Brazil (Brazilian Portuguese)
Supplement to the **MBTI® Manual** for the **Global Step I™** and **Step II™ Assessments**

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CONTENTS

INTRODUCTION

As steward of the *Myers-Briggs Type Indicator®* (MBTI®) assessment, The Myers-Briggs Company had two overarching goals in undertaking its revision to create global Step I™ and Step II™ forms: (1) preserve the integrity of the Step I and Step II assessments and (2) improve the reliability and validity of the MBTI assessment overall. More specifically, the company sought to update existing representative samples and compile new representative samples in additional countries based on translations (or adaptations) of the assessment into additional languages, use a statistical model consistent with type theory, and, if supported by data analysis, use the same scoring method globally, so that scores could be compared across all those countries and languages.

Broadening existing and compiling new representative samples was a high priority. The prior revision of the MBTI assessment culminated in the 1998 publication of MBTI Form M (Step I), which replaced the earlier Form G. Form Q (Step II) was subsequently published in 2001 and replaced Form K. In the United Kingdom, the European Step I assessment was published in 1997. The European Step II assessment was published in 2003 based on pan-European samples compiled by OPP Ltd. Although all these forms of the MBTI assessment served their audiences well, no additional representative samples in the United States or the UK had been compiled subsequent to their publication. It was therefore important to update the US and UK representative samples as well as expand the number of representative samples to include additional countries and languages, reflecting the increasingly global reach of the MBTI assessment.

To address this need, data were collected in targeted countries (see table 1), with specific demographic targets set by experts for all samples except those from Brazil and South Africa.[1] A consistent data collection effort yielded samples that responded to a common 230-item

MBTI research form containing all items on then-current forms of the assessment (i.e., MBTI Form M and Form Q, and European Step I and Step II); common demographic items; and other validation assessments. Participants who completed North American English or European English versions of the assessment also completed an online interpretation session through The Myers-Briggs Company's MBTI®Complete website, making their verified, or "best-fit," type available for analysis.

In brief, the revision of the MBTI assessment provided the opportunity to collect a wealth of data, resulting in national representative samples that had not existed previously. These samples served the global research effort for the revised assessments themselves and also provided 4 new large and 19 new moderate-size samples. (*Please note:* In this manual supplement series, a particular sample may be referred to by either country or language for convenience in a particular context. Refer as needed to the sample names listed in table 1 when considering the results presented.)

Two different categories of samples were collected for this global project. Table 1 lists the 4 "large" samples—United States, Canada, and Australia (all North American English), and the United Kingdom (European English)—and the 19 "moderate-size" samples from around the world, which were all combined to form the *global sample.* Large samples were targeted to have 1,000 or more participants, to exceed the sample size of an existing representative sample (specifically, in the US and the UK), and to reflect the size of the market for the MBTI assessment. The moderate-size samples for the most part included targets to ensure that they were nationally representative; only 3 of these samples—Brazil (Brazilian Portuguese), South Africa (Afrikaans), and South Africa (North American English)—due in part to their smaller markets for the MBTI assessment, were distributor led and nonrepresentative.

The MBTI global sample consists of 16,773 individuals, as detailed and summarized in the *MBTI® Manual for the Global Step I™ and Step II™ Assessments* (Myers, McCaulley, Quenk, & Hammer, 2018). The global sample was used to develop the Global Step I and Step II assessments. It is critical to keep in mind that while analyses were conducted for each country/language sample used in this supplement series and are summarized here, the focus of the analyses was on the global sample reported in the 2018 MBTI manual.

This supplement to the 2018 manual summarizes results obtained from responses of the Brazil (Brazilian Portuguese) sample—hereafter, *Brazilian Portuguese* sample—to the Global Step I and Step II assessments translated into Brazilian Portuguese. Included in this supplement is a general description of the sample, along with statistical summaries, analyses, and type distributions based on those results.

