SUMMARY
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INTRODUCTION

Most of the educators, especially from the 20<sup>th</sup> century onwards, lay stress on the social aspects of education in addition to the academic areas. They uphold that education is a life-long process by which an individual adapts himself/herself gradually and gracefully 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.
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. 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.

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 and internal locus of control, while people who believe their circumstances are controlled by external forces are described as having an external locus of control.

**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”.

**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 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 definition 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.

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 those 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 increasing 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 over our lives in the parts 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 performance levels.

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 be able to understand 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) found 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 or everyday applications 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. YucelIsgor (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.
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

OPERATIONAL DEFINITIONS OF KEY TERM

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

**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

**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.

**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

**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.

**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.

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. $H_1$ There exists significant relationship between metacognitive skills and locus of control of secondary school students.

2. $H_2$ There exists significant relationship between metacognitive skills and self efficacy of secondary school students.

3. $H_3$ There exists significant relationship between metacognitive skills and academic achievement of secondary school students.

4. $H_4$ There exists significant relationship between locus of control and self efficacy of secondary school students.

5. $H_5$ 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.

**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 commissioner (Ambala, Kurukshtetra, 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.

RESEARCH METHOD

The method of research study is a procedure that researcher follows to achieve the goal of a study. The choice of the research method is generally determined by the objectives of the study. The basic purpose of the study was to find out interrelationship of metacognitive skills, locus of control, self efficacy and academic achievement of secondary school students. Descriptive survey method of research was used in the execution of the present study. Descriptive method is concerned with the investigation, description and interpretation of characteristics of a particular individual or a group. Descriptive survey method includes presentations of facts or current conditions concerning the nature of a group of objects or class of events and involves procedure of induction, analysis, classification and enumeration of measurements. The rational for purely descriptive survey is that the information provided has the answer to the research question proposed. Hence, this method of research is most widely used in the field of education because descriptive investigation is of immense value in solving problems present in the vicinity.

POPULATION AND SAMPLE

Population

Population refers to any collection of specified group of human beings or of non human entities such as objects, educational institutions, time units, geographical areas etc. It is totality of an object under consideration. Some statisticians call it Universe. By universe, it means all possible respondents or measures of a certain kind. The portion of the universe to which a researcher has access is called the Population. In the present study, all the students of 11th class studying in government senior secondary schools of Haryana state under the
Ambala commissionary (Ambala, Kurukshetra, Yamuna Nagar, Kaithal and Punchkulla) were considered as population.

**Sample**

The sample of the present study comprised of 400 Students from 11th class of two urban and two rural locality from each district of Haryana. It comprised of 200 urban and 200 rural students from government schools. For the present study, Investigator used random sampling technique to select the sample. While selecting the sample, care was taken to ensure that selected sample and gathered data would be free from all possible bias.

**TOOLS USED**

2. Locus of Control Scale developed and standardized by N. Hasnain and D.D. Joshi (1992).
4. Academic Achievement on the basis of student’s percentage of previous class (10th).

**DATA COLLECTION**

All the objectives of the present study were kept in mind before proceeding for the administration of tools. The investigator personally visited the schools and took permission from the head of the school concerned for administration of the tools. After getting permission, the investigator visited classrooms and introduced him to the students. Firstly investigator established rapport with the students and told them about the purpose of visit and gave orientation about the tools that were being administered. The respondents were assured that their responses would be kept confidential and used for research purpose only. The tools were administered one by one and all the instructions were explained to the students. First of all, Metacognitive Inventory, (MCI) by Punita Govil was distributed to the students. Once the responses were filled by all the students then Locus of Control Scale by
N. Hasnain and D.D. Joshi and Self Efficacy Scale by G.P. Mathur and R.K. Bhatnagar were given to the same students for assessing their locus of control and self efficacy. While administering the tools, the teachers helped the investigator in maintaining discipline in the class. After collecting the data, investigator thanked the students as well as staff for their co-operation. Same procedure was followed for every school.

In order to collect the data related to academic achievement, the investigator visited the school office and collected the academic achievement scores (Percentage) obtained by the students in their last annual examination (10th class). This was made available through the registers maintained by the schools.

STATISTICAL TECHNIQUES USED

Following statistical techniques were used to analyses the data:

- In order to identify metacognitive skills, locus of control, self efficacy and academic achievement among secondary school students, *Percentage Method* was followed.

