



TECHNICAL MANUAL AND USER'S GUIDE

Workplace Personality Inventory™—II

June 2013

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Technical Manual

Chapter 1: Introduction

The *Workplace Personality Inventory–II* (WPI–II) is designed to measure sixteen work styles or work-related personality traits that are important to job success in a wide range of occupations. The inventory is based on the original WPI, which was based on the work styles model developed by U.S. Department of Labor for Occupational Information Network (O*NET®) online database. The traits assessed with the WPI–II comprise six domains: Achievement Orientation, Interpersonal Orientation, Social Influence, Self Adjustment, Conscientiousness, and Practical Intelligence.

Goals of the Revision

The original design goals for the *Workplace Personality Inventory* (2007) were driven by customer and industry needs. To that end, it was designed to be work relevant, align with the *Americans With Disabilities Act of 1990*, easy to interpret, resistant to faking, and short in administration time. Based on continuous monitoring from 2007 to 2013 for item and scale functioning to evaluate effectiveness, the following revision goals were established:

- ♦ add domain level scales and regroup the 16 work style scales, according to empirical data;
- ♦ enhance the item and scale functioning by replacing poor items with new ones and adding items to scales to increase variance; and
- ♦ add a Development Report and update the Profile Report so that customers can use the WPI–II for both selection and development.

The instrument generally performed well, but several areas for improvement were identified. In 2009, Pearson conducted a series of analyses and found that the O*NET work style domains remained a reasonably good representation of work style personality structure, but some traits needed to be reassigned to different domains. The analyses revealed that Social Orientation aligns more closely with Social Influence (both involve extraversion) than with Interpersonal Orientation (Cooperation and Concern for Others, which emphasize sensitivity to others). Similarly, Practical Intelligence captures intellectance, rather than openness to experience.

Based on research, support from the extant personality literature, and customer feedback, slight adjustments were made to the WPI framework to include domain scales and two scales were moved to different domains. The original and revised domains and scales for WPI and WPI–II are presented in Table 1.1.

Table 1.1 WPI Domains and Scales Realigned for WPI–II

WPI		WPI–II	
Domains	Scales	Domains	Scales
Achievement Orientation	Achievement/Effort	Achievement Orientation	Achievement/Effort
	Initiative		Initiative
	Persistence		Persistence
Interpersonal Orientation	Concern for Others	Interpersonal Orientation	Concern for Others
	Cooperation		Cooperation
	Social Orientation	Social Influence	Social Orientation
Leadership Orientation	Leadership Orientation		

Table 1.1 continued

WPI		WPI-II	
Domains	Scales	Domains	Scales
Self Adjustment	Self Control	Self Adjustment	Self Control
	Stress Tolerance		Stress Tolerance
	Adaptability/Flexibility		Adaptability/Flexibility
Conscientiousness	Attention to Detail	Conscientiousness	Attention to Detail
	Dependability		Dependability
	Integrity/Rule Following*		Rule Following
Independence	Independence	Practical Intelligence	Independence
Practical Intelligence	Analytical Thinking		Analytical Thinking
	Innovation		Innovation

* Integrity/Rule Following was renamed Rule Following for WPI-II

A few items that were not performing as well as desired (e.g., highly skewed or low item-total correlation) were replaced. The Analytical Thinking scale was the only scale with an internal consistency estimated below .70. With only eight items, the scale was constricted and small raw score differences appeared large in the percentile metric, so new items were added to increase variance. The last area to be improved was Integrity/Rule-Following scale, because it measured adherence to rule-following rather than a broader assessment of integrity. Ethical judgment items were added to broaden the construct beyond strict rule-following.

Customers also wanted to use the WPI for employee development or high potential programs, so, a new WPI-II Development Report was added.

Developing WPI-II Items

Existing items in each scale were reviewed and compared to each aspect of the work style definition (listed in Appendix A). Specific areas were targeted in the item writing to ensure strong coverage across all dimensions of the work style definitions. For example, Analytical Thinking includes (a) uses logic to address work-related issues, and (b) comes up with high quality, useful information. Items were written to correspond to both areas and were aimed at behaviors applicable to professional positions. Some of the existing items had (especially on the Integrity/Rule-Following scale) appeared too elementary for a working professional. Items for the WPI-II were written by Pearson staff, using the same guidelines and criteria for the WPI.

Experimental items were tested in two studies. In the first study, experimental items were inserted in the WPI as non-scored items. This practice was conducted from 2007 to 2012 and generated eight items used in the WPI-II. The second study was conducted in June 2012, testing a larger pool of new items, as well as the eight experimental items already identified.

Selecting Final WPI-II Items

A series of statistical analyses were conducted to identify existing items that did not contribute information to their respective scales. Mean item response (highly skewed, above 3.0) and low item-total correlation were the two prime selection criteria. Six WPI items did not meet the selection criteria and were dropped from the WPI-II. Criteria similar to those used in selecting WPI items were used to select new items. Both classical test criteria (mean item response and item total

correlation) and IRT-based statistics (ICC) were used to guide item selection. As a result, 31 new items were added across fourteen WPI–II scales, totaling 192 items.

Table 1.2 Comparisons of WPI and WPI–II Items Within Scales

Scale	# of Items		Relevant Behaviors
	WPI	WPI–II	
Achievement/Effort	11	11	<ol style="list-style-type: none"> 1. Establishes challenging goals 2. Maintains goals 3. Exerts effort toward task mastery
Adaptability/Flexibility	10	11	<ol style="list-style-type: none"> 1. Adapts to change in the workplace 2. Deals effectively with ambiguity 3. Demonstrates openness to considerable variety in the workplace
Analytical Thinking	8	11	<ol style="list-style-type: none"> 1. Uses logic to address work-related issues 2. Produces high quality, useful information.
Attention to Detail	10	11	<ol style="list-style-type: none"> 1. Completes work tasks thoroughly 2. Is careful about details
Concern for Others	11	12	<ol style="list-style-type: none"> 1. Demonstrates sensitivity to the needs and feelings of others 2. Demonstrates understanding of others/empathy
Cooperation	12	12	<ol style="list-style-type: none"> 1. Is pleasant/good-natured with others on the job 2. Encourages people to work together 3. Helps others with tasks
Dependability	9	11	<ol style="list-style-type: none"> 1. Fulfills obligations reliably
Independence	9	11	<ol style="list-style-type: none"> 1. Relies mainly on self to get things done 2. Develops own way of doing things
Initiative	10	12	<ol style="list-style-type: none"> 1. Takes on job responsibilities without being told to do so 2. Volunteers for new job responsibilities 3. Volunteers for new job challenges
Innovation	10	12	<ol style="list-style-type: none"> 1. Generates new ideas to address work issues and problems
Leadership Orientation	10	11	<ol style="list-style-type: none"> 1. Demonstrates a willingness to lead/take charge 2. Demonstrates a willingness to offer opinions
Persistence	9	12	<ol style="list-style-type: none"> 1. Persists in the face of obstacles on the job
Rule Following	9	12	<ol style="list-style-type: none"> 1. Avoids unethical behavior 2. Follows rules and regulations
Self Control	9	11	<ol style="list-style-type: none"> 1. Keeps emotions in check even in very difficult situations
Social Orientation	10	11	<ol style="list-style-type: none"> 1. Shows a preference for working with others 2. Develops personal connections with work colleagues
Stress Tolerance	10	11	<ol style="list-style-type: none"> 1. Accepts criticism 2. Shows tolerance of stress caused by other people or situations

Demographic Characteristics of the WPI-II

A sample of 951 participants was used to evaluate the quality of the items. The sample was restricted to respondents who had a raw score below 30 on the Unlikely Virtues scale. This sample was selected to be heterogeneous, and was made up of a variety of occupations and organizational levels as listed in Tables 1.3 and 1.4. Demographic characteristics of the sample are reported in Table 1.5.

Table 1.3 WPI-II Normative Sample by Occupation (N = 951)

Occupation	% of Total Sample
Manufacturing and Operations Occupations	13.4
Student	9.3
Accountant	5.8
Administrative Assistant	4.6
Consultant	4.5
Project Manager	4.3
Information Technology Professional	4.2
Medical Professional	4.2
Skilled Trades	3.6
Marketing Professional	3.0
Human Resource Professional	2.8
Customer Service Representative	2.7
Engineer	2.5
Sales Representative	2.3
Financial Analyst	2.2
General Labor	2.0
Other	28.6

Table 1.4 WPI-II Normative Sample by Organizational Level (N = 951)

Organizational Level	% of Total Sample
Manager	21.9
Professional/Individual Contributor	21.1
Executive	14.0
Skilled Trades/General Labor	13.8
Director	11.0
Administrative/Clerical	7.9
Customer Service/Retail Sales	5.7
Supervisor	1.8
Other	2.8

Table 1.5 WPI-II Normative Sample by Age, Sex, Education, and Race/Ethnicity (N = 951)

Characteristic	% of Total Sample
Age	
≥ 40 years old	48.6
≤ 40 years old	49.1
Not reporting	2.3
Sex	
Female	36.5
Male	62.1
Not reporting	1.4
Education	
Master's degree or higher	31.7
Bachelor's degree	36.3
Some college	21.2
High school diploma or GED	10.0
Some high school	0.2
Not reporting	0.6
Race/Ethnicity	
White (not Hispanic)	77.5
Black/African American	7.4
Hispanic/Latino	4.9
Asian/Pacific Islander	5.0
Native American	0.4
Multiracial	1.7
Other	1.1
Not reporting	2.0

Chapter 2: Developing the Workplace Personality Inventory

Development of the original WPI was driven by customer needs as evaluated through interactions and surveys in 2006. To that end, design goals for the WPI were:

- ✓ **Work relevant.** The WPI needs to
 - contain questions that are clearly related to the workplace and have “face validity” to the people taking the assessment;
 - contain scales that can be mapped easily to job requirements and competencies for a wide range of occupations; and
 - be consistent with regulations established by the *Americans with Disabilities Act of 1990*, which emphasize the need for clear delineation between work-related personality tests and mental health exams.
- ✓ **Easy to interpret.** The WPI provides results in easily understood terms, without reference to obscure psychological or clinical terminology.
- ✓ **Reliable, valid, and fair.** The WPI was designed to produce consistent, accurate, and job-relevant results for individuals from a wide range of backgrounds.
- ✓ **Resistant to faking.** The WPI contains a warning against faking that has been shown to reduce faking in studies on personality tests (Hough, 1998). In addition, the WPI contains an “Unlikely Virtues” scale designed to identify candidates who likely described themselves in an excessively positive light when responding to questions.
- ✓ **Reasonably short.** Administration time for the full instrument should not exceed 30 to 35 minutes.

The Work Styles Model

The goal of using the U.S. Department of Labor Work Styles model was “to identify a comprehensive yet reasonably small number of personal characteristics that describe the important interpersonal and work style requirements in jobs and occupations in the U.S. economy” (Borman et al., 1999, p.213). To achieve this goal, several models used in the area of personnel selection were reviewed.

- ◆ Assessment of Background and Life Experiences (Hough, 1997)
- ◆ California Personality Inventory (Gough, 1987)
- ◆ Five-factor model (e.g., Barrick & Mount, 1991; Goldberg, 1993)
- ◆ Hogan Personality Inventory (Hogan & Hogan, 1992)
- ◆ Multidimensional Personality Questionnaire (Tellegen, 1982)
- ◆ Occupational Personality Questionnaire (Saville & Holdsworth, 1990)

The taxonomy developed by Guion and colleagues (e.g., Raymark et al., 1997) to measure personality requirements of jobs and several additional studies on personality structure (e.g., Costa, McCrae, & Dye, 1991) also were reviewed.

In choosing the work styles to include, the O*NET taxonomy authors focused on styles that had been shown to correlate with important job behaviors or work-related criteria (Borman et al., 1999). These work styles were identified via literature reviews (e.g., Hogan, 1991), meta-analyses (e.g., Barrick & Mount, 1991), and criterion-related validity studies (e.g., Bentz, 1985).

After the final model was developed, its effectiveness at differentiating personality-related job requirements for different occupations was evaluated. The occupations used in this research, selected to reflect very different types of employment, included general managers, top executives,

computer programmers, registered nurses, police patrol officers, janitors and cleaners, and maintenance repairers/general utility. Each of these jobs was rated on the level of each work style required for successful job performance by subject matter experts familiar with the jobs. The research showed that the work style scales provided a meaningful description of the similarities and differences among jobs. For example, nurses, computer programmers, and police patrol officers were the occupations with the highest Attention to Detail ratings and nurses and police patrol officers were the occupations with the highest Dependability ratings (Borman et al., 1999).

Developing WPI Items

WPI items were aggregated from three item banks. The first was a bank of 420 items that were drawn from more than twelve customized assessments. Many of these were broad-spectrum assessments that measured a wide variety of work-related personality domains. Several different models and approaches were used in these assessments, depending on the specific purpose of each. All bank items had been piloted and many had been modified as a result. The entire bank conformed to acceptable item-analytic criteria. Ninety-nine of the initial 246 (40%) WPI pilot items came from this item pool.

