



Technical Brief for the MBTI® FORM M and FORM Q ASSESSMENTS

Brazilian Portuguese

Nancy A. Schaubhut
Richard C. Thompson



800-624-1765 | www.cpp.com

INTRODUCTION

The *Myers-Briggs Type Indicator*® (MBTI®) instrument is one of the most commonly used personality assessments in the world. Because administration of the instrument outside the United States is growing rapidly, new translations are continually being developed for use in specific regions. This technical brief summarizes the initial measurement properties of a translation of the MBTI Form M and Form Q assessments developed for areas of Brazil where Brazilian Portuguese is understood. To that end, it examines the reliability of the Brazilian Portuguese translation of the MBTI Form M and Form Q assessments, reports on type distribution in a sample of participants who completed the instrument in Brazilian Portuguese, and provides comparisons with the U.S. National Representative Sample to examine similarities and differences between the groups.

THE MBTI® ASSESSMENT

The MBTI assessment uses a typology composed of four pairs of opposite preferences, called *dichotomies*:

- Extraversion (E) or Introversion (I)—where you focus your attention and get energy
- Sensing (S) or Intuition (N)—how you take in information
- Thinking (T) or Feeling (F)—how you make decisions
- Judging (J) or Perceiving (P)—how you deal with the outer world

The MBTI assessment combines an individual's four preferences—one preference from each dichotomy, denoted by its letter—to yield one of the 16 possible personality types (e.g., ESTJ, INFP, etc.). Each type is equally valuable, and an individual inherently belongs to one of the 16 types. This model differentiates the MBTI assessment from most other personality instruments, which typically assess personality traits. Trait-based instruments measure how much of a certain characteristic people possess. Unlike the MBTI assessment, those instruments usually consider one “end” of a trait to be more positive and the other to be more negative.

BRAZILIAN PORTUGUESE SAMPLE

Following the translation of the MBTI assessment into Brazilian Portuguese, a sample of participants was obtained for this study. It is important to note that this Brazilian Portuguese sample is not a representative sample; rather, it is a sample of convenience. Therefore, no inferences may be drawn about the preferences or type distribution of the population that understands or uses Brazilian Portuguese. The data reported in this technical brief should be used for psychometric information purposes only.

Sample Description

This sample is composed of 661 individuals who each completed the MBTI®—Global Research version of the assessment in Brazilian Portuguese. This version of the assessment includes 230 MBTI items and contains the current commercial versions of the MBTI assessment (the Form M, Form Q, and European Step I and Step II assessments). The sample includes 57% women and 43% men. Respondents' ages ranged from 19 to 75 years (mean = 36.4, *SD* = 9.6); 92% were employed full-time or part-time, 1% were students, and 7% were either not working for income or did not provide their current employment status. Of those who were employed and reported their general line of work, 20% were working in education, training, and library occupations; 17% in business and financial operations; 9% in sales and related occupations; 9% in office and administrative support; and the remainder in various fields. Of those who were employed and reported organizational level, 35% were entry level, 27% supervisory, 22% nonsupervisory, 11% management, and 5% executive. All respondents reported their country of origin and residence as Brazil.

As shown in Table 1, the most frequently occurring type for this sample is ISTJ (22.4%), followed by ESTJ (13.9%). The least common types are ENFJ (1.8%) and INFJ (2.1%). Self-selection ratios (SSRs) were computed by comparing the percentage of each type in the Brazilian Portuguese sample to that in the U.S. National Rep-

