

The personality and interest assessment



Four dominant psychological personality assessment questionnaires exist, each intended to measure one of the four central models of personality. The Myers-Brigs Type Indicator assesses personality traits based on Jungian theory. Eysenck's model measures the presence of only three trait dimensions, while Cattell's model proclaims detailed complexity in human personality through the measurement of sixteen traits. The Big Five model includes five core traits which are believed interact to form human personality. The sociocultural environment individuals live in is thought to affect personality development. Since 1982 young adults to become more sociable, more attentive to their feelings, more organized, more altruistic, and more emotionally stable. Campbell & Fiske (1959) described a research approach which suggests measuring multiple traits with multiple to establish construct validity, called a multitrait-multimethod matrix. Construct validity is established through two subcategories: convergent validity and divergent validity. The MMPI-2 is explored in regards to both psychometric categories.

Unit 8 Project- Personality and Interest Assessment

Personality can be coarsely defined as an individual's idiosyncratic configuration of psychological traits influenced by their principles, predilections, cognitive abilities, and sociocultural status (Cohen & Swerdlik, 2010). While a unanimous definition of personality ceases to exist, several dominant models have emerged. According to Fazeli (2012) the most widely recognized taxonomies are presented as questionnaires of personality traits; such questionnaires are used to assess individual personalities. Four dominant psychological personality assessment questionnaires are

considered, each intended to measure one of the four dominant models of personality.

According to Fazeli (2012) the first model uses the Myers-Brigs Type Indicator (MBTI) to assess human personality. The MBTI, developed by Isabel Myers and Katharine Cook Briggs, is based on theories from pioneering psychologist, Carl Jung. It is considered one of the most widely used global instruments. The MBTI classifies personality through the juxtaposition of disparate personality dimensions. Individuals encompass the trait of Extraversion or Introversion, Sensing or Intuition, Thinking or Feelings, and Judging or Perceiving (Fazeli, 2012). The second model utilizes Eyesenck's Personality Questionnaire- Revised (EPQ-R). Eyesenck's model measures the presence of a mere three trait dimensions: Extraversion, Neuroticism, and Psychoticism. The EPQ-R is useful for an assessor if they require a brief personality instrument. This measure has proven suitable for various applications in human resources, career counseling, clinical practice, and psychological research (Edits Online, 2012; Fazeli, 2012). The third model uses Cattell's Sixteen Personality Factor Questionnaire (16PF). In contrast to Eyesenck's model, Catell's model proclaims detailed complexity in human personality. The sixteen traits measured on the 16PF signify the foundation of all human personality (Fazeli, 2012). Catell considers each of the sixteen dimensions to be source traits. Source traits include the following: Warmth, Emotional Stability, Dominance, Liveliness, Rule-Consciousness, Reasoning Apprehension, Social Boldness, Self-Reliance, Sensitivity, Tension, Vigilance, Abstractness, Privatness, Openness to Change, and Perfectionism (Cohen & Swerdlik, 2010). It is interesting to note while Catell strongly believed in his

sixteen factor model, he later derived a model which included only five-factors from his primary sixteen. Traits in the five-factor model include: Extraversion, Anxiety, Receptivity, Accommodation, and Self-Control (Cohen & Swerdlik, 2010). According to Fazeli (2012) Costa and McCrae developed the final model of personality, coined the Big Five Theory. The Big Five model is used extensively in clinical and research applications. This model often utilizes the NEO-Personality Inventory (NEO-PI) to measure the presence or absence of five core traits which interact to form human personality. Many other test batteries are available to measure the Big Five traits. Core traits include Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness (Fazeli, 2012).

Each model and corresponding assessment tool ultimately establishes the presence or absence of individual personality traits. However, it is necessary to ponder variables which affect the presence or absence of such traits in an individual's personality. There is belief in the psychological community that the Big Five dimensions are part of a genetic foundation (Fazeli, 2012). In contrast, Smits, Dolan, Vorst, Wicherts, & Timmerman (2011) suggest the individual's broad sociocultural context influences personality development. The sociocultural environment changes over the time due to influence from historical events such as the conclusion of the Cold War, the devastation of the Twin Towers, and scientific developments like the Internet. As the sociocultural environment of a society changes it is thought personality traits as a collective change. Smits et al. (2011) studied generational changes in the Big Five model traits by examining cohort related differences from 1982-2007. The sample consisted of 8, 954 college students between the ages of

18-25 years. The Five Personality Factors Test (5PFT) was utilized to measure the presence of Big Five traits. According to Smits et al. (2011) “ The 5PFT is among the oldest Big Five scales in the world” (p. 1126). Researchers note although the NEO-PR is often used to measure the Big Five construct, the 5PFT was an appropriate instrument as it demonstrated good convergent validity with the NEO-PR (Smits et al., 2011).