The second bank contained 169 items designed to measure conative factors or mental processes directed toward action (e.g., determination, drive, resolve). These items had been administered to working adults and, therefore, had known item characteristics. Fourteen of the initial 246 (6%) WPI pilot items came from this group.

The third bank contained 182 experimental items written by four Pearson research directors. Three item writers had backgrounds in industrial/organizational psychology and one had a background in vocational/career counseling psychology. Each research director had at least 11 years of test (including personality) development experience. They created the experimental items to address areas not covered by the 16 Work Styles or by the pre-existing item banks, and to measure “Unlikely Virtues” or the extent to which candidates present an overly favorable image of themselves in their ratings. All experimental items were written to conform closely to the item-selection criteria. One hundred thirty-three of the initial 246 (54%) WPI pilot items came from this experimental item bank.

WPI Pilot Study

Scale-Level Selection Criteria

Scale-level criteria (i.e., for the set of items hypothesized to comprise a scale) that were applied in choosing items included the following:

- ✓ Coverage of the full definition of the work style
- ✓ A relatively high proportion of subtle items, with a target of 20% per scale
- ✓ A mix of items tapping high and low levels of each trait, and similarly, of negatively and positively worded items
- ✓ Trait-level ratings were made based on subtlety ratings. The trait level was rated on a 6-point scale from 1 = *Very Low – Item taps a very low level of the trait of interest*, to 5 = *Very High – Item taps a very high level of the trait of interest*, to 6 = *Problematically High – Item taps a problematically high level of the trait of interest*.

Item-Level Selection Criteria

Several criteria were used to choose items for the WPI pilot study. Minimal criteria applied at the item level included:

- ✓ Alignment (conceptually and/or empirically) with one of the sixteen work styles; items that were linked to more than one work style were generally avoided to help maximize the independence and therefore overall predictiveness of the work styles as a set
- ✓ Avoidance of the use of colloquial expressions (to ease adaptation for other cultures)
- ✓ A reading level of approximately 8th grade

Items that had been tested previously were favored over untested items, and items that were more subtle were favored over less subtle items. Ratings of item subtlety were made prior to item selection by the lead Research Director, and subsequently reviewed and revised through consensus discussion with three other Research Directors working on the project. Subtlety was rated on a 5-point scale from 1 = *Item is Extremely Subtle*, to 5 = *Item is Extremely Obvious*.

Scale-level criteria (i.e., for the set of items hypothesized to comprise a scale) were also applied in choosing items, including:

- ✓ Coverage of the full definition of the work style
- ✓ Ensuring a relatively high proportion of subtle items, with a target of 20% per scale
- ✓ Ensuring a mix of items tapping high and low levels of each trait, and similarly, of negatively and positively worded items
- ✓ Trait level ratings were made using the same procedure used for making subtlety ratings described previously. Trait level was rated on a 6-point scale from 1 = *Very Low – Item taps a very low level of the trait of interest*, to 5 = *Very High – Item taps a very high level of the trait of interest*, to 6 = *Problematically High – Item taps a problematically high level of the trait of interest*.

The three primary research directors independently chose 12 to 15 items per work style scale that best met the selection criteria. Final items for the pilot test were then selected by consensus.

After items were selected, a team of four personality researchers with doctorate degrees in Clinical Psychology reviewed them. Revisions were discussed and incorporated as appropriate.

WPI Sample Demographic Characteristics

Six hundred eighty-seven individuals from a cross-section of jobs and organizational levels participated in the WPI pilot study between November and December of 2006. All participants completed a questionnaire with 246 WPI items, 13 *Marlowe-Crowne Social Desirability* scale items (based on Reynolds, 1982), and 10 demographic items. Some participants also completed the *Hogan Personality Inventory* ($n = 99$) or the *Occupational Personality Questionnaire* ($n = 74$), and/or had supervisors who completed ratings on their job performance ($n = 417$). Table 2.1 shows the distribution of the sample across specific occupations. Table 2.2 shows the distribution of the sample across specific organizational levels.

Table 2.1 WPI Normative Sample by Occupation (N = 687)

Occupation	% of Total Sample
Customer Service Representative	16.2
Project Manager	9.9
Manufacturing and Operations Occupations	9.0
Information Technology Occupations	6.4
Sales Representative/Non-Retail	6.1
Administrative Assistant	6.0
Researcher	4.7
Human Resources Occupations	3.1
Consultant	2.8
Teaching Occupations	2.8
Accountant	1.9
Financial Analyst	1.2
Other	29.9

Table 2.2 WPI Normative Sample by Organizational Level (N = 687)

Organizational Level	% of Total Sample
Professionals/Individual Contributors	31.3
Managers	14.4
Customer Service/Retail Sales	13.7
Executives and Directors	12.6
Administrative/Clerical	9.8
First-line Supervisors	5.2
Other	13.0

Table 2.3 WPI Normative Sample by Age, Sex, Education, and Race/Ethnicity (N = 687)

Characteristic	% of Total Sample
Age	
≥ 40 years old	57.4
≤ 40 years old	42.6
Sex	
Female	63.4
Male	36.6
Education	
Master's degree or higher	27.5
Some post graduate work	7.1
Bachelor's degree	27.0
Some college	25.3
High school diploma or GED	12.8
Some high school	0.3
Race/Ethnicity	
White (not Hispanic)	66.7
Black/African American	6.1
Hispanic/Latino	23.2
Asian/Pacific Islander	1.5
Native American	0.4
Other	2.0

Selecting Final WPI Items

Several types of analyses were performed to determine which WPI items to use in the final scales, including:

- ✓ Item Response Theory (IRT) analyses, using Samejima's (1969) two-parameter polytomous Graded Response Model (GRM). Psychometric properties of the items were examined by reviewing their item parameter estimates, item characteristic curves (ICCs), and item information curves. In general, items with steeper item characteristic curves and higher information curves were retained based on their ability to better discriminate among individuals on the respective work style.
- ✓ Differential item functioning (DIF) analyses for age, gender, and race/ethnicity, using the Mantel-Haenszel (Mantel & Haenszel, 1959) technique. Results of the Mantel-Haenszel indicate whether test takers with equal ability have a different chance of endorsing a given statement based on their group membership. Mantel-Haenszel analyses were computed for "under 40 years of age" versus "40 years of age and above," "Females" versus "Males," and "Other" race/ethnicity versus "White." With few exceptions, items showing differential performance by group were not used. In cases where items with differential performance in favor of one group were used, every effort was made to ensure that differential functioning at the scale level (i.e., differential test functioning, DTF) was minimized or eliminated.

- ✓ More traditional Classical Test Theory analyses focused on reliability and validity. These analyses focused on item difficulty, item discrimination, item-total correlations, and coefficient alpha (Cronbach, 1970), as well as item-level correlations with job performance.

The extent to which a personality inventory measures dimensions or traits that exist in people must be considered secondary or even irrelevant in comparison to its ability to predict important job-related behaviors. Items were, therefore, evaluated by examining both their corrected correlation with the total scale score *and* their correlation with supervisory ratings of a corresponding criterion. Items that had unexpected relationships with the criterion (e.g., significant negative correlation when a significant positive correlation was expected) were not selected, even if their corrected correlation with the total scale score was high. Generally, however, items with higher scale correlations were selected and every effort was made to ensure that each work style scale had an appropriate spread of difficulty.

Chapter 3: Evidence of Reliability and Validity

Evidence of Reliability

The reliability of an assessment tool refers to the consistency of scores obtained under the theoretical concept of the repeated testing of the same individual on the same test under identical conditions (including no changes to the individual). Because in practice this can never be done, various estimates of reliability can be obtained. The reliability of a test is expressed as a correlation coefficient that can range from .00 to 1.00. A perfectly reliable test would have a reliability coefficient of 1.00, and a completely unreliable test would have a reliability coefficient of .00. A commonly used indicator of the reliability of a test is coefficient alpha (Cronbach, 1970). Coefficient alpha yields a reliability estimate of internal consistency by examining the homogeneity of the questions within a test.

WPI

The median coefficient alpha for the original (2007) WPI scales was .76. As shown in Table 3.1, 16 of the 17 WPI scales had alphas at or higher than .70. One scale, Analytical Thinking, had an alpha less than .70, at least partially attributable to the shortness of the scale (8 items) and the relatively broad range of content it covers (e.g., inquisitiveness, analyticity, systematicity). Although these reliability coefficients demonstrate that overall, the reliability of the original WPI is good, one goal of the revision was to increase the internal consistency estimates, most notably of the Analytical Thinking Scale.

WPI-II

The internal consistency estimates on the WPI-II scales range from .73 to .85 with a median of .79. As shown in Table 3.1, the internal consistency estimate for the Analytical Thinking scale has increased significantly to a very respectable .82.

The internal consistency estimates for the domain scales range from .86 to .92, with a median coefficient of .89. As noted previously, the domains are a composite of the scales within each domain.

Table 3.1 Coefficient Alpha: WPI (2007) and WPI-II (2013)

Work Style Scale	WPI (2007)		WPI-II (2013)	
	# of Items	Alpha	# of Items	Alpha
Achievement/Effort	11	.70	11	.76
Adaptability/Flexibility	10	.79	11	.85
Analytical Thinking	8	.60	11	.82
Attention to Detail	10	.79	11	.81
Concern for Others	11	.75	12	.75
Cooperation	12	.73	12	.73
Dependability	9	.72	11	.78
Independence	9	.74	11	.80

Table 3.1 continued

Work Style Scale	WPI (2007)		WPI-II (2013)	
	# of Items	Alpha	# of Items	Alpha
Initiative	10	.77	12	.81
Innovation	10	.81	12	.82
Leadership Orientation	10	.80	11	.82
Persistence	9	.76	12	.78
Rule Following*	9	.71	12	.74
Self Control	9	.75	11	.78
Social Orientation	10	.78	11	.82
Stress Tolerance	10	.76	11	.81
Unlikely Virtues	10	.76	10	.82
Domain (unique to WPI-II)				
Achievement			35	.91
Social Influence			22	.87
Interpersonal			24	.86
Self Adjustment			33	.92
Conscientiousness			34	.90
Practical Intelligence			34	.88

*Rule Following is the revised name for Integrity/Rule-Following

Evidence of Validity

Validity refers to the degree to which specific data, research, or theory support the interpretation of test scores entailed by proposed uses of tests (American Educational Research Association [AERA], American Psychological Association [APA], & National Council on Measurement in Education [NCME], 1999). Validity is a unitary concept. It is the extent to which all the accumulated evidence supports the intended interpretation of test scores for the proposed purpose (AERA et al.). “Validity is high if a test gives the information the decision maker needs” (Cronbach, 1970). Several sources of validity evidence are discussed next in relationship to the WPI.

Evidence of Content Validity

For a workplace or career assessment, content validity is established by demonstrating that the item content measures characteristics relevant in the workplace. A main advantage of the WPI is that it directly assesses work styles required in many jobs and occupations in the U.S. economy (Borman, Kubisiak, & Schneider, 1999). The Occupational Information Network (O*NET[®]) website (<http://online.onetcenter.org>) provides detailed information on the work styles (as well as knowledge, skills, abilities, etc.) necessary for successful performance in hundreds of occupations.

WPI and WPI-II item content was written specifically to correspond to the O*NET descriptions of each work style. Further, all items were reviewed by the TalentLens research staff for fidelity to the O*NET definitions and for workplace relevance.

Evidence of Convergent Validity

Evidence of convergent validity is obtained when scores on a test relate to scores on other tests or variables that purport to measure similar traits or constructs (AERA et al, 1999). Tables 3.2 through 3.4 present correlations from studies showing that WPI scores relate to scores on theoretically related scales from the *Occupational Personality Questionnaire* (OPQ; Saville, & Holdsworth, 1990) and the *Hogan Personality Inventory* (Hogan & Hogan, 1992) in an expected manner.

The OPQ is a 260-item questionnaire that assesses 32 dimensions. The OPQ and WPI were administered to 79 individuals from various occupations and organizational levels, with the largest proportion from Operations occupations (27.8%) and the Individual Contributor/Professional organizational level (26.6%). Table 3.2 shows the OPQ dimensions that correlated highest with each of the 17 WPI scales. As shown, 11 of the 17 WPI scales correlated .6 or better with a similar OPQ dimension, and 16 of the 17 WPI scales correlated .5 or better with a similar OPQ dimension. Attention to Detail was the one WPI scale that correlated less than .5 with a similar OPQ scale ($r = .39$ with OPQ Detail Conscious).