Table 1 | List of large and moderate-size country/language samples in the MBTI® global sample

Country/language sample	N
Large samples	
Australia (North American English)	776
Canada (North American English)	939
United Kingdom (European English)	2,831
United States (North American English)	3,578
Moderate-size samples	
Brazil (Brazilian Portuguese)*	839
Canada (Canadian French)	176
China (Simplified Chinese)	521
China (Traditional Chinese)	477
Denmark (Danish)	468
Finland (Finnish)	524
France (European French)	472
Germany (German)†	440
Greece (Greek)	277
Ireland (European English)	383
Italy (Italian)	458
Mexico (Latin American Spanish)	359
Netherlands (Dutch)	506
Norway (Norwegian)	493
Portugal (European Portuguese)	503
South Africa (Afrikaans)*	505
South Africa (North American English)*	189
Spain (European Spanish)	564
Sweden (Swedish)	495

Note: Global sample, N = 16,773.
*Data collection for this sample was distributor led; it is not a representative sample.
†Germany sample includes one individual residing in Switzerland.

TRANSLATION PROCESS

The Myers-Briggs Company's translation process for the MBTI Global Step I and Step II assessments was based on industry-standard methods for assessment translation (International Test Commission, 2005).[2] Because each of the languages included in this project has a different history of translation and use, the process varied somewhat for different languages.

The 230-item research form of the MBTI assessment was created for this project by drawing on a prior translation of the 144 items of the MBTI Form M and Form Q assessments developed for use in Brazil by the Brazilian distributor. Using that translation as a starting point, the additional research items were then translated, and both the new and existing items were evaluated by in-country expert reviewers and iterated until a satisfactory version of the 230-item translation was developed.

DATA COLLECTION

Data for this revision of the assessment were collected almost exclusively online through two Myers-Briggs Company websites. The first site, built by the company's Research Division, accommodated the administration of the MBTI research form and other validity assessments, which were used for non-English-speaking research participants. The second site, for English-speaking participants, was a special modification of MBTI®Complete created for this research project using the 230-item MBTI research form, followed by MBTI®Complete's online interpretation session yielding respondents' best-fit type results. (For details on best-fit type, see chapter 7 in the 2018 MBTI manual.) As MBTI®Complete was not used in collecting the Brazilian Portuguese sample, best-fit type data for the sample are unavailable.

For the MBTI research form, specific sampling targets were set for each sample (table 2). Local MBTI distributors helped determine the final targets for samples in their respective countries or regions by selecting appropriate official sources. In general, sampling targets were designed to mirror the working-age population.

Once the websites were prepared and the sampling targets were set, data collection began. For most samples, the majority of participants were provided with incentives by an external market research firm. Such firms maintain panels of participants who have expressed willingness to participate in research. These participants were compensated for completing some combination of demographic items, the MBTI research form, and/or other validity assessments. For some samples—for example, Brazil (Brazilian Portuguese)—the locally based MBTI distributor led the data collection effort. Once data were collected, all cases were thoroughly examined, and invalid cases (e.g., those with too many response omissions or where a participant had selected only the "A" response option across 230 items) were removed. This cleanup step, while reducing final sample sizes, was required to ensure that only the highest-quality data remained for analysis.

A convenience sample of individuals in Brazil who read Brazilian Portuguese was obtained from the local distributor, IHS. Table 2 shows the demographic percentages obtained. The resulting Brazilian Portuguese sample consists of 839 individuals, 56% women and 44% men. The age range is 18–75, with an average of 37 years (standard deviation = 9.7). All individuals reported residing in Brazil.

Table 2 | Demographic summary: Brazilian Portuguese sample

Demographic	Sample %
Age group	
18–24 years	8
25–34 years	41
35–49 years	39
50–65 years	11
65+ years	1
Mean age: 37 years	—
Gender	
Female	56
Male	44
Country of residence	
Brazil	100
Employment status	
Working full-time	89
Working part-time	3
Student	1
Retired	<1
Not working for income / none of the above	6
No response	<1

Note: N = 839. Percentages in a given category may not total 100% due to rounding of decimals.

MBTI® GLOBAL STEP I™ ASSESSMENT RESULTS FOR THE BRAZILIAN PORTUGUESE SAMPLE

The Global Step I assessment contains 92 items used to help determine individuals' personality type by identifying their preferences on four pairs of opposites (Extraversion–Introversion, Sensing–Intuition, Thinking–Feeling, and Judging–Perceiving). Combining an individual's four preferences yields 1 of 16 possible MBTI types. The Global Step I assessment replaces the Form M assessment and the European Step I assessment.

MBTI® Type and Preference Distributions

MBTI type was computed for all participants in the Brazilian Portuguese sample. Type, preference, and preference combination distributions for this sample are presented in tables 3 and 4.

