

BUROS

CENTER FOR TESTING

TEST REVIEWS

Myers-Briggs Type Indicator®, Form M

Myers-Briggs Type Indicator, Form M

Purpose

Designed for "the identification of basic preferences on each of the four dichotomies specified or implicit in Jung's theory" and "the identification and description of the 16 personality types that result from interactions among the preferences."

Population

Ages 14 and older.

Publication Dates

1943-1998.

Acronym

MBTI.

Scores, 4

Extraversion vs. Introversion, Sensing vs. Intuition, Thinking vs. Feeling, Judging vs. Perceiving.

Administration

Group.

Foreign Language Edition

Spanish (Form M Template scoring) edition available.

Price Data, 1999

\$50 per 10 MBTI Form M self-scorable; \$60 per manual (1998, 420 pages); \$4.75 per Introduction to Type, Sixth Edition (1998, 43 pages); \$7 per Introduction to Type in Organizations, Third Edition; \$65 per 10 Form M prepaid profile combined item booklet/answer sheets; \$100 per 10 Form M prepaid interpretive report combined item booklet/answer sheets; \$120 per 10 Form M prepaid Interpretive Report for Organizations combined item booklet/answer sheets; \$130 per 10 Form M prepaid Team Report answer sheets; \$80 per 10 Form M prepaid Career Report combined item booklet/answer sheets; \$62.50 per Form M item booklets; \$15 per 25 nonprepaid answer sheets; \$40 per 4 templates (for nonprepaid answer sheets).

Time

(15-25) minutes.

Comments Scoring options

Self-scorable, template scoring, software on-site scoring, mail-in scoring; administration also available via software and internet; Spanish (Form M template scoring) edition available; based on personality theory of C. G. Jung; Forms F and G still available.

Authors

Katharine C. Briggs, Isabel Briggs Myers, Mary H. McCaulley (revised manual), Naomi L. Quenk

(revised manual), and Allen L. Hammer (revised manual).

Publisher

Consulting Psychologists Press, Inc.

Cross References

See T5:1755 (78 references) and T4:1702 (45 references); for a review by Jerry S. Wiggins, see 10:206 (42 references); for a review by Anthony J. DeVito, see 9:739 (19 references); see also T3:1555 (42 references); for a review by Richard W. Coan, see 8:630 (115 references); see also T2:1294 (120 references) and P:177 (56 references); for reviews by Gerald A. Mendelson and Norman D. Sundberg and an excerpted review by Laurence Siegel, see 6:147 (10 references).

Review of the Myers-Briggs Type Indicator, Form M by JOHN W. FLEENOR, Director of Knowledge Management, Center for Creative Leadership, Greensboro, NC:

Based on Jung's (1923) theory of psychological types, the Myers-Briggs Type Indicator (MBTI) is designed to identify an individual's preferences on eight characteristics implicit in Jung's theory. The initial development on the MBTI began in 1942 when the mother-daughter team of Katharine Briggs and Isabel Myers started on their quest to operationalize Jung's theory. Over the years, the instrument has undergone extensive revisions, with the most recent version (Form M) being published in 1998. The MBTI provides scores on four dichotomous scales: Extraversion-Introversion (EI), Sensing-Intuition (SN), Thinking-Feeling (TF), and Judging-Perceiving (JP). The various combinations of these four scales result in 16 possible personality types, each represented by a four-letter code indicating the preference for each of the dichotomies (e.g., ESTJ).

According to its publisher, the MBTI is "the most widely used personality inventory in history" (manual, p. 9). Because of its popularity, however, there is a danger that the instrument may be used for purposes for which it was never intended. In the introduction to the manual, the authors address common misconceptions about the MBTI that may lead to its misuse. These include: (a) the instrument does not measure competencies--it identifies preferences; (b) the preferences identified by the MBTI are not personality traits, but represent a typology in which individuals with opposite preferences are qualitatively different; and (c) the interactions among these preferences are critical to understanding the instrument (i.e., the whole is greater than the sum of its parts).

THEORY

Jung (1923) posited that individual differences in personality can be explained by two basic human attitudes, extraversion and introversion. Extraverts draw their energy primarily from the outer world of other people and events. Introverts, on the other hand, draw their energy from their inner thoughts and experiences. Later, Jung added two additional dichotomies, which he called functions, to this theory: sensation and intuition, and thinking and feeling. Sensation (called sensing by Myers and Briggs) refers to perceptions that are observable by the five senses; intuition refers to the perception of possibilities and meaning by way of the unconscious. The thinking function refers to making decisions by using logic, whereas feeling refers to making decisions by considering one's personal values. The

judging/perceiving orientation was not part of Jung's original theory, but was added by Myers and Briggs to identify one's orientation to the outer world. Judging is concerned with planning, organizing, making decisions, and coming to closure. Perceiving is concerned with being flexible and spontaneous, and with collecting additional information before making decisions.