- Pearson’s Product-Moment Correlation (r) was employed to find out the relationship between metacognitive skills and its dimensions viz. knowledge of cognitive process and regulation of cognitive process with locus of control, self efficacy and academic achievement of secondary school students.

- Multiple correlation (R) was computed to find out the combine contribution to metacognitive skills, locus of control, self efficacy and academic achievement of secondary school students.

- t-test was applied to find out significance of difference between different groups (Gender & Residential Background) with respect to metacognitive skills, locus of control, self efficacy and academic achievement of secondary school students.
MAIN FINDINGS

Findings related to overview of data on metacognitive skills, locus of control, self efficacy and academic achievement

- It was found that out of total 400 secondary school students, 03 students i.e. 0.75% students have found very high metacognitive skills, 91 students i.e. 22.75% students have found high metacognitive skills, 177 students i.e. 44.25% students have found average metacognitive skills, 94 students i.e. 23.50% students have found low metacognitive skills and 35 students i.e. 8.75% students have found very low metacognitive skills among secondary school students.

- It was found that out of total 400 secondary school students, 207 students i.e. 51.75% students have found internal locus of control, 193 students i.e. 48.25% students have found external locus of control among secondary school students.

- It was found that out of total 400 secondary school students, 09 students i.e. 2.25% students have found high self efficacy, 165 students i.e. 41.25% students have found average self efficacy and 226 students i.e. 56.50% students have found low self efficacy among secondary school students.

- It was found that out of total 400 secondary school students, 121 students i.e. 30.25% students are high achievers, 164 students i.e. 41% students are Average achievers and 115 students i.e. 28.75% students are low achievers.

Findings with regard to relationship between metacognitive skills & locus of control, metacognitive skills & self efficacy and metacognitive skills & academic achievement

It was found that calculated value of coefficient of correlation (0.119) between metacognitive skills and internal locus of control is more than table value at 0.05 level of significance (.098). Hence, there exist a positive and significant relationship between metacognitive skills and internal locus of control of secondary school students. Further, it was also found that calculated value of coefficient of correlation (0.131) between metacognitive skills and external locus
of control is more than table value at 0.0 level of significance (.128). Hence, there exist a positive and significant relationship between metacognitive skills and external locus of control of secondary school students.

It was found that calculated value of coefficient of correlation (0.112) between metacognitive skills and self efficacy is more than table value at 0.05 level of significance (.098). Hence, there exist a positive and significant relationship between metacognitive skills and self efficacy of secondary school students.

It was found that calculated value of coefficient of correlation (0.136) between metacognitive skills and academic achievement among high achievers is more than table value at 0.01 level of significance (.128). Hence, there exist a positive and significant relationship between metacognitive skills and academic achievement among high achievers of secondary school students. It was also found that calculated value of coefficient of correlation (0.103) between metacognitive skills and academic achievement among average achievers is more than table value at 0.05 level of significance (.098). Hence, there exist a positive and significant relationship between metacognitive skills and academic achievement among average achievers of secondary school students. Further, it was also found that calculated value of coefficient of correlation (-.113) between metacognitive skills and academic achievement among low achievers is more than table value at 0.05 level of significance (.098). Hence, there exist a negative and significant relationship between metacognitive skills and academic achievement among low achievers of secondary school students.

**Findings with regard to relationship between dimensions of metacognitive skills & locus of control**

It was found that calculated value of coefficient of correlation (-.114) between knowledge of cognitive process (dimension of metacognitive skills) and internal locus of control is more than table value at 0.05 level of significance (.098). Hence, there exist a negative and significant relationship between knowledge of cognitive process and internal locus of control of secondary school students. Further, it was also found that calculated value of coefficient of
correlation (-.124) between knowledge of cognitive process (dimension of metacognitive skills) and external locus of control is more than table value at 0.0 level of significance (.128). Hence, there exist a negative and significant relationship between knowledge of cognitive process and external locus of control of secondary school students.

Further, it was found that calculated value of coefficient of correlation (.136) between regulation of cognitive process (dimension of metacognitive skills) and internal locus of control is more than table value at 0.01 level of significance (.128). Hence, there exist a positive and significant relationship between regulation of cognitive process and internal locus of control of secondary school students. Further, it was also found that calculated value of coefficient of correlation (.153) between regulation of cognitive process (dimension of metacognitive skills) and external locus of control is more than table value at 0.0 level of significance (.128). Hence, there exist a negative and significant relationship between regulation of cognitive process and external locus of control of secondary school students.