Table 3.2 Correlations of WPI and OPQ Scales ($n = 74$)

WPI	OPQ	Correlation
Achievement/Effort	Achieving	.62**
	Evaluative	.58**
	Innovative	.53**
	Conceptual	.51**
Adaptability	Variety Seeking	.68**
	Innovative	.53**
	Conventional	-.53**
	Vigorous	.52**
	Achieving	.50**
Analytical Thinking	Evaluative	.56**
	Innovative	.56**
Attention to Detail	Detail Conscious	.39**
Concern for Others	Caring	.56**
	Affiliative	.54**
Cooperation	Caring	.54**
Dependability	Conscientious	.52**
Independence	Variety Seeking	.63**
	Conventional	-.61**
	Innovative	.50**

Table 3.2 continued

WPI	OPQ	Correlation
Initiative	Variety Seeking	.67**
	Achieving	.66**
	Innovative	.61**
	Vigorous	.59**
	Conventional	-.54**
	Outgoing	.51**
Innovation	Innovative	.80**
	Conventional	-.60**
	Conceptual	.57**
	Variety-Seeking	.57**
	Achieving	.52**
Integrity/Rule-Following	Rule Following	.75**
Leadership Orientation	Outspoken	.65**
	Controlling	.62**
	Worrying	-.60**
	Persuasive	.54**
	Innovative	.51**
	Socially Confident	.50**
Persistence	Conscientious	.56**
	Innovative	.52**
Self Control	Tough Minded	.62**
	Social Desirability	.54**
Social Orientation	Outgoing	.75**
	Affiliative	.74**
	Socially Confident	.64**
Stress Tolerance	Tough Minded	.70**
	Relaxed	.58**
	Worrying	-.56**
	Socially Confident	.50**
Unlikely Virtues	Social Desirability	.70**

Note. All correlations shown are uncorrected. ** $p < .01$.

The *Hogan Personality Inventory* (HPI) is a 206-item measure of normal personality that contains seven primary scales and 41 subscales or Homogenous Item Composites (HICs). The HPI and WPI were administered to 92 individuals from various occupations and organizational levels, with the largest proportion from project manager/coordinator occupations (17.4%) and the director organizational level (32.6%). Table 3.3 shows the HPI dimensions that correlated highest with

each of the 17 WPI scales. All relationships shown are consistent with interpretation of the WPI scales and the dimensions measured by the HPI.

Table 3.3 Correlations of WPI with HPI Scales (*n* = 99)

WPI	HPI	Correlation
Achievement/Effort	Leadership	.41**
Adaptability	Ambition	.43**
	Leadership	.42**
	Sales Potential	.42**
Analytical Thinking	Intellectance	.40**
Attention to Detail	Mastery	.32**
Concern for Others	Service Orientation	.57**
	Empathy	.55**
	Likeability	.48**
	Virtuous	.44**
Cooperation	Service Orientation	.56**
	Empathy	.49**
	Virtuous	.48**
	Likeability	.42**
Dependability	Mastery	.43**
Independence	Leadership	.55**
	Ambition	.52**
Initiative	Leadership	.46**
	Ambition	.43**
Innovation	Generates Ideas	.60**
	Experience Seeking	.46**
	Sales Potential	.44**
	Intellectance	.42**
	Not Spontaneous	-.40**
Integrity/Rule Following	Prudence	.42**
Leadership Orientation	Ambition	.60**
	Leadership	.56**
	Sales Potential	.52**
	No Social Anxiety	.50**
	Sociability	.43**
	Competitive	.40**
Persistence	Mastery	.32**
	Even-tempered	.32**

Table 3.3 continued

WPI	HPI	Correlation
Self Control	Even-tempered	.61**
	Adjustment	.58**
	Impression Management	.52**
	Service Orientation	.51**
	Prudence	.49**
	Virtuous	.49**
	Empathy	.47**
	Stress Tolerance	.46**
	Not Anxious	.43**
	Moralist	.41**
	Exhibitionistic	-.41**
Social Orientation	Sales Potential	.74**
	Sociability	.69**
	Likes People	.60**
	Likes Parties	.57**
	No Social Anxiety	.55**
	Likes Crowds	.52**
	Entertaining	.50**
	Ambition	.45**
	Likeability	.45**
	Exhibitionistic	.41**
	Experience Seeking	.40**
	Trusting	.41**
Stress Tolerance	Not Anxious	.60**
	Stress Tolerance	.57**
	Adjustment	.56**
	Calmness	.45**
	Empathy	.40**
	Service Orientation	.40**
Unlikely Virtues	Moralist	.49**
	Service Orientation	.48**
	Virtuous	.48**

Note. All correlations shown are uncorrected. ** $p < .01$.

Because the WPI scales are designed to be somewhat narrower than HPI primary scale scores (but generally broader than the HPI HICs), the prediction of HPI primary scale scores was examined, using a multiple correlation approach. WPI scales had multiple correlations of .7 or

better with five of the seven primary HPI scales, and .6 or better with six of the seven primary HPI scales. HPI School Success was the one primary scale that had a multiple correlation of less than .5 with the WPI ($R = .51$).

Table 3.4 Multiple Correlations of WPI with HPI Primary Scales ($n = 99$)

HPI Primary Scale	WPI Multiple Correlation
Adjustment	.70**
Ambition	.72**
Sociability	.75**
Likeability	.72**
Prudence	.73**
Intellectance	.65**
School Success	.51**

Note. All correlations shown are uncorrected. ** $p < .01$

The relationship between the WPI Unlikely Virtues scale and the 13-item short form (Reynolds, 1982) of the *Marlowe-Crowne Social Desirability* scale (Crowne & Marlowe, 1960) was also evaluated. The WPI Unlikely Virtues scale was designed to identify individuals who present an overly favorable image of themselves in responding to questions. Similarly, the *Marlowe-Crowne Social Desirability* scale was designed to identify the extent to which individuals respond to questions in a socially approved manner (Crowne & Marlowe, 1960). Scores on the two scales correlated .67, indicating a high degree of relationship between them.

Evidence of Criterion-Related Validity

Criterion-related validity evidence addresses the inference that individuals who score better on tests will be successful on some criterion of interest. Criterion-related validity evidence indicates the statistical relationship (e.g., for a given sample of job applicants or incumbents) between scores on the test and one or more criteria, or between scores on the test and independently obtained measures of subsequent job performance. By collecting test scores and criterion scores (e.g., job performance ratings, grades in a training course, supervisor ratings), one can determine how much confidence may be placed in using test scores to predict job success. Typically, correlations between criterion measures and scores on the test serve as indexes of criterion-related validity evidence.

Criterion-Related Validity of the Original WPI

A project conducted by Pearson (2007) provides evidence for the criterion-related validity of the WPI. The study examined the relationship between WPI scores and on-the-job performance of incumbents in various occupations. Job performance was defined as supervisory ratings on behaviors and metrics determined through research to be important to many jobs in the United States. Aspects of job performance rated included work style behaviors (for 16 work styles), behaviors reflecting intellectual capacity (e.g., ability to learn quickly), absenteeism, tardiness, overall performance, overall potential, and overall rank relative to employees in a similar role. Relationships between WPI scores and job performance were analyzed for a combined group of directors and managers, managers, customer service representatives, and project managers. Table 3.5 shows a summary of key findings by group.

Overall, the results clearly show that WPI scales are related to on-the-job performance of incumbents. As shown, at least one WPI scale correlated .21 or higher with overall performance, overall potential, overall ranking, and/or tardiness in each of the four groups. Scales that correlate .21 and higher with job performance are generally “likely to be useful” based on U.S. Department of Labor guidelines (1999).

Table 3.5 Correlations of Original WPI Scales with Job Performance Ratings 2007

Group	WPI Scale	Job Performance Indicator	Validity Coefficient
Directors and Managers (n = 93)	Innovation	Overall Performance	.23*
	Concern for Others	Overall Performance	.22*
	Concern for Others	Overall Potential	.21*
	Analytical Thinking	Overall Ranking Relative to Peers	-.21*
Managers (n = 57)	Persistence	Overall Performance	.34**
	Self Control	Overall Performance	.29*
	Leadership Orientation	Overall Performance	.24
	Analytical Thinking	Overall Potential	.32*
	Analytical Thinking	Overall Ranking Relative to Peers	-.36**
Customer Service Representatives (n = 74)	Dependability	Tardiness	-.38**
Project Managers (n = 47)	Self Control	Overall Performance	.27
	Concern for Others	Overall Performance	.22
	Self Control	Overall Potential	.30*
	Adaptability/Flexibility	Overall Potential	.23
	Innovation	Overall Potential	.23
	Dependability	Tardiness	-.29*

Note. For tardiness and overall rank, lower rating scores indicated better performance (i.e., less tardiness and higher rank). All correlations shown are uncorrected. * $p < .05$; ** $p < .01$.

Several studies conducted after publication of the WPI provide additional support for the criterion-related validity. The results of these studies are presented in Table 3.6.

In a 2011 study of K–12 school principals from across the country ($n = 196$), the relationship between WPI scores and performance-related competencies was examined. As hypothesized, the WPI scales significantly predicted a number of competencies that had been identified as important for successful performance as a principal.

A study in 2008 evaluated the utility of using work style scales for predicting job performance competencies associated with the position of Nursing Director. Twenty-nine Nursing Directors at the flagship hospital of a regional healthcare facility completed the WPI and were rated by their supervisors on competencies important to job success. Although the sample size was small, a number of significant correlations were reported, and overall, the results support the validity of using WPI scales for the selection of Nursing Directors.

A 2009 study examined the relationship between the WPI scales and job performance indicators in a sample of Press ($n = 70$) and Bindery ($n = 115$) employees in a print/digital solutions company. Data was collected over time. Performance measures for Press employees at 60 days and Bindery employees after 14 days on the job is presented. The correlations between work styles scales and job performance, absenteeism and turnover are shown in Table 3.6.

Table 3.6 Correlations of WPI Scales with Job Performance Ratings 2008–2011

Group	WPI Scale	Job Performance Competency	Validity Coefficient
Principals ($n = 196$)	Rule Following	Challenging Status Quo	-.23*
	Initiative	Challenging Status Quo	.21*
	Attention to Detail	Challenging Status Quo	-.21*
	Innovation	Challenging Status Quo	.19*
	Social Orientation	Trust-Building	.18*
	Initiative	Strategic Planning	.23*
	Social Orientation	Strategic Planning	.21*
	Social Orientation	Team-Building	.26**
	Initiative	Team-Building	.20*
	Stress Tolerance	Team-Building	.19*
	Initiative	Acting with Urgency	.27**
	Rule Following	Acting with Urgency	-.21*
	Achievement	Acting with Urgency	.20*
	Innovation	Acting with Urgency	.20*
	Social Orientation	Network Building	.28**
	Initiative	Network Building	.20*
	Initiative	Overall Ranking Relative to Peers	.19**

continued

Table 3.6 continued

Group	WPI Scale	Job Performance Competency	Validity Coefficient
Nursing Directors (n = 29)	Persistence	Clinical Knowledge	.47*
	Leadership Orientation	Clinical Knowledge	.43*
	Attention to Detail	Customer Focus	.39*
	Independence	Financial Management	.44*
	Attention to Detail	Information Technology	.46*
	Cooperation	Information Technology	-.38*
	Initiative	People Mgmt Skills Total	.47**
	Leadership Orientation	People Mgmt Skills Total	.41*
	Initiative	People: Communicating Effectively	.43*
	Social Orientation	People: Communicating Effectively	.40*
	Initiative	People: Leadership	.40*
	Leadership Orientation	People: Performance Management	.53**
	Initiative	People: Performance Management	.37*
	Persistence	Quality	.49**
	Dependability	Quality	.47*
	Leadership Orientation	Quality	.42*
	Achievement	Quality	.40*
	Achievement	Overall Rating	.42*
Initiative	Overall Rating	.42*	
Leadership Orientation	Overall Rating	.41*	
Press Employees (n = 73)	Cooperation	Absenteeism	-.31*
	Adaptability	Absenteeism	-.30*
	Attention to Detail	Absenteeism	-.28*
	Dependability	Absenteeism	-.28*
	Attention to Detail	Voluntary Turnover	-.23*
Bindery Employees (n = 115)	Initiative	14 day overall rating	.29*
	Initiative	14 day core task rating what is this?	.30*
	Initiative	14 day composite rating what is this?	.26*
	Initiative	Voluntary Turnover	-.24*
	Persistence	Voluntary Turnover	-.19*

* $p < .05$, ** $p < .01$

Evidence of WPI-II Criterion-Related Validity

The relationship between WPI-II scales and on-the-job performance of 49 incumbents in director- and executive-level positions in a large urban healthcare system was evaluated for evidence of

criterion-related validity. Specifically, the relationship between the new domain scales and job performance, and the work styles scales and job performance, were evaluated. Overall, the results (Table 3.7) clearly show that WPI–II domain scores significantly correlated to on-the-job performance of the incumbents. Four of the six domain scales correlated .30 or higher. Three of the six domain scales correlated .28 or higher. Achievement, Practical Intelligence, and Social Influence were most highly related to the incumbent’s potential to excel at higher levels within the organization.