TABLE 1. TYPE DISTRIBUTION IN THE BRAZILIAN PORTUGUESE SAMPLE

SENSING		INTUITION		
Thinking	Feeling	Feeling	Thinking	
ISTJ <i>n</i> = 148 22.4% SSR = 1.93	ISFJ <i>n</i> = 31 4.7% SSR = 0.34	INFJ <i>n</i> = 14 2.1% SSR = 1.41	INTJ <i>n</i> = 27 4.1% SSR = 1.95	Judging
ISTP <i>n</i> = 61 9.2% SSR = 1.71	ISFP <i>n</i> = 15 2.3% SSR = 0.26	INFP <i>n</i> = 22 3.3% SSR = 0.76	INTP <i>n</i> = 37 5.6% SSR = 1.70	Perceiving
ESTP <i>n</i> = 67 10.1% SSR = 2.36	ESFP <i>n</i> = 35 5.3% SSR = 0.62	ENFP <i>n</i> = 25 3.8% SSR = 0.47	ENTP <i>n</i> = 27 4.1% SSR = 1.28	Perceiving
ESTJ <i>n</i> = 92 13.9% SSR = 1.60	ESFJ <i>n</i> = 29 4.4% SSR = 0.36	ENFJ <i>n</i> = 12 1.8% SSR = 0.73	ENTJ <i>n</i> = 19 2.0% SSR = 1.60	Judging

Note: *N* = 661.

representative Sample (Myers, McCaulley, Quenk, & Hammer, 1998). Note that in this sample, ESTPs are more than twice as prevalent as they are in the U.S. National Representative Sample. On the other hand, ISFPs and ISFJs are less common in the Brazilian Portuguese sample than in the U.S. sample. However, since this Brazilian Portuguese sample is not representative of the general

population, no inferences should be made about the population's distribution of type.

Table 2 shows the number and percentage of respondents for each preference. Also included for reference are the number and percentage of respondents for each preference in the U.S. National Representative Sample (Myers et al., 1998).

TABLE 2. PREFERENCE DISTRIBUTIONS FOR THE BRAZILIAN PORTUGUESE SAMPLE AND THE U.S. NATIONAL REPRESENTATIVE SAMPLE

Preference	Brazilian Portuguese Sample (N = 661)		U.S. National Representative Sample (N = 3,009)	
	n	%	n	%
Extraversion (E)	306	46.3	1,483	49.3
Introversion (I)	355	53.7	1,526	50.7
Sensing (S)	478	72.3	2,206	73.3
Intuition (N)	183	27.7	803	26.7
Thinking (T)	478	72.3	1,210	40.2
Feeling (F)	183	27.7	1,799	59.8
Judging (J)	372	56.3	1,629	54.1
Perceiving (P)	289	43.7	1,380	45.9

Note: Source for the U.S. National Representative Sample is Myers, McCaulley, Quenk, and Hammer (1998).

TABLE 3. DICHOTOMY INTERNAL CONSISTENCY RELIABILITIES FOR THE BRAZILIAN PORTUGUESE SAMPLE AND THE U.S. NATIONAL REPRESENTATIVE SAMPLE

Dichotomy	Brazilian Portuguese Sample	U.S. National Representative Sample
	Cronbach's Alpha	Cronbach's Alpha
E-I	.92	.91
S-N	.89	.92
T-F	.91	.91
J-P	.91	.92

Note: Source for the U.S. National Representative Sample is Myers, McCaulley, Quenk, and Hammer (1998).

RELIABILITY OF THE FORM M PREFERENCES

The internal consistency reliabilities (Cronbach's alphas) for the Brazilian Portuguese sample and the U.S. National Representative Sample are reported in Table 3. The reliabilities of the four dichotomies are good for the Brazilian Portuguese sample, and are very similar to those reported in the *MBTI® Manual* (Myers et al., 1998).

PREDICTION RATIOS

Prediction ratios measure the likelihood that a person choosing a certain response will in fact have that preference (Myers et al., 1998). Prediction ratios for the Brazilian Portuguese sample are reported in Table 4.

