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CHAPTER-I
INTRODUCTION

Most of the educators, especially from the 20th century onwards, lay stress on the social aspects of education along with the academic areas. They believed that education is a life-long process for everyone, as a result they gradually adopt them to the available physical, intellectual, emotional and social environments. Hence, Education is an integral part of society that involves the transmission of knowledge and activation of learning through experiences of the life and formal education. Education is absolutely necessary for each and every individual if he or she is to lead successfully the life. It is believed that human beings are uniquely endowed with many abilities and the intellectual and cultural aspect of human life make human beings distinct from other. Parents desire that children climb the ladder of performance to as high a level as possible. This desire for a high level of achievement puts a lot of pressure on students, teachers, schools and the educational system itself. In normal classroom students come with varying levels of knowledge. Some students are active, self-directed learners who know how they can learn and apply their knowledge in various learning situations. Some may be average students who work hard and have awareness of their learning strengths and weaknesses, but they cannot adequately regulate their learning. Others may be passive learners who have little awareness of how they learn and how to regulate their learning. It shows that students come in classroom with various level of metacognitive skill. Metacognition is generally defined as the activity of monitoring and controlling one’s cognition. It can further be defined as what we know about our cognition processes and how we use these processes in order to learn and remember. Metacognition affected by lot of things but most important things which effects the metacognition are locus of control, self-efficacy and academic achievement of the students. Previous research on metacognition and locus of control suggested that they are closely related with academic performance and can be taught to student to improve their self efficacy and academic achievement.
1.1 METACOGNITIVE SKILL

A skill is defined as an ability and capacity acquired through deliberate, systematic and sustain efforts to smoothly and adaptively carryout complex activities or job functions involving ideas (cognitive skills), things (technical skills) and people (interpersonal things). A cognitive skill can be defined as an ability to of an individual to perform the various mental activities most closely associated with learning and problem solving. Cognitive skill development in children involves the progressive building at learning skills, such as attention, memory and thinking. **Attention:** when children learn to pay attention, it enables him to concentration on task or conversation for extended period of time. Learning to focus attention is a cognitive skill that the child will use virtually all future leanings. **Memory:** memory is an important cognition skill that equips a child to retain what he was learned and experienced and therefore build a future base of knowledge. **Thinking:** the ability to think includes being able to reason out task and find solutions. This cognition skill helps a child to know whether he is accomplishing what he set out to do or whatever he needs to ask for help. These crucial skills enable children to process sensory information and eventually learn to evaluate, analyze, remember, make comparison and understand the cause and effect. Although some cognitive skills developments is related to a child’s genetic makeup but most cognitive skills are learned. It means learning and thinking skills can be improved with practice and proper training.

Education is the process of facilitating learning or the acquisition of knowledge, skills, values, beliefs and habits. There are the various aspects to a child’s development including emotional, physical and cognitive development. But Cognitive development is very essential in the teaching learning process and it is the acquisition of mental process that is needed for thinking and making sense of the world around us. The cognitive process came about more than twenty-three centuries ago, beginning with Aristotle and his interest in the inner-workings of the mind and how they affect the human experience. Aristotle focused on cognitive areas pertaining to memory, perception and mental imagery. Cognition is a group of mental processes which includes attention, memory, producing and understanding languages, learning,
reasoning, problem solving and decision making. Cognition usually refers to an
information processing view an individual’s psychological functions. In social
psychology it is used for explanation of attitudes, attributions and group dynamics.
In psychology cognition is typically assumed to be information processing in a
participant’s mind or brain. It is a faculty for the processing of information,
applying knowledge and changing preferences. It must be natural or artificial,
conscious or unconscious. Within psychology, philosophy or Education the
concept of cognition is closely related to abstract concepts such as mind and
intelligence. It encompasses the mental functions, mental processes and states of
intelligence. Metacognition is a subdivision of cognition or a type of cognition. It
is defined as the scientific study of an individual’s cognition about his /her own
cognition.

The term **metacognition** was introduced by John Flavell of Stanford
University in 1976 to refer to the individual’s own awareness and consideration of
cognitive processes and strategies. Flavell concluded that students acquire the
ability to store and retrieve information that might be useful in future. You can
keep current any information related to problem-solving and retrieve it when will
be needed. The term metacognition laterally means cognition about cognition or
thinking about thinking. Fravell defined metacognition as knowledge about
cognition and control of cognition. The word metacognition comes from the root
word meta which means beyond. It can take many forms. It includes knowledge
about when and how to use particular strategies for learning or for problem
solving. It refers to self monitoring, self representation and self regulation process.
These are regarded as integral component of human mind. It also involves
thinking about one’s own thinking process such as study skills, memory
capabilities and the ability to monitor learning. Further, Metacognition refers to
learners’ automatic awareness of their own knowledge and their ability to
understand, control and manipulates their own cognitive processes. Metacognition
is important not only in school, but throughout life.

**Metacognition entails two components:** knowledge of cognitive process and
regulation of cognitive process.
(A) **Knowledge of cognitive process** deals with all the concepts, which are related to our thinking processes such as self-concept of knowledge, self-intelligence, self memory, attention, study habits etc. Moreover, Metacognitive knowledge is about our own cognitive processes and our understanding of how to regulate those processes to maximize learning. Some types of metacognitive knowledge would include:

- **Personal Knowledge** (declarative knowledge): which is understanding own’s capabilities such as a student evaluating his/her own knowledge of the subject in a class. It is also notable that not all metacognition is accurate. Studies have shown that students often mistakes lack of effort with understanding in evaluating themselves and their own knowledge of a concept.

