

**A STUDY OF EMOTIONAL INTELLIGENCE AND SOCIAL
INTELLIGENCE WITH RESPECT TO META-COGNITION
OF B.Ed. STUDENTS**

A Dissertation Submitted

in partial fulfilment of requirement of the degree of

MASTER OF EDUCATION



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CERTIFICATE

This is to certify that Ms. **Shuchi Pandey** has conducted her dissertation work entitled “**A Study Of Emotional Intelligence And Social Intelligence With Respect To Meta-cognition of B.Ed. Students**” under my guidance and supervision for the partial fulfilment of the degree of Master of Education (M.Ed.) at Centre of Advanced study in education (CASE), Faculty of Education and Psychology, The Maharaja Sayajirao University of Baroda, Vadodara. To the best of my knowledge, this dissertation is her genuine and original work. I find it satisfactory and fit for submission and evaluation.

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DECLARATION

I, **Shuchi Pandey** hereby declare that the dissertation entitled “**A Study Of Emotional Intelligence And Social Intelligence With Respect To Meta-cognition Of B.Ed. Students**” conducted and submitted by me for the partial fulfilment of the Masters of Education Programme at the Department of Education, Faculty of Education and Psychology, the Maharaja Sayajirao University of Baroda, Vadodara. It is my original work and has not been submitted earlier either to The Maharaja Sayajirao University of Baroda or any other institute for any course requirement. I also declare that no chapter of this dissertation in whole or in part is taken from any earlier work done either by me or any other person.

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TABLE OF CONTENTS

CONTENT	PAGE NO.
Certificate	i
Declaration	ii
Acknowledgement	iii
Table of contents	iv-vii
List of Table	viii
List of Figure	ix
List of Appendices	x
List of Abbreviation used in present study	x

TITLE		PAGE NO.
CHAPTER ONE: CONCEPTUAL FRAMEWORK		1-30
1.0.0	Introduction	1
1.1.0	Meta-cognition	4
1.1.1	Origin of Meta-cognition	5
1.1.2	Definitions of Meta-cognition	7
1.1.3	Components of Meta-cognition	8
1.1.4	Meta-cognitive skills	9
1.1.5	Principles of Meta-cognition	10
1.1.6	Models of Meta-cognition	12
1.1.7	Dimensions of Meta-cognition	14
1.2.0	Social intelligence (SI)	15
1.2.1	Definitions of SI	15
1.2.2	Components of SI	18
1.2.3	Key elements of SI	19
1.2.4	Development of SI	19

1.2.5	Models of SI	19
1.2.6	Social skills	21
1.3.0	Emotional intelligence (EI)	21
1.3.1	Definitions of EI	22
1.3.2	History of EI	23
1.3.3	Domains of EI	24
1.3.4	Importance of EI	24
1.4.0	Rationale of the study	26
1.5.0	Statement of the problem	28
1.6.0	Objectives of the study	28
1.7.0	Hypothesis of the study	29
1.8.0	Operationalisation of the terms	29
1.9.0	Limitation of the study	29
1.10.0	Delimitation of the study	30
1.11.0	Scheme of chapterisation	30

CHAPTER TWO: REVIEW OF RELATED LITERATURE		31-56
2.0.0	Introduction	31
2.1.0	Review related to EI	31
2.2.0	Review related to SI	35
2.3.0	Review related to Meta-cognition	39
2.4.0	Review related to EI & SI	45
2.5.0	Review related to EI & Meta-cognition	50
2.6.0	Review related to SI & Meta-cognition	53
2.7.0	Implications of the Review of Related Literature for the proposed study	54

CHAPTER THREE: RESEARCH METHODOLOGY		57-60
3.0.0	Introduction	57
3.1.0	Methodology of the study	57
3.1.1	Population of the study	57
3.1.2	Sample of the study	58
3.1.3	Tools of data collection	58
3.1.4	Analysis of data	60

CHAPTER FOUR: DATA ANALYSIS & INTERPRETATION		61-77
4.0.0	Introduction	61
4.1.0	Descriptive analysis of data	61
4.1.1	Study of Emotional Intelligence (EI)	62
4.1.2	Study of Social Intelligence (SI)	64
4.1.3	Study of Meta-cognition	67
4.1.4	Study of relationship between EI & Meta-cognition	69
4.1.5	Study of relationship between SI & Meta-cognition	70
4.1.6	Study of relationship between SI & EI	72
4.1.7	Study of relationship between both EI & SI with Meta-cognition	74
4.1.8	Study of relationship between Meta-cognition & Predicted Meta-cognition	75
4.2.0	Conclusion	77

CHAPTER FIVE: SUMMERY, DISCUSSION & CONCUSION		78-89
5.0.0	Introduction	78
5.1.0	Overview of the study	78
5.2.0	Statement of the problem	79
5.3.0	Objectives of the study	79

5.4.0	Hypothesis of the study	80
5.5.0	Operational definitions of the terms	80
5.6.0	Limitation of the study	81
5.7.0	Delimitation of the study	81
5.8.0	Methodology of the study	81
5.8.1	Population of the study	81
5.8.2	Sample of the study	81
5.8.3	Tools of data collection	81
5.8.4	Analysis of data	82
5.9.0	Major findings of the study	82
5.10.0	Discussion	84
5.11.0	Implications of the present study	87
5.12.0	Suggestions for further study	88
5.13.0	Conclusion	89
BIBLIOGRAPHY		90-93
APPENDIX		94-102

LIST OF TABLES

TABLE NO.	LIST OF TABLE	PAGE NO.
1.1	Social Intelligence definitions emphasising cognitive components	16
1.2	Social Intelligence definitions emphasising behavioural components	17
4.1	Class interval representation of Emotional Intelligence of B.Ed. students	62
4.2	Central tendency, variability, skewness & kurtosis wise distribution of EI of B.Ed. students along with their maximum & minimum scores	64
4.3	Class interval representation of Social Intelligence of B.Ed. students	65
4.4	Central tendency, variability, skewness & kurtosis wise distribution of SI of B.Ed. students along with their maximum & minimum scores	65
4.5	Class interval representation of Meta-cognition of B.Ed. students	67
4.6	Central tendency, variability, skewness & kurtosis wise distribution of MI of B.Ed. students along with their maximum & minimum scores	67
4.7	Correlation between Emotional Intelligence and Meta-cognition	69
4.8	Correlation between Social Intelligence and Meta-cognition	70
4.9	Correlation between Emotional Intelligence and Social Intelligence	72
4.10	ANOVA	75
4.11	Regression table	75

LIST OF FIGURES

FIGURE NO.	TITLE	PAGE NO.
1.1	Activities included in Meta-cognition	5
1.2	Principles of Meta-cognition	11
1.3	Flavell's model of Meta-cognition	12
1.4	Brown's model of Meta-cognition	14
1.5	Four components of social intelligence	18
4.1	Histogram of Emotional Intelligence	63
4.2	Probability distribution of Emotional Intelligence	63
4.3	Histogram of Social Intelligence	66
4.4	Probability distribution of Social Intelligence	66
4.5	Histogram of Meta-cognition	68
4.6	Probability distribution of Meta-cognition	68
4.7	Correlation heat map and scatter plot between Emotional Intelligence and Meta-cognition	69
4.8	Correlation heat map and scatter plot between Social Intelligence and Meta-cognition	71
4.9	Correlation heat map and scatter plot between Emotional Intelligence and Social Intelligence	73
4.10	Predicted Meta-cognition vs. actual Meta-cognition	76

LIST OF APPENDICES

Annexure 1	EMOTIONAL INTELLIGENCE TOOL
Annexure 2	META-COGNITION INVENTORY
Annexure 3	SOCIAL INTELLIGENCE SCALE

LIST OF ABBREVIATION USED IN PRESENT STUDY

MI	META-COGNITION
EI	EMOTIONAL INTELLIGENCE
SI	SOCIAL INTELLIGENCE

CHAPTER – I

**CONCEPTUAL
FRAMEWORK**

CHAPTER I

INTRODUCTION

1.0.0 INTRODUCTION

The overall progress of the nation depends mainly on its system of education which could be well understood from the remarks of the Education Commission in the year 1966 that professed, “The destiny of India is now being shaped in the classrooms”. Teacher education is an integral and essential component of the educational system that prepares teachers for education system specifically for school education including elementary, secondary and higher secondary schools. It is intimately connected with the school and the society and is conditioned by the ethos, culture and character of our nation. The constitutional goals, the directive principles of the state policy, the socio-economic problems, the fast growth of knowledge and technology, the changes occurring within the system of education and the emerging expectations from the society provides the perspective within which teacher education is viewed. To satisfy the emerging need of the society and to accelerate the progress of the nation, there is a need of well structured and dynamic education system where the teacher education system has an important role to play. To achieve is Herculean task, teacher education system has to improve the quality of its products in terms of content enrichment, acquisition of advanced skills, inculcation of moral, social and spiritual values and the development of strong professionalism among teachers. Various commissions and committees have invariably emphasized this need of quality teacher education suited to the needs of the education system. The Secondary Education Commission (1952-53) observed that a major factor responsible for the educational reconstruction at the secondary stage is teachers’ professional training. The Education Commission (1964-66) stressed that ‘in a world based on science and technology it is education that determines the level of prosperity, welfare and security of the people and that a sound programme of professional education of teachers is essential for the qualitative improvement of education’. In this regards, the National Policy of Education (1986), the Programme of action (1990, 1992) called for an ‘overhaul of the teacher education system’ in the country. In this process of transformation, teacher education had seen many changes. One year secondary teacher training programme has changed to two years programme and in the line of converting it to an integrated teacher education programme of four years. All these efforts are meant to improve the quality of teacher education programme to prepare teachers to be more students friendly showing more

and more social and emotional stability through the optimum utilization of their cognitive ability. The proposed study is an attempt in this direction to examine the relationship of higher cognitive functioning of teachers with their social and emotional stability.

Human is born with intelligence, have tendency of attention, capacity of memory and judgment and perform several executive functions through the cognition. Cognition is the process by which development of knowledge and comprehension occurs in mind thoughtsensesand experiences. Cognition is a thought process which awoken the mind.

According to NCF 2005, Cognition involves the capacity to make sense of the self and the world, through action and language. A meaningful learning, is a process of generation of concrete representing and manipulating things and representation of mind instead of information storing and retrieval. The process of thinking, sign or verbal language and doing anything are inter-related with each other. Process of cognition, started in infancy and developed by mediated and independent activities.

In initial stages, children are cognitively oriented to the here and now. They are able todevelop the theories, that they learn from natural and social worlds, in which they included themselves in relation to others.

Piaget Theory also tells the same thing. That theory is based on the idea that, development happens because of interaction with the environment, and from this a child can actively contribute to their own development (Maclean, 2001). The theory is also tells about Schema. Schema is refers to cognitive structures (pervasive thought patterns) that first appear during childhood and help children organize knowledge. These organizational activities provide them answers of different questions arise in their mind like why things are, the way they are, cause and effects relationship and the basics of any decision and acting.

Cognitive development has attitudes, emotions, and morals as an integral part. These are linked with the development of language, mental representations, concepts, and reasoning. Cognition is a thinking process which awoken the mind but sometime cognition alone is not sufficient, and that requires meta-cognition that is thinking about/of thinking or, thinking beyond thinking. It helps to get solution of the problems in a better way. Meta-cognition is the regulation of cognition and lighter level of combination. When an individual, regulate their understanding for maximizing learning by a clear-cut process, is the meta-cognition.

As children's meta-cognitive capabilities develop, they become more aware of their own beliefs and capable of regulating their own learning. (NCF,2005)

Meta- cognition develops awareness in students towards their own belief and learning. Students will be able to think logically with the help of their mind. With the help of Meta-cognition, students can understand the facts and concepts instead of cramming and recitation. Therefore, it is the duty of teachers to develop meta-cognition into their students. Students have to tackle many problems in their life. Sometime they have to solve that problem with their own thinking with involvement of thinking beyond thinking that is meta-cognition.

In this thinking process, emotional thinking is also involved because students have to be emotionally stable in many steps. When a student reach up to the topmost level of emotional thinking, meta-cognition will help in controlling the emotions. In this process of controlling emotions, development of emotional intelligence inside that student occurs. When, individual become emotionally intelligence with the help of meta-cognition, they will be able to perform task more independently and peacefully.

Gradually over the last one decade the notion of emotional intelligence has become a scientific construct for understanding implications of behavior and adaption of the individual to his environment (Devi,2010)

It has been seen that the emotional intelligence is also dependent on social intelligence of the students. Emotional Intelligence is a continuous process, since every age and every situation calls for something new. The well-adjusted students have many interests, hobbies, and achievements. It is found that Emotional intelligence involves broadening and deepening of social intelligence for better development.

Students are getting involved in several social activities. They have to perform in different program by which they can improve their different skills. In these programs, they are interacted with society.

In the process of social interaction, every student face lots of problem at many steps and got hurt emotionally. During such time meta-cognition helps a lot in controlling the emotions and thought process, and enhances the process of social interaction and this process can be called as the social intelligence.

Hence, logically it can be said that with the help of meta-thinking, emotional intelligence of a student can be enhanced that may lead to their social intelligence.

Society needs good, active, and efficient teachers to teach the child and make them capable to solve their problem with their own. There is no need of inactive and inefficient teachers. In the teaching profession, there is requirement of teachers with balanced personality, having a balance in between meta-cognition, emotional intelligence and the social intelligence. When teachers have the balance between Emotional intelligence, social intelligence, and meta-cognition, they can provide these to their students in appropriate manner.

Student-teacher of present will become teachers in the future so it is necessary to inculcate, emotional intelligence, social intelligence and meta-cognition, in student-teacher for make them good teacher. They have to understand the societal needs. They have emotional and social intelligence to solve the problems of society as being emotionally and socially intelligent by using their meta-cognition. The proposed study is an attempt in this direction to study these three aspects of the future teachers and to see the relationship among these aspects.

1.1.0 META-COGNITION

In present scenario, one of the important aims of education is to inculcate thinking skills and strategies in students, which they can use throughout their lives in place of storing information.

When an educational process, incorporated the ability of how to learn, how to remember, how to motivate themselves and how to control their own learning inside the students by which they can know the learning process, can called as good education.

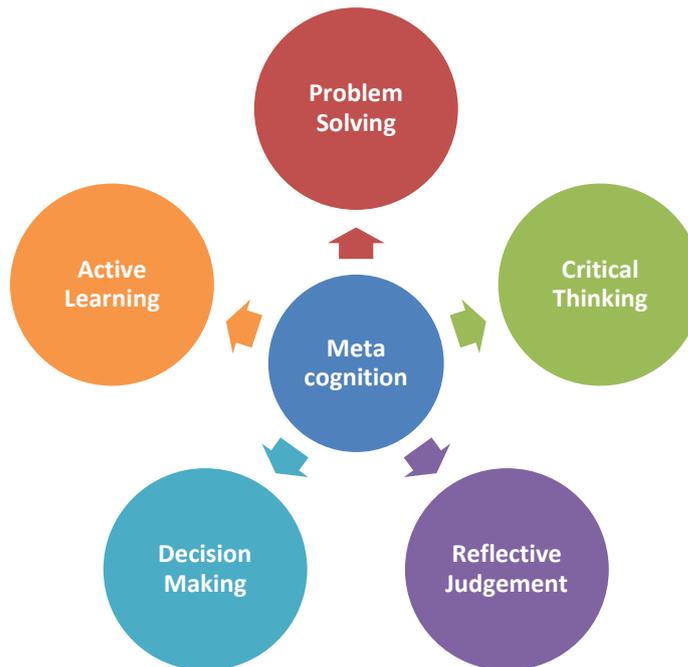
For knowing the learning, remembering and motivating process, meta-cognitive skills are very important. Meta-cognition is considered as a concept that is worked on, in recent year in field of education. Meta-cognition is an awareness of own thinking process and how to control that thinking process as per situations, required in field of achieving goals.

For the first time the concept of meta-cognition was put forward by John Flavell in 1976 and developed by many researchers until today. In reading, comprehension, process of communication, acquisition of language, attention, social cognition, self-control, self-

instruction, memory, personality development, writing and problem solving; meta-cognition plays an important role.

Meta-cognitive skills are usually comprehended as an interrelated set of competencies for learning and thinking and include many of the skills required for active learning, critical thinking, reflective judgment, decision making and problem solving.

Fig 1.1: Activities included in Meta-cognition



Student having well developed meta-cognitive skills are better problem solver, decision maker, critical thinker, they are very motivated towards learning and they can control and regulate their emotions in difficult situation of complexity and conflicts. Student of high level meta-cognitive knowledge can identify the hurdles of learning as soon as possible and convert them as a strategy to achieve their goals. By knowing meta-cognition student can able to understand about their strengths and weaknesses and utilize them in an appropriate manner.

1.1.1 ORIGIN OF META-COGNITION

In the developmental psychology of Jean Piaget, the idea of planful, deliberate, and goal oriented thinking, which accomplish cognitive tasks can be traced. (Parvathi, 2012)

This psychology has not a tremendous impact on the conceptualization of child and adolescent development by practitioner, researchers, and public. (Flavell,1963)

Piaget work was extended by a group of researchers in year of 1960s and 1970s, for finding the answers of queries related to controlling of information rather than storing and retrieval of information.

A substantial part of work emerged in over the same period of 20 years, that it would eventually be viewed as the foundation of Meta-cognitive research. (Brown, 1978)

In early researches, the research methodology was not very advanced and sophisticated, so the rigorous theories not yet available. In the year of 1980, collaboration happens in between researchers of cognitive psychology, researches in developmental psychology and educational psychology. This collaboration was for the production of more sophisticated methodologies for assessment of meta-cognition. (Kluwe, 1982)

In the year 1990, the researchers were focuses on the judgments of learning because an increase in interest was begin on the topic of monitoring process by people in ongoing learning. (Nelson & Dunlosky, 1991)

People were divided their study time according to their convenience. In this, specific meta-cognitive mechanisms were involved to provide difference in study time. People were not satisfied by the researches in the direction of their queries, which was related to the base of people's judgments of learning and the accuracy of those judgments. Codification and integration were needed to know about judgment of learning and accuracy of that judgment of peoples.

After establishment of the method codification and integration, it would become especially relevant to education situations where the learners have somewhat control over their activities of study. (Schunk, 1994)

During the study times, the use of different study strategies and application of previous knowledge can provide an intuition without regulation of consciousness. It makes great deal of academic self-management and studying, which involves conscious decision-making and regulation of self. The efficiency by which students employ various strategies, determined the degree of academic demands of students.

Now many practitioners and researchers are convinced that, by enhancing meta-cognition process during interaction and teaching, durability and transferability of learning are enhanced.

Theoreticians in fact "seem unanimous the most effective learners are self regulating". (Butler & Winne, p. 245)

For being good learner, it is necessary to regulate the self by thinking about own thinking. Meta-cognition is thinking about one's own thought. More specifically meta-cognition is an appreciation of previous and required knowledge and skills of someone and provides them appropriate strategies to apply these skills and knowledge to a particular situation with efficiently and reliably. Meta-cognition is the skills that change the learner from passive to active.

1.1.2 DEFINITIONS OF META-COGNITION

According to Flavell (1979) "Meta-cognition refers to thought about one's own thoughts and cognitions."

According to Online encyclopedia, Wikipedia, Meta-cognition is a general term encompassing the study of memory monitoring and self regulation, meta reasoning, consciousness or awareness and automatic consciousness or self awareness."

According to Nelson and Narens (2007) An influential distinction in meta-cognition is between monitoring and control, using those judgments to guide behavior in particularly, to guide study choices.

Although the term itself may seem mysterious, meta-cognitive acts are common. For instance, take some time to answer two questions. First, when was the last time you feel to recall someone's name, but were absolutely sure you knew the name? These frustrating events, called tip-of-the-tongue States, happens a lot and may increase in frequency as we grow older (Schwartz,2002). They are meta-cognitive in nature because you are having a thought (" I'm sure I know the person's name") about a cognition (in this case, you thought is "that the person's name is in your memory"). Second, when was the last time you decided to write down directions, or perhaps even brief once, and how often do you make a list of groceries to buy at the market? In such circumstances, you may realize that there is little chance of remembering important information, so you naturally rely on external aids- for

example, list, Palm Pilots, or even other people- to ensure that you would not forget. (Dunlosky and Metcalfe, 2009)

Understanding the limits of your own memory also is a form of meta-cognition because it concern your believes and knowledge about memory. What may also be evident from the radar common events illustrated above is that meta-cognition is not a single concept, but it is multifaceted in nature.

If we want to learn some difficult term in any chapter , for example in Chemistry, in learning periodic table, we make a sequence of HLINA KA RUBI SE FRIENDSHIP for understanding first group of S- block i.e. Hydrogen, Lithium, Sodium (Na), Potassium(K), Rubidium (Rb) and Francium (Fr). This scenario illustrated three facets of meta-cognition that have been investigated extensively in the field: meta-cognitive knowledge, meta-cognitive monitoring, and meta-cognitive control.

Meta-cognitive knowledge is knowledge about a kind of cognition like the knowledge about how learning operates and knowledge about how to improve learning. Meta-cognitive monitoring is assessing the current state of a cognitive activity like, Judging whether you are approaching the correct solution to a problem and assessing how well you understand what you are reading. Similarly, meta-cognitive control is regulating some aspects of a cognitive activity like, deciding to use a new technique to solve a difficult problem and deciding to spend more time trying to remember the answer to a trivia question.

1.1.3 COMPONENTS OF META-COGNITION

Meta-cognition refers to one's knowledge concerning one's own cognitive processes or anything related to them (Flavell 1976).

It has two components:

- Meta-cognitive knowledge
- Meta-cognitive control

Meta-cognitive knowledge: It refers to knowledge and beliefs of one's, in their mental resources and their awareness about the things can be done by them. Meta-cognitive knowledge means cognitive strategies and knowledge of what can be done under specific conditions (Flavell,1979)

Meta-cognitive knowledge is further subdivided into three categories as follows.

- **Knowledge of person variables:** It includes learning and processing of information by human beings and also knowledge of individuals about their own learning processes.
- **Knowledge of task variables:** It refers knowledge about the nature of the task and also the type of processing demands that can be applicable upon the individual.
- **Knowledge of strategy variables:** It involves knowledge about cognitive and meta-cognitive strategies and about the situations, where it can be used appropriately.

Meta-cognitive Control: Meta-cognition requires an additional ability to utilize meta-cognitive knowledge effectively. This ability to use meta-cognitive knowledge is called meta-cognitive control skill.

It consists of top mental operations in meta-cognitive processes and can be defined as the ability to strategically use the meta-cognitive knowledge for attainment of the ability to use and regulate knowledge and control of cognitive processes. It also involves regulation of cognitive processes. It is related with meta-cognitive activities that help in controlling of one's thinking and learning. It helps in regulation and overseeing of learning process, and consists of planning and monitoring of cognitive activities and also involves checking the outcomes of those activities.

1.1.4 META-COGNITIVE SKILLS

Meta-cognition refers to awareness of own knowledge and ability to understand control and manipulate the own thinking process. Meta-cognitive skills are not only important for students in their school life but it is important throughout the life.

Mumford, 1986 says that it is essential that an effective manager be a person who has learned to learn.

Meta-cognitive skills are involved in the all steps of organization of task and activities being performed by the students. It involves planning, setting goals, initiating works, sustaining future oriented problem solving activities, monitoring and managing progress of any work in identify the problems and solving them. The meaning and understanding of meta-cognition can be clear from the following definitions given by different scholars and bodies.

1.1.5 PRINCIPLES OF META-COGNITION

Followings are the main principles of Meta-cognition;

Planning: Planning is very necessary step in prior to any activity. The success of any efforts depends upon appropriate planning. Planning consists of different aspects in it. They are goal setting, time management, analyzing, strengths and weaknesses, analysis of previous learning, anticipation, self responsibility, self determination etc., (Khun,1988, Schoenfeldl, Borkowski, 1983). By knowing these aspects one can help them in enhancement of learning activities.

