization of potential of its intellectually gifted and creatively talented individuals to the maximum. This study will be a deliberate attempt to the learning and thinking style in relation to socio-psychological correlates (i.e. personality and socio-economic status) of secondary school students.

There is a great deal of interest and enthusiasm among teachers with regard to thinking skills and creativity. Many teachers and schools are developing innovative approaches and introducing programmes to help pupils improve their abilities to think, reason and solve problems.

Our ideas about thinking and about different kinds of thinking come largely from two fields of enquiry, philosophy and psychology. Part of the activity of philosophy is learning how to support and justify the claims that we make. It is associated with giving reasons, weighing up pros and cons, constructing arguments, solving problems and making decisions. It relies on reasoning and logic and is deliberate and purposeful. The process is often referred to as ‘critical thinking’. Part of the activity of psychology is to investigate the ways in which we generate and develop ideas and to consider the factors that might influence this process, such as the depth of our knowledge and the impact of emotions and stress. It reflects a process that involves forming or making something new and can include just mulling things over rather than deliberately trying to solve a problem. It relies on imagination, intuition and divergent thinking. It is often referred to as ‘creative thinking’ or ‘creativity’.

Creative thinking almost involves critical thinking in selecting from alternatives and evaluating outcomes and solutions. Similarly, creative thinking makes an important contribution to critical thinking, for example, in generating reasons and in the imaginative exploration of points of view other than one’s own. Problem solving and decision-making will usually involve elements of both creative and critical thinking. For example, problem solving and decision-making involve
generating ideas and alternatives, and making judgements about what are the most promising or best of these to pursue and test out.

Attempts have been made to relate cognitive style to creativity. Majority of studies revealed that highly creative students do have distinctive cognitive style. As regards learning and thinking style and creativity in relation to socio-psychological correlates, no study could be traced. In view of the above the present study is designed to find out relationship in Learning-Thinking style and creativity among secondary school students.

1.6 STATEMENT OF THE PROBLEM:
“A STUDY OF SOCIO-PSYCHOLOGICAL CORRELATES OF LEARNING-THINKING STYLE AND CREATIVITY OF SECONDARY SCHOOL STUDENTS”

1.7 DEFINITION OF KEY TERMS:
(i) Socio-Psychological Correlates:
In the present study the socio-psychological correlate is taken as independent variable which includes the variables like, socio correlate: includes socio-economic status and psychological correlates: includes personality variable of secondary school students.

(ii) Socio-Economic Status:
In essence the universe is a sort of giant machine, says Coleman, which functions according to certain built-in principles. If we had complete information about the machine, we could understand and predict its functioning in every detail. It is a ranking of an individual by the society she/he lives in, in terms of her/his material belongings and cultural possessions along with the degree of respect, power and influence she wields. In the present study socio-economic status is taken as an independent variable which includes components like above and below group of socio economic status.
(iii) **Personality:**

According to J.F. Deshiell, “Aman’s personality is the total picture of her organized behaviour especially as it can be characterized by her fellow men in a consistent way.” Personality is the sum of the activities that can be discovered by actual observations over a long enough period of time to give reliable information. In the present study personality is taken as independent variable which includes components like activity, passivity, enthusiastic, non-enthusiastic, assertive, submissive, suspicious, trusting, depressive, non-depressive, emotional instability and emotional stability groups of personality traits.

(iv) **Learning-Thinking Style:**

Learning brings changes in our behaviour in reference to the factors responsible for such changes. Learning is a process of bringing relatively enduring of permanent changes in behaviour through experience or training. Thinking style is one which is often implicit and hidden and in which symbols like images, ideas and concepts are ordinary employed. Thinking has a definite end or purpose. It is initiated to solve difficulty or problem and ends in its solution.

(v) **Creativity:**

Creativity is the capacity of a person to produce compositions, products or ideas which are essentially new or novel and previously unknown to the producer. In the present study creativity is taken as a dependent variable. Creativity is a multidimentional (verbal and non-verbal) attribute ‘differentially’ distributed among people and includes chiefly the factors of seeing problems, fluency, flexibility, originality, inquisitiveness and persistence.

1.8 **OBJECTIVES OF THE STUDY:**

O_1 Objectives related to Socio-Economic Status (SES) and Learning Thinking Style (LTS) of Secondary School Students.

O_{1,1} To see the relationship between socio-economic status and learning-thinking style of secondary school students.
O1.2 To see the significance of difference between learning thinking style of secondary school students belonging to above average socio-economic status and below average socio-economic status group.

O1.3 To see the significance of difference between learning thinking style of boys and girls of secondary schools.

O1.4 To see the significance of difference between learning thinking style of rural and urban students of secondary schools.

O2 Objectives related to Socio-Economic Status (SES) and Creativity of Secondary School Students.

O2.1 To see the relationship between socio-economic status and creativity of secondary school students.

O2.2 To see the significance of difference between creativity of secondary school students belonging to above average socio-economic status and below average socio-economic status group.

O2.3 To see the significance of difference between creativity of boys and girls of secondary schools.

O2.4 To see the significance of difference between creativity of rural and urban students of secondary schools.

