

Emotional Intelligence Assessment

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Abstract: Emotional intelligence (EI) is essentially the capacity to understand and manage emotion. Importance of EI is increasingly being recognized and assessed across various professions. An EI test is an extensive battery of psychological assessments that can be used to measure EI in business, workplace, healthcare, education, sports, and healthcare. These are scientifically developed and validated tests. The purpose of the present paper is to review the widely-used measures of EI and how they are used in applied settings.

Keywords: Emotion, Emotional Intelligence, Assessment Of Emotional Intelligence

I. INTRODUCTION

Humans are predominantly emotional beings. Emotion forms the basis for our entity and gives meaning to our lives. It is a fundamental domain of personality. Emotions can provide essential information to solve daily problems. They alter our thinking in many ways.

Emotional intelligence (EI) may be simply regarded as the ability to perceive, control, and evaluate emotions. It refers to the mental processes involved in the recognition, use, understanding, and management of one's own and others' emotional states to solve problems and regulate behavior. It is an umbrella term that consists elements such as "soft skills," "people skills," and an ability to cope with the challenges of life. EI is often considered both as an ability and a trait and as a mixture of both. It is a subset of social intelligence; a set of mental abilities separate from personality [1]. Researchers and practitioners have shown interest in emotional intelligence (EI) over the last decade.

Lazarus Long once said, "If it can't be expressed in figures, it is not science; it is opinion." Therefore, to study emotional intelligence scientifically requires measuring it. Over the years, intelligence tests have been developed and used in quantifying a person's cognitive ability or their capacity to reason, learn, and think. IQ hardly changes over the lifespan of an individual. IQ tests have become popular assessments of cognitive capacity. On the other hand, the emotional quotient (EQ) is a flexible group of skills, which can be learned and acquired. Someone has well said that:

$$IQ + EQ = \text{SUCCESS}$$

As shown Figure 1, EI or EQ is an important component of the whole person [2]. Therefore, an EI test is developed and administered differently. Various EI tests have been developed by psychologists and other researchers to assess the actual emotional ability of an individual just as an IQ test measures cognitive ability [3].

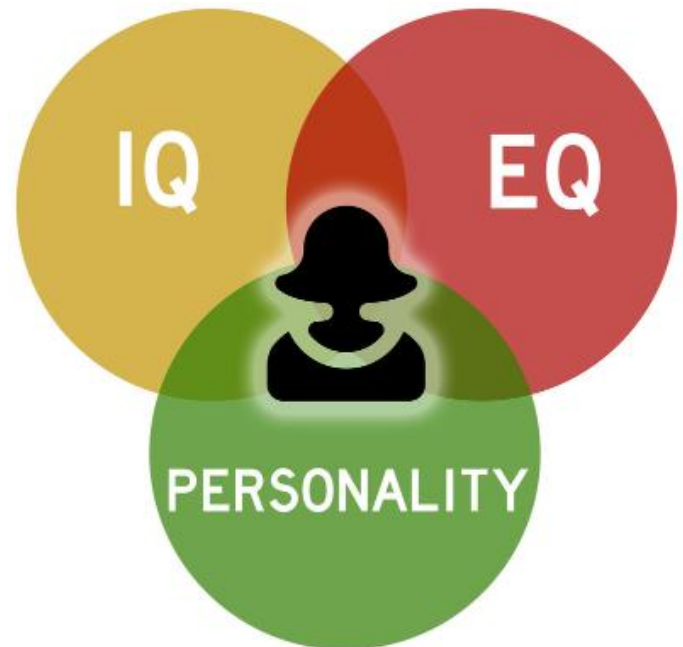


Figure 1: EI is an important component of the whole person [2].

II. CONCEPT OF EMOTIONAL INTELLIGENCE

The concept of emotional intelligence (EI), measured as a set of abilities, emerged in the early 1990s as an ability-based construct analogous to general intelligence. EI is measured as a set of abilities. Although it is a relatively new area in psychology, it has received a widespread international attention. It is a type of social intelligence that may be more important than traditional intelligence. It is a critical soft skill for leaders and one of the major missing parts in the success equation. EI aims at complementing the traditional view of intelligence by emphasizing the emotional contributions to human behavior.