- **Task Knowledge** (Procedural knowledge): which is how one perceives the difficulty of a task which is the content, length and type of the assignment. The study is mentioned in the content knowledge also deals with the ability of the one to evaluate the difficulty of the task related to their overall performance of the task. Again the accuracy of this knowledge was skewed as student who thought their way was better also seemed to perform worse on evaluations, while students who were continually evaluated reported to not be confident but still did better on initial evaluations.

- **Strategic Knowledge** (Conditional knowledge): which is the one’s own capacity for using strategies to learn information. Young children are not particularly good at this. It is not until upper elementary where students start to develop the understanding of strategies that will be effective.

Many studies support the claim that skilled learners possess declarative, procedural and conditional knowledge about cognition. This knowledge usually improves performance. Many theorists believe that metacognitive knowledge appears early and continues to develop at least throughout adolescence (Brown, 1987; Garner and Alexander, 1989; Flavell, 1987). Adults tend to have more knowledge about their own cognition than do young children and are better able to describe that knowledge (Baker, 1989). However, a number of studies reveal that
children as young as six can reflect with accuracy on their own cognition, especially when asked to do so in a familiar domain. Metacognition is a general term encompassing the study of memory-monitoring and self regulation, meta-reasoning, consciousness/ awareness and auto consciousness. In practice these capacities are used to regulate one’s own cognition, to maximize one’s potential to think, learn and the evaluation of proper ethics.

(B) **Regulation of cognitive processes** includes all those mechanisms through which we regulate our thinking process, such as orientation, planning, monitoring, testing, repairing, evaluating, reflecting etc. Insights experienced while monitoring and regulating cognition play a role in the development and refinement of metacognitive knowledge. In turn, cognitive knowledge appears to facilitate the ability to regulate cognition. The two are empirically related and may be integrated in the form of metacognitive theories, which are formal or informal frameworks for representing and organizing beliefs about knowledge. Researchers agree that regulatory competence improves performance in a number of ways, including better use of cognitive resources such as attention, better use of strategies and a greater awareness of comprehension breakdowns. A number of studies report significant improvement in learning when regulatory skills and an understanding of how to use these skills are included as part of classroom instruction.

In the words of Peirce (2003) that metacognition as an appreciation of what one already knows, together with a correct apprehension of the learning task and what knowledge and skills it requires combined with the ability to make correct inferences about how to apply one’s strategic knowledge to a particular situation and to do so efficiently and reliably. Students who are able to identify suitable learning strategies in the proper situation are using metacognition. For example, a student may understand that he has difficulty in finding the connection between important concepts within a story. If he has been taught to use a graphic organizer, such as a concept map, to identify the main concepts and link them together using lines, similar to a spider web, then that student has used metacognition to complete the task. In general, metacognition is the engine that drives self-directed learning.
One of the main struggles that students face in trying to develop an understanding of metacognition and ways to develop strategies that positively impact themselves is an overall lack of awareness to their own learning process.

**Metacognitive Skills**

Metacognitive skills are defined as abilities to monitor and direct the operation of cognitive skills to obtain the greatest possible success. Metacognitive skills are knowledge about one’s learning process. The term also refers to an individual’s awareness, evaluation and regulation of their own thinking activity. In other words, people with strong Metacognitive skills can control and manage their own thinking and the outcome of their thinking processes will help them solve problems effectively.

**There are three Meta cognitive skills that can help the learning**

1. Planning Skills,
2. Monitoring skills
3. Evaluation skills.

**Planning:** Planning refers to selection of appropriate strategies and the allocation of resources that affect performance. It include making predictions before reading, strategy sequencing and allocating time or attention selectively before beginning a task (Miller, 1985). An in-depth analysis of how good and poor writers plan their writing has been presented by Bereiter and Scardamalia (1987). He suggested that the ability to plan and knowledge about this process, develops throughout childhood and adolescence, improving dramatically between the ages of 10 and 14.

**Monitoring:** Monitoring refers to one’s awareness of comprehension and task performance. The ability to engage in periodic self-testing while learning is a good example. Research indicates that monitoring ability develops slowly and is quite poor in children and even adults. However, several recent studies have found a link between metacognitive knowledge and monitoring accuracy. For example, Schraw (1994) found that adults’ ability to estimate how well they would understand a passage prior to reading was related to monitoring accuracy on a
post-reading comprehension test. Monitoring ability improves with training and practice.

**Evaluating:** Evaluation refers to appraising the products and regulatory processes of one are learning. It includes re-evaluating one’s goals and conclusions. Metacognitive knowledge and regulatory skills such as planning are related to evaluation.

Many theorists believe that Metacognitive skills function as a mediator in the learning process and make change or modify the strategy they use it found to be less effective. Meta cognitive skills allow the students to select their invent strategies explicitly by thinking about and assessing their understanding of a task’s demand, their available cognitive resources and their prior experience solving similar problems. Early research tended to conclude that metacognition is a late-developing skill. The metacognitive capacity of preschool- and elementary-aged children is limited by several factors, including the development of executive functioning and verbal ability. For example, maturation of the portions of the brain responsible for executive functioning does not occur until 3-6 years of age, which parallels the emergence of skills such as inhibitory control. Inhibitory control is believed to be a foundational skill for theory of mind development. Theory of mind, which predicts subsequent metamemory, may in turn be dependent on the development of verbal reasoning skills.

