

# Comparing Correlations Between Four-Quadrant And Five-Factor Personality Assessments

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## ABSTRACT

*For decades, some of the most popular devices used in educating students and employees to the values of diversity are those that are based on a four-grid identification of behavior style. The results from the scoring of the instruments provide individual profiles in terms of a person's assertiveness, responsiveness, and preferred tone of interacting with his environment. In the past decade, a five-factor framework has gained in popularity as an assessment instrument. The scope of the current paper is a comparison of a four-factor instrument (questionnaire) to a five-factor instrument (questionnaire) to establish correlations between the two. If the information can be seen as being complimentary rather than disconnected, then users will benefit from synergy as they encounter different instruments throughout their careers. Also, duplication of effort in terms of using multiple instruments may be reduced.*

**Keywords:** Personality Assessment; DISC; Five-Factor Model; Education; Organizational Behavior

## INTRODUCTION

People have always tried, through anecdotal evidence, to make assumptions and develop myths and superstitions that impact their lives (example: money can buy happiness . . . as long as you spend it on other people). The importance of individuality in understanding behavior is best expressed by Kurt Lewin, a neo-gestalt, in his formula:  $B=f(e \times p)$ . The behavior of any one person is due to who he is and the environment in which he finds himself. While it is human nature to observe and pass judgment (categorize) the people with whom we interact, based on anecdotal evidence, science offers a more reliable way of assessing others and ourselves. Lewin was at the forefront of scholars who believed that a basic purpose of any science is to develop theory. Theories are carefully worded statements specifying relations among variables that explain and predict what will happen. In this paper, we seek to relate theory to practice. The purpose of one is to generate knowledge; the purpose of the other is to be able to put the knowledge into practice (Sanderlands n.d.). Our understanding of the transfer of knowledge encourages us to explore ways in which commonalities of theories lead to comprehension and practice of knowledge.

In this paper, the micro unit of behavioral study is that of individual personality. Personality instruments provide individual profiles in terms of a person's assertiveness, approach to decision-making, responsiveness, and preferred style of interacting with his environment. The two instruments being compared are the four-quadrant Jungian-based DiSC and the Five-factor Model of Personality.

## PURPOSE

Around 80 percent of the Fortune 500 companies use personality tests, such as the Myers-Briggs Type Indicator, to assess their employees for the purpose of coaching, development, and team building (Dattner, 2008). A review of the literature supports the need for understanding and validating this popular practice.

The underlying assumed value of using personal assessments in class is that an understanding of the knowledge provided will enable the person to become closer to reaching his full potential. Jung predicted "...modern man can only know himself insofar as he can become conscious of himself" (Jung, 1957, 79). Having an objective - if not always a 100% accurate descriptive theory of one's self and the impact that one has on others - may influence our interpersonal skill acquisition. Personality research supports the theory that recognition of one's preferred behavior and preferred environment influences the challenges one accepts and the decisions one is most likely to make. "There is nothing so practical as a good theory" (Lewin, 1951, 100). The caveat here is that the knowledge in no way determines what we are *able* to do.

An increased synergy is anticipated through the generalizations that apply to the results of this study. Perspectives on learning, leadership, conflict resolution, and communication are natural extensions of personality awareness. The instruments are based on theories. The reader is reminded that the point of this paper is not to question the theories, but rather to show the similarities in them and their root derivation. Scholars have shown that positive transfer occurs when learning in one context improves performance in another context (Perkins, 1992, 3); i.e., a student who learns in one class that his style tends toward that of a "High I, High S" can build on that information in a subsequent corporate training session where the trainer prefers to use the Five-factor vocabulary of "Extravert, Agreeable." Furthermore, the knowledge of "type/style" will help him further in understanding and/or communicating with a difficult co-worker who defiantly says, "You just don't understand me; I'm an ISTJ." The work by Allesandre - the discussion of a "Platinum Rule" - is an additional logical extension of the use of the theories.