Emotional intelligence may be regarded as the ability to understand and to regulate emotions in oneself and in others. The five elements that characterize emotional intelligence were suggested by Daniel Goleman, an American psychologist who helped to popularize emotional intelligence [4].

1. *Self-Awareness:* You must understand your strengths and weaknesses. To increase self-awareness, one must learn about mindfulness, which entails focusing on the present moment.
2. *Self-Regulation:* This is the ability to stay focused and think clearly even when experiencing powerful emotions. It involves staying in control.
3. *Motivation:* This is an ability to pursue goals with energy and persistence. It requires focusing on what really matters to you.
4. *Empathy:* This is the ability to sense, understand, and respond to what other people are feeling. It is regarded to be a multidimensional concept that has

moral, cognitive, emotive, and behavioral components.

5. **Social Skills:** These involve the ability to manage, influence, and inspire emotions in others. Social skills facilitate interaction and communication with others.

Thus, emotional intelligence is a combination of self-awareness, self-regulation, motivation, empathy, and social skills, as shown in Figure 2 [5].



Figure 2: Five components of emotional intelligence [5].

Different forms of EI have emerged: trait, ability, and mixed. To incorporate EI measures into your work, you should utilize a trait, ability or mixed measure of EI. Measures based on ability EI utilize questions/items comparable to those found in IQ tests. The measures give a good indication of individuals' ability to understand emotions and how they work.

Ability-based measures of EI can be applied to education, healthcare, and workplace. A popular example of ability measure of EI is the Mayer Salovey Caruso Emotional Intelligence Test (MSCEIT). Measures based on trait EI utilize self-report items to measure EI. Trait EI measures tend to measure typical actual behaviors rather than maximal performance. Measures based on mixed EI refers to questionnaires that measure a combination of traits, social skills, and competencies. In this case, one chooses to use both ability and trait measures [6]. Examples of mixed EI instruments include the Emotional Quotient Inventory (EQ-i), the Schutte Self-Report Emotional Intelligence Test (SSREIT), and the Emotional Competence Inventory (ECI).

III. EMOTIONAL INTELLIGENCE TESTS

An EI test is designed to measure how well one can recognize, assess, control, and express emotions. Several tests designed to measure emotional intelligence have appeared in recent years. These tests are different because they were developed by different people for different purposes. One reason of the proliferation of these psychometric tools was the commercial and economic opportunities such tools offered to developers. The following emotional intelligence scales are reviewed here because they are all widely used [7].

1. **The MSCEIT:** This is Mayer-Salovey-Caruso Emotional Intelligence Test. It is an ability-based (or performance-based), comprehensive test of EI. It is regarded as an ability model of EI because of its capability to measure one's capacity to reason with emotional content. This is most widely used measure of ability EI. It is an update (a shortened and improved version) of the Multifactor Emotional Intelligence Scale (MEIS) that was first developed in 1999. The MSCEIT is a 141-scale developed in 2003 to measure the four key branches (or facets) of EI: (1) Perceiving Emotions, (2) Emotional Facilitation, (3) Understanding Emotions, and (4) Managing Emotions. Each of these four branches is measured in the MSCEIT using two tasks [2]. MSCEIT branches have a standardized mean of 50, while total scores on all tests are expressed as a standardized mean of 100. MSCEIT is a highly commercialized test and expensive. The test is also relatively long (141 items) and time consuming to complete (30–45 min). Figure 3 shows the subscales of the MSCEIT [8].