Table 3 shows that the most common types for this group are ISTJ and ESTJ. The least common types are INFJ and ENFJ. Table 4 shows the distributions of preferences as well as four two-preference

Table 3 | Reported MBTI® type distribution: Brazilian Portuguese sample

Sensing		Intuition	
Thinking	**Feeling**		**Thinking**
ISTJ n = 188 22.4%	**ISFJ** n = 29 3.5%	**INFJ** n = 14 1.7%	**INTJ** n = 25 3.0%
ISTP n = 83 9.9%	**ISFP** n = 25 3.0%	**INFP** n = 23 2.7%	**INTP** n = 50 6.0%
ESTP n = 83 9.9%	**ESFP** n = 33 3.9%	**ENFP** n = 45 5.4%	**ENTP** n = 46 5.5%
ESTJ n = 123 14.7%	**ESFJ** n = 28 3.3%	**ENFJ** n = 16 1.9%	**ENTJ** n = 28 3.3%

Judging / Perceiving — *Introversion*; *Judging* — *Extraversion*

Note: N = 839.

Table 4 | Reported MBTI® type preference and preference combination distributions: Brazilian Portuguese sample

Preferences			Orientation pairs			Process pairs			Orientation of energy and perceiving pairs			Judging and external orientation pairs		
	n	%		n	%		n	%		n	%		n	%
E	402	47.9	EJ	195	23.2	ST	477	56.6	ES	267	31.8	TJ	364	43.4
I	437	52.1	EP	207	24.7	SF	115	13.7	EN	135	16.1	TP	262	31.2
S	592	70.6	IJ	256	30.5	NF	98	11.7	IS	325	38.7	FJ	87	10.4
N	247	29.4	IP	181	21.6	NT	149	17.8	IN	112	13.3	FP	126	15.0
T	626	74.6												
F	213	25.4												
J	451	53.8												
P	388	46.2												

Note: N = 839.

combinations: (1) *orientation* pairs, (2) *process* pairs, (3) *orientation of energy* and *perceiving process* pairs, and (4) *judging process* and *external orientation* pairs. The table shows that of the orientation pairs, EJs, IPs, and EPs occur about equally but less commonly than IJs. In addition, Ss are more prevalent than Ns, and Ts more than Fs, while the other preferences are more evenly distributed.

Tables 5–8 show type and preference distributions by gender.

Table 5 | Reported MBTI® type distribution for men: Brazilian Portuguese sample

Sensing		Intuition			
Thinking	**Feeling**		**Thinking**		
ISTJ n = 95 25.8%	ISFJ n = 7 1.9%	INFJ n = 8 2.2%	INTJ n = 15 4.1%	Judging	Introversion
ISTP n = 33 9.0%	ISFP n = 5 1.4%	INFP n = 7 1.9%	INTP n = 25 6.8%	Perceiving	
ESTP n = 35 9.5%	ESFP n = 11 3.0%	ENFP n = 15 4.1%	ENTP n = 23 6.3%	Perceiving	Extraversion
ESTJ n = 62 16.8%	ESFJ n = 4 1.1%	ENFJ n = 7 1.9%	ENTJ n = 16 4.3%	Judging	

Note: n = 368.

Table 6 | Reported MBTI® preference and preference combination distributions for men: Brazilian Portuguese sample

Preferences			Orientation pairs			Process pairs			Orientation of energy and perceiving pairs			Judging and external orientation pairs		
	n	%		*n*	%		*n*	%		*n*	%		*n*	%
E	173	47.0	EJ	89	24.2	ST	225	61.1	ES	112	30.4	TJ	188	51.1
I	195	53.0	EP	84	22.8	SF	27	7.3	EN	61	16.6	TP	116	31.5
S	252	68,5	IJ	125	34.0	NF	37	10.1	IS	140	38.0	FJ	26	7.1
N	116	31.5	IP	70	19.0	NT	79	21.5	IN	55	14.9	FP	38	10.3
T	304	82.6												
F	64	17.4												
J	214	58.2												
P	154	41.8												

Note: n = 368.