O3 Objectives related to Personality and Learning Thinking Style of Secondary School Students.

O3.1 To see the relationship between personality and learning thinking style of secondary school students.

O3.2 To see the significance of difference between learning thinking style of secondary school students belonging to activity and passivity groups of personality traits.

O3.3 To see the significance of difference between learning thinking style of secondary school students belonging to enthusiastic and non-enthusiastic groups of personality traits.
3.4 To see the significance of difference between learning thinking style of secondary school students belonging to assertive and submissive groups of personality traits.

3.5 To see the significance of difference between learning thinking style of secondary school students belonging to suspicious and trusting groups of personality traits.

3.6 To see the significance of difference between learning thinking style of secondary school students belonging to depressive and non-depressive groups of personality traits.

3.7 To see the significance of difference between learning thinking style of secondary school students belonging to emotional instability and emotional stability groups of personality traits.

4 Objectives related to Personality and Creativity of Secondary School Students.

4.1 To see the relationship between personality and creativity of secondary school students.

4.2 To see the significance of difference between creativity of secondary school students belonging to activity and passivity groups of personality traits.

4.3 To see the significance of difference between creativity of secondary school students belonging to enthusiastic and non-enthusiastic groups of personality traits.

4.4 To see the significance of difference between creativity of secondary school students belonging to assertive and submissive groups of personality traits.

4.5 To see the significance of difference between creativity of secondary school students belonging to suspicious and trusting groups of personality traits.

4.6 To see the significance of difference between creativity of secondary school students belonging to depressive and non-depressive groups of personality traits.
To see the significance of difference between creativity of secondary school students belonging to emotional instability and emotional stability groups of personality traits.

1.9 HYPOTHESES OF THE STUDY:

**H$_1$** Hypotheses related to Socio-Economic Status (SES) and Learning Thinking Style (LTS) of Secondary School Students.

- **H$_{1.1}$** There exists no significant relationship between socio-economic status and learning-thinking style of secondary school students.
- **H$_{1.2}$** There exists no significant difference between learning thinking style of secondary school students belonging to above average socio-economic status and below average socio-economic status group.
- **H$_{1.3}$** There exists no significant difference between learning thinking style of boys and girls of secondary schools.
- **H$_{1.4}$** There exists no significant difference between learning thinking style of rural and urban students of secondary schools.

**H$_2$** Hypotheses related to Socio-Economic Status (SES) and Creativity of Secondary School Students.

- **H$_{2.1}$** There exists no significant relationship between socio-economic status and creativity of secondary school students.
- **H$_{2.2}$** There exists no significant difference between creativity of secondary school students belonging to above average socio-economic status and below average socio-economic status group.
- **H$_{2.3}$** There exists no significant difference between creativity of boys and girls of secondary schools.
- **H$_{2.4}$** There exists no significant difference between creativity of rural and urban students of secondary schools.

**H$_3$** Hypotheses related to Personality and Learning Thinking Style of Secondary School Students.
H₃.₁ There exists no significant relationship between personality and learning thinking style of secondary school students.

H₃.₂ There exists no significant difference between learning thinking style of secondary school students belonging to activity and passivity groups of personality traits.

H₃.₃ There exists no significant difference between learning thinking style of secondary school students belonging to enthusiastic and non-enthusiastic groups of personality traits.

H₃.₄ There exists no significant difference between learning thinking style of secondary school students belonging to assertive and submissive groups of personality traits.

H₃.₅ There exists no significant difference between learning thinking style of secondary school students belonging to suspicious and trusting groups of personality traits.

H₃.₆ There exists no significant difference between learning thinking style of secondary school students belonging to depressive and non-depressive groups of personality traits.

H₃.₇ There exists no significant difference between learning thinking style of secondary school students belonging to emotional instability and emotional stability groups of personality traits.

H₄ Hypotheses related to Personality and Creativity of Secondary School Students.

H₄.₁ There exists no significant relationship between personality and creativity of secondary school students.

H₄.₂ There exists no significant difference between creativity of secondary school students belonging to activity and passivity groups of personality traits.

H₄.₃ There exists no significant difference between creativity of secondary school students belonging to enthusiastic and non-enthusiastic groups of personality traits.
H_{4.4} There exists no significant difference between creativity of secondary school students belonging to assertive and submissive groups of personality traits.

H_{4.5} There exists no significant difference between creativity of secondary school students belonging to suspicious and trusting groups of personality traits.

H_{4.6} There exists no significant difference between creativity of secondary school students belonging to depressive and non-depressive groups of personality traits.

H_{4.7} There exists no significant difference between creativity of secondary school students belonging to emotional instability and emotional stability groups of personality traits.

1.10 DELIMITATIONS OF THE STUDY:

Keeping in the view the time available and limited sources, the present study has been delimited to the following aspects:

1. The present study has been restricted to 600 students of Haryana.

2. The study is delimited to 300 urban and 300 rural schools of Haryana.

3. The study is delimited to 300 boys and 300 girls of Haryana.

4. The present study has been confined to socio-psychological correlates i.e. socio-economic status and personality only.