**Findings with regard to relationship between dimensions of metacognitive skills & self efficacy**

It was found that calculated value of coefficient of correlation between knowledge of cognitive process (dimension of metacognitive skills) and self efficacy is more than table value at 0.05 level of significance (.098). A positive relationship was found between knowledge of cognitive skills and self influence, self confidence (dimensions of self efficacy) among secondary school students. But a negative relationship was also found between knowledge of cognitive process with self regulatory skills, social achievement, self, self- evaluation, self-esteem, self cognition (dimensions of self efficacy) of secondary school students. Hence, there exist a significant relationship between knowledge of cognitive process and self efficacy of secondary school students.

It was found that calculated value of coefficient of correlation between regulation of cognitive process (dimension of metacognitive skills) and self efficacy is more than table value at 0.05 level of significance (.098). A positive
relationship was also found between regulation of cognitive skills and self regulatory skills, self confidence, social achievement, self esteem, self cognition (dimensions of self efficacy) among secondary school students. But a negative relationship was also found between regulation of cognitive process with self influence, self, self evaluation (dimensions of self efficacy) of secondary school. Hence, there exist a significant relationship between regulation of cognitive process and self efficacy of secondary school students.

**Findings with regard to relationship between dimensions of metacognitive skills & academic achievement**

It was found that calculated value of coefficient of correlation between dimension of metacognitive skills and academic achievement is more than table value at 0.05 level of significance (.098). A negative relationship was found between knowledge of cognitive process and academic achievement among high achievers. But a positive relationship was also found between regulation of cognitive process and academic achievement among high achievers.

It was found that calculated value of coefficient of correlation between dimension of metacognitive skills and academic achievement is more than table value at 0.05 level of significance (.098). A positive relationship was also found between knowledge of cognitive process and academic achievement among average achievers. But a negative relationship was found between regulation of cognitive process and academic achievement among average achievers.

It was found that calculated value of coefficient of correlation between dimension of metacognitive skills and academic achievement is more than table value at 0.05 level of significance (.098). A negative relationship was found between knowledge of cognitive process and academic achievement among low achievers. Further, a negative relationship was also found between metacognitive skills (total) and academic achievement among low achievers. Hence, there exist a significant relationship between dimensions of metacognitive skills and academic achievement of secondary school students.
Findings with regard to relationship between locus of control and dimensions of self efficacy

It was found that calculated value of coefficient of correlation between locus of control and dimensions of self efficacy is more than table value at 0.05 level of significance (.098). A positive relationship was found between internal locus of control and self regulatory skills, social achievement, self, self esteem self cognition (dimensions of self efficacy) among secondary school students. But a negative relationship was also found between internal locus of control and self influence, self confidence, self evaluation (dimensions of self efficacy) among secondary school students. Further, it is also found that internal locus of control is positively related with self efficacy (total). Hence, there exist a significant relationship between internal locus of control and dimensions of self efficacy of secondary school students.

A positive relationship was found between external locus of control and self influence, self evaluation, self esteem (dimensions of self efficacy) among secondary school students. But a negative relationship was also found external locus of control and self regulatory skills, self confidence, social achievement, self, self cognition (dimensions of self efficacy) among secondary school students. Further, it is also found that external locus of control is negatively related with self efficacy (total). Hence, there exist a significant relationship between external locus of control and dimensions of self efficacy of secondary school students.

Findings with regard to relationship between locus of control and academic achievement

It was found that calculated value of coefficient of correlation between locus of control and academic achievement is more than table value at 0.05 level of significance (.098). A positive relationship was found between internal locus of control and academic achievement among high achievers. But a negative relationship was found between external locus of control and academic achievement among high achievers.
A positive relationship was found between internal locus of control and academic achievement among average achievers. Further, a positive relationship was also found between external locus of control and academic achievement among average achievers.

A positive relationship was also found between external locus of control and academic achievement among low achievers. But a negative relationship was found between internal locus of control and academic achievement among low achievers. Hence, there exist a significant relationship between locus of control and academic achievement of secondary school students.