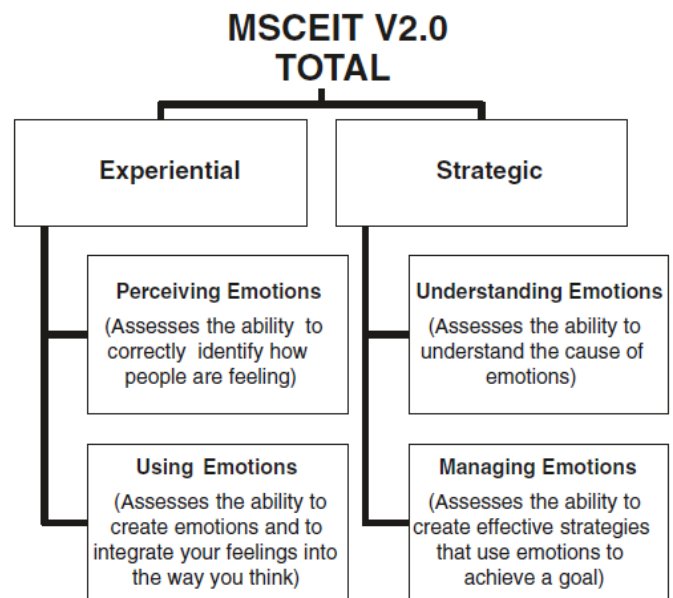


Figure 3: The subscales of the MSCEIT [8].

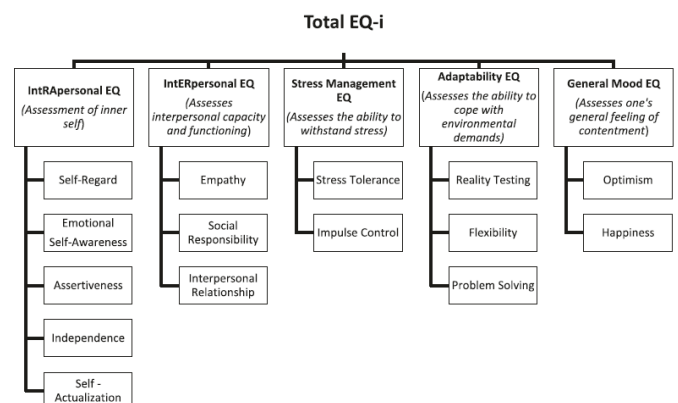


Figure 4: Subscales of the EQ-I [8].

2. **Bar-On Emotional Quotient Inventory (EQ-i):** This defines EI as an array of noncognitive capabilities, competencies, and skills that influence one's ability to succeed. The Bar-On model is the most widely used mixed ability model. In contrast to ability-based MSCEIT tests, a mixed model such as the Bar-On (EQ-i) employs self-report measures to assess competencies across five subscales: intrapersonal, interpersonal, stress management, adaptability, and general mood. It is a 133-item self-report measure with a five-point response scale, e.g. 1 "very seldom true or not true of me" to 5 "very often true or true of me" [9]. The Youth Version (EQ-

i:YV) is a self-report EI measure for children and adolescents aged 7–18 years. The EQ-i and its shortened forms have been translated into several languages. Figure 4 illustrates subscales of the EQ-i. [8]. The MSCEIT and the EQ-i tests appear to measure different things and have low correlation.

3. *Wong's Emotional Intelligence Scale (WEIS)*: This is a scale or measure of EI based on the four ability dimensions mentioned previously and designed to be used by Chinese respondents. It consists of two parts: The first part has 20 scenarios and respondents are required to choose one option that best reflects their likely reaction in each scenario. The second part is made of 20 ability pairs and respondents are required to choose one out of the two types of abilities that best represent their strengths.

4. *Emotional Intelligence Scale (EIS)* was developed by Schutte et al. in 1998. It is a 33-item instrument that measures three sub-dimensions namely: appraisal and expression of emotion, regulation of emotion, and utilization of emotion. The items are measured on a 5-point Likert scale with responses ranging from strongly disagree (score 1) to strongly agree (score 5) [10]. The 33 items can assess global trait EI and four facets.

