CHAPTER II

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2.1 INTRODUCTION

One of the main objectives in our mind while educating the students is to bring success throughout their life career. “Handle the challenge of the change well and you can prosper greatly; Handle it poorly and you put yourself and others at risk. When you face a change of situation other than you anticipate, you get emotional, and when you handle the challenged situation intelligently, keeping your emotions aside, you prosper and you are a winner, else loser. This will measure the success or failure in one’s life”.

Every parent’s desire to put their children on the way to excellent education starts with the school. So, school is the second home where children get the opportunity to develop their personality. All the necessary social and professional skills are developed in school. Development of these skills takes place through learning and thinking activities. So, a school that has the potential to provide education on thinking and learning skills determines the achievement and satisfaction of the students and the parents.

Emotional Intelligence represents the most important set of skills that are needed to survive as a human being, and to experience life to the full. Emotional Intelligence will predict who succeeds and who doesn’t, who lives a life of pain and who copes, who is happy and who is miserable, who has long term relationships and who lives in solitude. Emotional Intelligence is ability to sense and use emotions to more effectively manage ourselves and influence positive outcomes in our relationships with others. So intelligence one shows, when the person is emotional, is **EMOTIONAL INTELLIGENCE**.
But then what is “intelligence”? How is it measured, quantitative or qualitative analysis? Intelligence is defined in many ways, many theories, and various measurements. So there are different views by Sternberg (1970, 1985), Gould (1981), Gardner (1983, 1999), Carroll, Herrnstein and Murray (1993), Jensen (1998, 2002) and Sacks (1999). The different views come not only from ideological biases affecting what is said, but also from affecting what is included.

When intelligence was operationally defined by E.G. Boring (1923) in an article in the “New Republic”, from scientific point of view, the definition was considered problematic. In 1921, editors of the “Journal of Educational Psychology” gave their views on the nature of intelligence. Later one well known set of definition was published in 1986 by Sternberg as an explicit follow up to the 1921 Symposium. Metacognition (conceived of as both knowledge about and control of cognition) played a prominent role in the 1986 Symposium but virtually no role at all in 1921 Symposium.

So INTELLIGENCE is an Umbrella term (word that provides a superset or grouping of related concepts, also called a hypernym) used to describe a property of the mind that compasses many related abilities such as capacities to reason, to comprehend ideas, to use language and to learn. There are several ways to define intelligence that may include traits such as creativity, personality, character, wisdom or knowledge.

Intelligence is a ubiquitous individual difference, and also a hypothetical construct. Intelligence is reflected in a variety of behaviours which demonstrate a cognitive capacity for thinking and reasoning and learning and adapting
2.2 CLASSIC DEFINITIONS OF INTELLIGENCE

¾ "The ability to carry out abstract thinking."
   (Terman, 1921)

¾ "The capacity for knowledge, and knowledge possessed."
   (Henmon, 1921)

¾ "The capacity to learn or to profit by experience."
   (Dearborn, 1921)

¾ "The capacity to acquire capacity."
   (Woodrow, 1921)

¾ "Intelligence is what is measured by intelligence tests."
   (Boring, 1923)

¾ "A global concept that involves an individual’s ability to act
   purposefully, think rationally, and deal effectively with the
   environment."
   (Wechsler, 1958)

¾ "A person possesses intelligence insofar as he had learned,
   or can learn, to adjust himself to his environment."
   (Colvin, cited in Sternberg, 1982)

¾ "Intelligence is a general factor that runs through all types
   of performance."
   (Jensen, 1998)

¾ "Intelligence is that faculty of mind by which order is
   perceived in a situation previously considered disordered."
   (R.W. Young, cited in Kurzweil, 1999)

¾ "Intelligence is the ability to use optimally limited resources
   - including time - to achieve goals."
   (Kurzweil, 1999)
2.3 HISTORY OF RESEARCH INTO INTELLIGENCE

2.3.1 CONCEPTS OF INTELLIGENCE AND ITS TESTING
HAVE EVOLVED OVER LAST 100 YEARS

Late 1800s  Francis Galton is considered to be the father of the study of individual differences. In the late 19th century itself the intelligence test were commenced. For Galton, measurement of intelligence was to be as direct as possible a measure of underlying intelligence. Hence, Galton suggested reaction time as a feasible approach and pursued various sensori-motor measurements.

Early 1900’s  The origins of Intelligence Quotient (IQ) Testing started in the early 1900s itself. The present form of the intelligence test was first created by Alfred Binet. He is commonly known as the “father” of IQ testing. In 1905 he produced the Binet-Simon scale [with Theodore Simon] - the first intelligence test. Binet took a pragmatic approach, choosing a series of 30 short tasks related to everyday problems of life. Supposedly all these tasks involved basic processes of reasoning. The tests were arranged so as to be of increasing difficulty. Each level of tests matched a specific developmental level - i.e. all tests at a given level were capable of being solved by any normal child in that specific age-group. This was a turning point in psychology: A new type of test had been produced in which the average level of performance was the criterion. In 1908 the test was revised and then
again in 1911. This edition was the model for many future tests. The test results proved to be correlated with other criteria (e.g. results of school examinations, assessments of teachers, etc.)

1912

To arrive at an Intelligence Quotient (IQ) score, Terman relied on a formula expressing the relation between an individual’s mental age and chronological age developed in 1912 in Germany by Wilhelm Stern proposed and used the following formula:

\[
IQ = \frac{\text{Mental age}}{\text{Chronological Age}} \times 100
\]

This formula works fairly well for children but not for adults (Thomson, 1968; Weinberg, 1989)

1916

Terman found that the Paris-developed age norms didn’t work very well for Californian school children. So he revised the test: adapted some items, added other items, established new age norms, and extended the upper age limit to "superior adults". This became the Stanford-Binet revision in 1916. In this revision the Intelligence Quotient or IQ was a score meant to quantify intellectual functioning to allow comparison among individuals.

1917

The US army at the beginning of World War I was faced with the problem of assessing the intelligence of great numbers of recruits in order to screen,
classify, and assign them to suitable tasks. The Stanford-Binet test required a highly trained person for individual administration - thus it would prove time consuming and costly for large-scale use. So, when the US entered WWI in 1917 a committee was appointed to consider ways that psychology might assist the conduct of the war. Head of this committee was Robert Yerkes. His brief was to develop group intelligence testing.

Yerkes, a psychologist and army major, assembled a staff of 40 psychologists [including Terman] to develop a group intelligence test. This resulted in the Army Alpha and Army Beta tests. The Beta was a version of the Alpha specifically for use with non-English-speaking and illiterate persons. In the end, over a million people were tested, but not until late in the war. Thus the work actually had little effect on the recruitment of soldiers for war, but did a great deal to enhance the status of psychology. After the war, industry, business and education saw the potential value of psychological testing.

The earliest studies on what has come to be known as Emotional Intelligence date back to the 1920s, to research conducted by Robert Thorndike. His work focused on identifying what makes up “intelligence” and indicated that “social intelligence” was a part of general intelligence. He defined social intelligence as ‘the abilities to understand others and to act or behave wisely in relation to others’
Up to 1927, the approaches to intelligence had been very pragmatic - i.e. tests were developed for particular needs. However, another approach to understanding intelligence, involved analysing data that was already collected.

**Charles Spearman (1927)** analysed the relations among experimental intelligence tests using 'factor analysis'. He argued that, as a rule, people who do well on some intelligence tests also do well on a variety of intellectual tasks [vocabulary and mathematical and spatial abilities]. And if people did poorly on an intelligence test, then they also tended to do poorly on other intellectual tests. That is, he observed correlations among performance on a variety of intellectual tasks.

Thus, he proposed, a 'two-factor' theory of intelligence.

