

DATA RELIABILITY ANALYSIS

**Company: Assessments 24x7
Emotional Intelligence Assessment**



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EVALUATION CENTER

Assessment Standards Institute
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RENDERED TO: Assessments 24x7

PRODUCT EVALUATED: Emotional Intelligence Assessment
EVALUATION PROPERTY: DATA RELIABILITY

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2. Introduction

This document is provided as a tool for end-users of the Emotional Intelligence Assessment to allow comparisons between the Emotional Intelligence Assessment and other multi-dimensional models in the marketplace.

The Emotional Intelligence Assessment is a normative self-report assessment. Respondents rate themselves independently on each statement using a Likert-type rating scale, rather than choosing one trait at the exclusion of the others. The success of all self-report instruments depends on the insight, candor, and honesty of the respondent. We provide the essential types of statistical analysis herein and present results at the level of the main scales, where measurement reliability is strongest. Self-report instruments do not measure quantities like levels of cholesterol or blood pressure but rather qualities that individuals report about themselves.

APA Guidelines

An evaluation was conducted in accordance with the Standards for Educational and Psychological Testing, developed jointly by the American Educational Research Assn. (AERA), American Psychological Association (APA), and the National Council on Measurement in Education (NCME).

Evaluation Date

The data evaluation began on April 1, 2026, and was completed on May 4, 2026.

3. Test Data Preparation

3.1 SAMPLE SELECTION

Sample data was submitted to ASI directly from the client and were not independently selected for testing. Samples are requested to:

- Be a sufficient number to represent the general population.
- Be randomly selected.

The sample panels were received at the ASI Evaluation Center by email on March 28, 2026.

SAMPLE SIZE: N = 5,000

3.2 DATA CLEANING

Upon receipt of the samples at ASI, the data was downloaded and cleaned as follows:

1. **Missing Values** – Only 1 missing value was identified across 305,000 data points (61 items x 5,000 respondents), representing less than 0.001% of the data.
2. **Duplicates** – No duplicate entries were identified.
3. **Categorization** – Data was categorized and labeled by attribute type for the appropriate comparison.

4. Testing and Evaluation Methods

4.1 TEST STANDARDS

Analysis of the data was conducted using standard statistical methods. The statistical method employed was:

- Cronbach’s Alpha

Cronbach’s alpha

This technique is regarded as one of the most robust measures of reliability and presents the highest 'bar' from which to compare. Readers should note that Cronbach's alpha is the method selected by HRD Press authors and researchers for this instrument because of its high standards. The reader is encouraged to compare the reliability coefficients presented herein to other vendors and to ask those vendors which reliability formulas they used to compute their reliability coefficients.

Cronbach’s alpha is a measure used to assess the reliability, or internal consistency, of a set of scale or test items. In other words, the reliability of any given measurement refers to the extent to which it is a consistent measure of a concept, and Cronbach’s alpha is one way of measuring the strength of that consistency.

Cronbach’s alpha is computed by correlating the score for each scale item with the total score for each observation (usually individual survey respondents or test takers) and then comparing that to the variance for all individual item scores:

$$\alpha = \left(\frac{k}{k-1} \right) \left(1 - \frac{\sum_{i=1}^k \sigma_{y_i}^2}{\sigma_x^2} \right)$$

...where: k refers to the number of scale items

$\sigma_{y_i}^2$ refers to the variance associated with item i

σ_x^2 refers to the variance associated with the observed total scores

Cronbach's alpha is thus a function of the number of items in a test, the average covariance between pairs of items, and the variance of the total score.

The resulting alpha coefficient of reliability ranges from 0 to 1 in providing this overall assessment of a measure's reliability. If all of the scale items are entirely independent of one another (i.e., are not correlated or share no covariance), then $\alpha = 0$; and, if all of the items have high covariances, then alpha will approach 1 as the number of items in the scale approaches infinity. In other words, the higher the alpha coefficient, the more the items have shared covariance and probably measure the same underlying concept.

Although the standards for what makes a "good" alpha coefficient are entirely arbitrary and depend on your theoretical knowledge of the scale in question, many methodologists recommend a minimum alpha coefficient between 0.70. Alpha coefficients that are less than 0.7 are usually unacceptable.

Researchers generally use the following guidelines to assess the data and help them interpret test-retest reliability coefficients:

- Coefficients below 0.70 are considered suspect, **Questionable**
- Coefficients above 0.70 to 0.80 are considered **Acceptable**
- Coefficients above 0.80 to 0.90 are considered **Very Good**
- Coefficients above 0.90 to 1.00 are considered **Excellent**

5. Testing and Evaluation Results

Cronbach's Alpha Reliability: Table 1

Source	Scale	Alpha	95% CI	N
A24x7	Self-Awareness	0.83	[0.82, 0.84]	5,000
A24x7	Self-Management	0.87	[0.86, 0.88]	5,000
A24x7	Relationship Awareness	0.88	[0.87, 0.88]	5,000
A24x7	Relationship Management	0.84	[0.83, 0.85]	5,000
A24x7	Total EI Composite	0.95	[0.95, 0.95]	5,000
	Composite Mean (scales)	0.86		

Descriptive Statistics: Table 2

Scale	Mean	STDEV	Median	N
Self-Awareness	47.08	6.16	47.00	5,000
Self-Management	73.38	8.22	73.00	5,000
Relationship Awareness	57.49	6.63	57.00	5,000
Relationship Management	67.29	7.65	67.00	5,000
Total EI	245.23	25.42	244.00	5,000

6. Conclusions

The data submitted for evaluation passed all acceptable standards and was therefore awarded ASI Certification.

Certified
May 4, 2026



7. Document Review

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