Data was combined from every two successive years to create thirteen cohort groups. The mean scores in each of the Big Five dimensions were compared between cohort groups. Researchers determined increases over time in mean scores for Extraversion, Agreeableness, Conscientiousness, and Openness. In contrast, decreases over time in mean scores were discovered for Neuroticism. Smits et al. (2011) determined changes in the sociocultural environment since 1982 caused young adults to become more sociable, more attentive to their feelings, more organized, more altruistic, and more emotional stable.

Much discord exists in the psychological community regarding the presence or absence of particular personality traits and their appropriate measurement methods. However, personality as a specific construct is universally agreed upon. According to Cohen & Swerdlik (2010) a construct is defined as scientific notion established to explain particular human behavior. Personality as a construct clarifies an individual's idiosyncratic actions and behaviors. Testing and measuring the construct of personality with precision is of great interest to psychologists as it illuminates why humans behave how they do. Why are some individuals the life of the party while others sink into the crowd? Individual personality traits explain such actions.

When developing a test to measure the construct of personality it is important to gauge construct validity. High construct validity equates to high test quality. Construct validity can be described as conclusions regarding the appropriateness of inferences from individual test scores on a particular variable (Cohen & Swerdlik, 2010). Test developers form a hypothesis regarding the plausible behavior of high and low scores on a test; if the test is a valid measure of the construct, those who score high or low will perform as projected. If the construct measured was the personality trait Extroversion, it would be hypothesized individuals who achieved high scores performed differently than individuals who obtained low scores. If an individual were to score high on the trait of Extroversion, it would help psychologists articulate why they were consistently gregarious and talkative in a group. Conversely, if an individual were to score low on the trait of Extroversion, it would help psychologists understand why they did not speak up while in a group.

Campbell & Fiske (1959) declared for any test to possess high construct validity, it must go past measuring a single trait with a single method; multiple methods of multiple traits are essential. For judgments to be made on the test scores of a specific construct, measurement must include more than one trait, and such data must have been acquired using more than one method. Campbell & Fiske (1959) categorized this research tactic a multitrait-multimethod matrix. This approach establishes construct validity through two particular psychometric subcategories: convergent validity and divergent validity. Although the multitrait-multimethod matrix is examined

using statistical analysis, the significant theoretical subcomponents can be explained.

To create quality personality test a psychologist must establish convergent validity. Convergent validity tests whether traits within a construct which are expected to be interrelated, truly are. If researchers were to measure multiple traits within one construct and observe subsequent correlations, researchers could proclaim the existence of convergent validity. Such correlations do not imply causation, only an associative presence. If multiple traits consistently represent specific behavior, researchers can be reasonably certain their interpretation of the behavior is accurate (Eid & Nussbeck, 2009). A test measuring the personality trait Extraversion would demonstrate convergent validity by consistently achieving positive correlations between individuals whose test responses indicate high sociability and high assertiveness.

Furthermore, convergent validity can be determined by agreement between two measurements of the same trait using different methods. It is important to use more than one method to measure a construct, as measurements from a single method are too equivocal. Researchers have no way of determining trait variance from method variance if no other methods are utilized. Consistency of trait measurement across all methods used substantiates convergent validity. (Campbell & Fiske, 1959). If a psychologist were to assess the personality trait Agreeableness by measuring the presence of altruism and sympathy for others, using a self-reported assessment test as well as a test which employed another person as the

referent, then arrived at congruent measurements between methods, such results would indicate convergent validity.

In order to establish convergent validity, a test constructor creating a personality test utilizing the Big Five model would be required to comprehensively assess each of the five traits using more than one testing method. The test methods could be comprised of a self-report personality battery and a personality battery which employed the person's spouse as the referent. According to Cohen & Swerdlik (2010) both methods offer important insight into an individual's personality. Self-report provides a candid illustration of what an individual thinks and feels. However, the individual may deliberately or inadvertently paint a biased picture. Employing a test in which the respondent is an informant, such as the spouse or parent, but not the subject of the subject of the test would provide additional information for researchers to either confirm or refute the potential bias. If both tests arrive at congruent results regarding the individual's personality, convergent validity could be concluded.

It would be necessary to assess the individual dimensions which compose each trait by presenting multiple test items per trait. A personality test which measures the Big Five traits would have five sub-categories with test items representing phrases of each trait. The test would be constructed using a five item Likert scale on an agree-disagree continuum (Cohen & Swerdlik, 2010). Respondents would evaluate their level of agreement by whether they strongly agreed, moderately agreed, were neutral, moderately disagreed, or strongly disagreed with each phrase. Participants engaging

self-report would evaluate themselves while external informants, such as a spouse or parent, would evaluate the participant.