## **LITERATURE REVIEW**

Writings which span popular and scholarly work exhort the importance of self-knowledge. Three such scholars are Peter Senge, Daniel Goleman, and Peter Drucker. Peter Senge, in his well-received materials on "learning organizations", writes on the importance of the personal mastery which is defined as "learning to expand our personal capacity to create the results we most desire, and creating an organizational environment which encourages all its members" (Senge, Kleiner, Roberts, Ross, & Smith, 1994, pg. 6). It is his belief that people with a high level of personal mastery achieve results that matter most to them personally. "People who excel in these skills (personal awareness) do well at anything that relies on interacting smoothly with others; they are social stars" (Goleman, 1995, 43-44). "And yet, a person can perform only from strength. One cannot build performance on weaknesses, let alone on something one cannot do (or be) at all." (Drucker 2005, 100)

Conventional wisdom is that each of us is unique because no environmental experiences of the genetic pool are the same for any two people. Our personalities are an important determinant of our behavior. "Because personality is an important determinant of how a person thinks, feels, and behaves, it is helpful to distinguish between different types of personalities." (Staw, 2004, p. 7) This idiographic research seeks to correlate data from two differently constructed assessment tools - the four-quadrant DiSC and the Five-factor Personality Assessment. As early as 400 BC, Hippocrates was trying to categorize personality types in an effort to understand individual differences. It was a more recent scholar - Carl Jung - who discovered that one's psychological make-up, "temperament", "style", or "type" influences and limits one's judgment and establishes one's relationship to the world. Over 1,400 dissertations, theses, books, and journal and newspaper articles have been published on these personal inventories. The fundamental assumption behind identifying core responses and needs is that what may seem like a random variation in behavior (i.e., clean car vs. dirty car people) occurs not by accident but by observable differences in mental functioning - the way in which people prefer to gather, process, and disseminate information.

Despite the variety of names used in the four-quadrant instruments to connote a person's place in the grids (Otter, INTF, Compliant, Color Yellow) and the proliferation of instruments, there is no appreciable difference in concept and/or information (Motley & Hartley, 2005). There is alignment in information provided. The four-quadrant instrument used in this research is the DiSC which takes its name from four basic types of behavior - dominance, influencing, steadiness, and compliance. The current version is based on the works of Swiss Psychologist Carl Jung and, later, by Americans William Marston, Walter Clark, Jack Mohler, and Tom Ritt (Ritt, 1980). The Personal DiSC Concept derives its underpinnings from William Marston, a physiological psychologist

writing in the 1920s and 1930s. The DiSC instrument measures surface traits and is intended to explain how they lead to behavioral differences among individuals (Inscape Publishing, 1996).

In building on Jung's theory of personality, Marston was concerned primarily with improving human relationships. "Dr. Marston intended to explain how normal human emotions lead to behavioral differences among people as well as to changes in a person's behavior from time to time. His work focused on finding practical explanations that would help people understand and manage their experiences in the world." (Inscape Publishing, 1996, Pg. 2) "Marston sought to explain how people adjust to tensions within the environment by looking at their emotional response to it and then relating this response to behavior.

Described on the discinsights.com website as the most universally accepted test for determining human behavior, the four quadrants for the DISC personality test are:

- **Drive/Dominance (D)** – task-oriented, fast-mover, bottom-line-oriented
- **Influence (I)** – people-oriented, energetic, desire popularity and praise
- **Steadiness (S)** – very people and family-oriented, motivated by loyalty and security, slower-moving
- **Compliance/Conscientiousness (C)** – task and detail-oriented, wants all information, slower-moving

The DISC personality test has been taken by more than 50 million people and published in books that appear in 35 languages (Harlow, T., 2009, October 9). "Studies have revealed that more than 81% of a participant's colleagues see DISC Assessment as a very accurate picture of a person's habitual behavior patterns. Among those who are primarily "D" in their style, accuracy is rated at 91%; for "I" types, it is 94%. Primarily, "S" type individuals perceive 85% accuracy, while for "C" types, it is 82%. This gives us an 88.49% perceived accuracy, with a standard deviation of 6.43%. In other words, the DISC Profile generated by this process is perceived as highly accurate, in most situations, by most participants" (Personality Insights).

The Five-factor Theory, also known as the **Five-factor Model (FFM)** or the **OCEAN**, is based on research into the concept of grouping of personality descriptors that began as early as 1917 (Goldberg, 1992). Years of scrutinizing and testing the evolving theory provided a platform for the current model based primarily on the work of Costa and McCrae. Their work in 1992 benefitted from the work of many independent researchers who had begun to study known personality traits in order to find the underlying factors of personality (Digman, 1990). The five factors are in a hierarchy and on a continuum. The theory addresses the relative presence of the following five traits:

- **Openness** - open-minded, an interest in art, emotional, adventurous, new ideas, and curiosity
- **Conscientiousness** - typically self-disciplined, results-oriented and structured, traditional, and dutiful
- **Extraversion** - high energy level, people person, extrovert, and gets stimulated by being around others
- **Agreeableness** - compassionate, cooperative, ability to forgive and being pragmatic; let's get the thing done
- **Neuroticism** - sensible, vulnerable, in extreme - emotionally unstable and neurotic

Tables 1 and 2 contain a summary of a literature review presenting the advantages of the DISC personality assessment and the Five-factor Model.

