
| RESEARCH ARTICLE

Assessing the Psychometric Properties of the Dynamight™ MBTI: A Comparative Analysis with the Original Myers-Briggs Type Indicator

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| ABSTRACT

This study evaluates the validity and reliability of the Dynamight™ MBTI, an innovative adaptation of the Myers-Briggs Type Indicator (MBTI), in comparison with the original MBTI. Employing a quantitative research design, the study involved administering both the original MBTI and the Dynamight™ MBTI to participants from the Tuluu institution. The primary objective was to assess the criterion concurrent validity and test-retest reliability of the Dynamight™ MBTI over a 6-week period. Results indicated a high degree of correlation between the two instruments across all personality axes, demonstrating the Dynamight™ MBTI's strong alignment with established MBTI constructs. Notably, the Dynamight™ MBTI's expanded categorization system, which includes a borderline category, addresses key critiques of the original MBTI's binary classification system and reliability concerns. The study found that the Dynamight™ MBTI effectively captures the spectrum and fluidity of personality traits, offering a more inclusive and adaptable approach to personality assessment. The study concludes that the Dynamight™ MBTI represents a significant advancement in personality assessment tools, providing valuable insights for personal development, team dynamics, and psychological research.

| KEYWORDS

Personality Traits, Personality Assessment, MBTI, Dynamight™ MBTI.

| ARTICLE INFORMATION

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1. Introduction

The Myers-Briggs Type Indicator (MBTI) is one of the most widely used personality assessments in both psychological research and practical applications, from educational settings to organizational development. Developed by Isabel Myers and Katharine Briggs, the MBTI is based on Carl Jung's theory of psychological types, aiming to categorize individuals into 16 distinct personality types based on four dichotomies: Introversi on/Extraversi on, Sensing/Intuition, Thinking/Feeling, and Judging/Perceiving.

Despite its popularity, the MBTI has faced criticism regarding its reliability and validity, prompting researchers and practitioners to seek alternative versions or modifications that maintain the theoretical foundations of the original test while addressing its psychometric limitations. One such adaptation is the Dynamight™ MBTI, a shorter version designed to provide similar insights into an individual's personality type with fewer items, potentially increasing its utility in settings where time constraints are a concern.

The core objectives of this research are twofold: firstly, to evaluate the criterion concurrent validity of the Dynamight™ MBTI in comparison with the original MBTI, and secondly, to assess the test-retest reliability of the Dynamight™ MBTI over a specified period. These objectives are encapsulated in the following research questions:

1. How does the Dynamight™ MBTI's assessment of personality traits correlate with those measured by the original MBTI?

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2. Does the Dynamight™ MBTI demonstrate stability in measuring personality traits over time?

The structure of this paper is as follows: After this introduction, the Literature Review section will delve into the theoretical background of personality traits and the evolution and critiques of the MBTI. The Methodology section describes the research design, participant selection, data collection methods, and analysis procedures employed in this study. The Results section presents the empirical findings, followed by the Discussion section, which interprets these findings in light of existing literature and explores their broader implications. The paper concludes with a summary of the research contributions and insights into personality assessment.

2. Literature Review

This literature review examines the underpinnings and critiques of the MBTI, a cornerstone in personality assessment. It highlights the evolution of the MBTI, addresses the debates surrounding its binary classification system, and introduces the Dynamight™ MBTI as a novel response to these critiques.

2.1 Personality Trait

Understanding personality traits is central to the field of psychology, as these traits encapsulate the enduring patterns of thoughts, emotions, and behaviors that characterize an individual. Pervin and Cervone (2010) define personality traits as "consistent patterns in the way individuals behave, feel, and think" (p. 228), highlighting the notion that these traits sum up an individual's habitual ways of interacting with the world. The consistent and predictable nature of these traits across various situations and over time differentiates personality from transient states like moods or situational responses.

In this respect, Personality is grounded in the observable consistency of individuals' actions and reactions, suggesting that our behaviors are shaped by stable internal dispositions as much as, if not more than, by external circumstances. This inherent stability underscores the concept of individual differences, challenging the notion of a one-size-fits-all approach to understanding human behavior.

Empirical evidence amassed over decades firmly supports the existence and stability of personality traits, with research indicating that these traits not only persist over time but also become more defined as individuals age (Roberts & DelVecchio, 2000). These findings validate the significance of personality traits as reliable markers of individual differences, thereby informing a wide range of psychological research and applications.