Table 7 | Reported MBTI® type distribution for women: Brazilian Portuguese sample

Sensing		Intuition			
Thinking	**Feeling**		**Thinking**		
ISTJ *n* = 93 19.7%	ISFJ *n* = 22 4.7%	INFJ *n* = 6 1.3%	INTJ *n* = 10 2.1%	Judging	Introversion
ISTP *n* = 50 10.6%	ISFP *n* = 20 4.2%	INFP *n* = 16 3.4%	INTP *n* = 25 5.3%	Perceiving	Introversion
ESTP *n* = 48 10.2%	ESFP *n* = 22 4.7%	ENFP *n* = 30 6.4%	ENTP *n* = 23 4.9%	Perceiving	Extraversion
ESTJ *n* = 61 13.0%	ESFJ *n* = 24 5.1%	ENFJ *n* = 9 1.9%	ENTJ *n* = 12 2.5%	Judging	Extraversion

Note: n = 471.

Table 8 | Reported MBTI® preference and preference combination distributions for women: Brazilian Portuguese sample

Preferences			Orientation pairs			Process pairs			Orientation of energy and perceiving pairs			Judging and external orientation pairs		
	n	%		*n*	%		*n*	%		*n*	%		*n*	%
E	229	48.6	EJ	106	22.5	ST	252	53.5	ES	155	32.9	TJ	176	37.4
I	242	51.4	EP	123	26.1	SF	88	18.7	EN	74	15.7	TP	146	31.0
S	340	72.2	IJ	131	27.8	NF	61	13.0	IS	185	39.3	FJ	61	13.0
N	131	27.8	IP	111	23.6	NT	70	14.9	IN	57	12.1	FP	88	18.7
T	322	68.4												
F	149	31.6												
J	237	50.3												
P	234	49.7												

Note: n = 471.

Relationships Between MBTI® Global Step I™ and Form M Preference Pair Results

Correlations between MBTI Global Step I and Form M preference pair results for the Brazilian Portuguese sample are shown in table 9.[3] The overall agreement rate for whole types between the Global Step I and Form M assessments is 82%, higher than the 60% agreement rate between Form G and Form M reported in the 1998 *MBTI® Manual* (Myers, McCaulley, Quenk, & Hammer).

Table 9 | Relationships between MBTI® Global Step I™ and Form M preference pair results: Brazilian Portuguese sample

| Preference pair | Global Step I™ and Form M preference pair results | |
	Correlation between continuous scores	Agreement rate (%)
E–I	.97	95
S–N	.96	95
T–F	.98	97
J–P	.97	95
Overall agreement rate for whole types		*82*

Note: N = 839.

Table 10 | Intercorrelations of Global Step I™ preference pair continuous scores: Brazilian Portuguese and global samples

Preference pair	E–I	S–N	T–F	J–P
E–I	—	−.20	−.15	−.15
S–N	−.11	—	.27	.48
T–F	−.17	.27	—	.23
J–P	−.16	.43	.26	—

Table 11 | Internal consistency reliabilities of Global Step I™ preference pair continuous scores: Brazilian Portuguese and global samples

| Sample | N | Cronbach's alpha | | | |
		E–I	S–N	T–F	J–P
Brazilian Portuguese	839	.92	.88	.91	.90
Global	16,773	.89	.87	.89	.88

Note: Correlations for the Brazilian Portuguese sample (*N* = 839) are below the diagonal; those for the global sample (*N* = 16,773) are above the diagonal.

Global Step I™ Preference Pair Intercorrelations

Intercorrelations of Global Step I preference pair continuous scores in the Brazilian Portuguese sample are shown in table 10 below the diagonal. The highest correlation is between the S–N and J–P preference pairs. The next highest is between S–N and T–F. These correlations are very similar to those found for the global sample, shown in table 10 above the diagonal. The Brazilian Portuguese sample findings are likewise consistent with those reported for Form M in the 1998 *MBTI® Manual* (Myers et al.).

Reliability of Global Step I™ Results

This section covers the internal consistency reliability for the Brazilian Portuguese translation of the MBTI Global Step I assessment used in Brazil. For full reliability and validity information for the global sample, refer to the *MBTI® Manual for the Global Step I™ and Step II™ Assessments* (Myers et al., 2018).

Reliability refers to consistency of measurement. A measure is said to be reliable when it produces a consistent, though not necessarily identical, result. Scores, not assessments, are either reliable or unreliable for a particular population of respondents, as reliability is affected by both the sample and the items contained in the instrument (Capraro & Capraro, 2002). Because reliability hinges at least partially on total score variability, samples that are homogeneous on the characteristic being measured will likely yield a low total score variance, and the reliability of the scores regarding the characteristic may be poor. Conversely, participants in a sample that is heterogeneous with respect to the characteristic will likely score differently from each other, thereby increasing variability and providing stronger reliability (Dawis, 1987).