**Findings with regard to relationship between self efficacy and academic achievement**

It was found that calculated value of coefficient of correlation between self efficacy and academic achievement is more than table value at 0.05 level of significance (.098). A positive and significant relationship was found between self regulatory skills, self influence, self confidence, social achievement, self and self evaluation with academic achievement among high achievers but self esteem is negatively related with academic achievement among high achievers. Further a positive and significant relationship was also found between self efficacy (total) and academic achievement among high achievers.

A positive and significant relationship was found between self regulatory skills, social achievement, self evaluation and self esteem with academic achievement among average achievers. But self influence, self confidence, self and self cognition is negatively related with academic achievement among average achievers. Further a positive and significant relationship was also found between self efficacy (total) and academic achievement among average achievers.

A positive and significant relationship was found between self regulatory skills, self evaluation and self esteem with academic achievement among low achievers. But self influence, self confidence, social achievement, self and self cognition is negatively related with academic achievement among low achievers. Further a negative and significant relationship was also found between self...
efficacy (total) and academic achievement among low achievers. Hence, there exist a significant relationship between self efficacy and academic achievement of secondary school students.

**Findings with regard to interrelationship between metacognitive skills, locus of control, self efficacy and academic achievement**

Metacognitive skills are positively interrelated with locus of control, self efficacy and academic achievement of secondary school students. A multiple correlation (R= 0.207, R Square= 0.043, Adjusted R Square=0.033) was found between metacognitive skills, locus of control, self efficacy and academic achievement of secondary school students.

**Findings with regard to difference between metacognitive skills of male and female secondary school students**

It is found that the calculated values of ‘t’ for metacognitive skills and its dimensions i.e. knowledge of cognitive process and regulation of cognitive process of male and female students are 1.177, 1.346 & 1.705 respectively. These values are less than the table value i.e. 1.97 at 0.05 level of significance. Hence, there exists no significant difference of metacognitive skills of male & female secondary school students.

**Findings with regard to difference between locus of control of male and female secondary school students**

It is found that the calculated values of ‘t’ for internal locus of control and external locus of control of male and female students are 0.075 and 0.376 respectively. These values are less than the table value i.e. 1.97 at 0.05 level of significance. Hence, there exists no significant difference of internal and external locus of control among male & female secondary school students.

**Findings with regard to difference between self efficacy of male and female secondary school students**

It is found that obtained ‘t’ values for seven out of eight dimensions of self efficacy viz. self regularity skills, self influence, self confidence, social achievement, self, self esteem and self cognition are less than the
table value i.e. 1.97 at 0.05 level of significance. Further, it is found that the obtained ‘t’ value (2.136) for self evaluation are greater than the table value i.e. 1.97 at 0.05 level of significance. Hence, there exists significant difference between male and female school students with regard to one dimension of self-efficacy viz. ‘self evaluation. It means male students are higher self evaluation, if they are compared with their female counterparts.

**Findings with regard to difference between academic achievement of male and female secondary school students**

It is found that the obtained ‘t’ value of academic achievement among high achievers, average achievers and low achievers of male and female school students are .912, .144 and .820 respectively. The obtained values of t’ values are less than the table value at 0.05 level of significance. Hence, no significance difference was found between high achiever, average achiever and low achiever male and female students with respect to their academic achievement.

**Findings with regard to difference between metacognitive skills of urban and rural secondary school students**

It is found that the calculated values of ‘t’ for metacognitive skills and its dimensions i.e. knowledge of cognitive process and regulation of cognitive process of urban and rural students are 1.735, 1.870 and 1.216 respectively. These values are less than the table value i.e. 1.97 at 0.05 level of significance. Hence, there exists no significant difference of metacognitive skills of urban and rural secondary school students.

**Findings with regard to difference between locus of control of urban and rural secondary school students**

It is found that the calculated values of ‘t’ for internal locus of control and external locus of control of urban and rural students are 0.421 and 1.87 respectively. These values are less than the table value i.e. 1.97 at 0.05 level of significance. Hence, there exists no significant difference of internal and external locus of control among urban and rural secondary school students.
Findings with regard to difference between self efficacy of urban and rural secondary school students

It is found that obtained ‘t’ values for seven out of eight dimensions of self efficacy viz. self regularity skills, self influence, self confidence, social achievement, self and self esteem are less than the table value i.e. 1.97 at 0.05 level of significance. Hence, there exist no significant difference of various dimensions i.e., self regularity skills, self influence, self confidence, social achievement, self and self esteem except self cognition of secondary school students in relation to their residential background. Further, it is found that the obtained‘t’ value for self efficacy (2.34) and its one dimension viz. self cognition (1.98) are greater than the table value i.e. 1.97 at 0.05 level of significance. A significant difference was found between self efficacy (total) and self cognition of the urban and rural senior secondary school students. The self efficacy (total) and self cognition of the secondary school students belongs to rural residential background had higher than their counterpart urban students.