Sub-categories regarding an individual's amount of Neuroticism would tap into characteristics of emotional adjustment and stability. Test item phrases would include, " Gets angry easily," " Worries about things," and " Likes order" (Personality Test Center, 2011). Test items regarding an individual's level of Extraversion would look into characteristics of sociability and confidence, and include phrases such as, " Loves large parties," " Takes charge," and " Makes people feel welcome" (Personality Test Center, 2011). In regards to Openness, test items would measure an individual's willingness to try new experiences, imaginative abilities, and alertness to inner feelings. Test items would include phrases such as " Experiences my emotions intensely" and " Enjoys wild flights of fantasy" (Personality Test Center, 2011). Agreeableness test items would tap into altruistic and sympathetic tendencies; included would be " Sympathizes with the homeless," " Believes that others have good intentions," and " Feels others' emotions" (Personality Test Center, 2011). Conscientiousness test items would measure an individual's need to plan, organize, and follow-through; test items would include the phrases " Completes tasks successfully," " Takes charge of surroundings," and " Gets chores done right away" (Personality Test Center, 2011; Cohen & Swerdlik, 2010). Researchers may hypothesize an individual with objectively high levels of the trait Conscientiousness would rate they " strongly agreed" with the previous phrases; additionally, they may hypothesize an external informant would rate this same individual correspondingly. Harmonious agreement on multiple test item phrases

between a self-report test and an informant-reported test would establish convergent validity.

In contrast to convergent validity is divergent validity. Divergent validity tests whether traits which are not anticipated to relate, actually do not (Campbell & Fiske, 1959). A researcher may hypothesize when measuring specific traits the results would not positively correlate. If the researcher then found an absence of a correlation when measuring those traits, such a result would indicate divergent validity. For example, a researcher measuring the personality trait of Extroversion may hypothesize that high sociability and low assertiveness are traits which would not correlate. Extraversion test items tapping into sociability may include, "Loves large parties," while test items tapping into assertiveness may include "Takes charge."

Researchers may hypothesize an individual with objectively high levels of the trait Extraversion would rate they "strongly agreed" with the phrase "Loves large parties" but would NOT rate they "strongly disagreed" with the phrase "Takes charge." Additionally, solid divergent validity would be established through multiple methods; it would be necessary for answers from both respondents (self and informant) to be harmonious. If after assessing such traits using multiple methods, a researcher was able to confirm that they correctly hypothesized the absence of a correlation between "strong agreements" on multiple traits; such results would indicate divergent validity.

The Minnesota Multiphasic Personality Inventory-2 (MMPI-2) was designed originally to aid psychiatric diagnosis with adolescents and adults over fourteen years of age. The MMPI-2 is one of the most widely used and most written about published tests. It was revised from the original MMPI to correct grammatical mistakes, add more contemporary language, present a nonsexist viewpoint, and be more readable. The test required a sixth grade reading level to allow for accessibility (Cohen & Swerdlik, 2010). Construct validity was an important characteristic of the MMPI-2. Test creators established construct validity through both divergent validity and convergent validity.

According to Cohen & Swerdlik (2010) the MMPI-2 contained a validity scale labeled the True Response Inventory (TRIN) which was designed to identify agreeable response patterns. The TRIN contained twenty-three pairs of items worded in opposite forms. Test creators designed the TRIN so a true response to the first item would be trailed by a false response to the second item in the pair. Test creators sought to establish divergent validity by creating test items which should never positively correlate. If test taker's patterns followed the design, divergent validity would be affirmed (Cohen & Swerdlik, 2010).

In 2003, the MMPI-2 was revised to solve basic problems regarding the structure of the test's clinical scales. Such problems involved overlapping test items. Item overlap between scales decreased the distinctiveness and divergent validity of individual scales (Cohen & Swerdlik, 2010). In addition, an abundant negative influence appeared to flood all of the clinical scales on the test. The same psychopathological factor deemed "demoralization"

appeared on the test in several forms: anxiety, malaise, despair, and maladjustment (Cohen & Swerdlik, 2010). Such conceptual overlap contributed to additional declines in divergent validity. The goal of the MMPI-2 Restructured Form was to make the clinical scales more significant and distinctive. The demoralization factor was removed from the existing clinical scales and a singular Demoralization scale was created. The restructured clinical scales were less inter-correlated than the originals, improving the test's convergent and divergent validity (Cohen & Swerdlik, 2010).