Emotional Intelligence Assessment Technical Report

Executive Summary

The first step to enhancing emotional intelligence is self-awareness. The self-report Emotional Intelligence Assessment contributes by increasing awareness of one's traits, strengths, and weaknesses. Our assessment is unique in that the feedback report outlines the 'next steps' and 'what you can do now that you know this.'

The Emotional Intelligence Assessment is based on a multi-dimensional view of EQ and personality. The Emotional Intelligence Assessment has been administered to over 3500 individuals worldwide; this number is increasing daily as we continuously validate and improve our assessment. This technical report provides information about the psychometric properties of the assessment.

Test Basics
57 items
5 components
15 minutes

Theoretical Background

Emotional intelligence is a "constellation of behavioral dispositions and self-perceptions concerning one's ability to recognize, process, and utilize emotion-laden information." (Petrides & Furnham, 2003, p. 278). Emotional intelligence has been studied since the 1920's when Thorndike used the term social intelligence while at Columbia University. Credit is given to Wayne Payne for first using the term 'emotional intelligence'. Salovey and Mayer, in 1990, described EQ as "a form of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them, and to use this information to guide one's thinking and actions." Daniel Goleman became interested in Salovey and Mayer's work, which subsequently led to his best seller *Emotional Intelligence*. In his book, Goleman categorized five components of EQ; self-awareness, self-regulation, and motivation are part of intrapersonal intelligence, while empathy and social skills are a part of interpersonal intelligence.

Scales

The Emotional Intelligence Assessment provides an overall EQ score, an Intrapersonal Intelligence score, an Interpersonal Intelligence score, and scores on the five components of EQ. Please see the table below for more information.

Respondents rate each item using a Likert-type scale with the options; "Very Inaccurate, Somewhat Inaccurate, Neither Accurate nor Inaccurate; Somewhat Accurate, and Very Accurate." There are 9 reverse-scored items on the Emotional Intelligence Assessment.

Scale	Definition	Items	Sample Question
Emotional Intelligence	The ability to sense, understand, and effectively apply the power and acumen of emotions to facilitate high levels of collaboration and productivity.	57 items	
Intrapersonal Scales	The ability to understand yourself, form an accurate concept of yourself, and be able to use that concept to operate effectively in life.	34 items	
Self-Awareness	The ability to recognize and understand your moods, emotions, and drives, as well as their effect on others.	10 items	I am usually aware of the way that I am feeling.
Self-Regulation	The ability to control or redirect disruptive impulses and moods and the propensity to suspend judgment and think before acting.	12 items	When in a bad mood, I make a conscious effort to improve it.
Motivation	A passion to work for reasons that go beyond money or status and a propensity to pursue goals with energy and persistence.	12 items	I know I can find a solution to even the most difficult problem.
Interpersonal Scales	The ability to understand other people, relate effectively to others, understand what motivates others, how they work, and how to work cooperatively with them.	23 items	
Empathy	The ability to understand the emotional makeup of other people.	12 items	I can sense someone's true feelings based on their body language.
Social Skills	A proficiency in managing relationships and building networks.	11 items	I constantly look for opportunities to build relationships.

Item Development

The original item bank was developed by four PhDs and two Master's-level I/O psychologists. The emotional intelligence item bank was developed according to Goleman's model of emotional intelligence, as well as research since its inception. Following an initial content validity analysis, eight subject matter experts reviewed the items for fidelity to targeted constructs and provided feedback. The items selected for the initial version of the assessment were then pilot tested on over 500 individuals who provided face validity information about the assessment. After taking test-taker reactions and suggestions for improvement into consideration, more items were added, several items were rewritten, and a few were dropped from the assessment. After collecting more data, reliability and item analyses were conducted, which resulted in two more minor revisions of the assessment.

Norming

Individual scores on an assessment are meaningless without norms. Norms enable comparison between individuals and provide context for interpreting scores. The Emotional Intelligence Assessment scores are normed based on the standard bell curve, which results in 16% of individuals scoring "low," 68% of individuals scoring "average," and 16% scoring "high." The assessment was normed on a sample representative of the working professional population that will be taking the assessments.

Psychometric Properties

Several analyses were conducted on the assessments with a working professional sample (*n* varies by type of analyses, see charts for more information) aged 20-75 (mean age=44, male=43%, female=53.6%) residing in the United States, England, Greece, Canada, New Zealand, and Australia. The demographic information is as follows: White (81.7%), Black (11.4%), Hispanic/Latino (2.1%), Asian (2.8%), and Two or More Races (2.1%). The following sections outline the reliability and validity of the assessments. Further validation studies are in progress.

Descriptive Statistics

Emotional Intelligence Assessment		
TRAIT	MEAN	SD
Self-Awareness	33.41	4.31
Self-Regulation	35.49	6.33
Motivation	39.91	5.15
Empathy	38.52	5.49
Social Skills	35.20	5.45
Intrapersonal EQ	108.84	13.32
Interpersonal EQ	73.73	9.90
Total EQ	182.64	21.53

Reliability

Reliability is essential for an accurate, consistent, valid test. The Alpha coefficient (Cronbach, 1984) provides information about the internal consistency of a particular scale. Test-retest reliability provides information about the temporal stability of the assessment. Because emotional intelligence does change throughout one's lifetime and can be affected by key experiences, the retest administration occurred within a few days. As shown in the table below, all reliability estimates for the scales exceed the minimally-acceptable level of .700. Thus, reliability analyses show that the Emotional Intelligence Assessment measures behavioral tendencies consistently and reliably.