Findings with regard to difference between academic achievement of urban and rural secondary school students

It is found that the obtained ‘t’ value of academic achievement among high achievers, average achievers and low achievers of urban and rural school students are .238, .874 and .331 respectively. The obtained values of t’ values are less than the table value at 0.05 level of significance. Hence, no significance difference was found between high achiever, average achiever and low achiever urban and rural students with respect to their academic achievement.

DISCUSSION OF RESULTS

The present study endeavors to determine the relationship of metacognitive skills with locus of control, self efficacy and academic achievement. Similarly the differences were also investigated on the basis of gender and residential background of secondary school students with regard to the said variables. The proceeding paragraphs provide the integrated discussion of the empirical evidences obtained through the
various data analysis procedures aimed at meeting the objectives of the study.

**Discussion of results based on inter correlation**

**Relationship of metacognitive skills with locus of control**

The results of the data analysis indicate a significant relationship between metacognitive skills and locus of control. In the present study, researcher found a positive and significant relationship between metacognitive skills and locus of control (both internal and external). Further, a positive and significant relationship was also found between regulation of cognitive process (dimension of metacognitive skills) and locus of control (both internal and external). But a negative and significant relationship was found between knowledge of cognitive process (dimension of metacognitive skills) and locus of control (both internal and external). The results of the research carried out by Gupta M. (1987), Paul (1992), Y.K.Fan & Taplin (1999) substantiate the finding of the present study. They also found significant relationship between metacognitive skills and Locus of control. However, a number of other researchers such as Bhogayta Chanderakant (1987), El-Hindi, Amelia E. (1993), Lee, Yuneju, Jaeho (2013), Landine (1988) & Smith & Mihans (2009), Bedel & Emine Ferda (2012), Arslan, Akin & Ahmet (2014) were also found significant relationship between metaognition and locus of control.

**Relationship of metacognitive skills with self efficacy**

The findings related to relationship between metacognitive skills and self efficacy revealed a significant relationship between said variables. Result shows that a positive and significant relationship was found between metacognitive skills and self efficacy among secondary school students. The result is partially supported by the findings of the study carried out by Landine (1988), Albert Bandura (1993), Kahn (2000), Mohamadi , Fatemah Shaterian (2010), Cassidy, Simon (2012), Kondakc, Yesim (2013), Heigl, Romana, Thomas & Joachi (2013),
Zepeda; J. Elizabeth; Paul; Timothy J.(2015), Schumann, Scott, Jim (2016) were also found significant relationship between metacognition and self efficacy.

**Relationship of metacognitive skills with Academic Achievement**

The Present study also revealed a significant relationship between metacognitive skills and academic achievement. In the present study researcher found a positive and significant relationship between metacognitive skills and academic achievement of high and low achievers. Further, a positive and significant relationship was also found between regulation of cognitive process (dimension of metacognitive skills) and academic achievement of high and low achievers. But a negative and significant relationship was found between knowledge of cognitive process (dimension of metacognitive skills) and academic achievement of high and low achievers. Jeffrey Landine (1988), Haller (1988), Bhogayata Chandrakant (1989), A.D. Corebima (2001), Sperling (2002), Kahn & Dean (2002), Muhittin & Ali Murat (2011), Angela, Cesare, Rossana, Paola & Sante (2013), Kay, Alexandra & Sheila (2014), Bryce, Whitebread & Dénes (2015) were also found significant relationship between metacognition and academic achievement.

**Relationship of locus of control with self efficacy**

The findings related to relationship between locus of control and self efficacy revealed a significant relationship between said variables. Result of present study shows a positive and significant relationship between internal locus of control and self efficacy. Further, a negative and significant relationship was also found between external locus of control and self efficacy. Sangeeta (1992), Akin and Ahnet (2010), Lee, Jaeho and Taehyam (2013) and Uma K. and Manikaran (2013) were also found
significant relationship between above said variables. The findings of the above said researchers support the present study.