Within this domain, various assessment models strive to quantify and elucidate the complex nature of personality. Notably, the Big Five personality model and the MBTI are prominent for their extensive adoption and the depth of research validating their utility. The Big Five model, encompassing Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism, epitomizes a trait-based approach to personality assessment. This model's empirical validation is evidenced by research linking its dimensions to other psychological variables, highlighting its robustness and cross-cultural applicability (Brown et al., 2011; Cristina et al., 2018)

Conversely, the MBTI adopts a typological approach, categorizing individuals into distinct personality types based on their preferences across four dichotomies. Despite criticism, research by Nyland et al. (2000) and others has provided evidence of its utility in various settings, from organizational development to educational applications, further affirming the validity of personality assessment models.

The contribution of these models to our understanding of personality is invaluable, offering complementary perspectives that enrich our grasp of individual differences. While the Big Five model continues to evolve, with new scales emerging to refine its descriptive and predictive power, the MBTI has largely remained consistent, with its core assessment framework enduring over time. However, the introduction of variations like the Dynamight™ MBTI highlights the ongoing need to validate and adapt personality assessment tools to ensure their relevance and efficacy in capturing the multifaceted nature of human personality.

2.2 MBTI Overview

This section delves into the origins, theoretical underpinnings, and structural framework of the MBTI, exploring its widespread application across various domains and its enduring impact on the field of personality psychology.

2.2.1 Development of MBTI

The theoretical underpinnings of the MBTI can be traced back to the seminal work of Carl Jung, who laid the foundation for personality classification based on psychic energy, known as libido. Jung's exploration into personality began with the concepts of

introversion and extraversion, positing that individuals are either oriented towards the external social and material world (extraversion) or motivated by the inner realm of thoughts and feelings (introversion) (Myers, McCaulley, Quenk, & Hammer, 1998).

Expanding on this fundamental dichotomy, Jung identified two rational functions, thinking (T) and feeling (F), that underpin our decision-making. Individuals with a thinking preference are inclined towards logical analysis and objective criteria, while those with a feeling orientation prioritize empathy and values in their judgments (Gehring, 2007).

Jung further delineated the personality spectrum by introducing irrational functions: sensation (S) and intuition (N). Those oriented towards sensation are attuned to the concrete realities of their environment, whereas intuitive individuals are more drawn to underlying patterns and abstract possibilities (Jung, 1971).

In Jung's model, these cognitive functions are seen as interacting and varying in dominance, either consciously or unconsciously, with one typically emerging as the primary influence. By integrating the attitudes of introversion and extraversion with these cognitive functions, Jung established a typology of eight dominant personality types.

Building upon Jung's typology, Isabel Myers and Katharine Briggs introduced an additional dimension, the judging (J)–perceiving (P) dichotomy, to further refine the classification of personality types. This dimension helps to ascertain whether an individual's engagement with the world is predominantly through making structured decisions (judging) or through adapting and staying open to new information (perceiving) (Myers & McCauley, 1985; Myers et al., 1998).

2.2.2 MBTI Dimensions

The MBTI articulates personality through 16 unique types –each represented by a four-letter code (e.g., ENFP, ISTJ), delineated by a combination of preferences within four principal dichotomies: Extraversion (E) vs. Introversion (I), Sensing (S) vs. Intuition (N), Thinking (T) vs. Feeling (F), and Judging (J) vs. Perceiving (P); as Figure 1 illustrates. These dichotomies, rooted in Carl Jung's psychological theories, address distinct aspects of personality, including attention focus, information processing, decision-making, and orientation towards life and work (Myers et al., 1998; Choong and Varathan, 2021).



Figure 1. The 4 types of MBTI personality types. Adapted from "A study on the relationship among the MBTI personality types, self-efficacy, major satisfaction and freshmen's academic achievements in airline service department," by Kim, M. K, 2018, *Journal of the Korea Society of Computer and Information*, 23(12), 185–193. Copyright 2018 by Korea Science.

a) Extraversion-Introversion

This dimension explores where individuals direct their attention and energy. Extraverts are characterized by their engagement with the external world, drawing energy from interaction and activity. In contrast, Introverts exhibit a preference for the internal world of thoughts and reflections, finding energy in solitude (Myers & Diener, 1995).

b) Sensing-Intuition

This dichotomy addresses how individuals prefer to gather and interpret information. Sensing types are noted for their reliance on concrete, sensory data and a practical focus on the present. Conversely, those with an Intuitive preference are inclined towards abstract thinking, pattern recognition, and future possibilities (McCaulley, 1990; Roberts et al., 2007).

c) Thinking-Feeling

Here, the focus is on the basis for decision-making. Thinking individuals approach decisions with an emphasis on logic and objective criteria, whereas Feeling individuals prioritize emotions, values, and the impact on others in their decision-making processes (Myers & Diener, 1995; Raju & Venugopal, 2014).

d) Judging-Perceiving

This dimension reflects individuals' approach to dealing with the world around them. Judging types prefer structure, planning, and decisiveness, seeking resolution and clarity. In contrast, Perceiving types favor flexibility, spontaneity, and openness, valuing adaptability and the ability to respond to new information (Myers et al., 1998).