Metacognitive skills are usually conceptualized as an interrelated set of competencies for learning and thinking and include many of the skills required for active learning, critical thinking, reflective judgment, problem solving and decision-making. Adults whose metacognitive skills are well developed are better problem-solvers, decision makers and critical thinkers, are more able and more motivated to learn and are more likely to be able to regulate their emotions (even in difficult situations), handle complexity and cope with conflict. Although metacognitive skills, once they are well-learned, can become habits of mind that are applied in a wide variety of contexts. Researches show that metacognitive skills can be taught to students to improve their learning (Nietfield & Shraw). Constructing understanding require both cognitive and metacognitive elements.
Learners can use cognitive strategies and they guides, regulates and evaluate their learning by using metacognitive strategies; that real learning occurs. As students become more skilled at using metacognitive strategies, they gain confidence and become more confident as learner.

Individuals with well developed metacognitive skills can think through a problem or approach a learning task, select appropriate strategies and make decision about a course of action to resolve the problem or successfully perform the task. They often think about their own thinking processes, taking time to think about and learn from mistakes or inaccuracies. Some instructional programmes encourage students to engage in metacognitive conversations. In this, the challenge they encounter and the way in which they can self correct and continue learning. Moreover, individuals who demonstrate a wide variety of metacognitive skills, perform better on exams and complete work more efficiently. They use the right tool for the job and they modify learning strategies as needed, identifying blocks to learning and changing tool or strategies to ensure goal attainment. Jacobs & Paris (1987) claim that the use of metacognition enhance student’s academic achievement and their learning outcomes. Watkins and Hatte (1992) reported that students of high achievement tend to utilize strategies congruent with their own motivational states more than lower achieving students.

1.2 LOCUS OF CONTROL

Locus of control is a concept in personality psychology referring to the extent to which individuals believe that they can control events that affect them. A person’s “locus” (Latin for “place” or “location”) is conceptualized as either internal (the person believes they can control their life) or external (meaning they believe that their decisions and life are controlled by environmental factors which they cannot influence). Individuals with a high internal locus of control believe that events in their life derive primarily from their own action. Rotter (1966) defines the locus of control, in his Social Learning Theory, as the reinforcements which are basic markers of individual’s attitudes in the long term. This Theory, ascertains that some students display the prizes or reinforcements gained as a result of their knowledge and abilities while some other students display the forces
out of their control. Locus of control is one of the vital concepts in the context of learning difficulty and attitude change. This concept covers the idea that individuals, throughout their lives, analyze the events as their attitudes or they believe that those events result from chance, fate or outside forces (Erdogan, 2003). Rotter (1971) indicated that there are two frames of mind, terming them as the internal locus of control and the external locus of control. He added that people who believe that they make choices which affect their life circumstances are considered to have an internal locus of control, while people who believe their circumstances are controlled by external forces are described as having an external locus of control.

**Definition**

“A locus of control orientation is a belief about whether the outcomes of our actions are Contingent on what we do or on events outside our personal control.” (Zimbardo, 1985).

![Locus of Control Diagram]

**Internal and External Locus of Control**

The individuals, who have the internal locus of control, think that they have a big role on affecting the events which influence their lives. Furthermore, they assess themselves as possessing the power for the attitude they want to display by having the positive ego concept and they believe that they can direct their lives whatever way they desire. The individuals with external locus of control relate the
events affecting their lives to perceptions such as chance, fate and fortune which are out of their control.

Additionally, they believe that the events affecting their lives cannot be predicted and controlled. Individuals with internal locus of control are careful, alert, dominant, focused on success, self-confident and ingenious. On the other hand, the individuals with external locus of control are less careful, affected by the group members, easily influenced by external forces, less self-confident and they display unsteady performances (Rotter, 1975). Individuals lay out two control attitudes as internal and external by considering that the reinforcements they have from their previous experiences result from their own attitudes or external forces.

Locus of control has generated research in a variety of areas in psychology. The construct is applicable to fields such as educational psychology, health psychology or clinical psychology. Locus of control is a psychological concept that refers to how strongly people believe they have control over the situations and experiences that affect their lives. Trice (1985) defined the academic locus of control as an expectation held by an individual that his/her behavior can influence academic outcomes, adding that such a mindset reflects students’ beliefs about whether factors within or without themselves determine academic success. In education, locus of control typically refers to how students perceive the causes of their academic success or failure in school. Students with an “internal locus of control” generally believe that their success or failure is a result of the effort and hard work they invest in their education. Students with an “external locus of control” generally believe that their successes or failures result from external factors beyond their control, such as luck, fate, circumstance, injustice, bias, or teachers who are unfair, prejudiced, or unskilled. For example, students with an internal locus of control might blame poor grades on their failure to study, whereas students with an external locus of control may blame an unfair teacher or test for their poor performance. Whether a student has an internal or external locus of control is thought to have a powerful effect on academic motivation, persistence and achievement in school. In education, “internals” are considered
more likely to work hard in order to learn, progress and succeed, while “externals” are more likely to believe that working hard is “pointless” because someone or something else is treating them unfairly or holding them back. Students with an external locus of control may also believe that their accomplishments will not be acknowledged or their effort will not result in success.

Internal or external locus of control plays an important role for students to sustain the efficacy and usefulness of learning performance. The knowledge and experiences gained by the students by means of organizational learning are a vital factor in increasing student performance. In this context, it is necessary for organizations to fulfill learning function in an arrangement and to use this function oriented to the improvement of the students.