On the surface, the theory behind the MBTI appears to be fairly simple. However, it is actually very complex, and casual users may have problems fully understanding its implications. According to Myers and Briggs, each four-letter type represents a complex set of relationships among the functions (S, N, T, and F), attitudes (E and I), and attitudes toward the outer world (J and P). These various interactions are known as type dynamics. For example, in addition to their preferred (dominant) function, individuals also have auxiliary, tertiary, and inferior (least preferred) functions. For Extraverts, their dominant function is extraverted (shown to others), whereas their auxiliary function is introverted. For introverts, the opposite is true--they show their auxiliary function to the outside world, and save their dominant function for their inner world.

MANUAL

The 420-page manual (1998) contains extensive information on the theory, development, psychometrics, and interpretation of the MBTI. It is one of the strengths of this instrument.

ADMINISTRATION AND SCORING

Form M of the MBTI contains 93 items written at the seventh-grade reading level. The respondents answer forced-choice items that are written to reflect the poles of the dichotomies. Form M has both computer and hand-scored versions. Instructions to the respondents are included on the cover of the question booklets. The hand-scored version uses unit weights for the items (i.e., each response is counted as one point). The points are summed for each scale, and an individual's preference on a scale is the pole of the dichotomy with the most points.

For the computer-scored version of the MBTI, an IRT (item response theory) scoring method is used. According to the authors, IRT scoring provides a more accurate indication of preference, especially around the cutoff points of the scales.

An IRT procedure was also used to select the item content for Form M. Through the use of DIF (differential item functioning) analyses, items that demonstrated significantly different responses by gender were eliminated from the item pool. This eliminated the need for different scoring procedures for males and females. The use of IRT in the development of Form M also makes it virtually impossible to score at the midpoint of a scale, thus eliminating ties on the scales. On previous forms, ties were broken

by a decision-rule that arbitrarily assigned individuals to a preference (i.e., I, N, F, or P).

STANDARDIZATION SAMPLE

A representative national sample of U.S. adults over age 18 was used for the item analyses and item weighting (N = 3,009).

RELIABILITY

The authors report the usual estimates of reliability, including split-half, coefficient alpha, and test-retest reliabilities, which indicate acceptable levels of reliability for the scores. Most of these reliabilities, however, are based on the use of the continuous preference scores from the instrument. Such analyses are contrary to the theory underlying the MBTI--that the instrument is designed to sort individuals into types rather than to assign continuous scores to them. One reliability analysis is included that reports the percentage of agreement for the dichotomies for three test-retest samples. The percentage of participants reporting the identical four preferences after a 4-week interval range from 55% to 80%, with an average of 65%.

VALIDITY

The construct validity of the four-factor model of the MBTI was investigated using confirmatory factor analysis. The predicted four-factor model appeared to be the best fit for the data, compared to two competing models. In the manual, numerous validity studies are reported that correlated MBTI continuous scores with other instruments, such as the California Psychological Inventory (CPI). Again, the use of continuous scores is contrary to the theory underlying the instrument, so these results should be interpreted with caution.

CONCLUSION

With the publication of Form M, significant improvements are evident in the MBTI. Weaknesses in earlier scoring procedures have been reduced by the use of IRT techniques in the development of Form M. Additionally, previous gender differences in the scoring of some scales have been eliminated through the use of DIF analyses.

The MBTI appears to have some value as a tool for increasing self-insight, and for helping people to understand individual differences in personality type. For example, participants in management development programs and students undergoing career counseling may benefit from taking the instrument. The authors, however, continue to report studies that employ continuous scores as evidence

of reliability and validity for the instrument, although they continue to stress that the instrument is not designed to measure personality traits on a continuous scale. The MBTI, therefore, cannot be recommended without reservation until additional analyses that are appropriate for categorical data are conducted and reported in the manual.

REVIEWER'S REFERENCE

Jung, C. (1923). *Psychological types; or, the psychology of individuation*. Princeton, NJ: Princeton University Press.

Cite this review

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REVIEW 2 OF 2

Review of the Myers-Briggs Type Indicator, Form M by PAUL M. MASTRANGELO, Associate Professor, Division of Applied Psychology & Quantitative Methods, University of Baltimore, Baltimore, MD:

The Myers-Briggs Type Indicator (MBTI) is a user-friendly personality assessment instrument--easy to administer, score, and interpret. The simplicity of the MBTI score (a four-letter "type" based on four dichotomous scale scores) especially contributes to its popularity among professionals who lack training in psychological assessment; however, this same feature contributes to the disdain among professionals who are trained in psychometrics. Many MBTI users are unaware of the instrument's theoretical assumptions and subsequent limitations. For example, the MBTI is not designed to measure personality traits and therefore should not be used as a personnel screening device (p. 108 in the manual). Even though many scientific criticisms are addressed in the manual, the rejoinders are frequently misleading, perpetuating the gap between practitioners and scientists.

