



TruTalent™

Learning & Productivity

Statistical Analysis

Contents

Contents.....	2
Introduction.....	3
Consistency Score.....	3
Instrument Comparison	3
Instrument Evolution.....	3
Table 1: Reliability and Standard Error for 2012.....	5

Introduction

TruTalent™ Learning & Productivity surveys individual preferences in each of 16 specific areas. Developed using a content and factor analysis (Price, et al., 1976, 1977), TruTalent Learning & Productivity is a comprehensive approach to the identification of how an individual prefers to function, learn, concentrate, and perform when learning or working in the following areas:

- a) **Environment** (Intake, Time of Day, Mobility, Sound, Temperature, Light, and Physical Setting)
- b) **Sensory** (Auditory, Kinesthetic, Tactile, and Visual Learning)
- c) **Mindset** (Focus, Structure, Collaborative or Independent, Authority Motivation, and Self-Motivation)

Questions concerning each of the 16 areas are presented. Responses to these questions tend to reveal personalized preferences that, when identified as relevant areas, represent the way in which the individual prefers to study or concentrate.

Consistency Score

A consistency score is calculated for individuals based on their responses to questions that are repeated throughout the Inventory. The higher the consistency score, the greater confidence can be placed in interpreting the individual's profile. For the profile results to be reliable, the individual should have a consistency score of at least 70%, indicating that responses to 70% of the item pairs were in agreement. If the consistency score falls below 70%, the counselor or career professional should discuss the profile with the individual, indicating that the results may not be reliable, and suggest that they should concentrate carefully and retake the Inventory. A low consistency score could mean many things, including lack of motivation, inability to concentrate, or lack of interest. It also may indicate a limited attention span or a lack of self-awareness. The possibilities need to be explored in detail with the individual, since a low consistency score reflects one of the problems listed above and is not necessarily an indicator of either high or low ability.

Instrument Comparison

In a comparative analysis of learning style conceptualizations and psychometric analyses of nine different instruments which purportedly measure learning style instructional preference, the TruTalent Learning & Productivity was the only one rated as having good or very good reliability and validity (Curry, 1987). TruTalent Learning & Productivity is an easy-to-administer, and interpret, inventory.

Instrument Evolution

The 1984, 1985, 1986, 1990, 1996, 2003, 2005 and 2012 revisions of the TruTalent Learning & Productivity incorporated several changes and improvements. The analyses included a determination and elimination of the items that were confusing, could be interpreted in different ways, or were not clear in their assessment of the defined areas. Those changes improved the items' discriminating ability and permitted greater flexibility on the part of the respondents. One change was the rewording of the

items to increase clearness and improve reliability. The most recent reliability scores are shown in Table 1 below.

The 2012 revision of the TruTalent Learning & Productivity instrument removed six areas from the 1996 version of the instrument. The two preferences with the lowest reliability scores were removed: Late Morning (.56) and Afternoon (.66), as well as Authority Figures Present, and Responsibility. Reliability and Validity

Research in 2012 indicated that 69% (11 out of 16) of the reliabilities (Table 1) are equal to or greater than .75 for the Likert scale English translation in college. The areas with the highest reliabilities include: Time of Day (evening/morning), requires Intake, Auditory, Authority-Motivated, Mobility, Sound, Tactile, Light, Structure, Learning Alone/Peer-Oriented Learner, and Visual. The areas with lower reliabilities include: Motivation, Kinesthetic Preferences, Design, Temperature, and Persistence. Overall, there has been a significant improvement in terms of the reliabilities for the TruTalent Learning & Productivity subscales based on the Likert scale. This reliability analysis was based on 1,868 randomly selected subjects in college who took the 2005 instrument.

Table 1: Reliability and Standard Error for 2012

Likert Scale in English, N=1868, College

Area	Reliability (Cronbach's Alpha)	Standard Error
Noise Level (quiet or sound)	0.82	1.90
Light (dim or bright)	0.80	1.46
Temperature (cool or warm)	0.71	1.69
Design (informal or formal)	0.72	1.56
Unmotivated/Self-Motivated	0.74	1.55
Not Persistent/Persistent	0.70	1.97
Structure (does or does not want structure)	0.78	1.32
Learning Alone/Peer-Oriented Learner	0.78	1.61
Auditory Preferences	0.84	1.37
Visual Preferences	0.75	1.56
Tactile Preferences	0.80	1.78
Kinesthetic Preferences	0.73	1.33
Requires Intake	0.85	1.59
Time of Day (morning or evening)	0.86	1.57
Mobility	0.83	1.41
Authority-motivated	0.84	1.28
Average	0.79	1.56