Central to the MBTI's methodology are nearly 100 self-report items that prompt respondents to choose between two contrasting statements, reflecting the binary nature of its classification system. This approach guides individuals to identify with one pole within each dichotomy, culminating in the assignment of a four-letter code that represents their personality type. For example, a preference for Extraversion over Introversion contributes to this composite profile, illustrating the individual's predominant way of engaging with the world (Myers et al., 1998). This methodological approach allows for capturing an individual's preferred ways of interacting with the world and processing information, albeit within a structured binary framework.

2.2.3 Application and Popularity

The utilization of the MBTI extends across various professional fields, encompassing corporate sectors, healthcare, and education, thereby offering valuable insights into the dynamics of personality that influence professional practices and interpersonal relationships. In the realm of business, the MBTI has played a pivotal role in fostering team development and shedding light on managerial behaviors. A study conducted by Kuipers et al. (2009) within a Swedish industrial organization explored the relationship between MBTI personality profiles and team processes, revealing a modest correlation. This finding suggests that the predictive capacity of the MBTI regarding team dynamics may be contingent upon specific contextual factors. Furthermore, Furnham & Stringfield (1993) examined the relationship between MBTI profiles and managerial practices across different cultures, highlighting the significance of the extraversion/introversion and thinking/feeling dimensions in varying cultural settings.

In the domain of health education, the MBTI has been employed as a tool to discern prevalent personality types among educators in health occupations as well as in trade and industrial sectors. Gordon (2000), in this respect, pronounced preference for the ESTJ personality type among educators in trade and industrial education, in contrast to a more heterogeneous distribution of MBTI types among health occupations education teachers. This variation indicates the potential impact of personality traits on the choice of educational specialization.

Moreover, the application of the MBTI in educational settings, particularly in enhancing curriculum development and contributing to research in public affairs education, has been documented. Sample (2017) highlighted the advantages of the MBTI's reliability and validity in addressing various facets of public affairs education, including curriculum planning, teaching strategies, and student career counseling. The diverse applications of the MBTI underscore its capacity to facilitate an in-depth understanding of individual and collective preferences related to energy focus, information processing, decision-making, and orientation towards the external environment. Consequently, the MBTI enriches both interpersonal and intrapersonal dynamics across a broad spectrum of professional contexts.

2.2.4 Psychometric Criticism

The MBTI, despite its widespread application in diverse professional contexts, has been subject to extensive scrutiny regarding its psychometric properties. Central criticisms concern the instrument's reliability, validity, and its reliance on a binary type categorization system, which some scholars argue inadequately represents the complexities of human personality..

1) Binary Type Categorization

A primary critique of the MBTI pertains to its binary classification approach, whereby individuals are assigned to one of two polar categories within each of the four dichotomies. Stein and Swan (2019) have critically examined the Jungian theoretical underpinnings of the MBTI, arguing that the concept of individuals possessing a "true type" is overly simplistic and lacks empirical support. They contend that the binary framework fails to capture the nuanced continuum of personality traits, potentially neglecting those whose characteristics straddle the dichotomous categorizations.

2) Reliability Concerns

The reliability of the MBTI has also been questioned, particularly in light of instances where individuals receive differing personality type classifications upon subsequent administrations of the instrument. This variability introduces concerns regarding the MBTI's consistency in measuring and categorizing personality traits over time, casting doubt on the enduring nature of the assigned personality types (Pittenger, 1993).

3) Validity Issues

Furthermore, the construct validity of the MBTI remains a contentious area, with critics pointing to the lack of robust empirical evidence underpinning the instrument's foundational claims. The capacity of the MBTI to accurately reflect the personality constructs it purports to measure and to associate these constructs with predictable behavioral outcomes has been challenged (Pittenger, 1993; Bess & Harvey, 2002). Despite these critiques, efforts have been made to substantiate the MBTI's validity across various domains, as previously discussed in the section addressing its application and popularity.

In conclusion, the MBTI's status as a preferred instrument for personality assessment is juxtaposed with ongoing debates concerning its psychometric robustness, particularly with regards to reliability and validity. The critiques primarily revolve around the MBTI's test-retest reliability, the empirical substantiation of its theoretical constructs, and the binary nature of its categorization system, which may simplify the multifaceted dimensions of human personality. This discourse highlights the need for a balanced perspective that recognizes its potential benefits while remaining cognizant of the empirical evidence regarding its psychometric properties.

