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INTRODUCTION

Learning is the sum total of an individual’s life experience acquitted through socialization process. It exceeds a mere acquisition of factual information or mastering of skills, as it also includes the sum total of an individual’s life experience which are relatively permanent in nature and have survived values for him.

Thinking is a pattern of behavior in which we make use of internal representations of problem. Thinking is problem solving process in which we use ideas or symbols in place of overt activities. Thinking is essentially a cognitive ability.

Most people are somewhat flexible in their use of styles, and to adopt themselves to the stylistic demands according to situations. It is important for the parents and teachers to understand the nature of the student’s mind and its function and their different styles of learning and thinking.

Styles indicate the hemisphericity functions of the brain and students learning strategy and information processing, are based on the preferences of the brain area. Styles are propensities rather than abilities. They are the ways of directing the intellect in which an individual finds comfortable. It is important for the teachers to know about the students preferred styles so that the teachers can capitalize the opportunities for student’s learning.

The method of teaching adopted by the teachers often reflects their personal thinking style the students who have the same thinking style of the teachers are only benefited and rewarded. Styles like abilities are in large part developed due to environmental condition and by way of nurturing children by their parents and teachers.

Styles depend upon the cerebral dominance of an individual in retaining and processing different modes of information in his own style of learning and thinking. The differences in preference of the two hemispheres for information processing have been referred to as styles of learning and thinking (SOLAT). It indicates a student’s learning strategy and brain hemisphere preference in problem solving. It may be possible to train individuals to modify their information processing procedures to best fit their demands of the cognitive tasks.
The good family environment leads the students to different styles of learning and thinking. The importance at home atmosphere with recognition, appreciation, ample freedom leads to development of self concept. Stress at college and family environment affects physical growth, mental illness, social, emotional & aesthetic imbalance in life. Adjustment is management of thinking in our life. It is mental health in action. The hazards in adjustment like frustration, complex, conflict, defense mechanisms, rejection leads our students to detach from their studies and family life. Academic Achievement is the accomplishment of acquired efficiency in the performance of an individual in a given skill of body of knowledge. Every parent and college expects that their students must achieve in turns of various activities that are provided in their colleges with normal to higher degree of expectation.

1.1 CONCEPT OF LEARNING:

Learning refers to a relatively permanent change in behavior as a result of past experience, either produced incidentally or through institutional through teaching. Learning is a process by which the individual acquires various habits, knowledge and attitudes to meet the demands of life. Learning as a process of affecting a change in behavior which generally produces an improvement in our relations with our environment. People agree that learning is important, but they hold different views on the causes, processes and consequences of learning. There is no one definition of learning that is universally accepted by theorists, researchers and practitioners. Shuell, (1986).

A general definition of learning is that learning is an enduring change in behavior, or in the capacity to behave in a given fashion, which results from practice or other forms of experience. Learning occupies a very important place in our life, it provides a key to the structure of our personality and our behavior.

Learning is a change in behavior through experiences as most natural and common situations arise in life. Learning is an episode in which a motivated individual attempts to adopt his behavior, so as to succeed in a situation. According to Crow & Crow (1973), “Learning is the acquisition of habits, knowledge and attitudes. It involves new ways of doing things and it operates in an individual attempts to overcome obstacles or to adjust to new situations. It represents progressive changes in behavior…. It enables him to satisfy interests to attain goals.”
Hilguard (1958) : “Learning is the process by which an activity originates or is changed through reaching to an encountered situation, provided that the characteristics of the changes in activity cannot be explained on the basis of native response, tendencies, maturation, or temporary states of the organism (e.g., Fatigue or drugs etc.)

It is true that learning brings about changes in behavior, but these changes are not as permanent as the changes brought about by chemical reactions in material objects. The habits we pick up, the interests we develop, the skills we acquire, the knowledge we gain as a result of learning at one or the other occasion can be modified or replaced by some other setup similar or different acquired behavior. Consequently a proper definition of learning may be learning is a process which brings relatively permanent changes in the behavior of the learner through experience or practice.

Learning is often described as a process of progressive adjustment to overcome the conditions which one encounters. Learning is a process of improvement with practice or training. Changes produced learning are relatively more enduring & stable. All learning is goal oriented.

Learning is Universal & Continuous. Life presents enormous opportunities to learn & learning activities are so numerous. Smith (1962), “Learning process involves a motive or drive, an attractive goal and a block to the attainment of the goal.”

Learning at a particular moment in a learning environment brings essential changes in the behavior of an individual. These changes become learned acts and are retained for a longer time depending upon the nature of learning and effectiveness of learning process. Learning adds new knowledge and new ideas to meet demands of life, thereby helps to deal with the environment more effectively and efficiently. According to Munn (1966), “Learning is the process of being modified more or less permanently by what happens in the world around us, by what we do or by what we observe.” Learning prepares an individual for any adjustment & adaptation that may be necessary. Learning is a process and is purposeful and goal oriented. Kimble (1961), “Learning is a relatively permanent change in behavioral potentiality that occurs as a result of reinforced practice.”

The outcomes of learning are bringing desirable changes in behavior, attaining of teaching-learning objectives, attaining of proper growth & development, attaining balanced
development of personality, attaining proper adjustment, realizing of goals of life. Learning depends upon the methods, techniques, approaches, employed for the teaching. Learning is influenced by the nature of the subject matter and the learning experience presented.

In the course of experience one acquires and accumulates native behaviour, native tendencies include automatic acts, random acts, reflexes, instincts, spontaneous expressions of feelings and emotions. These are the basis of learned acts. Learning involves to complimentary processes – Differentiation the process of dividing the whole into its component parts and integration – process of combining the parts into a new whole. Learning is goal directed with an active process. It is the outcome of the interaction of the individual with the total situation.

Learning is not merely summing up of previous experiences, but a creative synthesis of the experiences of the learner. learning is a new way of acting by thinking critically to suit to the situation. Learning modifies one’s behavior cognitively, affectively and in psychomotor aspect. Its scope is very wide. Learning is transferrable to new situations to develop new relationships. It inspires to set new goals, new ways and means of getting new results, new look at the things and situations of ever changing life.

1.2 TYPES OF LEARNING:
Learning, defined as process of bringing about relatively permanent changes in the behaviours upon
a) The domain or specific area of the behavior in which changes are introduced, or
b) in terms of the methods or techniques that are employed for the introduction or behavioral changes.

Gagne (1970) adopted for the purpose of classifying learning by considering a specific hierarchical order, into the following types:

a) Signal Learning or Classical Conditioning:
This type of learning was developed by Russian physiologist Ivan Pavalov. In classical conditioning, unconditioned stimulus (food) and conditioned stimulus (sound of the bell) are combined together and presented to a dog a number of times with the result that when conditioned stimulus (sound of the bell) is presented alone, it elicits saliva from the mouth of the
dog. This change in the act or behavior which causes salivation to the sound of the bell, is called conditioning or the learning of signal.

b) Stimulus- Response Learning (SR) or Instrumental and Operant Conditioning.

