CHAPTER - VI
SUMMARY

6.1 INTRODUCTION

Today one of the main goals of education is to make the students gain the thinking skills and strategies which they will use throughout their lives, rather than storing information. A good education should be able to show the students how to learn, how to remember, how to motivate themselves and how to control their emotions. For all these reasons, to investigate some cognitive and emotional skills of students is quite important. In India the major emphasis in the contemporary educational circles is both on quantity as well as quality of secondary education. Quality education stresses on all round development of a child in academic as well as co-academic areas in this relation efforts are being made for imparting value education, strengthening emotional intelligence and meta-cognitive skills, etc. which will make a child to lean more and develop accordingly. Emotional intelligence and meta-cognitive skills are the emerging areas which need to be explored for better schooling of children. In the present work too these areas have been considered important to study in school situation. Value education has come to acquire increasing prominence in educational discussion at all levels during recent times in our country.

Also family and school play an important role in maintaining emotional balance of a child. Parental discord at home or school environment that is not sensitive to a child's needs may lead to the development of negative emotions like pessimism, anxiety, hatred, rebellion in the child. A sizeable number of articles in various newspapers and magazines are devoted to those emotional problems. With this assumption the present study tries to find out the relationship between the affective variable, i.e. emotional intelligence and the cognitive variables, i.e. academic achievement and skills of meta-cognition. However, no study seems to have been conducted on the academic achievement of secondary school students in relation to meta-cognitive skills and emotional competence as professed in the present study.

Thus, academic achievement holds a cardinal place in the field of education and is considered as the outstanding inducement for the progress of individuals. It is the unique
responsibility of all educational institutions to promote a wholesome academic development of the students. It is the most desirable outcome of school life. All the activities of school revolve around the academic achievement of the students. Administrators, educators, curriculum planners, teachers and students work to make teaching-learning process feasible for academic excellence. Academic achievement is an index of success of students’ performance, teachers’ efforts and significance of curriculum and educational objectives.

Academic achievement, as a matter of fact, is a very complex variable. It is the resultant of diverse factors acting and interacting in a variety of ways. The variables like emotional intelligence, meta-cognitive skills, self-concept, socio-economic status, intelligence, aptitude etc. are considered to be the significant determinants of the academic achievement of the adolescents. Various other organic and environment factors like gender, locality, type of institution, home environment, birth order etc. also determine the academic achievement of students. Emotional intelligence occupies an important place in adolescent’s life and is a significant determinant of his academic achievement.

“Emotional intelligence” has grown in popularity with theorists and practitioners alike who recognise the possibilities of such a concept in broadening the understanding of human potential. Traditionally, a person’s abilities, accomplishments and successes were predicted solely on verbal and performance-based tasks, known as general intelligence. This, according to Gardner (1999:19-21) was a restricted view of the scope of human potential. He argued that the assessment of intellect based solely on academic tasks is very limiting, as the brain has the ability to harbour an indefinite number of intellectual capacities. It is a person’s culture as well as his life opportunities that usually determine the exposure and development of particular capabilities within the individual. Although other researchers have attempted to broaden the concept of intelligence, it was Gardner (1999:41-43) who developed the concept of “multiple intelligences”. He included seven key areas: verbal, mathematical-logical, spatial, bodily-kinaesthetic, musical and finally the two personal intelligences: intrapersonal and interpersonal. This broadened view of intelligence has resulted in a greater admiration for a variety of abilities and skills within the human realm.
In recent years, meta-cognitive skills are an object of considerable concern. “Meta-cognition” is often simply defined as “thinking about thinking.” In actuality, defining meta-cognition is not that simple. Although the term has been part of the vocabulary of educational psychologists for the last couple of decades and the concept for as long as humans have been able to reflect on their cognitive experiences, there is much debate over exactly what meta-cognition is. One reason for this confusion is the fact that there are several terms currently used to describe the same basic phenomenon (e.g., self-regulation, executive control), or an aspect of that phenomenon (e.g., meta-memory) and these terms are often used interchangeably in the literature. While there are some distinctions between definitions (see Van Zile-Tamsen, 1994, 1996 for a full discussion), all emphasize the role of executive processes in the overseeing and regulation of cognitive processes.