Internal consistency reliability measures the consistency of responses across items in a particular measure for a particular sample. The most commonly used estimator of internal consistency reliability is Cronbach's alpha (Cronbach, 1951). Table 11 shows the Cronbach's alphas for Global Step I preference pairs in the Brazilian Portuguese sample and in the global sample for comparison purposes. The Brazilian Portuguese sample alphas range from .88 to .92.

MBTI® GLOBAL STEP II™ ASSESSMENT RESULTS FOR THE BRAZILIAN PORTUGUESE SAMPLE

The Global Step II assessment contains all 92 Global Step I items plus an additional 51 items needed to score the Step II facets, for a total of 143. Step II results expand on descriptions of the four preference pairs by providing information about five facets of each pair (see table 12). The Global Step II assessment replaces the Form Q assessment and the European Step II assessment.

Table 12 | Relationships between Global Step II™ and Form Q facet results: Brazilian Portuguese sample

Global Step II™ facet	Correlation between continuous scores — Global Step II™ and Form Q facet results
E–I facets	
Initiating–Receiving	.98
Expressive–Contained	.99
Gregarious–Intimate	.98
Active–Reflective	.85
Enthusiastic–Quiet	.99
S–N facets	
Concrete–Abstract	.97
Realistic–Imaginative	.99
Practical–Conceptual	.86
Experiential–Theoretical	.96
Traditional–Original	.96
T–F facets	
Logical–Empathetic	.96
Reasonable–Compassionate	.91
Questioning–Accommodating	.52
Critical–Accepting	.76
Tough–Tender	.97
J–P facets	
Systematic–Casual	.95
Planful–Open-Ended	.97
Early Starting–Pressure-Prompted	.94
Scheduled–Spontaneous	.94
Methodical–Emergent	.96

Note: N = 839.

Relationships Between MBTI® Global Step II™ and Form Q Facet Results

Table 12 presents the relationships between MBTI Global Step II and Form Q facet results for the Brazilian Portuguese sample.

Global Step II™ Facet Intercorrelations

Intercorrelations of Global Step II facets are presented in table 13. Facets within each preference pair correlate higher with other facets of the same preference pair than with facets of different preference pairs.

Reliability and Validity of Global Step II™ Results

This section covers measurement properties for the Brazilian Portuguese translation of the MBTI Global Step II assessment, including reliability and validity. For full reliability and validity information for the global sample, refer to the *MBTI® Manual for the Global Step I™ and Step II™ Assessments* (Myers et al., 2018).

RELIABILITY

Internal consistency reliabilities for Global Step II facets in the Brazilian Portuguese sample are presented in table 14.

VALIDITY

Reported here as evidence of the validity of the Brazilian Portuguese translation of the MBTI Global Step II assessment are the percentage of out-of-preference facet scores for each preference pair and correlations between preference pairs and facets.

The five facets within each preference pair do not represent the entire conceptual domain of the preference pair. Further, it is not uncommon for individuals to have a facet score on the side opposite that of their preference in a given preference pair. For example, an Extravert may score toward the Intimate pole of the Gregarious– Intimate facet. This apparent inconsistency is referred to as an out-of-preference score and defined as a facet score from −2 to −5 when a respondent has a preference for I, N, F, or P; or from 2 to 5 when a respondent has a preference for E, S, T, or J. While it is not unusual to have a number of out-of-preference scores, it is relatively rare to have out-of-preference scores on three or more facets within any one preference pair. The percentage of out-of-preference facet scores for each preference pair in the Brazilian Portuguese sample is shown in table 15.

Correlations between facets and preference pairs are presented in table 16. The correlation between each facet and its corresponding preference pair is significantly higher than those between the facet and the other three preference pairs. This is "compelling evidence for the

Table 13 | Intercorrelations of Global Step II™ facets: Brazilian Portuguese sample