This type of learning was initiated by Edward Lee Thorndike with the puzzle box experiment in which a cat was put and a dish containing food was kept outside the box. The cat in order to come out has to change a leaver within the box, in which the manipulation of lever was response that is instrumental in producing the reward, escape and food for this reason. This type of learning is called instrumental conditioning. B.F. Skinner also conducted many experiments on different animals and generalized these principles and used them in human learning.

c) Chain Learning or Serial Learning:

Serial learning is a learning situation in which the learner is presented with learning material which exhibits some sequential or serial order. In this there are two types:

i) Verbal Changing is a matter of connecting together in a sequence two or more previously learned stimulus responses.

ii) Motor changing, where many actions are sequenced to meet the result or goal.

d) Verbal Associate Learning:

Learning of this type helps in the acquisition of verbal behavior. The language we speak, the communication device we use are the result of such learning. Rote learning and rote memorization are types of verbal learning. Signs, pictures, symbols, words figures, sounds and voices are employed by the individual as essential instruments for engaging in the process of verbal learning.

e) Motor Learning

The learning of all types of motor skills may be included in this type of learning, such as swimming, riding a horse, driving a car, drawing a geometrical design are examples of such learning. Acquisition of various skills through such learning helps in acquiring speed and accuracy in the field of operation of these activities and creates a sort of confidence in the learner to perform with ease and satisfaction. These skills are to be acquired through a systematic, planned acquisition and fixation of a series of organized actions or responses by making used of some appropriate learning methods and devices.
f) **Concept Learning:**

A concept in the form of a mental image denotes a generalized idea about things, persons or events. For example, our concept of ‘Tree’ is a mental image that throws up the similarities or common proportion of all the different trees we know. The formation of such concepts, on account of previous experiences, training or cognitive processes is called concept learning; proves very useful in recognizing naming and identifying things. Every behaviour, verbal, symbolic, motor as well as cognitive are influenced by our concepts.

g) **Problem Solving:**

Problem solving learning symbolizes a higher types of learning. This requires the abilities like reasoning, thinking, the power of observation, discrimination, generalization, imagination, the ability to infer, etc. An individual may be motivated to reach an unknown target or to unfold the mystery of an unresolved problem. This type of learning contributes significantly to the progress and improvement of society.

h) **Paired Associate Learning:**

In this learning, learning tasks are presented are learned by reason of their associations. For example ‘Ganga’ a Girl’s name may become easy to remember in a paired association with the river Ganges. The verbal or motor learning any be acquired or remembered by means of the techniques of paired multiple association. The practice with such procedure then helps in building what is known as associate learning. The matching items associated in the objective type of questions of the achievement test also emphasize such learning.

1.3 **THEORIES OF LEARNING:**

Psychologists with the subject, of enquiry and investigation have resulted with a number of theories that come in to existence. These theories are classified under two major heads: connectionist or behaviorist theories and cognitive theories.

Connectionist or behaviorist theories belong to the school of behaviorism. They interpret learning in terms of connection or association between stimulus and response. The other theories included are Thorndike’s theory of Trial and Error learning, Guthrie’s Continuity theory of Learning, Hull’s Drive Reduction Theory of learning, Classical and Operant conditioning, etc.
Cognitive theories belong to the school of Gestalt Psychology and Cognitive psychology. In place of purely mechanical or instrumental approach, these theories emphasize the role of purpose, insight understanding, reasoning, memory and other cognitive factors in the process of learning. The other theories under this category are, theory of insight learning by Kohler, Lewin’s Field. Theory of learning, Tolman’s sign learning and others may be included.

1.3.1 Thorndike’s Theory of Trial and Error.

The famous Psychologist, Edward L. Thorndike, (1874-1949) was the initiator of the theory of Trial and Error learning which was based on the findings of his experiments on chickens, rats and cats. Based on the experiments conducted, major theoretical principal were formed from the Thorndike’s theory of learning. Thorndike propounded three Laws of Learning on the basis of his theoretical notions about learning process. These 3 laws - the Law the Readiness, The Law of Effect, and the Law of Exercise - are significant in many kinds of learning in our life, as they apply with the proverb “practice makes a man perfect”.

1.3.2 Pavlov’s Theory of Classical Conditioning:

Russian Psychologist IVAN PAVLOV (1849-1936), who advocated the Theory of Classical Conditioning, considers learning as habit formation and is based on the principal of association and substitution. It is simply a stimulus-response type of learning, where in place of natural stimulus like food water, sex, etc, an artificial stimulus like the sound of the bell, sight of light of a definite color, etc can evoke a natural response. A perfect association occurs between the types of stimuli presented together. As a result, after some time the natural stimulus can be substituted or replaced by an artificial stimulus, which in turn is able to evoke the natural response.

The Conditioning Theory of learning put forward by Watson and Pavlov involves the conditioning of respondent behaviour through a process of stimulus association and substitution. The learner becomes conditioned and behaves similarly to similar situations, as a result the new substituted stimulus behaves like an original stimulus and is able to evoke the desired response.

1.3.3 Skinner’s Theory of Operant Conditioning:

B.F. Skinner (1948) conducted series of experiments with animals, put forward his theory of Operant Conditioning for learning, which involves not only simple responses but also, for
learning, the most difficult and complex series of responses. The theory of Operant Conditioning advocates the emitting of a desired response and its proper management through suitable reinforcement. The learner responds in a certain way so as to produce the reinforcing stimulus. The subsequent reinforcement gradually conditions the learner to emit the desired response and thus learn the desired act.

1.3.4 **Kohler’s Theory of Insightful Learning:**

German psychologist Wolfgang Kohler (1887) originated a learning theory named Insightful learning. It is concerned with the nature of perception, a learner perceives a thing as a whole. Gestalt psychologists tried to interpret learning as purposive, exploratory and creative enterprise instead of trial and error or a simple stimulus response mechanism. The term “insight” describes the perception of the whole, situation by the learner, and his intelligence in responding to the proper relationships. His experiments on chimpanzees demonstrated learning by insight. The theory of insightful learning made learning a purposeful and goal oriented task.

1.3.5 **Hull’s Systematic Behavior Theory:**

Clark L. Hull (1884-1952), a teacher in the universities of Wisconsin and Yale, is credited with putting forth a systematic mathematical and scientific theory of human behavior based on conditioning and connectionism of the earlier behaviorists. He built his theory on a logical structure of postulates and theorems. His theory can be briefly summarized as:

Hull’s theory rejected the trigger like mechanism of stimuli-response advocated by Thorndike and introduced the concept of intervening variables between stimulus and Response. The things within the learner definitely act and react with what is received in terms of stimuli from the external environment, before emitting of an overt response. Hull provided the amended S-O-R formula in place of the traditional S-R approach. He termed the environmental influences upon the individual as “inputs” and his responses as “Outputs” and what goes from the learner as “processes”. He asserted that “input” and “output” can be measured experimentally and therefore behaviour in its processes and products can be subjected to experimental verification.

Hull’s theory attached sufficient importance to the needs, drives, incentives reinforcement and adequate motivations for achieving satisfactory results in the process of teaching and learning. The greatest contribution of Hull’s theory lies in its emphasis on linking
the learning to the needs of the learners. He advocated the need based goals, curricula and methods of teaching.

1.3.6 **Lewin’s Field Theory:**

German psychologist Kurt Lewin (1890-1947) put forward a theory named Lewin’s Field theory in 1917. Perception is the key issue in Lewin’s theory of learning. It takes learning to be a process of perceptual organization or reorganization of one’s life space or field, involving insight.

According to Lewin, Learning is a relativistic process by which a learner develops a new insight or changes the old views. The development of this new insight or change in the old views can be explained through the structuring or restructuring of one’s life space i.e. the cognitive structure or field of one’s perception and understanding.

According to Lewin, learning is nothing but a change in one’s cognitive structure which is needed for achieving a particular goal or to meet the requirements or needs of an individual in a particular situation. Learning is a process responsible for making the life space or field of perception as differentiated as possible. The learner begins to make distinction between reality and unreality at different levels of his life space and try to act with the knowledge, of what leads to what.