2.3 *Dynomight™ MBTI*

The Dynomight™ MBTI emerges as a contemporary adaptation of the traditional MBTI, conceived with the intention to address and rectify specific criticisms and challenges inherent in modern personality assessment practices. This segment explores the motivations underlying the creation of the Dynomight™ MBTI, its distinctive characteristics in relation to the original MBTI, and the scope of research undertaken to ascertain its psychometric validity.

2.3.1 *Rationale for Development*

The inception of the Dynomight™ MBTI was motivated by the objective to refine and modernize the conventional MBTI assessment, responding to persistent critiques and the dynamic requirements of its user base. In light of the original MBTI's limitations, notably its length and dichotomous scoring mechanism, the Dynomight™ MBTI introduces innovative modifications intended to enhance the instrument's precision, user engagement, and applicability across diverse contexts (Dynomight, 2021).

A principal innovation introduced by the Dynomight™ MBTI is its succinct format, comprising merely 32 items, a significant reduction from the original MBTI's comprehensive set of approximately 100 questions. This condensed format not only renders the assessment more approachable and less burdensome for participants but also aligns with the contemporary demand for efficient yet reliable personality insights within various professional and personal development scenarios (Putnam et al., 2014).

Furthermore, the Dynomight™ MBTI addresses the shortcomings of the binary scoring system prevalent in the original MBTI. The conventional method of rounding scores within a 0-1 range to the nearest whole number has been subject to criticism for equating individuals with marginally similar scores, thereby neglecting nuanced differences in personality trait expression. To counter this, the Dynomight™ MBTI adopts an innovative scoring notation that employs upper-case letters, lower-case letters, and "x" to indicate varying intensities of each personality trait (Dynomight, 2021). This scoring system facilitates a more detailed portrayal of an individual's personality, recognizing the existence of borderline traits and the significant influence of trait intensity on behavior and preferences.

For instance, an individual with a pronounced preference for extraversion might be denoted as "E," whereas someone with a moderate preference could be represented as "e," and a borderline or indeterminate preference might be signified as "X." This classification scheme appreciates the diversity and intricacy of human personality, transcending binary categorizations to offer a more comprehensive and differentiated perspective on individual differences (Dynomight, 2021).

Hence, the rationale behind the development of the Dynomight™ MBTI is deeply rooted in the aspiration to provide a more sophisticated and efficient scale for personality assessment. By addressing critical concerns associated with the original MBTI and integrating advancements in psychological assessment methodologies, the Dynomight™ MBTI endeavors to establish a new benchmark for the interpretation and application of personality insights in contemporary settings.

2.3.2 Current State of Research

The introduction of the Dynamight™ MBTI as a novel instrument in personality assessment has not been paralleled by an extensive corpus of peer-reviewed empirical research, especially in terms of examining its psychometric attributes. The lack of rigorous validation studies raises significant concerns, given that the cornerstone of the efficacy and credibility of any psychological assessment tool is predicated on its demonstrable reliability and validity (Cicchetti, 1994).

In this view, the application of personality assessments in diverse contexts necessitates robust measures of reliability and validity. Reliability refers to the consistency of results across repeated administrations of the tool, while validity concerns the extent to which the instrument accurately measures the constructs it purports to assess (Cicchetti, 1994; Kumar, 2011). The significance of these psychometric properties extends into practical domains, influencing decisions in organizational development, educational programming, and individual growth strategies. Absent empirical evidence of reliability and validity, interpretations based on the Dynamight™ MBTI's results may be conjectural and potentially misleading.

a. Reliability

A range of statistical metrics are utilized to assess the reliability of assessment tools, including Cronbach's alpha, test-retest reliability (Kumar, 2011), ordinal alpha (Zumbo et al., 2007), along with methods like split-half estimates, the Spearman-Brown formula, the alternate form method, and inter-observer reliability (Kumar, 2011; Streiner & Norman, 2015). Predominantly, Cronbach's alpha and test-retest reliability are the metrics most frequently applied to gauge the reliability of scales (Streiner & Norman, 2015).

Cronbach's alpha evaluates the internal consistency of scale items, that is, the extent to which items within the scale are correlated, contributing to the overall score (Kumar, 2011; Streiner & Norman, 2015). An alpha coefficient of 0.70 is traditionally considered the minimum acceptable level for reliability, though coefficients of 0.80 or 0.95 are advocated for optimal psychometric quality of scales (Streiner & Norman, 2015). While Cronbach's alpha is the most frequently used and widely accepted measure, emerging reliability statistics like Raykov's rho, ordinal alpha, and Revelle's beta, which purportedly offer enhancements over Cronbach's alpha, are starting to gain traction.