**General Ability (g):** which was required for performance of mental tests of all kinds; he called this a kind of 'mental energy' that underlies the specific factors.

**Special Abilities:** which were required for performance on just one kind of mental test. - e.g. Scores on a verbal comprehension test are largely determined by one’s level of general intelligence but they are also affected by one’s specific ability to perform verbal comprehension tasks. But the main thrust of Spearman’s analysis was this idea of a general intellectual capacity. This formed a major theoretical platform for many subsequent
approaches to intelligence. It might be also noted, however, that Spearman was perhaps excessively enthusiastic about 'g'.

1935 **Edgar Doll**, an Australian psychologist, devised a structured interview called the Vineland Social Maturity Scale to assess social competence, which gave an SQ (Social Quotient) to indicate the level of social maturity of the individual.

1938 **Thurstone**, “factor analyst”, accepted Spearman’s hypothesis of a general factor. But he disputed its importance. He argued that g is in fact a second order factor or phenomenon - one which arises only because the primary or 'first-order' factors are related to one another. Thus, Thurstone identified 7 primary mental abilities' which he judged to be more important.

These were: Verbal Comprehension, Word fluency, Number, Space, Associative Memory, Perceptual Speed and Reasoning. Thurstone’s approach constituted the first multi-factor approach to intelligence.

Thurstone’s tests have largely dropped out of use because the hope, that they would be able to more accurately predict academic or occupational performance than general intelligence, was not fulfilled. Nevertheless, the main argument and findings are important: that intelligence is better described and measured by considering distinct primary mental abilities, rather than a single factor
g which does not provide specific information about specific intelligences.

1939

David Wechsler felt that the Binet scales were too verbally loaded for use with adults, so he designed an instrument with sub-tests to measure both verbal and nonverbal abilities, largely borrowing from many other tests, such as the US Army Alpha test. He continued to challenge the traditional view of intelligence with his notion of “non intellec tive intelligence”. He was the first researcher to indicate that there was a range of intelligences other than traditional IQ that were part of general intelligence. The original Weschsler-Bellevue test in 1939 proved quite successful in civilian and military applications.

In 1949, Wechsler produced the Wechsler Intelligence Scale for Children (WISC), which competed with the Stanford-Binet test. In 1955; he produced a revision of the adult scales named the Wechsler Adult Intelligence Scale (WAIS). And later he produced a scale which could be used with pre-primary children. These scales have all been revised, but still show a distinct resemblance to the original 1939 scale.

1948

Leeper made a small but important contribution to the early work of David Wechsler, in studying “emotional thought”. He found that emotions ‘arose, sustain and direct activity”. He proposed “emotional thought” was part of and contributes to “logical thought” and intelligence in general.
**1960s**

Raymond Cattell, a contemporary of Galton who was also significantly involved in early attempts at psychological measurement] suggested that there are two related but distinct components of g: fluid and crystallized intelligence. Fluid intelligence represents one’s ability to reason and solve problems in novel or unfamiliar situations. Crystallized intelligence, on the other hand, indicates the extent to which an individual has attained the knowledge of a culture. Fluid intelligence decreases with age and crystallized intelligence increases with age. Thus mathematicians and scientists, who need fluid intelligence, produce their best work in their 20s and 30s; whereas those in the field of history, philosophy and literature produce their best work in their 40s, 50s and beyond as they have accumulated more knowledge. Interestingly, poets, who depend more on fluid than crystallized intelligence, produce their best work earlier than prose authors: this has been observed in all cultures, languages and throughout history.

**1965**

Probably the most widely accepted factorial description of intelligence is a hierarchical one, e.g (1960, 1965, and 1971) and (1993). Vernon accepted, in a sense, that both Spearman (single g factor) and Thurstone (multiple primary mental abilities) were right.

Vernon suggested that intelligence can be described as comprising abilities at varying levels
of generality: - at the highest level of generality (i.e. top of the hierarchy) is g as defined by Spearman; - at the next level are 'major group' factors, such as: - verbal-educational ability [the kind of ability needed for successful performance in courses such as English, history, and social studies] and - practical-mechanical ability [the kind of ability needed successful performance in courses such as draughts man ship and car mechanics]; - at the next level are 'minor group' factors, which can obtained by subdividing the major group factors; - and at the lowest (the bottom of the hierarchy) are specific factors again of the kind identified by Spearman .So, Vernon inserted 2 further levels between Spearman’s g and specific factors relevant to only one test.

Guilford (1967; 1988) parted company from the majority of factorial theorists by refusing to acknowledge the existence of any general factor at all. Instead, he proposed that intelligence comprises 180 elementary abilities. The 180 elementary abilities are made up of a combination of three dimensions which he calls:

-operations: what a person does (6-types)
-contents: the material on which operations are performed(5-types)
-products: the form in which the information is stored and processes(6-types).

Guilford proposed that each combination of a specific operation, a specific type of content and a specific type of product defines a unique type of
intelligence (6x5x6 = 180). In later versions of his
theory he proposed even more types of intelligence.
Due largely to the practical implications of such a
model, Guilford’s theory has not significantly
influenced psychological testing of intelligence.

Howard Gardner (1983; 1993) supports
Thurstone’s notion that intelligence comes in
different packages. The most widely cited version of
Gardner’s concept of intelligence is that there are
seven different types of intelligence. Gardner has
played around with this number and suggested a
possible one or two more or even (in 1999) the
possibility of a smaller number of intelligences. He
argues that the seven intelligences are: verbal,
mathematical, musical, spatial, kinesthetic,
interpersonal (social skills) and intrapersonal (self-
understanding) functioning. He argues that these
different intelligences are independent of one
another.

Reuven Bar-On a clinical psychologists, started to
research the question “Why is that some people
achieve overall emotional health and well being
whilst others don’t?” During 1980 and 1990s he
worked directly on measuring Emotional
Intelligence using his instrument the Emotional
Quotient Inventory (EQ-i TM) in over fifteen
different countries. In 1985 he coined the term
“Emotional Quotient” (EQ).
John Mayer and Peter Salovey published their first research paper, in which they coined the term ‘emotional intelligence’, defined it and provided the first scientific measure of emotional intelligence. Their early definitions of Emotional Intelligence was: “The ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and to use this in formations to guide one’s thinking and action. They elaborated on original perspectives of EI by developing three branches that together comprised the concept: Appraisal and Expression of Emotion, Regulation of Emotion, and Utilization of Emotion. Later, these were rearticulated into four branches (Mayer & Salovey, 1997):

¾ Perception, Appraisal, and Expression of Emotion
¾ Emotional Facilitation of Thinking
¾ Understanding and Analyzing Emotions
  (Employing Emotional Knowledge)
¾ Reflective Regulation of Emotions to Promote Emotional and Intellectual Growth

Carolyn Sarrni, a developmental psychologist who specializes in emotional development, spoke about her work on ‘emotional competency’. This focused on how children learn to accurately express, understand and regulate emotions in their instructions with peers, parents and siblings.
1995  **Daniel Goleman’s** Emotional Intelligence was published in 1995. He is perhaps the best known author on the subject of emotional intelligence. He sees that the origin of the latest resurgence in interest in the subject goes back at least to Gardner’s (1983) book *Frames of Mind* work noting there must be something more to people than traditional types of intelligence to explain their success in life. Simply put, not all intelligent people, classically defined as those who are cognitively swift and deductively accurate, are successful in life, and many with IQs in the middle-normal range can succeed to a high degree. Researchers have found there are other psychological traits that are predictive of success.

1996  **Reuven Bar-On** presented his measure Emotional Quotient Inventory, to the American Psychological Association in Toronto. Bar-On worked with a Toronto based test publisher, Multi-Health Systems, to collect more data and refining his instrument .This created the first scientific instrument to measure Emotional Intelligence, the Bar-On EQ-i TM, which was published in 1997.