TABLE 4. PREDICTION RATIOS FOR THE BRAZILIAN PORTUGUESE SAMPLE

Item Code	ESTJ Prediction Ratio	INFP Prediction Ratio	Item Code	ESTJ Prediction Ratio	INFP Prediction Ratio
EI1	.83	.89	SN17	.68	.59
EI2	.70	.79	SN18	.75	.88
EI3	.73	.76	SN19	.76	.75
EI4	.78	.85	SN20	.88	.96
EI5	.74	.81	SN21	.70	.86
EI6	.75	.85	SN22	.86	.65
EI7	.85	.69	SN23	.86	.62
EI8	.82	.84	SN24	.87	.72
EI9	.70	.71	SN25	.67	.75
EI10	.90	.76	SN26	.55	.74
EI11	.82	.78	TF1	.75	.78
EI12	.85	.60	TF2	.88	.73
EI13	.71	.58	TF3	.90	.81
EI14	.73	.75	TF4	.79	.64
EI15	.76	.76	TF5	.82	.81
EI16	.69	.74	TF6	.67	.83
EI17	.69	.95	TF7	.76	.61
EI18	.70	.86	TF8	.68	.87
EI19	.90	.72	TF9	.99	.71
EI20	.72	.84	TF10	.64	.65
EI21	.74	.85	TF11	.67	.69
SN1	.64	.77	TF12	.77	.70
SN2	.80	.76	TF13	.76	.95
SN3	.77	.82	TF14	.76	.81
SN4	.68	.65	TF15	.77	.84
SN5	.77	.63	TF16	.72	.75
SN6	.64	.59	TF17	.82	.82
SN7	.74	.59	TF18	.73	.92
SN8	.84	.83	TF19	.62	.91
SN9	.90	.71	TF20	.91	.76
SN10	.77	.68	TF21	.79	.70
SN11	.61	.87	TF22	.71	.86
SN12	.67	.81	TF23	.79	.96
SN13	.89	.76	TF24	.72	.64
SN14	.89	.68	JP1	.64	.86
SN15	.88	.71	JP2	.79	.85
SN16	.64	.67	JP3	.74	.70

(cont'd)

TABLE 4. PREDICTION RATIOS FOR THE BRAZILIAN PORTUGUESE SAMPLE *CONT'D*

Item Code	ESTJ Prediction Ratio	INFP Prediction Ratio	Item Code	ESTJ Prediction Ratio	INFP Prediction Ratio
JP4	.67	.73	JP14	.64	.93
JP5	.77	.69	JP15	.74	.86
JP6	.67	.83	JP16	.89	.81
JP7	.74	.83	JP17	.81	.85
JP8	.57	.52	JP18	.79	.76
JP9	.72	.93	JP19	.68	.75
JP10	.85	.64	JP20	.69	.90
JP11	.75	.61	JP21	.66	.77
JP12	.59	.83	JP22	.83	.83
JP13	.72	.87			

FACTOR ANALYSIS

Several studies have conducted confirmatory factor analyses of the MBTI assessment to assess the validity of the factors of the MBTI assessment. They have indicated that a four-factor model, such as the one theorized and developed by Myers, is the most appropriate and offers the best fit (Harvey, Murry, & Stamoulis, 1995; Johnson &

Saunders, 1990). A principal components exploratory factor analysis with varimax rotation was conducted using the item responses from the Brazilian Portuguese sample. The results are presented in Table 5. The shaded cells indicate that factor 1 is T–F, factor 2 is E–I, factor 3 is J–P, and factor 4 is S–N. The four-factor structure produced by this analysis shows that the Brazilian Portuguese MBTI Form M items are measuring their intended constructs, the four dichotomies.

TABLE 5. FACTOR ANALYSIS ROTATED COMPONENT MATRIX FOR THE BRAZILIAN PORTUGUESE SAMPLE

Item Code	Factor 1 (T–F)	Factor 2 (E–I)	Factor 3 (J–P)	Factor 4 (S–N)	Item Code	Factor 1 (T–F)	Factor 2 (E–I)	Factor 3 (J–P)	Factor 4 (S–N)
EI1	-.07	.71	-.08	.04	EI12	-.02	.43	-.20	.00
EI2	.04	.58	-.01	-.02	EI13	-.01	.30	-.13	-.05
EI3	.03	.56	.02	-.03	EI14	-.10	.57	.02	-.05
EI4	-.09	.64	.03	-.02	EI15	.01	.65	.04	.01
EI5	-.11	.61	.02	.09	EI16	.02	.55	-.06	.01
EI6	-.12	.69	.00	-.01	EI17	-.08	.70	.00	.00
EI7	-.13	.54	-.08	-.03	EI18	-.09	.61	.09	.06
EI8	-.10	.70	-.04	.01	EI19	.00	.64	-.07	.08
EI9	.13	.51	-.13	.01	EI20	-.03	.64	-.02	-.07
EI10	-.12	.68	-.10	.05	EI21	.03	.65	.04	-.01
EI11	-.07	.65	-.13	-.10					