1.3.7 **Tolman’s Sign Theory:**

Edward Chace Tolman (1886-1959), an American psychologist propounded his theory as Tolman’s Sign learning or Sign Gestalt learning, which stands midway between the behaviouristic S-R theories and cognitivistic Gestalt or cognitive field theories.

Tolman’s theory truly represents an eclectic approach towards learning. He argues that all learning is purposeful and goal oriented rather than response oriented. According to him, understanding and map making rather than conditioning or building up S-R connections is the essence of learning. With the number of trials in the way of learning, learner develops cognitive maps or mental representations (Sign Gestalts) in perfect correlation with the goal, to achieve the environment, in which he has to strive. The cognitive map becomes effective in influencing one’s behaviour in meeting one’s need or purpose or in getting reinforcement. Every learner acts according to his cognitive mapping of the environment to reach his goal. The attempts made by
him in this direction becomes significant, showing positive or negative signs, as depending upon the type of reinforcement. Each sign leads to another, giving a clear indication of what leads to what, thus the learner ultimately learns to proceed along with the correct path. The learner realizing his ultimate goal learns the ways to problem solving within the given situation. The learner reinforces by no other reward then the satisfaction of the learning itself.

1:3.8 Gagne’s Theory of Learning:

Robert Gagne, the famous American psychologist put forward a theory of learning and instruction incorporating a behavioristic, eclectic approach to the psychology of learning and teaching.

According to Gagne, Learning is supposed to result in the enhancement of a person’s performance and capabilities by acquiring new ways of behaving (gaining in terms of knowledge, understanding, skills and change of attitudes, etc). He declared that all types of human learning may result in the development of human capabilities in terms of five components namely; Verbal information, intellectual skills, cognitive strategies, motor skills and attitudes. His theory of learning proposes a set of conditions or events for the occurrence of learning and links them to a set of instructional events. His theory covers all aspects of human learning and applies to the design of instruction in all domains of human behavior.

Learning is defined as a process which brings relatively permanent changes in the behaviour of the learner through experience or practice. It can be classified into specific categories like trial and error, conditioning, insightful learning, serial learning, associate learning, chain learning, verbal learning, learning of motor skills, effective learning and cognitive learning etc.

Learning outcomes it helps in i) bringing desirable modifications in behaviour; ii) attaining teaching learning objectives; iii) achieving proper growth and development; iv) seeking balanced development of the personality v) seeking proper adjustment and; vi) realizing the goals in life.
1.4 STYLES OF LEARNING AND THINKING:

Most people are somewhat flexible in their use of styles and they try with varying degrees to adapt themselves to the stylistic demands which arise according to situation. This is because mind plays a flexible role in accomplishing a variety of tasks. It is important for the teachers and parents to understand the nature of the student’s mind and its functions in different styles of learning and thinking.

Parents and teachers are able to guide the children and their natural tendencies of how they think, act and learn to different ways and in different situations. One child may perform tasks in an orderly and systematic pattern and another child may perform tasks in an unsystematic pattern. This is due to individual differences in their style of learning and thinking.

The style of learning & teaching adopted by the teachers often reflects their personal thinking styles which benefit only those type of students whose styles match with that of their teachers who, therefore, are benefitted and rewarded. The students whose styles are different do not correspond with the teacher’s styles are labeled as ‘slow’, “Dull” or even “stupid”. If such mismatch exists between the preferred styles of learning of the teachers and that of students, the students with different styles of learning, in comparison to their teachers, are found to be uninterested in the content, feeling bored and finally rejecting the learning activity.

Since any subject can be taught in different ways, to suit the compatibility of different styles, students will seek learning activities that are compatible with their own preferred styles. Both teachers and students tend to exploit their preferred styles, which may or may not match with each other. Therefore it is important for the teachers to know about the students preferred styles, so that the teachers can capitalize the opportunities for optimal and more productive student learning.

Styles of an individual, like abilities, are developed due to environmental conditions, nurtured by their parents and teachers in their childhood. Some individuals may prefer one style at one stage and another preferred styles at some other stage. Styles are not fixed but changeable. The efforts to understand and use a particular style by the student requires the proper identification of preferred styles of learning and thinking by their teachers at regular intervals.
In the academic institutions, teaching processes are mismatched during teaching & learning process preformed both teachers and students. Because the learning and thinking style of the teacher and learning and thinking style of the students differ, their learning differences are notified up to the understanding and thinking ability of the students.

Many researchers interested in learner’s characteristics have explored cognitive styles (also known as learning styles or intellectual styles). Cognitive styles are stable individual variations in perceiving, organizing, processing and remembering information.

Styles are people’s preferred ways to process information and handle tasks, they are not synonymous with abilities. Abilities refer to capacities to execute skills, styles are habitual ways of processing and using information. Styles are inferred from consistent individual differences in organizing and processing information on different tasks. Stylistic differences are associated with difference in learning and thinking to various forms of instruction.

Pasher et al (2009), noted that during the last several decades at least 71 different style assessment tools for all purposes, 71 different theories of learning styles have been documented.

The learning styles movement advocates to test and diagnose the learning styles of our students and adjust our teaching methods for the maximum benefit of those students. The style of learning and thinking in childhood lays foundation of their life. Students acquire knowledge about things, persons, traits of personality, habits, attitudes and values. The extrinsic motivation leads them to achieve better style of learning.

Styles depend upon cerebral dominance of an individual in retaining and processing different modes of information in his/her own style of learning and thinking. “Styles indicate the hemisphericity functions of the brain and students learning strategy and information processing are based on the preference of the brain area” - Venkataraman (1990). Styles are propensities rather than abilities. They are the ways of directing the intellect which an individual finds comfortable. The style of learning and thinking are as important as levels of ability and we ignore to identify and develop students thinking style at their earlier and appropriate stage.

The teacher should focus their attention on students favoured thinking styles before imparting the subject matter. The method of teaching adopted by teachers often reflects their
personal thinking style, the students who have the same thinking style that of the teachers are only benefited and get rewarded. Since any subject can be taught in any way that is compatible with any style, students will seek learning activities that are compatible with their own preferred styles. It is important for the teachers to know about the students preferred styles, so that the teachers can capitalize the opportunities for students learning.

Styles provide important information about cognitive development. One also can relate styles to larger behavioral patterns to study personality development. Educators investigate styles to devise complementary learning environments and to teach students more adaptive styles to enhance learning and motivation. Styles are also relevant to brain development and functions.

1.5 CONCEPT OF THINKING:

Man is a rational animal capable of thinking and reasoning. This thinking is activated after a long period of development from earlier forms of behavior thinking is used to mean the process of solving problems. Thinking is said to be restrained speaking, sub vocal talking, implicit language activity.

Thinking is defined as typically a sequential arousal of symbols. Whittaker, et al, defines thinking is a complex cognitive form of behavior which occurs only at a relatively advanced stage of development, when simpler and more direct methods of dealing with the environment have proved ineffective.

Humprey G. defines thinking as the one which occurs in experience when an organism – human or animal meets, recognizes and solves a problem. Thinking involves images of various kinds, muscular activities, speech and concepts to find solution to the problem.

Thinking is conceptual or ideational response to a stimulus (problem) which disturbs organic or psychological homeostasis of the individual. To restore the equilibrium disturbed by a problem, thinking sets into action and continues until the goal is reached or the problem is solved and equilibrium is restored.

Thinking makes use of symbols instead of objects and concrete experiences. Thinking is an inner cognitive process with definite end or purpose. Thinking does not resort to motor
exploration but for mental manipulation of the objects, activities and experiences. According to psychologists, thinking takes place at perceptual level, conceptual level and ideational level.