Focusing attention: Giving attention on any task and focusing on the same is a step ahead in the direction of achievement of meta-cognition. For planning, monitoring or evaluating success of any leaning task, higher order executive skills as strategies are required.

Information management: In the process of learning students have to adopt many meta-cognitive skills. For better understanding, they have to process the information collected by them or find by them in the process of learning. Different techniques are involved in the processing of information by successful learners. These techniques included; translation, conceptualization, combination, assimilation and elaboration.

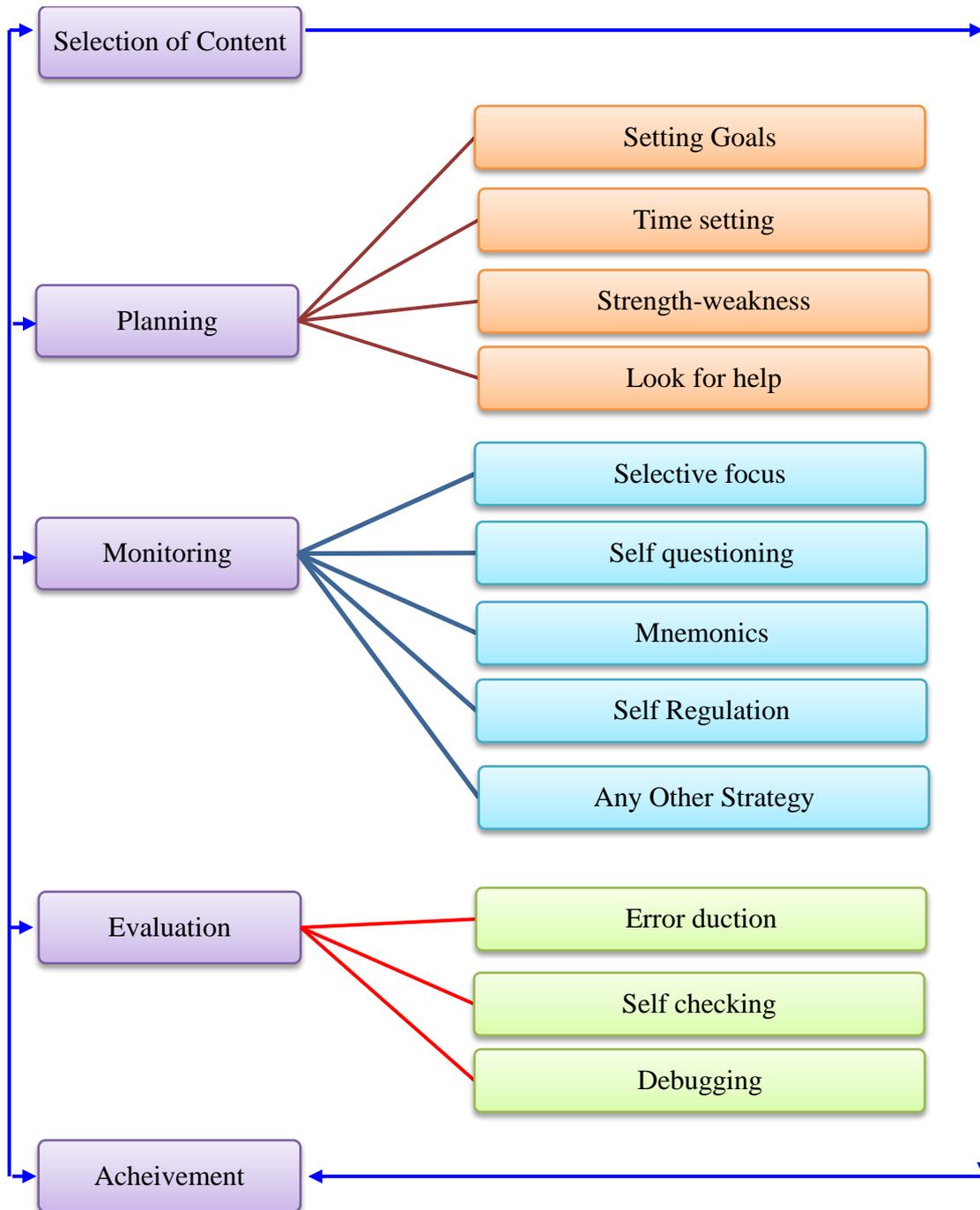
Memory: Number of facts, ideas, incidents, years, concepts, etc., have to learn by the learners in the learning process. There is a link in between previous and new knowledge for better understanding.

When the learner employ different techniques to comprehend new information and retrieve previous knowledge, these become easy for them. For retrieving the information, need by the learner they can use mnemonic strategies. Successful learners deliberately employ certain mnemonic strategies for better remembering.

Monitoring: Regulation of self or monitoring of one's own learning process, plays an important role in meta-cognition. When a learner employs a number of techniques while learning to check their learning process, they become successful with respect to their learning. These techniques are self-questioning, self talk, self management of resources, strategies selection, self reporting, self appreciation etc.

Meta-cognition involves the active monitoring, consequent regulation, and coherence of various processes such as meta-memory and meta-learning while learning and remembering.

Fig 1.2: Principles of Meta-cognition



Evaluation: Evaluation is very important to know the outcome of learning in any learning process. When learner evaluates himself or herself by his or her own, the term is known as self-evaluation.

Achievement of objectives can be done by the learners, with the help of self-evaluation. Self-checking, error detection, self correction, de bugging, self review, self questioning, and self judgment are some different techniques used while self-evaluation.

1.1.6 MODELS OF META-COGNITION

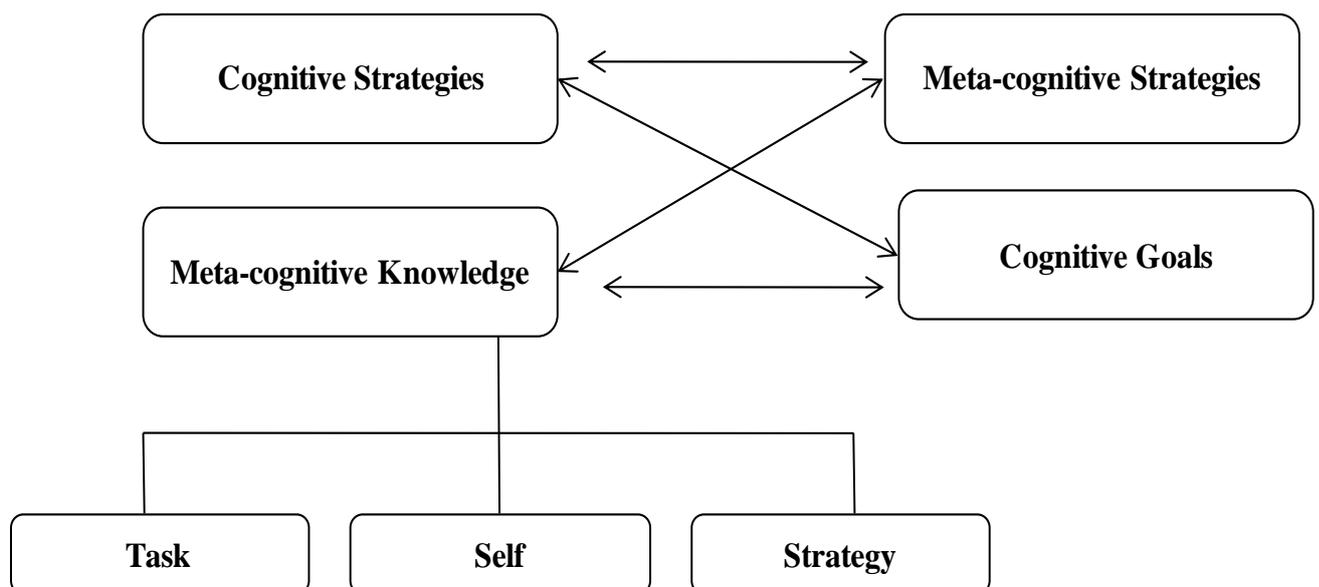
A number of models have been made from different conceptualizations of meta-cognition. In which, some are more general and provide a theoretical framework for meta-cognition. The models proposed by Flavell (1976) and Brown (1978) explain meta-cognitive knowledge and meta-cognitive experience in an appropriate manner. Meta-cognitive experience refers to process of execution; such as awareness, control and evaluation. The models proposed by Flavell and Brown can help the readers by providing direction and being a guide in the process of understanding and conceptualizing the components of meta-cognition.

(a) Flavell’s model of meta-cognition:

In 1976 Flavell proposed that, the basics of meta-cognitive knowledge consist of the learning obtained through experiences, about cognitive activities.

Meta-cognitive knowledge can be further subdivided in to three variables which are highly interactive namely; personal variables, task variables, and strategy variables.

Fig 1.3: Flavell’s Model of meta-cognition



Flavell suggested that the base of a strong meta-cognitive knowledge is critical to successful learning and a learner is good when he or she has meta-cognitive knowledge about the self, about the nature of the cognitive task he or she has to do, and about appropriate strategies needed for achievement of academic goals.

The formal model of meta-cognition was presented by Flavell in 1979. He did the first attempt in the generation of formal model.

Meta-cognition is significant in a wide range of applications, including reading, oral skills, writing, language acquisition, memory, attention, social interactions, self-instruction, personality development and education.

(b) Brown's model of meta-cognition

In 1987 Brown divides meta-cognition into two large categories. Relation of first category is with the knowledge of cognition which involves the reflection of cognitive abilities and activities. This involves the reflection with consciousness about cognitive activities during the accomplishment of any work.

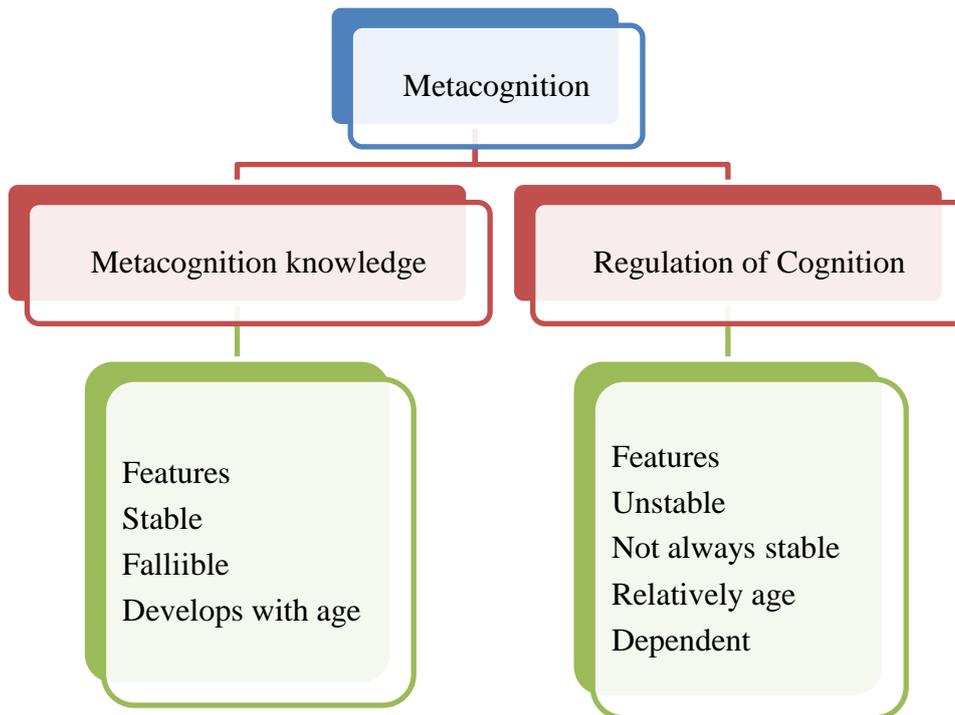
The second category of meta-cognition is related to self regulatory mechanisms, which employed during an ongoing attempt of learning or solving any problems. Brown defines this mechanism as the regulation of cognition.

There is a close relation found in between, the knowledge of cognition and the regulation of cognition. The knowledge about cognition is stable, fallible and often late developing in human thinkers and learners.

In the early phase, meta-cognition was considered to be 'knowing about knowing' (Brown 1987). Whereas, regulation of cognition consisted of different activities, which are used to regulate and control learning activities, monitoring activities and evaluating activities.

The expert learners have a high degree of meta-cognitive awareness and they were also able to evaluate and monitor their learning activities by using different strategies of meta-cognition.

Fig 1.4: Brown's Model of Meta-cognition.



1.1.7 DIMENSIONS OF META-COGNITION

(a) Planning : This includes Meta-cognition related to initiation of a problem and organisation of the knowledge. It is necessary that learner have self-awareness on some aspects. These aspects includes; goal setting, time management, self determination and self responsibility.

(b) Memory: In this awareness of learner about knowledge of their own memory system and how they can utilise these memory systems effectively are involved.

(c) Monitoring : It includes the meta-cognition which is related to the checking of the progress of finding solution of a problem. It focuses on the ability of students, to monitor their problem-solving process and to maintain the attitude necessary to solve that problem. In this some techniques are involved namely; self checking, self talk, self appreciation, self questioning etc.

(d) Evaluation: In this meta-cognition is related to the assessing and checking the appropriateness of a solution of any problem. Some techniques of evaluation are self checking, error detection, self correction, self review and self judgment.

(e) **Achievement:** It involves meta-cognition which is related to basic ideas of calculations. The techniques of, recall basic skills and recall the basic ideas are involved in this.

1.2.0 SOCIAL INTELLIGENCE

Not every social group is the same. They have differences. These differences are in form of culture, education, economic level, intelligence level and other level. Intelligence of an individual can be access by their ability to use their mental energy to handle different problems and leading a happy and well-settled life.

Social Intelligence plays an important role in one's life. The success of an individual mainly depends on their Social Intelligence. Social Intelligence reflects the inter-personal relations of an individual at work place. It includes an awareness of situations and the social dynamics that govern them. It is the knowledge of interaction styles and strategies that can help a person achieve his or her objectives in dealing others.

Moss and Hunt (1927) summed Social Intelligence as the ability to deal with and adjust to other person. Traits considered to be measurable aspect of Social Intelligence are

- Sense of human memory for names and faces.
- Common sense in social relations.
- Recognition of the mental stage of speaker and common observation of social behaviour.

Good (1945) stated that Social Intelligence is the ability to adjust oneself to the social environment and to act for its improvement. It is an individual's ability to deal effectively with social relations and with novel situations.

1.2.1 DEFINITIONS OF SOCIAL INTELLIGENCE

The meaning and understanding of social intelligence can be clear from the following definitions given by different scholars and bodies.

According to Thorndike (1920), "The ability to understand and management and women and boys and girls to act wisely in human relations are known as social intelligence."

According to Humphrey (1976) "It is social intelligence, rather than quantitative intelligence, that define who we are as humans."

Vernon (1933) defined Social Intelligence as the person’s ability to get along with people in general social technique or ease in society, knowledge of social matter, susceptibility to stimuli from other members of a group as well as insight with the temporary moods or underlying personality traits of strangers.

Boule (1985) defined Social Intelligence as “Comprising obligingness, responsibility within the family and the community, deference towards elders, and certain skills (such as memory) which are integral to this social intelligence.”

Social Intelligence Definitions Emphasizing Cognitive Components:

Table 1.1 : Social Intelligence Definitions Emphasizing Cognitive Components

Definition	Authors
Ability to understand men and women, boys and girls.	Thorndike (1920)
Knowledge of social matters and insight into moods or underlying traits of strangers.	Vernon (1933)
Judged correctly the feelings, moods of the individuals.	Wedeck (1947)
Judgment in social situations and recognition of the mental states and from social facial expressions and memory for name and faces.	Moss et al (1955)
The ability to interpret social cues and predict what will happen.	O’sullivan and Guilford (1966)
As information especially non-verbal involved in human interaction.	Guilford (1967)
Awareness of attention, action of other persons.	Guilford (1967)
The ability to create recognizable categories of behavioral acts and imagine many possible outcomes of settings.	Henricks et al (1969)
Memory for names and faces.	Sternberg (1981)
The capacity to know oneself and to know others.	Gardner (1983)
Degree of eased effectiveness displayed by a person in social relationship.	Robert (1984)

Mugny & Carugati (1989) defined Social Intelligence is the awareness and respect for rules and social norms.

Online encyclopedia, Wikipedia, describes Social Intelligence as the capacity to know oneself and to know others.

Social Intelligence Definitions Emphasizing Behavioral Components:

Table 1.2 : Social Intelligence Definitions Emphasizing Behavioural Components

Definitions	Authors
Ability to act wisely in human relations	Thorndike (1920)
Ability to get along with others	Moss and Hunt (1927)
Get along with others and ease in society	Vernon (1933)
The ability to manipulate the response of others	Weinstein (1969)
Ability to deal with people and the applications of means to manipulate the responses of others	Orlik (1978)
Ability to construct accurate interpretations based on nonverbal behaviour	Archer (1980)
Act appropriately upon an understanding of the feelings, thoughts and behaviour of persons, including oneself	Marlowe (1986)
Ability to adapt and act accordingly in a variety of social situations	Mayer and Salovey (1993)
Ability to react to different situations	Silvera et al (2001)
Ability to get along with others and to get them to cooperate	Albrecht (2004)

Hence, social intelligence is equivalent to interpersonal Intelligence and one of the types of Intelligence identified in Howard Gardener's theory of Multiple Intelligence, and closely related to theory of mind.

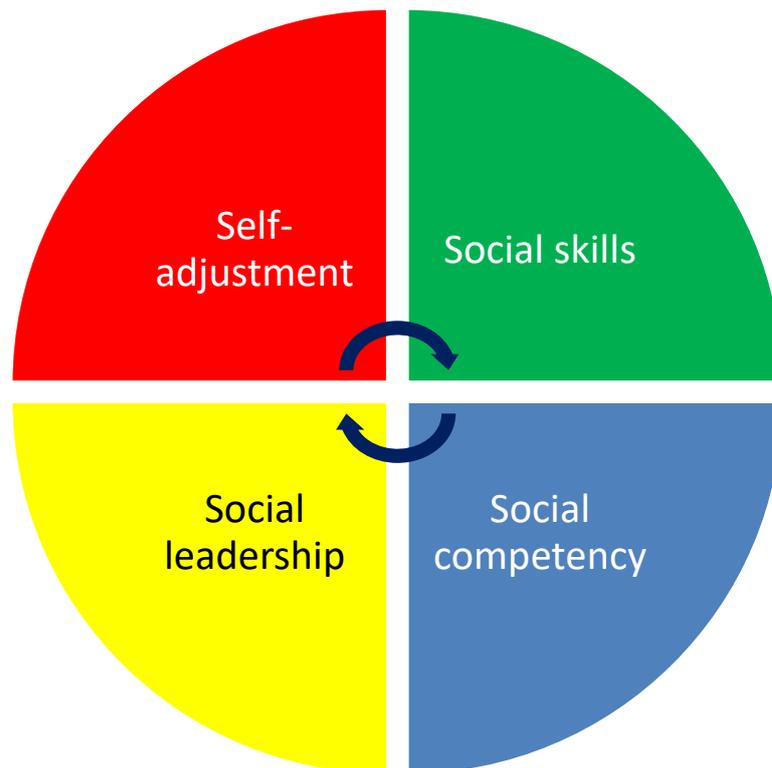
It is social intelligence, or the richness of our qualitative life, rather than our quantitative intelligence, that makes human what they are.

For example what it is like to be a human being living at the centre of the conscious present form are surrounded by smells, test, feel and the census of being extra ordinary metaphysical entity with properties which hardly seems to belong to the physical world.

Social intelligence is somewhat different from intelligence. Intelligence is affected by genetics and largely by what we are born with but social intelligence is mostly acquired and learned. Social intelligence is result of experience and lessons of failure and success.

1.2.2 COMPONENTS OF SOCIAL INTELLIGENCE

Figure 1.5: Four components of Social Intelligence



Self Adjustment: Adjustment of oneself or itself, as to the environment of resolving one's problems or reactions to stress without outside intervention is known as Self Adjustment.

Social Skill: It is a social skill in any competence facilitating interaction and communication with others where social rules and relations are created, communicated, and changed in verbal and nonverbal ways.

Social Competency: Social competence refers to getting along well with others, being able to build and maintain close relationships, and responding in adaptive ways in social settings.

Social Leadership: Social leadership means to devote the talents of one's life to improving society in spite of social standing, prosperity, or benefit.

1.2.3 KEY ELEMENTS OF SOCIAL INTELLIGENCE

- Verbal fluency and conversation skills.
- Knowledge of social roles, rules and scripts.
- Effective listening skills.
- Understanding what makes other people take.
- Role playing and social efficacy.
- Impression management skills.

1.2.4 DEVELOPMENT OF SOCIAL INTELLIGENCE

Effort and hard work is the tool in development of social intelligence. Process of development of social intelligence:

- More Attention
- Better speaker or conversationalist.
- Communication skills.
- Active listening.
- Study social situation and behave accordingly.
- Learn from social successes and failure.

1.2.5 MODELS OF SOCIAL INTELLIGENCE:

(a) Greenspan Hierarchical Model (1979)

The model of Social Intelligence consists of three components:

- Social sensitivity
- Social insight
- Social communication

(b) Maslow's Model of Social Performance Skills (1986)

Maslow Model of Social Intelligence comprised of five domains:

- **Pro-social attitudes:** One's interest and concern for others.
- **Social performance skills:** One's ability to perform in society.
- **Empathetic ability:** One's ability to identify with others.
- **Emotional expressiveness:** One's emotionality towards others.

- **Confidence:** One's comfort level in social situations.

(c) Williamson Model of Social Intelligence (1995)

Williamson model of Social Intelligence involves six abilities:

- Imaginative ability
- Ability to reason hypothetically
- Abstract ability
- Creative imaginative ability
- Inductive ability
- Ability to recharge intellectual virtue

(d) Weis and Sub Model of Social Performance (2005)

A cognitive performance model of social performance comprises of five domains:

- **Social Understanding:** Ability to interpret social stimuli against the background of given situations. These stimuli may vary according to their complexity, from simple facial expression to a sequence of interactions between persons.
- **Social Emotion:** It allows conclusion about a person's emotions, thoughts, intentions, motivation or personality traits.
- **Social Memory:** Ability of storing and recalling of objectively given social information that can vary in complexity.
- **Social Perception:** Ability to quickly perceive social relevant information in more or less complex situations.
- **Social Creativity:** Ability to reduce as many as diverse solutions or explanations as possible for a social situation or a problem.
- **Social Knowledge:** Knowledge about social world.

(e) Goleman Model of Social Intelligence (2006)

Goleman organized Social Intelligence into two broad categories:

- **Social Awareness:** It includes what a person senses about others.
- **Social Facility:** It involves what a person does with awareness.

1.2.6 SOCIAL SKILLS

Social Intelligence thus is interacting successfully with others in various contexts.

Interaction includes following social skills:-

- **Situational Awareness:** It is an ability to observe and understand the context of a situation, one may find in oneself, and to understand the ways in which the situation dominates the behaviour of the one in it.
- **Presence:** It is an impression one send to others with one's behaviour.
- **Authenticity:** It is the extent to which others perceive one as acting from ethical motives, honest and extent to which they sense that one's behaviour is congruent with one's personal values.
- **Clarity:** It is ability to express ideas clearly, effectively and with an impact. It involves communicating skills i.e. listening, feedback, and paraphrasing, semantic flexibility, skillful use of language, skills is using metaphors and figures of speech and ability to explain things clearly and concisely.
- **Empathy:** Skills of building connections with people. It is capacity to get people to meet one on a personal level of respect and willingness to cooperate. In short it means creating a mutual feeling between oneself and another person.
- **Patience:** Calm endurance under stressful situations.
- **Confidence level:** Trust in oneself.
- **Sensitivity:** Actually aware of and responsive to human behaviour.
- **Tactfulness:** What is right thing to say or do?
- **Recognition of social environment:** Perceiving the nature and atmosphere of the existing situation.
- **Sense of humor:** To see the lighter side of life or to feel and cause amusement.
- **Cooperativeness:** To interact with others in pleasant way.
- **Memory:** To remember all relevant issues, names and faces of people.

