

# Changes in Emotional Intelligence: A Test-Retest of the MSCEIT

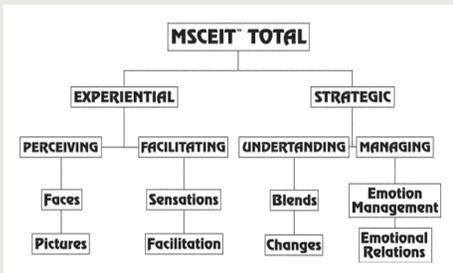
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## Background

First published a decade ago, the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) is an ability-based test of inter- and intra- personal skills that has generated much discussion concerning its psychometric qualities.

Four mental abilities constitute the EI construct of Mayer, Salovey, and Caruso (1997): (1) perceiving emotion, (2) using emotion, (3) understanding emotion, and (4) managing emotions.



## Rationale

The test-retest reliability of the MSCEIT subscales is not known. Dozens of published studies have reported MSCEIT data yet only one, Brackett & Mayer (2003), has included test-retest reliability for non-clinical populations, and this was only for the total score ( $r = .86$ ). Also, we found no published reports examining whether the MSCEIT is subject to practice effects. Do people perform better the second time they take it?

## Methods

Data were collected from 182 participants: 112 females and 70 males. Ages ranged from 18 to 54 with an average of 22.1 years. Most identified as Caucasian (78%) and with English as their first language (86%).

Participants took the MSCEIT nine weeks apart while enrolled in a psychological assessment practicum for academic credit. During the intervening weeks participants participated in activities, and completed measures, that were related to the interpersonal sensitivity construct. Expert scoring system was used for analysis.

## Results

- Test-retest reliability for the total score was comparable to previous reports, but the range in reliabilities across subtests was higher than expected (Table 1).
- Across both time periods, women outperformed men ( $t(180) = -3.38, p = .001$ ) (Table 2). Gender did not moderate the improvement over time.
- Performance increased significantly over the 10 week period ( $F(1, 180) = 4.24, p < 0.05, r = 0.15$ ) (Table 3).

Distribution of EIQ Change Scores (Time2 – Time1)

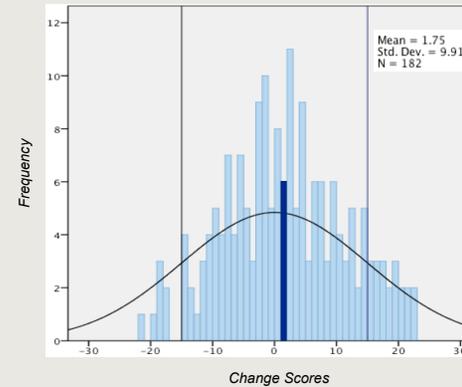


Table 1  
Test-Retest Reliability

Section	$r^*$
MSCEIT Total	.76
Experiential	.70
Perceiving Emotions	.69
Faces (A)	.61
Pictures (E)	.70
Facilitating Thought	.55
Facilitation (B)	.54
Sensations (F)	.46
Strategic	.67
Understanding Emotions	.68
Changes (C)	.59
Blends (G)	.58
Managing Emotions	.54
Emotion Management (D)	.51
Emotional Relations (H)	.45

\* Pearson's correlation coefficient, all correlations  $p < .00$

Table 2  
MSCEIT Scores by Gender

Section	Females (n = 112)	Males (n = 70)	Diff (f-m)
MSCEIT Total	105.5	98.8	6.74***
Experiential	104.2	99.3	4.91*
Perceiving Emotions	103.6	101.0	2.57
Faces (A)	104.3	101.8	2.54
Pictures (E)	101.3	99.9	1.43
Facilitating Thought	103.4	96.5	6.87***
Facilitation (B)	103.0	97.9	5.05*
Sensations (F)	101.3	96.3	4.94**
Strategic	105.4	99.2	6.26***
Understanding Emotions	105.3	102.6	2.76
Changes (C)	108.1	104.9	3.23
Blends (G)	102.1	100.5	1.65
Managing Emotions	103.3	95.7	7.65***
Emotion Management (D)	103.3	97.5	5.79***
Emotional Relations (H)	102.5	95.3	7.18***

\*  $p < .05$   
\*\*  $p < .01$   
\*\*\*  $p < .001$

Table 3  
MSCEIT Scores by Time

Section	Pre	Post	Diff (post-pre)
MSCEIT Total	102.0	103.8	1.76*
Experiential	101.8	102.9	1.13
Perceiving Emotions	102.1	103.1	0.96
Faces (A)	102.0	104.7	2.77**
Pictures (E)	102.0	99.6	-2.45**
Facilitating Thought	100.5	101.1	0.63
Facilitation (B)	100.3	101.8	1.46
Sensations (F)	99.5	99.8	-0.37
Strategic	102.0	104.0	1.97*
Understanding Emotions	103.0	105.5	2.51**
Changes (C)	106.4	107.4	0.98
Blends (G)	99.9	103.0	3.11***
Managing Emotions	100.1	100.7	0.57
Emotion Management (D)	100.5	101.6	1.07
Emotional Relations (H)	99.7	99.7	0

\*  $p < .05$   
\*\*  $p < .01$   
\*\*\*  $p < .001$

## Conclusions

- Test-retest reliability of the TOTAL score was similar to that published by Brackett & Mayer (2003), but some of its subscores showed extremely low test-retest reliability.
- Consistent with previous research, females performed better than men (e.g., Brackett, Mayer, and Warner, 2004).
- The increase in Understanding Emotions ability was unexpected but intriguing given that participants were engaged in interpersonal sensitivity related activities between test administrations. The gain in performance may have resulted from simply increasing general cognitive activity relevant to psychological and interpersonal content.
- The data here leads us to predict that, like any other cognitive activity, practice may improve the processing of emotional information.

## References

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