5. *Trait Emotional Intelligence Questionnaire*: This is predicated on trait EI. Its early version was developed in 1998. The instrument aims to capture the affective aspects of personality. The 153-item TEIQue assesses 15 trait EI facets, four higher order factors and a global score (as previously described), rated using a 7-point Likert scale, ranging from completely disagree to 7 completely agree. Internal consistencies in this sample were .97 (total score), .71–.94 (15 subscales) and .90–.95 (four higher order factors).

6. *Emotional Competence Inventory (ECI)*: This was developed by Boyatzis et al and it measures four domains of emotional intelligence: Self-Awareness, Self-Management, Social-Awareness, and Social-Skills. The ECI takes approximately 15 min to complete.

Some of these tests have become standardized instruments for measuring EI. Other popular EI tests include the Situational Test of Emotion Management (STEM), the Situational Test of Emotional Understanding (the STEU), the Emotional and Social Intelligence Inventory (ESCI), Mobile Emotional Intelligence Test (MEIT), the Schutte Self-Report Emotional Intelligence Test (SSREIT), and Emotional Intelligence Appraisal (EIA). It is highly recommended that all researchers/practitioners using any of these tools should have a good understanding of the principles of psychological assessment and the limitations of psychological testing and assessment.

A. Sample EI Test

Due to lack of space, we cannot discuss the actual test for each of the popular EI measures mentioned above. For the purpose of illustration, we present a sample EI test (self-report EI scale), called the Schutte Self-Report Emotional Intelligence Test (SSREIT) [11]. Respondents rate themselves on the items using the following five-point scale:

- 1 = strongly disagree
- 2 = disagree
- 3 = neither disagree nor agree
- 4 = agree
- 5 = strongly agree

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 overcame 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 not 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 I 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
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 a 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 tasks I take on
24. I compliment others when they have done something well
25. I am aware of the non-verbal messages 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
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

You can take the test to know your emotional intelligent level.

B. Measuring Emotional Intelligence in The Business

Emotional intelligence is attractive to business. It has enabled business managers to understand the contribution of emotions in creating desirable qualities in business such as enthusiasm, motivation, commitment, and loyalty. One can apply emotion measurement to assess the level of engagement of customers with your product, marketing materials, website design, etc. Studies have shown that EI is a better predictor of job

performance, job satisfaction, employee engagement, and leadership ability than technical skills and industry experience alone. Training employees in emotional intelligence is the new approach to solve some human resource problems. EI developments focus on management, organizational behavior, and leadership. Studies have shown that EI is a far better indicator of business success than IQ [12]. There are various EI instruments commercially available to businesses.

C. Measuring Emotional Intelligence In The Workplace

A lot has been written about the crucial role of EI in the workplace. EI plays an important role in deciding success across varied professions. It helps in coping with stressful situation at work. It has been claimed that EI or EQ is twice as important as IQ in predicting workplace job performance. "Soft skills", like emotional intelligence are regarded as effective ways, to distinguish between potential high- or low-performance workers. Companies and organizations are increasingly using EI when they hire and promote. Hiring managers must be cautious when using EI measures to evaluate suitability of job applicants. These measures should be regarded as only part of the assessment. Hiring employees with high EI may have a positive impact on the extent to which an organization succeeds in retaining its most critical asset i.e., its workforce [13].

Performance in the workplace can be assessed in several ways. In fact, some assessments of EI are designed especially for the workplace. For example, the Emotional Competency Inventory (ECI) was developed to meet some HR practitioner criteria. The ECI takes approximately 15 min to complete. Mixed EI measures are appropriate in the workplace settings. The Bar-On model (self-report measure) is the most widely used.

D. Measuring Emotional Intelligence in Leadership

While regular qualities of a leader, such as intelligence, determination, and vision, are important, the best leaders also have high levels of self-awareness, empathy, motivation, social skills, and self-regulation. There is a strong link between emotional intelligence and leadership. EI competencies have been shown to predict effectiveness in leaders in countries around the world. EI can make the difference between a good leader and a great one. Corporate leaders' tasks, such as setting the vision and supervising management, all require substantial levels of EI. Leaders with high EQ build supportive environments which in turn leads to success. Some EI tests are made for leaders. A leadership-focused assessment may use the mixed traits-skills test.