Emotional Intelligence Assessment			
COMPONENT	# ITEMS	TEST-RETEST	ALPHA
Self-Awareness	10 items	.880	.738
Self-Regulation	12 items	.789	.792
Motivation	12 items	.916	.767
Empathy	12 items	.903	.764
Social Skills	11 items	.952	.817

Emotional Intelligence Assessment			
COMPONENT	# ITEMS	TEST-RETEST	ALPHA
Total EQ	57 items	.967	.926
Intrapersonal EQ	34 items	.948	.885
Interpersonal EQ	23 items	.901	.868

These reliability findings are similar to other emotional intelligence assessments. The reliability for entire EQ scales tends to be higher than for individual subscales. For example, the EQi has an internal consistency of .97 (Hemmati, Mills, & Kroner, 2004). This suggests that emotional intelligence may be considered as a unitary construct.
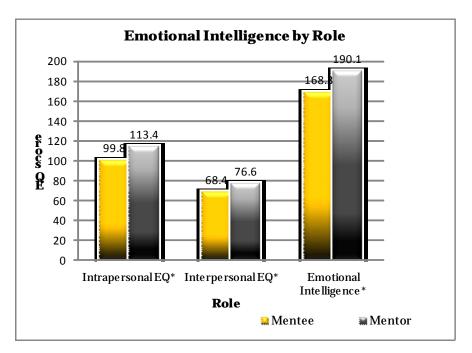
Validity

Because scale items were written to capture a particular construct, content validity may be inferred (Anastasi & Urbina, 1997). Content validity was also assessed during scale construction (please see **Item Development** for more information).
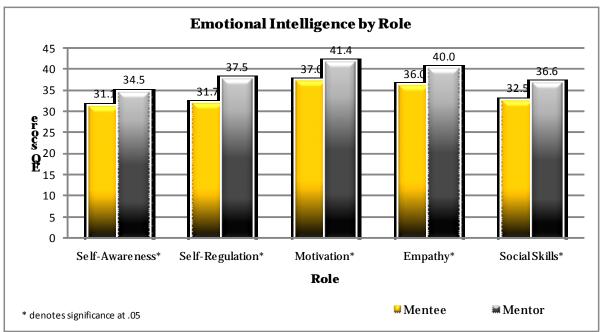
Self-reported emotional intelligence has been linked to attitudes, self-rated performance, supervisor-rated performance, objective measures of performance such as sales (Spencer & Spencer, 1993), revenues (Boyatzis, 1999), and turnover (McClelland, 1999), and many other positive outcomes. Psychological well-being is correlated with emotional intelligence at .54 as measured by the EQi and .69 by the SREI (Brackett & Mayer, 2003). The EQmentor Emotional Intelligence Assessment is currently undergoing a criterion validation study, which
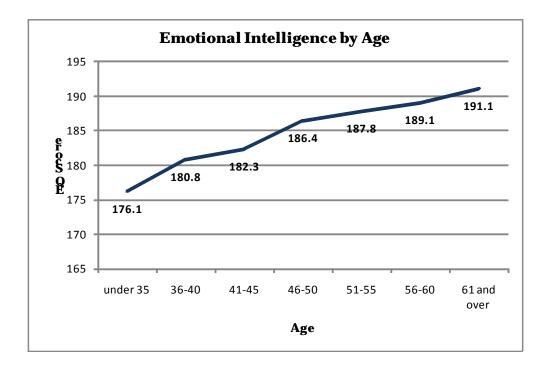
will show a link between assessment scores and other measurable criteria such as performance and well-being.

Further analyses on the Emotional Intelligence Assessment are described below. The level of emotional intelligence was compared by role. As expected, mentors have higher emotional intelligence as compared to mentees.

Emotional Intelligence by Role

Category	Mentee	Mentor
Intrapersonal EQ*	99.8	113.4
Interpersonal EQ*	68.4	76.6
Emotional Intelligence*	168.3	190.1

Emotional Intelligence by Role

Category	Mentee	Mentor
Self-Awareness*	31.1	34.5
Self-Regulation*	31.7	37.5
Motivation*	37.0	41.4
Empathy*	36.0	40.0
Social Skills*	32.5	36.6

* denotes significance at .05

Similarly, emotional intelligence, as measured by the Emotional Intelligence Inventory, increases with age. The sharpest increase in EQ is under the age of 50. Other researchers have also found this phenomenon (Goleman, 1995).

Emotional Intelligence by Age

Convergent and discriminant validity provide evidence for construct validity and can be established by correlating EQ scales and subscales with personality scores. The results of such analyses are shown below. The personality assessment used for the analysis was the EQmentor Personality Inventory.