Table 3.7 Correlations of WPI–II Domain Scales With Job Performance Ratings (Executive/Director Sample, *n* = 49)

WPI–II Domain	Job Performance Indicator	Validity Coefficient
Achievement	Achievement-Related Behaviors	.44**
	Overall Performance	.29*
	Overall Potential	.28
Conscientiousness	Conscientiousness-Related Behaviors	.30*
	Overall Performance	.14
	Overall Potential	–.08
Interpersonal	Interpersonal-Related Behaviors	.15
	Overall Performance	.16
	Overall Potential	–.24
Practical Intelligence	Practical Intelligence-Related Behaviors	.41**
	Overall Performance	.44**
	Overall Potential	.27
Self Adjustment	Self Adjustment-Related Behaviors	.30*
	Overall Performance	.28*
	Overall Potential	.12
Social Influence	Social Influence-Related Behaviors	.17
	Overall Performance	.06
	Overall Potential	.39**

Note. All correlations shown are uncorrected. **p* < .05; ***p* < .01

The relationship between the WPI–II Work-Style Scales and job performance indicators is presented in Table 3.8. As with the Domain Scales, the results clearly show that WPI–II Work Style Scales were significantly related to numerous aspects of on-the-job performance of the incumbents. As shown, twelve of the sixteen Work Style scales correlated .21 or higher with performance ratings in respective areas of behavior. Initiative, Self Control, Innovation, and Analytical thinking were most highly related to overall job performance. Initiative, Leadership Orientation, and Analytical Thinking were most highly related to the incumbent’s potential to excel at higher levels within the organization.

Table 3.8 Correlations of WPI–II Work-Style Scales With Job Performance Ratings (Executive/Director Sample, *n* = 49)

WPI–II Work Style	Job Performance Indicator	Validity Coefficient
Achievement	Achievement-Related Behaviors	.30*
	Overall Performance	.20
	Overall Potential	.27
Persistence	Persistence-Related Behaviors	.35*
	Overall Performance	.18
	Overall Potential	.15
Initiative	Initiative-Related Behaviors	.47**
	Overall Performance	.34*
	Overall Potential	.30*
Leadership Orientation	Leadership-Related Behaviors	.43**
	Overall Performance	.07
	Overall Potential	.37**
Cooperation	Cooperation-Related Behaviors	.01
	Overall Performance	.12
	Overall Potential	–.27
Concern for Others	Concern-Related Behaviors	.23
	Overall Performance	.17
	Overall Potential	–.16
Social Orientation	Social-Related Behaviors	–.02
	Overall Performance	.03
	Overall Potential	.24
Self Control	Self Control-Related Behaviors	.31*
	Overall Performance	.37**
	Overall Potential	.03
Stress Tolerance	Stress Tolerance-Related Behaviors	.21
	Overall Performance	.00
	Overall Potential	–.04

continued

Table 3.8 continued

WPI-II Work Style	Job Performance Indicator	Validity Coefficient
Adaptability/Flexibility	Adaptability-Related Behaviors	.21
	Overall Performance	.28
	Overall Potential	.29*
Dependability	Dependability-Related Behaviors	.27
	Overall Performance	.20
	Overall Potential	.08
Attention to Detail	Attention to Detail -Related Behaviors	.23
	Overall Performance	.11
	Overall Potential	-.07
Rule Following	Rule Following -Related Behaviors	.18
	Overall Performance	-.01
	Overall Potential	-.21
Independence	Independence-Related Behaviors	.09
	Overall Performance	.20
	Overall Potential	.13
Innovation	Innovation-Related Behaviors	.40**
	Overall Performance	.35*
	Overall Potential	.20
Analytical Thinking	Analytical Thinking-Related Behaviors	.35*
	Overall Performance	.47*
	Overall Potential	.32*

Note. All correlations shown are uncorrected. * $p < .05$; ** $p < .01$

Evidence of Construct Validity: Group Differences

Tables 3.9 and 3.10 show evidence of the WPI's validity based on group differences that are consistent with job requirements and occupational characteristics. Using the original WPI validation sample, several different occupations were compared. For example, Sales Representative was the highest scoring occupational group on Social Orientation, Customer Service Representative was the highest scoring on Concern for Others, and Information Technology (IT) Occupations was the highest scoring on Analytical Thinking. In contrast, Sales Representative was the lowest occupational group on Attention to Detail, IT Occupations the lowest on Concern for Others, and Researchers the lowest on Social Orientation.

Executive also was the highest scoring position on Adaptability/Flexibility and Analytical Thinking, Customer Service/Retail Sales was the highest scoring on Concern for Others, and Director was the highest scoring on Achievement/Effort. In contrast, Administrative/Clerical was the lowest scoring on Leadership Orientation, and Executive the lowest on Attention to Detail and Rule Following.

Table 3.9 Highest and Lowest Scoring Occupations by WPI Scale

Scale	Highest Scoring Occupation	Lowest Scoring Occupation	<i>d</i>	<i>p</i>
Achievement/Effort	Researcher	Administrative Assistant	0.68	.0050
Adaptability/Flexibility	Sales Representative (non-retail)	Customer Service Representative	0.53	.0059
Analytical Thinking	Information Technology Occupations	Operations Occupations	0.85	.0001
Attention to Detail	Administrative Assistant	Sales Representative (non-retail)	0.78	.0007
Concern for Others	Customer Service Representative	Information Technology Occupations	0.83	<.0001
Cooperation	Customer Service Representative	Project Managers/ Coordinators	0.82	<.0001
Dependability	Customer Service Representative	Sales Representative (non-retail)	0.69	.0002
Independence	Sales Representative (non-retail)	Customer Service Representative	0.92	<.0001
Initiative	Sales Representative (non-retail)	Customer Service Representative	0.77	<.0001
Innovation	Researcher	Operations Occupations	0.68	.0037
Integrity/Rule Following	Customer Service Representative	Project Managers/ Coordinators	0.95	<.0001
Leadership Orientation	Sales Representative (non-retail)	Researcher	0.80	.0010
Persistence	Customer Service Representative	Sales Representative (non-retail)	0.33	.0693
Self Control	Administrative Assistant	Sales Representative (non-retail)	0.43	.0539
Social Orientation	Sales Representative (non-retail)	Researcher	0.99	<.0001
Stress Tolerance	Sales Representative (non-retail)	Researcher	0.51	.0319

Note. Occupations analyzed included Administrative Assistant ($n = 41$), Customer Service Representative ($n = 111$), Information Technology Occupations ($n = 44$), Operations Occupations ($n = 44$), Project Managers/Coordinators ($n = 68$), Researchers ($n = 32$), and Sales Representatives ($n = 42$).

Table 3.10 Highest and Lowest Scoring Organizational Levels by WPI Scale

Scale	Highest Scoring Organizational Level	Lowest Scoring Organizational Level	<i>d</i>	<i>p</i>
Achievement/Effort	Directors	Administrative/ Clerical	1.02	<.0001
Adaptability/Flexibility	Executives	Customer Service/ Retail Sales	0.68	.0011
Analytical Thinking	Executives	Administrative/ Clerical	1.06	<.0001
Attention to Detail	Administrative/ Clerical	Executives	1.29	<.0001
Concern for Others	Customer Service/ Retail Sales	Directors	1.08	<.0001
Cooperation	Customer Service/ Retail Sales	Executives	0.91	<.0001
Dependability	Customer Service/ Retail Sales	Executives	1.11	<.0001
Independence	Executives	Customer Service/ Retail Sales	1.89	<.0001
Initiative	Directors	Customer Service/ Retail Sales	1.17	<.0001
Innovation	Directors	Administrative/ Clerical	0.81	<.0001
Integrity/Rule Following	Customer Service/ Retail Sales	Executives	1.23	<.0001
Leadership Orientation	Executives	Administrative/ Clerical	1.59	<.0001
Persistence	Customer Service/ Retail Sales	Executives	0.35	.1179
Self Control	Directors	Managers	0.30	.0810
Social Orientation	Directors	Administrative/ Clerical	0.66	.0004
Stress Tolerance	Executives	Administrative/ Clerical	0.75	.0007

Note. Organizational levels analyzed included Executives ($n = 31$), Directors ($n = 56$), Managers ($n = 101$), Professionals/Individual Contributors ($n = 217$), First-line Supervisors ($n = 40$), Administrative/Clerical ($n = 67$), and Customer Service/Retail Sales ($n = 95$).

Additional evidence of group differences can be found in a 2009 study of three different occupational groups (Chartrand, Yang, & Filgo, 2009). As shown in Figure 3.1, the WPI work style scores of administrative assistants, nurses, and executives differ in meaningful ways that are consistent with the expectations of their job. Administrative assistants and nurses scored significantly higher than executives on Cooperation and Concern for Others. Administrative assistants scored significantly higher than the others on Attention to Detail.

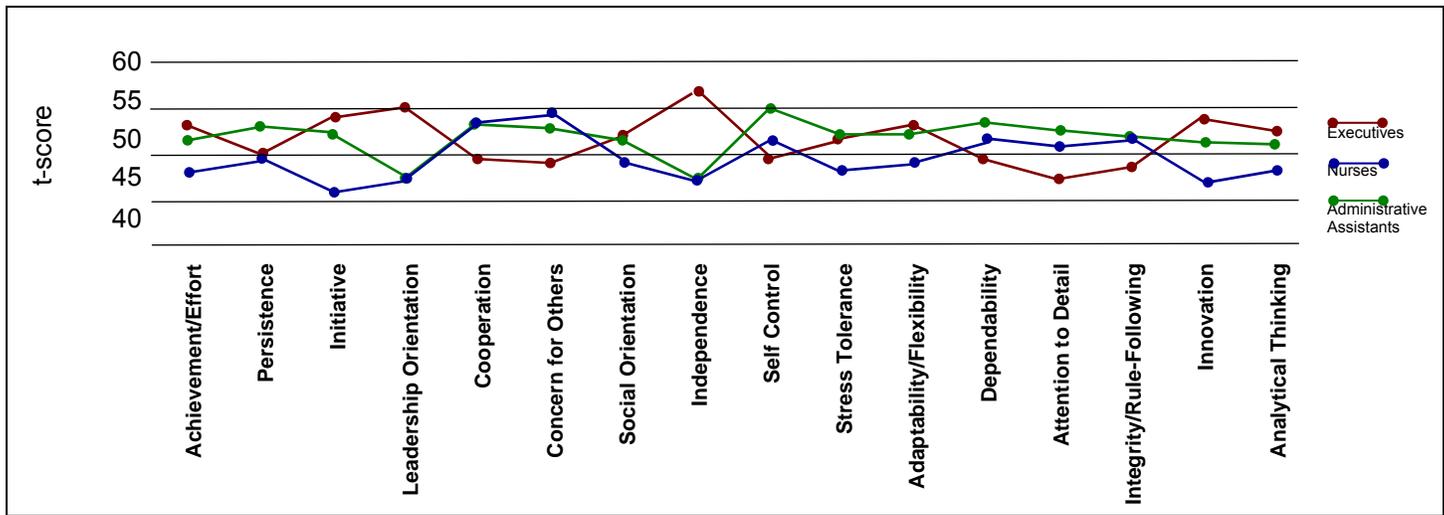


Figure 3.1: WPI Profiles: Administrative Assistants, Nurses, and Executives

Executives scored significantly higher than administrative assistants on Achievement and Initiative, but significantly lower on Persistence; that construct emphasizes a “stick to it” quality that reflects a conscientious style. Collectively, these results strongly support the fact that people in different occupations possess different work style levels, and that these levels correspond to work style requirements of the job.

The 2011 study of school principals provides additional evidence of WPI validity, based on a different type of group difference (i.e., higher- versus lower-performing principals). As shown in Figure 3.2. High performing principals scored significantly higher than the lower performing principals on Initiative and Social Orientation.