### 2.4 THEORY OF MULTIPLE INTELLIGENCE

Howard Gardner a professor of education and coordinator of project Zero at Harvard University, challenged the traditional notion that intelligence is a single capacity possessed by every individual to a greater or lesser extent. Gardner presents the idea of existence of a number of intelligences that result in a unique cognitive profile for
each individual. This extraordinary conception of individual competence is changing the face of education today. Many educators and researchers have explored the practical implications of Multiple Intelligence theory, the powerful notion that there are separate human capacities.

According to this theory, human cognitive competence is better described in terms of a set of abilities, talents or mental skills called intelligences. All normal individuals possess each of these skills to some extent; individuals differ in the degree of skill and in the nature of their combination. Gardner is of the view that such a theory has important educational implications including ones for curriculum development.

Gardner first outlined his theory in his 1983 book *Frames of Mind: The Theory of Multiple Intelligences*, where he suggested that all people have different kinds of "intelligences."

Gardner proposed that there are eight intelligences, and has suggested the possible addition of a ninth known as “existentialist intelligence”

The eight intelligences Gardner described are:

- Verbal-linguistic Intelligence
- Logical-mathematical Intelligence
- Visual-spatial Intelligence
- Bodily-kinesthetic Intelligence
- Musical-Rhythmic Intelligence
- Interpersonal Intelligence
- Intra personal Intelligence
- Naturalistic Intelligence
2.4.1 VERBAL/LINGUISTIC INTELLIGENCE

Gardner describes Linguistic Intelligence as follows:

The capacity to use language, your native language, and perhaps other languages, to express what's on your mind and to understand other people. Poets really specialize in linguistic intelligence, but any kind of writer, orator, speaker, lawyer, or a person for whom language is an important stock in trade highlights linguistic intelligence.

Verbal-Linguistic Intelligence includes,

⅓ **Ideation** – think and remember through internal language

⅓ **Functional Literacy** - understand the rules and functions of language

⅓ **Self-Regulation** - analyze one's own use of language

⅓ **Adaptation** – apply rules of language to new and different contexts

⅓ **Oral Expression** – explain and express one's self verbally

⅓ **Written Expression** - explain and express one's self in writing

2.4.2 LOGICAL/MATHEMATICAL INTELLIGENCE

Gardner explains is Logical- Mathematical intelligence as

People with a highly developed logical- mathematical intelligence understand the underlying principles of some kind of a causal system, the way a scientist or a logician does; or can manipulate numbers, quantities, and operations, the way a mathematician does.
Logical-Mathematical Intelligence includes

¾ **Linear Reasoning** – seeking order and consistency in the world
¾ **Concrete Reasoning** - breaking down systems into their components
¾ **Abstract Reasoning** - using symbols that represent concrete ideas
¾ **Causal Relationships** – identifying cause and effect within a system
¾ **Complex Operations** – performing sophisticated algorithms

**2.4.3 VISUAL/SPATIAL INTELLIGENCE**

According to Gardner **Spatial Intelligence** refers to the ability to represent the spatial world internally in your mind--the way a sailor or airplane pilot navigates the large spatial world, or the way a chess player or sculptor represents a more circumscribed spatial world. Spatial intelligence can be used in the arts or in the sciences.

Visual/Spatial Intelligence includes

¾ **Spatial Awareness** - solving problems using spatial orientation
¾ **Non-sequential Reasoning** - thinking in divergent ways
¾ **Visual Acuity** - assessment of information based on principals of design and aesthetics
¾ **Imagination** - seeing the possibilities before engaging them in the physical world
¾ **Small motor coordination** - creating, building, arranging, decorating
2.4.4 BODY/KINESTHETIC INTELLIGENCE

Bodily Kinesthetic Intelligence is the capacity to use the whole body or parts of the body--hand, fingers, arms--to solve a problem, make something, or put on some kind of a production. The most evident examples are people in athletics or the performing arts particularly dance or acting.

Body/Kinesthetic Intelligence includes

¾ Sensory – internalizes information through bodily sensation
¾ Reflexive – responds quickly and intuitively to physical stimulus
¾ Tactile – demonstrates well-developed gross and/or fine motor skills
¾ Concrete – expresses feelings and ideas through body movement
¾ Coordinated – shows dexterity, agility, flexibility, balance and poise
¾ Task Orientated – strive to learn by doing

2.4.5 MUSICAL/ RHYTHMIC INTELLIGENCE

Musical Intelligence is the capacity to think in music, to be able to hear patterns, recognize them, remember them, and perhaps manipulate them. People who have a strong musical intelligence don't just remember music easily--they can't get it out of their minds, it's so omnipresent.

Rhythmic/ Musical Intelligence includes

¾ Aural Orientation – heightened listening ability
¾ Patterning – seeking all kinds of patterns, not just in sound
¾ **Resonance** - identification with patterns as an expression of experience
¾ **Audiation** – thinking musically rather than verbally

### 2.4.6 INTERPERSONAL INTELLIGENCE

Interpersonal Intelligence is understanding other people. It’s an ability we all need, but is at a premium if you are a teacher, clinician, salesperson, or politician. Anybody who deals with other people has to be skilled in the interpersonal sphere.

Interpersonal Intelligence includes

¾ **Collaborative Skills** – the capability to jointly complete tasks with others
¾ **Cooperative Attitude** – the willingness to offer and accept input
¾ **Leadership** – recognition by peers as someone to follow
¾ **Social Influence** – an ability to persuade others
¾ **Social Empathy** – an awareness and concern for others
¾ **Social Connection** – a skill for meaningfully relating to others

### 2.4.7 INTRAPERSONAL INTELLIGENCE

Intrapersonal Intelligence refers to having an understanding of yourself, of knowing who you are, what you can do, what you want to do, how you react to things, which things to avoid, and which things to gravitate toward.

Intrapersonal Intelligence includes

¾ **Affective Awareness** – the knowledge of one’s feelings, attitudes and outlook
¾ Ethical Awareness – the setting of one's principles and moral priorities
¾ Self-Regulation – monitoring one's thoughts, actions and behavior
¾ Metacognition – the awareness of one's thought processes

2.4.8 NATURALIST INTELLIGENCE

According to Gardner, individuals who are high in this type of intelligence are more in tune with nature and are often interesting in nurturing, exploring the environment and learning about other species. These individuals are said to be highly aware of even subtle changes to their environments.

Naturalist intelligence includes

¾ Natural Orientation – identification with living organisms and their environments
¾ Attribute Orientation – finding common traits among items
¾ Categorization – identifying categories by attribute
¾ Hierarchical Reasoning – ranking items by significance and relationship
¾ Schematic Memory – internalizing and recalling information by attribute, category or hierarchy

2.5 MEASURING MULTIPLE INTELLIGENCE

In transforming Multiple Intelligences theory into educational practice, assessment is a necessary component. Assessment in a multiple intelligence-based educational setting involves at least two aspects: (1) assessment of individual student profiles of intelligence and (2) assessment of student learning.
Chen (2004) provides four essential criteria for effective methods of assessment in a multiple intelligence-based educational environment. Accurate assessment of multiple intelligences demands a range of measures that tap the different facets of each intellectual capacity. Also intelligence-fair instruments are needed to assess the unique faculties of each intelligence.

Further, the assessment must be an ongoing process based on multiple samples of an individual’s abilities over time in different contexts, taking into consideration the child’s educational and cultural experiences. Finally, assessments of multiple intelligences are designed to identify and build on individuals’ strengths by creating rich educational environments with learning opportunities that match children’s specific abilities and interests.

Several researchers (Armstrong, 2000; Silver, Strong, and Perini, 2000) have developed inventories and assessments related to individual profiles of intelligence; however, the only assessment strongly supported by a large body of empirical research and validity testing is the Multiple Intelligences Developmental Assessment Scales (MIDAS) devised by Branton Shearer.

