

# Technical Summary

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Ideal Traits enlisted Industrial Organizational Psychology graduate students from Central Michigan University to conduct a third-party evaluation of the reliability and validity for their Ideal Traits Online Personality Assessment.

Reliability can be thought of as the consistency of an assessment's outcomes. Personality traits, which this assessment measures, are thought to be stable throughout a person's life. Thus, an individual's score on a personality assessment should not vary greatly over time.

Validity is evidence that an aspect of personality can predict specific behavioral outcomes. In this case, it is how a personality trait indicates if an applicant would be a great fit for a job, like a sales person or customer service representative. A common method of establishing validity is by comparing the outcomes of one personality assessment with another that measures a similar trait.

This study assessed reliability and validity of Ideal Traits Online Personality Assessment, specifically the four personality dimensions of the Ideal Traits assessment: Motivation/Drive, Persuasiveness/Convincing, Structured/Routine, and Thorough/Compliant. Trends between the dimension scores and the 16 profile types were also examined. To assess validity and reliability of this assessment, data was collected at two separate points in time. A sample of 406 participants were collected at the first time point, 205 participants for the second time point, and 141 participants made up the test re-test reliability sample.

## ➤ Evidence of reliability:

- Internal consistency is a calculation of if individual test items measure the psychological trait they were designed to assess. Past research has established a result of .70 or higher as acceptable for psychological measurement.
- Internal consistency was computed for each Ideal Traits dimension. Average reliability was above suggested levels for personality testing: .73 at Time 1, and .74 at Time 2.
- Test-retest reliability was examined by comparing how similar the dimension scores were for the same participant at different time points. This report used a time lag of two weeks between assessments. Average test re-test reliability was found to be .76, which is above acceptable levels.
- Reliability for being assigned the same Ideal Traits personality profile at different time points was also assessed. This report accomplished this by calculating how many dimension scores fell within the appropriate ranges to be assigned the same profile type as the original assessment.
- This study found that 80.9% of participants matched within at least three of the four dimension score ranges needed to receive the same profile type. This percentage is comparable to other personality assessments that use personality profiles.

➤ Evidence of validity\*:

- Validity was assessed by comparing the Ideal Traits dimensions with measures of the Five Factor Model (FFM) of personality and its subcomponents. The FFM is comprised of Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness.
- Motivation/Drive refers to someone’s presence in group situations and their leadership potential.
- Motivation/Drive was positively related to Extraversion and negatively related to Agreeableness, and their subcomponents. The outcomes suggest that individuals who score highly in Motivation/Drive would be assertive, adventurous (activity), pushy with other people (warmth, gentle, and modesty), and could be irritable at times. See Table 1 for more details.

**Table 1.** Correlations between Motivation/Drive and Personality Scales

Measure	Variables	Correlation	Measure	Variables	Correlation
FFM	Extraversion	.25	A	Warmth	-.43
FFM	Agreeableness	-.51	A	Gentle	-.52
FFM	Neuroticism	.33	A	Generosity	-.33
E	Unrestraint	.26	A	Modesty	-.37
E	Assertive	.37	N	Irritability	.49
E	Activity	.31			

*Note.* N = 406. E = Extraversion subcomponents, A = Agreeableness subcomponents, N = Neuroticism subcomponents.

- Persuasiveness/Convincing refers to how well an individual interacts with others.
- Persuasiveness/Convincing was highly related to Extraversion and its subcomponents. Individuals who score high in this dimension are usually daring (activity), sociable, and are not shy when interacting with others (unrestraint). Also, they can be emotional at times. See Table 2 for more details.

**Table 2.** Correlations between Persuasiveness/Convincing and Personality Scales

Measure	Variables	Correlation
FFM	Extraversion	.66
FFM	Agreeableness	.24
E	Unrestraint	.58
E	Social	.58
E	Activity	.42
N	Emotional	.35

*Note.* N = 406. E = Extraversion subcomponents, N = Neuroticism subcomponents.