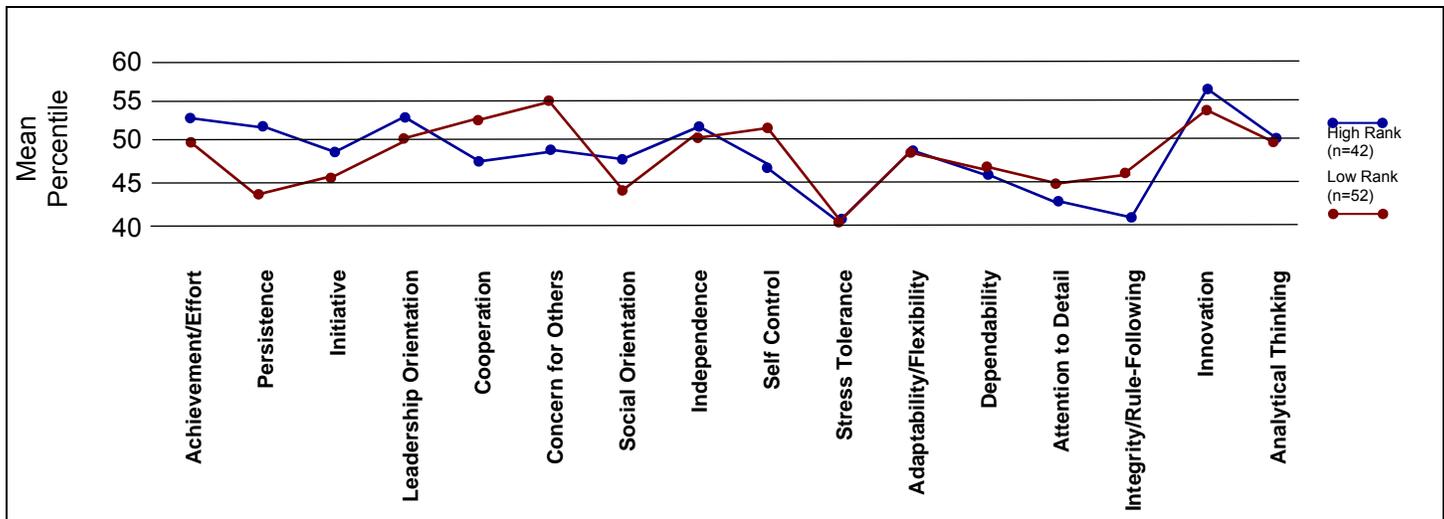


Figure 3.2 WPI Profiles of Principals: Higher vs. Lower Performers

Evidence of Construct Validity: Internal Structure

Initial WPI (2007)

The pattern of correlations among the WPI scales was generally consistent with theoretical expectations, providing additional evidence that the scales assess the work styles intended. For example, as shown in Table 3.11, Stress Tolerance correlated .55 with Adaptability/Flexibility and .53 with Self-Control. Achievement/Effort correlated .46 with Persistence, Dependability correlated .47 with Attention to Detail, and Innovation correlated .44 with Analytical Thinking.

The WPI scales appeared to be fairly independent. For example, Analytical Thinking and Achievement/Effort showed no significant relationship to Concern for Others, and although Innovation and Analytical Thinking were related ($r = .44$), the correlations were not so high as to suggest they measure the same construct. Two correlations that exceeded expected values were between Initiative and Adaptability ($r = .67$), and between Concern for Others and Cooperation ($r = .69$).

WPI-II (2013)

The pattern of correlations among the WPI-II scales is based on the sample of 951 subjects who were administered the WPI during the revision's item selection phase.

The scale correlation pattern of the WPI-II (see Table 3.12) is similar to the pattern of the original WPI (see Table 3.11). For example, Stress Tolerance correlated .52 with Adaptability/Flexibility and .53 with Self Control. Achievement/Effort correlated .62 with Persistence, Dependability correlated .59 with Attention to Detail, and Innovation correlated .43 with Analytical Thinking.

The WPI-II scales are fairly independent. For example, Achievement/Effort and Attention to Detail show no significant relationship to Concern for Others, and Innovation and Analytical Thinking are related ($r = .43$), at a level that makes sense conceptually. Some correlations did exceed expected values, most notably Initiative and Adaptability/Flexibility ($r = .72$).

Among the Domain scales (see Table 3.13), the correlations range from a low of $-.05$ between Practical Intelligence and Conscientiousness and $.05$ between Practical Intelligence and Interpersonal to a high of $.65$ between Self Adjustment and Achievement. Overall, the correlations are generally low to moderate.

Table 3.11 WPI (2007) and Work Style Scale Intercorrelations (N = 687)

Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 Achievement/ Effort	1.00															
2 Adaptability/ Flexibility	.43	1.00														
3 Analytical Thinking	.38	.30	1.00													
4 Attention to Detail	.20	-.05	.08	1.00												
5 Concern for Others	.01	.12	.01	.12	1.00											
6 Cooperation	.12	.21	.07	.22	.69	1.00										
7 Dependability	.31	.20	.03	.47	.22	.30	1.00									
8 Independence	.22	.36	.26	-.31	-.13	-.15	-.13	1.00								
9 Initiative	.58	.67	.34	.11	.06	.18	.29	.35	1.00							
10 Innovation	.39	.49	.44	-.06	.07	.12	-.02	.41	.47	1.00						
11 Integrity/Rule- Following	.09	.05	-.05	.35	.30	.43	.46	-.35	.14	-.10	1.00					
12 Leadership Orientation	.44	.49	.30	-.08	-.18	-.10	.12	.36	.53	.37	-.07	1.00				
13 Persistence	.46	.43	.21	.40	.20	.32	.60	.04	.55	.25	.39	.29	1.00			
14 Self-Control	.14	.28	.15	.12	.32	.39	.41	-.01	.25	.08	.42	.09	.43	1.00		
15 Social Orientation	.29	.41	.11	-.09	.24	.27	.07	.11	.38	.26	.08	.48	.20	.15	1.00	
16 Stress Tolerance	.22	.55	.24	-.07	.08	.13	.21	.24	.42	.24	.16	.44	.37	.53	.31	1.00

Note. All correlations shown are uncorrected. Correlations greater than or equal in magnitude to .08 are $p < .05$; correlations greater than or equal in magnitude to .10 are $p < .01$.

Table 3.12 WPI-II and Work Style Scale Intercorrelations (N = 951)

Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 Achievement/Effort	1.00															
2 Adaptability/ Flexibility	.49	1.00														
3 Analytical Thinking	.58	.52	1.00													
4 Attention to Detail	.33	.07	.21	1.00												
5 Concern for Others	.12	.14	.05	.09	1.00											
6 Cooperation	.27	.24	.13	.29	.63	1.00										
7 Dependability	.48	.21	.25	.59	.23	.44	1.00									
8 Independence	.30	.44	.38	-.23	-.07	-.11	-.07	1.00								
9 Initiative	.68	.72	.58	.21	.11	.23	.35	.42	1.00							
10 Innovation	.38	.45	.43	-.08	.11	.11	-.01	.45	.44	1.00						
11 Rule Following	.23	.14	.06	.43	.22	.45	.50	-.28	.20	-.12	1.00					
12 Leadership Orientation	.47	.45	.51	-.05	-.13	-.10	.05	.47	.53	.41	-.06	1.00				
13 Persistence	.62	.48	.46	.47	.16	.32	.61	.22	.63	.24	.38	.32	1.00			
14 Self Control	.30	.31	.25	.26	.29	.43	.48	.04	.28	.06	.41	.01	.47	1.00		
15 Social Orientation	.40	.39	.29	.04	.29	.28	.17	.16	.43	.29	.11	.49	.28	.08	1.00	
16 Stress Tolerance	.36	.52	.41	.12	.04	.14	.28	.21	.49	.17	.25	.41	.46	.53	.30	1.00

Note. All correlations shown are uncorrected. Correlations greater .07 are $p < .05$; correlations greater than or equal in magnitude to .08 are $p < .01$. Cases from the initial database of 1185 were excluded if they scored 30 (raw score) or higher in Unlikely Virtues or if they did not provide a description of their organizational level or position.

Table 3.13 WPI–II Domain Scale Intercorrelations (N = 951)

Domain	1	2	3	4	5	6
1 Achievement	1.00					
2 Conscientiousness	.50	1.00				
3 Interpersonal	.25	.38	1.00			
4 Practical Intelligence	.59	-.05	.05	1.00		
5 Self Adjustment	.65	.37	.29	.45	1.00	
6 Social Influence	.53	.06	.12	.52	.40	1.00

Note. All correlations shown are uncorrected. Correlations greater than or equal in magnitude to .11 are $p < .01$; all other correlations are $> .05$.

Faking and the WPI

It is well known that job applicants sometimes attempt to present an overly favorable image of themselves on personality tests. For example, a meta-analysis of 51 studies found that the means of applicant samples on personality tests tend to be from 0.48 to 0.65 standard deviations above the means of incumbent samples (Viswesvaran & Ones, 1999).

A study was conducted to estimate the extent to which applicants inflated their scores on the WPI in an attempt to make a favorable impression. The WPI was administered to a sample group of 53 employed adults who were asked to respond to the items in an honest and forthright manner (“honest” condition). Afterward, the same sample was instructed to respond to the same set of items as if they were in a job selection situation, seeking a position they very much wanted to acquire (“applicant” condition). Table 3.14 presents the means and standard deviations of each experimental administration, as well as the mean differences, t-scores, significance, and effect size of the differences between administrations.

Overall, scores on the majority of WPI scales increased significantly as expected. However, the amount of change was generally less than changes reported in similar studies on other personality inventories, with standardized mean score differences (i.e., d values) between .06 and .44 (median = .29).

Table 3.15 shows correlations of WPI scores across the honest and applicant conditions. Across conditions, scores on 15 of the 17 scales correlated between moderate and high (i.e., between .51 and .73), suggesting general consistency in the rank order of people’s scores on the scales. However, the correlations were not so high as to suggest a one-to-one relationship of scores. It appears that a few people were able to misrepresent their scores and make themselves appear more desirable than potentially better-qualified candidates.

Table 3.14 WPI Score Differences Between Honest and Applicant Conditions (*n* = 53)

Trait	"Honest" Mean	"Honest" SD	"Applicant" Mean	"Applicant" SD	Mean Difference	<i>T</i>	<i>p</i>	<i>d</i>	<i>r</i>
Achievement/ Effort	32.4	3.5	33.5	3.8	1.09	2.84	0.00638	0.3	.71**
Adaptability/ Flexibility	27.9	3.7	28.7	3.8	0.77	1.55	0.12620	0.21	.54**
Analytical Thinking	22.0	2.0	23.0	2.4	0.98	3.32	0.00166	0.44	.54**
Attention to Detail	27.2	3.0	28.0	3.1	0.79	2.14	0.03726	0.26	.61**
Concern for Others	30.2	3.2	30.3	3.4	0.19	0.51	0.61449	0.06	.66**
Cooperation	35.2	2.2	36.1	3.2	0.92	2.40	0.01999	0.34	.52**
Dependability	26.5	2.6	27.7	2.9	1.17	3.31	0.00173	0.43	.57**
Independence	23.6	2.9	24.4	3.1	0.75	2.30	0.02574	0.25	.68**
Initiative	28.6	3.4	29.8	3.9	1.19	2.68	0.00996	0.33	.61**
Innovation	24.3	2.8	24.8	2.8	0.49	1.46	0.15037	0.17	.62**
Integrity/Rule- Following	27.1	3.1	28.0	3.1	0.91	2.14	0.03687	0.29	.51**
Leadership Orientation	25.4	3.3	26.0	3.5	0.60	1.42	0.16258	0.18	.59**
Persistence	26.2	2.6	26.7	2.8	0.50	1.21	0.23295	0.19	.39**
Self Control	24.0	3.4	24.8	3.6	0.77	2.13	0.03784	0.22	.73**
Social Orientation	24.0	3.0	25.1	3.5	1.11	2.59	0.01244	0.34	.54**
Stress Tolerance	25.5	3.2	27.0	3.8	1.54	2.63	0.01141	0.44	.27*
Unlikely Virtues	22.6	2.8	23.9	4.6	1.33	2.65	0.01061	0.35	.61**

Note. All correlations shown are uncorrected. **p* < .05; ***p* < .01.

**Table 3.15 Correlation of Unlikely Virtues with Score Inflation
Across “Honest” and “Applicant” Conditions ($n = 53$)**

Score Inflation Measure	Correlation With Unlikely Virtues
Achievement/Effort Difference	.33*
Adaptability/Flexibility Difference	.46**
Analytical Thinking Difference	.45**
Attention to Detail Difference	.19
Concern for Others Difference	.27
Cooperation Difference	.35*
Dependability Difference	.45**
Independence Difference	.08
Initiative Difference	.50**
Innovation Difference	.35*
Integrity/Rule Following Difference	.28*
Leadership Orientation Difference	.41**
Persistence Difference	.55**
Self-Control Difference	.41**
Social Orientation Difference	.62**
Stress Tolerance Difference	.54**
Unlikely Virtues Difference	.79**

Note. All correlations shown are uncorrected. Score inflation was calculated as (WPI applicant condition score–WPI honest condition score). For the Unlikely Virtues measure, applicant condition scores were used.
* $p < .05$; ** $p < .01$

User's Guide

Chapter 4: How to Use the WPI–II

The *Workplace Personality Inventory*, second edition (WPI–II) is administered through Pearson's online testing platform at *pan* (<https://tara.vitapowered.com/your account name>), an online system designed for the administration, scoring, and reporting of professional assessments. Instructions for administrators on how to order and access the inventory online are provided at the Platform Help section of the TalentLens website (<http://us.talentlens.com/online-testing>). Instructions for accessing WPI interpretive reports are also provided on the website.

After the WPI–II has been completed online, the administrator can use the link Pearson provides to review that individual's interpretive report (either the Profile Report or the Development Report).

Preparing for Administration

Being thoroughly prepared before administering the inventory leads to more efficient administration. If you are the Administrator, take the WPI–II before you administer it to others, so that you understand the directions and other aspects of taking the WPI–II from the examinee's perspective.

The administration of the WPI–II should comply with the professional practice standards of the organization administering it, applicable government regulations, and the recommendations of the publisher. Before they take the WPI–II, individuals should be informed about the nature of the assessment, why they are being asked to complete it, the conditions under which they will be evaluated (e.g., for selection applications or for development), and the nature of any feedback they will receive. The WPI–II was written at an 8th grade reading level. The administrator should confirm that individuals can read at this level and that they have at least some work experience so that they can respond to the questions in a meaningful way.