**Table 1: Advantages of DISC Personality Assessment**

<b>Advantages</b>	<b>Citation(s)</b>
Frequently used by business organizations	Reynierse, J. H., Ackerman, D., Fink, A. A., & Harker, J. B. (2000). The effects of personality and management role on perceived values in business settings. <i>International Journal of Value - Based Management</i> , 13(1), 1-13.
Easy to administer and interpret	-Slowikowski, M. (2005). Using the DISC behavioral instrument to guide leadership and communication. <i>AORN Journal</i> , 82(5), 835. doi:10.1016/S0001-2092(06)60276-7 -The benefits of using Disc (2010). Retrieved from <a href="http://www.discprofile.com/what-is-disc/benefits.htm">http://www.discprofile.com/what-is-disc/benefits.htm</a> -Spies, R. A., & Plake, B. S. (Eds.). (2005). <i>The sixteenth mental measurements yearbook</i> . Lincoln, NE: Buros Institute of Mental Measurements
Has been shown to be a predictor of success in areas such as employee retention, job success, sales management, and persuading patients to accept treatment plans that are essential for their health and well-being	Deviney, D., Mills, L. H., & Gerlich, R. (2010). Environmental impacts on GPA for accelerated schools: A values and behavioral approach. <i>Journal Of Instructional Pedagogies</i> , 31-15.
Proven to be reliable and consistent	(2005). Disc validation research report. Inscape Publishing, 1-22. Retrieved from <a href="http://www.discprofile.com/cart/includes/templates/ppsi/pdfs/1.0/ResearchDiSC_ValidationResearchReport.pdf">http://www.discprofile.com/cart/includes/templates/ppsi/pdfs/1.0/ResearchDiSC_ValidationResearchReport.pdf</a>
Provides three perspectives: personal, private, and public which presents a more rounded view of personality	Motley, 2005

**Table 2: Advantages of Five-factor Model**

<b>Advantages</b>	<b>Citation(s)</b>
Able to better understand people who score in the middle range (in comparison to MBTI (Myer Briggs Type Indicator))	Furnham, A. (1996). The big five versus the big four: The relationship between the myers-briggs type indicator (mbti) and neo-pi five-factor model of personality. <i>Pergamon</i> , 21(2), 303-307.
The FFM has been the most widely accepted working hypothesis of personality structure (1997)	(McCrae & Costa, 1997)
Evidence exists for the criterion-related validity of scores on FFM measures	Ehrhart, K. H., Roesch, S. C., Ehrhart, M. G., & Kilian, B. (2008). A test of the factor structure equivalence of the 50-item ipip five-factor model measure across gender and ethnic groups. <i>Journal of Personality Assessment</i> , 90(5), 507-516.
Equivalent translations exist in half a dozen languages which permits wider cross-cultural universality	Thalmayer, A., Saucier, G., & Eigenhuis, A. (2011). Comparative validity of Brief to Medium-Length Big Five and Big Six Personality Questionnaires. <i>Psychological Assessment</i> , 23(4), 995-1009. doi:10.1037/a0024165

**Faculty Survey**

To confirm the use of personality tests as assessment instruments in courses, a short survey of university faculty was conducted. An email with a link to the survey was sent and 67 completed responses were received during the data collection period of September 8-13, 2011.

The sample consisted of 38 women (57.6%) and 28 men (42.4%). Of the sample, 93.8% (61respondents) listed their highest degree completed as a doctoral. The highest level degree was in Business (68.2%, 45 respondents) and the remaining 31.8% was evenly split between Education, Psychology, and Other. Responses to the question about years teaching at the college/university level were fairly evenly split among the categories as shown in Table 3. The survey respondents make up a good representation of university faculty, primarily in the Business area.

**Table 3: Years Teaching**

		Frequency	Percent
Valid	0-9	18	26.9
	10-19	18	26.9
	20-29	13	19.4
	30+	17	25.4
	Total	66	98.5
Missing	System	1	1.5
<b>Total</b>		<b>67</b>	<b>100.0</b>

Fifty-six respondents (83.6%) indicated that they administered personality tests in their courses. Those who did not stated a variety of reasons, ranging from a lack of understanding of the test instruments to doubt about the validity to concern about the impact on the students or the course, to an objection to the cost which would not be reimbursed.