1.3.0 EMOTINAL INTELLIGENCE

Like social intelligence, emotional intelligence is also required for better survival of every human. Social Intelligence is the awareness of and ability to manage one's emotions in a healthy and productive manner. The meaning and understanding of emotional intelligence can be clear from the following definitions given by different scholars and bodies.

1.3.1 DEFINITION OF EMOTIONAL INTELLIGENCE

Goleman (1997) defined Emotional Intelligence as the capacity for recognizing our own feelings and those of others, for motivating ourselves and for managing emotions effectively in others and ourselves.

The definition by Solovey and Mayeris (1980) is slightly more complicated than definition given by Goleman, "Emotional Intelligence is the ability to perceive emotions; to access and generate emotions so as to assist thought; to understand emotions and emotional knowledge; and to reflectively regulate emotions so as to promote emotional and intellectual growth".

Online encyclopedia, Wikipedia, describes Emotional Intelligence as, "An ability, capacity, or skill to perceive, assess, and manage the emotions of oneself, of others and of groups."

Definition of Stock(2007); "Emotional intelligence is not about being soft it is having the skill to use your emotions to help you make choices in the moment and have more effective control over yourself and your impact on others."

Wharam (2014) defined emotional intelligence as the potential to be aware of and used ones on emotions in communication with oneself and others and to manage and motivate oneself and others to understanding emotions.

Every person born with certain innate potential for balanced emotional intelligence. This innate intelligence can be either developed or damaged with life experiences, particularly by the emotional lessons learned during childhood and adolescence. The concept or theory of Emotional Intelligence really boils down to common sense and keeping a sense of balance; however, the skills required to use Emotional Intelligence successfully may need to be learned or developed (Wharam, 2014). By developing our Emotional Intelligence, we can become more productive and successful at what we do and how we interact with others, and even help others to be more productive and successful too, which mirrors Maslow's theory of Self-actualization(Wharam,2014).

Emotional Intelligence is the combination of the several measurement of inborn emotional variables such as sensitivity, memory, processing and learning with the environmental effect on those similar variables. Words like awareness, manage, emotions, self and others used in majority in approximately all definitions of emotional intelligence.

1.3.2 HISTORY OF EMOTIONAL INTELLIGENCE

In order to arrive at a commonly acceptable definition, letters examine the history of the concept. As for as we can make out, it all began about 2000 years ago when Plato wrote: All learning has an emotional base.'

Since then, scientist, psychologist, philosophers, and spiritual leaders have work to prove or disprove the importance of emotions in the development of the person.

In the 1950s, **Abraham Maslow** and wrote about how people could enhance their emotional, physical, spiritual, and mental strength and model this in his hierarchy of needs, which, on and earthly plane culminated in ' self-actualization'. His work was one of the sparks of the human potential movement, which led to the development of many new sciences of human capacity.

Serious research was being done to define both emotions and intelligence. One of these researches was Dr. Peter Salovey, now Yale University's Psychology department chair. He says that over the last few decades, believes about emotions and intelligence have both changed; where intelligence was once viewed as perfection, people where recognizing that there was more to life. Where emotions were once perdition, people were recognizing that it might have value after all. It is amazing to us that emotions could ever have been discounted when applied to people, but that's science for you.

The story goes that **Solovey** and his friend, **Dr. John (Jack) Mayer** where painting a room in Salovey's house in the late 1980s and began to discuss recent research in intelligence and emotions-but as separate entities, as the two were not thought to be in anywhere related. When asked the letter why they had thought to combine the two, Salovey joked, " May be it was the Paints fumes!" Anyway, in 1990, there seminal paper first defined the concept of emotional intelligence as a scientifically testable 'intelligence'.

We say that they were the first, but in the early sixties, Dutch science fiction author Carl Lans had published two novels in which he not only elaborates on the concept ok, he also actually uses the phrase emotional quotient. It is said that these books were never translated but since they later formed the basis of an immensely popular radio show, there is no way of knowing when the phrase found its way into English.

Emotional intelligence is indirectly related with the meta-cognition stage of every human, because when a person, become emotional intelligence, then the thinking process involved meta-cognition that is thinking beyond thinking.

1.3.3 DOMAINS OF EMOTIONAL INTELLIGENCE

Goleman (1997) identified five 'domains' or steps of emotional intelligence as:

- Knowing your emotions.
- Managing your own emotions.
- Motivating your-self.
- Recognizing and understanding other people's emotions.
- Managing relationships- i.e. managing the emotions of others.

1.3.4 IMPORTANCE OF EMOTIONAL INTELLIGENCE

John Donne (1988) in his famous quote, “No man is an Island, I am involved in mankind”, indirectly provided importance of emotional intelligence.

For best survival in this world, we have to leave the sense of isolation from our heart and mind. When you think about helping of others by anything, we step ahead in the way of mankind. This step, make able to us, to proceed further, fit in with each other. In the process of fitting, sometime we become very judgmental about certain people. We perceive them as right or wrong, on the basis of only very few meeting. I don't like them, I don't like their company, they are not good and also they are very good etc., type perceiving are generated in our mind. These judgments are our gut feelings of which we are rarely focusing but they were very helpful in motivating us in selecting or not selecting our interests.

With the help of awareness, sensitivity and balance, we can respond in right way, but when our perception and our behaviour of being judgmental become dominant on awareness, sensitivity and balance, we can react to people and situation in a wrong way.

After becoming aware about our gut feelings or emotional reflexes, and by using them in a positive, right and healthy way we will become an emotionally intelligent person in place of one who is not.

Arnott Bennett (1908) said “It is well, when judging a friend, to remember that he is judging you with the same godlike and superior impartiality.”

So, at the time of being judgmental, about our friends and others, when we just remember about Bennett statement, selection of right path occurs which make us as emotional intelligence.

Solovey and Mayer (1980) accused Goldman's saying, emotional intelligence as 'nice' to people. They provided the fact that farmer emotional intelligence is based on both scientific discoveries of how the brain works and workplace studies in a wide variety of industries and job categories.

Goldman (1997) says that, in all over the skills required for maintaining regular work, 60% are emotional.

For confirming his information, just think about a job interview. If a company needs a staff member first of all they draw up a list of qualities a candidate should have. Even the candidates have similar qualification, similar level of experience, and similar skills but the selection is totally based on the best interview. That company selects who interviews best. To be pejorative, they will not hire a 'boffin' or an obvious “emotional mess”. (**Wharam, 2014**)

Emotional intelligence is totally based on farmer choice making process. Choices are according to the emotions of persons. Choice of more emotionally intelligent Person is good as compared to those who are not emotionally intelligent.

Emotional intelligence will able to make a huge difference In between stress and well being. So training of emotional intelligence is very important for checking this difference in between stress and wellbeing. A group of 60 manager where trained for one day per week for 4 weeks. Assessment were taken prior to the training that included two measures of emotional quotient, General Health, stress, district, quality of working life and morale. In addition, each participant’s line-manager was asked to evaluate the trainee using the organisation's own management performance measure. The programme was created to help managers understand their own emotional responses and how they relate to their own thought and behaviour. Also, how to identify the characteristics of their own self-respect using emotions, and to manage others on this ‘values’ based level. Six months after the completion of the training, measurements were taken once again. Results showed that Manager on the training course, over and above those who did not take part, significantly increased their:

- Emotional Quotient (score).
- General health.

- Morale.
- Quality of working life.
- Performance.
- Significantly reduced stress and distress.

1.4.0 RATIONALE OF THE STUDY

The Secondary Education Commission (1952-53) says about teacher's professional training. The Education Commission (1964-66) says about the essentiality of a sound programme of teacher's professional education for educational-improvement. National Policy of Education, 1986 and Programme of Action (1990, 1992) called for an overhaul of the teacher education system in the country. These all focuses on importance of teacher education. Without teacher education it is not possible to strengthen the education system because teacher is the main pillar of education system. Education is related to all round development of students, so it becomes essential to improve all the aspect of physical and mental development of students. In the process of physical and mental development, cognition is required as thinking process and in cognition when high level thinking involved it is converted into meta-cognition. Meta-cognition in mental development is related with social Intelligence and emotional intelligence. A person is always in search of esteem. When the need of esteem will not fulfil they feel anxiety and isolated. Such people who were always in search of esteem will very fearful from failure. The person who is described as "fearful of failure" may well be a person who is simply fearful of losing value in the eyes of others. In an achieving society, success in highly instrumental in gathering esteem and respect, while failure is a standard way of losing esteem (Birney, 1969).

But there are other ways of maintaining good relations and respect; modesty is one and self-confidence is another. For establishment of modesty and self-confidence it will require to make coordination in between Emotional intelligence and social Intelligence.

The Emotional Integration Committee (1961) highlighted the role of education as "Education can play a vital role in strengthening emotional integration." It is felt that education should not only aim at imparting knowledge but should develop all aspects of a student's personality. It should broaden the outlook, foster a feeling of oneness and nationalism and a spirit of sacrifice and tolerance so that narrow group interest are submerged in the larger interest of the country. (Kolangi,2014)

It confirmed by definition of Goleman, 1997 that, Emotional integration is result of emotional intelligence. Broaden of outlook, feeling of oneness and nationalism and spirit of sacrifice and tolerance are peak level of Social Intelligence and also peak level of Emotional Intelligence. When a student think about their society, their nation, their family and other things based on several facts and logics, and based on growth and development then their thinking follow Meta-cognition.

Study of Kumar,2019 shows that Emotional Intelligence and Social Intelligence have positive relationship with each other. Murali 2009 in his investigation found, significant impact of Emotional Intelligence on Performance. Study of Borgio, 2016 tells about positive affect of Social Intelligence and Problem Solving Style on teacher competencies. Sharma, 2013 in his study found a positive relation between Emotional Intelligence and Achievement. Study of Singh, 2002 and Patel, 2018 tells about the strong relationship of Social Intelligence and Emotional Intelligence with each other and also with academic achievement in adolescent. These all study were based on the fact that Social Intelligence and Emotional Intelligence both are related with each other and directly influence the academic achievement and performance of students, and also tell about the relationship of social Intelligence and Emotional Intelligence with problem solving approach during adolescent.

Student in period of adolescent have so much problems. So when a teacher is socially and emotionally intelligent, they will be able to help properly to their students in solving their problems. Some time for being intelligent on the basis of social and emotional aspects is required to thinking about thinking that is meta-cognition.

Journal of Indian education, NCERT pointed out a positive relationship between meta-cognition and teacher competencies. The study concluded that teachers should be competent enough to identify the needs of the children in the classroom and accordingly prepare themselves to broaden their better learning ability.

Jain, 2014 in his investigation found that meta-cognition awareness contributed significantly to the score of academic life style of the entire participant with academic locus of control. This shows that meta-cognition is also related with academic performance. Study of Singh, 2014 found a positive correlation in between meta-cognition and problem solving ability and also a positive relationship in between meta-cognition and self esteem. Parimala, 2008 and Beena, 2015 tells about the positive and directional relationship of meta-cognition with academic achievement. Neeru, 2015 in her study found a positive correlation of both meta-

cognition and emotional intelligence with academic achievement of students. So from these all studies it will be found that, when social intelligence, emotional intelligence and meta-cognition all kept in consideration, positive changes in academic achievement, performance, self esteem, competencies and others will be seen. So in present study both social Intelligence and emotional intelligence taken as independent variable and meta-cognition is taken as dependent variable. These three variables are related with each other and providing better for performance.

For making able to a person to think meta-cognitively, it is essential; to start these thought process from childhood. According to Psychoanalytic personality theory of Erik Erikson (1994), the major parts of childhood were spending under the supervision of teacher. The B.Ed. student are future teacher, so when the student of B.Ed. were well known about the meta-cognition and its relationship with social Intelligence and emotional intelligence, they will become a best future teacher and make their students, social and emotional intelligent with respect to meta-cognition.

When B.Ed. students think meta-cognitively, they will be able to include all students in process of teaching and learning by the involvement of social intelligence and emotional intelligence. The involvement of social Intelligence and emotional intelligence with respect to meta-cognition enhances the process of inclusion. Meta-cognition provides higher level of thinking, so a person will able to be a social and emotional intelligent person.

1.5.0 STATEMENT OF THE PROBLEM

A study of Emotional Intelligence and Social Intelligence with respect to Meta-cognition of B.Ed. students.

1.6.0 OBJECTIVES OF THE STUDY

The present study is conducted with the following objectives:

1. To study the Emotional Intelligence of B.Ed. students.
2. To study the Social Intelligence of B.Ed. students.
3. To study the Meta-cognition of B.Ed. students.
4. To study the relation of Emotional Intelligence with Meta-cognition of B.Ed. students.

5. To study the relation of Social Intelligence with Meta-cognition of B.Ed. students.
6. To study the relation of both Emotional Intelligence and Social Intelligence with Meta-cognition of B.Ed. students.

1.7.0 HYPOTHESIS OF THE STUDY

Following null hypothesis were formulated to be tested at 0.05 level of significance:

1. There will be no significant relationship between Emotional Intelligence and Meta-cognition of B.Ed. students.
2. There will be no significant relationship between Social Intelligence and Meta-cognition of B.Ed. students.
3. There will be no significant relationship between Emotional Intelligence and Social Intelligence of B.Ed. students.
4. There will be no significant relationship between Meta-cognition and the predicted Meta-cognition on the basis of Emotional Intelligence and Social Intelligence of B.Ed. students.

1.8.0 OPERATIONALIZATION OF THE TERMS

Following terms used in the present study are operationally defined in terms of measurable and observable terms.

(a) Emotional Intelligence: Score obtained by B.Ed. students in the Emotional Intelligence Inventory scale developed by Nutan Kuamr Thingunjam and Usha Ram (2000) based on Solvey and Mayer (1990) will be their Emotional Intelligence.

(b) Social Intelligence: Score obtained by B.Ed. students in the Social Intelligence Inventory scale developed by Dr. S. Mathur (2007) will be their Social Intelligence.

(c) Meta-cognition: Score obtained by B.Ed. students in the Meta-cognition Inventory (MCI) developed and standardised by Dr. Punita Govil (2003) will be their Meta Cognition.

1.9.0 LIMITATION OF THE STUDY

Due to scenario of Covid-19, present study is limited to on-line mode of data collection through Google-form.

1.10.0 DELIMITATION OF THE STUDY

The proposed study will be delimited to the English medium second year students of B.Ed. in the state of Uttar Pradesh.

1.11.0 SCHEME OF CHAPTERISATION

Chapter I details the introduction of the present study along with all the taken variables. The chapter helps to build the rationale for the present study. The appropriateness of the study and the reason to conduct the study is presented in this chapter. The chapter also presents the details of the objectives of the study, the hypothesis, operational definition of terms, limitation and delimitations of the present study.

Chapter II gives a detail of the reviewed literatures in the field of Meta-cognition, Emotional Intelligence and Social Intelligence. This helped the researcher to prepare the implications of the review of related literature for the present study. It also helped the researcher to consider different methodological aspects for the present study.

Chapter III details with the methodology adopted in the present study. This chapter details about the design of the study, the population and sample, the procedure followed to develop and select the tools used for data collection and the procedure of data analysis adopted.

Chapter IV provides details of the analysis and interpretation of collected data. The chapter also provides the findings of the present study and implications of the same.

Chapter V presents the whole study in a nutshell along with the major findings of the present study, the discussion on the results arrived at after the analysis, implications drawn from the present study and suggestions. This chapter is followed by the Bibliography and Appendices.

CHAPTER – II

REVIEW OF RELATED LITERATURE

CHAPTER II

REVIEW OF RELATED LITERATURE

2.0.0 INTRODUCTION

A systematic review of previous literature related to the proposed study is essential in the process of research. It help the researcher to clear the doubt related to study and provide them a direction of study. It also helps any researcher to find the research gap in between past studies and study has been done by them.

Best and Kahn (2001) stated that, “A brief summary of previous research and writing of recognised experts provide the researcher familiar with what is already known and wit what is still unknown and untested. Since effective research must be based on past knowledge, this step helps to eliminate the duplication of what has been done already and provide useful suggestions for significant investigation.”

For getting idea of studies which have been done in area of social intelligence, emotional intelligence and meta-cognition, researcher has reviewed the studies of past decades. Various research studies have been conducted with various objectives, hypothesis, population, samples and methodologies in the area of social intelligence, emotional intelligence and meta-cognition. A total of thirty studies were reviewed which are presented as follow.

2.1.0 REVIEWS RELATED TO EMOTIONAL INTELLIGENCE

Murali (2009) conducted a study on, “Effect of emotional intelligence and study skills on academic performance of pupils with social and emotional problem”. Objectives of the present study were, To study the impact of social and emotional problems on academic performance, To examine the impact of emotional intelligence on academic performance and to assess the effect of study skills on academic performance. The sample of the study consisted of 650, 10th class students (problematic 300 and non problematic 350). The sample also includes boys and girls. The data were collected from 50 High Schools from Government and private schools (Urban and rural), from 14 to 16 years. The major finding of present study includes; there would be significant impact of emotional intelligence on academic performance.

Sharma (2013) conducted a study on, “A study of relationship of emotional intelligence with adjustment, stress and achievement among senior secondary students.” The objectives of this study were, To study the relationship between emotional intelligence and stress among senior secondary students, To study the relationship between emotional intelligence and adjustment among senior secondary students, To study the relationship between emotional intelligence and academic achievement among senior secondary students, To study the difference between the mean stress scores of students having high and low emotional intelligence, To study the difference between the mean adjustment scores of students having high and low emotional intelligence, To study the difference between the mean academic achievement scores of students having high and low emotional intelligence, To study the difference between the mean stress scores of male and female students having high emotional intelligence and low emotional intelligence, To study the difference between the mean adjustment scores of male and female students having high emotional intelligence and low emotional intelligence, To study the difference between the mean academic achievement scores of male and female students having high emotional intelligence and low emotional intelligence, To study the difference between the mean stress scores of urban and rural students having high emotional intelligence and low emotional intelligence and To study the difference between the mean adjustment scores of urban and rural students having high emotional intelligence and low emotional intelligence and To study the difference between the mean academic achievement scores of urban & rural students having high emotional intelligence and low emotional intelligence. The present study was planned to investigate the impact of emotional intelligence and study skill on academic performance of pupils with social and emotional problems. The sample of the study consisted of 650, 10th class students (300 problematic and 350 Non problematic), the sample also includes boy and girls. The data were collected from 50 high schools from government and private schools (urban and rural) from 14 to 16 years. The major findings of present study includes, the students with social and emotional problems found to have significant impact on the performance in various subjects and emotional intelligence found to have significant impact on academic performance.

Tripta (2018) made a study on, “Adjustment among adolescents in relation to their general intelligence emotional intelligence and home environment.” with objectives, To find the significant difference between Adjustment of male and female Adolescents, To find the significant difference between Adjustment of adolescents with high and low level of general

intelligence, To find the significant difference between Adjustment of adolescents with high and low level of emotional intelligence, To find the significant difference between Adjustment of adolescents with good and poor home environment, To study the interaction between Gender and General Intelligence with respect to Adjustment, To study the interaction between Gender and Emotional Intelligence with respect to Adjustment, To study the interaction between General Intelligence and Emotional Intelligence with respect to Adjustment, To study the interaction among Gender, General Intelligence and Emotional Intelligence with respect to Adjustment, To study the interaction between Gender and Home Environment with respect to Adjustment, To study the interaction between General Intelligence and Home Environment with respect to Adjustment, To study the interaction among Gender, General Intelligence and Home Environment with respect to Adjustment, To study the interaction between Emotional Intelligence and Home Environment with respect to Adjustment, To study the interaction among Gender, Emotional Intelligence and Home Environment with respect to Adjustment and To study the interaction among General Intelligence, Emotional Intelligence and Home Environment with respect to Adjustment. Sample of the study were 800 adolescents of X class of high and senior secondary government schools of four districts of Punjab namely Ludhiana, Patiala, Amritsar and Moga. Design of the study was descriptive survey. Tools of the study were Adjustment inventory for school students by Singh and Sinha (1989), General Mental Ability Test by Jalota (1992), Emotional Intelligence Scale by Hyde, Pethe and Dhar (2007) and Home Environment Inventory by Mishra (1984). Major findings of the study includes, Female adolescents have better adjustment as compared to male adolescents, Adolescents with high general intelligence have better adjustment than adolescents with low level of general intelligence and Adolescents with high emotional intelligence have better adjustment than adolescents with low level of emotional intelligence.

Narayan (2018) conducted a study on, “Effect of Emotional Intelligence on work attitudes among mainstream school teachers and special educators”. The objectives of the study includes, To determine the effect of emotional intelligence on the relationship of occupational stress on job satisfaction and self-efficacy on affective commitment, To determine the impact of job satisfaction and affective commitment on the relationship with occupational stress and self-efficacy on organizational citizenship behaviour and To study the difference in emotional intelligence between main-stream school teachers and special educators. Major findings of study included that, there is a significant negative effect of occupational stress on

organizational citizenship behaviour. The job satisfaction positively mediates the relationship between occupational stress and organizational citizenship behaviour. There is a moderating effect of emotional intelligence on occupational stress and job satisfaction relationship. When emotional intelligence moderates, the impact of occupational stress on satisfaction is reduced. This shows emotional intelligence helps the teachers to manage occupational stress effectively. Also higher the emotional intelligence among teachers, lower would be the stress. In this study, a total of 603 samples were taken for analysis, of which 514 were main stream school teachers and 89 were special educators. This research study was intended for school teachers and special educators. The population was naturally all the teachers who were teaching in mainstream schools and special educators in special schools. Samples selected were from villages, towns and cities and metro to ensure representation across country. A survey based research plan was utilized to gather the data in the present study.

Krantikar (2020) made a study on "Influence of emotional intelligence on mental health and coping styles a study on working and nonworking women of Visakhapatnam". The objectives of the study included, To study the influence of socio demographical variable of age, education, locality and income on women's mental health, To examine the influence of socio demographical variable of age, education, locality and income on women's coping styles, To know the influence of emotional intelligence on mental health among working and non working women, To study the effect of emotional intelligence on coping styles of working and non working women, To know the relation between emotional intelligence and mental health of various socio demographical groups of working and non working women and To know the relation between emotional intelligence and coping styles in various socio demographical groups of working and non working women. In the present study, three different measures were used, namely; Mental Health Inventory (MHI), Coping Inventory (CI) and Emotional Intelligence (EI).401 working women such as Anganvadi employees, teachers, petty business and other unorganized groups were the samples of the study. Major findings of the study included, Older women significantly differed with more emotional focused of coping styles rather than younger age women, Lower education women significantly identified more on problem focused dimensions of coping styles and Rural women are more appraised focused such as applying logical, cognitive redefinition and cognitive avoidance in emotional situations.