Hilgard (1967) differentiates between various kind of thinking – directed and associated. Directed thinking aims at a particular goal or endpoint. Associated thinking is uncontrolled and purposeless similar to the one in dreams.

Thinking is simple interpretation of one’s perception. Thinking is a symbolic activity. Ross (1951), “Thinking is a mental activity in its cognitive aspect or mental with regard to psychological objects.” Thinking is always directed towards achieving some purpose. Thinking is described as problem solving behavior, related to inner cognitive behavior. Thinking has mental exploration than motor exploration. In thinking, a mental solution of the problem is carried out through some signs, symbols and mental images. Thinking can shift instantaneously over a span of time and space.

Mohsin (1967), “Thinking is an implicit problem solving behavior.” The power of thinking and reasoning may be considered as essential tools for the welfare and meaningful existence of the individual as well as society. Thinking is an incredibly complex process and the most difficult concept in psychology to define or explain.

Thinking may be defined as a pattern of behavior in which we make use of internal representations (symbols, signs, images etc) of things & events for the solution of some specific purposeful problem. The various elements involved in the thinking process are images concepts, symbols & signs, languages, muscle activities and brain functions.

Thinking is one of the important aspects of one’s cognitive behaviour. Most often we hear comments like ‘think before you act’ or ‘think before you speak’, thus thinking provides the base on which our cognitive, affective and conative behaviour depends. Moreover the valuable inventions and creations of art makes use of our thinking and reasoning powers. The development of thinking and reasoning powers not only helps in solving the numerous problems one faces in one’s practical life but also helps in striving to solve the most typical, social, cultural and scientific problems for the upliftment of the society and humanity. Present education system mainly concentrates in developing the problem solving ability of students through their reasoning and thinking powers.
In strict psychological discussion, it is well to keep the thinking activity which consists of a connecting flow of ideas directed towards some end or purpose. Thinking is an inner cognitive process with a definite end or purpose. It is initiated to solve most difficult problems and end in its solutions. In the solution of the problem it does not resort to motor exploration but there is a mental manipulation of the objects, activities and experiences.

Garret (1968), “Thinking is behaviour which is often implicit and hidden and in which symbols (images, ideas, concepts) are ordinarily employed.”

Thinking is one of the important aspects of teaching, learning process. A child’s ability to learn and solve the problems depends upon his ability to think correctly. The person who can think distinctly, consecutively and carefully, contributes something worthwhile to the society. No one is born thinker. Everybody learns to think as they learn to perceive. Learning to think is not an easy road. It requires the knowledge of the techniques and practices of proper thinking.

Reasoning is regarded as the highest form of thinking. It is a complex mental process that needs a well organized brain. It also requires some deliberate efforts on the part of the individual. Gates defined “reasoning is the term applied to highly purposeful controlled selective thinking”. Skinner defines reasoning is the word used to describe the mental recognition of cause and effect relationships. It may be the prediction of an event from an observed cause or the inference of a cause from an observed event.

Reasoning involves a definite purpose or goal. Like thinking reasoning is highly symbolic function. It is a careful systematic and organized thinking. Reasoning may be classified into inductive reasoning and deductive reasoning. In the inductive type of reasoning, we proceed from particular facts to a general conclusion. Experimentations and observations form the basis of this reasoning. On the basis of the facts observed and experienced under similar conditions we try to discover universal relations or generalizations. In this way, in inductive reasoning, from many particular truths or judgements, universal truth is inferred. In deductive reasoning we start completely with something already discovered or pre-established, generalized fact or principle and try to apply it to particular cases. In this way, in deductive reasoning, we try to apply the universal truth or generalized principle in solving particular problems.
The reasoning is said to be a systematic organized thinking that follows some systematic steps. Logic is said to be the science of correct reasoning. Problem solving is a process of overcoming difficulties that appear to interfere with the attainment of a goal. It is a procedure of making adjustment in spite of inferences (Skinner C. 1968). For this purpose one has to set one task to think and to reason and to proceed systematically by following the scientific steps. It has been found very helpful in the progress of an individual as well of the society.

Measures for developing effective and correct thinking includes one’s adequacy of knowledge and experiences motivation and definiteness of aim, adequate freedom & flexibility, incubation, intelligence and wisdom, proper development of concept and language and adequacy of reasoning process.

1.6 TYPES OF THINKING:
Thinking as a mental process is usually classified into the following categories.

a) Perceptual or Concrete Thinking:
This is the simplest form of thinking. The basis of this type of thinking is perception, i.e. interpretation of sensation according to one's experience. It is called concrete thinking as it is carried out on the perception of actual or concrete objects or events.

Concrete thinking enables one to register information directly through one’s five senses: sight, smell, touch, taste, and hearing. When a person is using his concrete ability, he is dealing with the obvious, the "here and now." He is not looking for hidden meanings, or making relationships between ideas or concepts. "It is what it is." (Anthony F. Gregorc 1984) The person whose natural strength in the concrete, for example, may communicate in a direct, literal, no-nonsense manner.

In human development, most individuals begin thinking in concrete ways. The idea of “concrete” stands for literal, right now, and immediate, and yet a person who sees the world only in concrete terms would likely to have difficulty in understanding the abstract nature of its definition.
b) **Conceptual or Abstract Thinking:**

In this thinking one makes use of concepts, the generalized ideas and language. It is regarded as being superior to perceptual thinking as it economizes efforts in understanding and problem solving. Abstract thinking is idea based thinking, in which one is able to move to more figurative definitions, and likely to be able to understand conceptual knowledge that exists outside of the moment. Abstraction is a relative concept where the thinker rather than thinking about the subject in particular, generalizes the subject and channelizes his thought process towards the related conceptual matters like class, ideas, special relations, emotions etc.

Conceptual or Abstract thinking allows one to visualize, to conceive ideas, to understand or believe that which one cannot actually see. When a person is using his abstract quality, he is using his intuition, his imagination, and he is looking beyond “what is” to the more subtle implications. "It is not always what it seems." The person whose natural strength is the abstract may use more subtle ways to get a point across.

Abstract thinking is a level of thinking about things that is removed from the facts of the “here and now”, and from specific examples of the things or concepts being thought about. Abstract thinkers are able to reflect on events and ideas, and on attributes and relationships separate from the objects that have those attributes or share those relationships.

c) **Reflective Thinking:**

This is somewhat higher form of thinking. It can be distinguished from simple thinking in the following ways.

- It aims at solving complex rather than simple problems.
- It requires reorganization of all the relevant experiences and new ways.
- It doesn’t involves the mechanical trial and error type of efforts.
- It takes all the relevant facts arranged in a logical order in order to arrive at a solution of the problem in hand.
d) **Critical Thinking:**

It is a type of thinking that helps a person in stepping aside from his own personal beliefs, prejudices and opinions to sort out the facts and discover the truth, even at the expense of his basic belief system. An ideal critical thinker is habitually inquisitive, well informed, open minded, flexible, fair minded in evaluation, free from personal bias and prejudice, honest in seeking relevant information, skilled in the proper use of the abilities like interpretation analysis, synthesis, evaluation and drawing conclusions and inferences etc, interested in reasoned inquiry, prudent in making judgment, willing to reconsider, clear about issues, orderly in dealing with complex matters, persistent in seeking results which are as precise as the subject.