As shown in Table 4, Organizational Behavior was the most frequent response for the question about courses in which the personality tests were administered, which is not surprising since the prospective respondents were recruited from an Organizational Behavior-related email list.

**Table 4: Course in Which Tests were Administered**

	#	%
<b>Organizational Behavior</b>	44	65.7%
<b>Principles of Management</b>	12	17.9%
<b>Freshman Experience</b>	5	7.5%
<b>Other</b>	16	23.9%

A variety of personality tests was administered by the faculty responding to the survey. As seen in Table 5, of the two personality instruments discussed in this article, the Big 5 was used much more widely than the DISC personality test. Results were much more evenly split in terms of how many textbooks included personality tests. According to the respondents, 59.1% (39) of their textbooks included personality tests.

**Table 5: Type of Personality Test/Social Inventory Administered**

	#	%
<b>Myers-Briggs</b>	35	52.2%
<b>Big 5</b>	27	40.3%
<b>DISC</b>	4	6%
<b>Other</b>	20	29.9%

Examining the results of the question of which personality tests are included in textbooks (Figure 1) helps to explain the results for which personality tests are administered in courses. Of the textbooks that included personality tests, the majority were Myers-Briggs and/or Big 5. From this brief survey, evidence exists that personality tests are used in numerous courses.

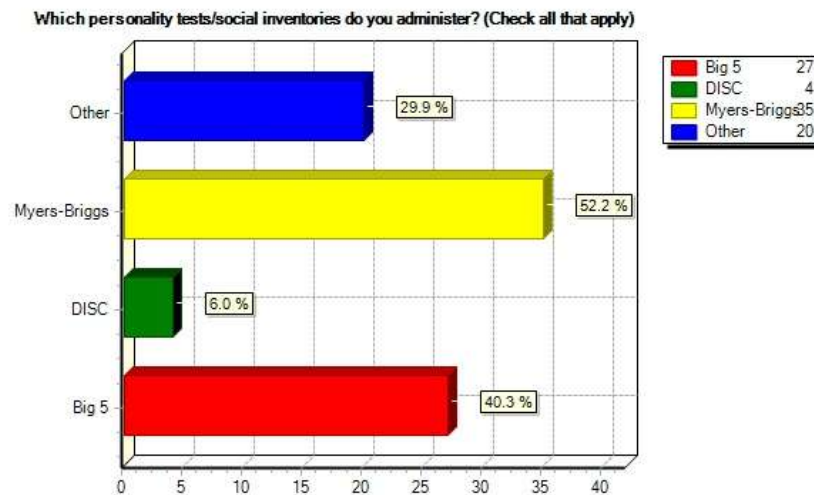


Figure 1: Name of Personality Tests/Social Inventories Included in Textbooks

Although the DISC personality assessment received a low number of responses for personality instruments used in class and personality tests included in the textbook, it is used extensively in industry. Apparently, university faculties are administering the Big 5 more often in class, but the DISC personality assessment is being used more by industry. The question then presents itself as to whether knowledge of the Big 5 (Five-factor Theory Model) has any transferability if students are presented with the DISC personality test at their jobs. The focus of the remaining analysis will address this question and seek to determine if there is enough of a correlation between these two personality instruments that knowledge of one instrument will inform people about the other personality test.

## METHODOLOGY

### Research Design

During a semester-long undergraduate course in Organizational Behavior at a small Northeastern university, students completed multiple personal assessments. Two of the assessment instruments used were the “Personal Concept” - also known as DISC by Jack Mohler - and the Five-factor Theory taken from a standard textbook in Organizational Behavior. Students used unidentifiable code names and recorded the scores for both instruments. Scores were plotted anonymously. Gender and major were self-reported.

### Subjects

People involved in filling out the instruments were participants in an undergraduate class in which the use of instruments is a central part of the learning experience. All students in the class filled out both personality instruments. Eighty-nine out of the 110 students reported the results of both personality instruments (approximately 81% of the class). Recording the scores of the instruments is voluntary.

### Sample Description

As shown in Table 6, the sample is weighted more heavily toward men than women - almost a 60/40 split; however, the composition of the class was more male than female. Thus, the sample is a good representation of the class and both genders were adequately represented. The majority of respondents were management and marketing students, making up 61.8% of the sample. The breakdown of the majors in the student sample is shown in Table 7.