Achievement in the educational situation has frequently been referred to as academic achievement or academic attainment. The term academic achievement signifies various aspects of learning as “Ability to learn” (Titlon 1949), “Academic aptitude” (Traverse, 1949), “Measures of motivation” (McClelland 1953), “Level of aspiration” (Sawrey, 1958) and “Creative capacity” (Torrence, 1964). Dictionary of Psychology (Chaplin, 1965) defines educational or academic achievement as specified level of attainment proficiency in academic work as evaluated by the teacher, by standardized tests or by combination of both. According to Dictionary of Education (Carter 1959), “Academic achievement means the knowledge attained or skills developed in school subjects, usually determined by test scores or by marks assigned by teachers or both.”

Academic achievement is related to the acquisition of principles and generalizations and the capacity to perform efficiently. Assessment of academic performance has been largely confined to the evaluation in terms of information, knowledge and understanding, certain manipulations of objects, symbols and ideas. Academic achievement is employed as a customary criterion to measure the level of knowledge, understanding and acquisition of skill. Yet, in spite of this one is still far from reaching an understanding of the actual process of academic achievement. With the result, current level of understanding the complexities of school achievement, especially at high school stage, falls far short of what is desirable.
There is no gain saying the fact that learning is not limited to mere acquisition of information, it also includes attitudes, interests, values, etc. Therefore, the acquisition of desirable characteristics is as much an achievement, as is knowledge of the principles of science or facts, world history or language and literature. Although achievement is used in this broad sense yet it is customary for schools and colleges to be concerned to a great extent with the development of knowledge, understanding and acquisition of skills (Narayana Rao, 1980). In other words, the learning which educational intimations concern them with is predominantly intellectual. This may be in part owing to the fact that in the intellectual field the teacher can be relatively more certain of achieving the objectives he had set for himself than in other areas or domains. Heads of the institutions, curriculum planners, teachers and others who are involved in the task of helping students to achieve better would like to have knowledge of the extent of the influence, these correlates exert on achievement. Further, a synoptic view of the researches done would be of utmost importance to the educational researcher to enable him to explore greater depths in this, rather important area of achievement (Anand and Padma, 1989). Thus, in the present study an attempt is made in the direction of exploring the impact of emotional intelligence and meta-cognitive skills on the academic achievement of adolescent students for the present investigation.

6.2 JUSTIFICATION OF THE STUDY

There is a great need of educated persons in a country like India where government doing all his efforts to make it a developed country as soon as possible. And without proper education and achievement students cannot go a long. For this purpose the school can make a direct and vitally important contribution by raising the standard of achievement of students and reducing the problem of wastage and stagnation. So, there is a need to pay proper attention to the secondary school students specially. This is the period in which a child gets physical, emotional and mental maturity. About this time, there appears a sense of self dependence accompanied by a feeling of responsibilities among them. Thus we need to channelize their energies to attain the goal of education system.

Thus, academic achievement holds a central place in the field of education and is considered as the outstanding inducement for the progress of individuals. It is the unique responsibility of all educational institutions to promote a wholesome academic
development of the students. It is the most desirable outcome of school life. All the activities of school revolve around the academic achievement of the students. Administrators, educators, curriculum planners, teachers and students work to make teaching-learning process feasible for academic excellence. academic achievement is an index of success of students’ performance, teachers’ efforts and significance of curriculum and educational objectives. Moreover emotional intelligence is an elevator of the academic achievement of the adolescents as it opens the avenues of better occupation and job opportunities. It has also been noticed that the performance of a student in the classroom is significantly correlated with meta cognitive skills.

Though the goal of all educational programmes of every country is envisaged as maximizing the achievement of students, experience reveals that students do not attain the same level of success. With due recognition to individual differences in ability, interest and aptitude, it is evident that all children are not capable of reaching the same educational standard although all of them are quite capable of being improved upon. Thus there is a need to know the factors which contribute towards high achievement and the factors which act as barriers to it. In the present study an attempt has been made to see the effect of variables namely emotional intelligence and meta-cognitive skills on the academic achievement of secondary school students.

The novelty and validity of the present problem for study justify with the time to study and explore the unknown so that progress of the secondary school students as well as of the nation can be accelerated. It will be helpful in producing their interest about their occupations and careers. Therefore, the investigator due to her interest in exploring the various factors responsible for the low achievement and high achievement of secondary school students considered it worthwhile to study the emotional intelligence and meta cognitive skills as determinants of academic achievement of secondary school students for the present investigation.