Lazear (1994) listed eight guidelines for assessment in a multiple intelligence- based educational setting:

¾ Assessment design and execution should include educators who work with the students.

¾ Assessment requires time and effort; educators should be given appropriate time to create and administer instruments.

¾ Assessment should be authentic and central to the educational process.
¼ Assessment should drive the curriculum
¼ Assessment practices should be designed for students’ benefit
¼ Assessment practices should mirror assessment in the real world
¼ Assessment should be individualized and developmentally appropriate
¼ Assessment requires that students become active partners in demonstrating learning

2.6 DEFINITIONS OF EMOTIONAL INTELLIGENCE

Emotions are our most reliable indicators of how things are going in our life. We all have to deal with emotions in our lives. Emotions are varying feelings we experience. Researchers may have varying and different views and opinions on what Emotional Intelligence is. Emotional Intelligence is associated with thought and how we perceive and understand things.

Moreover, Emotional Intelligence is the ability to recognize, acknowledge, manage and handle your emotions in such a way that promotes personal growth.

Emotional Intelligence is a collection of competencies that allows to:

¼ Identify our own emotions and those of others;
¼ Accurately express our emotions and help others express theirs;
¼ Understand our own emotions and those of others;
¼ Manage our own emotions and adapt to those of others;
¼ Use our own emotions and the skills peculiar to Emotional Intelligence in various areas of our lives in order to better communicate, make good decisions, manage our priorities, motivate ourselves and others, maintain good interpersonal relations, etcetera.

There is no fixed definition for Emotional intelligence. There are so many conceptions of Emotional Intelligence and they are so different from one another. Some of them are given below.

“Emotional Intelligence is about using the power of emotions as a source of information, motivation and connection.”

Kate Cannon - creator of the first Emotional Intelligence programmes in American Express Financial services

“Emotional Intelligence is the practice of paying attention to one’s own and other people’s emotional states and using the information to one’s actions.

Liz -Partner, Center for Applied Emotional Intelligence

“Emotional Intelligence is the ability to sense, understand, and effectively apply the power of emotions as a source of energy, information, creativity, trust, and connection.”

Esther Orioli - creator of EQ Map

"The ability to perceive emotion, integrate emotion to facilitate thought, understand emotions and to regulate emotions to promote personal growth."

John Mayer – who together with Peter Salovey.
“Emotional Intelligence is the ability to use your emotions to help you solve problems and live a more effective life. Emotional Intelligence without intelligence, or intelligence without Emotional intelligence, is only part of a solution. The complete solution is the head working with heart “.

David Caruso – co-author, with John Mayer and Peter Salovey, of the MSCEIT™

Emotional Intelligence is being able to recognize, name and appropriately deal with the emotions that we feel and experience. We may all feel anger, Emotional Intelligence is knowing what to do with the emotion of anger to achieve the best possible outcome.

Lea Brovedani

“Emotional Intelligence is an array of emotional, personal and social abilities which influence one’s ability to cope effectively with environmental demands and pressures.”

Dr Reuven Bar-On – co-editor of The Handbook of Emotional Intelligence

“Emotional Intelligence involves the ability to read the unspoken feelings in individual as well as the collective dynamic”.

David Ryback – author of Putting Emotional Intelligence to Work

“Emotions are human beings’ warning systems as to what is really going on around them. Emotional Intelligence is the set of abilities that we like to think of as being on the other side of the report card from the academic skills.

Maurice Elias -co- author of Emotionally Intelligent Parenting: Promoting Social and Emotional Learning, and professor of education at Rutgers University
“Emotions prioritise thinking by directing us to important information”.

**John Mayer and Peter Salovey** - from Emotional Development and Emotional Intelligence: Educational Implications

“Emotional Intelligence (EI) is the ability to acquire and apply knowledge from your emotions and the emotions of others. You can use the information about what you’re feeling to help you make effective decisions about what to say or do (or not say or do) next”.

**Byron Stock**

“Emotional Intelligence is a way of recognizing, understanding, and choosing how we think, feel, and act. It shapes our interactions with others and our understanding of ourselves. It defines how and what we learn; it allows us to set priorities; it determines the majority of our daily actions”.

**Freedman - author of** The Handle with Care of Emotional Intelligence Activity Book.

### 2.7 THEORIES OF EMOTIONAL INTELLIGENCE

In 1985 Wayne Leon Payne, a graduate student at an alternative liberal arts college in the USA wrote a doctoral dissertation which included the term "Emotional Intelligence" in the title. This seems to be the first academic use of the term "Emotional Intelligence." In next five years, no one else seems to have used the term "Emotional Intelligence" in any academic papers.

Then in 1990 the work of two American university professors, John Mayer and Peter Salovey, was published in two academic journal articles. Mayer, (University of New Hampshire), and Salovey (Yale), were trying to develop a way of scientifically measuring the
difference between people's ability in the area of emotions. They found that some people were better than others at things like identifying their own feelings, identifying the feelings of others, and solving problems involving emotional issues. The title of one of these papers was titled "Emotional Intelligence".

Since 1990 these professors have developed two tests to attempt to measure what they are calling our "emotional intelligence." Because nearly all of their writing has been done in the academic community, their names and their actual research findings are not widely known.

In the early 1990’s Goleman had been writing articles for the magazine Popular Psychology and then later for the New York Times newspaper. In 1992 he was doing research for a book about emotions and emotional literacy when he discovered the 1990 article by Salovey and Mayer

While several theories associated with the Emotional Intelligence paradigm currently exist, the three that have generated the most interest in terms of research and application are the theories of Mayer and Salovey (1997), Bar-On (1988; 2000a) and Goleman (1998b; 2002).

While each theory represents a unique set of constructs that represents the theoretical orientation and context in which each of these authors have decided to frame their theory, all share a common desire to understand and measure the abilities and traits related to recognizing and regulating emotions in ourselves and others (Goleman, 2001).
All theories within the Emotional Intelligence paradigm seek to understand how individuals perceive, understand, utilize and manage emotions in an effort to predict and foster personal effectiveness. An awareness of the origins and motivations of each of these theories provides additional insight into why the specific constructs, and methods used to measure them, vary among the major theories.

The first of the three major theories to emerge was that of Bar-On (1988). In his doctoral dissertation he coined the term Emotional Quotient (EQ), as an analogue to Intelligence Quotient (IQ). The timing of the publication of his dissertation in the late 1980s was consistent with an increasing interest in the role of emotion in social functioning and well-being, but before interest in Emotional Intelligence enjoyed the widespread interest and popularity that it does today.

Bar-On (2000a) currently defines his model in terms of an array of traits and abilities related to emotional and social knowledge that influences our overall ability to effectively cope with environmental demands, as such, it can be viewed as a model of psychological well-being and adaptation.

From Darwin to the present, most descriptions, definitions and conceptualizations of emotional-social intelligence have included one or more of the following key components, all of which are included in the Bar-On conceptual model: (a) the ability to understand emotions as well as express our feelings and ourselves; (b) the ability to understand others’ feelings and relate with people; (c) the ability to manage and control our emotions; (d) the ability to manage change and solve problems of an intrapersonal and interpersonal nature; (e) the ability to generate positive mood and be self-motivated.
The five main domains in this model are **intrapersonal skills, interpersonal skills, adaptability, stress management, and general mood** (Bar-On, 1997b). The EQ-i, which Bar-On constructed to measure the model, is a self-report measure that specifically measures emotionally and socially competent behavior that estimates an individual’s emotional and social intelligence, as opposed to traditional personality traits or cognitive capacity (Bar-On, 2000).