E. Measuring Emotional Intelligence in The Education

It is well known that classrooms are emotional places, filled at different times with enjoyment, anger, hurt, and boredom. EI is related to interpersonal and communication skills, and is important in the assessment of students. For example, EI is an important quality medical schools are looking for in applicants today. Majority of studies use university students as participants because academic pressures at university can be much more diverse and stress inducing. There is limited investigation the link between EI and academic success at the elementary school level.

The MSCEIT and SSRI have been applied in assessing students in school or university, especially gifted children. Some students have been evaluated with "Emotional Intelligence Appraisal," a skill-based self-report EI measurement created in 2001 by Drs. Travis Bradberry and

Jean Greaves. The Bar-On Emotional Quotient Inventory (EQ-i) has also been used for university students. Higher scores on the EQ-i have been found to predict fewer daily hassles and fewer emotional strain symptoms among university students [14]. When academically gifted students participate MSCEIT and SSRI, gifted students scored higher on the MSCEIT, but lower on the SSRI. This shows that individual differences are measure dependent.

F. Measuring Emotional Intelligence In The Healthcare

There has been a growing expectation in recent years for physicians to demonstrate clinical knowledge and technical skill as well as personal social qualities and characteristics embodied in the concept of emotional intelligence (EI). EI is recognized to be a vital component of the doctor-patient relationship. It has emerged as an important factor in identifying the potential abilities of graduates in the health professions to achieve success. There is a link between EI and physical health, manifested through stress management and successful coping with life demands.

EI is measured using a single electronic instrument, the EQ-i 2.0, which is self-assessment with 133 items in length and takes approximately twenty minutes to complete. Such test identifies EI strengths and weaknesses in a cohort of emergency medicine residents [15].

G. Measuring Emotional Intelligence in Relationships

People with high EI are usually successful in whatever they do. They get along well with others and they go through life much more easily than people who are easily irritated or upset. Peer relations have an impact on antisocial behavior and early withdrawal from school. Sex offenders display emotional deficits, which seem to be related to the commission of offence. The assessment of EI, using some branches of the MSCEIT, may prove to be useful in assessing the emotional deficiencies of offenders [16]. The Bar On EQ-i2.0 assessment of individuals can be completed on-line.

IV. BENEFITS AND CHALLENGES

Emotional intelligence can be measured as an ability, using a test similar to an IQ test. One benefit of ability based EI measures is that they cannot be faked. Compared to ability based EI measures, trait based EI measures tend to have good psychometric properties. These measures are useful for professional purposes such as in EI training and executive coaching.

Several intelligence researchers question the very existence of ability EI. Some researchers faced some difficulties in developing measures with good psychometric properties. There is no consensus on the correct way to measure emotional intelligence.

Most EI tools are not freely available for commercial use. Using them without prior permission is strictly prohibited. Trait EI based measure is susceptible to faking due to its use of a self-report nature. Participants may answer questions in a strategic, socially desirable manner. Different EI measures are used to validate different EI constructs by some researchers; this causes confusion. Developers of EI tests must ensure that the test have internal consistency, usefulness, validity, and reliability. Some the tests need to be further explored in future research.

CONCLUSION

Emotional intelligence (EI) represents a global capacity to deal with emotions. Tests of EI are increasingly being used around

the world in different disciplines. Six widely used measures of EI have been reviewed in this paper. Users of these EI tools should employ single, complete tests and choose most suitable tool for their purpose. Although some EI test do not show adequate validity, they generally have demonstrated adequate internal consistency reliability. Unfortunately, these tests cannot assess all there is to emotional intelligence [17]. Thus, the science of assessing EI remains a challenge. To learn more about how to measure or assess emotional intelligence, consult the books in [7, 18-20] and the journal related to it: *Journal of Personality Assessment*.

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