6.3 STATEMENT OF THE PROBLEM

The problem may, therefore be stated as under:

“EMOTIONAL INTELLIGENCE AND META COGNITIVE SKILLS AS DETERMINANTS OF ACADEMIC ACHIEVEMENT OF SECONDARY SCHOOL STUDENTS ”.
6.4 OPERATIONAL DEFINITIONS OF THE TERMS USED

Emotional Intelligence: Emotional intelligence (EI) is the ability to identify, assess, and control the emotions of oneself, of others, and of groups.

Meta-cognitive skills: Meta-cognitive skills may be defined as the skills of a student in terms of: (1) Self-planning; (2) Self-problem-solving; (3) Self-regulation; (4) Self-awareness; (5) Self-monitoring; (6) Self-evaluation; and (7) Self-reflection.

Secondary School Students: Students studying in class IX are considered as secondary school students.

Academic Achievement: The marks obtained by the students of class IX in the achievement test based on the IX class science syllabus are considered as their academic achievement in science.

6.5 VARIABLES INVOLVED

In this study, academic achievement was treated as dependent variable and emotional intelligence and meta-cognitive skills of students were treated as independent variables.

6.6 OBJECTIVES OF THE STUDY

The present study was carried out with the following objectives:

Objectives Related to Emotional Intelligence

1. To study the effect of emotional intelligence of adolescents on their academic achievement.
2. To study the effect of emotional intelligence of male adolescents on their academic achievement.
3. To study the effect of emotional intelligence of female adolescents on their academic achievement.
4. To study the effect of emotional intelligence on the academic achievement of secondary school students belonging to rural area.
5. To study the effect of emotional intelligence on the academic achievement of secondary school students belonging to urban area.
6. To study the effect of emotional intelligence on the academic achievement of secondary school students studying in government schools.
7. To study the effect of emotional intelligence on the academic achievement of secondary school students studying in private schools.

B. Objectives Related to Meta-cognitive Skills

8. To study the effect of meta-cognitive skills of secondary school students on their academic achievement.

9. To study the effect of meta-cognitive skills of male secondary school students on their academic achievement.

10. To study the effect of meta-cognitive skills of female secondary school students on their academic achievement.

11. To study the effect of meta-cognitive skills on the academic achievement of secondary school students belonging to rural area.

12. To study the effect of meta-cognitive skills on the academic achievement of belonging secondary school students to urban area.

13. To study the effect of meta-cognitive skills on the academic achievement of secondary school students studying in government schools.

14. To study the effect of meta-cognitive skills on the academic achievement of secondary school students studying in Private schools.

C. Objectives related to Interaction effect of Emotional Intelligence, Meta-cognitive Skills and Academic Achievement

15. To see the interaction effect of emotional intelligence and meta-cognitive skills on academic achievement of secondary school students.

6.7 HYPOTHESES OF THE STUDY

Based upon the above mentioned objectives, the following hypotheses were formulated. Based upon the above mentioned objectives, the following hypotheses were formulated.

A. Hypotheses Related to Emotional Intelligence

\( H_{01} \) There exists no significant difference in academic achievement among secondary school students with high and low level of emotional intelligence.

\( H_{02} \) There exists no significant difference in academic achievement among male secondary school students with high and low level of emotional intelligence.
Hₐ₃  There exists no significant difference in academic achievement among female secondary school students with high and low level of emotional intelligence.

Hₐ₄  There exists no significant difference in academic achievement among secondary school students of rural area with high and low level of emotional intelligence.

Hₐ₅  There exists no significant difference in academic achievement among secondary school students of urban area with high and low level of emotional intelligence.

Hₐ₆  There exists no significant difference in academic achievement among secondary school students of government schools with high and low level of emotional intelligence.

Hₐ₇  There exists no significant difference in academic achievement among secondary school students of private schools with high and low level of emotional intelligence.

B.  Hypotheses Related to Meta-cognitive Skills

Hₐ₈  There exists no significant difference in academic achievement among secondary school students with high and low meta-cognitive skills.

Hₐ₉  There exists no significant difference in academic achievement among male secondary school students with high and low meta-cognitive skills.