(cont'd)

**TABLE 5. FACTOR ANALYSIS ROTATED COMPONENT MATRIX
FOR THE BRAZILIAN PORTUGUESE SAMPLE *CONT'D***

Item Code	Factor 1 (T-F)	Factor 2 (E-I)	Factor 3 (J-P)	Factor 4 (S-N)	Item Code	Factor 1 (T-F)	Factor 2 (E-I)	Factor 3 (J-P)	Factor 4 (S-N)
SN1	.01	.16	.01	.47	TF11	.40	.09	.02	-.07
SN2	.22	-.11	.11	.55	TF12	.46	-.03	.03	.08
SN3	.19	-.03	.11	.60	TF13	.73	-.03	.07	.06
SN4	-.05	-.07	.13	.36	TF14	.60	-.11	.17	.12
SN5	.08	-.09	.11	.45	TF15	.64	-.05	.03	.14
SN6	-.02	-.03	.05	.25	TF16	.47	-.11	.12	.10
SN7	-.12	-.13	.17	.38	TF17	.65	-.19	.12	-.04
SN8	.19	.01	.18	.63	TF18	.68	-.04	.07	.06
SN9	.15	-.07	.06	.64	TF19	.55	.02	.13	.08
SN10	.01	.07	-.02	.41	TF20	.71	-.10	.04	.00
SN11	.02	.15	.03	.50	TF21	.51	.10	-.02	.07
SN12	.05	.13	.02	.49	TF22	.62	.01	.00	.07
SN13	.09	-.11	.05	.67	TF23	.44	.02	.08	.12
SN14	.23	-.14	.10	.57	TF24	.37	-.10	.07	.07
SN15	.00	-.03	.06	.64	JP1	-.05	-.01	.54	.07
SN16	-.01	-.04	.04	.34	JP2	-.01	-.01	.73	.10
SN17	-.08	.02	-.14	.36	JP3	.02	-.11	.45	-.07
SN18	.20	.12	.20	.62	JP4	.10	-.02	.45	.19
SN19	.04	.01	.11	.58	JP5	-.01	.01	.52	.11
SN20	.20	-.02	.12	.68	JP6	-.01	-.08	.57	.09
SN21	.04	.21	.08	.59	JP7	.08	-.04	.68	-.03
SN22	.12	-.08	.14	.52	JP8	.00	-.01	.60	.15
SN23	-.12	-.21	.17	.46	JP9	.14	-.05	.65	.21
SN24	.06	-.08	.13	.60	JP10	.16	-.26	.45	.22
SN25	-.03	.20	-.01	.50	JP11	.17	-.31	.33	.23
SN26	-.30	-.09	-.07	.18	JP12	.24	.03	.40	.08
TF1	.59	-.10	.13	-.03	JP13	.15	-.05	.65	.16
TF2	.66	-.13	.04	.04	JP14	.17	-.06	.59	.12
TF3	.75	-.09	.09	.02	JP15	-.01	.00	.68	.08
TF4	.46	-.04	-.09	.00	JP16	.09	-.12	.68	.15
TF5	.69	-.12	.04	-.06	JP17	.09	.02	.72	.11
TF6	.56	-.01	.02	.08	JP18	.15	-.31	.51	.18
TF7	.44	-.19	.09	-.02	JP19	.10	-.05	.53	-.06
TF8	.58	.00	.05	.12	JP20	.02	.02	.64	.15
TF9	.47	.00	.12	.10	JP21	.14	.01	.54	-.05
TF10	.34	.03	.01	.05	JP22	.11	.02	.69	.12

TABLE 6. MBTI® FORM Q FACET INTERNAL CONSISTENCY RELIABILITIES FOR THE BRAZILIAN PORTUGUESE SAMPLE AND THE U.S. NATIONAL REPRESENTATIVE SAMPLE