**Relationship of locus of control with academic achievement**

The Present study also revealed a significant relationship between locus of control and academic achievement. The result of the present study shows a positive and significant relationship was found between internal locus of control and academic achievement among high and average achievers. But a negative relationship was found between internal locus of control and academic achievement among low achievers. Further, a positive and significant relationship was also found between external locus of control and academic achievement among average and low achievers. But a negative and significant relationship was found between external locus of control and academic achievement among high achievers. Bhaogyata (1989), Henry and Kulas (1996), Anuradha Sharma (2004), Gujjar and Rukhmi (2014) were also found significant relationship between above said variables. The findings of the above said researchers support the present study.

**Relationship of self efficacy with academic achievement**

The Present study also revealed a significant relationship between self efficacy and academic achievement. A positive and significant relationship was found between self efficacy and academic achievement among high achievers. But a negative and significant relationship was found between self efficacy and academic achievement average and low achievers. Mohamadi and Shaterian (2010), Burgoon and Marie (2012), Pooja Bhagat and Beliya J. N. (2016) were also found significant relationship between above said variables. The findings of the above said researchers support the present study.

**Interrelationship of metacognitive skills, locus of control, self efficacy and academic achievement**

Investigator of the present study found a significant interrelationship between metacognitive skills, locus of control, self efficacy and academic achievement. The results is in conformity with the findings of the research carried
out by Landine (1988), Chanderkant (1989), Gursoy and Bicakki (2007), Koul & Ravinder (2011), Freitas,craft & Antonio (2011), Lee, Jaeho & Tachyum (2013). They were also found that relationship between metacognition and certain personality variables such as locus of control, self efficacy, motivation and academic achievement.

**Discussion of Results based on differential analysis**

**Difference between male and female students with respect to metacognitive skill, locus of control, self efficacy and academic achievement.**

The present study found no significant difference between male and female students on metacognitive skills and its dimensions viz. knowledge of cognitive process and regulation of cognitive process. It shows that male and female students do not differ significantly. In other words, gender does not affect the metacognitive skills among secondary school students. Studies carried out by Schultz and Schultz (2005), Vaijayanthi (2012) and Sawhney Neena & Bansal Sneh (2015) was also found no gender difference with regard to metacognitive skills.

No significant difference of internal locus of control was found between male and female secondary school students. Further, No significant difference of external locus of control was also found between male and female secondary school students. It shows that male and female students do not differ significantly. Devi (1990), Schultz and Schultz (2005), Emmamah (2011) Pandya, Jogson and Yogesh (2013) were also found that locus of control among students were independent of their gender.

The present study found no significant difference between male and female school students with regard to said seven out of eight dimensions of self-efficacy viz. self regularity skills, self influence, self confidence, social achievement, self, self esteem and self cognition of secondary school students. Kaul & Ravinder (2011), Pooja Bhagat & Balia (2016) were also found that gender does not affect the self efficacy. But in the present study a significant difference between male and female school students with regard to one dimension of self- efficacy viz. ‘self’
evaluation. It means male students are better self evaluation, if they are compared with their female counterparts. The reason may be that male students are independent on their decisions but female students are depend on the decision of their family.

In the present study male and female students were found similar with regard to their academic achievement. It shows that male and female students do not differ significantly. In other words, gender does not affect the academic achievement among secondary school students. Results of present investigation also revealed that male and females students were similar on academic achievement. The above findings may be supported with that of Freitas, Craft & Antonio (2011) and Preeti & Shaafiu (2016) who come out with the conclusion that academic achievement of male and female students do not differ significantly.

**Difference between rural and urban students with respect to metacognitive skill, locus of control, self efficacy and academic achievement.**

The present study found no significant difference between rural and urban students on metacognitive skills and its dimensions viz. knowledge of cognitive process and regulation of cognitive process. No significant difference of internal & external locus of control was found between urban and rural secondary school students. Naik A. (2015) was also found that locus of control among students were independent of rural and urban locality. It shows that urban and rural students do not differ significantly. In the present study urban and rural students were found similar with regard to their academic achievement. In other words, residential background does not affect the academic achievement among secondary school students. Further, no significant difference of various dimensions i.e., self regularity skills, self influence, self confidence, social achievement, self and self esteem except self cognition among secondary school students in relation to their residential background. A significant difference was found between self cognition and self efficacy (total) of the urban and rural senior secondary school students. The self cognition and self efficacy (total) of the secondary school students
belongs to rural residential background had higher than their counterpart urban students.