**Figure 1** given in the opposite page represents the Bar-On’s Emotional Intelligence Theory with the five main domains and 15 subscales.

These meta-factors of the conceptual model of emotional-social intelligence are referred to as follows in the Bar-On measures of this model:

⅓ **INTRAPERSONAL** *(self-awareness and self-expression)*

⅔ **INTERPERSONAL** *(social awareness and interaction)*

⅓ **STRESS MANAGEMENT** *(emotional management and control)*

⅓ **ADAPTABILITY** *(change management)*

⅓ **GENERAL MOOD** *(self-motivation)*

Each of these 5 meta-factors comprises a number of closely related competencies, skills and facilitators (15 in all), which are listed and defined below.
INTRAPERSONAL (self-awareness and self-expression):

- Self-Regard (being aware of, understanding and accepting ourselves)
- Emotional Self-Awareness (being aware of and understanding our emotions)
- Assertiveness (expressing our feelings and ourselves nondestructively)
- Independence (being self-reliant and free of emotional dependency on others)
- Self-Actualization (setting and achieving goals to actualize our potential)

INTERPERSONAL (social awareness and interaction):

- Empathy (being aware of and understanding how others feel)
- Social Responsibility (identifying with and feeling part of our social groups)
- Interpersonal Relationship (establishing mutually satisfying relationships)

STRESS MANAGEMENT (emotional management and control):

- Stress Tolerance (effectively and constructively managing our emotions)
- Impulse Control (effectively and constructively controlling our emotions)

ADAPTABILITY (change management):

- Reality Testing (validating our feelings and thinking with external reality)
¾ **Flexibility** *(coping with and adapting to change in our daily life)*

¾ **Problem Solving** *(generating effective solutions to problems of an intrapersonal and interpersonal nature)*

**GENERAL MOOD** *(self-motivation)*:

¾ **Optimism** *(having a positive outlook and looking at the brighter side of life)*

¾ **Happiness** *(feeling content with ourselves, others and life in general)*

The above meta-factors and sub-factors are defined in detail below:

### 2.7.1 INTRAPERSONAL

This meta-factor of emotional-social intelligence comprises Self-Regard, Emotional Self-Awareness, Assertiveness, Independence and Self-Actualization. It relates primarily to self-awareness and self-expression, governing our ability to be aware of our emotions and ourselves in general, to understand our strengths and weaknesses, and to express our feelings and ourselves nondestructively. It determines how in touch we are with our emotions and feelings, our ability to feel good about ourselves, and to feel positive about what we are doing in our lives and with their lives. People who have high intrapersonal capacity are emotionally self reliant, are able to express their feelings, and are strong and confident in conveying their opinions and beliefs.

#### 2.7.1.1 SELF-REGARD

This intrapersonal sub-factor is defined as **the ability to accurately perceive, understand and accept ourselves**. Self-regard is the ability to respect and accept ourselves as basically good.
Respecting ourselves likes the way we are; and self-acceptance is the ability to accept our perceived positive and negative aspects as well as our limitations and possibilities. This conceptual component of emotional-social intelligence is associated with general feelings of security, inner strength, self-assuredness, self-confidence and feelings of self-adequacy. Feeling sure of ourselves is dependent upon self-respect and self-esteem, which are based on a fairly well-developed sense of identity. A person with good self-regard feels fulfilled and satisfied. At the opposite end of the continuum are feelings of personal inadequacy and inferiority.

**2.7.1.2 EMOTIONAL SELF-AWARENESS**

This intrapersonal sub-factor is defined as the **ability to be aware of and understand our emotions**. Emotional self-awareness is the ability to recognize our emotions. It is not only the ability to be aware of our emotions, but also to differentiate between them, to know what we are feeling and why, and to know what caused those feelings. Serious deficiencies in this area are found in an emotional disorder known as alexithymia, which is at the pathological end of the EI continuum.

**2.7.1.3 ASSERTIVENESS**

This intrapersonal sub-factor is defined as the **ability to constructively express our feelings and ourselves in general**. This is the ability to express feelings, beliefs and thoughts and to defend our rights in a nondestructive manner. Assertiveness is thus composed of three basic components: (i) the ability to express our feelings; (ii) the ability to express beliefs and opinions; and (iii) the ability to stand up for our rights and not to allow others to bother or take advantage of us. Assertive people are not overly controlled or
shy, and they are able to outwardly express their feelings (often directly) without being aggressive or abusive.

2.7.1.4 INDEPENDENCE

This intrapersonal sub-factor is defined as the ability to be self-reliant and free of emotional dependency on others. This is the ability to be self-directed in our thinking and actions and to be free of emotional dependency. Independent people are self-reliant in planning and making important decisions. They may, however, seek and consider other people’s opinions before making decisions; but consulting with others is not a sign of dependency in this regard. Independence is, moreover, the ability to function autonomously versus needing protection and support from others. Independent people avoid clinging to others in order to satisfy their emotional needs. The ability to be independent rests on our degree of self-confidence, inner strength as well as a desire to meet expectations and obligations without becoming a slave to them.

2.7.1.5 SELF-ACTUALIZATION

This intrapersonal sub-factor is defined as the ability to set personal goals and the drive to achieve them in order to actualize our potential. Fundamentally, self-actualization pertains to the ability to realize our potential capacities. It is manifested by becoming involved in pursuits that lead to a meaningful, rich and full life. Striving to actualize our potential involves developing enjoyable and meaningful activities and can mean a lifelong effort and an enthusiastic commitment to long-term goals. Self-actualization is an ongoing, dynamic process of striving toward maximum development of our competencies, skills and talents. This is associated with persistently trying to do our best and trying to improve ourselves in general. Additionally, excitement about our interests energizes and
motivates us to continue these interests. Self-actualization is also associated with feelings of self-satisfaction. Low levels of self-actualization are associated with depression.

2.7.2 INTERPERSONAL

This meta-factor of emotional-social intelligence comprises Empathy, Social Responsibility and Interpersonal Relationship. It relates primarily to social awareness, skills and interaction. It is, essentially, concerned with **our ability to be aware of others’ feelings, concerns and needs, and to be able to establish and maintain cooperative, constructive and mutually satisfying relationships**. Those who function well in this area tend to be responsible and dependable. They understand, interact with and relate well with others. They inspire trust and function well as part of a team.

2.7.2.1 EMPATHY

This interpersonal sub-factor is defined as **the ability to be aware of and understand how others feel**. It is being sensitive to what, how and why people feel the way they do. Being empathetic means being able to ‘emotionally read’ other people. Empathetic people care about other people and show interest in and concern for them. Serious deficiencies in empathy are fundamental for diagnosing psychopaths.

2.7.2.2 SOCIAL RESPONSIBILITY

This interpersonal sub-factor is defined as **the ability to identify with our social group and cooperate with others**. Social responsibility is the ability to demonstrate ourselves as cooperative, contributing and constructive members of our social group (in the family, among friends and at work). This involves acting in a
responsible manner, even though we may not benefit personally. Socially responsible people possess ‘social consciousnesses and a basic concern for others, which is manifested by being able to take on group- and community-oriented responsibilities.

This component of emotional-social intelligence is associated with doing things for and with others, accepting others, acting in accordance with our conscience and upholding social rules. These people have acquired a sense of interpersonal sensitivity and are able to accept others and use their talents for the good of the collective (and not just for the good of the self). Individuals who are seriously deficient in this ability may entertain antisocial attitudes, act abusively towards others and take advantage of people.

2.7.2.3 INTERPERSONAL RELATIONSHIP

This interpersonal sub-factor is defined as the ability to establish and maintain mutually satisfying relationships and relate well with others. Mutual satisfaction describes meaningful social interactions that are potentially rewarding and enjoyable for those involved. Being adept in interpersonal relationship skills is characterized by giving and receiving warmth and affection and conveying intimacy.