Generally, much more is known about the effect of environments on the development of locus of control. Little is known about the possible moderating effects of environment on the relationship between locus of control and action, specifically academic achievement and related behaviours. Other person variables such as the ability to discriminate and classify environmental cues appropriately are likely also to influence the process. One reason for the strong association between generalized locus of control and achievement could be that the same person variable which fosters adaptive development and appropriate behaviour in specific situations are also predictive of academic achievement. Some of these are essential cognitive skills, such as the ability to discriminate and classify. There has been much interest in the relationship of locus of control to education. From locus of control theory (Rotter, 1966) one may predict a positive relationship between internal locus of control and school achievement. When a child believes that his rewards or punishments depend on his own efforts (internal control), it is most likely that he will strive to do those things that bring about rewards and minimize punishments. These point has been confirmed by several studies Me Ghee & Crandall, 1968; Bartel, 1971; Linter, 1972; Messar, 1972). However, it has been shown that there were more consistent effects for males than for females (Crandall, katolovsky, & Preston, 1972; Nowicki &
Roundtree, 1971), because social desirability effects confounded relationship between achievement and locus of control for females (Nowicki & Walker, 1973) some investigations (Hjelle, 1970; Rigg, 1973; Murray & Staebler, 1973), however, failed to find achievement differences between internals and externals and suggest that internal-external locus of control is not necessarily a determinant of academic achievement. In spite of some negative evidence, results in general seem to indicate that internals tend to manifest greater interest and effort in achievement-related activities than do externals. Nevertheless, the predictions are not consistent for both boys and girls. Educators and parents want their children who will ultimately be the future leaders, educators and professionals to prosper academically. It is possible that parents and educators can increase likelihood that children will attain higher level of academic achievement by encouraging individual characteristics that have been associated with academic success. Teachers should implement classroom techniques that foster internal locus of control and classroom opportunities can promote success, self explorations, metacognitive skills and self control among school students.

1.3 SELF-EFFICACY

In a normal classroom some students have a willing to learn and tackle new challenges while other seems uninterested and unmotivated. Some students demonstrate high level of confidence in their abilities while other seems unsure of themselve. In this type of situations what type of strategies a teacher should use to increase students’ confidence to learn the new material. A combination of different strategies can use the students’ confidence in their ability to achieve, which referred to as self efficacy by Albert Bandura. Self efficacy reflects how confident students feel about their worth or value. Self efficacy reflects how confident students are about performing specific task.

A person with a strong feeling of efficacy strongly influences a person’s achievement. It is the measure of one’s’ own abilities to complete tasks and reach goals. It is the persons believe about his/ her ability and capacity to accomplish a task or to deal with challenges. The concept of self-efficacy lies at the center of psychologist Albert Bandura’s social cognitive theory. Bandura’s theory
emphasizes the role of observational learning, social experience and reciprocal determinism in the development of personality. Bandura describe a person’s attitudes, abilities and cognitive skills comprise what is known as the self-system. This system plays a major role in how we perceive situations and how we behave in response to different situations. Self-efficacy plays an essential part of this self-system. He defined that “Self-efficacy is the belief in one’s capabilities to organize and execute the courses of action required to manage prospective situations”.

Further, Bandura (1987) point out that self-efficacy beliefs determine how people behave, thinks, feel and motivate themselves. Self-efficacy is a personal belief of competency, rather than one's emotional reaction to an actual accomplishment. Individuals also develop self-efficacy beliefs as a result of the verbal messages and social persuasions they receive from others. Positive persuasions may work to encourage and empower; negative persuasions can work to defeat and weaken self-beliefs. The concept of self-efficacy plays important role in person’s attitudes, abilities and cognitive skills comprise what is known as the self-system. This system plays a major role in how we perceive situations and how we behave in response to different situations. All peoples can identify goals they want to accomplish, things they would like to change and things they would like to achieve. However, most people also realize that putting these plans into action is not quite so simple. Bandura and others have found that an individual’s self-efficacy plays a major role in how goals, tasks and challenges are approached. It can be defined in two ways i.e.

a) **People with a strong sense of self-efficacy:**

- View challenging problems as tasks to be mastered.
- Develop deeper interest in the activities with a stronger sense of commitment.
- Worked with interests and recover quickly from setbacks and disappointments.
b) People with a weak sense of self-efficacy:

- Avoid challenging tasks
- Believe that difficult tasks and situations are beyond their capabilities
- Focus on personal failings and negative outcomes
- Quickly lose confidence in personal abilities

Four Major Sources of Self-Efficacy

- **Mastery Experiences:** The most effective way of developing a strong sense of efficacy is through mastery experiences. Performing a task successfully strengthens our sense of self-efficacy. However, failing to adequately deal with a task or challenge can undermine and weaken self-efficacy.

- **Social Modeling:** Witnessing other people successfully completing a task is another important source of self-efficacy. According to Bandura, Seeing people similar to oneself succeed by sustained effort raises observers' beliefs that they too possess the capabilities master comparable activities to succeed.

- **Social Persuasion:** Bandura also asserted that people could be persuaded to believe that they have the skills and capabilities to succeed. Consider a time when someone said something positive and encouraging that helped you achieve a goal. Getting verbal encouragement from others helps people overcome self-doubt and instead focus on giving their best effort to the task at hand.

- **Psychological Responses:** Our own responses and emotional reactions to situations also play an important role in self-efficacy. Moods, emotional states, physical reactions and stress levels can all impact how a person feels about their personal abilities in a particular situation. A person who becomes extremely nervous before speaking in public may develop a weak sense of self-efficacy in these situations.

  However, Bandura also notes "it is not the sheer intensity of emotional and physical reactions that is important but rather how they are perceived and interpreted." By learning how to minimize stress and elevate mood when
facing difficult or challenging tasks, people can improve their sense of self-efficacy.