Critical thinking is a higher order well disciplined thought process which involves the use of cognitive skills like conceptualization, interpretation, analysis, synthesis and evaluation for arriving at an unbiased valid and reliable judgement of the gathered or communicated information or data as a guide to ones belief and action.

e) **Non directed or Associative Thinking:**

Sometimes we find ourselves engaged in unique type of thinking, which is non directed and without goal. It is reflected through dreaming, free association, fantasy, delusions and uncontrolled activities. In psychological language these forms of thought are termed as associated thinking. Day dreaming, fantasy and delusions fall in the category of withdrawal behaviour that helps an individual to escape from the demands of real world by making his thinking free, non directed and floating placing him somewhere or doing something unconnected with his environment. Day dreaming and fantasy can prove quite constructive by providing opportunities for building cognitive and creative skills and helping in problem solving behaviour. They provide a respite from the harsh realities of life and are also a means of reducing internal tensions and external aggressive behaviour.

f) **Creative Thinking:**

This type of thinking is associated with ones ability to create or construct something new or novel or unusual. It looks for new relationship and associations to describe and interpret the nature of things, events and situations. It is bounded by many
pre established rules. The person himself usually formulates the problem and is free to gather evidence and to invent tools for its solution. The thinking of scientists, artists or inventors provide ideal examples for such type of thinking.

Creative thinking means that the predictions and / or inferences for the individual are new, original, ingenious, unusual. The creative thinker is one who explores new areas and makes new observations, new predictions, new inferences (Charles Skinner 1968).

Creative thinking is a special form of thinking, a way of viewing the world and interacting with it in a manner different from that of the general population. It is the ability to discover new solutions to problems or to produce new ideas, inventions or works of art. (M. J. Levin 1978).

Creative thinking in all its shapes and forms is absolutely an internal mental process and is important component of one’s cognitive behavior. Psychologists on the basis of their researches have agreed that the presence of factors such as ideational fluency originality flexibility, divergent thinking, self confidence and persistence, ability to see and build relationships are found in one’s creative thinking.

1.7 **TOOLS OF THINKING:**

The various elements, involved in the thinking process may be as follows.

1. **Images:**

Images are mental pictures consisting of personal experiences of objects, persons, of scenes actually seen, heard and felt. These mental pictures symbolize actual objects, experiences and activities. In thinking, we usually manipulate the images rather than the actual objects, experiences or activities.

2. **Concepts:**

A concept is a general idea that stands for a general class and represents the common characteristics of all objects or events of this general class. Concepts as a tool economize the efforts in thinking.

In thinking conceptual thinking, is problem solving or thinking based on the cognitive process of abstraction and conceptualization. It is a process of independent
analysis in the creative search for new ideas or solutions, which takes as its starting point that none of the accepted constraints of “today’s reality” need necessarily to apply to or to shape the future. Thus it does not accept received wisdom, the status quo nor inertia as necessary determinants of every bit of the future.

    Conceptual thinking is the ability to understand a situation or problem by identifying patterns or connections, and addressing key underlying issues. Conceptual thinking includes the integration of issues and factors into a conceptual framework. It involves using past professional or technical training and experience, creativity, inductive reasoning, and intuitive processes that lead to potential solutions or viable alternatives that may not be obviously related or easily identified.

    Conceptual thinking requires an openness to new ways of seeing the world and a willingness to explore. But once the work of analysis is completed and a new concept or mind map emerges, the hard work of communicating this new vision begins. In more common terms it is often referred to as “lateral thinking” (Edward de Bono) or “out of box thinking”, in both cases the terms referring to the conscious omission or putting aside of commonly accepted beliefs or constraints.

3. Symbols and Signs:

    Symbols and signs represent and stand for substitutes for the actual objects, experiences and activities. In this sense they are not confined to word, mathematical numerals and terms. The symbols and signs stimulate and economize thinking. They at once tell us what to do or how to act.

    Symbols and signs are thus seen to be the pawn and pieces with which the great game of thinking is played. It could not be such a remarkable and successful game without them. (Boring, Lonfield & Weld 1948).

4. Language:

    Language is the most efficient and developed vehicle used for carrying out the process of thinking. When one reads, writes or hears words phrases or sentences or observes gestures in any language, one is stimulates to think. Reading and writing of documents and literature also help in stimulating and promoting the thinking process.
5. **Muscle Activities:**

Thinking shows evidence of the involvement of some incipient movement of groups of our muscles. A positive correlation has been found between the thinking and muscular activities of an individual. It can be easily noticed that there are slight muscular responses when we think of a word, resembling the movements used when we say the word aloud. The more we engage ourselves in thought, the greater is the general muscular tension and conversely as we move towards a state of muscular relaxation, our thought processes are also gradually lulled or calmed.

6. **Brain Functions:**

Thinking is primarily a function of the brain. Our mind or brain is said to be the chief instrument or seat for carrying out the process of thinking. The experiences registered by our sense organs have no meaning and thus cannot serve as stimulating agents, or instruments for thinking unless these impressions are received by our brain cells and properly interpreted to derive some meaning. The mental pictures or images can be stored, formed, reconstructed or put to use only on being processed by the brain. What happens in our thought process is simply the function or product of the activities of our brain.

1.8 **FAMILY ENVIRONMENT:**

The family is the oldest and the most important of all the institutions that man has devised to regulate and integrate his behavior as he tries to satisfy his basic needs. The family is basically a unit in which parents and children live together however to understand the influence of the family on the child it is important to understand the family and its functions. The family environment possesses a certain consistency so that the impact of the same basic values, individuals, material objects, etc, is felt over and over. Parental influence may not be felt in a specific influence, but the attitudes and ideas expressed day after day inevitably leave their mark.

In certain ways the influence of the family can be negative, all too often the members of the family take out all the frustrations on each other. "Instead of being a readymade source of
friends the family is too often the readymade source of victims and enemies, the place where the cruelest words are spoken.”

Therefore family takes care of social, physical as well as psychological well beings as well. The family influence on the child is therefore, immense. The influence of other agencies although indispensable must build upon the ground work furnished by the family.

A family is a group of persons united by the ties of marriage, blood or adoption constituting a single household, interacting and intercommunicating with each other in their respective social role of husband and wife, mother and father, son and daughter, brother and sister creating and maintaining a common culture.

The family may be defined as the biological social unit composed of husband, wife and children. The family may be considered as social institution, a socially approved organization for meeting definite human needs.

The relationship of the members of a family are socially sectioned and traditional in nature. Maclver and Page, “Of all the organizations Large and small, which society unfolds, none transcends the family in the intensity of its sociological significance. It influences the whole life of society in innumerable ways and its changes, as we shall see, reverberates through the whole social structures. It is capable of endless variations and yet reveals a remarkable continuity of persistence through change.”

Family Environment is further distinguished by its universality, emotionality, formative influence, limited size, position in the social structure, responsibility of members and its social control. The family environment primarily consists of the prevalent customs, codes and traditions of the community. It is at the same time made highly personal by the human interaction, involvement. As child comes in contact with the mysteries of a community life he sees it reflected in the mirror of family.

The seeds of mutual understanding are shewn in his personality while he lives in the closed environment of family and when he grows up, these seeds would germinate into flower of friendship, associations and love, enables the grown up to see the whole community as a great family of mankind.
The family members do not live in isolation but rather are dependent on one another – not merely for money, food, clothing, shelter but also for love, affection, mutual commitment, companionship, socialization, the expectation of long lasting relationships and fulfillment of other non tangible needs. To function successfully, members need to adopt to the changing needs and demands of fellow members as well as the changing expectations of the larger kinship network, the community and society in general (Rice, 1993).

To facilitate the cohesive process, a family typically develops rules that outline and allocate the roles and functions of its members. Affection loyalty and a continuity or durability of membership characterize all families. Families typically display stable, collaborative, purposeful and recurring patterns of interactive sequences. The family members participation in rituals links them to family system and also to the wider community and culture.

