

A SYNTHESIS OF RECENT STUDIES OF EMOTIONAL MANAGEMENT

Richard D. Roberts

Center for Innovative Assessments ProExam

New York, USA

rroberts@ets.org

Abstract

This project shows a new method of measuring emotional intelligence using Situational Judgment Test of Emotional Management (STEM). The author gives examples of different tasks designed for various subjects. The author also offers the meta-analysis of emotional intelligence, personality, and cognitive ability.

Key words: emotional intelligence, emotional management, STEM.

Overview

1. Assumptions
2. Meta-analysis of maximum performance emotional intelligence
3. Five studies examining emotional management, in each case assessed using the situational judgment test method
4. Summary

Assumptions

Emotional intelligence (EI) is appropriately measured by maximum performance, like all other human cognitive abilities. Self-report measures of “EI” are redundant with Big Five personality traits. There are various primary mental abilities of emotional intelligence (Carroll-Horn-Cattell model) [1]. This article focuses on one of these: Emotional Management. This construct appears predictive, useful, and

malleable for a range of applications in education, workforce, clinical psychology, etc.

Meta-Analysis: EI and Cognitive Ability

	Total	Perception	Facilitation	Understand	Managing
<i>g</i>	.30 <i>k</i> = 21	.10 <i>k</i> = 20	.14 <i>k</i> = 15	.35 <i>k</i> = 18	.16 <i>k</i> = 19
Gf	.23 <i>k</i> = 6	.07 <i>k</i> = 9	.05 <i>k</i> = 7	.14 <i>k</i> = 7	.10 <i>k</i> = 8
Gc	.31 <i>k</i> = 12	.09 <i>k</i> = 14	.12 <i>k</i> = 11	.37 <i>k</i> = 13	.17 <i>k</i> = 15

Figure 1. Meta-Analysis: EI and Cognitive Ability. (Roberts et al., 2008)[2]

Meta-Analysis: EI and Personality

	Total	Perception	Facilitation	Understand	Managing
Openness	.12 <i>k</i> = 20	.02 <i>k</i> = 16	.08 <i>k</i> = 14	.15 <i>k</i> = 15	.14 <i>k</i> = 16
Conscientious	.06 <i>k</i> = 21	.03 <i>k</i> = 18	.06 <i>k</i> = 16	.06 <i>k</i> = 17	.11 <i>k</i> = 18
Extraversion	.04 <i>k</i> = 20	.01 <i>k</i> = 17	.04 <i>k</i> = 15	.02 <i>k</i> = 16	.10 <i>k</i> = 17
Agreeableness	.18 <i>k</i> = 19	.08 <i>k</i> = 15	.12 <i>k</i> = 13	.10 <i>k</i> = 14	.23 <i>k</i> = 15
Neuroticism	-.09 <i>k</i> = 20	-.08 <i>k</i> = 17	-.08 <i>k</i> = 15	-.07 <i>k</i> = 16	-.07 <i>k</i> = 17

Figure 2. Meta-Analysis: EI and Personality. (Roberts et al., 2008)[2]

Situational Judgment Test of Emotional Management (STEM)

‘Anna has been overseas for a long time and returns to visit her family. So much has changed that Anna feels left out. What action would be the most effective for Anna?’

- a. Nothing, it will sort itself out soon enough
- b. Tell her family she feels left out
- c. Spend time listening and getting involved again
- d. Reflect that relationships can change over time

The Studies

All involve the STEM (or a variant).

- **Study 1:** Psychology grades and a measure of alexithymia (N = 207);
- **Study 2:** Psychological well-being by diary and by self-report (N = 127)
- **Study 3:** Multimedia STEM, cognitive ability, personality, and valued outcomes (N = 726);
- **Study 4:** Multimedia STEM and ratings of teachers in the classroom (N = 381);
- **Study 5:** Culinary STEM (N = 301).

Study 1: STEM and Psychology Grades

Table 1.

STEM and Psychology Grades

Construct	Correlation (raw) with STEM	
TAS-20 (Externally-Oriented Thinking)	-. 36**	(-. 32**)
Psychology Grade (Actual)	. 26**	(. 18)

Values in brackets are correlations with vocabulary partialled-out. (MacCann & Roberts, 2008)[3]

Study 2: Background

- Day Reconstruction;
 - Report on three episodes that occurred yesterday:
 - Waking until noon;
 - Noon until 6:00;
 - 6:00 until bedtime;

- What they did? Who they were with? How they felt while doing it (e.g., tired, happy, etc)?

Affect = average of positive items – average of negative items (Kahneman et al., 2009) [4]

- Scales of Psychological Well-Being (Ryff, 1989)[5]
 - 42 items; example: “In general, I feel confident and positive about myself.”