The test-retest reliability, also known as the coefficient of stability, evaluates the repeatability of participant scores over time, determining the consistency of their scores across intervals (Streiner & Norman, 2015). This measure of reliability is crucial for personality assessments, as it indicates the stability of the measured traits and ensures that the results reflect enduring characteristics rather than temporary states, with higher correlations indicating greater reliability.

A notable example of applying test-retest reliability in research is seen in the work of Botes et al. (2022), who undertook the validation of the Short-form Foreign Language Classroom Anxiety Scale (S-FLCAS). In their study, not only was the S-FLCAS's reliability scrutinized, but the reliability of related scales such as the PSWQ-A, the BFNES, and the S-FLES was also tested and confirmed across various contexts. This comprehensive approach to validating the reliability of multiple scales underscores the importance of ensuring that personality assessment tools maintain consistency over time and across different settings, thereby affirming their utility and reliability in capturing true personality traits.

b. Validity

Validity is "the ability of an instrument to measure what it is designed to measure" (Kumar, 2011, p. 178). It comprises several key forms, notably criterion validity and construct validity, each playing a significant role in the scale's effectiveness and applicability.

Criterion validity assesses the relationship between test scores and performance on a relevant measure, often referred to as the criterion. It is divided into predictive and concurrent validity. The former gauges the extent to which an assessment can forecast future behaviors or outcomes related to the construct it measures. The latter, on the other hand, evaluates the extent to which test scores correlate with a criterion measurement taken at the time of test administration or shortly thereafter (Streiner & Norman, 2015).

Construct validity, on the other hand, is fundamental in ensuring that a personality assessment accurately measures the theoretical construct it targets. It involves several key indicators convergent validity. This measurement generally measures the degree to which a newly developed scale correlates with other established measures of the same construct, affirming that the scale accurately assesses the intended construct. Strong correlations with similar constructs support convergent validity, while weak correlations may question the scale's effectiveness in measuring the construct (Streiner & Norman, 2015).

In fine, both criterion validity and construct validity play pivotal roles in establishing the accuracy and applicability of personality assessment scales. They ensure that these scales not only measure theoretical constructs accurately but also correlate meaningfully with relevant behaviors and outcomes, providing a solid foundation for their use in diverse settings.

2.4 Summary

In summary, the validity of personality assessment instruments is paramount in effectively encapsulating the intricate dimensions of human personality. Consequently, sustained endeavors in research and validation are imperative to confirm that the Dynamight™ MBTI conforms to established psychometric standards.

3. Research Methodology

This chapter presents the methodological framework adopted for the evaluation of the Dynamight™ MBTI, detailing the research design, selection of instruments, criteria for participant selection, data preparation methods, and analytical procedures. The objective is to elucidate the approach undertaken to investigate the psychometric properties of the scale, thereby ensuring methodological clarity and rigor.

3.1 Research Design

In alignment with the study's objectives, a longitudinal research design was implemented, characterized by the systematic observation of identical variables over a designated period (Singer & Willett, 2003; Kumar, 2011). This design is particularly salient in psychological research, where it is instrumental in examining the temporal dynamics and stability of psychological constructs. It provides a robust framework for evaluating the psychometric characteristics of newly developed assessment scales, allowing for an in-depth analysis of whether and how individual traits or behaviors persist or change over time (Nesselroade, 1991; Singer & Willett, 2003). Employing this longitudinal methodology enables a thorough examination of the research questions, specifically concerning the reliability and validity of the Dynamight™ MBTI in measuring personality traits across time intervals.

3.2 Research Instruments and Participants

The research utilized a sample of students from the Tulua institution in Sale, Morocco, chosen through convenience sampling due to its logistical advantages, such as accessibility and the feasibility of longitudinal follow-up with the same subjects (Kumar, 2011). This sampling strategy was deemed appropriate for facilitating consistent and repeatable measurements, essential for the evaluation of the test-retest reliability of the Dynamight™ MBTI. The research protocol commenced with the administration of the original, more comprehensive MBTI prior to class sessions to minimize participant fatigue, followed by the administration of the abbreviated Dynamight™ MBTI test subsequent to the classes.

A cohort of $n=77$ participants consented to engage in the study, meeting the inclusion criteria of being currently enrolled at the Tulua institution and expressing willingness to participate in both the initial assessment and the follow-up session. To assess the longitudinal consistency of the Dynamight™ MBTI, a second administration of the test was scheduled six weeks after the initial session. During this follow-up, four participants were absent; however, provisions were made to enable these individuals to complete the test remotely, ensuring their data were included in the final analysis. These participants submitted their test results electronically, contributing to the comprehensive dataset of the study.