**Table 6: Gender of Respondents**

	<b>Frequency</b>	<b>Percent</b>
<b>Male</b>	55	61.8
<b>Female</b>	32	36.0
<b>Missing</b>	2	2.2
<b>Total</b>	89	100.0

**Table 7: Student Major**

	<b>Number of Respondents</b>	<b>Percent of Sample</b>
<b>Accounting</b>	14	15.7
<b>Finance</b>	5	5.6
<b>Hospitality and Tourism Management</b>	3	3.4
<b>Management</b>	34	38.2
<b>Marketing</b>	21	23.6
<b>Sports Management</b>	6	6.7
<b>Other (non-business)</b>	4	4.4
<b>Missing</b>	2	2.2
<b>Total</b>	89	100.0

**HYPOTHESES**

**Overall Hypothesis**

There is a strong similarity in the characteristics represented in the four quads theories as represented by DISC and in the Five-factor theory.

**Hypothesis Formation**

Hypotheses were formed by comparing the adjectives used to assess each respondent’s personality style, (Hunter Wells International, 2005; Andre, R., 2008). Synonyms were compared and grouped together as shown in Tables 8 and 9.

**Table 8: DISC Adjectives**

<b>D</b>	<b>I</b>	<b>S</b>	<b>C</b>
forceful	expressive	restrained	compliant
Strong-minded	emotional	satisfied	careful
pioneering	influential	Easy mark	correct
domineering	attractive	willing	precise
determined	stimulating	Even-tempered	fussy
demanding	captivating	patient	timid
Self-reliant	companionable	kind	Open-minded
persistent	playful	Self-controlled	agreeable
High-spirited	talkative	Good-natured	Soft-spoken
impatient	convincing	contented	resigned
aggressive	Good mixer	gentle	respectful
nervy	poised	accommodating	conventional
argumentative	confident	relaxed	cooperative
restless	inspiring	considerate	Well-disciplined
courageous	optimistic	sympathetic	diplomatic
positive	eager	lenient	exacting
adventurous	enthusiastic	loyal	adaptable
Will power	entertaining	Good listener	humble
competitive	Life-of-the-party	obedient	tolerant
vigorous	persuasive	neighborly	cautious
outspoken	eloquent	reserved	strict
dogged	animated	obliging	devout
assertive	gregarious	nonchalant	docile
bold	outgoing	moderate	perfectionist

**Table 9: Five-factor Model Adjectives**

<b>Introversion/Passivity</b>	<b>Extraversion/Energy</b>	<b>Conscientious</b>	<b>Undirected</b>
Retiring	Sociable	Well organized	Disorganized
Sober	Fun-loving	Careful	Careless
Reserved	Affectionate	Reliable	Undependable
Aloof	Friendly	Punctual	Late
Inhibited	Spontaneous	Self-reliant	Dependent
Quiet	Talkative	Businesslike	Playful
Passive	Active	Persevering	Quitting
Loner	Joiner	Hardworking	Lazy
Task-oriented	Person-oriented	Practical	Impractical
Follower	Leader	Conscientious	Negligent
<b>Traditional (closed)</b>	<b>Adventurous (open)</b>	<b>Stable</b>	<b>Emotional</b>
Conventional	Original	Calm	Worrying
Down-to-earth	Imaginative	Relaxed	High-strung
Uncreative	Creative	Even-tempered	Temperamental
Narrow interests	Broad interests	Secure	Insecure
Not curious	Curious	Patient	Impatient
Unadventurous	Daring	Not envious	Envious, jealous
Conforming	Independent	Adaptable	Vulnerable
Prefer routine	Prefer variety	Objective	Subjective
Traditional	Untraditional	Comfortable	Self-conscious
Inartistic	Artistic	Self-satisfied	Self-pitying
<b>Tough-minded</b>	<b>Agreeable</b>		
Critical	Lenient		
Serious	Cheerful		
Competitive	Cooperative		
Skeptical	Trusting		
Argumentative	Agreeable		
Stubborn	Flexible		
Egocentric	Selfless		
Cynical	Gullible		
Manipulative	Straightforward		
Proud	Humble		

Adjectives were compared to each other. Some of the adjectives were exact matches and some were found using <http://thesaurus.yourdictionary.com> to find synonyms. Remaining synonyms not found on the website, but determined to be logical matches, were also included. Symbols for the Hypothesis tables are:

- Synonyms were checked with <http://thesaurus.yourdictionary.com>.
- \*synonyms found in <http://thesaurus.yourdictionary.com>
- +not found on synonym website, but considered to be a logical match

From the comparison of adjectives for both personality assessment instruments, the hypotheses shown in Table 10 emerged.