Global Step II™ facet	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.
E–I facets																				
1. Initiating–Receiving	—																			
2. Expressive–Contained	.70	—																		
3. Gregarious–Intimate	.69	.63	—																	
4. Active–Reflective	.74	.61	.68	—																
5. Enthusiastic–Quiet	.67	.62	.72	.69	—															
S–N facets																				
6. Concrete–Abstract	−.05	−.06	−.06	.00	−.10	—														
7. Realistic–Imaginative	−.09	−.10	−.11	−.06	−.17	.72	—													
8. Practical–Conceptual	−.07	−.03	−.06	−.02	−.11	.66	.70	—												
9. Experiential–Theoretical	.13	.06	.15	.16	.15	.50	.34	.34	—											
10. Traditional–Original	−.20	−.11	−.17	−.16	−.28	.60	.57	.66	.26	—										
T–F facets																				
11. Logical–Empathetic	−.13	−.20	−.16	−.13	−.16	.27	.28	.17	.01	.05	—									
12. Reasonable–Compassionate	−.09	−.15	−.13	−.07	−.08	.34	.32	.20	.13	.10	.79	—								
13. Questioning–Accommodating	−.01	−.12	−.06	−.01	−.02	.13	.14	.00	−.01	−.15	.65	.61	—							
14. Critical–Accepting	−.17	−.23	−.22	−.13	−.17	.34	.29	.21	.09	.14	.64	.66	.70	—						
15. Tough–Tender	−.06	−.14	−.09	−.02	−.04	.28	.26	.14	.12	.03	.67	.69	.67	.70	—					
J–P facets																				
16. Systematic–Casual	−.26	−.25	−.27	−.23	−.35	.45	.43	.39	.11	.52	.34	.36	.24	.40	.28	—				
17. Planful–Open-Ended	−.09	−.04	−.12	−.06	−.15	.29	.26	.25	.12	.40	.15	.20	.11	.24	.13	.66	—			
18. Early Starting–Pressure-Prompted	−.07	−.02	−.09	−.07	−.13	.22	.20	.17	.12	.26	.10	.13	.07	.17	.07	.51	.58	—		
19. Scheduled–Spontaneous	−.13	−.10	−.15	−.13	−.22	.35	.34	.32	.13	.50	.20	.24	.13	.25	.14	.76	.79	.62	—	
20. Methodical–Emergent	−.10	−.09	−.14	−.14	−.17	.15	.21	.16	.03	.23	.19	.22	.15	.23	.13	.59	.62	.63	.68	—

Note: N = 839.

Table 14 | Internal consistency reliability of Global Step II™ facet continuous scores: Brazilian Portuguese sample

Global Step II™ facet	Cronbach's alpha
E–I facets	
Initiating–Receiving	.85
Expressive–Contained	.81
Gregarious–Intimate	.73
Active–Reflective	.72
Enthusiastic–Quiet	.74
S–N facets	
Concrete–Abstract	.78
Realistic–Imaginative	.75
Practical–Conceptual	.72
Experiential–Theoretical	.81
Traditional–Original	.76
T–F facets	
Logical–Empathetic	.87
Reasonable–Compassionate	.76
Questioning–Accommodating	.68
Critical–Accepting	.55
Tough–Tender	.66
J–P facets	
Systematic–Casual	.80
Planful–Open-Ended	.82
Early Starting–Pressure-Prompted	.78
Scheduled–Spontaneous	.80
Methodical–Emergent	.70

Note: N = 839.

Table 15 | Percentage of reported out-of-preference Global Step II™ facet scores: Brazilian Portuguese sample

Preference pair	Number of out-of-preference facet scores (%)					
	0	1	2	3	4	5
E–I	78	16	5	<1	0	0
S–N	65	29	6	<1	0	0
T–F	81	15	3	1	0	0
J–P	68	24	7	1	0	0

Note: N = 839.

theoretical hierarchical structure of the Step II facets in relation to the Step I scales" (Quenk, Hammer, & Majors, 2001, p. 104). The Brazilian Portuguese sample correlations are comparable to those reported in the *MBTI® Step II™ Manual* (Quenk et al., 2001) and the *MBTI® Step II™ Manual, European Edition* (Quenk, Hammer, & Majors, 2004). The lowest correlation between a facet

Table 16 | Correlations between Global Step II™ facets and preference pairs: Brazilian Portuguese sample

