


CONSTRUCT VALIDITY ANALYSIS

Company: Assessments 24x7
Product: DISC Assessment



Certified: September 9, 2024
Expires: January 1, 2030



REPORT NUMBER: A247- VAL - 240909
ORIGINAL ISSUE DATE: September 09, 2024

EVALUATION CENTER
Assessment Standards Institute
5865 Ridgeway Center Parkway, S-300
Memphis, TN 38120

RENDERED TO

Assessments 24x7
San Diego, CA

PRODUCT EVALUATED: DISC Assessment
EVALUATION PROPERTY: CONSTRUCT VALIDITY

© 2024 ASI – All rights reserved. This document is provided to the named company for their organizational use. If this was provided to your organization by someone other than the above listed, it is a violation of copyright protection to further distribute this document outside of your organization.

1. Table of Contents

2. Table of Contents	3
3. Introduction	4
4. Test Data Preparation	5
5. Testing and Evaluation Method	6
6. Testing and Evaluation Results	8
7. Conclusions	10
8. Document Review	10

2. Introduction

This document is provided as a tool for end-users of the Assessments 24x7 DISC Assessments to allow comparisons between the Assessments 24x7 Assessment and other multi-dimensional models in the marketplace.

Most psychometric instruments are *ipsative* in design. That is, they are self-report inventories that measure *qualities* (traits) as individuals perceive those traits within themselves, and they ask the respondent to choose one trait at the exclusion of the others. This is done via either/or, most/least, or rank-order responses to the instrument. The result is *not* an absolute set of scores that would easily fit in a normative field but rather a *relative* set of scores that applies to an individual's self-perception. The success of all self-report instruments depends on the insight, candor, honesty, and insight of the respondent. We will provide the essential types of statistical analysis herein, and we caution the reader to be aware of over-analyzing ipsative data. Some companies produce many pages of tables applying normative statistical rules to ipsative data, and we caution the reader to be aware of this. 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 Dates

The data evaluation began on September 3, 2024, and was completed on September 9, 2024.

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 August 28, 2024.

SAMPLE SIZE: N = 10,000

3.2 DATA CLEANING

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

1. **Missing Values** – There were no missing values.
2. **Duplicates** – Duplicate entries were removed.
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:

- **Construct Validity**

Cronbach's alpha

Construct validity is one of the most central concepts in psychology. It is the degree to which a test measures what it claims, or purports to be measuring. Researchers generally establish the construct validity of a measure by correlating it with a number of other measures and arguing from the pattern of correlations that the measure is associated with these variables in theoretically predictable ways.

Overall, it is the appropriateness of inferences made on the basis of observations or measurements (often test scores), specifically whether a test measures the intended construct. Constructs are abstractions that are deliberately created by researchers in order to conceptualize the latent variable, which is correlated with scores on a given measure, although it is not directly observable). Construct validity examines the question: Does the measure behave like the theory says a measure of that construct should behave?

Correlations

The purpose of a correlation is to display the level of correspondence or *co-relationship* between two variables. An item or trait correlated against itself yields a perfect correlation of 1.0—that's as high as the scale goes. A completely opposite correlation yields a coefficient of -1.0, which is a perfect inverse or negative correlation. Scores with no co-relationship show a correlation coefficient at or near zero.

All correlations follow a spectrum of scores beginning at +1.0, passing through zero, and ending at -1.0. The closer a correlation is to zero, the lower the correlation. The more a correlation coefficient moves away from zero, in either direction, the stronger the correlation becomes. The more a correlation coefficient approaches +1.0 or -1.0, the stronger the correlation becomes.

The reader should note that there is no agreed-upon table in the world of statistics that 'grades' a correlation as weak or strong in absolute, definitive terms. As a result, specific commentary by a field of researchers may vary with regard to what they consider to be 'strong' or 'weak' correlations. The team of scientists at ASI have selected to establish the criteria (plus or minus) as posted below.

- 0.00 – 0.19 “Very Weak”
- 0.20 - 0.39 “Weak”
- 0.40 - 0.59 “Moderate”
- 0.60 - 0.79 “Strong”
- 0.80 - 1.00 “Very Strong”

Other statisticians may present divergent opinions based on their own scientific observations and training.