**Dimensions of Self-Efficacy**

1. **Self Regulatory Skills**: The term “self-regulation” is used to refer to a range of characteristics and abilities. A child with self-regulatory skills is able to focus his attention, control his emotions and manage his thinking, behavior and feelings. Adults are very good at multitasking, but children are not. An adult can be cooking dinner, talking on the phone and thinking about what to make for dessert all at the same time, whereas a child may go upstairs intending to brush his teeth and get distracted as soon as he sees a favorite toy at the top of the stairs. An adult can receive a present they dislike but still smile and thank the gift bearer graciously.

2. **Self Influence**: Some time in worse situation, many people neglect to develop and improve their influence of themselves. They generally said, I don’t need to influence myself. If he tells himself to do something, he simply does it. Exactly, that’s why so few people consider the importance of this. We work on the simple assumption that we don’t need to influence ourselves. May be not, but building the habits of higher levels of influence with others starts with ourselves. Following are five levels in respect to self-influence as discussed by Dr. John Kenworthy.

   a. **Position**: Self influence depends upon the present position of the person. Most people do not have positional power over them self but some have a position of authority. A few will exercise this and may be referred to as having an ‘iron will’. For others, if you find that you need others to push you along every time, you might like to change this situation.

   b. **Permission**: The term self permission refers to a belief about the self that a person can hold, to a stronger or weaker extent. It is based on relationships. Some people have a good relationship with themselves that is excellent but some have not even they are very honest with themselves. We know it’s the right or the best thing to do, but simply are not being influenced by someone
that you actually like.

c. **Production:** We accept the influence of our having made good performance enhancing decisions in the past. This is where we practice well and properly because our experience has been to win competitions, beat our peers and have achieved the results we set out to achieve. Now we ‘believe’ ourselves when we request ourselves to continue the process. A good level of influence to be – there’s still a spot higher we could use, but so long as we constantly present ourselves with appropriate results, this will suffice.

d. **Influence:** Where we influence ourselves because we have developed ourselves effectively before and it has done well good. These individuals are true self-starters. Often they learn for the pure love of learning – they don’t need external impetus as a necessary ‘reason’. They respect their personal development, they make time for themselves, they indulge in everything that they want to indulge in and know that every opportunity to learn is a learning experience.

e. **Person-hood:** Do you, indeed can you, respect yourself. Now, I have worked with many people to work on this and they successfully achieve it. The people at this level with themselves you meet who are much ‘centred’ strong in their values or live a principled life. Nothing seems to ruffle them, overly worry them and, incidentally, they treat everyone around them with respect as well… they are at, or near this level with themselves.

3. **Self Confidence:** Confidence is a feeling of trust in someone or something. To be self-confident is to have confidence in you. Self-confident people don’t doubt themselves. This is usually a positive word: you can be self-confident without being cocky, arrogant, or overconfident. If you know what you’re doing, you have every reason to be self-confident.

4. **Social Achievement:** Social achievements are the achievements rewards for performing social actions. In this social status is the position or rank of a person and group within the society.

5. **Self:** One characteristic that distinguishes human beings from other animals
is our capacity for reflexive thought, the ability to reflect on the way in which we think. Reflexive thought allows us to think about whom we are and how we are perceived by others. Accordingly, we are constantly defining ourselves. Ask any person who they are and they will provide an extensive list of characteristics and identities that represent how they perceive themselves.

6. **Self Evaluation:** Self evaluation is the process by which the self concept is socially negotiated and modified. It is scientific and cultural truism that self evaluation is motivated. Looking at your progress, development and learning to determine what has improved and what areas still need improvement.

7. **Self Esteem:** In sociology and psychology self esteem reflects a person’s overall subjective emotional evaluation of his/her own worth. It is judgment of oneself as well as an attitude towards the self.

8. **Self Cognition:** Cognition usually refers to an information processing view of an individual's psychological functions. It is also used in a branch of social psychology called social cognition to explain attitudes, attribution, and group’s dynamics. In cognitive psychology and cognitive engineering, cognition is typically assumed to be information processing in a participant’s or operator’s mind or brain.

**CLARIFICATIONS AND DISTINCTIONS**

**Self-efficacy versus efficacy:** Efficacy is the ability to get a job done satisfactorily. The word comes from the same root as effectiveness. Self-efficacy referred as personal efficacy, it is extent or strength of one’s belief in one’s own ability to complete task and reach goals. Self-efficacy is the belief in one's efficacy.

**Self-efficacy versus self-esteem:** Self-efficacy is the perception of one's own ability to reach a goal and self-esteem is the sense of self-worth. For example, a person who is a terrible rock climber would probably have poor self-efficacy with regard to rock climbing, but this will not affect self-esteem if the person doesn’t rely on rock climbing to determine self-worth. On the other hand, one might have
enormous confidence with regard to rock climbing, yet set such a high standard and base enough of self-worth on rock-climbing skill, that self-esteem is low. Someone who has high self-efficacy in general but is poor at rock climbing might have misplaced confidence, or believe that improvement is possible.

**Self-efficacy versus confidence**: Confidence is a nonspecific term that refers to strength of belief but does not necessarily specify what the certainty is about. I can be supremely confident that I will fail at an endeavor. Perceived self-efficacy refers to belief in one's agentive capabilities that one can produce given levels of attainment. A self-efficacy belief, therefore, includes both an affirmation of a capability level and the strength of that belief. Confidence is a catchword rather than a construct embedded in a theoretical system.