2.2.0 REVIEWS RELATED TO SOCIAL INTELLIGENCE

Agrawal (2013) conducted a study on “Social intelligence and teacher effectiveness”. The objectives of the present study were includes, To study and compare the social intelligence of the teachers in relation to their sex, age, educational qualification, mental status, category, teaching experience, discipline, administrative set up, locate and board of education, To study and compare the teacher effectiveness in relation to their sex, age, educational qualification, marital status, category, teaching experience, discipline, pay, teaching class standard, job consistency, administration set up, locale and board of education and To study the relationship between social intelligence and teacher effectiveness. In present study entire population is divided into two groups that are, student population and teacher population. All the students from class 6th to 12th standard who were enrolled in a recognised High school or Intermediate College of Banda district during session 2001-02 constitutes the student population of the present study. Teacher population was about 1500 teachers from different types of administration. In the present study a sample of 552 teachers (420 male and 137 female) were selected from the defined population by using accidental method of Sampling. Total of 5570 students were selected to rate one of their teachers. In this study gender wise, age wise, marital status wise, caste wise, local wise, discipline wise, educational qualification wise, teaching experience wise, teaching class standard wise, administration setup wise and board of education wise comparison of social intelligence score and teacher effectiveness score were done by researcher. The finding of the study led to the conclusion that the private school teachers are high in academic, professional, emotional, and personality, dimensions of teacher effectiveness as well as in composite teacher effectiveness, Female teachers were found more social intelligent from male teachers, unmarried teachers are better in comparison to married teachers etc. The sample unit were selected by using accidental sample technique.

Lyngdoh (2013) did, “A study of social intelligence in relation to teaching aptitude of student teachers in the state of Meghalaya.” The objectives of this study were, To study the Social Intelligence of Student Teachers in Meghalaya, To examine the Teaching Aptitude of Student Teachers, To study the difference in Social Intelligence between the following group of Student Teachers: i) B.Ed and Diet, ii) Male and Female Student Teachers, iii) Tribal and Non-Tribal Student Teachers, iv) Student Teachers for the Arts, Science and Commerce Streams, To study the difference in Teaching Aptitude between the following group of Student Teachers: i) B.Ed and DIET, ii) Male and Female Student Teachers, iii) Tribal and Non Tribal Student Teachers, iv) Student Teachers for the Arts, Science and Commerce

Streams, To study the relationship between Social Intelligence and Teaching Aptitude of Student Teachers, To study the difference in the relationship of Social Intelligence with Teaching Aptitude between the following group of Student Teachers: i) B.Ed and DIETii) Male and Female Student Teachers, iii) Tribal and Non Tribal Student Teachers, iv) Student Teachers for the Arts, Science and Commerce Streams and To draw out the implication of the study and suggest recommendations. The population of the study comprised all student Teachers studying in the training institutes, viz. College of Teacher Education, and DIET's, located in all the Districts of Meghalaya. 577, institute selected by Random sampling in the study. The method followed in the present study was the descriptive method. Major findings of the study include; there is a significant relationship between Social Intelligence and Teaching Aptitude of Student Teachers. There is no significant difference in the relationship of Social Intelligence with Teaching Aptitude between B.Ed. and DIET Student Teachers (Tribal).The findings showed that both the B.Ed. and DIET student teachers are having an average level of social intelligence. Therefore the findings imply that a social skill is required in teacher education programme which helps in shaping Social intelligence.

Borgio (2016) conducted a study on, "Influence of social intelligence and problem solving style on teaching competency of secondary teacher education students." The objectives of this study were, To find out the level of social intelligence of secondary teacher education students, To find out the level of problem solving style of secondary teacher education students, To find out the level of teaching competency of secondary teacher education students, To find out the significant difference, if any, in the social intelligence of secondary teacher education students in terms of selected background variables, To find out the significant difference, if any, in the problem solving style of secondary teacher education students in terms of selected background variables, To find out the significant difference, if any, in the teaching competency of secondary teacher education students in terms of selected background variables, To find out the significant difference among, if any, in the social intelligence of secondary teacher education students in terms of religion and nature of the institution, To find out the significant difference among, if any, in the problem solving style of secondary teacher education students in terms of religion and nature of the institution, To find out the significant difference among, if any, in the teaching competency of secondary teacher education students in terms of religion and nature of the institution, To find out the significant association, if any, in the social intelligence of secondary teacher education students in terms of father's education, mother's education, father's occupation and mother's

occupation, To find out the significant association, if any, in the problem solving style of secondary teacher education students in terms of father's education, mother's education, father's occupation and mother's occupation, To find out the significant association, if any, in the teaching competency of secondary teacher education students in terms of father's education, mother's education, father's occupation and mother's occupation, To find out whether there is any significant relationship between social intelligence and problem solving style of secondary teacher education students, To find out whether there is any significant relationship between problem solving style and teaching competency of secondary teacher education students, To find out whether there is any significant relationship between teaching competency and social intelligence of secondary teacher education students, To find out whether there is any significant influence of social intelligence and problem solving style on teaching competency of secondary teacher education students and To find out whether there is any significant factor with positive loading of the variables namely social intelligence, problem solving style and teaching competency of secondary teacher education students. In present study no significant difference is found between male and female secondary teacher education students, science and arts group secondary teacher education students and graduate and post graduate degree completed secondary teacher education students with regard to social intelligence and there is significant difference is found between unmarried and married secondary teacher education students in the dimension of social skills. Significant influence is found in social intelligence and problem solving style on teaching competency of secondary teacher education students. The investigator has used survey method for study. The population for the present study comprises of all the secondary teacher education students, who were studying in different Colleges of Education, in Tirunelveli, Thoothukudi and Kanyakumari districts of Tamil Nadu. The total population consists of 8995 secondary teacher education students. The sample consists of 1133 secondary teacher education students from 30 Colleges of Education out of 75 Colleges of Education in Tirunelveli (28), Thoothukudi (14) and Kanyakumari (33) districts.

Rani (2018) made a study on, "Effect of social intelligence on resilience lie spotting ability and academic performance of 8th class students" with objectives, To compare the Resilience of 8th class experimental and control groups students before the experimental treatment, To compare the Resilience of 8th class experimental and control group students after the experimental treatment, To compare the mean gain Resilience scores of experimental and control group students where the experimental group was imparted instruction in social

intelligence and control group was taught through traditional method, To compare the Lie-Spotting Ability of 8th class experimental and control groups students before the experimental treatment, To compare the Lie-Spotting Ability of 8th class experimental and control groups students after the experimental treatment, To compare the mean gain Lie-Spotting Ability scores of experimental and control group students where the experimental group was imparted instruction in social intelligence and control group was taught through traditional method, To compare the Academic Performance of 8th class experimental and control groups students before the experimental treatment, To compare the Academic Performance of 8th class experimental and control groups students after the experimental treatment and To compare the mean gain Academic Performance scores of experimental and control group students where the experimental group was imparted instruction in social intelligence and control group was taught through traditional method. 150 students of class 8th of the two designated schools of Gurgaon District were the samples of this study. The Sample Students will be divided into two equal groups i.e. Control Group and Experimental Group for the sake of studying effect of social intelligence on resilience, lie Spotting ability and academic performance of students. A self-devised questionnaire shall be prepared to measure the lie-spotting abilities, and the Bharathiar University Resilience Scale developed by Narayan (2011) was used to measure the resilience of control group and the experimental group. Major findings of the study includes, students taught social intelligence would tend to develop higher resilience than those taught traditionally and students given instructions social intelligence tend to develop higher lie-spotting ability than those who were in the control group.

Unni(2018) conducted a study on, “Developing a learning package to enhance social intelligence among commerce student at Higher Secondary Level.” Objectives of the study included, To find out the level of Social Intelligence of Higher Secondary School Commerce Students belonging to different subgroups based on: A. Gender (Boys/Girls), B. Type of Management of School (Aided/Government), C. Locality of School (Rural/Urban), To find out the perception of Higher Secondary School Commerce Teachers with regard to the level of Social Intelligence among Higher Secondary School Commerce Students, To find out the perception of Higher Secondary School Commerce Teachers with regard to the need for enhancing the Social Intelligence among Higher Secondary School Commerce Students, To develop a Learning Package for enhancing Social Intelligence of Higher Secondary School Commerce Students, To find out the effectiveness of the prepared Learning Package on

Social Intelligence of Higher Secondary School Commerce Students and To compare the effectiveness of the prepared Learning Package on Social Intelligence among Higher Secondary School Commerce Students for the total sample and relevant sub samples: A. Gender (Boys/Girls), B. Type of Management of School (Aided/Govt), C. Locality of School (Rural/ Urban). Method adopted for present study was experimental cum Survey. Survey method is used to find out the level of social intelligence of Higher Secondary School commerce student. Experimental method was used for testing the effectiveness of the prepared social intelligence learning package. The investigator selected 240 students belonging to 4 division of standard XI. Out of selected two divisions one division was considered as the experimental group and the other considered as the control group. The investigator selected a random sample of 240 Higher Secondary School, commerce students from selected schools of Malappuram district of Kerala. The major findings of the present study includes; the higher secondary school commerce student have low level of social intelligence, girls having low level of emotional awareness when compared to boys, boys having high level of awareness of social work as compared to girls. Students of aided school having low level of emotional awareness as compared to government school students and rural school students having low level of emotional awareness than urban school students.

2.3.0 REVIEWS RELATED TO META-COGNITION

Parimala (2008) conducted a study on, “Effect of meta-cognitive intervention strategies in enhancing teaching competency of B.Ed. Students”. Objectives of present study were, To assess the level of teaching competency in physical science among the student teachers, To assess the level of meta cognition among the student teachers, To identify the Meta cognitive strategies that would enhance the competency in teaching physical science among student teachers, To develop and implement the model to the student teachers to enhance the teaching competency in physical science and To find out the effect of Meta cognitive intervention strategies on teaching competency in physical science among students teachers. The present investigation was conducted in Alagappa University College of Education, Karaikudi. All the 30 B.Ed. (13 Boys & 17 Girls) trainees of Physical Science (optional) formed the sample of the study. Single group pre test treatment, post test design and purposive sampling techniques were followed. In this study, the Experimental method is clearly for determining the causal effect of an isolated, single variable on dependent variable. The findings of this study includes; the level of Meta-cognitive orientation of the B.Ed., trainees is more in the post assessment than the pre assessment correlation analysis, there is significant correlation

between post assessment of Meta-cognitive intervention strategies and teaching competency in Physical Science, and there is significant correlation between the Meta-cognitive intervention strategies of post and pre assessment.

Singh (2014) did a study on, “Meta-cognition among senior secondary students in relation to their problem solving ability and self esteem.” Objectives of the study included, To study the relationship between meta-cognition and problem solving ability among senior secondary students, To study the relationship between meta-cognition and self- esteem among senior secondary students, To study the difference between the mean scores of meta-cognition among rural and urban senior secondary students, To study the difference between the mean scores of meta-cognition among male and female senior secondary students, To study the difference between the mean scores of meta-cognition among senior secondary students having high and low problem solving ability, To study the difference between the mean scores of meta-cognition among senior secondary students having high and low self-esteem, To study the difference between mean scores of meta-cognition among male senior secondary students having high and low problem solving ability, To study the difference between mean scores of meta-cognition among female senior secondary students having high and low problem solving ability, To study the difference between mean scores of meta-cognition among male senior secondary students having high and low self-esteem, To study the difference between mean scores of meta-cognition among female senior secondary students having high and low self-esteem, To study the difference between the mean scores of meta-cognition among rural senior secondary students having high and low problem solving ability, To study the difference between the mean scores of meta-cognition among urban senior secondary students having high and low problem solving ability, To study the difference between the mean scores of meta-cognition among rural senior secondary students having high and low self-esteem and To study the difference between the mean scores of meta-cognition among urban senior secondary students having high and low self-esteem. In the present study investigation Descriptive Survey Method has been employed to find the effect of problem solving ability and self-esteem on meta-cognition. The main purpose of this work is to study the meta-cognition among senior secondary students in relation to their problem solving ability and self-esteem in the schools of Jhajjar district. It involves interpretation comparison measurement, classification, understanding a solution of significant educational problem. The students of both rural and urban areas schools of district Jhajjar constituted the population of the subjects in the present study. The present study is conducted

on a sample of 320 senior secondary students in Jhajjar district only. The sample is selected by stratified random sampling technique from the population of senior secondary students. The major findings of study are that; there is a positive and significant correlation between Meta-cognition and Problem solving ability and Meta-cognition and self-esteem. It was also found that there is a significant difference between the mean scores of meta-cognition among rural and urban senior secondary students. In this study it is concluded that urban students have more meta-cognition in comparison to rural senior secondary students.

Prasad (2015) conducted a study on, “Influence of meta-cognition and critical thinking on academic achievement of higher secondary students.” The objectives of present study included both general and specific objectives. General objectives were, To find out the level of meta-cognition, critical thinking and academic achievement of the higher secondary students, To find out the significant differences, if any, in meta-cognition of higher secondary students with reference to background variables, To find out the significant differences, if any, critical thinking of higher secondary students with reference to background variables, To find out the significant differences, if any, in academic achievement of higher secondary students with reference to background variables, To find out the relationship between; a) meta-cognition and academic achievement, b) critical thinking and academic achievement of higher secondary students, To find out the influence of meta-cognition and critical thinking on academic achievement of higher secondary students and To find out the significant factor with positive loading of the variables namely meta-cognition, critical thinking and academic achievement of higher secondary students. Specific objectives of this study were, To find out the level of meta-cognition of higher secondary students, To find out the level of critical thinking of higher secondary students and To find out the level of academic achievement of higher secondary students. In the present study population consists of all the higher secondary students studying in government schools, aided schools, private and unaided schools in Tirunelveli, Tuticorin and Kanyakumari districts. The sample consists of 1005 students studying XI standard maths and science group in higher secondary schools situated in Tuticori, Tirunelveli and Kanyakumari district in Tamilnadu. In the present study random sampling technique is adopted to select the sample. The investigator has used survey method for the present investigation. The major findings of present study includes; there is no significant difference between higher secondary students of nuclear and joint family in their knowledge of cognition, regulation of cognition and meta-cognition as a whole, there is no significant difference between higher secondary students who are participating in cultural

events and others who do not participate in cultural events in their knowledge of cognition, regulation of cognition and meta-cognition as a whole and there is significant difference between internet users and non-users higher secondary students in their knowledge of cognition, regulation of cognition and meta-cognition as a whole. Further it is observed that, internet non-user are better than internet user higher secondary students in their knowledge of cognition, regulation of cognition and meta-cognition in present study.

Beena (2015) undertook a study on, "The Role of Meta-cognition and Emotional Competence in the context of academic achievement in XI grade students." The objectives of present study were, To study meta-cognition and emotional competence as determinants of academic achievement, To study the role of gender on meta-cognition and emotional competence in the context of academic achievement, To study the role of locale on meta-cognition and emotional competence in the context of academic achievement and To study the relationship between meta-cognition and emotional competence The universe of the study consist students of 1870 Government Higher secondary schools and 195 schools of private senior secondary schools in Chhattisgarh. As the study is limited to Durg district of Chhattisgarh the population would be the XI grade students studying in 113 government Higher secondary schools and 49 senior secondary schools. From the government school section, the investigator selected 10 schools out of 60 of Durg block, 5 schools out of 24 of Dhamdha block and 5 schools out of 29 of Patan block while in the private school section 10 schools out of 44 of Durg block, 2 schools (total available) of Dhamdha block and 3 schools (total available) of Patan block. A total of 35 schools were selected on the basis of selective sampling method. A mixed method approach was adopted by the investigator to analyze the quantitative and qualitative data. In this study it is found that there would be no effect of meta-cognition, dimension of meta-cognition, gender in the context of role of meta-cognition, emotional competence, dimension of emotional competence, gender in the context of role of emotional competence on academic achievement of XI grade students.

Kaur (2016) conducted a study on, "Role of social environment in abstract intelligence and meta cognitive skills of children", with objectives, To investigate the relationship of parental involvement (Closeness, Participation, Support, Disinterest and Neglect) with abstract intelligence and meta cognitive skills of children, To investigate the relationship of classroom environment (Involvement, Affiliation, Teacher Support, Task Orientation, Competition, Order & Organization, Rule Clarity, Teacher Control, Innovation) with abstract intelligence and meta-cognitive skills of children, To investigate the association of abstract intelligence &

meta-cognitive skills of children, To see the contribution of parental involvement (Closeness, Participation, Support, Disinterest and Neglect) in abstract intelligence and meta-cognitive skills of children and To see the contribution of classroom environment (Involvement, Affiliation, Teacher Support, Task Orientation, Competition, Order & Organization, Rule Clarity, Teacher Control, Innovation) in abstract intelligence and meta-cognitive skills of children. Sample for this study comprised of 560 subjects (8th& 9th class students with age ranging between 12 to 15 years). The sample was drawn from English medium public schools of Patiala, Muktsar, Bathinda and Faridkot regions of Punjab. Tools of the study was, Parental Involvement Scale (PIS) (Desisto, Farreras and Woody, 2010), Classroom Environment Scale (Form R) (Trickett & Moos, 1974), Jr. Meta-cognitive Awareness Inventory – Form 2 (Version B) (Dennison, Howard, Krawchuk & Hill, 1996) and Standard Progressive Matrices (SPM) (Raven and Raven, 1983). Major findings of the study included, Closeness, participation and support dimensions of parental involvement were found to have a positive and significant relationship whereas disinterest and neglect dimensions of parental involvement were found to possess a significant but negative relationship with abstract intelligence and Closeness, participation and support dimensions of parental involvement were found to have a significant positive correlation with information management, planning, monitoring skills and meta-cognitive regulation.

Gupta (2017), did a study on, “Meta cognitive skills of secondary school students in relation to their locus of control self efficacy and academic achievement” with objectives To study the meta-cognitive Skills among secondary school students, To study the locus of control, self efficacy and academic achievement of secondary school students, To study the relationship between meta-cognitive skills and locus of control of secondary school students, To examine relationship between meta-cognitive skills and self efficacy of secondary school students, To find out relationship between meta-cognitive skills and academic achievement of secondary school students, To study the relationship between locus of control and self efficacy of secondary school students, To examine the relationship between locus of control and academic achievement of secondary school students, To find out the relationship between self efficacy and academic achievement of secondary school students, To find out the interrelationship between meta-cognitive skills, locus of control, self efficacy and academic achievement of secondary school students, To study the meta-cognitive skills, locus of control, self efficacy and academic achievement among secondary school students in relation to their gender and To study the meta-cognitive skills, locus of control, self efficacy and

academic achievement among secondary school students in relation to their residential background. Sample of present study was 400 Secondary School Students of class 11th of five district of Haryana state under the Ambala commissioner (Ambala, Kurukshetra, Yamuna Nagar, Kaithal and Panchkula) of Government schools. The major findings of the study include, a positive relationship was found between knowledge of cognitive skills, self influence and self confidence (dimensions of self efficacy) among secondary school students.

Jain (2019), conducted a study on, “Meta-cognition and locus of control as predictors of academic outcome and academic adjustment of the students.” Objectives of the present study were, To inquire into gender differences in meta-cognitive awareness, academic adjustment and academic outcome of the participants, To study patterns of the scores on meta-cognitive awareness, academic adjustment and academic outcome measures of the participants having affiliations with low, average and high socioeconomic status, To develop an understanding into the differences in the scores on meta-cognitive awareness, academic adjustment and academic outcome measures of the participants having internal and external academic locus of control, To understand the nature and extent of correlations among the scores on meta-cognitive awareness, academic adjustment and academic outcome measures of the male and female participants having internal and external academic locus of control, To estimate the role of meta-cognitive awareness and its components in predicting the academic adjustment and academic outcome of the male and female participants, To estimate the role of meta-cognitive awareness and its components in predicting the academic adjustment and academic outcome of the participants having affiliations with low, average and high socioeconomic status and To estimate the role of meta-cognitive awareness and its components in predicting the academic adjustment and academic outcome measures of the participants having internal and external academic locus of control. The convenient sampling method was used to choose the participants for the study. 522 participants comprising 294 males age ranging from 17 years to 27 years and 228 females age spanning from 17 to 28 years were included in the study. To measure meta-cognitive awareness of the participants, Meta-cognitive Awareness Inventory standardized by Schraw and Dennison (1994) was employed. It consists of 52 items with five answer possibilities. Higher score indicated higher meta-cognitive awareness and vice versa. The major finding of this study stated that; the male, female and all the participants with internal academic locus of control achieved higher mean scores on declarative knowledge, procedural knowledge, conditional knowledge, planning, information management, monitoring, evaluation and overall meta-cognitive awareness as compared to

their external counterparts except debugging and also procedural knowledge exhibited its contribution only in the scores of academic achievement measure of female participants with external academic locus of control. Similarly, conditional knowledge, evaluation and overall meta-cognitive awareness contributed significantly to the scores of academic lifestyle of all the participants with external academic locus of control.

Madangopal (2020), conducted a study on, “Effect of mindfulness based Cognitive Training Intervention on Meta-cognition Social Competence and Academic Performance of School Students.” with objectives; To ascertain the level of meta-cognition, social competence (interpersonal skills, self concept, self-regulation and problem solving & decision making) and academic performance of school students, To examine the relationship between meta-cognition, social competence (interpersonal skills, self-concept, self-regulation and problem solving & decision making) and academic performance of school students, To develop a Mindfulness based cognitive training Intervention to improve meta-cognition and therein after social competence (interpersonal skills, self-concept, self-regulation and problem solving & decision making) and academic performance of school students and To find the effect of improved meta-cognition on social competence (inter personal skills, self-concept, self-regulation and problem solving & decision making) and academic performance of school students. This study was using Ex-post Facto multivariate research design with Purposive sampling method. For the purpose of the study, only students studying in IX standard of Central Board of Secondary Education (CBSE) Schools in Chennai District were included to establish sample homogeneity. A total of 577 students had participated in the study with 307 boys and 270 girls. In this study Meta-cognitive skill scale of Altindag M. & Senemoglu N. (2013) was used for data collection. Major findings of the study includes, Meta-cognition was found to be significantly and positively related to the components of social competence including interpersonal skills, self-concept, self-regulation, problem solving & decision making among school students and Meta-cognition was also found to be significantly positively correlated with academic performance of school students.

2.4.0 REVIEWS RELATED TO EMOTIONAL INTELLIGENCE & SOCIAL INTELLIGENCE

Singh (2002) conducted a study on, “Emotional intelligence: an investigation of construct independence from personality and social intelligence”. Objectives of the study included, To study the relationship between emotional intelligence and Big-five personality factors, To

investigate the relationship between emotional intelligence and social intelligence, To study the relationship between emotional intelligence and temperamental traits, To examine the relationship between social intelligence and Big-five personality factors, To investigate the relationship between social intelligence and temperamental traits, To study the relationship between temperamental traits and personality factors and To examine the conjoint factor structure of the measures of emotional intelligence, social intelligence, personality and temperament. Some of the measures of Emotional Intelligence showed significant association with the measures of social intelligence. Principal components analysis located a general factor of emotional intelligence. This factor maintained factorial independence with social intelligence, personality and temperament. The study was conducted by following a Psychometric Simultaneous Uncontrolled design (Cattell, 1966). The present study was conducted on a randomly drawn sample of 286 (162 male and 124 female) subjects in the age range of 19.5 to 23.5 years. The sample was drawn using the technique of cluster random sampling.

Haider (2013) conducted a study on, "Achievement motivation emotional and social intelligence of hockey players at different levels of participation" with objectives, To find out the difference amongst the players of different level on the variable of achievement motivation, To find out the difference amongst the players of different level on the variable of emotional intelligence, To find out the difference amongst the players of different level on the variable of social intelligence, To find out the relationship between achievement motivation and social intelligence, To find out the relationship between emotional intelligence and social intelligence and To find out the relationship between achievement motivation and emotional intelligence. The sample of the study was 16-25 years age of the intercollegiate, interuniversity and national level hockey players of Uttar Pradesh. The institutions had been selected randomly. The data was collected through the questionnaires that were distributed to the players after the consent of their coaches/managers. Tools of the data collection were, Sports Achievement Motivation Test (SAMT), Mangal Emotional Intelligence Inventory (MEII) and Social Intelligence Scale (SIS). Major findings of the study included, there was significant difference between national and intercollegiate, intervarsity and inter-collegiate level hockey players on emotional intelligence. However, there was no significant difference between national and intervarsity level hockey players on the variable of emotional intelligence.