Hₐ₁₀ There exists no significant difference in academic achievement among female secondary school students with high and low meta-cognitive skills.

Hₐ₁₁ There exists no significant difference in academic achievement among secondary school students of rural area with high and low meta-cognitive skills.

Hₐ₁₂ There exists no significant difference in academic achievement among secondary school students of urban area with high and low meta-cognitive skills.

Hₐ₁₃ There exists no significant difference in academic achievement among secondary school students of government schools with high and low meta-cognitive skills.

Hₐ₁₄ There exists no significant difference in academic achievement among secondary school students of private schools with high and low meta-cognitive skills.

C.  Hypotheses related to Interaction Effect of Emotional Intelligence, Meta-cognitive Skills and Academic Achievement

H₀¹⁵ There is no significant interaction effect of emotional intelligence and meta-
cognitive skills on academic achievement of secondary school students.

6.8 DELIMITATIONS OF THE STUDY

Keeping in view the time available and limited resources, the present study was delimited to the following aspects:-
1. The students of IX classes will be included in the study.
2. Only IX class students of secondary schools in Panipat district will be taken up.
3. The study will be delimited to four components of Meta Cognitive skills i.e. self-awareness, self problem-solving, self regulation, and self-evaluation.
4. The study will also be delimited to the academic achievement of science subject only.
5. The study will include the relationship as well as comparison of emotional Intelligence, meta-cognitive skills and academic achievement in science.

6.9 CHAPTERISATION SCHEME

Out of six chapters, Chapter I is Introduction, which includes Need of the study, Variables involved, Objectives, Hypotheses and delimitations of the study. Chapter II is devoted to the Review of the Related Literature. In Chapter III, the Design of the Study, Sample, Tools, Procedure and Statistical Techniques have been presented. Chapter IV deals with the Analysis and Interpretation of data along with the Discussion of Results. In Chapter V, the Findings, Educational Implications of the study and Suggestions for Further Research have been given. Chapter VI is devoted to the Summary of the study.

6.10 DESIGN OF THE STUDY

In the present study, descriptive method was used. The study was dealt in two phases.

1. Comparison phase: In this phase, comparison was made to study the academic achievement in relation to their meta-cognitive skills and emotional intelligence of the secondary school students. In the present study, each of the three independent variables (meta-cognitive skills and emotional intelligence) was varied at the different levels as shown in the schematic design:-
II. Interaction phase: In this phase, an attempt was made to find out the interaction effect of the meta-cognitive skills and emotional intelligence of students on their academic achievement separately. An interaction effect of all the independent variables (meta-cognitive skills and emotional intelligence) on the dependent variable (academic achievement) in the present study was also explored separately. The subjects were given different designations and made groups to find out the interaction effect which were also being represented diagrammatically in the Fig 3.2.

- **Interaction Effect of Meta-cognitive Skills and Emotional Intelligence on Academic Achievement**
  
  **HMSHEI:** High Meta-Cognitive Skills + High Emotional Intelligence  
  **HMSLEI:** High Meta-Cognitive Skills + Low Emotional Intelligence  
  **LMSHEI:** Low Meta-Cognitive Skills + High Emotional Intelligence  
  **LMSLEI:** Low Meta-Cognitive Skills + Low Emotional Intelligence

**Population**

A population is any group of individuals that have one or more characteristics in common that are of the interest to the investigator. It may be all the individuals of a particular type or a restricted part of that group (Best, 1977). Thus a 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 or salaries etc. Secondary schools students studying 9th class in various schools located at Panipat District of Haryana State constituted the target population for the present study.

**Sample**

Measuring the entire population is impracticable though not entirely impossible. So, one has to draw a sample from the population concerned. 320 school students selected by the method of random sampling from the target population constituted the sample for the present investigation.
Tools Used

(1) Mangal Emotional Intelligence Inventory developed by Mangal & Mangal.
(2) Meta-cognitive Skills Scale developed by A Gupta in 2005.
(3) Achievement Test in Science developed by investigator herself.

Procedure for Data Collection

In any type of research, exercise data are gathered so that hypotheses formulated at the planning stage may be tested. Collection of factual information or data required adaptation of a systematic procedure, because as per Whittery (1950) ‘Data are the things we think with. They are the raw material of reflection until by comparison, combination and evaluation they are stepped up to higher levels of generalization, where again they serve as basic material for further and higher thinking’. It also requires collection of relevant data adequate in quality and quantity and as reliable and valid as possible.