This component of emotional-social intelligence is not only associated with the desirability of cultivating friendly relations with others, but with the ability to feel at ease and comfortable in such relationships and to possess positive expectations concerning social interaction. This social skill is based on sensitivity towards others, a desire to establish relations as well as feeling satisfied with relationships.
2.7.3 STRESS MANAGEMENT

This meta-factor comprises Stress Tolerance and Impulse Control. This component of emotional-social intelligence relates primarily to emotional management and control and governs our ability to deal with emotions so that they work for us and not against us. People who are adept in this area are able to withstand and effectively cope with stress without losing control. They are typically calm, rarely impulsive and work well under pressure. They can handle tasks that are stressful, anxiety-provoking and even dangerous.

2.7.3.1 STRESS TOLERANCE

This stress management sub-factor is defined as the ability to effectively and constructively manage emotions. In essence, stress tolerance is the ability to withstand and deal with adverse events and stressful situations without getting overwhelmed by actively and positively coping with stress.

This is based on

⅓ choosing a course of action for coping with stress, which means being resourceful and effective, being able to come up with suitable solutions and knowing what to do and how to do it;

⅓ an optimistic disposition toward new experiences and change in general as well as towards our ability to successfully overcome the specific problem at hand, which assumes a belief in our ability to face and handle these situations; and

⅓ a feeling that we can control or influence the stressful situation.
Stress tolerance includes having a repertoire of suitable responses to stressful situations, and it is associated with the capacity to be relaxed and composed and to calmly face difficulties without getting carried away by strong emotions. People who have a well-developed capacity for stress tolerance tend to face crises and problems rather than surrendering to feelings of helplessness and hopelessness. Anxiety often results when this component of emotional-social intelligence is not functioning adequately.

2.7.3.2 IMPULSE CONTROL

This stress management sub-factor is defined as the ability to effectively and constructively control emotions. More precisely, impulse control is the ability to resist or delay an impulse, drive or temptation to act. It entails a capacity for accepting our aggressive impulses, being composed and controlling aggression, hostility and irresponsible behavior. Problems in impulse control are manifested by low frustration tolerance, impulsiveness, anger control problems, abusiveness, loss of self-control and explosive an unpredictable behavior.

2.7.4 ADAPTABILITY

This meta-factor of emotional-social intelligence comprises Reality Testing, Flexibility and Problem Solving. This meta-factor relates primarily to change management -- i.e., how we cope with and adapt to personal and interpersonal change as well as change in our immediate environment. It determines how successful we are able to cope with daily demands by effectively 'sizing up' and dealing with problematic situations.

People who have a high capacity for adaptability are typically flexible, realistic and effective in understanding problematic
situations and competent at arriving at adequate solutions. These people can generally find good ways of dealing with everyday difficulties. Success in this area means that we can grasp problems and devise effective solutions, deal with and resolve various issues as they arise at home, with friends and in the workplace.

2.7.4.1 REALITY TESTING

This adaptability sub-factor governs the ability to objectively validate our feelings and thinking with external reality. This includes assessing the correspondence between what is experienced and what objectively exists. Testing the degree of correspondence between what we experience and what actually exists involves a search for objective evidence to confirm, justify and support feelings, perceptions and thoughts.

Reality testing, essentially, involves ‘tuning in’ to the immediate situation, attempting to keep things in correct perspective and experiencing things as they really are without excessive fantasizing or daydreaming about them.

The emphasis is on pragmatism, objectivity, the adequacy of our perception and authenticating our ideas and thoughts. An important aspect of this adaptability sub-factor is the degree of perceptual clarity evident when trying to assess and cope with situations; and it involves the ability to focus when examining ways of coping with situations that arise.

Reality testing is associated with a lack of withdrawal from the outside world, a tuning into the immediate situation, and lucidity and clarity in perception and thought processes. In simple terms, reality testing is the ability to accurately ‘size up’ the immediate situation.
2.7.4.2 FLEXIBILITY

This adaptability sub-factor represents the ability to adapt and adjust our feelings, thinking and behavior to new situations. This entails adjusting our feelings, thoughts and behavior to changing situations and conditions. This component of emotional-social intelligence refers to our overall ability to adapt to unfamiliar, unpredictable and dynamic circumstances.

Flexible people are agile, synergistic and capable of reacting to change without rigidity. These people are able to change their minds when evidence suggests that they are mistaken. They are generally open to and tolerant of different ideas, orientations, ways and practices.

2.7.4.3 PROBLEM SOLVING

This adaptability sub-factor governs the ability to effectively solve problems of a personal and interpersonal nature. Problem solving entails the ability to identify and define problems as well as to generate and implement potentially effective solutions.

It is multi-phasic in nature and includes the ability to go through the following process: (a) sensing a problem and feeling confident as well as motivated to deal with it effectively; (b) defining and formulating the problem as clearly as possible which necessitates gathering relevant information; (c) generating as many solutions as possible; and (d) implementing one of the solutions after weighing the pros and cons of each possible solution and choosing the best course of action.

People who are adept at problem solving are often conscientious, disciplined, methodical and systematic in persevering and approaching challenging situations. This skill is also associated
with a desire to do our best and to confront problems, rather than avoiding them.

### 2.7.5 General Mood

This meta-factor of emotional-social intelligence comprises Optimism and Happiness. It is closely associated with self-motivation. It determines our ability to enjoy ourselves, others and life in general, as well as influences our general outlook on life and overall feeling of contentment. People who are adept in this facilitator of emotional-social intelligence are typically cheerful, hopeful, positive, well motivated and know how to enjoy life.

In addition to being an essential element in interacting with others on a daily basis, this facilitator of emotionally and socially intelligent behavior is an important motivational component for managing emotions and solving problems of an intrapersonal and interpersonal nature.

#### 2.7.5.1 Optimism

This general mood sub-factor is defined as the ability to maintain a positive and hopeful attitude toward life even in the face of adversity. It represents a positive approach to daily living and a very important motivating factor in whatever we do. Optimism is the opposite of pessimism, which is a common symptom of depression.

#### 2.7.5.2 Happiness

This general mood sub-factor is defined as the ability to feel content with ourselves, others and life in general. It is the ability to feel satisfied with our life, enjoy others and have fun. In this context, happiness combines self-satisfaction, general contentment
and the ability to enjoy life. This component of emotional-social intelligence involves the ability to enjoy various aspects of our life and life in general. Happy people often feel good and at ease in both work and leisure; they are able to ‘let their hair down’ and enjoy the opportunities for having fun.

Happiness is associated with a general feeling of cheerfulness and enthusiasm. Happiness acts as a barometric indicator of our overall degree of emotional and social functioning telling us how we are doing in general; it also functions as a powerful facilitator and motivational factor for various aspects of emotional-social intelligence. The inability to experience happiness and difficulties in generating positive affect in general are often indicative of dissatisfaction, discontent and depressive tendencies.

Emotional Intelligence as formulated in the theory of Mayer and Salovey (1997) has been framed within a model of intelligence. The motivation to develop a theory of emotional intelligence, and instruments to measure it, came from a realization that traditional measures of intelligence failed to measure individual differences in the ability to perceive, process, and effectively manage emotions and emotional information.

The use of this frame is significant, as it defines Emotional Intelligence more specifically as the ability to perceive emotions, to access and generate emotions to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions to promote emotional and intellectual growth (Mayer and Salovey, 1997).

The most current measure of the Mayer and Salovey model, the Mayer, Salovey, Caruso Emotional Intelligence Test v.2.0 (MSCEIT
v2.0), makes use of this approach and thus yields scores that are based on an individual’s performance on a set of items designed to measure the four branch model of emotional intelligence.