\* Numbers within ( ) are correlations. Correlations were used as a calculation of relatedness between two traits. Scores range from -1 to 1. One means that the ideas are perfectly related, as someone scores high on one trait they will also score highly on the second trait. Negative correlations denote the reversed relationship, that as someone scores high on one trait they will score low on the other. A score of zero means the two traits are unrelated.

- Structured/Routine refers to how dependable a person is regarding work assignments.
- Structured/Routine was positively related to Agreeableness and negatively related to Extraversion. Individuals high in this dimension commonly establish harmonious relationships with co-workers (warmth, gentle, generosity) and do not take the lead in group situations (assertiveness, unrestraint, and activity). Also, they can be modest and level-headed (irritability). See Table 3 for more details.

**Table 3.** Correlations between Structured/Routine and Personality Scales

Measure	Variables	Correlation	Measure	Variables	Correlation
FFM	Extraversion	-.32	A	Warmth	.37
FFM	Agreeableness	.46	A	Gentle	.47
FFM	Neuroticism	-.33	A	Generosity	.26
E	Unrestraint	-.30	A	Modesty	.37
E	Assertive	-.39	N	Irritability	-.44
E	Activity	-.33			

*Note.* N = 406. E = Extraversion subcomponents, A = Agreeableness subcomponents, N = Neuroticism subcomponents.

- Thorough/Compliant refers to an individual's attention to detail.
- Thorough/Compliant was positively related to Conscientiousness and highly negatively related to Extraversion. Individuals who score highly in this dimension are usually orderly, modest, and emotionally stable. Also, they can be reserved in group situations (unrestraint, activity, and assertive). See Table 4 for more details.

**Table 4.** Correlations between Thorough/Compliant and Personality Scales

Measure	Variables	Correlation	Measure	Variables	Correlation
FFM	Extraversion	-.70	E	Activity	-.48
FFM	Conscientious	.25	A	Modesty	.31
E	Social	-.49	C	Order	.26
E	Unrestraint	-.67	N	Emotional	-.27
E	Assertive	-.29			

*Note.* N = 406. E = Extraversion subcomponents, A = Agreeableness subcomponents, C = Conscientious subcomponents, N = Neuroticism subcomponents.

- Broadly, evidence of validity was found between the Ideal Traits dimensions and the Five Factor Model, particularly with Extraversion and its subcomponents.

- Initial evidence of validity for the Ideal Traits personality types:
- The recommended profile types for sales, customer service, and administrative positions followed a logical combination of dimension scores. For example, a Nurturer profile type possess medium to high Structured/Routine and high Persuasiveness/Convincing scores. This supports the idea that individuals in customer service or administrative positions can maintain positive interactions with clients as well as conform to organizational policy or reporting structure.
  - Motivation/Drive and Structured/Routine were found to have a strong negative correlation (-.75). This suggests that individuals who score high in Motivation/Drive would not score highly in Structured/Routine, as well as the reverse situation. A similar relationship was found between Persuasiveness/Convincing and Thorough/Compliant (-.73).
  - The strong negative correlation scores between dimensions suggest that some combinations of personality dimensions would be uncommon. The dimension score ranges were reviewed for each personality type to identify which types would be less likely to occur.
  - The Engineer, Independent, Networker, and Research types require applicants to score either high or low in both Motivation/Drive and Structured/Routine. Thus, the findings of this report predict that these profile types would be less prevalent than other types.
  - The Competitor, Knowledgeable, and Persistent types require applicants to score either high or low in both Persuasiveness/Convincing and Thorough/Compliant. The strong negative correlation predict that these profile types would be less prevalent than other types.

Ideal Traits Online Personality Assessment shows evidence of reliability and validity. This report found that the dimension measures possessed a sufficient level of internal consistency, well within the expectations for psychological measurement. The dimension scores were also found to be reliable with a time lag of two weeks between administrations. Evidence of reliability for type assignment was comparable to other popular personality assignments that utilize a typology. Evidence of validity was achieved between the Ideal Traits dimensions and the FFM traits and its subcomponents. There were several instances of Ideal Trait dimension scores correlating with FFM traits in expected directions, especially with Extraversion.