It was expected that emotional stability would have a stronger relationship with self-regulation than any other EQ component. It was expected that conscientiousness would have a stronger relationship with motivation than any other EQ trait. It was expected that agreeableness would have a strong relationship with empathy. It was expected that extraversion would have a strong relationship with social skills.

There were no expectations for particularly strong relationships between self-awareness and a personality trait or for openness and an EQ trait. Analyses show the correlation coefficients are as expected, providing evidence for convergent validity.
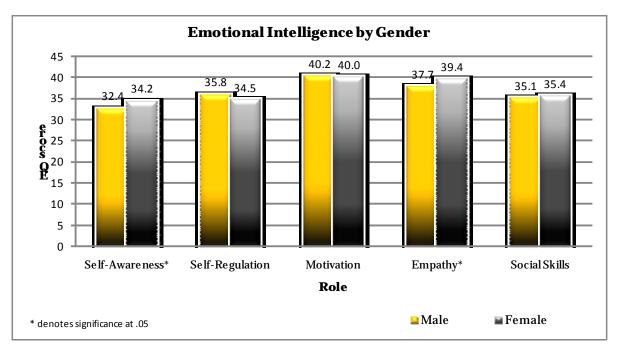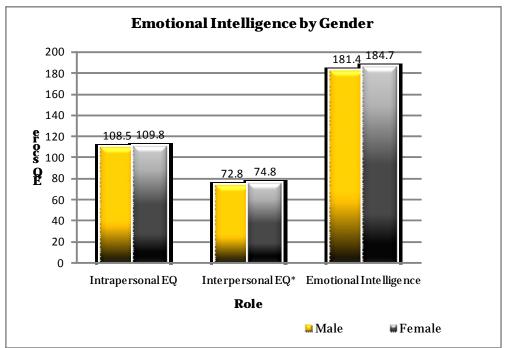
Emotional Intelligence/Personality Correlations					
	Extraversion	Agreeableness	Conscientiousness	Emotional Stability	Openness
Self-Awareness	.331*	.591*	.324*	.352*	.454*
Self-Regulation	.175*	.429*	.350*	.665*	.383*
Motivation	.351*	.430*	.417*	.455*	.448*
Empathy	.298*	.723*	.292*	.305*	.465*
Social Skills	.593*	.566*	.331*	.425*	.467*
*Correlation is significant at the .05 level					

For comparison, inter-correlations of subscales within the EQ Assessment are show below:

Emotional Intelligence Inter-correlations					
	Self-Awareness	Self-Regulation	Motivation	Empathy	Social Skills
Self-Awareness	1	.439*	.577*	.666*	.605*
Self-Regulation	.439*	1	.656*	.444*	.517*
Motivation	.577*	.656*	1	.499*	.615*
Empathy	.666*	.444*	.499*	1	.637*
Social Skills	.605*	.517*	.615*	.637*	1

Females are more likely to display a higher amount of overall emotional intelligence, interpersonal emotional intelligence, intrapersonal emotional intelligence, empathy, and self-awareness than males (p<.05), although the difference is small. There are no gender differences in self-regulation, motivation, or social skills.
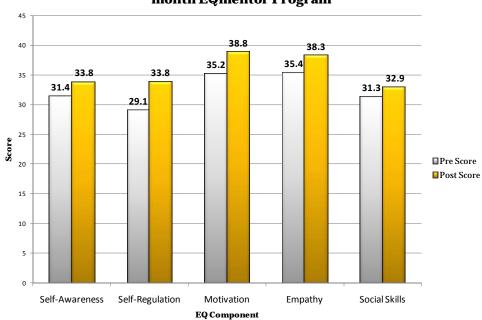
Emotional Intelligence by Gender

Male: Self-Awareness* 32.4, Self-Regulation 35.8, Motivation 40.2, Empathy* 37.7, Social Skills 35.1
Female: Self-Awareness* 34.2, Self-Regulation 34.5, Motivation 40.0, Empathy* 39.4, Social Skills 35.4

EQ Scores / Role

* denotes significance at .05

Male   Female

Emotional Intelligence by Gender

Male: Intrapersonal EQ 108.5, Interpersonal EQ* 72.8, Emotional Intelligence 181.4
Female: Intrapersonal EQ 109.8, Interpersonal EQ* 74.8, Emotional Intelligence 184.7
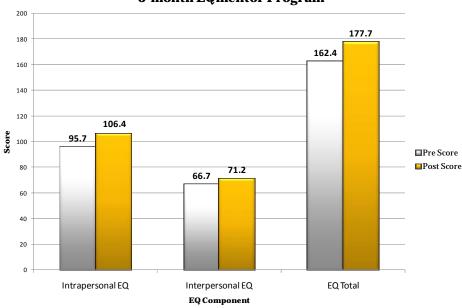
EQ Scores / Role

Male   Female

Further evidence for validity is demonstrated by the post-intervention improvement in scores. This is a different concept than test-retest reliability, as an intervention variable (EQ improvement program) was applied between the two administrations of the assessment. Thus, scores were expected to increase. Analyses show that the hypothesis was correct.

Average Increase in EQ competencies as a result of 6-month EQmentor Program

Average Increase in Emotional Intelligence as a result of 6-month EQmentor Program

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