In the beginning, all the 320 students studying in 9th class, selected for the present study were administered Emotional Intelligence Inventory (EII) as per standardized instructions given in the manual. There are 100 questions in the test that require verbal ability for answering. The students were told to read and respond to each item solely on the basis of how the item applies to his or her own feelings about the world of work. The time limit for the completion of total test was 2 hours. After establishing rapport with the students, they were asked to fill the top columns of personal particulars before the test started. They were told to mark the responses on the prescribed answer sheets.

As the second one, Meta-cognitive Skills Scale (MCSS) by Dr. A Gupta was administered on the same students. The test consists of 35 items of incomplete sentences/items which are to be completed by the subjects by putting a check-mark on any one of the five alternative responses given against each item. The students were required to respond according to what he / she feels about himself/herself with reference to that statement. They were told that the answers will be kept confidential. The investigator explained to all the students the instructions and way of answering the questions. There was no time limit for answering the SCQ but they were asked to complete the test within 30 minutes as possible. The investigator assured the students that
their answers and scores would be treated with strict confidence. After giving these instructions and distributing the Meta-cognitive Skills Scale among all the 320 students, the researcher explained one example given in the questionnaire. Then the students were asked to start the Meta-cognitive Skills Scale.

After the above two tests, the third one Science Achievement Test was administered on the same students. The final test contains 30 items and each item is provided with four alternatives. The test was distributed to the same 320 students of 9th class. The students were asked to read each item carefully and respond it by marking a tick on any one of the five responses against each item which described them well. It was told that there is no right or wrong answer. There was a time limit of 45 minutes for answering the questions of achievement test. While administering all tests, the time limit was strictly followed as per the instructions given by the authors. The investigator gave his sincere attention via supervision for the time while administering the tests.

After the administration of tools, the next step was scoring the answer sheets. Scoring of the answer sheets was done strictly according to the instructions given in the concerned manual.

**STATISTICAL TECHNIQUES USED**

Statistical techniques are employed on the raw score to make it meaningful and to test the significance of the scores. Without use of statistical techniques raw scores do not have their own meaning and weight. Therefore after sorting the data for final scores, Means, SD’s, t-test and ANOVA were employed as statistical techniques in the present study. Means, SD’s and t-test were used to compare the academic achievement of adolescents with high and low emotional intelligence: high and low meta-cognitive skills. ANOVA was used to find out the interaction effect of the emotional intelligence meta-cognitive skills on their academic achievement.
6.11 MAJOR FINDINGS OF THE STUDY

A) Academic Achievement of Students with High and Low Emotional Intelligence and High and Low Meta-cognitive skills

- There was significant difference in academic achievement among students with high and low level of emotional intelligence. It was found that high emotional intelligence students have more academic achievement than low emotional intelligence students.

- Significant difference was found in academic achievement among students with high and low level of meta-cognitive skills. Students with high meta-cognitive skills showed better academic achievement than the students with low meta-cognitive skills.

B) Effect of Emotional intelligence on Academic Achievement of Students

- Significant difference was found in academic achievement of male students with high and low emotional intelligence. It was found that high emotional intelligence male students have more academic achievement than low emotional intelligence male students.

- There was significant difference in academic achievement of female students with high and low emotional intelligence. High emotional intelligence female students showed more academic achievement than low emotional intelligence female students.

- Significant difference was found in academic achievement of rural area students with high and low level of emotional intelligence. Results revealed that high emotional intelligence students of rural area have high academic achievement than low emotional intelligence students.

- There was significant difference in academic achievement of urban area students with high and low level of emotional intelligence. It was found that high emotional intelligence students of urban area have high academic achievement than low emotional intelligence students of urban area.
Significant difference was found in academic achievement of students studying in government schools with high and low level of emotional intelligence. It was found that students studying in government schools with high level of emotional intelligence were better than their counterparts with low level of emotional intelligence.

There existed significant difference in academic achievement of students studying in private school with high and low level of emotional intelligence. Students studying in private schools with high emotional intelligence have high academic achievement than the low emotional intelligence students studying in private schools.