Form Q Facets	Brazilian Portuguese Sample	U.S. National Representative Sample
	Cronbach's Alpha	Cronbach's Alpha
<i>E-I Facets</i>		
Initiating–Receiving	.85	.85
Expressive–Contained	.81	.79
Gregarious–Intimate	.71	.60
Active–Reflective	.67	.59
Enthusiastic–Quiet	.74	.72
<i>S-N Facets</i>		
Concrete–Abstract	.73	.81
Realistic–Imaginative	.76	.79
Practical–Conceptual	.54	.67
Experiential–Theoretical	.80	.83
Traditional–Original	.73	.76
<i>T-F Facets</i>		
Logical–Empathetic	.85	.80
Reasonable–Compassionate	.70	.77
Questioning–Accommodating	.28	.57
Critical–Accepting	.49	.60
Tough–Tender	.70	.81
<i>J-P Facets</i>		
Systematic–Casual	.76	.74
Planful–Open-Ended	.84	.82
Early Starting–Pressure-Prompted	.71	.70
Scheduled–Spontaneous	.77	.82
Methodical–Emergent	.66	.71

Note: Source for the U.S. National Representative Sample is Myers, McCaulley, Quenk, and Hammer (1998).

RELIABILITY OF THE FORM Q FACETS

The MBTI Form Q assessment includes the 93 items that make up the MBTI Form M assessment (measuring the four dichotomies E–I, S–N, T–F, and J–P) plus another 51 items that are used only to measure the Form Q facets. For each of the four dichotomies there are five facets (see Table 6), yielding a total of 20 facets. These facets help

describe some of the ways in which each preference can be different for each individual to create a richer and more detailed description of an individual's behavior. The remaining analyses focus on the evaluation of the Form Q facets.

Internal consistency reliabilities for each facet are reported in Table 6 for the Brazilian Portuguese sample and the U.S. National Representative Sample. The Brazilian Portuguese sample alphas range from .28 (Questioning–

Accommodating) to .85 (Tough–Tender). Overall, some of this sample’s alphas are slightly lower than those of the U.S. National Representative Sample. This is consistent with the reliabilities that have been found for other translations of the MBTI Form Q (or Step II for Europe) assessment (Quenk, Hammer, & Majors, 2004; Schaubhut, 2008; Schaubhut & Thompson, 2010a; Schaubhut & Thompson, 2010b). Reliabilities for nine other translations can be found in the *MBTI® Step II™ Manual*, European edition (Quenk et al., 2004). Items comprising facet scales with lower alphas, such as Critical–Accepting and Questioning–Accommodating, were evaluated for potential translation problems. Since none was apparent, from a reliability perspective these facet scales may not work as well in this culture.

CONCLUSION

The analyses reported here with an initial Brazilian Portuguese sample demonstrate that the translation and measurement properties of the assessment are adequate. Therefore, translations of the MBTI Form M and Form Q assessments can be widely used with individuals who understand Brazilian Portuguese. As the MBTI assessment continues to grow, larger and more diverse samples will become available and the measurement properties of the MBTI Form M and Form Q assessments will continue to be evaluated.

REFERENCES

- Harvey, R. J., Murry, W. D., & Stamoulis, D. (1995). Unresolved issues in the dimensionality of the Myers-Briggs Type Indicator®. *Educational and Psychological Measurement*, 55, 535–544.
- Johnson, D. A., & Saunders, D. R. (1990). Confirmatory factor analysis of the Myers-Briggs Type Indicator® Expanded Analysis Report. *Educational and Psychological Measurement*, 50, 561–571.
- Myers, I. B., McCaulley, M. H., Quenk, N. L., & Hammer, A. L. (1998). *MBTI® manual: A guide to the development and use of the Myers-Briggs Type Indicator® instrument*. Mountain View, CA: CPP, Inc.
- Quenk, N. L., Hammer, A. L., & Majors, M. S. (2004). *MBTI® Step II™ manual*, European edition. Mountain View, CA: CPP, Inc.
- Schaubhut, N. A. (2008). *Technical brief for the MBTI® Form M and Form Q assessments—Latin and North American Spanish*. Mountain View, CA: CPP, Inc.
- Schaubhut, N. A., & Thompson, R. C. (2010a). *Technical brief for the MBTI® Form M and Form Q assessments—Simplified Chinese*. Mountain View, CA: CPP, Inc.
- Schaubhut, N. A., & Thompson, R. C. (2010b). *Technical brief for the MBTI® Form M and Form Q assessments—Traditional Chinese*. Mountain View, CA: CPP, Inc.