Kaur (2015) conducted a study on, “Well being of adolescents in relation to aggression social and emotional intelligence.” Objectives of the study were, To Study the well-being, aggression, social and emotional intelligence among adolescents, To study gender differences in well-being, aggression, social and emotional intelligence among adolescents, To study location-wise differences in well-being, aggression, social and emotional intelligence among adolescents, To study well-being among adolescents in relation to aggression, To study well-being among adolescents in relation to social intelligence, To study well-being among adolescents in relation to emotional Intelligence, To study inter correlation among, aggression, social and emotional intelligence among adolescents and To study the differences in aggression, social and emotional intelligence across high and low well-being among adolescents. Four districts of Punjab State were selected randomly for the study, undertaken on basis of literacy level in Punjab portrayed in 2011 census. In the study rural and urban school-going adolescent students were selected. The study was delimited to secondary schools run by Punjab government. A sample consist of 687 school going students (Grade Eleven). For the present study descriptive method of research was used to investigate the well-being of adolescents in relation to aggression, social and emotional intelligence. Male and female adolescent students from urban and rural areas were considered. The major finding of the study includes, adolescents are with higher social intelligence are having higher emotional intelligence and low aggression and is supported by set up regression analysis. The interaction between aggression and social intelligence, aggression and emotional intelligence, social intelligence and emotional intelligence and interaction among aggression, social intelligence and emotional intelligence together are not significant.

Patel (2018) did, “A comparative study on level of social intelligence and emotional intelligence among higher secondary school adolescents.” Objectives of this study were, To compare various dimension of social intelligence i.e. social adjustment, social skill, social competency, social leadership of adolescents of Central Board of Secondary Education and Gujarat Higher secondary Board, To compare various dimension of social intelligence i.e. social adjustment, social skill, social competency, social leadership of girls and boys adolescents of Central Board of Secondary Education and Gujarat Higher secondary Board, To compare various dimension of Emotional intelligence i.e. intrapersonal awareness, inter personal awareness, intra personal management, inter personal management of adolescents of Central Board of Secondary Education and Gujarat Higher secondary Board and To compare various dimension of Emotional intelligence i.e. intrapersonal awareness, inter personal

awareness, intra personal management, inter personal management of girls and boys adolescents of Central Board of Secondary Education and Gujarat Higher secondary Board. In this study total 400 adolescents of higher secondary of both Central Board of Secondary Education and GHSEB from Surat city were selected randomly. Sample of the study includes 100 adolescents girls and 100 adolescents boys from Gujarat Higher Secondary Education Board and 100 adolescents girls and 100 adolescents boys from CBSE. The obtain data were analysed by ANOVA and t-test. Major findings of this study include; a significant difference on the social intelligence with respect to gender and type of school (CBSE and GHSEB). Study also includes no significant difference on emotional intelligence with respect to gender and type of school (CBSE and GHSEB).

Saini (2018) did, “A Study of Effects of Spiritual Intelligence Social Intelligence and Emotional Intelligence on Life Satisfaction of Senior Secondary Schools Girls of Different Socio Economic Status” with objectives, to study the effect of spiritual intelligence on the socio-economic level of girl students, to study the effect of social intelligence on the different socio-economic level of girl students, to study the effect of emotional intelligence on the different socio-economic level of girl students, and to study the effect of spiritual intelligence, social intelligence and emotional intelligence on the different socio-economic level of girl students. The study was delimited to 1000 girls students of higher secondary schools of Churu, Jhunjhunu and Seekar districts of Rajasthan. Major findings of the study includes, there is a significance effect of social intelligence on the different socio-economic level of girl students and a slight negative effect of spiritual intelligence on the different socio-economic level of girl students and there is no significance effect of emotional intelligence on the different socio-economic level of girl students. The data collected by random sampling and methodology was Descriptive Research.

Singh (2017) conducted a study on, “Teacher effectiveness of prospective teachers in relation to emotional intelligence social maturity and academic achievement” with objectives, To find out the relationship between teacher effectiveness and emotional intelligence of prospective teachers, To find out the relationship between teacher effectiveness and social maturity of prospective teachers, To find out the relationship between teacher effectiveness and academic achievement of prospective teachers, To find the conjoint effect of emotional intelligence, social maturity and academic achievement on teacher effectiveness of prospective teachers, To find out the difference between teacher effectiveness of urban and rural prospective teachers and To find out the difference between teachers effectiveness of graduate and

postgraduate prospective teachers. The total number of prospective teachers comprising the sample for the present study was 500, out of which 344 prospective teachers were those belonging to urban area and 156 prospective teachers were belonging to rural area. Major findings of the study includes A significant correlation existed between teacher effectiveness and self awareness of prospective teachers. It implies that the prospective teachers who are more self aware have higher degree of teacher effectiveness than the prospective teachers who are less self aware.

Kaur (2018) conducted a study on “Professional ethics among college teacher in relation to team effectiveness emotional and social intelligence.” Objectives of the study were, To construct and standardize a tool to measure professional ethics among college Teachers, To study the professional ethics of teachers from Degree Colleges and Colleges of Education, To study the Team Effectiveness of teachers from Degree Colleges and Colleges of Education, To study the Emotional Intelligence of teachers from Degree Colleges and Colleges of Education, To study the Social Intelligence of teachers from Degree Colleges and Colleges of Education, To study the significance of difference between professional ethics of teachers from Degree Colleges and Colleges of Education, To study the significance of difference between Team Effectiveness of teachers from Degree Colleges and Colleges of Education, To study the significance of difference between Emotional Intelligence of teachers from Degree Colleges and Colleges of Education, To study the significance of difference between Social Intelligence of teachers from Degree Colleges and Colleges of Education, To find out the relationship between the Professional Ethics and Team Effectiveness of College teachers, To find out the relationship between the Professional Ethics and Emotional Intelligence of College teachers and To find out the relationship between the Professional Ethics and Social Intelligence of College teachers. This study is talk about educational implication of social Intelligence and emotional intelligence. In order to find the results, multiple random stage sampling technique was employed in the present study. The present study was a descriptive study in nature. At the initial stage 10 districts viz. Amritsar, Gurdaspur, Kapurthala, Fatehgarh Sahib, Ludhiana, Mohali, Patiala, Ropar, Jalandhar, Hoshiarpur were randomly chosen out of all 22 districts of Punjab for the studies. Total 500 college teachers were taken as sample in which 250 teachers was from Degree College and 250 teachers from College of Education. With the help of descriptive statistics, the value of Mean, Median, standard deviation, skewness and kurtosis were worked out for the total sample in respect of various variables in this study. This study, tell us about the positive relationship of all dimensions of

Emotional Intelligence (that is, awareness of self and other, professional orientation, interpersonal management, intra personal management etc.) with ethical conduct towards students and institutes. The high level of emotional intelligence improves the ethical perspective of teachers towards students and Institute.

Trivedi (2020) conducted a study on, “A study of emotional intelligence and social intelligence among student teachers” with objectives; To construct and standardize emotional intelligence scale and social intelligence scale, To study the level of emotional intelligence and social intelligence of students-teachers towards their responses to the scale, To study the level of emotional intelligence and social intelligence of students-teachers of urban & rural area towards their responses to the scale and To study the level of emotional intelligence and social intelligence of male and female students- teachers towards their responses to the scale. 500 Urban male student teachers, 500 Urban female student teachers, 500 Rural male student teachers and 500 Rural female student teachers were samples of this study. Methodology of the study was descriptive survey. Major findings of this study include; Social Intelligence of urban area female student teachers is higher than rural area female student teachers and Social Intelligence of urban area male student teachers is higher than rural area male student teachers.

2.5.0 REVIEWS RELATED TO EMOTIONAL INTELLIGENCE & META-COGNITION

Kaur (2010) conducted a study on, “A study of learning outcomes of adolescents in relation to their emotional intelligence, meta-cognition and personality traits.” The study was conducted to achieve the following objectives: To study the relationship between learning outcomes and emotional intelligence of adolescents, To study the relationship between learning outcomes and meta-cognition of adolescents, To study the relationship between learning outcomes and personality traits of Adolescents, To study and compare the learning outcomes, emotional intelligence, meta-cognition and personality traits of male and female adolescents, To study and compare the learning outcomes, emotional intelligence, meta-cognition and personality traits of rural and urban adolescents, To study and compare the learning outcomes, emotional intelligence, meta-cognition and personality traits of adolescents studying in government and private schools, To study and compare the learning outcomes, emotional intelligence, meta-cognition and personality traits of adolescents of arts and science stream and To study and compare the interactional effect of gender, locale, type

of school and subject streams of adolescents on their academic achievement, emotional intelligence, meta-cognition and personality traits. A sample of 1000 adolescents studying in class 10+2 was raised from different senior secondary schools of three districts in Punjab, viz. Ludhiana, Moga and Jalandhar. The study was restricted to adolescents studying in class 10+2 only. In order to ascertain the normalcy of distributions of different variables, the statistical techniques like Mean, Median, Mode, Standard Deviation, Skewness and Kurtosis were employed. The major findings of present study includes; positive and significant relationship between academic achievement and emotional intelligence of adolescents, positive and significant relationship between academic achievement and meta-cognition of adolescents.

Neeru (2015) did a study on, “Emotional intelligence and meta-cognitive skills as determinants of academic achievement of secondary school students” Objectives of this study were divided into three parts, which included 1.Objectives Related to Emotional Intelligence. This part have following objectives, To study the effect of emotional intelligence of adolescents on their academic achievement, To study the effect of emotional intelligence of male adolescents on their academic achievement, To study the effect of emotional intelligence of female adolescents on their academic achievement, To study the effect of emotional intelligence on the academic achievement of secondary school students belonging to rural area, To study the effect of emotional intelligence on the academic achievement of secondary school students belonging to urban area, To study the effect of emotional intelligence on the academic achievement of secondary school students studying in government schools and To study the effect of emotional intelligence on the academic achievement of secondary school students studying in private schools. 2. Objectives Related to Meta-cognitive Skills: This part include following objectives; To study the effect of meta-cognitive skills of secondary school students on their academic achievement, To study the effect of meta-cognitive skills of male secondary school students on their academic achievement, To study the effect of meta-cognitive skills of female secondary school students on their academic achievement, To study the effect of meta-cognitive skills on the academic achievement of secondary school students belonging to rural area, To study the effect of meta-cognitive skills on the academic achievement of belonging secondary school students to urban area, To study the effect of meta-cognitive skills on the academic achievement of secondary school students studying in government schools and To study the effect of meta-cognitive skills on the academic achievement of secondary school students studying in

Private schools and 3. Objectives related to Interaction effect of Emotional Intelligence, Meta-cognitive Skills and Academic Achievement: This part includes the objective, To see the interaction effect of emotional intelligence and meta-cognitive skills on academic achievement of secondary school students. In the present study, descriptive method was used. The study was dealt in two phases: Comparison and Interaction phase. Secondary schools students studying 9th class in various schools located at Panipat District of Haryana State constituted the target population for the present study. 320 school students selected by the method of random sampling from the target population constituted the Sample for the present investigation. Means, Standard Deviations, t-test and ANOVA were employed as statistical techniques in the present study. The major findings of present study are, 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. Also a 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. It is also found in this study that, 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.

Sumithra (2018) undertook a study on, “Effect of meta-cognitive intervention strategies in enhancing Emotional Intelligence of Pre-service teachers.”The objectives of the studies were; To develop concepts and acquire understanding of those areas and aspects of knowledge which have professional significance, To develop understanding of educational theory and practice, To develop the technical skills necessary for the achievement of professional competence, To develop understanding of teaching learning process, To develop skills of management of education and To develop faith in democratic, socialistic and secular values. The present investigation was conducted in Sri Raaja Raajan College of Education for Women, Amaravathiputhur, Karaikudi, Sivaganga (dist), Tamil Nadu, South India. The investigator selected twenty physical science pre-service teachers from Sri Raaja Raajan College of Education for women. In the present study, only 20 pre-service teachers who

opted physical science as their optional subject were selected. Single-group design experiment, pre-test-treatment-post test design was followed in this study. Experimental designs are unique to the experimental method in this study. The major finding of present study includes; the mean score of emotional intelligence in post assessment is greater than the Mean score of emotional intelligence in pre assessment. The increase in the mean score shows the effectiveness of Meta-cognitive intervention strategies in enhancing emotional intelligence.

2.6.0 REVIEWS RELATED TO SOCIAL INTELLIGENCE & META-COGNITION

Sekar (2015) conducted a study on, “Influence of Meta-cognition and Social Intelligence on study skills of Arts and Science College Students.” The study was conducted with following objectives, To find out the level of Meta-cognition of arts and science college students, To find out the level of social intelligence of art and science college students, To find out the level of study skills of art and science college students, To find out the relationship between meta-cognition and social intelligence of art and science college students, To find out the relationship between meta-cognition and study skills of art and science college students, To find out the relationship between social intelligence and study skills of art and science college students and To find out the relationship between meta-cognition and social intelligence of art and science college students. The investigator has adopted survey method of research. The population of present study consists of the students who are studying in 10 arts and science colleges (men, women and co-education) in Tiruchirappalli of Tamil Nadu state. The investigator used stratified random sampling technique for selecting sample from population. The sample consists of 937 arts and science college students from 10 arts and science colleges. The findings of the study are based on the analysis of data collected through the administration of questionnaires on the selected sample of arts and science college students. The major findings of the present study are; there is no significance relationship found between meta-cognition and social intelligence, on the basis of science and arts subjects, on the basis of male and female criteria and on the basis of effect of one subject group on the group of other subject. It is also found that meta-cognition and social intelligence have no significant relationship with study skills of arts and science subjects. The percentage analysis of the study reveals that the majority of arts and science college students have moderate level of meta-cognition and social intelligence.

2.7.0 IMPLICATIONS OF THE REVIEW OF RELATED LITERATURE FOR THE PROPOSED STUDY

There are eighteen studies focused on single variable. Parimala (2008) in their study pointed out the level of meta-cognitive orientation of the B.Ed. trainees is more in the post assessment than the pre assessment correlation analysis. Murali (2009) found significant impact of emotional intelligence on their academic performance. Kaur (2013) found the interaction between aggression and social intelligence, aggression and emotional intelligence, social intelligence and emotional intelligence, whereas, interaction among aggression, social intelligence and emotional intelligence together were not significant.

Lyngdoh (2013) showed that both the B.Ed. and DIET student teachers have an average level of social intelligence and a social skill required in teacher education programme for shaping their social intelligence. Study of Agrawal (2013) shows a significant difference in emotional intelligence of male and female teachers. Sharma (2013) founded that emotional intelligence have significant impact on academic performance. Haider (2013) found no significant difference between national and intervarsity level hockey players on the variable of emotional intelligence. Singh (2014) pointed a positive and significant correlation between meta-cognition and problem solving ability and meta-cognition and self-esteem.

Prasad (2015) found significant difference in the knowledge of cognition, regulation of cognition and meta-cognition as a whole with respect to family type (nuclear and joint) and internet usage (user and non-user) of higher secondary students, whereas, no significant difference was found with respect to their participation in cultural events (participated and not participate). Kaur (2015) in her study found that adolescents are with higher social intelligence are having higher emotional intelligence and low aggression and is supported by set up regression analysis.

Borgio (2016) in his study found no significant difference in social intelligence with respect to gender (male and female), stream of education(science and arts) and level of education (graduate and post graduate degree) of secondary student teachers, whereas, significant difference was found with respect to marital status (unmarried and married) of secondary student teachers. Kaur (2016) in her study found that Closeness, participation and support dimensions of parental involvement were found to have a positive and significant relationship whereas disinterest and neglect dimensions of parental involvement were found to possess a

significant but negative relationship with abstract intelligence and Closeness, participation and support dimensions of parental involvement were found to have a significant positive correlation with information management, planning, monitoring skills and meta-cognitive regulation.

Study of Gupta (2017) found a positive relationship between knowledge of cognitive skills, self influence and self confidence (dimensions of self efficacy) among secondary school students. Study of Narayan (2018) pointed out a moderating effect of emotional intelligence on occupational stress and job satisfaction. Singh (2017) in his study found a significant correlation existed between teacher effectiveness and self awareness of prospective teachers. It implies that the prospective teachers who are more self aware have higher degree of teacher effectiveness than the prospective teachers who are less self aware. Saini (2018) in his study found that, there is a significance effect of social intelligence on the different socio-economic level of girl students and a slight negative effect of spiritual intelligence on the different socio-economic level of girl students and there is no significance effect of emotional intelligence on the different socio-economic level of girl students. Rani (2018) in her study found that students taught social intelligence would tend to develop higher resilience than those taught traditionally and students given instructions social intelligence tend to develop higher lie-spotting ability than those who were in the control group.

Unni (2018) founded that students of aided school having low level of emotional awareness as compared to government school students and rural school students having low level of emotional awareness than urban school students. Jain (2020) founded that participants with internal academic locus of control had higher mean scores on declarative knowledge, procedural knowledge, conditional knowledge, planning, information management, monitoring, evaluation and overall meta-cognitive awareness as compared to their external counterparts. Trivedi (2020) found in his study that, Social Intelligence of urban area female student teachers is higher than rural area female student teachers and Social Intelligence of urban area male student teachers is higher than rural area male student teachers. Findings of study of Magangopal (2020) included, Meta-cognition was found to be significantly and positively related to the components of social competence including interpersonal skills, self-concept, self-regulation, problem solving & decision making among school students and Meta-cognition was also found to be significantly positively correlated with academic performance of school students. Study of Krantikar (2020) was found that the older women significantly differed with more emotional focused of coping styles rather than younger age

women, Lower education women significantly identified more on problem focused dimensions of coping styles and Rural women are more appraised focused such as applying logical, cognitive redefinition and cognitive avoidance in emotional situations.

Study of Singh (2002) showed that some of the measures of Emotional Intelligence had significant association with the measures of social intelligence. Kaur (2010) found positive and significant relationship between academic achievement and emotional intelligence, and academic achievement and meta-cognition of adolescents.

Neeru (2015) found significant difference in academic achievement among students with high and low level of emotional intelligence. Sekar (2015) found no significant relationship between meta-cognition and social intelligence. Study of Sumithra (2018) showed the effectiveness of meta-cognitive intervention strategies in enhancing emotional intelligence. Patel (2018) found a significant difference on the social intelligence with respect to gender and type of school. Kumar (2019) investigated that the high level of emotional intelligence improved the ethical perspective of teachers towards students and Institute.

In terms of sampling, seven studies use random stage sampling, two study uses cluster random sampling, one uses convenient sampling method, four studies uses stratified random sampling, two studies uses accidental sampling method, five studies followed experimental method and twenty three studies followed descriptive survey method. Five studies were conducted on B.Ed. students, eighteen studies were conducted on secondary and higher secondary students and five studies were conducted on teachers. Study of Beena (2015) uses mixed method approach, whereas, twenty nine studies uses quantitative approach. Eight studies use readymade tools, whereas, in other studies researchers constructed their own tools.

From the review of related literature it is found that very few study were conducted in the specific area on B.Ed. student teachers. No study was conducted in Uttar Pradesh considering all three variables i.e., social intelligence, emotional intelligence and meta-cognition. Hence, the present study is an attempt in this direction.

CHAPTER – III

RESEARCH

METHODOLOGY

CHAPTER III

METHODOLOGY

3.0.0 INTROUCTION

Identification and use of most appropriate research method is required for any investigation. The research method used for the study is based on the objectives of the study. Decision for selection of any method for research is based on the nature of problems and kind of data required for the study.

Department of Education of Western Sydney University define Research as: Research is the creation of new knowledge and/or the use of existing knowledge in a new and creative way so as to generate new concepts, methodologies and understandings. This could include synthesis and analysis and creative outcome.

So for creation of new knowledge from existing knowledge it is essential to use proper way for conducting any study. For conducting any study in a proper way an appropriate methodology is required.

This chapter give an idea about the procedure of entire study. It also tells about the sampling procedure, design of study and development of tools for the study with respect to different objectives. Method used for collection of data and analysis of data for the interpretations of the results are also included in this chapter.

3.1.0 METHODOLOGY OF THE STUDY

Descriptive survey method was used in the present study. Descriptive survey research uses survey to gather data about varying subjects and analyzed these data for representation of a specific population. On the basis of the analysis of data the description of different group is done and on the basis of the inferential statistics the inference is done for the entire population. It seeks to find the real facts with regard to existing conditions. Following process of the descriptive survey method was used in the present study.

3.1.1 POPULATION OF THE STUDY

All the B.Ed. students studying in the state of Uttar Pradesh will constitute as the population for the proposed study.

3.1.2 SAMPLE OF THE STUDY

Six institutes offering B.Ed. programme in the state of Uttar Pradesh was taken randomly. All the second year students nearly 200 students of these six institutes were considered as the sample of the present study.

3.1.3 TOOLS FOR DATA COLLECTION

The following tools were used for data collection.

(a) Meta-cognition Inventory:

Meta-cognition of B.Ed. student was measured with the help of Meta-cognition Inventory (MCI) developed and standardised by Dr. Punita Govil (2003). The statements of the inventory deal with both the aspects of meta-cognition viz. knowledge of cognitive process and regulation of the cognitive process.

Item Nos. 2, 3, 5, 7, 9, 11, 12, 13, 15, 17, 22, 28, and 30 with knowledge of cognitive processes and item nos. 1, 4, 6, 8, 10, 14, 16, 18, 19, 20, 21, 23, 24, 25, 26, and 29 deal with the regulation of cognitive process the items have been arranged in a sequence according to their statistical properties.

The reliability of the test was determined by Cronbach's alpha coefficient and the test-retest method. The reliability reported by the author by Cronbach alpha method was found to be 0.85. The value of the reliability coefficient by test-retest method was found to be 0.82. To ascertain the validity of the test, the draft test was given to a panel of experts consisting of 20 eminent scholars of different universities.

Each expert was asked to indicate the degree to which each item assessed the meta-cognition of the respondents. The degree of agreement of experts on each item indicated the validity of the test. Corrections were made in the test items in accordance with their suggestions. According to their views, the test possesses satisfactory content validity.

This inventory can be administered individually or in a group. It should be completed under certain standardized instruction. First, the respondents should be asked to fill in the personal data blank printed on the front page. The investigator should read the instructions loudly and clearly. The respondents should follow him carefully.

The administrator should explain the mode of responding to the items of the inventory. When he/she becomes sure that the students have understood the mode of recording their responses, he should permit them to turn over the front page and record their responses.

The inventory contains 30 items, each item being a statement followed by a four-point scale: 'not at all', 'somewhat', 'to a considerable extent' and 'very much so'. If a respondent marks, 'not at all' he is given a weightage of 1 point. Similarly, 2, 3 and 4 points are given for marking on 'somewhat', 'to a considerable extent' and; 'very much so' respectively. To find out the score of an individual the weightages assigned to him on all items are added. This sum will form the total score of the respondent.

(b) Socials Intelligence Scale: Social Intelligence of B.Ed. student was measured with the help of Social Intelligence Scale (SIS) developed by Dr. S. Mathur (2007).

There are 50 statements in the scale, 25 positive statements show high social intelligence while other 25 negative statements show low social intelligence. Question number 1, 4, 6, 8, 10, 11, 13, 14, 15, 16, 18, 20, 22, 24, 26, 28, 29, 33, 37, 39, 41, 42, 44, 45 and 47 are positive statements whereas Question Number 2, 3, 5, 7, 9, 12, 17, 19, 21, 23, 25, 27, 30, 31, 32, 34, 35, 36, 38, 40, 43, 46, 48, 49 and 50 are negative statements.