**C) Effect of Meta-cognitive Skills on Academic Achievement of Students**

Significant difference was found in academic achievement of male students with high and low level of meta-cognitive skills. It was found that male students with high meta-cognitive skills showed better academic achievement than low metacognitive skills male students.

There was significant difference in academic achievement of female students with high and low level of meta-cognitive skills. Results revealed that high meta-cognitive skills female students have more academic achievement than low meta-cognitive skills female students.

Significant difference was found in academic achievement among students of rural area with high and low level of meta-cognitive skills. Results showed that high meta-cognitive skills students of rural area students were found to be better on academic achievement than low meta-cognitive skills rural area students.

There was significant difference in academic achievement among students of urban area with high and low level of meta-cognitive skills. It was found that urban area students with high meta-cognitive skills showed high academic achievement than their counterparts with low meta-cognitive skills.
• Significant difference was found in academic achievement among students of government schools with high and low level of meta-cognitive skills. It was found that students studying in government schools with high meta-cognitive skills were better in academic achievement than the students with low meta-cognitive skills.

• There was significant difference in academic achievement among students of private school with high and low level of meta-cognitive skills. The results revealed that the students studying in private schools with high meta-cognitive skills were also high in academic achievement as compared to the students with low meta-cognitive skills.

D) Interaction Effect of Emotional Intelligence and Meta-cognitive Skills of Students on their Academic Achievement

• There was significant interaction effect of emotional intelligence and meta-cognitive skills of students on their academic achievement. It was found that the students with high emotional intelligence and high meta-cognitive skills were high on academic achievement and the students with low emotional intelligence and low meta-cognitive skills have low academic achievement. It was further found that effect of emotional intelligence is higher on academic achievement of students than their meta-cognitive skills.

6.12 EDUCATIONAL IMPLICATIONS

A perusal of the present study makes it evident that the investigator attempted to break new ground in research on academic advancement of students. The focus on academic achievement of students constitutes new dimensions of research on attainment level. Findings of the present study reveal some important educational implications for teachers, teacher-educators, school authorities, parents and students.

The study has revealed that there is significant difference in academic achievement of students with respect to their emotional intelligence and meta-cognitive skills. Students with high emotional intelligence were found to be better in their academic achievement as compared to the students with low intelligence. This implies that the teachers should pay personal attention to guide the students with low emotional intelligence. They should be given proper guidance and counseling by the school authorities and should be motivated by their teachers and parents to develop a clear understanding of different
vocations. Every effort and contribution of the students from low emotional intelligence group should be acknowledged and appreciated by the teacher during counseling because the ultimate aim of helping low emotional intelligence adolescent should be to raise their academic level. But the students who belong to high emotional intelligence group should not be neglected at the same time. High emotional intelligence students should also be encouraged by their teachers and parents to maintain and upgrade their performance level. Therefore, group discussions and career talks should be organized grouping students with high and low emotional intelligence together. This will help the high emotional intelligence students to utilize their energies in right direction and will also help to bridge the gap between the teacher and the important section of our society. Therefore, we should take due care to enhance their academic achievement and high achiever students should also be motivated by their teachers and parents to maintain their academic attainment level. For the progress and development of our nation we need youth in every field. Therefore, it is very important to make proper use of human resources. So, the students who are high achievers need to be brought into the right career stream by encouraging them further and low achievers should also be motivated to perform better.

The study further reveals that meta-cognitive skills of students play a significant role in determining their academic achievement. Students with high meta-cognitive skills exhibited better achievement than the students with low meta-cognitive skills. Therefore, students who belong to low meta-cognitive skills group should be provided proper learning facilities and motivated by the teachers and parents so that they can excel in their studies. Such should be given proper motivation by the school authorities. There are many techniques for the motivation and encouragement of students with low meta-cognitive skills like rewards, incentives etc. The schools should organize competitions and games for them so that they do not feel neglected due to lack of opportunities and get motivated to perform better. Their class teachers and counsellors should interact with their parents to get the feedback and to solve the problems which hamper their achievement. These parent-teacher meetings should be the regular feature of the school programme to encourage such students for better academic achievement.
The study has revealed significant interaction effect of emotional intelligence and meta-cognitive skills on academic achievement of students. Emotional intelligence, meta-cognitive skills were found to be significantly and positively related with the academic achievement of students. This implies that all educational efforts to raise the academic achievement of students should be considered in the light of individual differences of students with respect to their emotional intelligence and meta-cognitive skills. Those who are low in emotional intelligence, meta-cognitive skills should be given extra care. The study has further explored that effect of emotional intelligence is higher on academic achievement of students than their meta-cognitive skills. Thus, emotional intelligence and meta-cognitive skills effect the academic achievement of students in descending order. This means that while focusing on academic achievement of students, the role of these variables should not be neglected. These should be considered as important factors in deciding and improving the academic performance of students.