The participants accessed the testing instruments online via personal electronic devices, a method that offered convenience and immediacy in both engagement and data submission. They were instructed to provide their test results, including detailed screenshots of their percentage scores across the MBTI dichotomies, facilitating precise data collection. This rigorous approach to data gathering was pivotal for the subsequent analysis, aimed at ascertaining the reliability and validity of the Dynamight™ MBTI within a controlled sample group.

3.3 Data Preparation

In order to ensure compatibility for a direct comparison between the original MBTI and the Dynamight™ MBTI test results, a systematic approach to data preparation was undertaken. The original MBTI percentage scores were adapted to fit the 0 to 100 scale format utilized by the Dynamight™ MBTI for each personality dichotomy. This adaptation involved a straightforward mapping technique, wherein the percentage indicative of one pole within a dichotomy (for example, Introversion, denoted as " $I\%$ ") was transformed into a scale value (" S ") on the 0 to 100 scale. The transformation employed the formula $S = 100 - I\%$, where " $I\%$ " represents the percentage score for Introversion, and " S " denotes the scale value for Extroversion. For instance, if an individual's score for Introversion was 80%, the corresponding scale value for Extroversion would be calculated as $S = 100 - 80 = 20$. This method was uniformly applied across all dichotomies to integrate the original MBTI results with the Dynamight™ MBTI's scoring system.

3.4 Data Analysis Procedures

Data analysis was conducted utilizing the Statistical Package for the Social Sciences (SPSS), which facilitated both the entry and subsequent analysis of data. The primary aim of this analysis was to scrutinize the psychometric properties of the Dynamight™ MBTI, with a focus on its validity and reliability.

The analysis commenced with an evaluation of the Dynamight™ MBTI's validity through the lens of criterion concurrent validity. This method investigated the correlation between the scores obtained from the Dynamight™ MBTI and those derived from the original MBTI, administered concurrently or shortly thereafter. The assessment of concurrent validity was intended to shed light on the Dynamight™ MBTI's capability to accurately measure the intended personality constructs.

Following the assessment of validity, the focus shifted to evaluating the reliability of the Dynamight™ MBTI, specifically its test-retest reliability. This involved re-administering the Dynamight™ MBTI to the same group of participants after a six-week interval and comparing the scores to ascertain the consistency of the results over time. The analysis of test-retest reliability was aimed at determining the stability of the Dynamight™ MBTI's measurements, which is essential for establishing its reliability as an instrument for personality assessment.

4 Data Analysis

This chapter details the data analysis for the Dynamight™ MBTI, focusing on assessing its validity and reliability. Subsequent sections discuss the results and their relevance to the scale's utility in personality assessment.

4.1 Validity Analysis

The criterion concurrent validity of the Dynamight™ MBTI was scrutinized through correlation analyses that juxtaposed the instrument's scores with those derived from the original MBTI across the established dichotomies: Introversion-Extroversion, Sensing-Intuition, Feeling-Thinking, and Judging-Perceiving.

Table 1. Correlation Coefficients between the Dynamight™ MBTI and the Original MBTI

		Dy_P1IE axe	Dy_P1SN axe	Dy_P1FT axe	Dy_P1JP axe
P1IE axe	Pearson's <i>r</i>	.938**			
	Sig. (2-tailed)	.000			
P1SN axe	Pearson's <i>r</i>		.879**		
	Sig. (2-tailed)		.000		
P1FT axe	Pearson's <i>r</i>			.862**	
	Sig. (2-tailed)			.000	
P1JP axe	Pearson's <i>r</i>				.847**
	Sig. (2-tailed)				.000

** Correlation is significant at the 0.01 level (2-tailed).

(P1) Period 1; (I) introversion; (E) extroversion; (S) sensing; (N) iNtuition; (F) feeling; (T) thinking; (J) judging; and (P) perceiving

Empirical findings, as delineated in Table 1, manifested significant positive correlations across all dichotomies, indicative of a substantial concordance between the two assessments. The correlation coefficient for the Introversion-Extroversion axis was notably high ($r = .938$, $p < .01$), suggesting a pronounced alignment in the measurement of this dimension. Comparable strong correlations were observed for the Sensing-Intuition ($r = .879$, $p < .01$), Feeling-Thinking ($r = .862$, $p < .01$), and Judging-Perceiving ($r = .847$, $p < .01$) axes, underscoring the Dynamight™ MBTI's proficiency in mirroring the evaluative scope of the original MBTI across the core personality dimensions.