Allot 2 marks on yes, 1 mark on indefinite, and 0 mark on No, on positive statements and just reverse marking on negative statements. High score indicates high social intelligence and low score indicated low social intelligence. Correlation coefficient was found 0.87 and validity coefficient was found 0.78.

(c) Emotional Intelligence Scale: Emotional Intelligence of B.Ed. student was measured with the help of Emotional Intelligence Scale (EIS) made by Nutan kumar Thingunjam and Usha Ram (2000), which is developed based on Solvey and Mayer (1990).

This tool has 33 statements related to our daily life on five-point scale, with strongly agree, agree, neutral, disagree and strongly disagree options. 5 marks are given for strongly agree, 4 marks are given for agree, 3 marks are given for neutral, 2 marks are given for disagree and, 1 mark is given for strongly disagree. The scale was standardised by Nutan kumar Thingunjam and Usha Rani with an alpha coefficient 0.89. The obtained reliable coefficient is 0.83 indicating that the test is reliable enough. Validity of Emotional Intelligence Scale is 0.84.

3.1.4 ANALYSIS OF DATA

The collected data through different tools were analyse by using appropriate descriptive statistics like mean, median, mode, standard deviation, standard error of mean, skewness, kurtosis, product moment correlation and multiple correlation through SPSS.

Detailed analysis and interpretation of data is given in chapter IV.

CHAPTER – IV

ANALYSIS AND INTERPRETATION OF DATA

CHAPTER-IV

ANALYSIS AND INTERPRETATION OF DATA

4.0.0 INTRODUCTION

In the previous chapter, a detailed description of the research methodology and tools for data collection was presented. Also, the process of data collection and the methods applied for analysis and interpretation of the data through various statistical measures were presented. The present chapter deals with the analysis and interpretation of data according to the objectives and hypotheses of the present study. In social science research, where direct knowledge of population parameters is rare, hypothesis testing is the often used strategy for generalization. Thus, testing the hypothesis enables us to make probability statements about population parameters.

Data Analysis is the process of systematically applying statistical and/or logical techniques to describe and illustrate, condense and recap, and evaluate data. According to **Shamoo and Resnik (2003)** various analytic procedures “provide a way of drawing inductive inferences from data and distinguishing the signal (the phenomenon of interest) from the noise (statistical fluctuations) present in the data.”

The major objective of the present study was to study social intelligence, emotional intelligence and meta-cognition of B.Ed. students and also to find the relation between social intelligence, emotional intelligence and meta-cognition of B.Ed. students. The data has been subjected to following statistical analysis namely mean, standard deviation, standard error of mean, frequency, percentage, pearson’s product moment correlation and multiple correlation.

4.1.0 DESCRIPTIVE ANALYSIS OF DATA

A descriptive analysis is an important first step for conducting statistical analyses. It gives an idea of the distribution of data, helps to detect outliers and typos, and enable to identify associations among variables, thus making it ready to conduct further statistical analyses.

For quantitative variables, it is a good idea to first create a histogram and a box-and-whisker plot to get an idea of the shape of the distribution. If the shape is symmetric, then calculate and present mean and standard deviation whereas if the shape is skewed, calculate and present median and quartiles.

Researcher could also calculate and present min and max values. These descriptive analyses would also help the researcher to identify outlying and improbable values so that he or she can double check data entry errors.

Descriptive analysis provides a path for interpretation of any study. By utilizing descriptive analysis, researcher can make their findings and can discuss these all findings in appropriate way. By providing mean, median, mode, standard deviation and standard error descriptive analysis provide the average scores of data mid value of different scores or data, frequently obtained score in data, distance of all scores from mean of data and distance of each score from the mean of data.

By skewness and kurtosis obtained by descriptive analysis, the researcher can make a judgement about the orientation and shape of distribution curve. Researcher can tell about positive and negative skewed type of data and also about the leptokurtic, mesokurtic and platykurtic kurtosis. Descriptive Analysis provides lots of information about the data which is very essential and form a root of any study.

4.1.1 STUDY OF EMOTIONAL INTELLIGENCE

Emotional Intelligence of B.Ed. students were measured with the help of Emotional Intelligence Scale (EIS) developed by Nutan kumar Thingunjam and Usha Ram (2000). There were 200 scores obtained in Emotional Intelligence. For analysis these scores can be grouped into different class intervals. The class interval are starting from the value is known as lower limit of the class and the end value of the class interval is known as the upper limit of the class.

Table 4.1: Class interval representation of EI of B.Ed. students.

Emotional Intelligence	Frequency	Cumulative Frequency
90-100	8	8
101-110	16	24
111-120	46	70
121-130	56	126
131-140	32	158
141-150	31	189
151-160	7	196
161-170	4	200

Because the lower limit in next class interval is not included the upper limit of previous class and started from the next digit of the previous class upper limit. So the Class interval is of **Inclusive type**.

Table 4.1 showing Inclusive type of class interval, having frequency and also the cumulative frequency of the data. Cumulative frequency is obtained by adding the previous frequency in to the next one. The last cumulative frequency is surely the total no. of the data.

Fig 4.1: Histogram of the Emotional Intelligence.

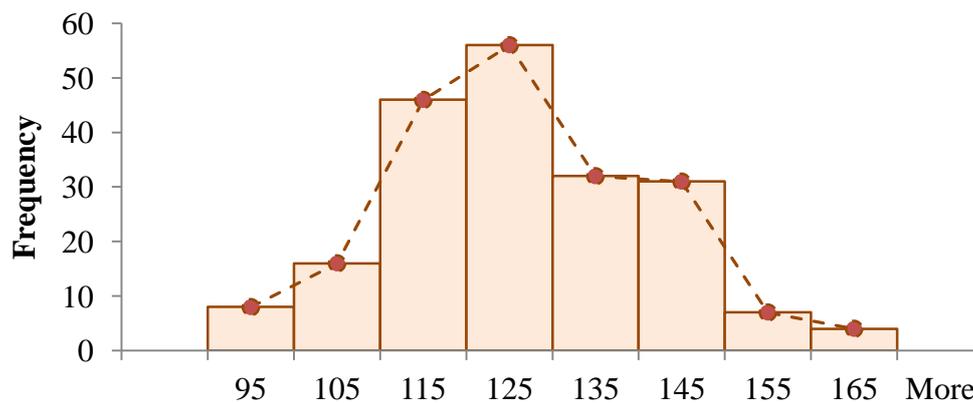


Figure 4.1 showing the Histogram of the Emotional Intelligence scores. It can be seen from the above Histogram, that the Emotional Intelligence scores are nearly normally distributed and the orientation of the scores are tilt toward positive side so the data that is score of Emotional Intelligence are positively skewed which can also be seen from the figure given below.

Fig 4.2: Probability distribution of Emotional Intelligence.

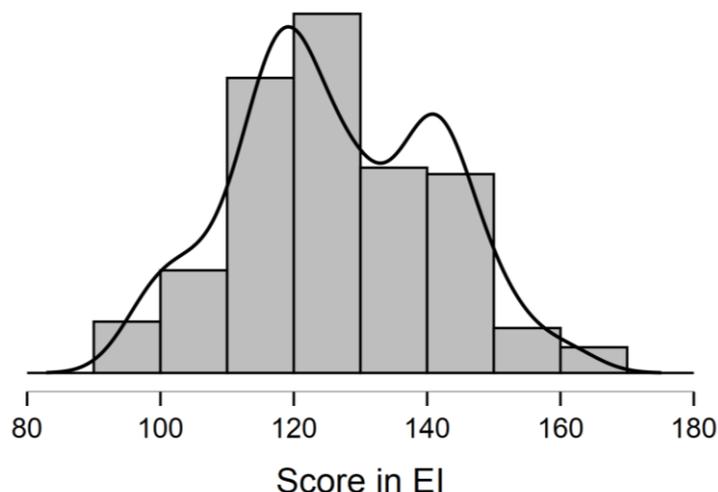


Figure 4.2 is showing Probability distribution of Emotional Intelligence. It provides the clear picture of skewness and distribution of scores of Emotional Intelligence.

Table 4.2: Central tendency, variability, Skewness and Kurtosis wise distribution of EI of B.Ed. Students along with their Maximum and Minimum Scores.

Mean	126.485	Mode	121	Skewness	0.09829
Standard Error	1.067025	Standard Deviation	15.09001	Minimum	97
Median	124	Kurtosis	-0.67763	Maximum	161

From the table 4.2 it can be seen that the mean of Emotional Intelligence of B.Ed. students is 126.4 with standard error of 1.06. Median is found to be 124 and mode is 121.

Value of Standard Deviation is 0.098 which is the distance of each score from the mean of total score. It is very less so all the scores are accumulated near the mean of the scores.

Kurtosis of Emotional Intelligence of B.Ed. students is -0.67 means data is not widely spread and student's Emotional intelligence has less variation.

Value of 0.67 in kurtosis is more than 0.263, so the scores of Emotional Intelligence shows plato kurtosis, that is scores are spread, means different students have different Emotional Intelligence that is students have widely spread Emotional intelligence.

Skewness is -0.09 means majority of students having average Emotional intelligence and oriented towards higher side.

4.1.2 STUDY OF SOCIAL INTELLIGENCE

Social Intelligence of B.Ed. students were measured with the help of Social Intelligence Scale (SIS) developed by Dr. S. Mathur (2007). There were 200 scores obtained in Social Intelligence. For analysis these scores can be grouped into different class intervals.

The class interval are starting form the value is known as lower limit of the class and the end value of the class interval is known as the upper limit of the class.

Because the lower limit in next class interval is not included the upper limit of previous class and started from the next digit of the previous class upper limit.

So the Class interval is of **Inclusive type**.

Table 4.3: Class interval representation of Social Intelligence of B.Ed. Students.

Social Intelligence	Frequency	Cumulative Frequency
40-45	10	10
46-50	12	22
51-55	22	44
56-60	20	64
61-65	50	114
66-70	14	128
71-75	33	161
76-80	26	187
81-82	13	200

Table 4.3 showing Inclusive type of class interval, having frequency and also the cumulative frequency of the data. Cumulative frequency is obtained by adding the previous frequency in to the next one. The last cumulative frequency is surely the total no. of the data.

Table 4.4: Central tendency, variability, Skewness and Kurtosis wise distribution of SI of B.Ed. Students along with their Maximum and Minimum Scores.

Mean	64.67	Mode	72	Skewness	-0.2159
Standard Error	0.737683	Standard Deviation	10.43241	Minimum	43
Median	64	Kurtosis	-0.85273	Maximum	81

From the table 4.4 it can be seen that the mean of Social Intelligence of B.Ed. students is 64.67 with standard error of 0.74 Median is found to be 64 and mode is 72.

Value of Standard Deviation is 10.43 which is the distance of each score from the mean of total score. It is high so all the scores are not accumulated near the mean of the scores.

Kurtosis of Social Intelligence of B.Ed. students is -0.85 means data is widely spread and student's Social intelligence has more variation.

Value of 0.85 in kurtosis is more than 0.263, so the scores of Social Intelligence shows plato kurtosis, i.e. scores are spread, means different students have different Social Intelligence that is students have widely spread Social intelligence.

Skewness is -0.21 means majority of students having average Social intelligence and oriented towards lower side.

Figure 4.3: Histogram of Social Intelligence.

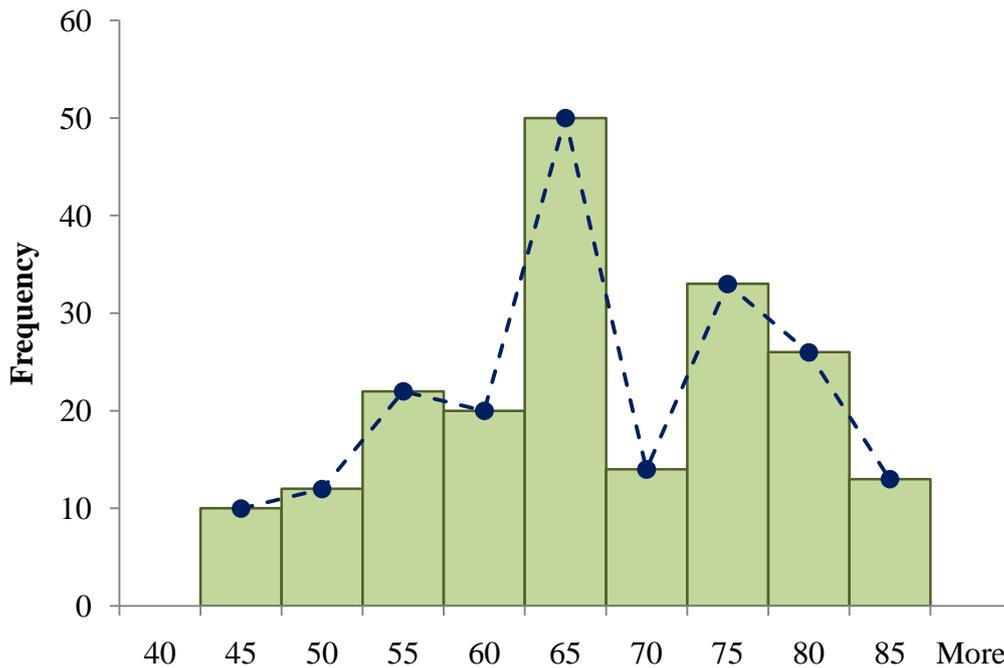


Figure 4.3 showing the Histogram of the Social Intelligence scores. It can be seen from the above Histogram, that the Social Intelligence scores are nearly normally distributed and the orientation of the scores are tilt toward higher side so the data i.e. score of Social Intelligence are positively skewed which can also be seen from the following figure.

Figure 4.4: Probability density plot of Social Intelligence.

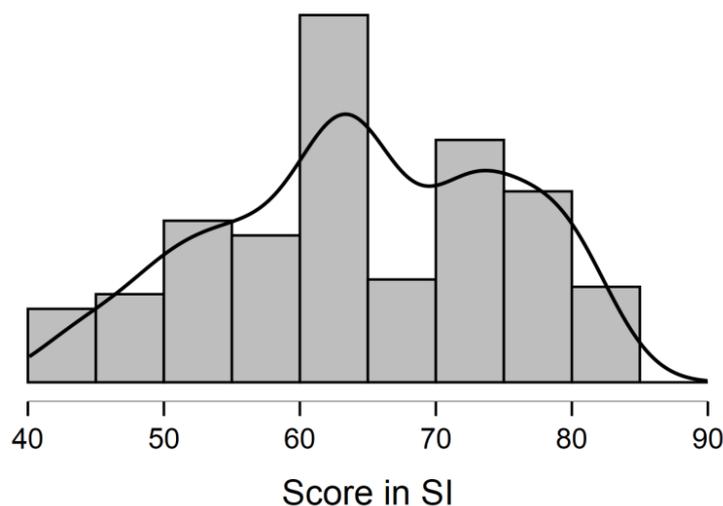


Figure 4.4 is showing Probability distribution of Social Intelligence. It provides the clear picture of skewness and distribution of scores of Social Intelligence.

4.1.3 STUDY OF META-COGNITION

Meta-cognition of B.Ed. students was measured with the help of Meta-cognition Inventory (MCI) developed and standardized by Dr. Punita Govil. There were 200 scores obtained in Meta-cognition. For analysis, these scores can be grouped into different class intervals. The class interval are starting from the value is known as lower limit of the class and the end value of the class interval is known as the upper limit of the class.

Because the lower limit in next class interval is not included the upper limit of previous class and started from the next digit of the previous class upper limit. So the Class interval is of **Inclusive type**.

Table 4.5: Class interval representation of Meta-cognition of B.Ed. students.

Meta-Cognition	Frequency	Cumulative Frequency
40-50	4	4
51-60	0	4
61-70	23	27
71-80	44	71
81-90	27	98
91-100	35	133
101-110	44	177
111-120	23	200

Table 4.5 showing Inclusive type of class interval, having frequency and also the cumulative frequency of the data. Cumulative frequency is obtained by adding the previous frequency in to the next one. The last cumulative frequency is surely the total no. of the data.

Table 4.6: Central tendency, variability, Skewness and Kurtosis wise distribution of Meta-cognition of B.Ed. Students along with their Maximum and Minimum Scores.

Mean	90.155	Mode	101	Skewness	-0.3189
Standard Error	1.170944	Standard Deviation	16.55965	Minimum	45
Median	92	Kurtosis	-0.48317	Maximum	118

From the table 4.6 it can be seen that the mean of Meta-cognition of B.Ed. students is 90.1 with standard error of 1.2 Median is found to be 92 and mode is 101.

Value of Standard Deviation is 16.5 which is the distance of each score from the mean of total score. It is very high so all the scores are not accumulated near the mean of the scores.

Kurtosis of Meta-cognition Intelligence of B.Ed. students is -0.48 means data is not widely spread and student's Meta-cognition has less variation.

Value of 0.48 in kurtosis is more than 0.263, so the scores of Meta-cognition Intelligence shows plato kurtosis, i.e. scores are spread, means different students have different Meta-cognition that is students have widely spread Meta-cognition.

Skewness is -0.32 means majority of students having average Meta-cognition and oriented towards higher side.

Figure 4.5: Histogram of Meta-cognition.

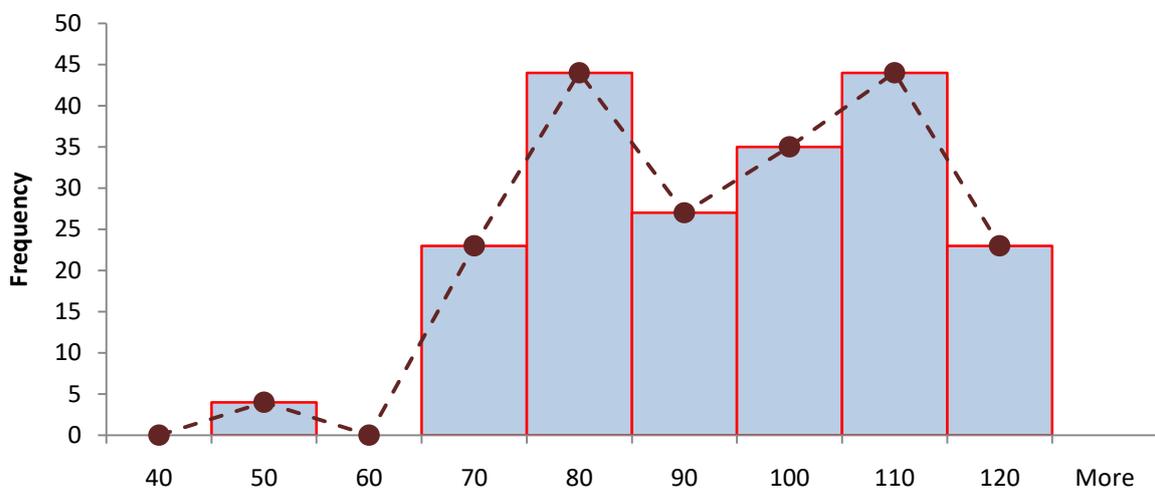


Figure 4.5 showing the Histogram of the Meta-cognition scores. It can be seen from the above Histogram, that the Meta-cognition scores are not normally distributed and the orientation of the scores are tilt toward positive side so the data i.e. score of Meta-cognition are positively skewed which can also be seen from the following figure.

Figure 4.6: Probability density plot of Meta-cognition

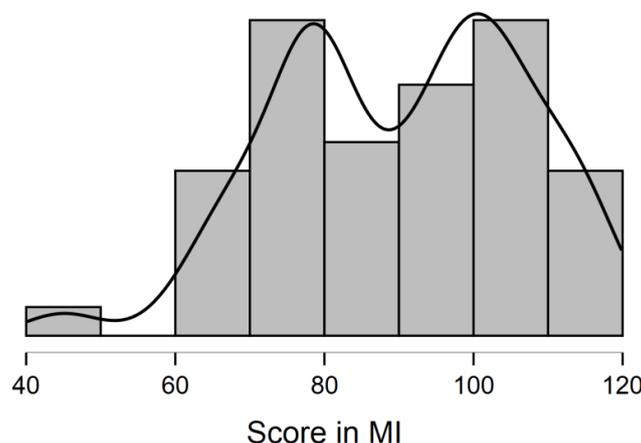


Figure 4.6 is showing Probability distribution of Meta-cognition. It provide the clear picture of skewness and distribution of scores of Meta-cognition.

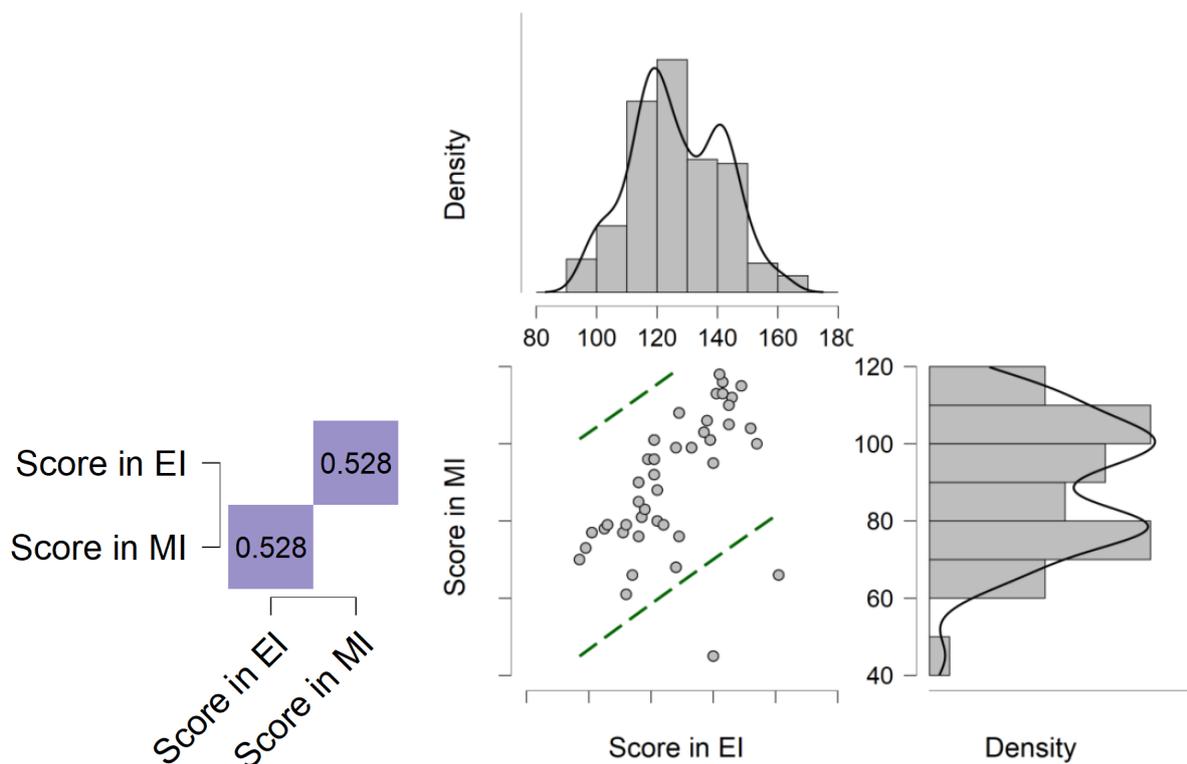
4.1.4 STUDY OF RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE & META-COGNITION

To find the correlation between Emotional Intelligence and Meta-cognition of B.Ed. students and to test the H₀1 i.e., “There will be no significant relationship between Emotional Intelligence and Meta-cognition of B.Ed. students”, analysed data is presented in table 4.9 followed by the interpretation.

Table 4.7: Correlation between EI & Meta-cognition.