The conclusion may be drawn from the discussion that gender and residential background does not influence metacognitive skills, locus of control, self efficacy and academic achievement. The results may be attributed to increased awareness in society about gender equality.

EDUCATIONAL IMPLICATIONS

The findings of present study have abundance implications for policy makers, administrators, teachers, parents, teachers’ educators and other professionals working in the field of education. The primary objective of the study was to find out the relationship of metacognitive skills with locus of control, self efficacy and academic achievement of secondary school students. Results of the present study revealed a significant relationship between metacognitive skills & locus of control, metacognitive skills & self efficacy and metacognitive skills & academic achievement of secondary school students. To develop the metacognitive skills, to enhance internal locus of control, self-efficacy and academic achievement among the students a variety of study strategies should be provide and monitoring exercises so that students’ effective learning & achievements can be ensured.

As the researches shows that metacognitive skills are important for effective learning because it enables individuals to plan, monitor and regulate their cognitive performance. A metacognitive environment encourages awareness of thinking. Planning should be shared between teachers, school library, media specialist and students. In the creation of a metacognitive environment, teachers can monitor and apply their knowledge, deliberately modeling metacognitive behavior to assist students in becoming aware of their own thinking. Metacognitive strategies are already in teachers' repertoires. So teachers must become alert to these strategies and consciously model them for students. Problem-solving and research activities in all subjects provide opportunities for developing metacognitive strategies. Moreover, teachers need to focus student attention on how tasks are accomplished.
In the present study it is found that very less students have high metacognitive skills. Government schools do not emphasize on better learning, variety of study strategies, better monitoring exercises as a result students are not enough to ensure better learning skills. Materials about metacognitive skills should be properly utilized as instructional material in teaching learning process. Researchers suggested that integrating materials about meanings of metacognition and usage of metacognitive strategies into instructions can effectively increase the effectiveness of the instructions. Proper integration of these materials can not only promote students’ metacognitive skills but also provide metacognitive strategies that they can be use for learning in other domains. Teacher can provide an environment for self-learning in the teaching learning process. In the promotion of self-learning, teachers should enhance the effectiveness of self-learning and students must prepare with the basic skills for self-learning.

Therefore, the present study will be able to provide a sense of direction and a greater element of accountability in the education system for developing metacognitive skills and higher academic achievement among the students. Teachers who want to develop metacognitive skills in the classroom, help students incorporate active reflection in their learning. They model and scaffold the processes of reflection, questioning, evaluating and other thinking strategies that may not come naturally. A teacher can help students to understand what kinds of information they might need to successfully solve a problem. Prediction also helps students to compare their initial thoughts with the final outcomes of a problem or experiment. They must review their work and determine where the strengths and weaknesses are in their work and their thinking. It will reflect on their learning and determine how well they have learned something or how their skills have developed. Students should discuss ideas with each other and their teacher. This process makes thinking more concrete and helps students learn to ask questions, identify gaps in their own knowledge and learn from others’ thoughts and ideas. In teaching learning process students provide feedback to other students about their work in a constructive way. This process allows students giving feedback to practice verbalizing their own thinking and students receiving feedback to improve
their own thinking process and performance. They must use questions to check their own knowledge as they are learning. When students learn to ask questions while they work, they intentionally direct their thinking and clarify the areas where they need assistance.

Metacognitive skills among students should be included as an important component of plus curriculum therefore, these skills should also find place in practical curricula of pre-service and in-service teacher training programmes for teachers. Seminar/workshops should also be organized for teachers and students to equip them with appropriate knowledge and understanding required to develop metacognitive skills.