Subsequent analyses explored the frequency and percentage distributions for each personality dichotomy within both the original MBTI and the Dynamight™ MBTI, as explicated in Table 2. This examination aimed to elucidate the trait prevalence within the participant cohort and to further illuminate the instruments' comparative alignment.

Table 2. Trait Distribution Frequencies and Percentages in the Original MBTI and Dynamight™ MBTI Assessments

MBTI		I – E		S – N		F – T		J – P	
Frequency		47	30	37	40	43	34	44	33
Percent %		61%	39%	48.1%	51.9%	55.8%	44.2%	57.1%	42.9%

		Dynamight™ MBTI																			
		I – E					S – N					F – T					J – P				
		s	w	x	w	s	s	w	x	w	s	s	w	x	w	s	s	w	x	w	s
Frequency		36	5	9	4	23	17	12	21	15	12	25	10	11	7	24	27	8	14	7	21
Percent %		47	6	12	5	30	22	16	27	20	15	33	13	14	9	31	35	10	18	9	28
Total P %		54%	12%	12%	35%	38%	27%	27%	35%	36%	14%	14%	40%	45%	18%	18%	37%				

(S) strong; (W) weak; (x) borderline value; (I) introversion; (E) extroversion; (S) sensing; (N) iNtuition; (F) feeling; (T) thinking; (J) judging; and (P) perceiving

Within the original MBTI framework, the distribution along the Introversion-Extroversion axis exhibited a predominant inclination towards Introversion (61%), as opposed to Extraversion (39%). The Sensing-Intuition dichotomy presented a more balanced distribution, albeit with a marginal preference for Intuition (51.9% versus 48% for Sensing). The Feeling-Thinking axis demonstrated a tilt towards Feeling (55.8% versus 44.2% for Thinking), while the Judging-Perceiving axis revealed a predilection for Judging (57.1% versus 42.9% for Perceiving).

Conversely, the Dynamight™ MBTI introduced gradations within each trait, delineating 'strong', 'weak', and 'borderline' categories. The Introversion-Extroversion axis saw significant proportions of 'strong Introversion' (47%) and 'strong Extraversion' (30%), with a noteworthy segment classified as borderline (12%). The Sensing-Intuition dimension displayed 22% 'strong Sensing' and 15% 'strong Intuition', with 27% positioned at the borderline. The Feeling-Thinking and Judging-Perceiving axes similarly exhibited distributions that acknowledged varying degrees of trait intensity, offering a refined perspective on personality trait manifestation within the sample. This analytical approach enriches the understanding of the congruence between the Dynamight™ MBTI and the original MBTI, while providing a depiction of personality trait prevalence among the participants.

4.2 Test-Retest Reliability Analysis

The evaluation of the test-retest reliability of the Dynamight™ MBTI involved an analysis of score stability over a six-week interval, a critical component in verifying the instrument's reliability in consistently measuring personality traits across time. To this end, correlation coefficients were calculated to quantify the degree of consistency between the first and second administrations of the Dynamight™ MBTI across the established personality dichotomies: Introversion-Extraversion, Sensing-Intuition, Feeling-Thinking, and Judging-Perceiving.

Table 3. Test-Retest Reliability Analysis of the Dynamight™ MBTI Scores over a 6-Week Interval

		Dy_P2IE axe	Dy_P2SN axe	Dy_P2FT axe	Dy_P2JP axe
Dy_P1IE axe	Pearson's r	.946 **			
	Sig. (2-tailed)	.000			
Dy_P1SN axe	Pearson's r		.868**		
	Sig. (2-tailed)		.000		
Dy_P1FT axe	Pearson's r			.894**	
	Sig. (2-tailed)			.000	
Dy_P1JP axe	Pearson's r				.874**
	Sig. (2-tailed)				.000

** Correlation is significant at the 0.01 level (2-tailed).

(P1) Period 1; (P2) Period 2; (I) introversion; (E) extroversion; (S) sensing; (N) iNtuition; (F) feeling; (T) thinking; (J) judging; and (P) perceiving

The analysis yielded correlation coefficients for each personality dimension, evidencing a significant degree of consistency between the two measurement points. Specifically, the Introversion-Extraversion dimension exhibited a particularly strong correlation (r = .946, p < .01), indicative of notable stability in this trait over the six-week period. Similarly, the Sensing-Intuition (r = .868, p < .01),

Feeling-Thinking ($r = .894, p < .01$), and Judging-Perceiving ($r = .874, p < .01$) dimensions also showed high levels of reliability, reinforcing the Dynamight™ MBTI's capacity for consistent trait measurement over time. These results substantiate the test-retest reliability of the Dynamight™ MBTI, highlighting its efficacy as a reliable instrument for longitudinal personality assessment.