**Self-efficacy versus self-concept**: Self-efficacy comprises beliefs of personal capability to perform specific actions. Self-concept is measured more generally and includes the evaluation of such competence and the feelings of self-worth associated with the behaviors in question.

**Self-Efficacy and Academic Achievement**

Self-efficacy is commonly defined as the belief in one's capabilities to achieve a goal or an outcome. Students with a strong sense of efficacy are more likely to challenge themselves with difficult tasks and be intrinsically motivated. These students will put forth a high degree of effort in order to meet their commitments and attribute failure to things, which are in their control, rather than blaming external factors. Self-efficacious students also recover quickly from setbacks and ultimately are likely to achieve their personal goals. Students with low self-efficacy, on the other hand, believe they cannot be successful and thus are less likely to make a concerted, extended effort and may consider challenging tasks as threats that are to be avoided. Thus, students with poor self-efficacy have low aspirations which may result in disappointing academic performances becoming part of a self-fulfilling feedback cycle.

Success of life depends on the confidence of a person at himself; we see that he is palatable, efficient and successful in life because of self-efficacy. It is
possible for children to perform certain acts without the help of the consciousness mind. Higher learning is also based on to a certain extent upon a person’s believe/confidence. Every person posses a quality and we can paste label such as Fine, Good or Poor on it, on the basis of the characteristics of individual However this is very limited view and the psychological concept of self efficacy goes further and deeper. Thus the self efficacy has very wide area which include Self Regulatory Skills, Self In fluency, Self Confidence, Social Achievement, Self, Self Evaluation, Self Esteem, Self Cognition affect the achievement of the students/persons in academic or non-academic area Academic achievement. The school has its own systematic hierarchy which is largely based on achievement and performance. Thus the school should improve the self efficacy of the students by the different different methods which facilitate to achieve the goal of life.

1.4 ACADEMIC ACHIEVEMENT

Academic achievement means accomplishment in proficiency of performance of the student in various subject of the curriculum. It is the activity which is accomplished especially superiors’ abilities efforts and great value. In ordinary sense the academic achievement refers to the performance of the students in various subjects of curriculum in the education. The academic status of the individual are considered as a whole. It is one of the most important goals of education in this rapidly changing world and with the advancement in science and technology, the people have become educational minded, every parents set high goals towards their children. Good academic record predicts the future of the child ours is an age of competition; therefore, at every step in life, the academic record speaks for the individuals, at the time of admission, for the entrance of job, for scholarship, for further studies, etc good academic results are only recommendation. In other words, academic achievement refers to the quantity and quality of learning in a subject or a group of subjects is assessed by examination marks. The following definitions help us to make clearer the concept of academic achievement:

**According to Dictionary of English Language** ‘Academic Achievement has been defined as something accomplished especially by superior ability special
According to Kohli, T.K. (1975) – “Academic achievement is level of proficiency attained in academic work or as formally acquired knowledge in school subject which is often represented by percentage of marks obtained by students in examination.”

Thus, from the above definitions it is cleared that the academic achievement refers to the performance of the students in various subjects of curriculum in educational institution. It is the academic status of the individual as a whole Academic achievement plays significant role in almost all aspects of human life, as in science, technology and agriculture. It has assumed enormous importance in view of its practical value. It helps in shaping the career of the individual and planning for future education. It forms the main basis of admission and promotion in class. Generally, the students are being selected or differentiated in the school based on their academic achievement. In the present educational set up, the examinations daily, weekly, monthly, quarterly, half yearly and annually, etc Past achievement is one of the best indicates of future accomplishment.

Academic achievement is useful in evaluating the results of instructions and serves as a measure of educational progress in predicting educational success. A good academic record of students is an index of an effective educational system.

In the simple terms as academic achievement related with school, so it has been mighty said by Indian Education Commission (1964-66) that the destiny of India is shaped in the classroom. Academic Achievement is one of the most important goals of education. In this rapidly changing world and with the advancement in science and technology, the people have become educational minded, every parents set high goals towards their children. Good academic record predicts the future of the child. Ours is an age of competition, therefore, at every step in life, the academic record speaks for the individuals. At the time of admission, for the entrance of job, for scholarship, for further studies, etc Good academic results are only recommendation. In other words, academic achievement...
refers to the quantity and quality of learning in a subject or a group of subjects are assessed by examination marks. Achievement means knowledge attained or skill developed by pupils usually in the school subject, measured by test scores or by marks assigned, by teacher or both. Achievement signifies accomplishment of gains or a performance carried out successfully by an individual or a group on the completion of task whether it is academic, manual, personal or social. Academic achievement is of paramount importance particularly in the present socio-economic and cultural contents. It is activity, which is accomplished, especially superior ability, special efforts and great value obviously, in the school/college/university great emphases is placed in achievement right from the beginning of formal education. Academic achievement of some individuals differs from time to time, from one class to another and from one educational level to another due to traits of self efficacy/individual differences. Academic achievement has great importance in person's life. Every parent sets high goals to educate his child.