Activity	%	Average Hours	Affect	r w/ SPWB	r w/ STEM
Entertainment	33%	1.76	4.00	.53	.48
Socializing	40%	1.96	3.72	.45	.34
Eating	85%	0.82	3.53	.44	.02
Computer	17%	2.06	3.41	.33	.14
Watching TV	33%	1.60	3.32	.38	-.16
Sports	34%	1.55	2.78	.36	.14
Sleep	34%	2.37	2.69	.50	.00
Getting Ready	55%	0.73	2.36	.44	.07
Working	33%	3.27	2.29	.71	.06
Commuting	22%	0.73	2.19	.43	.33
Class	74%	1.56	1.85	.41	.06
Homework	68%	2.12	1.30	.42	.27

Figure 3. Study 2: Background

Study 3: Background

- Rationale: Examine nomological network and validity
- Sample: N = 726 (59 % Female, 2 and 4 year colleges)
- Multivariate Design:
 - Multimedia STEM;
 - 15 cognitive measures;
 - Five Factor Model of personality (525 items);
 - Measures of affect (emotion perception, MSCEIT, self-report EI, emotional processing);
- Outcomes: GPA, Engagement, Life Satisfaction.

Study 3: Findings

- Acceptable internal consistency reliability: Alpha = .67;

- Acceptable model fit: Satorra-Bentler $\chi^2 = 377.27$, $df = 349$, $p = .14$; CFI = .99; RMSEA = .01;
- High correlations with MSCEIT ($r=.51$), lower with DANVA ($r = .30$);
- High correlations with Gc ($r=.52$), but low correlations with Gq ($r=.26$);
- Moderate correlations with Agreeableness ($r=.30$) and Openness ($r=.32$), near zero for other BFFs;
- High correlation with GPA for two-year colleges ($r=.43$), weaker for four-year colleges ($r=.17$);

Study 4: Background

- Sample: 381 teachers (67% female);
- Predictor Variable: 6 multiple-choice items from SJT;
- Criterion Variable: Categorical performance rating; focus on 3 main categories;

		% in Sample
on-track	Solid progress towards major goals & on pace to achieve goals	33.3 %
within reach	Some progress towards major goals, but not on pace to achieve goals; extra effort/coaching needed	36.7 %
off-track	No sufficient progress towards major goals, not on pace to achieve goals; significant improvement necessary	29.9 %

Figure 4. Criterion Variable

Study 4: Findings

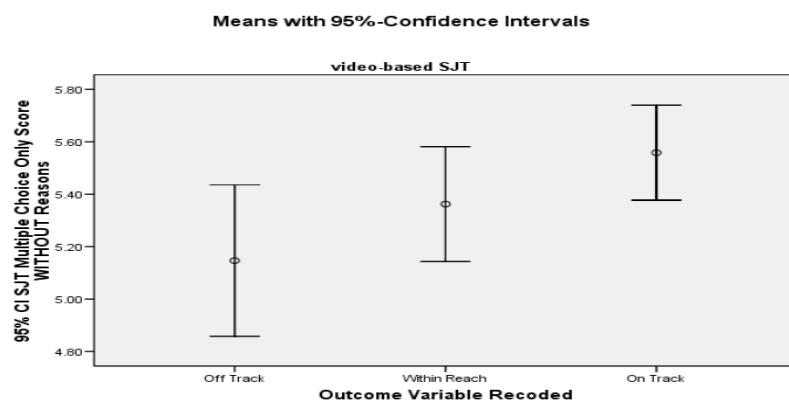


Figure 5. Study 4: Findings.

Culinary STEM

‘It is a busy Saturday night and you have carefully prepared the ingredients for tonight’s special, the filet mignon. Close to opening you wish to finish up the preparation by cutting the filets. But instead of the whole filet, there is just a bowl of ground beef. One of the kitchen staff has used the filet for ground beef. You are not sure if you have more filets left for your special. What would you do in this situation?’

- Fire him/her right away.
- He/she is obviously not good enough. Exclaim your anger very loudly and in colorful language in front of your colleagues.
- Speak to him/her about this mistake after the work is done and then explain to him/her how important good preparation is
- Speak to him/her after all dishes are finished and fire him/her
- Send him/her home for the night. Talk to him/her about kitchen rules the next day.

Study 5

- Students enrolled in The Culinary Institute of America (N =301);
- Measures: Culinary STEM, Big Five, Stress and Coping, Life Satisfaction, and Mental Health;

Correlation	r
Agreeableness	.35
Conscientiousness	.24
Task Coping	.26
Life Satisfaction	.09
Mental Health	.12

Figure 6. Study 5.

Summary

- Psychometric properties of various forms of the STEM appear acceptable;
- These maximum performance assessments appear to be measuring a form of intelligence;
- Assessments appear to relate to a number of outcomes valued by society, including GPA, teacher outcomes, reported net affect during daily activities, etc.;
- There appears value in studying one component of emotional intelligence, rather than all components simultaneously.

References

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