5. Discussion

The findings from this research provide critical insights into the psychometric efficacy of the Dynamight™ MBTI. Notably, the significant correlation coefficients between the Dynamight™ MBTI and the original MBTI across all evaluated personality dimensions affirm the former's alignment with the foundational personality constructs identified by the original instrument. This concordance highlights the criterion concurrent validity of the Dynamight™ MBTI, substantiating its capacity for precise personality trait assessment.

Furthermore, the Dynamight™ MBTI's introduction of expanded categorizations, notably the 'X' or borderline category, presents an advanced framework for the analysis of personality traits. This approach effectively navigates beyond the binary constraints inherent in traditional models, accommodating the heterogeneity and fluidity characteristic of personality traits. This innovation is particularly pertinent for individuals whose personality traits do not align with dichotomous classifications, thus enabling a more detailed capture of personality nuances that may be overlooked by binary systems. Consequently, the inclusion of a broad array of personality traits, encapsulated by the 'X' category, enables the Dynamight™ MBTI to offer a more encompassing and inclusive portrayal of individual differences.

5.1 Comparison with Existing Literature

While direct comparisons to existing literature are somewhat constrained due to the novel approach of the Dynamight™ MBTI, its methodological advancements appear to address several longstanding critiques aimed at the MBTI's psychometric properties, specifically its binary classification system and questions surrounding its reliability (Pittenger, 1993). Stein and Swan (2019) critiqued the theoretical underpinnings of the MBTI for its binary rigidity and inability to encompass the full spectrum of human personality, which could lead to misrepresentation of individuals with traits spanning multiple dichotomies. The Dynamight™ MBTI's introduction of expanded categories potentially ameliorates this issue by recognizing the nuances between extreme dichotomies, thereby providing a resolution to the binary classification critique.

Additionally, the MBTI's reliability has been a subject of scrutiny, particularly due to the variability observed in type classifications upon repeated administrations of the test (Pittenger, 1993). Such variability points to the instrument's challenges in maintaining consistent measurement and categorization of personality traits over time. This concern is particularly pertinent in dimensions such as Sensing-Intuition, where a significant proportion of participants fall near the midpoint, as evidenced by the close distribution in our study (Sensing: $n=37$; 48.1%, Intuition: $n=40$; 51.9%). The Dynamight™ MBTI's inclusion of a borderline category acknowledges this middle ground, potentially reducing the likelihood of shifts in classification due to minor variations in responses, which could stem from factors like fatigue or fluctuating attention levels. Thus, this adaptation enhances the test's reliability by more accurately capturing the fluid and dynamic nature of personality, addressing a critical area of concern highlighted in previous critiques.

5.2 Implications of the Findings

The categorization system introduced by the Dynamight™ MBTI signifies a significant advancement in personality assessment. This system not only accommodates the complexity of human personality but also acknowledges the fluid nature of traits that do not strictly adhere to binary classifications. In this respect, the ability to capture these subtleties offers significant practical implications, enhancing the scale's applicability in various domains such as psychological counseling, organizational development, and educational settings. By providing a more granular view of personality traits, the Dynamight™ MBTI facilitates targeted interventions and supports a deeper understanding of individual differences, potentially leading to more effective outcomes in personal and professional growth initiatives.

6. Conclusion

This study's exploration of the Dynamight™ MBTI has yielded significant insights into the instrument's psychometric properties, affirming its potential as a valuable tool in the realm of personality assessment. The instrument's strong correlations with the established MBTI across various personality dimensions affirm its criterion concurrent validity, illustrating its adeptness in encapsulating recognized personality constructs. Furthermore, the introduction of augmented categorizations, particularly the innovative 'borderline' category, represents a notable advancement in the methodology of personality assessment, advancing beyond the traditional binary paradigm to accommodate the inherent fluidity and heterogeneity of human personality traits.

Nevertheless, this study is not devoid of limitations. The reliance on convenience sampling and the relatively brief span between the test-retest assessments may influence the universality and depth of the insights garnered. Additionally, the focus on a singular demographic group (participants from the Tulua institution) may limit the applicability of the findings to a broader array of populations. It is imperative for future research endeavors to extend these findings across diverse populations and over more protracted periods, to enhance the understanding of the Dynamight™ MBTI's longitudinal stability and its applicability across various demographic contexts..

In conclusion, the findings from this research position the Dynamight™ MBTI as a promising instrument within the domain of personality assessment. Its concordance with the foundational principles of the original MBTI, combined with the introduction of a refined categorization schema, endows the Dynamight™ MBTI with significant potential for enriching both academic research and practical applications in the discipline of personality psychology.

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