Some families are more flexible in seeking solutions to problems, more purposeful in pursuing satisfactions, more adaptive to changing conditions, and better able to recover from misfortune or adversity than other families. Successfully managing a crisis together deepens the family bond and strengthens its confidence in its capacity to prevent or manage future adversities. All family members are embedded in a network of relationships and helping families change their structure, typical interactive patterns or belief systems alters each member’s behavior. Many people fervently believe that as the family goes, so goes the country.

The family environment is influenced by a number of factor like the nature of family constellation, number of children in the family, marital relationships between husband and wife, maternal or paternal employment and socioeconomic status and religious background of the family.

1.9 STRESS:

Stress is found in all aspects of life is considered to be an internal state or reaction to anything. We consciously or unconsciously perceive as a threat either real or imagined. Stress can evoke feelings of frustration, fear, conflict, pressure, hurt, anger, sadness, inadequacy, guilt, loneliness, or confusion. Hans Scyle (1936), a pioneer in stress research has defined stress as “the non specific response of the body to any demands made upon it”.

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Individuals under too little stress may not make enough efforts to perform at their best level, while those under too much stress are unable to concentrate or perform effectively and efficiently. Too much stress can result in physical, psychological physical and behavioral responses; its adversity affects all parts of the body. However stress is subjective and people react to it in different ways. Some adopt while others tolerate or try to avoid it. Some go pieces at the first sign of stress while others seem to thrive on it. Much of a person’s reaction depends upon the situations and his/her skills in prevention and reduction of stress.

It is considered to be an internal state or reaction to anything. Each life stage with its unique developmental tasks and roles, is associated with distinct factors that predict distress. Student life has been found to be a crucial stage in life, changing familial and social expectations, along with the task of forming stable patterns of relating to others, interact in complex ways to make this a stressful period.

Students experience high stress due to academic commitment, financial pressure and lack of time management skills. These problems can lead to academic failure, family conflicts, drug abuse, violence, suicide, and thus can be very costly to families, to the healthcare system, and to the community at large. Recognizing the early signs of stress and doing something about it, can improve the quality of their present and future life.

The onset and effects of stress are imperceptible, not visible and perhaps not consciously experienced by the learner himself. Life today is becoming increasingly complex and tension ridden. It has been found that most of the social, psychological, and emotional problems are related to unrelieved stress. Today’s students are more stressed than their earlier generations because of lot of competitions and loss of values.

In some learners adjustment processes collapse and the effects are visible by the presence of stress which is imperceptible, certainly affect the basic physiological processes, can result in a breakdown, psychophysiological disturbances or defensive behavior like withdrawal, rationalization, conformity and others. Sometimes the stress turns positively and effectively in some learners and turns out to be an advantage brings out the best in the person. This possibility depends on how mild or severe the stress is and also what type of person the learner is.
Stress affects the learner as a totality, even though the stressor may be located in any particular segment of his life space. Stress is very often caused by not just the intensity of the stressors but by our own reaction tendencies emotions, desires, prejudices and others. Incidentally, stress can also be contagious. Others can gift away their stress to us and the reverse is also possible. This is like the man experiencing labour pains when the woman is delivering a baby. Stress involves psychological social biological and physical factors and in most instances all operate together. All of us experience stress of varying degrees of intensities. Stress often operates without being noticed. Every learner has a certain capacity to tolerate stress. But if the stress increases it leads to common manifestations of stress such as restlessness, increased anxiety and loss of efficiency, increased irritability. Often multiple symptoms can be evident.

Coleman observes that stress need not always be unpleasant and result in negative consequences, the instances where stress results in negative consequences are referred to as ‘Distress’. On the other hand in certain instances other forms of stress can stimulate a person to become more efficient, more creative and active. Such type of stress is known as ‘Eustress’. Only people with high degree of ‘stress tolerance’ are likely to derive benefit out of Eustress.

The factors like frustration, conflict, pressure, personality and stylistic life provide a fertile soil for stress to develop and grow, in addition to external demands. Scotts defines stress as a situation in which adjustment is difficult or impossible, but in which the motivation is very strong. The emotional and psychological state resulting out of such a situation will be stress.

Some of the factors associated with experience of stress are physical changes, isolation, solitude, crowding, noise, lack of privacy, monotony and personality incompatibility. The continuous exposure to these situations can result in a high degree of stress which not only affects on performance in academics but also debilitates the individual.

1.10 ADJUSTMENT:

Adjustment is the process of finding and adopting modes of behaviour suitable to the environment or the changes in the environment (Carter V. Good). Adjustment is the satisfactory relationship, as representing harmony, conformance, adaptation or the like. (Webster)
Adjustment refers to any operation whereby an organism or organ becomes more favorably related to the environment or to the entire situation – environmental and internal. (Warren)

Adjustment is the process by which a living organism maintains a balance between its needs and the circumstances that influence the satisfaction of these needs. (L.F. Shaffer)

Most activities of living organisms are calculated to make them more comfortable and peaceful in their relationship with their environment. The process by which a living organism acquires a particular way of acting or behaving, changes an existing form of behavior is called adjustment. Behavior is always an effort towards adjustment. As one grows from a child to an adult, finds it necessary to adjust oneself to increasingly changing circumstances and consequently, instances of adjustive behaviour increases in number, in complex city and in variety.

Human behavior caters to two types of adjustments such as external and internal conditions. External adjustment involves adjustment to different types of situation as well as physical conditions like weather, space, time and other material demands. Internal conditions also are of different types such as biological, social, psychological and others. As the adjustive behaviour increases inconsistency and predictability, there is also greater flexibility and choice. Adjustment aims to maintain a state of equilibrium or harmony. The adjustive behaviour of the learner satisfies the needs and demands of the environment in a constructive way.

The adaptation or changing of oneself to one’s surroundings according to the demands of the external environment has become the basic need for everyone’s survival. Adjustment is fit, make suitable, adapt, arrange, modify and harmonize as per the situations arise. However the concept of adjustment is not as simple as adaptation. Psychologies and scholars differ considerably in interpreting its meaning and nature.

James Drever (1952) adjustment means the modification to compensate for or meet special conditions. Gates and Jersild (1948) and also Crow and Crow (1956) define adjustment as the maintenance of a harmonious relationship man and his environment. An individual needs to change or modify himself in some way or the other to fit into or accommodate with his
environment as the conditions in the environment are changing all the time, adjustment is also a continuous process and it is the interaction between and his environment.

Adjustment implies to a satisfactory adaptation to the demands of day to day life. Adjustment is actually a condition or state of mind and behavior in which he feels that ones needs have been gratified. As long as the needs and requirements of ones culture and society are fulfilled the learner remains adjusted, failing this he may drift towards maladaptation and mental illness.

Adjustment, although a universal Phenomenon, with various dimensions like health adjustment, emotional adjustment, social adjustment, school, home and professional adjustment. Its measurement the degree to which one may be described as adjusted or not adjusted is through standardized adjustment inventories. The findings of these inventories ascertain the personality traits and characteristics of a well adjusted person.

An individual’s adjustment is adequate, wholesome or healthy to the extent that he has established harmonious relationship between himself and the conditions, situations and persons who comprise his physical and social environment. (Crow & Crow)

Sometimes the man reduces his needs and as a result he may feel satisfied within the limits of environment. He thus tries to maintain a balance between his needs and his capacity of realizing these needs and as long as this balance is maintained, he remains adjusted. As soon as this balance is disturbed, he drifts towards maladjustment.