It is the administrator's responsibility to ensure that examinees understand the purpose of the administration and assessment use. The administrator also should ensure that all relevant background information from the individual is collected and verified (e.g., name, sex, education level, current employment).

Though not required, it is a good idea for the administrator to obtain informed consent from the individual. The informed consent form is a written statement, signed by the individual taking the inventory, that explains the type of assessment instrument to be administered, the purpose of the evaluation, as well as who will have access to the report(s) or assessment data.

Administration Conditions

The administrator should ensure that the individual takes the inventory in a quiet, well-lit room. The following conditions facilitate creating a favorable attitude in the individual taking the inventory, and producing accurate WPI–II data: adequate time (25 to 45 minutes) to complete the inventory, good lighting, comfortable seating, adequate space, comfortable positioning of the computer monitor, a working keyboard and mouse, and freedom from noise and other distractions.

Answering Questions

The necessary instructions for completing the WPI–II are provided on-screen. However, it is important for the administrator to develop and maintain rapport with individuals taking the assessment. The administrator is responsible for ensuring that they understand all requirements and how to respond appropriately.

If individuals have questions about how to interpret an inventory item, the administrator should encourage them to respond to the item as they understand it. The administrator also should encourage them to avoid spending too much time thinking about any one item. The administrator should advise them that their honest first reactions to the items will likely lead to the most accurate information about their work styles.

Administering the WPI–II

Individuals can complete the WPI–II from the comfort of their preferred location, provided they have a computer and online access. After the individual accesses the online testing platform (at an on-site station or through an email link to the inventory), instructions appear and guide them through completing the inventory. This process begins with demographic questions. The inventory is not timed. People typically complete the full inventory in about 30 minutes.

If an individual's computer develops technical problems during the assessment, they should move to another suitable computer location, if possible. If the technical problems cannot be solved by moving to another computer location, have the individual contact Pearson's Technical Support at 1-888-298-6227 for assistance. The administrator should provide individuals who are completing the inventory from remote locations with information on where to report technical problems.

Scoring and Reporting

Scoring the WPI–II is automatic and the report typically is available within a minute after the inventory has been completed. A link to the report is available at your administrator's account on *pan*. Adobe® Acrobat Reader® is required to download the report. The administrator may view, print, or save the individual's report.

Data Security

WPI–II scores are confidential and should be stored in a secure location accessible only to authorized individuals. It is unethical and poor practice to allow access to data by individuals who do not have a legitimate need for the information. Storing WPI–II scores and reports in password protected folders or in a locked cabinet (for hard copies) that can only be accessed by designated individuals will help ensure the security of the WPI–II scores. The security of results (e.g., access to online information) and protection of copyright must also be maintained by customers.

Accommodating Examinees with Disabilities

The Americans with Disabilities Act (ADA) requires a prospective employer to reasonably accommodate the known disability of a qualified job applicant, provided such accommodation would not cause an "undue hardship" to the operation of the employer's business.

The administrator should provide reasonable accommodations to enable job candidates with special needs to comfortably take the inventory. Reasonable accommodations may include, but are not limited to, modifications to the medium (e.g., having a reader read items to the candidate, or increasing the onscreen font size of items) (Society for Industrial and Organizational Psychology, 2003). Interpretive data as to whether scores on WPI–II are comparable for candidates who are provided reasonable accommodations are not available at this time, due to the small number of candidates who have requested such accommodations.

Chapter 5: Using the WPI–II in the Selection Process

The following information provides general guidelines for using the *Workplace Personality Inventory II* (WPI–II) in conjunction with the Occupational Information Network (O*NET[®]) for employee selection purposes. Please consult with your Human Resource leadership to determine the specific steps of your organization’s hiring process, and document your process and training for all users.

Relevance of the WPI–II for Employee Selection and Promotion

The WPI–II was developed for use in employment selection and it has predicted job effectiveness in positions that require interpersonal and work style skills (see Chapter 3: Evidence of Reliability and Validity). As previously noted, the WPI–II is based on a comprehensive taxonomy of 16 important personality-based work styles that are required, in various combinations, for most jobs within organizations today. Each job requires a unique combination of personality characteristics for optimal performance, so the relevance of each work style varies by job.

Guidelines for Using the WPI–II in Employment Selection

Many organizations use testing as a component of their employment selection process. Employment selection programs typically use cognitive ability tests, aptitude tests, personality inventories, and basic skills tests to screen out unqualified candidates, to categorize prospective employees according to their probability of success on the job, or to rank a group of candidates according to merit.

The WPI–II was designed to assist in the selection of employees for jobs based on the important work style requirements of the particular job under consideration. To determine which work styles are relevant, an optimal procedure is to conduct a job analysis and a local validation study. Job analysis and local validation of the WPI–II for selection purposes should follow accepted human resource research procedures, and conform to existing guidelines concerning fair employment practices.

The following guidelines outline standard practice for how to use the WPI–II in employment selection. Further information is also available from the Society for Industrial and Organizational Psychology (www.SIOP.org; Society for Industrial and Organizational Psychology. (2003).

1. Define the job or role for which you want to make a hiring decision. There are many ways to define a job, from performing a formal job analysis to simply writing a job description based on the hiring/department manager’s needs.

A personality-based job analysis will reveal the work-related personality dimensions (or work styles) that are important for successful performance in the job for which you are hiring. Answer the following questions for this exercise:

- ✓ What are the specific tasks the individual must perform?
- ✓ What are the key indicators of successful performance of the role? What should the tasks listed produce for the organization, if done well by the individual(s) eventually hired?
- ✓ The work context and tools. For example, will the individual work in a cubicle, or an office with a door, or outdoors? Will the individual work in a fast paced environment with recurring deadlines?

2. Determine the knowledge, skills, abilities, and other characteristics (KSAOs) that are required to perform well in the job being filled. The personality-based (i.e., work style) requirements for the position fall under the other category of requirements.
3. Review the personality-based work styles, as defined in this document. Based on the definitions and your KSAO requirement list, select those work styles that are important to target. In general, it is best to identify those work styles that an individual should have high levels of rather than to identify those styles which you prefer an individual not to have.

The rating scale provided in Appendix A will help you select the work styles that are important for a specific job based on your own evaluation of the work styles required. It will also assist in comparing your evaluation to the Importance Scores provided by O*NET. One of the key advantages of the WPI-II is that the dimensions it measures have a one-to-one correspondence with the O*NET Work Styles. Therefore, O*NET can also help you establish the work styles that are important for the job. To do so, go to O*NET Online and find the occupation for which you want to make a hiring decision. Work Style importance scores are provided for hundreds of occupations.

The following information will help guide interpretation of the O*NET Importance Scores:

- 0 = Not Important
- 25 = Somewhat Important
- 50 = Important
- 75 = Very Important
- 100 = Extremely Important

These scores provide an indication of the unique combination of the 16 work styles that is important for successful performance in the occupation that you have selected. The closer your job description and requirements match the occupational requirements (e.g., tasks, work activities, and work context) provided by O*NET, the more likely your ratings of importance will coincide with the O*NET Importance Scores.

4. Document which work styles you will use in the hiring decision for the particular role and determine how they will be incorporated into the hiring decision in a consistent manner. You should decide:
 - ✓ When the test will be administered (before the interview or after the interview).
 - ✓ How you will combine the selected WPI-II scores with other information obtained throughout the selection process. Many organizations use a holistic approach where the interview results, resume review, assessment results (including the WPI-II) and other information are considered together to generate a comprehensive profile of the individuals being considered. This approach is ideal since it takes into account that the use of multiple predictors typically produces the most reliable and accurate prediction of job performance.
Once you define the procedure for how you will use the WPI-II results to make the hiring decisions, follow the procedure consistently. Consistent use of the WPI-II is essential to ensure effectiveness and legal defensibility.
5. Select Norm Group. There are commercially published norms for the WPI-II. The list of norms is updated periodically and the composition of each norm group is available at the WPI-II product support page on the platform and at TalentLens.com. Some organizations prefer to use their own norms (local norms), which provides more customization or specificity for the organization.

Using the Unlikely Virtues Scale

The WPI-II Unlikely Virtues (UV) scale should be used to evaluate the forthrightness of the test taker during the assessment session and whether the assessment results are meaningful. The WPI-II UV scale accumulates responses to a set of ten self-effacing items and compares the individual's response patterns with those of the base sample. High percentile scores represent a higher probability of self-misrepresentation.

When scores are excessively high (i.e., higher than 90% of the norm sample), the test user is advised to disregard WPI-II results and use other forms of analysis to come to their decisions concerning the test taker. In no case should the scores be used to make any decision besides the usability of WPI-II scores. Good candidates sometimes represent themselves to be more virtuous than they truly are and are nonetheless worthy candidates for an employer's selection or initiatives. Unlikely Virtues scores simply define the usability of their WPI-II results.

Using the WPI-II in Making a Hiring Decision

The hiring authority (e.g., HR professional) is responsible for determining how to use scores from the WPI-II. If the hiring authority establishes a cut score, candidates' scores should be considered in the context of appropriate measurement data, such as the reliability and predictive validity of the test. In addition, selection decisions should be based on multiple job-relevant tools rather than relying on any single assessment. The WPI-II is an ideal complement to cognitive and skills assessment, interviews, references, and resumes.

Understanding the Profile Report

The WPI-II Profile Report is a three page report that includes a cover page with the applicant's name and testing date, a second page that reports the six domain scores, how to use the report and the Unlikely Virtues score, and a third page that presents the sixteen work styles scores.

To review the Profile Report, go to the bottom of page two and read the sections, *How to Use the WPI-II Profile Report* and *Validity of this Report*. The WPI-II should be interpreted in light of the Unlikely Virtues score. Extremely high scores (90%) on Unlikely Virtues suggest overly positive self representation and as such, all subsequent results should be interpreted with extreme caution.

How to Use the WPI-II Profile Report

The WPI-II measures work styles that influence job success.

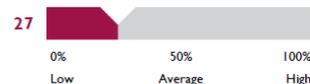
On this page, the candidate is compared to others in the norm group across six work style domains. These domains provide a broader description of behaviors related to job success.

Page 3 of the report provides a comparison across sixteen specific work styles. This detailed view describes more distinct behaviors within the broader domains.

Validity of this Report

The candidate's responses suggest that they acknowledged common self limitations and responded to questions more openly than most individuals in the selected norm group. The results of this report appear to be valid.

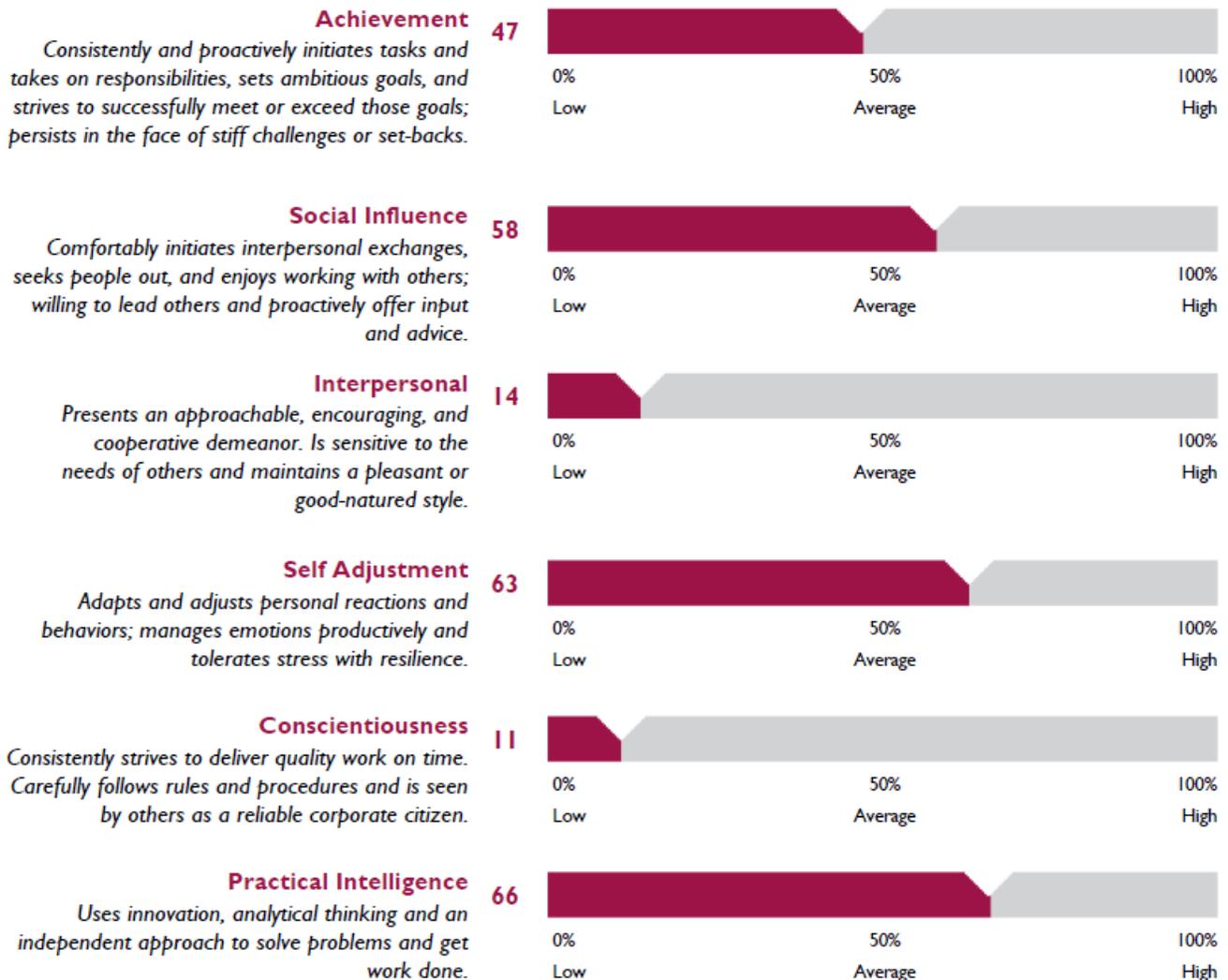
Unlikely Virtues = 27%



The domain scores on page 2 (Six Drivers of Work Performance) represent the average of the scale items included within each domain. The domains are broader than the work styles, and should be used for selection only after they have been validated through job analysis.