Global Step II™ facet	Preference pair			
	E–I	S–N	T–F	J–P
E–I facets				
Initiating–Receiving	.89	−.09	−.13	−.14
Expressive–Contained	.82	−.07	−.20	−.10
Gregarious–Intimate	.83	−.09	−.16	−.17
Active–Reflective	.84	−.04	−.11	−.13
Enthusiastic–Quiet	.83	−.16	−.13	−.22
S–N facets				
Concrete–Abstract	−.08	.89	.32	.37
Realistic–Imaginative	−.13	.85	.30	.35
Practical–Conceptual	−.07	.82	.18	.32
Experiential–Theoretical	.14	.55	.08	.14
Traditional–Original	−.22	.77	.07	.47
T–F facets				
Logical–Empathetic	−.18	.23	.93	.23
Reasonable–Compassionate	−.12	.29	.90	.27
Questioning–Accommodating	−.04	.06	.73	.17
Critical–Accepting	−.21	.29	.76	.31
Tough–Tender	−.09	.22	.82	.18
J–P facets				
Systematic–Casual	−.31	.50	.37	.83
Planful–Open-Ended	−.10	.34	.17	.88
Early Starting–Pressure-Prompted	−.08	.25	.11	.71
Scheduled–Spontaneous	−.15	.43	.22	.94
Methodical–Emergent	−.13	.21	.20	.75

Note: N = 839.

and its corresponding preference pair was between Experiential–Theoretical and S–N.

Global Step II™ Facet Distributions

Determining whether a particular score is in-preference, midzone, or out-of-preference provides the basis for recognizing and understanding individual differences among people of the same type. When practitioners give feedback to respondents, the most important verification issue is the accuracy with which the scores reflect respondents' placement at either pole or in the midzone. If a respondent disagrees with results on a facet, interpretation will be affected. For example, a respondent may judge a facet score that was reported as midzone to be actually out-of-preference or in-preference. In such an instance, statements in the report will be incorrect for that facet, so the practitioner must provide appropriate

Table 17 | **In-preference, midzone, and out-of-preference percentages and rankings for the Global Step II™ facets: Brazilian Portuguese sample**

Global Step II™ facet	In-preference		Midzone		Out-of-preference	
	%	Rank	%	Rank	%	Rank
E–I facets						
Initiating–Receiving	67.22	8	29.08	7	3.69	16
Expressive–Contained	66.39	9	27.06	10	6.56	8
Gregarious–Intimate	65.44	13	28.13	9	6.44	10
Active–Reflective	61.62	18	33.37	4	5.01	14
Enthusiastic–Quiet	68.30	4	25.74	14	5.96	12
S–N facets						
Concrete–Abstract	68.18	5	28.25	8	3.58	17
Realistic–Imaginative	67.46	6	27.06	10	5.48	13
Practical–Conceptual	65.55	12	26.34	13	8.10	5
Experiential–Theoretical	66.39	9	20.50	19	13.11	2
Traditional–Original	50.89	20	38.38	1	10.73	4
T–F facets						
Logical–Empathetic	74.14	1	24.67	16	1.19	19
Reasonable–Compassionate	72.11	3	25.74	14	2.15	18
Questioning–Accommodating	62.46	16	30.39	6	7.15	7
Critical–Accepting	65.79	11	26.46	12	7.75	6
Tough–Tender	61.74	17	32.18	5	6.08	11
J–P facets						
Systematic–Casual	59.24	19	36.11	3	4.65	15
Planful–Open-Ended	72.82	2	20.62	18	6.56	8
Early Starting–Pressure-Prompted	65.44	13	15.97	20	18.59	1
Scheduled–Spontaneous	63.65	15	36.23	2	0.12	20
Methodical–Emergent	67.46	6	20.86	17	11.68	3

Note: N = 839.

interpretive information that corresponds to the respondent's verified placement.

Table 17 shows the percentages and rank order of in-preference, midzone, and out-of-preference scores for the 20 Global Step II facets for the Brazilian Portuguese sample. Interpreters may find this table useful because it shows which facets are more or less likely to yield scores in these three categories. There are wide variations in the frequency with which facet scores are likely to be out-of-preference. Here, the facet with the highest percentage of out-of-preference scores is Early Starting–Pressure-Prompted at 18.59%, followed by Experiential–Theoretical at 13.11%. The Scheduled–Spontaneous facet (0.12%) and the Logical–Empathetic facet (1.19%) appear least likely to elicit out-of-preference responses.

Gender differences on the Step II facets in the Brazilian Portuguese sample are presented in table 18.