In ordinary sense, academic achievement included two concepts first is academic & second is achievement. Academic means the attainment level of which a student functions in his task through a regular curriculum in a fixed place to which his named as academic. The achievement means knowledge attained or skill developed by pupils usually in the school subject, measured by test scores or by marks assigned, by teacher or by both achievements signifies accomplishment of gains or a performance carried out successfully by an individual or a group on the completion of task. A good academic record of students is an index of an effective educational system. Academic achievement refers to the pupil's knowledge, attainment and skill developed in the school subjects which are assessed by the authorities with the help of achievement tests, in the form of examination. Good academic achievement provides self-esteem, self-respect and courage to face the harsh realities of the world and helps the individual to create a place for himself in competition-ridden society. In order to solve this complexity various dimension of self-efficacy have been studied by researches in isolation, there are eight dimensions which can be studied with the help of a standardized measure of these traits.
In the present era, the main aim of education is the harmonious development of individual and to prepare them for life. Education empowers human beings for the better adjustment. Educated individuals contribute society and a better human resource. Therefore, education helps the students to make independent for how to take correct decision-making, enhance their self-efficacy, internal locus of control, so that they can set, get and manage their goals of life. In the other words, education is also responsible to impart metacognitive skills through effective learning, so that it enables individuals to plan, monitor and regulate their cognitive performance or academic achievements.

1.5 JUSTIFICATION OF THE STUDY

Globalize ideology brings rapid transformation in the structure and pattern of Education. To understand the changes in ideas, there is need to develop metacognitive skills among the student. Basic literacy skills of reading, writing and arithmetic are no longer sufficient. Our students need to master these basic skills as well as read critically, write persuasively, think and reason logically and solve complex problems. A successful student must be adept at managing information, finding, evaluating and applying new content with great flexibility. They must be equipped with skills and perspectives designed to help them anticipate change. Where they once focused primarily on the transmission of knowledge to the learner, they now seem increasingly focused on learners’ investigating, manipulating and transforming knowledge in a constructive process. This constructivist approach makes new demands on learners who are expected to be more self-directed and more reflective as they learn (Honebein, 1996).

Educational psychologists have long promoted the importance of Metacognition for regulating and supporting student learning. But educators may not be familiar with methods for teaching and assessing metacognition, particularly among secondary school students. Students can be encouraged by teacher to develop a sense of their own knowledge by asking questions such as, “What do I know?”, “What don’t I know?” and “What do I need to know?” These types of reflective questions can help students become more self aware and help them to make real world connections to the information they are currently
learning. In effective classrooms, teachers are responsible for helping students to develop better metacognitive skills by incorporating active reflection throughout the learning process. Student with Metacognitive awareness will have knowledge about how they think and be able to control their learning. In order to control one’s learning a student should be able to plan, monitor and evaluate their learning.

Locus of control has an essential place in literature in helping students who have difficulty in learning and attitude. This concept covers the idea that individuals, throughout their lives, analyze the events as their attitude or they believe that those events result from chance, fate or outside powers. Major literature reviews showed that internal and external differed in numerous ways, particularly in the terms of their cognitive activity and environmental mastery. Because they are more perceptive of their situations, internal seems to exert more control our lives in the part of their knowledge of environments. Internal more readily acquire and utilize information that is relevant to their goal situation even when it seemingly is not relevant. Whyte (2002) correlated locus of control with academic achievement of students enrolled in higher education. Students who were more internally controlled believed in hard work and performed better academically. Those students who were identified as more externally controlled (believing that their future depends upon luck and fate) tended to have lower academic perform level.

Well developed metacognitive skills enhance an individual’s performance by allowing them to optimize the capabilities they possess and be aware of those that do not. Self efficacy, an individual’s belief in their capabilities to perform a particular behavior plays a key role in effective metacognition development, as does self awareness of abilities. A person with a strong feeling of efficacy strongly influences a person’s achievement and personal comfort in many ways. Upon completing this work, investigator will able to understand of what leads students to their feeling about self efficacy and what implications that has in the classroom. In other words knowing the factors that increase level of students self efficacy, internal locus of control, raise motivation and academic achievement. Gupta (1987) find out the relationship between locus of control, anxiety, level of
aspiration and academic achievement of Secondary School students. Chan, Fan Taplin (1999) studied on locus of control and metacognition in open and distance learning. Gopal (2001) results showed that the group which received metacognitive and problem solving strategy has attained higher metacognitive knowledge and could answer of higher level cognitive questions. Marcel V.J. Veenman and Peter Afliterbach (2006) research indicates that there is a significant relationship between learning and metacognition. Kondake and Yesim (2013) examined the ‘predicting critical thinking skills of university students through metacognitive self-regulation skills and chemistry self-efficacy’. Researcher found that a positive and significant relationship between chemistry self-efficacy and critical thinking, whereas there was no significant relationship between chemistry self-efficacy for cognitive skills and critical thinking. Schumann, Scott and Jim (2016) examined the effects of a metacognitive, intervention on the accuracy of emerging outdoor educators’ teaching self-efficacy beliefs. Moreover, the results of the study also indicated that metacognitive monitoring appears to significantly improve the accuracy of emerging outdoor educators’ teaching self-efficacy beliefs. YucellIsgor (2016) studied on Metacognitive skills, academic success and exam anxiety as the predictor of psychological wellbeing and found a negative relationship between exam anxiety and metacognitive skills. But a positive significant relationship was found between metacognitive skills and academic success.

Hence, the trend of previous research studies shows that metacognitive skills are associated with many variables like learning styles, personality, thinking style, teaching strategies, locus of control, self concept etc. But no study was conducted by taking these four variables namely metacognition skills, locus of control, self-efficacy and academic achievement for secondary school students. The present study has a great significance, relevance and utility for both students and teachers. This will encourage them to come forward to understand the metacognitive skills. Further, the findings of the present study will be helpful in the designing appropriate strategies, educational programmes and interventions for increasing the strength, abilities, skills and competencies in students as well as
teachers. Therefore, the present study is an endeavor in this direction.