Six Drivers of Work Performance

Percentile Scores

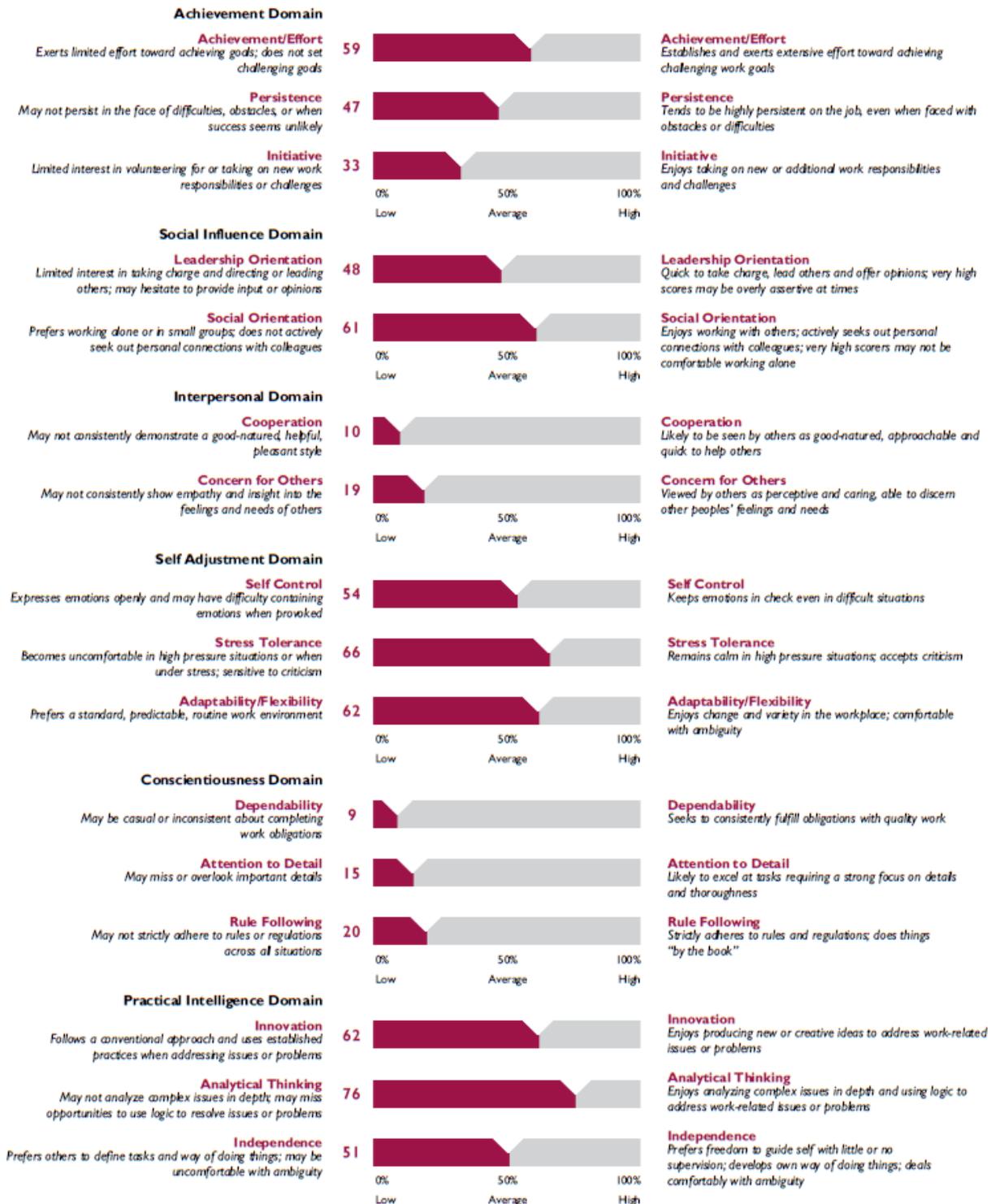


The domain scores are presented on a percentile scale that ranges from 1 to 100. The percentile score is a standardized score that indicates the amount of the competency the individual possesses, relative to individuals in the norm group (i.e., peers). The percentile score indicates the proportion of the peer group that possesses less of the specific work style than the individual assessed and for whom the report was prepared. For example, if an individual's score on the Social Influence Domain is at the 79th percentile, it means that 79% of his or her peers scored lower on this domain. Any score above the 50th percentile is above average in comparison to the norm group.

The sixteen work styles are presented on page 3 of the Profile Report. Descriptions of low and high scoring behaviors are provided on the left and right side of the page, respectively. Similar to the domain scores, work styles scores are presented as percentiles. If an individual's score on the Achievement/Effort scale is at the 59th percentile, it means that 59% of his or her peers in the norm group scored lower on Achievement/Effort.

Sixteen Work Styles

Percentile Scores



Interpreting the WPI-II Scores

Human resource professionals can look at the meaning of the candidate's percentile rank in several ways. Candidates' scores can be ranked by percentiles so that those with the highest percentile ranks are considered further. However, this strategy assumes that higher scores are

always better, which is usually accurate, but not always. Alternatively, a cut score (e.g., the 50th percentile) can be established so that candidates who score below the cut score are not considered further. If an organization wants to use raw scores, they can request those scores from the TalentLens Customer Service Team (call 888-298-6227), or they can download the raw scores directly from the platform if they have a Professional Account with *pan*.

In general, the higher the cut score is set, the higher the likelihood that a candidate who scores above that will be successful. However, the need to select high scoring candidates typically needs to be balanced with situational factors, such as the need to keep jobs filled and the supply of talent in the local labor market. Also, extremely high scores may suggest a tendency to overuse the work style skill.

When interpreting scores on the WPI–II, it is useful to consider the specific behaviors that an applicant with a high score is likely to exhibit. In general, candidates who score low on one work style or a combination of work styles may find it challenging to effectively demonstrate the relevant job behaviors associated with the work style(s). Conversely, candidates who score high on the work style(s) are likely to display those behaviors. The requirements of a job could necessitate that an individual be neither too low nor too high on a particular attribute. In such situations, the relevant job requirements should guide the user’s interpretation and decision making.

Human resource professionals who use the WPI–II should document and examine the relationship between applicants’ scores and their subsequent performance on the job. Using locally obtained criterion-related validity information provides the best foundation for interpreting scores and most effectively differentiating examinees who are likely to be successful from those who are not. Pearson does not establish or recommend a passing score for the WPI–II.

Differences in Reading Ability, Including the Use of English as a Second Language

The WPI–II is written at the eighth-grade reading level. As a result, a level of reading proficiency in the English language is assumed and reflected in the items. When the inventory is used to measure the work styles of candidates whose first language is not English, reasonable precautions need to be taken. If a candidate experiences difficulty with the language or the reading level of the inventory, note this information and consider it when interpreting the inventory scores. In some cases, it may be more appropriate to test such individuals with another assessment procedure that fully accommodates their language of preference.

Legal Considerations

Governmental and professional regulations cover the use of all personnel selection procedures. Relevant source documents that the user may wish to consult include the *Standards for Educational and Psychological Testing* (AERA et al., 1999); the *Principles for the Validation and Use of Personnel Selection Procedures* (Society for Industrial and Organizational Psychology, 2003); and the federal *Uniform Guidelines on Employee Selection Procedures* (Equal Employment Opportunity Commission, 1978). For an overview of the statutes and types of legal proceedings that influence an organization’s equal employment opportunity obligations, the user is referred to Cascio and Aguinis (2005) or the U.S. Department of Labor’s (1999) *Testing and Assessment: An Employer’s Guide to Good Practices*.

Fairness in Selection Testing

Fair employment regulations and their interpretation are continuously subject to changes in the legal, social, and political environments. Therefore, users of the WPI–II should consult with qualified legal advisors and human resources professionals as appropriate.

Group Differences and Adverse Impact

According to the *Uniform Guidelines on Employee Selection Procedures* (Equal Employment Opportunity Commission, 1978), adverse impact is indicated when the selection rate for one group is less than 80% (or 4 out of 5) of another group. Unlike cognitive ability tests which typically have substantial adverse impact, work style inventories have low to minimal adverse impact (Pearson, 2007, Ryan, Ployhart, & Friedel, 1998; Schmitt, Rogers, & Chan, 1997). A situation of low to minimal adverse impact would eliminate or significantly reduce the likelihood of an applicant seeking legal recourse under Title VII of the Civil Rights Act to complain against the use of a work style inventory as a selection tool (Ryan et al., 1998).

Local validation is particularly important if there is a possibility that a selection test could lead to adverse impact. A local validation study, in which WPI-II scores are correlated with job performance indicators, can provide evidence to support the use of the test in a particular job context. An evaluation that demonstrates that the WPI-II (or any employment assessment tool) is equally predictive for protected subgroups, as outlined by the Equal Employment Opportunity Commission, will assist in the demonstration of fairness of the test.

Monitoring the Selection System

An organization's ability to evaluate selection strategies and to implement fair employment practices depends on its awareness of the demographic characteristics of applicants and incumbents. Monitoring these characteristics and accumulating test score data are clearly necessary for establishing legal defensibility of a selection system, including those systems that incorporate the WPI-II. The most effective use of the WPI-II is with a local norms database that is regularly updated and monitored.

The hiring organization should ensure that its selection process is clearly job related and focuses on characteristics that are important to job success. Good tests that are appropriate for the job contribute to effective hiring and minimize the major sources of bias in selection procedures. The WPI-II is a reliable and valid instrument for the assessment of a number of work-related personality attributes. When used for the assessment of candidates or incumbents for work that requires these attributes, the WPI-II can be useful in the selection of better candidates.

Chapter 6: Using the WPI–II as a Development Tool

Many organizations use assessments, including cognitive ability tests, personality inventories, simulations, and basic skills tests, as a component of their employee development programs. The WPI–II measures interpersonal and work style attributes (i.e., soft skills).

Though WPI–II results are relevant for most employees, it is important to conduct a competency analysis so that the relationship between WPI–II domains/work styles results and organizational competencies is clear.

When you are ready to prepare an employee development plan:

1. Define the job or role you want to develop (e.g., front line manager). There are many ways to define a job, from formal competency analysis, which is recommended, to simply writing a job description based on the organization's needs.
2. A personality-based analysis reveals work-related personality dimensions (or work styles) that are important for successful performance. Create a role requirements list that contains
 - i a list of key tasks to be performed by individuals in this role;
 - ii a list of key metrics or indicators of successful performance (what should the key tasks produce for the organization, if done well by the individual[s] in the role?); and
 - iii the work context. Will the individual supervise others? If so, what is the span of their authority? Does the organization require flexibility or innovation to be successful?
3. Use the rating scale in Appendix A to help you select the domains and work styles that are important for a specific job or role. Based on the definitions and your role requirements list, select those domains or work styles that are important for job performance. In general, it is best to identify those work styles that an individual should have high levels of rather than to identify those styles you prefer an individual not to have.

Using the Unlikely Virtues Scale

Use the WPI–II Unlikely Virtues (UV) scale to evaluate an individual's forthrightness or willingness to admit imperfections and whether the assessment results are meaningful. The WPI–II UV scale includes a set of 10 self-effacing items and compares the individual's response patterns with those of the base sample. High percentile scores represent a higher probability of self-misrepresentation.