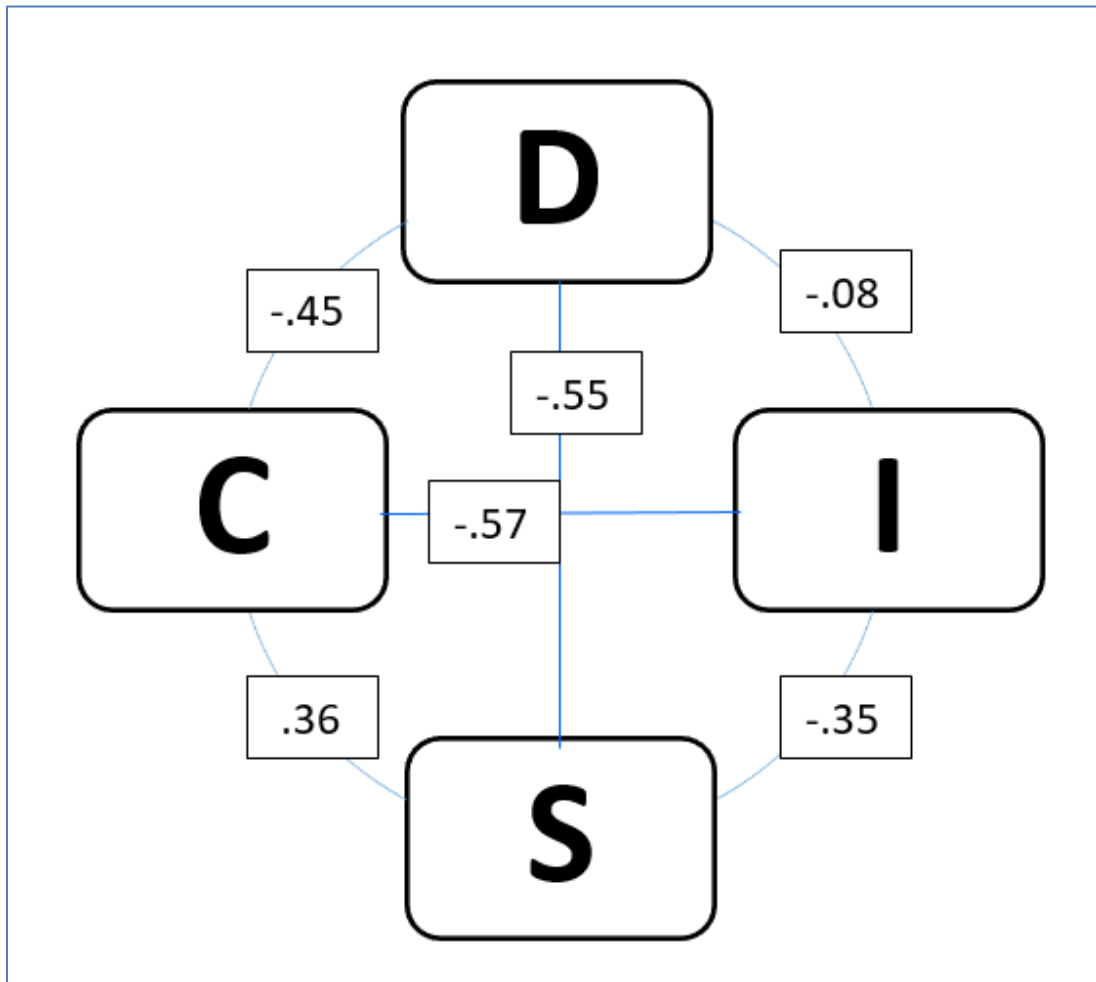
5. Testing and Evaluation Results

Description The DISC model for construct validity proposes that opposite scales (e.g., D and S or I and C) should have strong negative correlations and moderate positive or negative correlations to adjacent scales (e.g., D and I). In this evaluation, the primary measure is the negative correlation of opposite scales. The correlations among the six scales shown in the composite table and graph below support the general model for DISC construct validity. That is, strong negative correlations are observed between the opposite measures of Dominance & Steadiness as well as strong negative correlations between the attributes of Influencing & Conscientious.

Pearson’s Correlation Coefficients: Table 1

	Dominance	Influencing	Steadiness	Conscientious
Dominance	1.00			
Influencing	-0.08	1.00		
Steadiness	-0.55	-0.35	1.00	
Conscientious	-0.45	-0.57	0.36	1.00

Cross-lagged Correlation: Graph 1



6. Conclusions

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

Certified
September 9, 2024



7. Document Review

ASI TESTING SERVICES

Reported by: ***Russel J. Watson***
Russel J. Watson, Ed.D.
Chief Technical Officer

Examined by: ***Dennis W. Koerner***
Dennis W. Koerner, Ph.D.
Chief Compliance Officer