The individuals who are able to adjust themselves in changed situations in their environment can live in perfect harmony and lead a happy life. In this way adjustment, as a psychological term is a new name for the term adaptation used in biological world. Basically, adjustment implies a satisfactory adaptation to the demands of day to day life.

A well adjusted person is supposed to possess the characteristics like, awareness of his own strengths and limitations; respecting himself and others; and adequate level of aspiration; satisfaction of basic needs; absence of a critical or a fault finding attitude; flexibility in behaviour; the capacity to deal with adverse circumstances; a realistic perception of the world; a feeling of ease with his surroundings; and balanced philosophy of life.
1.11 ACADEMIC ACHIEVEMENT:

According to Malvika Ganguly, Achievement is the accomplishment of acquired efficiency in the performance of an individual in a given skill of body of knowledge. It means the knowledge attained or skills developed in the college subjects usually designated by test scorer or by marks assigned by the teacher / university or by both. Since academic achievement is the criterion for selection, promotion or recognition in various walks of life, the attention of educators is being increased on academic achievement.

Academic achievement is defined as success in completion with standard of excellence. This is also defined as the desire to exceed regardless of social rewards. Academic achievement continues to be one of the most important value helped with high esteem in all cultures, countries and times.

The desire of achievement is as basic and natural as the other biological or socio psychological needs in all the students. However to setup the desire to excel over others or achieve a higher level then one’s peers is intensified leads to experience a sense of pride and pleasure in the achievement. The achievement driven students strive to gain mastery of difficult and challenging situations or performances in the pursuit of excellence.

In recent years there is growing awareness among the parents and students about the importance of the academic achievements. It is felt that, if a student does not perform well in the examinations may not lead a successful life. Every student is expected to achieve better in terms of various activities provided in the colleges to gain normal degrees of expectations.

Individual differences in academic achievement have been linked to differences in intelligence and personality. Students with higher mental ability as demonstrated by IQ tests and those who are higher in conscientiousness (linked to effort and achievement motivation) tend to achieve highly in academic settings. Studies have suggested that mental curiosity (as measured by typical intellectual engagement) has an important influence on academic achievement in addition to intelligence and conscientiousness.
Children’s semi-structured home learning environment transitions into a more structured learning environment when children start first grade. Early academic achievement enhances later academic achievement.

Character education is positively correlated with academic achievement. Good Character education is simply good education. It helps solve behavioral problems and improve academic achievement. High-quality character education leads to academic achievement.

Parent’s academic socialization is a term describing the way parents influence students' academic achievement by shaping students' skills, behaviors and attitudes towards school. Parent influence students through the environment and discourse parents have with their children. Academic socialization can be influenced by parents' socio-economic status. Highly educated parents tend to have more stimulating learning environments.

Though the 21st century has been witnessing unprecedented growth and development in the areas of information and communication technology, globalization and privatization, the increase in the rates of antisocial behaviour, depression and suicide reveals deterioration in the mental well being of the person, which is not in par with the social development. Much alarming is the fact that a number of those involved in these acts are youngsters who couldn’t achieve much in their academics.

The present day adolescent struggle hard to keep pace with the demands of modern life without resolving the inner dilemma caused by fragmentation of families, competition in institutions of learning and degradation of moral values in the society. The prime function of education is to empower and enable children to face life with courage and confidence and to facilitate qualitative transformation of personalities. The education system should be organized in such a way that it emphasizes the moulding of personalities.

According to Bill Beatie, ‘The aim of education should be to teach rather how to think than what to think; rather to improve our minds, so as to enable us to think for ourselves, than to load the memory with the thoughts of other men.’ Effective schooling through maximized learning time which focuses on academics and copying and quoting knowledge would not help the new generation, if they lack the skill of judgement. Similarly, emphasis on the rigourous
assessment of students’ outcomes and monitoring them is not very useful if the students are not equipped with the skill of self regulation.

Today’s students need to cope with the challenges of life in the complex world instead of just being prepared for society’s needs and economic purposes.

Most of the students rely on their parents and their teachers to improve their academic achievement by learning some sort of information through books guides and few opportunities in their institutions. They acquire numerous types of information and use them whenever they need to score better by using skills such as inference, deduction, analysis and evaluation. This gives them a chance to rely on their own hard work.

Another very important enhancer of academic achievement is the presence of physical activity. Studies have shown that physical activity can increase neural activity in the brain. Exercise specifically increases executive brain functions such as attention span and working memory.

1.12 STATEMENT OF THE PROBLEM:

“A Study of Style of Learning and Thinking of College Students in relation to their Family Environment, Stress, Adjustment and Academic Achievement”.

1.13 OPERATIONAL DEFINITIONS OF THE KEY TERMS:

A. Style of Learning and Thinking: (SOLAT)

The differences in preference of the two hemispheres for information processing. It is the cerebral dominance of an individual in retaining and processing modes of information in his own style of learning and thinking. Thinking is the mental activity in the cognitive aspect. Styles indicate the hemisphericity functions of the brain and student’s learning strategies and information processing, are based on the preferences of the brain area. Styles are propensities rather than abilities.
B. Family Environment:

“It is the place of birth with recognition, appreciation and development of child’s self concept, self image, and ample freedom to set ideals in life”. The Family environment possesses a certain consistency with the impact of some basic values, morals, individuals, material objects, etc. is felt over and over in a specific situation. However, the attitudes and ideas expressed day after day inevitably leave their mark on the individuals.

The family environment involves the circumstances and social climate conditions within families. Since each family is made up of different individuals in a different setting, each family environment is unique. The environments can differ in many ways. By action and by example, parents shape the lives of their children from birth through adulthood.

C. Adjustment:

The process by which a living organism acquires a particular way of acting or behaving or changes in existing form of behaviour or action”.

Adjustment is the behavioral process by which humans and other animals maintain an equilibrium among their various needs or between their needs and the obstacles of their environments. A sequence of adjustment begins when a need is felt and ends when it is satisfied.

Adjustment is management of thinking in our life. It is mental health in action. Social and cultural adjustments are similar to physiological adjustments. People strive to be comfortable in their surroundings and to have their psychological needs (such as love or affirmation) met through the social networks they inhabit.

D. Stress:

“It is mental status, with much disturbed state, unable to concentrate on anything due to direct impact of both physical and mental state”. The three components of the stress are environmental, emotional and physiological responses of the body and their interaction with each other. Conflicts, frustration and pressure make us aware of stress.

Stress is the body's way of responding to any kind of demand. It can be caused by both good and bad experiences. Stress is simply a reaction to a stimulus that disturbs our physical or
mental equilibrium. One may not be able to control the stressors in one’s world, but one can alter their reaction to them.

E. Academic Achievement:

“Success in completion with standard of excellence. The desire to exceed regardless of social regards.” It is also defined as the accomplishment of acquired efficiency in the performance of individual in a given skill body of knowledge. It is the criterion for selection, promotion or recognition in various walks of life.

1.14 OBJECTIVES OF THE STUDY:

Following are the objectives of the present study:

1. To identify the style of learning and thinking of college students.
2. To identify the family environment of college students.
3. To identify the stress of college students.
4. To identify the adjustment of the college students.
5. To identify the academic achievement of the college students.
6. To identify the relationship between styles of learning and thinking and family environment of college students.
7. To identify the relationship between styles of learning and thinking and stress of college students.
8. To identify the relationship between styles of learning and thinking and adjustment of college students.
9. To identify the relationship between styles of learning and thinking and academic achievement of college students.

