REPORT NUMBER: TC-COLORS-VAL-190814
ORIGINAL ISSUE DATE: June 25, 2021

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

RENDERED TO

True Colors International
Santa Ana, CA

PRODUCT EVALUATED: True Colors Assessment
EVALUATION PROPERTY: CONSTRUCT VALIDITY

© 2021 ASI – All rights reserved. This document is provided to 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

1. Table of Contents 2
2. Introduction 3
3. Test Data Preparation 4
4. Testing and Evaluation Method 5
5. Testing and Evaluation Results 6
6. Conclusions 9
7. Document Review 9

© 2021 ASI – All rights reserved. This document is provided to 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.

2. Introduction

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

The True Colors Assessment, and most similar 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. The True Colors assessment is not a *quantitative* measure (like levels of cholesterol or blood pressure), but rather measures *qualities* that an individual report about themselves.

APA Guidelines

Evaluation of the respondent data 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

- Data evaluation began June 7, 2021.
- Data evaluation was completed on June 25, 2021.

© 2021 ASI – All rights reserved. This document is provided to 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.

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 accurately represent the general population.
- Be randomly selected.

The sample panels were received at the ASI Evaluation Center by email on June 3, 2021.

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. **Data Transformation** – Data was transformed using appropriate methods as necessary for comparison and use in statistical equations.

© 2021 ASI – All rights reserved. This document is provided to 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.

4. Testing and Evaluation Methods

TEST STANDARDS

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

- Construct Validity

Construct Validity

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 or 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, and that's a perfect inverse or negative correlation. Scores that have no co-relationship at all, show a correlation coefficient at or near zero.

© 2021 ASI – All rights reserved. This document is provided to 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.

That is, 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 as posted in this document. Other statisticians may present divergent opinions based on their own scientific observations and training.

Cross-lagged Panel Analysis

The cross-lagged panels on the following pages show the correlations of the variables measured in an at-a-glance method of comparison for the reader. This is the same data as in the correlation tables but shows a model by which the reader may observe the relationships in a graphical representation.

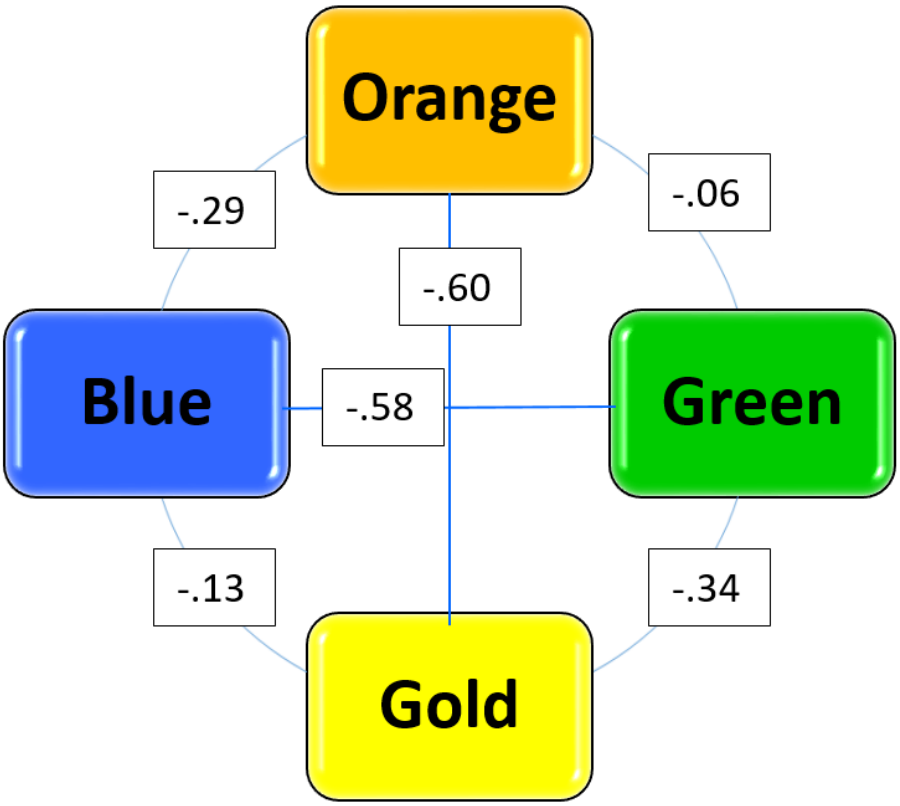
5. Testing and Evaluation Results

Pearson's Correlation Coefficients, COLORS Interactions: Table 1

	ORANGE	*GOLD*	*GREEN*	*BLUE*
ORANGE	1			
GOLD	-0.599	1		
GREEN	-0.056	-0.339	1	
BLUE	-0.287	-0.134	-0.582	1

© 2021 ASI – All rights reserved. This document is provided to 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.

Cross Lagged Correlation: COLORS: Chart 1



The above chart is a visual representation of the data in Table 1 on the prior page. This provides at-a-glance relationship information between the four True Colors themes.

© 2021 ASI – All rights reserved. This document is provided to 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.

Description

The True Colors model for construct validity proposes that opposite scales for the four colors: Gold, Orange, Green and Blue should have strong negative correlations and moderate positive or negative correlations to adjacent scales. In this evaluation the primary measure is the negative correlation of opposite scales. The correlations among the four scales shown in the composite table and graph above support the general model for acceptable construct validity. That is, strong negative correlations are observed between the opposite measures.

© 2021 ASI – All rights reserved. This document is provided to 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.

6. Conclusions

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

Certified
June 25, 2021

7.Document Review

ASI TESTING SERVICES

Signed: *Russell J. Watson, Ed.D.*

Chief Psychologist

Signed: Dennis W. Koerner, Ph.D.

Chief Technical Officer

© 2021 ASI – All rights reserved. This document is provided to 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.