It has often said that good education is the key to success in life. Many things may contribute to school achievement and locus of control among students is one of them. In the context of education, locus of control refers to the types of attributions we make for our success and/ or failures in school tasks. If someone believes that his or her success and failures are due to factors within their own control, such as effort or ability, then that person is said to have an internal locus of control. On the other hand, if someone believes that his or her success and failures are due to factors outside of their own control, such as fate or luck, then that person is said to have an external locus of control. Internal locus of control can be increased among students by using some strategies. For this teacher should concentrate on strengthening the student’s internal locus of control; it may be helpful in increasing motivation. Attribution training has been shown to increase internal locus of control & improve task persistence. Teachers can help students develop internal-locus of control. Teachers should be careful while evaluating students’ performances, they should attribute students’ achievements/success to their stable factors like intelligence, aptitude, abilities, etc. and the failures to unstable or temporary factors like lack of hard work, negative attitude, lack of confidence, etc. This will help students to realize that they possess the necessary abilities to improve their performance and that their failures were because of temporary factors, which they can control. Teachers have the great influence on many students and they can use this influence to negate the pessimistic attitude
that a student may develop due to factors like a socially disadvantaged background, lack of a role model, lack of support, etc. Teachers can encourage students in whatever abilities they possess and build in students an optimistic attitude. In teaching learning process, each child has a special ability that may be different from another child. Teachers have to observe and analyze the strengths, which may not necessarily be academic in nature, in each child and help children become aware of their strengths. Knowing their strengths will build their self-image and this confidence will lead to the children performing well in areas that are not their forte. Teachers should now and then set challenging goals for students to achieve. These goals should neither be too easy nor too difficult to achieve. Such goals will help develop motivation and the skills to achieve even bigger goals in students.

Present study may help the weak students in cultivating good study habits for their career awareness and to make them perfect in getting knowledge and developing positive attitude towards the things necessary for the achievement in different spheres of life. School should create an environment for self-learning and career oriented skills which will further help students to construct knowledge and they can monitor, regulate and assess their learning in the cognitive processes. In the promotion of self-learning, students must be prepared with the basic skills necessary for self-learning and it will hence, help the students to choose career according to their capacities and interests. Teaching strategies and academic curriculum will enhance internal locus of control among the students so that they can get success in their future planning. Student’s career maturity depends upon their high and low achievement scores. For enhancing this spirit, career development based curriculum should be made according to their locus of control.

The study has its implications for parents’ too. They can influence their children by giving proper care and guidance so that they can develop their inner qualities & enhance the overall personality. The parents should assist their children to develop positive attitude and help them in modifying their behaviour in a socially desirable manner. They should develop the internal locus of control and should lay more emphasis on the hard work among their children. Parents who
are democratic in their dealings with children tend to provide a reasonable freedom to their children. Thus, they can pave a path for making their wards emotionally more matured. Strong supporting evidence indicates that the student who have good academic achievement are very much conscious about their career, avoid delaying important tasks and are able to effectively manage their time in order to complete academic tasks. Parents must create a healthy environment so that they can not only achieve good academic records but subsequently, they become conscious about their career. This will avoid delaying important tasks in future and they will be able to effectively manage their time in order to complete their assigned academic tasks.

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. The following strategies can be used to foster self efficacy among the students. A teacher should make some peer groups as defined by gender, ethnicity, social circles, interests, achievement level, clothing, or age. Because students can learn by watching a peer succeeds at a task. A teacher should provide proper feedback to the students on any completing any task related to their learning. When giving feedback on student performance, compare to past performances by the same student, don't make comparisons between students. So teacher should give them consistent, credible and specific encouragement. Teachers with a high sense of efficacy about their teaching capabilities may have an easier time motivating their students and enhancing their cognitive development. These teachers may also be able to rebound from setbacks and more willing to experiment with new ideas or techniques. Moreover, academic and co-curricular activities should be organized in a better way to develop cognitive and non-cognitive abilities among the students.

**SUGGESTIONS FOR FURTHER STUDY**

No research can be said to be complete in it especially in behavioural sciences. Every time one tends to find out some new facts or relationship. So obviously the findings however, objective and reliable, they may appear to be
applicable to that population only at the most. But this particular population is a very small proportion of the large population so in behavioural science replica studies on different samples are necessary in order to reach more broader and comprehensive generalizations. In this case also the present investigator cognizant of own limitations suggests that more and more replica studies be conducted taking representative samples from different parts of the country. Having completed the present study the investigator has put forth some suggestions for further research as follows:

• A large sample of school students from different states may be undertaken with the same set of variables.
• A similar study can be conducted in other parts of Haryana as well as in India.
• The similar study may be undertaken on college/schools students of different streams.
• The present study was confined to the senior secondary school students only. Similar studies can also be conducted on Secondary schools / universities students and similar study can be conducted for all levels of students.

A comparative study can be conducted at all the levels using to metacognitive skills, locus of control, self efficacy and academic achievement of Government & Private students.