If scores are excessively high (i.e., higher than 90% of the norm sample), use extreme caution when interpreting results. The employee is likely to receive more positive feedback in the development report (e.g., leverage this strength) rather than receiving report suggestions for how to develop a weaker skill. Extremely high UV scores suggest that the employee's development report may offer more positive feedback than their actual workplace behavior warrants.

Selecting Appropriate Norms

When using the WPI–II for development, it is important to first choose an appropriate norm group. The list of available norm groups and the composition of those groups can be found at the platform's WPI–II product page at [TelentLens.com](https://www.telent.com) in the Resource section. Employees responses are compared to the responses of a peer group (norm group), which provides a point of reference, allowing the employee to see areas where they are high or low, compared to peers.

Understanding the Development Report

Self awareness is the first step in professional development and the WPI-II gives employees personal feedback on important work style behaviors.

Understanding the Six Performance Drivers and Your Results

1. Start by reading How to Use the Development Report and the Understanding Your Results section on **page 2** of the report. Pay attention to the
 - a. norm group to which the employee is being compared. The employee's feedback will vary depending on the norm group chosen.
 - b. validity of the results. High (over 90%) Unlikely Virtues scores suggest the feedback is probably overly positive.

How to Use the WPI-II Development Report

Understanding your work personality is an important step toward professional development. This report is designed to help you increase your self-awareness.

The WPI-II measures work-relevant attitudes and behaviors that contribute to or impede job performance. The scores reflect how someone is likely to approach their work or interact with others in a work setting.

This report begins with a snapshot of your results (see above). Pages 3–8 describe each work style domain in detail, characteristics of high and low scores, and development suggestions based on your results. Pages 9–11 offer step-by-step guidance on how to develop your skills.

Understanding Your Results

Your scores are based on how you responded to the questions and the occupational group to which you were compared (e.g., if you are a manager, your responses were compared to those of other managers). Your scores can change over time, but change typically requires insight into your work style and focused effort to intentionally change behavior.

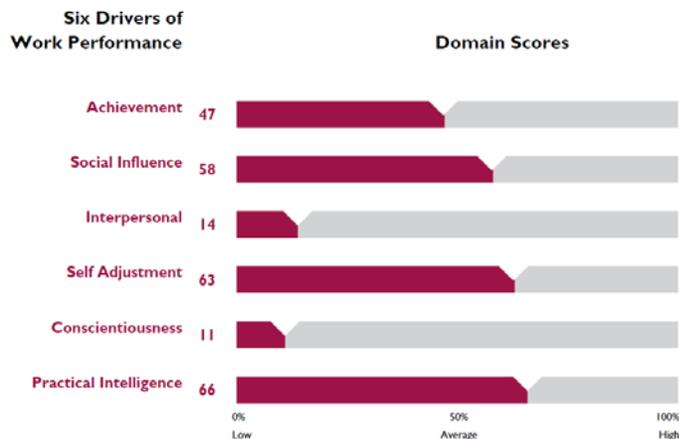
Comparison (Norm) Group is Managers:

The scores are presented as percentiles. A score of 75% means that you scored higher than 75% of others in your comparison group.

Validity of this Report:

Your responses suggest that you acknowledged common self limitations and responded to questions more openly than most individuals in the selected norm group. The results of your report appear to be valid.

2. Review the **Six Drivers for Performance (domain scores)** summary. These six domains are averages of the work styles within each domain and they provide an organizational framework for describing work style behavior. The domain scores are presented on a percentile scale that ranges from 1 to 100. The percentile score is a standardized score that indicates the amount of competency the individual possesses relative to individuals in the norm group (e.g., Managers). The percentile score indicates the proportion of the norm group who possess less of the specific work style domain than the individual assessed and for whom the report was prepared. For example, if an individual's score on the Social Influence Domain is at the 79th percentile, it means that 79% of the norm group scored lower on this domain. Any score above the 50th percentile is above average in comparison to the norm group.



Detailed Descriptions of the Six Drivers of Performance

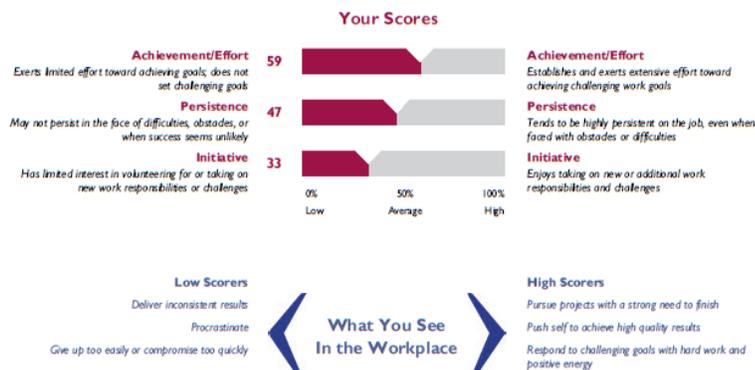
Pages 3–8 provide descriptions of how each domain drives your performance.

1. **Your Scores** shows how the employee scored (compared to the norm group) on the work style scales within that domain. Descriptions of low (on the left) and high score (on the right) behaviors are presented.
2. **What You See in the Workplace** is a snapshot of behaviors reflective of the work styles in that domain.
3. How to strengthen performance (e.g., **Become a High Achiever, Increase Social Influence**) is presented on the lower left portion of the page. The suggestions are personalized for the individual based on his/her scores. Low, mid and high scorers receive different feedback.
4. **How Managers/Coaches can Support Development** provides suggestions to a manager or coach on how to best support this employee’s development. These suggestions are also personalized for the individual based on their score level.

ACHIEVEMENT

John Sample

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How to Become a *Higher Achiever*

- Initiative is about identifying an important need in your group/company, working hard and taking responsibility to address it. It goes beyond minimum performance goals. Ask your manager where you could take more initiative and make the biggest impact to help the team.
- Look for 1-2 projects/tasks where you can volunteer or increase your presence. Choose areas where you can make a noticeable difference. Look for projects/tasks that address an important need in your group/company.
- Get frustrated easily? Give up quickly? Make sure your emotions aren't driving your behavior. Step back and analyze the problem/obstacle. What are the issues/barriers? What would it take to remove them? Who can help? What resources are needed? Stick with it.

How Managers/Coaches Can Support Development

- Actively point out and discuss priority-setting so it becomes easier for them to see which activities are most crucial for the group's success and which ones are less so.
- Describe the phases of a project or task prior to assignment. Discuss potential barriers and brainstorm how to overcome barriers. Set the standard that problem-solving is expected when barriers arise.
- Using behavioral examples from your work setting, describe what initiative looks like and what you expect. Discuss behaviors that meet minimum job requirements and behaviors that reflect higher levels of initiative.

Plan Your Development

Pages 9–11 provide step-by-step directions for how to begin and implement a development plan based on WPI–II feedback. Tips, located along the right margin, are specific suggestions that have been found to support development actions. **Coaches and employees can use this to map out an employee’s development goals, activities and progress.**

PLAN YOUR DEVELOPMENT

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Be specific

Building workplace skills requires a well thought-out and detailed plan of action.

1. Select a domain for development.

(see Six Drivers of Workplace Performance, p. 2).

Which domain will you focus on first?

2. Review the full page description of that domain.

(Place a ✓ by the suggestions you want to practice)

Describe what you will do in your work setting.

What will you do more frequently? What will you stop doing?

More
Stop

How can your manager/coach best help you?

Tip

It is best to focus on one development area at a time and to practice and receive feedback for 3–6 months.

Tip

Ask your manager for input. Make sure you both agree on priority.

Tip

Work on specific behaviors to build specific skills.

Understanding how specific behaviors connect to outcomes helps you learn more quickly.

Tip

Need more "how to" ideas?

These resources provide detailed development suggestions:

Awaken, Align, Accelerate: A Guide to Great Leadership. Scott Nelson and Jason Ormeier. Edina, MN: Beaver's Pond Press, 2010.

Successful Manager's Handbook, Susan Gebelein, Kristie Nelson-Neuhaus, Carol Skube, David Lee, Lisa Stevens, Lowell Hellervik, and Brian Davis. Minneapolis, MN: Personnel Decisions International Corporation, 2004.

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Appendix A: Domain and Work Style Importance Rating Form

Work Style	Your Rating of Importance				
	Not Important	Somewhat Important	Important	Very Important	Extremely Important
Achievement Domain					
<i>Consistently and proactively initiates tasks and takes on responsibilities, sets ambitious goals, and strives to successfully meet or exceed those goals; persists in the face of stiff challenges or setbacks.</i>					
Achievement/Effort establishes challenging goals; maintains goals; exerts effort toward task mastery	<input type="checkbox"/> 0	<input type="checkbox"/> 25	<input type="checkbox"/> 50	<input type="checkbox"/> 75	<input type="checkbox"/> 100
Persistence persists in the face of obstacles on the job	<input type="checkbox"/> 0	<input type="checkbox"/> 25	<input type="checkbox"/> 50	<input type="checkbox"/> 75	<input type="checkbox"/> 100
Initiative takes on job responsibilities without being told to do so; volunteers for new job responsibilities; volunteers for new job challenges	<input type="checkbox"/> 0	<input type="checkbox"/> 25	<input type="checkbox"/> 50	<input type="checkbox"/> 75	<input type="checkbox"/> 100
Social Influence Domain					
<i>Comfortably initiates interpersonal exchanges, seeks out people, and enjoys working with others; willing to lead others and proactively offer input and advice.</i>					
Leadership Orientation willing to lead/take charge; willing to offer opinions	<input type="checkbox"/> 0	<input type="checkbox"/> 25	<input type="checkbox"/> 50	<input type="checkbox"/> 75	<input type="checkbox"/> 100
Social Orientation prefers to work with others; has work colleagues as personal friends	<input type="checkbox"/> 0	<input type="checkbox"/> 25	<input type="checkbox"/> 50	<input type="checkbox"/> 75	<input type="checkbox"/> 100
Interpersonal Domain					
<i>Presents an approachable, encouraging, and cooperative demeanor. Is sensitive to the needs of others and maintains a pleasant or good-natured style.</i>					
Cooperation pleasant/good-natured with others on the job; encourages people to work together; helpful with tasks	<input type="checkbox"/> 0	<input type="checkbox"/> 25	<input type="checkbox"/> 50	<input type="checkbox"/> 75	<input type="checkbox"/> 100
Concern for Others sensitive to the needs and feelings of others; understands and demonstrates empathy to others	<input type="checkbox"/> 0	<input type="checkbox"/> 25	<input type="checkbox"/> 50	<input type="checkbox"/> 75	<input type="checkbox"/> 100

Self Adjustment Domain					
<i>Adapts and adjusts personal reactions and behaviors; manages emotions productively and tolerates stress with resilience.</i>					
Self Control keeps emotions in check even in very difficult situations	<input type="checkbox"/> 0	<input type="checkbox"/> 25	<input type="checkbox"/> 50	<input type="checkbox"/> 75	<input type="checkbox"/> 100
Stress Tolerance accepts criticism; tolerant of stress caused by other people or situations	<input type="checkbox"/> 0	<input type="checkbox"/> 25	<input type="checkbox"/> 50	<input type="checkbox"/> 75	<input type="checkbox"/> 100
Adaptability/Flexibility adapts to change in the workplace; deals effectively with ambiguity; open to considerable variety in the workplace	<input type="checkbox"/> 0	<input type="checkbox"/> 25	<input type="checkbox"/> 50	<input type="checkbox"/> 75	<input type="checkbox"/> 100
Conscientiousness Domain					
<i>Consistently strives to deliver quality work on time. Carefully follows rules and procedures and is seen by others as a reliable corporate citizen.</i>					
Dependability reliable in fulfilling obligations	<input type="checkbox"/> 0	<input type="checkbox"/> 25	<input type="checkbox"/> 50	<input type="checkbox"/> 75	<input type="checkbox"/> 100
Attention to Detail thorough in completing work tasks	<input type="checkbox"/> 0	<input type="checkbox"/> 25	<input type="checkbox"/> 50	<input type="checkbox"/> 75	<input type="checkbox"/> 100
Rule Following avoids unethical behavior; follows rules and regulations	<input type="checkbox"/> 0	<input type="checkbox"/> 25	<input type="checkbox"/> 50	<input type="checkbox"/> 75	<input type="checkbox"/> 100
Practical Intelligence Domain					
<i>Uses innovation, analytical thinking and an independent approach to solve problems and get work done.</i>					
Independence depends mainly on oneself to get things done	<input type="checkbox"/> 0	<input type="checkbox"/> 25	<input type="checkbox"/> 50	<input type="checkbox"/> 75	<input type="checkbox"/> 100
Innovation shows new ideas to address work issues and problems	<input type="checkbox"/> 0	<input type="checkbox"/> 25	<input type="checkbox"/> 50	<input type="checkbox"/> 75	<input type="checkbox"/> 100
Analytical Thinking uses logic to address work-related issues; comes up with high quality, useful information	<input type="checkbox"/> 0	<input type="checkbox"/> 25	<input type="checkbox"/> 50	<input type="checkbox"/> 75	<input type="checkbox"/> 100