1.6 STATEMENT OF THE PROBLEM

The problem of the study can be stated as

META COGNITIVE SKILLS OF SECONDARY SCHOOL STUDENTS IN RELATION TO THEIR LOcus OF CONTROL, SELF Efficacy AND ACADEMIC ACHIEVEMENT

1.7 OPERATIONAL DEFINITIONS OF KEY TERM

The terms used in the statement of the problem are defined operationally as under:

1.7.1 Metacognitive skills: - It is awareness of one’s own, an active monitoring of one’s cognitive processes, an attempt to regulate one’s cognitive processes in relationship to further learning and an application of a set of heuristics as an effective device for helping people organize their methods of attack on problems in general. In Metacognitive skills knowledge of cognitive process and regulation of cognitive process has considered. In this study the metacognitive skills were observed and measured through Meta Cognitive Inventory (MCI) by Punita Govil

1.7.2 Locus of Control: - The outcome of events referred to as reinforces are perceived either internal or external by different persons. Internal locus of control refers to believes and outcomes of events or rewards are not controlled by the individual’s own ability, behaviours and efforts and external locus of control means the believes that outcomes of events or rewards are not controlled by the individual’s own ability or efforts but by someone outside himself, like luck, fate and significant others. In this study the locus of control was observed and measured through locus of control scale developed and standardized by N. Hasnain and D.D. Joshi.

1.7.3 Self Efficacy: - A person believes about his/her ability and capacity to accomplish a task or to deal with the challenges of life. In this study the self efficacy was observed and measured through self efficacy scale developed and
standardized by G.P. Mathur and R.K. Bhatnagar. In self efficacy eight areas were considered I. Self Regulatory Skills, II. Self in Fluency, III. Self Confidence, IV. Social Achievement, V. Self, VI. Self Evaluation, VII. Self Esteem, VIII. Self Cognition

1.7.4 Academic Achievement: - Academic achievement in ordinary sense refers to the learning outcomes of students in various subjects of curriculum. In the present study academic achievement has been assured on basis of the percentage of marks secured by individuals in their 10th class examination.

1.8 OBJECTIVES OF THE STUDY

Objectives of the present investigation were to study:

1. To study the metacognitive Skills among secondary school students.

2. To study the locus of control, self efficacy and academic achievement of secondary school students.

3. To study the relationship between metacognitive skills and locus of control of secondary school students.

4. To examine relationship between metacognitive skills and self efficacy of secondary school students.

5. To find out relationship between metacognitive skills and academic achievement of secondary school students.

6. To study the relationship between locus of control and self efficacy of secondary school students.

7. To examine the relationship between locus of control and academic achievement of secondary school students.

8. To find out the relationship between self efficacy and academic achievement of secondary school students.

9. To find out the interrelationship between metacognitive skills, locus of control, self efficacy and academic achievement of secondary school students.
10. To study the metacognitive skills, locus of control, self efficacy and academic achievement among secondary school students in relation to their gender.

11. To study the metacognitive skills, locus of control, self efficacy and academic achievement among secondary school students in relation to their residential background.

1.9 **HYPOTHESES OF THE STUDY**

Once the problem of research is finally identified and instituted, the next important step is to formulate tentative solutions or answers. The proposed solutions or explanations constitute the hypotheses which the researcher would need to test on the basis of the already established facts or uncovered or likely to be known. Unless these hypotheses are formulated, the researcher’s investigation cannot be preceded fruitfully. A hypothesis is a conjectural statement of the relation between two variables. It is a tentative generalization, the validity of which remains to be tested. In its most elementary stage, the hypothesis may be any hunch, guess, imaginative ideas which become the basis for action or investigation. After carefully going through the review of related literature, following hypotheses were formulated:

1. **H1** There exists significant relationship between metacognitive skills and locus of control of secondary school students.

2. **H2** There exists significant relationship between metacognitive skills and self efficacy of secondary school students.

3. **H3** There exists significant relationship between metacognitive skills and academic achievement of secondary school students.

4. **H4** There exists significant relationship between locus of control and self efficacy of secondary school students.

5. **H5** There exists significant relationship between locus of control and academic achievement of secondary school students.

6. **H6** There exists significant relationship between self efficacy and academic achievement of secondary school students.
7. H7 There exists a significant interrelationship between metacognitive skills, locus of control, self efficacy and academic achievement of secondary school students.

8. H8 There exists significant difference of metacognitive skills among secondary school students in relation to their gender.

9. H9 There exists significant difference of locus of control among secondary school students in relation to their gender.

10. H10 There exists significant difference of self efficacy and its various dimensions among secondary school students in relation to their gender.

11. H11 There exists significant difference of academic achievement among secondary school students in relation to their gender.

12. H12 There exists significant difference of metacognitive skills among secondary school students in relation to their residential background.

13. H13 There exists significant difference of locus of control among secondary school students in relation to their residential background.

14. H14 There exists significant difference of self efficacy and its various dimensions among secondary school students in relation to their residential background.

15. H15 There exists significant difference of academic achievement among secondary school students in relation to their residential background.

1.10 DELIMITATIONS OF THE STUDY

1. The present study is delimited to a sample of 400 Secondary School Students of class 11th only.

2. The present study is delimited only to five district of Haryana state under the Ambala commissionary (Ambala, Kurukshetra, Yamuna Nagar, Kaithal and Punchkulla).

3. The present study is delimited to the students studying in Government schools only.
4. The present study is delimited to four variables only: metacognitive skills, locus of control, self efficacy and academic achievement only.