The fact that the students constitute an important part of society can’t be denied. So in the present scenario much emphasis should be laid to uplift the students and youth in society. If we neglect them they may lose their interest in academic work and become bored and frustrated and indulge themselves in undesirable activities. And we cannot waste the energies of our able youth. Developing country like India needs gifted men in various fields, therefore the government is paying special attention towards their education because the failure in school takes a heavy loss in terms of human energy, time, money and above all prosperity. India cannot afford the loss of manpower within the high ability range when it is known that every country has a limited ‘pool of ability’. For this purpose the schools can make a direct and vitally important contribution by raising the standard of achievement of students and reducing their academic wastage.

As, it is evident that all the three independent variables included in the study exert a significant influence on each other and on the academic achievement of the students also. In this way attainment level of students through various academic as well as co-curricular activities can be increased by enhancing their emotional intelligence and meta-cognitive skills also.
6.13 SUGGESTIONS FOR FURTHER RESEARCH

Due to paucity of time and resources at the disposal of the investigator, all the aspects of the problem cannot be expected to deal with. Based on the findings of the current study, some of the suggestions in various areas are identified as follows:

A. SUGGESTIONS FOR TEACHERS

- To set up individualized schedules, that address to the special meta-cognitive skills and emotional needs of the children for particular academic problem. The teacher should acknowledge that distinctions exist in potential of the students with high and low emotional intelligence and meta-cognitive skills.

- Teachers use teaching of learning support environment to facilitate development of student’s general skills.

- Teachers should use problem solving methods and creativity based learning environment inspite of traditional method to develop meta-cognitive skills.

- The teachers should use group activities for projects to develop social factors.

- The teachers should help students to learn basic skills so that they can afford the leisure to focus on how they are thinking.

- Teachers should encourage integration of knowledge acquired on different occasions.

B. SUGGESTIONS FOR PARENTS

- Parents improve conditions prevailing at home by delegating responsibilities on children, listening patiently to them bearing a sympathetic and trustful attitude.

- Encourage friendship and group engagement so as to facilitate development of emotional intelligence and meta-cognitive skills.

- The study suggest to schedule a time in which honest, free and open sharing of child’s understanding, feeling about their learning and other aspects of life take place.
• Parents should allow them to handle issues independently.

C. SUGGESTIONS FOR FURTHER RESEARCH

• Similar study can be conducted on a larger sample and in different regions to have in depth knowledge of the factors deciding academic performance of students.

• The present study was conducted on the sample of 320 students only. It is suggested that a comparative study with a large sample can be conducted in respect of the academic achievement of elementary students also.

• The present piece of research was confined to study the academic achievement of students with respect of their emotional intelligence, meta-cognitive skills in high and low groups only. Comparison with respect to gender, locality and type of school was made in terms of high and low level of these variables. It is suggested that a comparative study can be conducted in academic achievement of male and female, urban and rural and private government schools students also.

• In the present study, the sample was delimited to 9th class students of Haryana state only. It can be extended to other states also.

• In the present study, the sample was delimited to 9th class students form Haryana state. The similar study can be conducted in other districts and at other levels of education viz. primary, secondary and higher.

• The present piece of research was confined to study the academic achievement of students in relation to their meta-cognitive skills, emotional intelligence only. The same study can also be conducted by taking the variables like personality, creativity and study habits.

• In the present study, comparison was made on the samples of high and low group of students belonging to emotional intelligence, meta-cognitive skills respectively. It is suggested that a comparative study of high, average and low group of students belonging to intelligence, socio-economic status and self-concept respectively can be conducted.
The list which has been given above is, however, not exhaustive but illustrative. There are vast areas in this field which have not been explored so far and any attempt in this direction may both be rewarding and instructive. If the present study is able to provide thinking in this direction, the efforts of the investigator would be amply rewarded.