Table 10: Hypothesis Formation

Five-Factor Adjectives	DISC Adjectives	Hypotheses
<b>Adventurous</b>	<b>D</b>	<b>Hypothesis #1:</b> The ranking of D is positively correlated with the ranking of Adventurous.
Adventurous	Adventurous	
Original	Pioneering	
Daring	Courageous*, Adventurous+, Bold*	
Independent	Self-reliant	<b>Hypothesis #2:</b> The ranking of D is positively correlated with the ranking of Tough-minded.
<b>Tough-minded</b>	<b>D</b>	
Tough-minded	Willpower+	
Competitive	Aggressive+	
Argumentative	Competitive+	
Stubborn	Forceful	
Egocentric	Argumentative	
Proud	Determined	<b>Hypothesis #3:</b> The ranking of I is positively correlated with the ranking of Extraversion.
<b>Extraversion</b>	<b>I</b>	
Extraversion	Outgoing	
Sociable	Companionable, Good mixer+, Gregarious, Neighborly*	
Fun-loving	Entertaining+, Life-of-the-party+	
Friendly	Outgoing*	
Talkative	Talkative	
Leader	Influential+ Persuasive+	
<b>Agreeable</b>	<b>S</b>	<b>Hypothesis #4:</b> The ranking of S is positively correlated with the ranking of Agreeable.
Lenient	Lenient	
Cooperative	Accommodating*, Obliging+	
Agreeable	Kind, Good-natured, Considerate+	
Gullible	Easy mark+	<b>Hypothesis #5:</b> The ranking of S is positively correlated with the ranking of Stable.
<b>Stable</b>	<b>S</b>	
Even-tempered	Even-tempered	
Patient	Patient, Gentle	
Not envious	Contented+	
Comfortable	Relaxed	
Self-satisfied	Contented+	
<b>Introversion/Passivity</b>	<b>C</b>	<b>Hypothesis #6:</b> The ranking of C is positively correlated with the ranking of Introversion.
Retiring	Timid*	
Quiet	Soft-spoken+	
Follower	Compliant+	<b>Hypothesis #7:</b> The ranking of C is positively correlated with the ranking of Conscientious.
<b>Conscientious</b>	<b>C</b>	
Careful	Careful Cautious*	
Conscientious	Precise+, Fussy+	
<b>Stable</b>	<b>C</b>	<b>Hypothesis #8:</b> The ranking of C is positively correlated with the ranking of Stable.
Calm	Resigned*	
Even-tempered	Docile+	
Adaptable	Adaptable	

ANALYSIS AND RESULTS

Data consisted of the actual scores for the Five-factor Model and a ranking of the DISC factors. Because one of the variables (DISC) was ordinal in nature, a Spearman rank correlation coefficient was calculated to test the hypotheses (Tables 11 and 12). For the correlations, only the left factors were included for the Five-factor Model (FFM). The FFM left factors are the opposite of the right factors, so it was not considered necessary to test both sides.

Table 11: Correlation Matrix (Big Five With DISC)

		Ranking for			
		D	I	S	C
Big 5 Factor One LEFT <b>Introversion/Passivity</b>	Correlation coefficient <i>Sig. (2-tailed)</i> N	.023 .846 77	-.383** .001 76	.063 .583 77	.300** .008 76
Big 5 Factor Two LEFT <b>Traditional (closed)</b>	Correlation coefficient <i>Sig. (2-tailed)</i> N	-.126 .275 77	-.251* .029 76	.234* .040 77	.175 .131 76
Big 5 Factor Three LEFT <b>Tough-minded</b>	Correlation coefficient <i>Sig. (2-tailed)</i> N	.278* .014 77	-.114 .327 76	-.308** .006 77	.157 .175 76
Big 5 Factor Four LEFT <b>Conscientious</b>	Correlation coefficient <i>Sig. (2-tailed)</i> N	-.039 .737 77	-.196 .090 76	.054 .639 77	.185 .110 76
Big 5 Factor Five LEFT <b>Stable</b>	Correlation coefficient <i>Sig. (2-tailed)</i> N	-.297** .009 77	-.032 .781 76	.275* .016 77	.008 .946 76
Total N		86	85	86	85

\*Correlations are significant at the .05 level (2-tailed)

\*\*Correlations are significant at the .01 level (2-tailed)

Note: The results were also examined using Kendall's Tau-b and yielded the same results, so only the Spearman rank correlation coefficient results are presented here.