1.15 ORIGIN OF THE PROBLEM:

What happens to us in life depends on not just ‘how’ human beings think but ‘how well’ human beings think and learn. Of all the factors that influence an individual, his styles of learning and thinking plays a major role. Parents and teachers are able to perceive children and their natural tendencies of how they think act and learn in different ways and in different situations. In academic institutions learning and teaching processes are mismatched. Teaching and thinking styles of the teachers and learning and thinking styles of the students differ because
learning differences are not tied up to the understanding and thinking abilities of the students, is 
due to individual differences in their style of learning and thinking. Many educators are still 
perplexed about the styles of student’s learning and thinking and what effect these styles have on 
their performance in colleges and why attention should be give to student’s performance to 
assess their level of ability. Style indicates the hemisphericity functions of the brain and 
student’s learning strategy and information processing are based on the preferences of the brain 
area (Venkataraman, 1994).

Styles depend upon the cerebral dominance of an individual in retaining and processing 
modes of information on his/her own style of learning and thinking (Raina, 1984). Researchers 
have shown that the human left cerebral hemisphere is specialized for primarily verbal, 
analytical, abstract, temporal and digital operations. (Bogen, 1989; Gazzaniga, 1990; Fitzgerald & 
Hattie, 1993). The right cerebral hemisphere is specialized for primarily non verbal, holistic 
concrete, creative, analogical and aesthetic functions. The differences in preferences of the two 
hemispheres for information processing have been referred to as (SOLAT) Styles of Learning 
and Thinking (Torrance, 1980).

The styles of learning and thinking are as important as levels of ability and teachers 
ignore to identify and develop them in learners at an early and appropriate stage. Style of 
learning and thinking tool helps to identify hemisphericity dominance by way of studying the 
hemisphere functions. It indicates a student’s learning strategy and brain hemisphere preferences 
in problem solving.

Different teaching techniques and methodologies are adopted to activate and influence 
the hemispheric functions of the brain. The teachers of the colleges can adopt in consonance with 
the student’s style of learning and thinking by understanding the learning strategies and 
potentialities of students. It helps them to become more integrated learners by modifying their 
information processing procedures with better processing skills by activating and influencing 
both the hemispheres of the brain of an individual.
1.16 NEED AND SIGNIFICANCE OF THE STUDY:

Most of the students use styles and try with varying degrees to adopt themselves to the stylistic demands according to situations. It is important for the teachers to know about their students’ preferred style so that they can capitalize the opportunities for students learning and thinking. The style of learning and thinking in childhood lays foundation in their life by acquiring knowledge through knowing about things persons traits of personality habits and values. The extrinsic motivation at home and colleges lead them for better study atmosphere in their style of learning and thinking.

Learning made with a positive attitude is learnt for retention. Learning made with a passion goes in retention. For retention, learning needs to be done using both head and heart. It should be learning with style of analysis and synthesis. Due to individual differences in their style of learning and thinking one child performs tasks in an orderly and systematic pattern and another child may perform tasks in an unsystematic pattern. Many educators are still perplexed about the styles of students’ learning and thinking process, what effect these styles have on children’s performance in colleges and why attention should be given to children’s performance to assess their levels of ability, activity and problem solving behavior.

The present study deals with college students rate of learning as it differs due to their style of learning and thinking ability and capacity of skills in use. It also helps to find out how the good family environment leads to their styles of learning and thinking aspects. The recognition at home, appreciation, ample freedom to set right ideals of life leads them to develop self concept in college students.

The stress, fatigue conflicts at college level and at family environment leads the students to maintain ill health. It also affects their physical growth and development, social emotional character building and aesthetic imbalance in life. The good home and better college atmosphere serves for their good mental health and proper academic achievement.

Adjustment is management of things of life and it is a continuous process in which a person varies his behavior to produce a more harmonious relationship between himself and his environment. The good mental health with life skills gives the students to lead and to adapt to skillful ways of life. There are various hazards in adjustment like frustration, complex, conflicts,
defense mechanism, rejection, withdrawal leads them to detach themselves from their studies and their family life. The clarity in their style of learning and thinking helps them to lead a good principled lifestyle and to adjust to various situations. It can be achieved by providing sound mental health situations by making necessary changes in their teaching approach.

Academic achievement, is success in completion with standard of excellence, is important value with high esteem in all cultures, countries and time the growing awareness among parents and students provides various activities at college level.

To conclude it is essential to identify the style of learning and thinking of children in order to facilitate the process of learning and teaching. Since the focus is on Child centered pedagogy giving primacy to the child’s experiences voices thoughts and participation in learning, which is reiterated in the chapter ‘Learning and Knowledge’ of the National Curriculum Framework (NCF, 2005), it becomes necessary to change our approach to Adaptive Teaching Methods. In fact knowledge of the child’s information processing styles would enhance teaching techniques in the colleges and make the exercise fruitful.

The present study is having more importance due to the following aspects:

1. The present study helps to know about the styles of learning and thinking of both boys and girls of different faculties of degree college students
2. It helps to know about their relationship between style of learning and thinking and their stress of college students.
3. It helps to know about their relationship between styles of learning and thinking and their family environment adjustment, academic achievement of the college students.
4. It also helps to know about the significant differences between Private unaided and Government aided degree college students of different faculties.

1.17 **SCOPE OF THE STUDY:**

Most of the people use styles and try with varying degrees to adopt themselves to the stylistic demands situations. It is therefore important for the parents and teachers to understand the nature of the student’s mind and its functions in different styles of learning and thinking. Teaching and thinking style of the teacher and learning and thinking style of the student differ
because of learning differences, and thinking ability of the students. This is due to individual differences in their style of learning and thinking.

“Styles depend upon cerebral dominance of an individual in retaining and processing different modes of information in his own style of learning and thinking”. Styles indicate the hemisphericity functions of the brain, the students learning strategy and information processing are based on the preferences of the brain area. Venkataraman (1990), styles are propensities rather than abilities. Styles are not fixed, but changeable. The efforts to understand learning and thinking styles and to learn to use them flexibly require the identification of individuals preferred style of learning and thinking.

It is important for the teachers to know about the students preferred styles, so that they can capitalize the opportunities for students learning. The style of learning and thinking in childhood lays foundations of their life. Students acquire knowledge and know about thing, persons, traits if personality, habits, and values. The extrinsic motivation leads them for better style of learning.

The presence study deals with the study of style of learning and thinking of college students studying in different faculties of both Government aided and Private unaided Colleges affiliated to Gulbarga University. The study is also confined with the evaluation of their family Environment, Stress, Adjustment, and Academic Achievement in their respective subjects of the college students.

1.18 LIMITATIONS OF THE STUDY:

The present study attempts to investigate will the sample of 840 college students of different faculties of Bidar district. Because of the need of an importance of Style of Learning and Thinking studies, this topic has greater scope and the studies related to are very few.

1. The present study is limited to the students of Government Aided and Private Unaided Degree colleges affiliated to Gulbarga University, Gulbarga.

2. The present study is limited to 840 college students of the degree colleges in the urban area of Bidar City only.
3. The invigilator was limited to find out the percentages descriptively and inferentially by computing frequencies, t-test of significance, coefficient of correlation to find relationship of study.

4. The investigator has confined to the study to Private unaided and Government aided college students of different faculties. The limitations are due to the paucity of time and amount of effort involved in selecting a larger size of the sample.

These limitations are due to paucity of time and amount of effort involved in selecting a larger size of the sample.

1.19 CONCLUSION

In this chapter, a brief introduction of the present study has been given by stating the problem with its origin and objectives. Along with the problem, definitions, concepts and theories of the key terminologies associated with problem of the study is also mentioned. The topics covered in this chapter are both essential and useful for the further research in the study. In the next chapter, the review of research and literature pertaining to the present study will be taken up.