Pearson's Correlations	
	Pearson's r p
Score in EI - Score in MI	0.528 < .05

Figure 4.7: Correlation heat map (Left) Scatter plot b/w EI & Meta-cognition (Right)



It has been observed from figure: 4.7 that the calculate r-value of the correlation between Emotional Intelligence and Meta-cognition was found to be 0.528 which was positive, and statistically significant at 0.05.

Hence, the H01 that is, “There will be no significance relationship between Emotional Intelligence and Meta-cognition of B.Ed. students” is rejected.

So it can be said that the correlation between Emotional Intelligence and Meta-cognition of B.Ed. students was found to be positive and significant or Emotional Intelligence and Meta-cognition are positively correlated. As shown in fig: 4.7

When the correlation is found in between positive value of 1 to 0.6, then the correlation is high or strong positive correlation. When the correlation is found in between positive value of 0.6 to 0.3, then the correlation is moderate positive correlation.

When the correlation is found in between positive value of 0.3 to 0.1, then the correlation is low positive correlation and when the correlation is found in between positive value of 0.1 to zero, then there is lack of correlation.

Likewise when the correlation is found in between negative value of -1 to -0.6, then the correlation is high or strong negative correlation.

When the correlation is found in between negative value of -0.6 to -0.3, then the correlation is moderate negative correlation.

When the correlation is found in between negative value of -0.3 to -0.1, then the correlation is low negative correlation and when the correlation is found in between negative value of -0.1 to zero, and then there is lack of correlation.

It is found that the correlation between Emotional Intelligence and Meta-cognition is 0.528 which comes in the range of 0.6 to 0.3. So moderate positive correlation is found in between Emotional Intelligence and Meta-cognition.

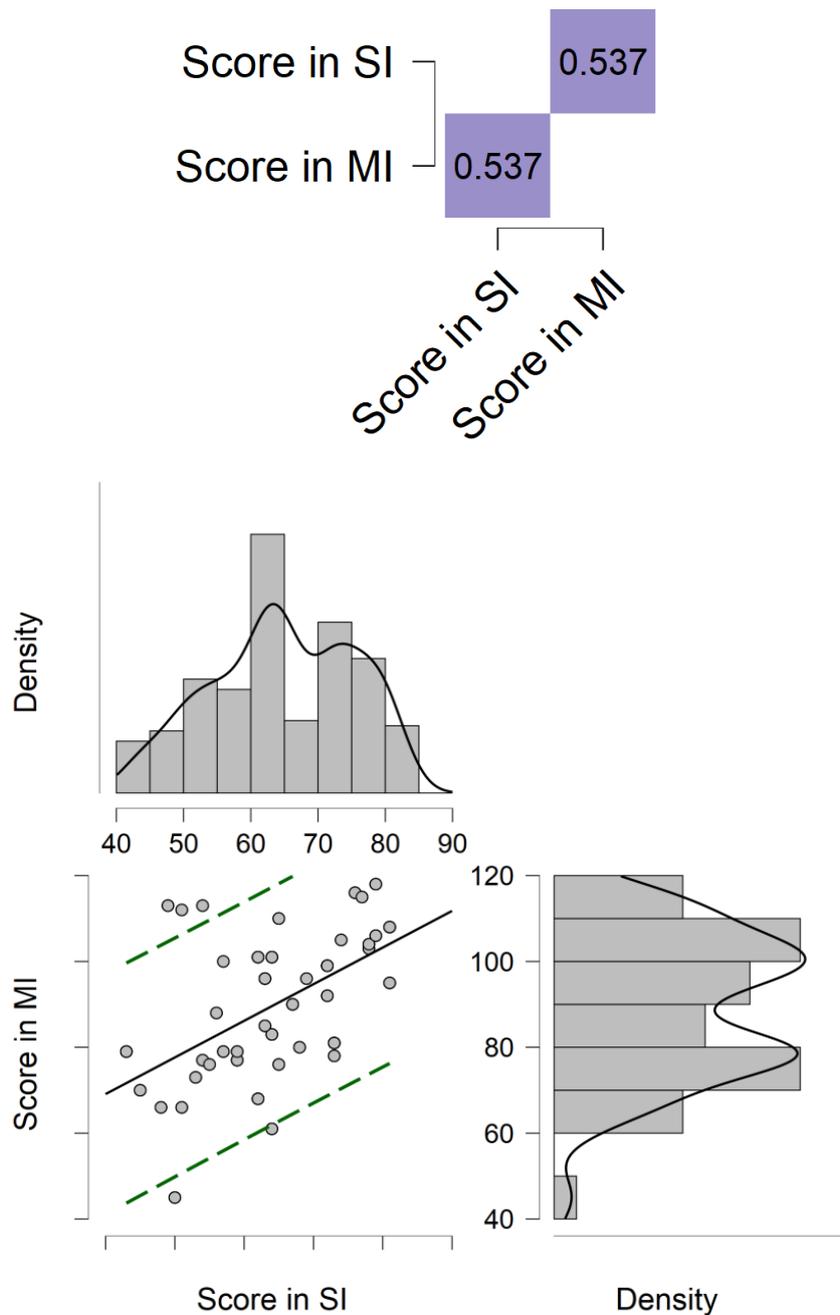
4.1.5 STUDY OF RELATIONSHIP BETWEEN SOCIAL INTELLIGENCE & META-COGNITION

To find the correlation between Social Intelligence and Meta-cognition of B.Ed. students and to test the H02 i.e., “There will be no significant relationship between Social Intelligence and Meta-cognition of B.Ed. students”, analysed data is presented in table followed by the interpretation.

Table 4.8: Correlation between SI & MI.

Pearson's Correlations	
	Pearson's r p
Score in SI - Score in MI	0.537 < .05

Figure 4.8: Correlation heat map (Up) & Scatter plot b/w SI & Meta-cognition (Down).



It has been observed from Table: 4.8 that the calculate r-value of the correlation between Social Intelligence and Meta-cognition was found to be 0.537 which was positive, and statistically significant at 0.05. Hence, the H02 that is,

“There will be no significance relationship between Social Intelligence and Meta-cognition of B.Ed. students” is rejected. So it can be said that the correlation between Social Intelligence and Meta-cognition of B.Ed. students was found to be positive and significant or Social Intelligence and Meta-cognition are positively correlated. As shown in fig: 4.8.

When the correlation is found in between positive value of 1 to 0.6, then the correlation is high or strong positive correlation. When the correlation is found in between positive value of 0.6 to 0.3, then the correlation is moderate positive correlation.

When the correlation is found in between positive value of 0.3 to 0.1, then the correlation is low positive correlation and when the correlation is found in between positive value of 0.1 to zero, then there is lack of correlation. Likewise when the correlation is found in between negative value of -1 to -0.6, then the correlation is high or strong negative correlation. When the correlation is found in between negative value of -0.6 to -0.3, then the correlation is moderate negative correlation.

When the correlation is found in between negative value of -0.3 to -0.1, then the correlation is low negative correlation and when the correlation is found in between negative value of -0.1 to zero, and then there is lack of correlation.

It is found that the correlation between Social Intelligence and Meta-cognition is 0.537 which comes in the range of 0.6 to 0.3. So, moderate positive correlation is found in between Social Intelligence and Meta-cognition.

4.1.6 STUDY OF RELATIONSHIP BETWEEN SOCIAL INTELLIGENCE & EMOTIONAL INTELLIGENCE

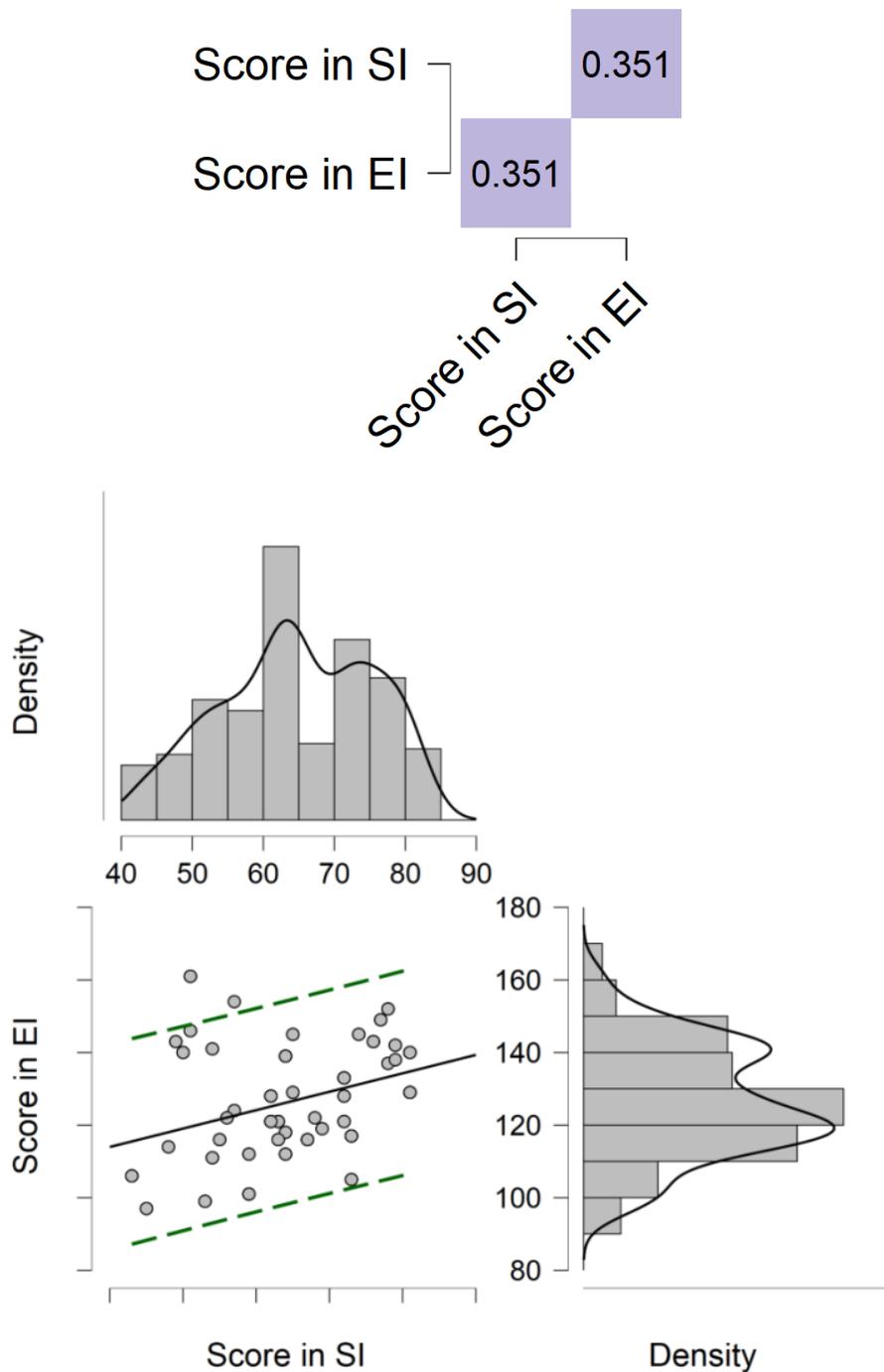
To find the correlation between Emotional Intelligence and Social Intelligence of B.Ed. students and to test the H₀₃ i.e., “There will be no significant relationship between Emotional Intelligence and Social Intelligence of B.Ed. students”, analysed data is presented in table followed by the interpretation.

Table 4.9: Correlation between EI & SI.

Pearson's Correlations	
	Pearson's r p
Score in SI - Score in EI	0.351 < .05

It has been observed from Table: 4.9 that the calculate r-value of the correlation between Emotional Intelligence and Social Intelligence was found to be 0.351 which was positive, and statistically significant at 0.05.

Figure 4.9: Correlation heat map (Up) & Scatter plot between EI & SI (Down).



Hence, the H₀₃ i.e. “There will be no significance relationship between Emotional Intelligence and Social Intelligence of B.Ed. students” is rejected. So it can be said that the correlation between Social Intelligence and Emotional Intelligence of B.Ed. students was found to be positive, and significant or Social Intelligence and Emotional Intelligence are positively correlated as shown in fig:4.9.

When the correlation is found in between positive value of 1 to 0.6, then the correlation is high or strong positive correlation. When the correlation is found in between positive value of 0.6 to 0.3, then the correlation is moderate positive correlation. When the correlation is found in between positive value of 0.3 to 0.1, then the correlation is low positive correlation and when the correlation is found in between positive value of 0.1 to zero, then there is lack of correlation. Likewise when the correlation is found in between negative value of -1 to -0.6, then the correlation is high or strong negative correlation.

When the correlation is found in between negative value of -0.6 to -0.3, then the correlation is moderate negative correlation. When the correlation is found in between negative value of -0.3 to -0.1, then the correlation is low negative correlation and when the correlation is found in between negative value of -0.1 to zero, and then there is lack of correlation.

It is found that the correlation between Emotional Intelligence and Social Intelligence is 0.351 which comes in the range of 0.6 to 0.3.

So, moderate positive correlation is found in between Emotional Intelligence and Social Intelligence.

4.1.7 STUDY OF RELATIONSHIP BETWEEN BOTH EMOTIONAL INTELLIGENCE AND SOCIAL INTELLIGENCE WITH META-COGNITION

The relationship of Meta-cognition with Social Intelligence and Emotional Intelligence is calculated by the use of Multiple Correlation.

$$R_{(MI)SI EI} = \frac{\sqrt{(r_{MI,SI}^2 + r_{MI,EI}^2 - 2r_{MI,SI} \cdot r_{MI,EI} \cdot r_{SI,EI})}}{\sqrt{1 - r_{SI,EI}^2}}$$

Where,

$R_{(MI)SI EI}$ = Correlation of meta-cognition with joint relation of Social Intelligence & Emotional Intelligence.

$r_{MI,SI}$ = Simple Correlation between Meta-cognition and Social Intelligence.

$r_{MI,EI}$ = Simple Correlation between Meta-cognition and Emotional Intelligence.

$r_{SI,EI}$ = Simple Correlation between Social Intelligence & Emotional Intelligence.

$$R_{(MI)SI EI} = \frac{\sqrt{\{(0.537)^2 + (0.528)^2 - 2(0.537)(0.528)(0.351)\}}}{\sqrt{1 - (0.351)^2}}$$

$$R_{(MI)SI EI} = \frac{\sqrt{0.766}}{\sqrt{0.877}}$$

$$R_{(MI)SI EI} = 0.9348$$

$R_{(MI)SI EI} = 0.9348$, means that meta-cognition is highly positively correlated with both of the independent variables Social Intelligence and Emotional Intelligence, of the study and it can be predicted by linear combination of Social Intelligence and Emotional Intelligence by using the following equation:

$$MI = a + bEI + c.SI$$

4.1.8 STUDY OF RELATIONSHIP BETWEEN META COGNITION & PREDICTED META-COGNITION

Table 4.10: ANOVA.

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	22935.321	11467.661	71.412	p<0.05
Residual	197	31634.874	160.58		
Total	199	54570.195			

Table 4.11: Regression Table.

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-4.815	8.202	-0.587	0.558	-20.991	11.361	-20.991	11.361
Score in EI	0.425	0.064	6.682	0.000	0.299	0.550	0.299	0.550
Score in SI	0.638	0.092	6.937	0.000	0.456	0.819	0.456	0.819

To predict meta-cognition from social intelligence and emotional intelligence linear regression technique is used. For a particular point meta-cognition can be written in form as

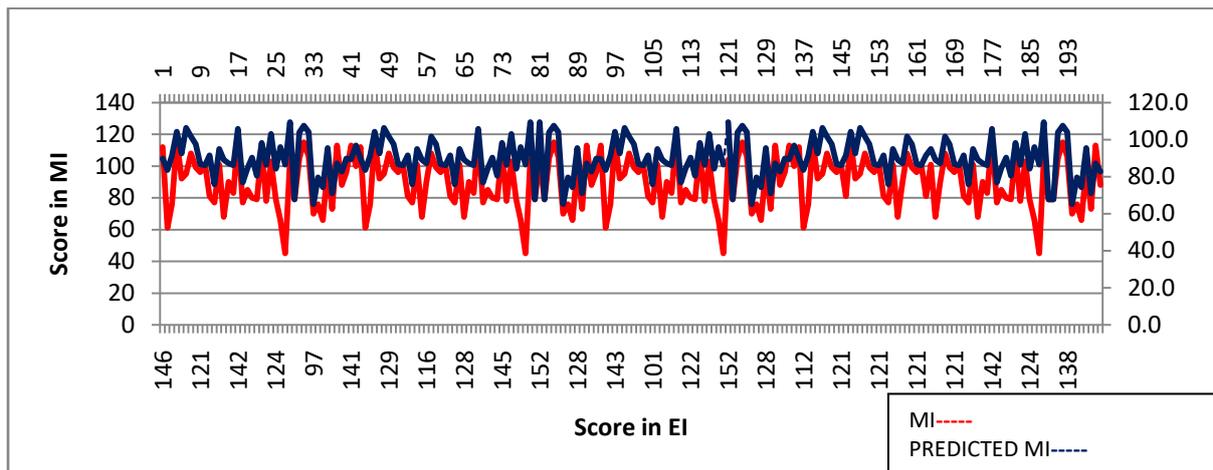
$$MI = a + bEI + c.SI$$

Where a is intercept, b and c are coefficient to be determined.

From table a = - 4.815, b = 0.425, and c = 0.638

Based on above linear relationship predicted meta-cognition score are calculated and tabulated in table for further analysis.

Figure 4.10: Predicted Meta-cognition vs. Actual Meta-cognition.



The Predicted meta-cognition scores of each B.Ed. students are calculated by Linear Regression method.

It has been found that the calculated r-value of the correlation between Meta-cognition and Predicted Meta-Cognition was 0.651 which was positive, and statistically significant at 0.05.

Hence, the H04 i.e. “There will be no significance relationship between Meta-cognition and Predicted Meta-Cognition of B.Ed. students” is rejected. So it can be said that the correlation between Meta-cognition and Predicted Meta-Cognition of B.Ed. students was found to be high positively correlated, and significant.

When the correlation is found in between positive value of 1 to 0.6, then the correlation is high or strong positive correlation. When the correlation is found in between positive value of 0.6 to 0.3, then the correlation is moderate positive correlation. When the correlation is found in between positive value of 0.3 to 0.1, then the correlation is low positive correlation and when the correlation is found in between positive value of 0.1 to zero, then there is lack of correlation.

Likewise when the correlation is found in between negative value of -1 to -0.6, then the correlation is high or strong negative correlation. When the correlation is found in between

negative value of -0.6 to -0.3, then the correlation is moderate negative correlation. When the correlation is found in between negative value of -0.3 to -0.1, then the correlation is low negative correlation and when the correlation is found in between negative value of -0.1 to zero, and then there is lack of correlation.

It is found that the correlation between Meta-cognition and Predicted Meta-Cognition is 0.651 which comes in the range of 1 to 0.6. So High or Strong positive correlation is found in between Meta-cognition and Predicted Meta-Cognition.

4.2.0 CONCLUSION

This chapter described in detail the descriptive and relational analysis of data related to Emotional Intelligence, Social Intelligence and Meta-cognition of B.Ed. students. This chapter also described regression analysis of Meta-cognition, Social Intelligence and Emotional Intelligence to predict Meta-cognition with the help of Social Intelligence and Emotional Intelligence.

The major findings and discussion thus obtained from the analysis have been summarised and presented along with a brief report of the research study in the next chapter.

CHAPTER – V

SUMMARY, DISCUSSION AND CONCLUSION

CHAPTER V

SUMMARY, DISCUSSION AND CONCLUSION

5.0.0 INTRODUCTION

In the present chapter the summary of the entire study, major findings of the whole study, discussion of the major findings and suggestions for the future endeavors are given. The findings are kept from the analysis of data and the interpretations of the data are drawn from the analysis of data.

5.1.0 OVERVIEW OF STUDY

Human are social animal. They are live in a society. For better life they required some essential things in their life. These things are related to their need. Karl Maslow talks about the hierarchy of needs which includes physiological need, safety need, need of love, need of self esteem and self actualization. These needs are explained in a form of pyramid in which self actualization is at the top followed by need of self esteem, need of love, need of safety and at the base physiological need. In fulfillment of these all need human faced lots of problems. Some problems may be due to societal point of view and some may be due to emotional point of view.

For solving these problems human used their cognition that is thinking process. By utilizing their thinking they can cope up with several problems.

According to NCF 2005, Cognition involves the capacity to make sense of the self and the world, through action and language. A meaningful learning is a process of generation of concrete representing and manipulating things and representation of mind instead of information storing and retrieval. The process of thinking, sign or verbal language and doing anything are inter-related with each other. Process of cognition, started in infancy and developed by mediated and independent activities.

Some time only cognition is not sufficient in solving different problems that time thinking over thinking is required. This thinking over thinking is termed as Meta-cognition.

When human face any social problem, they can solve this by utilizing their intelligence, that intelligence is known as Social Intelligence and when they are faced by any problems which is originated due to emotional aspects then again by utilizing their intelligence this emotional

problems. The intelligence which helps in solving the problem related to emotional aspects is known as Emotional intelligence.

Solving different problems with the help of Emotional Intelligence, Social Intelligence and Meta-cognition is also based on the way of their utilization. The best way of their used a child is learn in their childhood. According to Eric Ericson, a child spend majority of their time of their childhood with their teacher. So, a child can learn the best way of utilizing their Emotional Intelligence, Social Intelligence and Meta-cognition by their teacher. For guiding the best way of utilizing Emotional Intelligence, Social Intelligence and Meta-cognition to their students, a teacher should have the best knowledge of these three. B.Ed. students are future teachers. So when the B.Ed. students have good knowledge of Emotional Intelligence, Social Intelligence and Meta-cognition and when they know the proper way of utilization of Emotional Intelligence, Social Intelligence and Meta-cognition, then they can also taught these to their future students.

So, present study is done in the direction of study Emotional Intelligence and Social Intelligence with respect to Meta-cognition in B.Ed. students because B.Ed. students are future teacher and when they know the concept related to Emotional Intelligence, Social Intelligence and Meta-cognition in proper way they can transact these to their students.

5.2.0 STATEMENT OF PROBLEM

A study of Emotional Intelligence and Social Intelligence with respect to Meta-cognition of B.Ed. students.

5.3.0 OBJECTIVES OF THE STUDY

The present study was conducted with the following objectives.

1. To study the Emotional Intelligence of B.Ed. students.
2. To study the Social Intelligence of B.Ed. students.
3. To study the Meta-cognition of B.Ed. students.
4. To study the relation of Emotional Intelligence with Meta-cognition of B.Ed. students.
5. To study the relation of Social Intelligence with Meta-cognition of B.Ed. students.

6. To study the relation of both Emotional Intelligence and Social Intelligence with Meta-cognition of B.Ed. students.

5.4.0 HYPOTHESIS OF THE STUDY

The following null hypotheses were formulated to achieve the said objectives of the present study to be tested at 0.05 level of significance.

H₀1. There will be no significant relationship between Emotional Intelligence and Meta-cognition of B.Ed. students.

H₀2. There will be no significant relationship between Social Intelligence and Meta-cognition of B.Ed. students.

H₀3. There will be no significant relationship between Emotional Intelligence and Social Intelligence of B.Ed. students.

H₀4. There will be no significant relationship between Meta-cognition and the predicted Meta-cognition on the basis of Emotional Intelligence and Social Intelligence of B.Ed. students.

5.5.0 OPERATIONAL DEFINITION OF TERMS

Following terms were used in the present study. These are operationally defined in terms of measurable and observable terms.

(a) Emotional Intelligence: Score obtained by B.Ed. students in the Emotional Intelligence Scale (EIS) developed by Nutan Kuamr Thingunjam and Usha Ram (2000) (which is developed based on Solvey and Mayer (1990) tool of Emotional Intelligence) will be their Emotional Intelligence.