The manual is somewhat deceptive regarding score reliability (i.e., consistency), which asks how likely it is for one individual to receive the same score from different administrations of the MBTI. If one uses the four MBTI scales (scored continuously) as the unit of analysis, then responses show very high levels of internal consistency (mostly >.90) and acceptable levels of test-retest reliability (.83-.97 for a 4-week interval). However, the authors clearly state that the MBTI is meant to identify a person's whole type

(e.g., ENTP). As a result the true test of reliability is the MBTI's ability to consistently indicate the same four preferences for any individual. Only one such study is reported in the manual for Form M (p. 163). After a mere 4 weeks, only 65% of the 424 respondents in the retest sample scored the same. Most of the remaining 35% showed consistency in three of the four scales, which is somewhat comforting, but less than adequate given the emphasis on holistic interpretation of the four preferences. Thus, the typical estimates of reliability are quite high, but they provide an inappropriate estimate for this scoring system; the appropriate reliability estimate shows consistent classification for only 65% of respondents, and that is less impressive.

Similar confusion exists when reviewing the MBTI's validity results, which address whether the MBTI scores measure the concepts they were designed to measure. Again, the answer depends on whether one violates the assumptions on which the MBTI is based. A traditional approach to estimating construct validity would be to correlate the MBTI scores with other measures of personality. Studies using this approach tend to use a continuous score for the four MBTI scales rather than the dichotomous score, violating the MBTI assumptions. Such studies suggest that the four MBTI scales correspond to four of the Big Five personality domains, excluding the Emotional Stability domain (also called Neuroticism). Because the Big Five model is the current framework for personality assessment, these demonstrations of convergent validity aid the interpretation of Jungian terminology.

However, demonstrations of validity for whole type scores (not continuous numeric scores) are ambiguous and wanting. The best test of the purported interaction among the four dichotomies was the calculation of the F-test for four-way interactions to predict various variables such as work preferences, job satisfaction, and values (p. 202). If a person's type is really more than just the sum of four dichotomies, then this four-way interaction term should predict many variables--certainly more than the four separate dichotomous scores. In fact, the four-way interaction term predicted only 3 of 73 dependent variables whereas the four main effects predicted 16 to 36 variables. To make matters worse, there is no listing of specific dependent variables or specific p-values that were significantly predicted in this analysis, which is very misleading as it preys on less sophisticated consumers of statistical results. The dearth of significant four-way interactions directly contradicts the fundamental assumption that the combination of the four preference scores is more important than the individual scores. Thus, the MBTI does show evidence of validity as four separate personality scales, but there is little evidence of a synergistic combination that creates the 16 types.

The authors should be commended for their efforts to apply Item Response Theory (IRT) to improve the reliability and validity of the four dichotomous scores in Form M, which replaces Form G as the standard form. IRT permits a psychometric examination of the reliability of each item at specific levels of the underlying trait being measured. Because the MBTI is used to indicate "how clearly a respondent prefers one of two opposite poles" (manual, p. 5), IRT was used to improve the accuracy of

classifications when the respondent's preference was equivocal. The manual describes a study used to determine the cutting score for theta that separates each dichotomous preference score. Classifications based on IRT were compared to each participant's self-report of the type best suiting him or her. Each of the four preference scales showed over 90% agreement with self-reported best fit, and the combination of all four preferences agreed with self-reports 78% of the time. This study, however, suffered from rather obvious flaws. The sample size was a paltry 157, the self-reports were sometimes administered to people who already knew their MBTI results, and the scoring procedures were never cross-validated--another example of misleading research in the manual.

SUMMARY

The MBTI should not be ignored by scientists or embraced by practitioners to the extent that it currently is. The MBTI is best used in situations where basic information regarding personality must be presented to lay individuals for self-understanding; it should not be used to make specific decisions about an individual (e.g., hiring). Adhering to four dichotomous scores restricts the MBTI's utility and demands more rigorous research than that found in the manual. Future research should address the consistency and interpretation of scores for those individuals who show a weak preference on a particular scale. Furthermore, this research needs to be presented in journals besides the *Journal of Psychological Type*, which is solely dedicated to the MBTI. The most widely used psychological measure should demand scientific scrutiny to improve service to the public.

Cite this review

Mastrangelo, P. M. (2001). [Test review of Myers-Briggs Type Indicator, Form M]. In B. S. Plake & J. C. Impara (Eds.), *The fourteenth mental measurements yearbook*. Retrieved from <http://marketplace.unl.edu/buros/>