Table 12: Results Of Hypothesis Testing: Spearman Rank Correlation Coefficient

Hypothesis #1: The ranking of D is positively correlated with the ranking of Adventurous.	Not supported: No significant correlation was found.
Hypothesis #2: The ranking of D is positively correlated with the ranking of Tough-minded.	Supported: A significant positive correlation existed between the ranking of Tough-minded and D was .278* which was significant at the .05 level.
Hypothesis #3: The ranking of I is positively correlated with the ranking of Extraversion.	Supported: I was negatively correlated with Introversion (the opposite of Extraversion) at the .01 level. The correlation was -.383**.
Hypothesis #4: The ranking of S is positively correlated with the ranking of Agreeable.	Supported: S was significantly negatively correlated with Tough-minded at the level of .01 (correlation = -.308). This hypothesis was supported since Tough-minded is the opposite of Agreeable.
Hypothesis #5: The ranking of S is positively correlated with the ranking of Stable.	Supported: S was positively correlated with the ranking of Stable (correlation = .275*; significant at the .05 level).
Hypothesis #6: The ranking of C is positively correlated with the ranking of Introversion.	Supported: The correlation = .300**; significant at the .01 level.
Hypothesis #7: The ranking of C is positively correlated with the ranking of Conscientious.	Not supported: no significant correlation found
Hypothesis #8: The ranking of C is positively correlated with the ranking of Stable.	Not supported: No significant correlation was found.

### ADDITIONAL FINDINGS

- D was significantly negatively correlated at the .01 level with the ranking of Stable (correlation = -.297\*\*).
- I was significantly negatively correlated at the .05 level with the ranking of Traditional (correlation = -.251\*).
- S was significantly positively correlated at the .05 level with the ranking of Traditional (correlation = .234\*).

### CONCLUSIONS

Eight significant correlations between the Five-factor Model and the DISC personality assessment were uncovered. Each correlation was consistent with both theories, including the additional correlations which were found to be significant. No significant correlations contradicted any of the hypotheses. Therefore, a significant

correlation exists between the Five-factor Model and the DISC personality assessment. The logical conclusion is that knowledge of one of these personality assessments does provide information about the other. An understanding of the Five-factor Theory Model used more widely in the classroom (according to the survey of university professors) is likely to help the student understand the DISC personality assessment used more widely in industry. Knowledge transferability appears to exist at least at some level for these two instruments. Josh Bersin, president and CEO of Bersin & Associates, an Oakland, Calif., research firm stated, “Personality tests are ‘growing like wildfire ... the employment assessment market overall is worth about \$2 billion, up 15 percent from last year.” (Tahmincioglu, 2011) Also, as seen in the survey of university faculty, the majority of teachers (83.6%) use personality assessments as part of their course content. Considering the wide use of personality tests at universities and in the business world, the results of this analysis provide practical application for students seeking to apply what they have learned at university to the working world. This study has provided recognition that multiple instruments provide feedback that is complimentary. It is anticipated that with this new knowledge and synergistic application, the Extravert/lion may actually lie down with the Intravert/lamb.”

### **FUTURE RESEARCH**

Because the study only examined two personality assessments, a natural subject for further study would be to analyze correlations between additional personality assessment instruments. Of particular interest would be if the Five-factor Theory and the DISC personality assessment instrument were correlated with the Myers Briggs test which was used the most by sample respondents (52.2%). Another direction for further research is to document the connection between the personality descriptors and those describing conflict, learning, leadership, and communication.

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### **REFERENCES**

1. Andre, R. (2008). *Organizational Behavior*. Upper Saddle River, New Jersey: Pearson Education, Inc.
2. Andre, R. (2011). Enhancing the practical application of Five-Factor personality theory. In *Int. J. Management Practice Vol. 4* (pp. 360-375).
3. Barrick, M. R., Mount, M. K., & Salgado, J. (1997). The Five-factor Model of Personality and Job Performance in the European Community. *Journal of Applied Psychology*, 82.
4. Donner, B. (2008) “Why many companies use some personality assessments and not others” Retrieved from [www.psychologytoday.com/.../the-use-and-misuse-personality-tests-](http://www.psychologytoday.com/.../the-use-and-misuse-personality-tests-)
5. Drucker, P. F. (2002). Managing Oneself in Harvard Business Review on Managing Your Career. *Harvard Business School (Reprint 99204)*.
6. Drucker, P. F. (2005). Managing Oneself. *Harvard Business Review*, 100-109.