Mayer, Salovey, and Caruso’s ability model (2000b) theory states that it is intelligence like other intelligences. Like cognitive problems which have correct and incorrect answers, Emotional Intelligence can be measured by correct responses. Also, the measures of Emotional Intelligence correlate with other intelligences, which is similar to the correlation of cognitive intelligence.

Finally, Emotional Intelligence is said to improve with age, like cognitive intelligence. Mayer and Salovey (1995) found that the ability model of Emotional Intelligence can make predictions about those who score high in Emotional Intelligence including: (a) are able to reframe situations, (b) select strong role models, (c) can communicate regarding feelings, (d) are non-defensive, (e) develop expertise in emotional areas such as problem solving, leadership, or spirituality.

The latest addition to theory within the Emotional Intelligence paradigm is the framework of Emotional Intelligence put forward by Goleman (1998b) in his book Working with Emotional Intelligence, and clarified in a later article (Goleman, 2001). This theory represents a framework of Emotional Intelligence that reflects how an individual’s potential for mastering the skills of Self-Awareness, Self-Management, Social Awareness and Relationship Management translates into success in the workplace (Goleman, 2001).

Goleman’s theory is specific to the domain of work performance. According to the test manuals of both the MSCEIT v2.0 (Mayer, Salovey, & Caruso, 2002b) and the Bar-On EQ-i (Bar-On,
1997), these measures are applicable to a wider range of settings such as clinical assessment, educational settings, in addition to the workplace.

2.8 MODELS OF EMOTIONAL INTELLIGENCE

Several models of Emotional Intelligence have emerged in recent years. Salovey and Mayer were one of the early pioneers in the area of Emotional Intelligence and throughout 1990’s have continued to publish many studies in this area.

Goleman (1995) popularized the concept Emotional Intelligence through his book Emotional Intelligence and followed in1998 with Working with Emotional Intelligence. It leads Emotional Intelligence into two different approaches.

Mayer, Caruso and Salovey (2000) describe one approach as “mixed model”, which is a socio-emotional approach that includes abilities as well as many personality characteristics. Another approach is called as “ability model”. It defines Emotional Intelligence much narrower, and is exclusive of many of the personality characteristics that are included in the mixed model.

2.8.1 MIXED MODEL APPROACH

Goleman (1995; 1998) is one of the earlier proponents of the “mixed model” of Emotional Intelligence. Goleman used neuroscience and psychological theories to form the basis for his descriptions of Emotional Intelligence. He defined Emotional Intelligence as one’s ability to “motivate oneself and persist in the face of frustrations; to control impulses and delay gratifications; to regulate one’s moods and keep distress from swamping the ability to think; to empathize and to
hope “.He further described it as a set of traits that could be referred to as one’s character.

Goleman (1998) defines Emotional Intelligence as “a learned capability based on Emotional Intelligence resulting in outstanding performance at work.” He includes four emotional and social competencies in his definition: (a) self-awareness: knowing what we are feeling and using this understanding to make decisions, (b) self-regulation: controlling our emotions so that they add to our well-being, (c) empathy: understanding how others are feeling and having rapport with diverse people, and (d) social skills: being able to understand social situations and to interact smoothly. In addition, he includes other traits including self-control, persistence, and motivation.

Reuven Bar-On (1995) also described Emotional Intelligence from a mixed model perspective. Bar-On based Emotional Intelligence on personality literature for life success. He defined Emotional Intelligence as” an array of emotional, personal and social abilities which influence one’s ability to cope effectively with environmental demands and pressures.”

He divides Emotional Intelligence into five skill areas: (a) mood: optimism and joy; (b) stress management: impulse control and tolerance; (c) intrapersonal skills: self-actualization, self-esteem, independence, self-awareness; (d) interpersonal skills: relationships, empathy; and (e) adaptability flexibility and problem solving. Also like Goleman ,Bar-On agreed that Emotional Intelligence has predictive ability, specifically suggesting that it can help optimize academic potential and life success .He developed instruments to measure these components , the Bar-On EQ-i (Bar-On, 1997) and Bar-On EQ-i Youth Version (Bar-On & Parker, 2000).
Cooper (1997) and Cooper and Salwaf (1997) in their book *Executive EQ* explained four-cornerstone mixed model of Emotional Intelligence. It includes a) Emotional Literacy b) Emotional Fitness c) Emotional Depth and d) Emotional Alchemy. They describe each cornerstone or aspect of Emotional Intelligence as a tributary.

### 2.8.2 ABILITY MODEL APPROACH

In the various *Mixed Model* frame work discussed above the definitions of Emotional Intelligence is broader in perspective, so that it is not easy to measure and attribute to the main outcomes. This leads to the researchers a more focused, limited definition approach in this regard. Ability model approach of the Emotional Intelligence provides a greater research opportunity.

In 1990 Mayer and Salovey published their first conceptualization of Emotional Intelligence, which have since evolved into a third model of Emotional Intelligence *(Mayer and Salovey, 1997)* Earlier they defined Emotional Intelligence as a social intelligence which allows us the “ability to monitor one’s own and other’s feelings and emotions, to discriminate among them, and to use this information to guide one’s thinking and action”. Their research refers to Emotional Intelligence as a true intelligence like other intelligences.

Their recent conceptualization of Emotional Intelligence is “Emotional Intelligence involves the ability to perceive accurately, appraise, and express emotion; the ability to express and/or generate feelings when they facilitate thought; the ability to understand emotions and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth.
Within this definition, the included abilities have been arranged into four distinct branches:

a) perceiving and expressing emotions: and identifying and expressing emotions and feelings in other people or in artwork or music
b) assimilating emotion in one’s thinking: emotions can guide one’s priorities and be used to aid memory
c) understand and analyse emotions: labeling emotions, including those that are multifaceted and understanding the intricacies of emotions and
d) regulating emotion through reflection: staying open to feelings and monitoring emotions for emotional growth.

Mayer, Salovey, and Caruso’s ability model (2000b) theory states that it is intelligence like other intelligences. Like cognitive problems which have correct and incorrect answers, Emotional Intelligence can be measured by correct responses. Also, the measures of Emotional Intelligence correlate with other intelligences, which is similar to the correlation of cognitive intelligence. Finally, Emotional Intelligence is said to improve with age, like cognitive intelligence.

Mayer and Salovey (1995) found that the ability model of Emotional Intelligence can make predictions about those who score high in Emotional Intelligence including: (a) are able to reframe situations, (b) select strong role models, (c) can communicate regarding feelings, (d) are non-defensive, (e) develop expertise in emotional areas such as problem solving, leadership, or spirituality. Mixed models of emotionally intelligence theory, i.e. Goleman, are very different than that of Mayer, Salovey, and Caruso. Mixed models
include some of the same concepts of a mental ability model such as management of emotions, but include personality traits such as optimism and positivity.


2.9 MEASURING EMOTIONAL INTELLIGENCE

One of the controversial issues associated with Emotional Intelligence is the question of whether there are valid and reliable measures. Additionally, it is unclear whether the available assessments are actually tapping into Emotional Intelligence as a separate construct, given the overlap between Emotional Intelligence measures and personality measures (Zeidner, Roberts, & Matthews, 2002).

Petrides and Furnham (2000) created two distinct categories of Emotional Intelligence measures to help strengthen the validity of the measures and to help operationalize a definition of emotional intelligence. Specifically, they suggested that trait Emotional Intelligence evaluates one’s self-perceptions of his/her ability to correctly recognize, process, and use emotional information.

One of the problems faced by researchers using Emotional Intelligence measures is developing objective criteria for establishing correct and incorrect responses. To accommodate this, researchers generally have to rely on different methods for scoring, such as
consensus scoring (i.e., there is a consensus among multiple scorers) or expert scoring (i.e., an expert in the field of emotions is required to score the test).