(b) Social Intelligence: Score obtained by B.Ed. students in the Social Intelligence Scale (SCS) developed by Dr. S. Mathur (2007) will be their Social Intelligence.

(c) Meta-cognition: Score obtained by B.Ed. students in the Meta-cognition Inventory (MCI) developed and standardised by Dr. Punita Govil (2003) will be their Meta Cognition.

5.6.0 LIMITATION OF THE STUDY

Due to scenario of Covid-19, present study is limited to on-line mode of data collection through Google-form.

5.7.0 DELIMITATION OF THE STUDY

The proposed study will be delimited to the English medium second year students of B.Ed. in the state of Uttar Pradesh.

5.8.0 METHODOLOGY OF THE STUDY

Descriptive survey method was used in the present study. Following process of the descriptive survey method was used in the present study.

5.8.1 POPULATION OF THE STUDY

All the B.Ed. students studying in the state of Uttar Pradesh will constitute as the population for the proposed study.

5.8.2 SAMPLE OF THE STUDY

Six institutes offering B.Ed. programme in the state of Uttar Pradesh will be taken randomly. All the second year students nearly 200 students of these six institutes will be considered as the sample of the proposed study.

5.8.3 TOOLS OF DATA COLLECTION

The following tools were used to collect data for the present study:

(a) Meta-cognition Inventory:

Meta-cognition of B.Ed. student was measured with the help of Meta-cognition Inventory (MCI) developed and standardised by Dr. Punita Govil (2003). The inventory contains 30 items, each item being a statement followed by a four-point scale: 'not at all', 'somewhat', 'to a considerable extent' and 'very much so'. If a respondent marks, 'not at all' he is given a weightage of 1 point. Similarly, 2, 3 and 4 points are given for marking on 'somewhat', 'to a considerable extent' and; 'very much so' respectively. To find out the score of an individual the weightages assigned to him on all items are added. This sum will form the total score of the respondent.

(b) Socials Intelligence Scale:

Social Intelligence of B.Ed. student was measured with the help of Social Intelligence Scale (SIS) developed by Dr. S. Mathur (2007). There are 50 statements in the scale, 25 positive statements show high social intelligence while other 25 negative statements show low social intelligence. Allot 2 marks on yes, 1 mark on indefinite, and 0 mark on No, on positive statements and just reverse marking on negative statements. High score indicates high social intelligence and low score indicated low social intelligence. Correlation coefficient was found 0.87 and validity coefficient was found 0.78.

(c) Emotional Intelligence Scale:

Emotional Intelligence of B.Ed. student was measured with the help of Emotional Intelligence Scale (EIS) made by Nutan kumar Thingunjam and Usha Ram (2000), which is developed based on Solvey and Mayer (1990). This tool has 33 statements related to our daily life on five-point scale, with strongly agree, agree, neutral, disagree and strongly disagree options. 5 marks are given for strongly agree, 4 marks are given for agree, 3 marks are given for neutral, 2 marks are given for disagree and, 1 mark is given for strongly disagree. The scale was standardised by Nutan kumar Thingunjam and Usha Rani with an alpha coefficient 0.89. The obtained reliable coefficient is 0.83 indicating that the test is reliable enough. Validity of Emotional Intelligence Scale is 0.84.

5.8.4 ANALYSIS OF DATA

For the purpose of descriptive analysis of data mean, mean, median, mode, standard deviation, standard error of mean, skewness, and kurtosis were used. For the purpose of inferential analysis, product moment correlation and multiple correlations were used as per requirement of the data.

5.9.0 MAJOR FINDINGS OF THE STUDY

Following major findings were drawn from the analysis and interpretation of data.

- B.Ed. students have average of Emotional Intelligence was 126.4, minimum score of Emotional Intelligence was 97 and maximum score was 161. Emotional Intelligence of 75% B.Ed. students was fall in between 114 to 138. It means that B.Ed. Students have high Emotional Intelligence.

- Emotional Intelligence of B.Ed. students are normally distributed with skewness of 0.0928 indicating Emotional Intelligence clustered around mean and Kurtosis was 0.67 indicating broad Emotional Intelligence of B.Ed. students. It has been also found that 48.5% B.Ed. students have greater Emotional Intelligence than average.
- B.Ed. students have average Social Intelligence 64.67, minimum score of Social Intelligence was 43 and maximum score was 81. Social Intelligence of B.Ed. students are normally distributed with skewness of 0.215 indicating Social Intelligence not clustered around mean and Kurtosis was -0.85 indicating broad Social Intelligence of B.Ed. students. It has been also found that 47 % B.Ed. students have greater Social Intelligence than average.
- B.Ed. students have average Meta-cognition 90.15, minimum score of Meta-cognition was 45 and maximum score was 118. Meta-cognition of B.Ed. students are normally distributed with skewness of -0.32 indicating Meta-cognition not clustered around mean and Kurtosis was -0.48 indicating broad Meta-cognition of B.Ed. students. It has been also found that 53 % B.Ed. students have greater Meta-cognition than average.
- It is found that the correlation between Emotional Intelligence and Meta-cognition is 0.528 at 0.05 level of significance which comes in the range of 0.6 to 0.3. So moderate positive correlation is found in between Emotional Intelligence and Meta-cognition. It means that a B.Ed. student who have high Emotional Intelligence definitely have high Meta-cognition. Thus, Emotional Intelligence and Meta-cognition are related with each other.
- It is found that the correlation between Social Intelligence and Meta-cognition is 0.537 at 0.05 level of significance which comes in the range of 0.6 to 0.3. So moderate positive correlation is found in between Social Intelligence and Meta-cognition. It means that a B.Ed. student who have high Social Intelligence definitely have high Meta-cognition. Thus, Social and Meta-cognition are related with each other.
- It is found that the correlation between Emotional Intelligence and Social Intelligence is 0.351 at 0.05 level of significance, which comes in the range of 0.6 to 0.3. So moderate positive correlation is found in between Emotional Intelligence and Social Intelligence. It means that a B.Ed. student who have high Social Intelligence definitely

have high Emotional Intelligence. Thus, Emotional Intelligence and Social Intelligence are related with each other.

- Multiple correlation co-efficient $R_{(MI)SI EI} = 0.9348$, which is almost equal to 1 that means the meta-cognition is highly positively correlated with both of the independent variables Social Intelligence and Emotional Intelligence, of the study and it can be predicted by linear combination of Social Intelligence and Emotional Intelligence.
- It is found that the correlation between Meta-cognition and Predicted Meta-Cognition is 0.651 at 0.05 level of significance, which comes in the range of 1 to 0.6. So High or Strong positive correlation is found in between Meta-cognition and Predicted Meta-Cognition. It means that Meta-cognition can be predicted with the help of Emotional Intelligence and Social Intelligence with the help of following equation:

$$MI = -4.815 + 0.425 EI + 0.638 SI$$

5.10.0 DISCUSSION

B.Ed. students are the future teachers. Teachers are the pillars of the whole Education system. A student spends nearly all the time of their childhood under the supervision of a teacher. Student learns a lot with their teacher. They learn to solve different problem which can be arises due to societal reason and emotional reason by their teachers. In the solving these kinds of problems a student used their thinking process that is cognition. When cognition is not able to solve the problem students think over the cognition that is they use their Meta-cognition. This utilisation of Meta-cognition can be inculcated in behaviour of the students by a good teacher. For improving Meta-cognition, Social Intelligence and Emotional Intelligence in their students a teacher should have the best knowledge and understanding of these three.

One of the major objectives was to study the relation of both Emotional Intelligence and Social Intelligence with Meta-cognition of B.Ed. students. Emotional Intelligence and Social Intelligence both have direct effect of Meta-cognition. They were moderate positively correlated with Meta-cognition. Other objectives to study the Emotional Intelligence, Social Intelligence and Meta-cognition were achieved by descriptive analysis in which mean, median, mode, standard deviation, standard error of mean, skewness and kurtosis were calculated with the help of score obtained.

The finding of the present study that B.Ed. students have average of Emotional Intelligence 126.4, minimum score of Emotional Intelligence 97 and maximum score 161 and Emotional

Intelligence of 75% B.Ed. students were fall in between 114 to 138. It means that B.Ed. Students have high Emotional Intelligence. That reveals that the score of Emotional Intelligence clustered more in the centre of the graph. The findings were supported by Murali (2009), Sharma (2013) and Tripta (2018). Study of Narayan (2018) revealed that emotional intelligence helps the teachers to manage occupational stress effectively and also higher the emotional intelligence among teachers, lower would be the stress. In the study of Krantikar (2020) it was found that, older women significantly differed with more emotional focused of coping styles rather than younger age women, Lower education women significantly identified more on problem focused dimensions of coping styles and Rural women are more appraised focused such as applying logical, cognitive redefinition and cognitive avoidance in emotional situations, this revealed that the age, level of education and living style also influenced emotional intelligence. The study of Krantikar (2020) supported the finding of present study.

The finding Emotional Intelligence of B.Ed. students are normally distributed with skewness of 0.0928 indicating Emotional Intelligence clustered around mean and Kurtosis was 0.67 indicating broad Emotional Intelligence of B.Ed. students. It has been also found that 48.5% B.Ed. students have greater Emotional Intelligence than average. This finding reveals that the scores of Emotional Intelligence were nearly normally distributed means there were very little difference in the score obtained by B.Ed. students in Emotional Intelligence tool. Tripta (2018) in her study found that Female adolescents have better adjustment as compared to male adolescents, Adolescents with high general intelligence have better adjustment than adolescents with low level of general intelligence and Adolescents with high emotional intelligence have better adjustment than adolescents with low level of emotional intelligence. Means the scores of Emotional Intelligence have direct influence of gender and age, this was also influenced the adjustment of a students in any environment. So the study of Tripta (2018) supported the present study.

The other variable of the present study was Social Intelligence. When this variable was studied the analysis revealed that B.Ed. students have average Social Intelligence 64.67, minimum score of Social Intelligence was 43 and maximum score was 81. Social Intelligence of B.Ed. students are normally distributed with skewness of 0.215 indicating Social Intelligence not clustered around mean and Kurtosis was -0.85 indicating broad Social Intelligence of B.Ed. students. It has been also found that 47 % B.Ed. students have greater Social Intelligence than average. Study of Agrawal (2013) supported this finding of present

study by found that the private school teachers are high in academic, professional, emotional, and personality, dimensions of teacher effectiveness as well as in composite teacher effectiveness, Female teachers were found more social intelligent from male teachers, and unmarried teachers are better in comparison to married teachers. The finding of Agrawal (2013) shows that academic, professional, emotional, and personality, dimensions of teacher effectiveness influenced the social intelligence of teachers. So, the scores obtained were nearly normally distributed. Study of Lyngdoh (2013), Borgio (2016) and Rani (2018) also supported this finding.

The finding of the present study related to third variable that was meta-cognition reveals that B.Ed. students have average Meta-cognition 90.15, minimum score of Meta-cognition was 45 and maximum score was 118. Meta-cognition of B.Ed. students are normally distributed with skewness of -0.32 indicating Meta-cognition not clustered around mean and Kurtosis was -0.48 indicating broad Meta-cognition of B.Ed. students. It has been also found that 53 % B.Ed. students have greater Meta-cognition than average. This finding supported by Parimala (2008). In her study she found that the level of Meta-cognitive orientation of the B.Ed., trainees is more in the post assessment than the pre assessment correlation analysis, there is significant correlation between post assessment of Meta-cognitive intervention strategies and teaching competency in Physical Science, and there is significant correlation between the Meta-cognitive intervention strategies of post and pre assessment. By analysing the scores with the help of experimental research she explained that the training of meta-cognitive strategy changes the knowledge of meta-cognition in students. So the score after training may deviate from the mean score obtained before training.

From the present study it was found that Moderate positive correlation is found in between Emotional Intelligence and Meta-cognition by the analysis of the study. It means that a B.Ed. student who have high Emotional Intelligence definitely have high Meta-cognition. Thus, Emotional Intelligence and Meta-cognition are related with each other. Kaur (2010) supported this finding by found positive and significant relationship between academic achievement and emotional intelligence of adolescents, positive and significant relationship between academic achievement and meta-cognition of adolescents and positive and significant relationship between emotional intelligence and meta-cognition of adolescents. Neeru (2015) and Sumithra (2018) also supported the present study.

In present study, it was found that the correlation between Emotional Intelligence and Social Intelligence is 0.351 at 0.05 level of significance, which comes in the range of 0.6 to 0.3. So moderate positive correlation is found in between Emotional Intelligence and Social Intelligence. It means that a B.Ed. student who have high Social Intelligence definitely have high Emotional Intelligence. Thus, Emotional Intelligence and Social Intelligence are related with each other. This finding was supported by Singh (2002) in his study “Emotional intelligence: an investigation of construct independence from personality and social intelligence”. In his study Singh (2002) also found a moderate positive correlation between Emotional Intelligence and Meta-cognition. Kaur (2015) also supported this finding.

In the present study, it is found that the correlation between Social Intelligence and Meta-cognition is 0.537 at 0.05 level of significance which comes in the range of 0.6 to 0.3. So moderate positive correlation is found in between Social Intelligence and Meta-cognition. It means that a B.Ed. student who have high Social Intelligence definitely have high Meta-cognition. Thus, Social intelligence and Meta-cognition are related with each other. This finding was supported by Sekar (2015) in his study “Influence of Meta-cognition and Social Intelligence on study skills of Arts and Science College Students”. He found that found that meta-cognition and social intelligence have no significant relationship with study skills of arts and science subjects. The percentage analysis of the study reveals that the majority of arts and science college students have moderate level of meta-cognition and social intelligence. Sekar (2015) reveals that Social intelligence and Meta-cognition are related with each other but not influence by study skills of students. Meta-cognition is necessary for students of B.Ed. to improve their emotional intelligence and social intelligence. These all three Meta-cognition, social intelligence and emotional intelligence were related with each other in some extent. May be these relationship was due to some other aspects like study skill, age, gender and academic achievement but relationship was found.

5.11.0 IMPLICATIONS OF THE PRESENT STUDY

The following implications are drawn out from the findings of the present study:

The findings can give suggestions to the Teacher Education Institutes (TEIs) to frame a suitable curriculum required for the student-teachers so that favourable attitude toward Meta-cognition, Social Intelligence and Emotional Intelligence can be developed among B.Ed. students.

The findings also suggest that B.Ed. students should focus on their Cognition and try to improve that with the help of their Meta-cognition.

The findings also suggest that the Teacher Education Institutes (TEIs) should focus on the Social Intelligence and Emotional Intelligence of the B.Ed. students which will benefit them in their future and also in their teaching profession.

The findings also suggest that the Teacher Education Institutes (TEIs) should also focus on the Meta-cognition of the B.Ed. students which will benefit them in solving different problems which can be faced by them in their teaching profession and in their life.

5.12.0 SUGGESTIONS FOR FURTHER STUDY

The present study was limited to B.Ed. students of English medium college of Varanasi district. The researcher would like to suggest some more area and issues for the further studies which are as follows:

- The study could be conducted with some large number of samples.
- Similar study can be conducted for teachers and students of different standards.
- Meta-cognition Inventory could be standardised and can be used for different samples.
- Apart from Emotional Intelligence and Social Intelligence, some other variables could be taken for the research.
- Emotional Intelligence and Social Intelligence could be studied with few personal and academic variables.
- The tools of Emotional Intelligence, Social Intelligence and Meta-cognition can be made and validate by the researcher.
- Researcher can take both Hindi and English medium college for the study and make a comparison between them.
- Researcher can study meta-cognition and emotional intelligence with respect to social intelligence.
- Researcher can study meta-cognition and social intelligence with respect to emotional intelligence.
- The relationship established as Predicted Meta-cognition among Meta-cognition, Social Intelligence and Emotional Intelligence can be further improved with the help of other regression.

5.13.0 CONCLUSION

The present study was conducted with the objective to study the emotional intelligence, social intelligence and meta-cognition of B.Ed. students and to determine the relationship among these three variables. The findings of the study revealed that most of the B.Ed. students have high level of Emotional Intelligence and Social Intelligence, whereas B.Ed. students have moderate Meta-cognition. The study also revealed that Emotional Intelligence and Social Intelligence had moderately significant influence on the Meta-cognition of B.Ed. students. Hence attempt could be taken to enhance the Meta-cognition of students. Though students of B.Ed. are high in Emotional Intelligence and Social Intelligence, they could be motivated to use these in their teaching learning process and also utilize these in their future teaching profession.

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APPENDICES

EMOTIONAL INTELLIGENCE SCALE (EIS)
DEVELOPED
BY
NUTAN KUMAR THINGUNJAM AND USHA RAM (2000)

This scale consists of 33 statements related to our daily life. Read each statement carefully and indicates your feelings on a 5 points scale.

Sr. No.	Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	I know when to speak about my personal problems to others.					
2	When I am faced with obstacles, I remember times I faced similar obstacles and overcome them.					
3	I expect that I will do well on most things I try.					
4	Other people find it easy to confide in me.					
5	I find it hard to understand the non-verbal messages of other people.					
6	Some of the major events of my life have led me to re-evaluate what is important and non-important.					
7	When my mood changes I see new possibilities.					
8	Emotions are one of the things that make my life worth living.					
9	I am aware of my emotions as experience them.					
10	I expect good things to happen.					
11	I like to share my emotions with others.					
12	When I experience a positive emotion, I know how to make it last.					

Sr. No.	Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
13	I arrange events others enjoy.					
14	I seek out activities that make me happy.					
15	I am aware of the non - verbal messages I send to others.					
16	I present myself in a way that makes a good impression on others.					
17	When I am in a positive mood, solving problems is easy for me.					
18	By looking at their facial expressions, I recognize the emotions people are experiencing.					
19	I know why my emotions change.					
20	When I am in positive mood, I am able to come up with new ideas.					
21	I have control over my 'emotions.					
22	I easily recognize my emotions as I experience them.					
23	I motivate myself by imagining a good outcome to task I take on.					
24	I compliment others when they have done something well.					
25	I am aware of the non-verbal message other people send.					
26	When another person 'tells me about an important event in his or her life, I almost feel as though I have experienced this event myself.					
27	When I feel a change in emotions, I tend to come up with new ideas.					
28	When I am faced with a challenge, I give up because I believe I will fail.					

Sr. No.	Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
29	I know what other people are feeling just by looking at them.					
30	I help other people feel better when they are down.					
31	I use good moods to help myself keep trying in the face of obstacles.					
32	I can tell how people are feeling by listening to the tone of their voice.					
33	It is difficult for me to understand why people feel the way they do.					

META-COGNITION INVENTORY (MCI)
DEVELOPED & STANDARDIZED
BY
DR. PUNITA GOVIL (2003)

INSTRUCTIONS:

1. Please give response for all statements.
2. Your responses will be kept confidential.
3. There is no right or wrong response to these statements.
4. In the next pages, a few statements are given which are aimed at knowing certain facts about you. These statements are related to your concept of your own intelligence, knowledge, memory, attention, self-regulation strategies etc. and your preference will indicate a degree of meta-cognition.

So read each statement carefully and express the degree of your views about yourself by making the tick in any one cell () against each statement.

Sr No.	Statements	Not at all	Some what	To a considerable extent	Very much
1	Before attempting any task, I make a working planning in my mind and work accordingly.				
2	I know whether my hunger should be Satisfied or not during study hours.				
3	I am satisfied with what I know about a given concept.				
4	If I fail in my attempts, I try to find the cause of failure and try again with more confidence.				
5	I always learn some lesson from every task.				
6	After the completion of every work, I contemplate if the adoption of some other strategy would have led to better results.				
7	I know I have my style of studying and dislike any kind of interference.				
8	I do not like any type of disturbance during study hours.				

Sr No.	Statements	Not at all	Some what	To a considerable extent	Very much
9	I know the things which I need during the period of studying.				
10	While studying, I do not involve myself in any other work.				
11	I know where my attention diverts while studying.				
12	I know how much I try to know more about certain concepts.				
13	Once I memorize anything, I remember it forever.				
14	While studying, whenever I feel that particular strategy is not working, I modify it immediately.				
15	I am satisfied with my style of studying and feel that there is no need of change.				
16	I know the type of atmosphere needed to me to study with concentration.				
17	I know why I forget certain events while remembering certain others quite well.				
18	I try my best to make arrangement of certain things, So as to study in a better way.				
19	I want to create a suitable atmosphere for studying but I do not bother to do so.				
20	If I fail in my attempts, I do not get disappointed.				
21	I know the goal of my life and try my best to achieve it.				
22	I know how I can understand a difficult concept.				
23	I usually check myself to see whether my attempts are in the right direction.				

Sr No.	Statements	Not at all	Some what	To a considerable extent	Very much
24	I know how to control my attention and concentrate on studies.				
25	I know that if I had adopted the particular strategy, I would have remembered those concepts which I had forgotten.				
26	I am so conscious about my goal that I can resist any temptation and continue my studies.				
27	I know what I should do to memorize a concept.				
28	I Know how sharp my memory is.				
29	If I do not get suitable atmosphere to study, I get perplexed.				
30	I know the method of knowing more about a given concept.				

SOCIAL INTELLIGENCE SCALE (SIS)
DEVELOPED
BY
DR. S. MATHUR (2007)

There are 50 statements in the scale. Each statement has three alternatives- Yes, Indefinite and No. Read the statements carefully and write the marks in the box of the alternatives which suits you most.

There is no time limit to complete the scale, try to complete it as fast as you can.

Sr No.	Statements	Yes	Indefinite	No
1	I remain cool even when others actions are not according to me.			
2	I find it difficult to make friends anywhere.			
3	I criticize others for their mistakes.			
4	I seek opportunity to help others.			
5	I only cooperate with them who are very close to me.			
6	I easily understand and solve others problems.			
7	Many times I fail to keep my promises.			
8	I avoid interfering with others personal problems.			
9	It is difficult for me to deal with persons of different nature.			
10	I meet new persons with full enthusiasm.			
11	I am uncomfortable in living with unknown persons.			
12	I know my worth so I do not take any social responsibility.			
13	I get pleasure in serving others.			
14	I am comfortable in the company of my seniors.			
15	I change my attitude whenever it is necessary.			
16	My friends approach me for guidance.			
17	Often I behave as if I don't care for others.			
18	I change my plan according to the requirement of the group.			
19	I get angry with those who do not agree with me.			

Sr No.	Statements	Yes	Indefinite	No
20	I easily motivate others to work hard to succeed.			
21	I find it difficult to follow the rigid rules of the society.			
22	I am popular among my friends' circle.			
23	I feel the pressure of the society.			
24	Even the persons of opposite sex respect me.			
25	I easily manage to get others favour.			
26	People of all ages praise me for my good behaviour.			
27	I fail to stand to the expectations of others.			
28	I keep smiling even when people I criticize me.			
29	I gain from my past experiences.			
30	I force others to change their activities according to my will.			
31	I express my feelings even though they may result in undesirable consequences.			
32	I am afraid of taking lead to organize social functions.			
33	I perform any social task with full competency.			
34	I get upset in critical social situations.			
35	I find it difficult to control my emotions in unhealthy situations.			
36	I do not bother about the suffering of others.			
37	I easily impress other persons.			
38	I never change my thoughts only tell please others.			
39	I easily manage any social situation even if it is in the worst condition.			
40	I avoid taking a risky job in a social camp.			
41	I maintain courteous relations with all.			
42	I learn from others mistakes.			
43	Others easily convince me with their argument.			
44	I always look after the comfort of my juniors.			

Sr No.	Statements	Yes	Indefinite	No
45	It is my nature to appreciate others for their achievements.			
46	In a friendly group I talk more than listen to others.			
47	I thank others for praising me for my success.			
48	Is cold others for their failure.			
49	I criticize others plan if it does not suit me.			
50	I get worried whenever I get some social responsibility.			