7. Fasihzadeh, N., Oreyzi, H., & Nouri, A. (2012). The Relationship between Dominance, Influence, Steadiness and Conscientiousness (DISC personality profiler) with Myers-Briggs Type Indicator (MBIT) among the Personnel of One Industrial Company. EuroJournals Publishing, Inc, 95-104.
8. Formerly, C. (1996). *SiSC Classic and Models of Personality*. Inscape Publishing.
9. George, J. (1992). The Role of Personality in Organizational Life; Issues and Evidence. *Journal of Management*, 18(2): 185-213.
10. Goleman, D. (1994). *Emotional Intelligence: Why it can matter more than IQ*. New York, New York: Bantam Books.
11. (1995). *Emotional Intelligence*. In D. Goleman. New York, New York: Bantam Books.
12. Golberg, L. R., (1992) The Development of Markers for the Big Five-factor Structure. *Psychological Assessment*, (4): 26-42
13. Hergenhahn, B., & Olson, M. (2007). *An Introduction to Theories of Personality* . Prentice Hall: Pearson Education.
14. Hunter Wells International, 1976, revised 2005. 115 5<sup>th</sup> Green Court Atlanta, GA. 30350.
15. Jung, C. (1953). *Two essays on analytical psychology*. In A. M. Forham, H. Read, & C. Jung. New York: Pantheon Books.
16. Jung, C. (1957). *The Undiscovered Self*. New York, New York: First Signet Printing.
17. Jung, C. (n.d.). *The Undiscovered Self*.
18. Kiersey, D., & Bates, M. (1984). *Please Understand Me. Character & Temperament Types*. Del Mar, California: Prometheus Nemesis Book Company.
19. Lewin, K. (1951). *Field Theory in Social Science; selected theoretical papers*. New York, New York: Harper & Row.
20. Marston, Moulton, & William. (1928). *Emotions of Normal People*. New York, NY: Harcourt Brace.
21. Mohler, J., & Ritt, T. (1980). *Personal Concept*. Garwood, New Jersey: Self-Published.
22. Montgomery, S. (2002). *People Patterns - A Modern Guide to the Four Temperaments* . Archer Publications.
23. Motley, D., & Hartley, N. (2005). The changing role of personality instruments in assessing behavior in the classroom. *Teaching Economics: Instruction and Classroom-Based Research*. Pittsburgh, Pennsylvania: Society for the Advancement of Management.
24. Munkasey, M. (n.d.). *Personality Types, A Commentary on Human Differences*. The ISAR International Society for Astrological Research fil://H:/history.htm
25. Myers-Briggs, I. (1980). *Gifts Differing*. Palo Alto, California: Consulting Psychologists Press.
26. *Personality Insights*. (n.d.). Retrieved February 28, 2013, from What is DiSC Personality Test?: <http://www.lifeandleadership.com/personality-test-disc-profile/>
27. Powell, R. R. (n.d.). *History of Personality Theory*. Retrieved from [http://armchair\\_armchairacademic.homestead.com/HistoryPER\\_ns4.html](http://armchair_armchairacademic.homestead.com/HistoryPER_ns4.html)
28. Ritt, T (1980) *Understanding Yourself and Then Others*. Ocean, New Jersey, People Concepts
29. Rotter, J. (n.d.). *Social Learning Theory*. Retrieved from <http://stutzfamily.com/mrstutz/APPSych/psychos/rotter.html>
30. Sanderlands, L. E. (n.d.). What is So Practical about Theory? Lewin Revisited. *Journal for the Theory of Social Behavior* .
31. Senge, P., Kleiner, A., Roberts, C., Ross, R., & Smith, B. (1994). *The Fifth Discipline Fieldbook*. New York, New York: Doubleday Dell Publishing Group, Inc.
32. Staw, B. M. (2004). *Psychological Dimensions of Organizational Behavior*. Upper Saddle River, New Jersey: Pearson Education.
33. Tahmincioglu, E. (2011, August 8). *Employers turn to tests to weed out job seekers*. Retrieved 2012, from Careers on NBC News: [http://www.nbcnews.com/id/44120975/ns/business-personal\\_finance/#.USKZa7\\_6M7A](http://www.nbcnews.com/id/44120975/ns/business-personal_finance/#.USKZa7_6M7A)
34. *The Benefits of Using DiSC*. (n.d.). Retrieved from discprofile: <http://www.discprofile.com/what-is-disc/benefits.htm>
35. *Thesaurus*. (n.d.). Retrieved from <http://thesaurus.yourdictionary.com>