Numerous scales have been developed to measure Emotional Intelligence. They can be categorized into three groups: (a) ability, (b) self-report and (c) observer-rating measures (Bar-On & Parker, 2000). One example of the ability scale is the Multifactor Emotional Intelligence Scale (MEIS). The MEIS measures Emotional Intelligence based on the theory of Emotional Intelligence as a cognitive intelligence that includes processing information (Mayer & Salovey, 1997).

This test has four components: (a) emotional perception, which involves the ability to identify emotions in pictures, stories and music; (b) emotional facilitation of thought, which includes using Emotional Intelligence in problem solving and the relation to other sensations used in art; (c) emotional understanding which includes solving emotional problems; and (d) emotional management, which is the ability to control emotions and gauge it in self and others.

An improvement upon the MEIS is the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), which also measures four categories of Emotional Intelligence: (a) Managing Emotions, assessed using the Emotional Management task and the Social Management task, (b) Understanding Emotions, assessed using the Blends task and the Changes task, (c) Using Emotions, assessed using the Sensations task and the Facilitation task, and (d) Perceiving Emotions, assessed using the Faces task and the Pictures task. This test is based on an ability model of Emotional Intelligence, as opposed to a self-report or a combined observer and self-report.
Self-report scales include the Bar-On EQ-i. It is used to measure a range of non-cognitive abilities including intrapersonal awareness, interpersonal skills, stress management, adaptability, and overall mood (Bar-On & Parker, 2000).

Self-report scales ask people to assess the extent a description fits their view of self. The advantage of using an ability measure of Emotional Intelligence, which is found in the MSCEIT, is the inability of a participant to fake or out-guess the instrument (Mayer, Salovey & Caruso, 2000c).

Another benefit of an ability measure is that it operationalizes the concept of Emotional Intelligence, making it like other intelligence measures. The MSCEIT is not a personality scale (Mayer, Salovey, & Caruso, 2000c).

A review of the current literature of Emotional Intelligence shows that

a) Mayer-Salovey-Caruso Emotional Intelligence Test version 2 (MSCEIT V2, Mayer, Salovey and Caruso, 2002)

b) BarOn EQ-i Youth Version (BarOn EQ-i and Parker, 2000).

c) Schutte Emotional Intelligence Scale (SEIS, Schutte, et al., 1998) are the existing competing measures of Emotional Intelligence.

2.10 EMOTIONAL INTELLIGENCE AND ACADEMIC PERFORMANCE

When assessing the influence of cognitive ability on academic performance, one of the most common measures used is a standardized intelligence test. Not surprisingly, several researchers
have found that intelligence has been found to successfully predict academic success (Busato, et al., 2000; Neisser et al., 1996; Ridgell, & Lounsbury, 2004). Neisser et al. found that intelligence alone could account for 25% of the variance in academic achievement and concluded that intelligence scores were the single best predictor of academic success. The current trend has been to focus on Emotional Intelligence (EI), may enhance decision making and academic success.

Academic success has been investigated with relation to cognitive processes (including intelligence) and personality factors. It was believed that successful cognitive processing could not occur at the same time as emotional processing. More specifically, rational and logical thinking could not occur when emotional information was also being processed (Humphrey, Curran, Morris, Farrell, & Woods, 2007).

Thus, students would be unable to engage in effective decision making processes if their emotional processes entered into the equation. In contrast, the current trend has been to focus on how emotions, in particular Emotional Intelligence (EI), may enhance decision making and academic success.

Imbrosciano and Berlach (2003) have remarked that “success” may be viewed in three main domains. A good student is often referred to as being “intelligent”, or “well behaved”, or “academically successful”. Arising from this are the questions: Are there any connection between these domains? Is there a strong connection between intelligence and academic achievement? Do students with high intelligence behave better? These and many more questions underscore the important place intelligence has been found to play in academic success.
Humphrey et al. suggested that cognitive and emotional processing cannot be separated, and that emotional processing is an important component of rational thought, as long as the emotions are not in excess.

**Goleman (1995)** gave a short of answer when he asserted that success depends on several intelligences and on the control of emotion. Specifically, he stressed that intelligence (IQ) alone is no more the measure of success. According to him intelligent account for only 20% of the total success, and the rest goes for Emotional and Social intelligences.

**Abisamra (2000)** then queried that if this is found to be so, why the teachers don’t begin to teach its components (i.e., emotional intelligence) to students at schools? He then concluded that if Emotional Intelligence affects student achievement, then it is imperative for schools to integrate it in their curricula and thereby raising the level of students’ success.

According to **Salovey and Mayer (1990)**, Emotional Intelligence is being able to monitor one’s own and other’s feelings and emotions, to discriminate among them, and to use this to guide one's thinking and actions.

Again, **Salovey and Mayer (1993)** wrote that an emotionally intelligent person is skilled in four areas: identifying, using, understanding, and regulating emotions. Similarly, Goleman also stressed that Emotional Intelligence consists of five components: Knowing one’s emotions (self-awareness), managing them, motivating self recognizing emotions in others (empathy), and handling relationships.
In recent times therefore, social scientists and educational psychologists are beginning to uncover the relationship of Emotional Intelligence to other phenomena. These are: leadership (Ashfort & Humphrey, 1995); group performance (Williams & Sternberg, 1988); academic achievement (Abisamra, 2000); and policing (Aremu, 2004). The foregoing attests to the significance of Emotional Intelligence to all constructs (school achievement inclusive). As a matter of fact Emotional Intelligence (EI) has recently attracted a lot of interest in the academic literature.

Finnegan (1998) argued that school should help students learn the abilities underlying the emotional intelligence. This he believes could lead to achievement from formal education years of the child.

In a recent studies conducted by Parker, et al., (2004) they discovered that various emotional and social competencies were strong predictors of academic success.

Zeidner, et al., (2002) correctly pointed out that there has been insufficient research conducted to fully understand the impact that Emotional Intelligence may (or may not) have on academic success.

Low and Nelson (2004) reported that Emotional Intelligence skills are key factors in the academic achievement and test performance of high school and college students respectively.

Petrides, et al., (2005) argued that any investigation of the potential effects of Emotional Intelligence on academic performance must be pursued in a specific context. In essence, the importance of Emotional Intelligence on academic achievement has been found to be very significant.
There is some relationship between Emotional Intelligence and academic success to provide new methods for increasing the likelihood that students will be able to overcome the obstacles. However, while Emotional Intelligence may contribute to academic success, the research in this area is still in its infancy, making it difficult to draw any strong conclusions.

First, researchers have not yet agreed on an accurate or comprehensive definition of emotional intelligence. Additionally, many measures of Emotional Intelligence lack reliability and validity. Third, existing research examining the relationship between Emotional Intelligence and academic success remains unclear.

Frequently researchers find that Emotional Intelligence does not add to our ability to predict academic success beyond cognitive and personality factors. There are two possible explanations for this finding: a) Emotional Intelligence is not related to academic success, or b) Emotional Intelligence is related to academic success, but the existing measures of Emotional Intelligence do not adequately assess the construct, but instead measure characteristics related to personality and cognitive factors.

2.11 CONCLUSION

Today our society faces a number of economic, health related, ethnic-racial, cultural, geopolitical and environmental challenges. To overcome this everyone must require not only well developed intellectual abilities but also equally impressive social and emotional skills.
Researchers have found that even more than Intelligence Quotient (IQ), emotional awareness and abilities to handle feelings will determine your success and happiness in all walks of life, including family relationships.

On the basis of the above mentioned facts about the theoretical background of Emotional Intelligence and Multiple Intelligence, the investigator has measured the Emotional Intelligence and Multiple Intelligence of the higher secondary students and also of their academic achievement. This research is focused on Emotional Intelligence, Multiple Intelligence and Academic Achievement.