CONCLUSION

Initial analyses of the Brazilian Portuguese translations of the MBTI Global Step I and Step II assessments demonstrate that they each have good internal consistency reliabilities that are consistent with those of prior forms of the MBTI assessment (i.e., Form M and Form Q). Validity was established by the percentage of out-of-preference facet scores and correlations between Step II facets and Step I preferences. While more research should be conducted, all these analyses show that the Brazilian Portuguese translations of the MBTI Global Step I and Step II assessments are appropriate for individuals in Brazil who read and understand Brazilian Portuguese.

Table 18 | Means, standard deviations, and Cohen's *d* of the Global Step II™ facets by total sample and gender: Brazilian Portuguese sample

Global Step II™ facet	Total sample (N = 839)		Men (n = 368)		Women (n = 471)		Gender difference
	M	SD	M	SD	M	SD	Cohen's *d*
E–I facets							
Initiating–Receiving	−0.06	0.90	−0.05	0.89	−0.06	0.90	0.02
Expressive–Contained	0.03	0.96	0.06	0.95	0.01	0.96	0.06
Gregarious–Intimate	0.03	0.85	0.01	0.87	0.04	0.83	−0.04
Active–Reflective	−0.02	0.86	−0.03	0.84	−0.02	0.87	−0.01
Enthusiastic–Quiet	0.11	0.88	0.16	0.88	0.07	0.88	0.10
S–N facets							
Concrete–Abstract	−0.30	0.93	−0.31	0.91	−0.30	0.94	−0.01
Realistic–Imaginative	−0.26	0.88	−0.24	0.85	−0.27	0.91	0.04
Practical–Conceptual	−0.30	0.86	−0.23	0.85	−0.35	0.86	0.14
Experiential–Theoretical	−0.44	0.86	−0.33	0.92	−0.53	0.81	0.24
Traditional–Original	−0.06	0.89	−0.03	0.88	−0.09	0.90	0.06
T–F facets							
Logical–Empathetic	−0.49	0.97	−0.75	0.87	−0.29	1.00	−0.48
Reasonable–Compassionate	−0.65	0.75	−0.81	0.70	−0.53	0.76	−0.38
Questioning–Accommodating	−0.62	0.80	−0.80	0.72	−0.49	0.84	−0.39
Critical–Accepting	−0.66	0.70	−0.79	0.64	−0.56	0.73	−0.34
Tough–Tender	−0.34	0.77	−0.47	0.76	−0.24	0.77	−0.30
J–P facets							
Systematic–Casual	−0.14	0.89	−0.28	0.88	−0.03	0.88	−0.28
Planful–Open-Ended	−0.18	0.88	−0.23	0.89	−0.15	0.88	−0.09
Early Starting–Pressure-Prompted	−0.14	0.87	−0.19	0.86	−0.10	0.88	−0.10
Scheduled–Spontaneous	0.02	0.88	−0.01	0.90	0.05	0.87	−0.07
Methodical–Emergent	0.06	0.84	0.02	0.86	0.10	0.83	−0.10

Note: For information on Cohen's *d*, see note 4, below.

NOTES

1. Originally, samples from India (North American English) and Saudi Arabia (Arabic) were collected, but these were later dropped from the global sample due to sample composition and psychometric concerns.
2. The terms *translation* and *adaptation* are often used interchangeably in the testing and measurement literature. Historically, *translation* has been used to describe the process by which an assessment is converted to a language other than the one in which it was originally constructed. However, the term *adaptation* is increasingly being used to reflect the fact that an effective conversion of assessment items from one language to another often requires not a word-for-word translation but rather a modification intended to maintain the general sense or purpose of those items in a particular language. Nevertheless, as the more readily understood term, *translation* is used here.
3. Correlation coefficients range from −1 to 1 and can be squared and used as effect sizes (measures of the practical significance of the relationship between the two variables in question). Cohen's guidelines regarding effect sizes indicate that $r^2 = .10$ is a small effect size, $r^2 = .30$ is medium, and $r^2 = .50$ is large (Cohen, 1988, 1992).
4. Cohen's *d* is an estimate of an effect size computed by taking the difference between the means of two groups and dividing by their pooled standard deviations. Because the metric is in standard deviation units, effect sizes can easily be compared to evaluate the magnitude of a difference. Cohen (1992) provides an overview of the computation of a variety of effect sizes, along with guidance on interpretation. Cohen proposed that $d = .20$ be considered small, $d = .50$ be considered medium, and $d = .80$ be considered large. In psychological research, small to medium effect sizes are typical.

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