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## Technical Brief for the

# MBTI® FORM M and FORM Q ASSESSMENTS

## New Zealand

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## INTRODUCTION

The *Myers-Briggs Type Indicator*<sup>®</sup> (MBTI<sup>®</sup>) 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 measurement properties of the MBTI Form M and Form Q assessments with a New Zealand sample. To that end, it examines the reliability of the the MBTI Form M and Form Q assessments, reports on type distribution in a sample of New Zealander participants, and provides comparisons with the U.S. National Representative Sample (NRS) to examine similarities and differences between the groups.

## THE MBTI<sup>®</sup> 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.

## NEW ZEALAND SAMPLE

Historically, the MBTI assessment has been administered in New Zealand using North American English. A sample of New Zealander respondents who completed the MBTI Form Q assessment was obtained for this study. It is important to note that this New Zealand 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 of New Zealand. The data reported in this technical brief should be used for psychometric information purposes only.

### Sample Description

This sample is composed of 3,836 individuals who each completed the MBTI Form Q assessment in North American English. The sample includes 50% women and 50% men. Respondents' ages ranged from 18 to 77 years (mean = 40.6, *SD* = 10.0); 94% were employed full-time or part-time, 2% were students, <1% were retired, <1% were currently seeking employment, and 4% 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 management; 15% in business and financial operations; 9% in office and administrative support; 9% in education, training, and library occupations; 8% in sales and related occupations; and the remainder in various fields. Of those who were employed and reported organizational level, 44% were management, 27% nonsupervisory, 11% supervisory, 10% executive, 4% entry level, and 4% top executive. All respondents reported their country of residence as New Zealand. A demographic summary of this sample is presented in Table 1.

**TABLE 1. DEMOGRAPHIC SUMMARY OF THE NEW ZEALAND SAMPLE**

Demographic	Sample %	Demographic	Sample %
<b>Age</b>		<b>General Line of Work</b>	
Mean age	41 yrs	Architecture and engineering	4
<b>Gender</b>		Arts, design, entertainment, sports and media	3
Female	50	Business and financial operations	15
Male	50	Community and social services	5
<b>Employment Status</b>		Computer and mathematical	4
Working full-time	87	Construction and extraction	1
Working part-time	8	Education, training, and library	9
Not working for income	2	Farming, fishing, and forestry	1
Retired	<1	Food preparation and service	1
Enrolled as full-time student	2	Healthcare practitioner	2
Currently seeking employment	<1	Healthcare support	2
None of the above or missing	1	Installation, maintenance, and repair	3
<b>Organizational Level</b>		Legal	3
Entry level	4	Life, physical, and social sciences	3
Nonsupervisory	27	Management	20
Supervisory	11	Military	1
Management	44	Office and administrative support	9
Executive	10	Personal care and personal service	1
Top executive	4	Production	1
		Protective services	4
		Sales and related	8
		Transportation and materials moving	1
		Other	—
		No response	—

Note: N = 3,836.

**TABLE 2. MBTI® TYPE DISTRIBUTION IN THE NEW ZEALAND SAMPLE**

SENSING		INTUITION		
Thinking	Feeling	Feeling	Thinking	
<b>ISTJ</b> <i>n</i> = 514 13.4% SSR = 1.16	<b>ISFJ</b> <i>n</i> = 167 4.4% SSR = 0.32	<b>INFJ</b> <i>n</i> = 78 2.0% SSR = 1.36	<b>INTJ</b> <i>n</i> = 185 4.8% SSR = 2.30	Judging <b>INTROVERSION</b>
<b>ISTP</b> <i>n</i> = 195 5.1% SSR = 0.94	<b>ISFP</b> <i>n</i> = 80 2.1% SSR = 0.24	<b>INFP</b> <i>n</i> = 138 3.6% SSR = 0.82	<b>INTP</b> <i>n</i> = 214 5.6% SSR = 1.69	Perceiving
<b>ESTP</b> <i>n</i> = 280 7.3% SSR = 1.70	<b>ESFP</b> <i>n</i> = 121 3.2% SSR = 0.37	<b>ENFP</b> <i>n</i> = 288 7.5% SSR = 0.93	<b>ENTP</b> <i>n</i> = 360 9.4% SSR = 2.93	Perceiving <b>EXTRAVERSION</b>
<b>ESTJ</b> <i>n</i> = 565 14.7% SSR = 1.69	<b>ESFJ</b> <i>n</i> = 209 5.4% SSR = 0.44	<b>ENFJ</b> <i>n</i> = 150 3.9% SSR = 1.56	<b>ENTJ</b> <i>n</i> = 292 7.6% SSR = 4.23	Judging

Note: *N* = 3,836.

Table 2 includes the number and percentage of respondents of each type in the sample. As shown, the most frequently occurring type for the sample is ESTJ

(14.7%), followed by ISTJ (13.4%). The least common types are INFJ (2.0%) and ISFP (2.1%). Self-selection ratios (SSRs) were computed by comparing the per-

**TABLE 3. MBTI® TYPE DISTRIBUTION IN THE NEW ZEALAND SAMPLE: WOMEN**

SENSING		INTUITION		
Thinking	Feeling	Feeling	Thinking	
<b>ISTJ</b> <i>n</i> = 205 10.7%	<b>ISFJ</b> <i>n</i> = 123 6.4%	<b>INFJ</b> <i>n</i> = 47 2.5%	<b>INTJ</b> <i>n</i> = 67 3.5%	Judging INTROVERSION
<b>ISTP</b> <i>n</i> = 58 3.0%	<b>ISFP</b> <i>n</i> = 50 2.6%	<b>INFP</b> <i>n</i> = 87 4.5%	<b>INTP</b> <i>n</i> = 75 3.9%	Perceiving
<b>ESTP</b> <i>n</i> = 120 6.3%	<b>ESFP</b> <i>n</i> = 87 4.5%	<b>ENFP</b> <i>n</i> = 179 9.3%	<b>ENTP</b> <i>n</i> = 154 8.0%	Perceiving EXTRAVERSION
<b>ESTJ</b> <i>n</i> = 241 12.6%	<b>ESFJ</b> <i>n</i> = 160 8.3%	<b>ENFJ</b> <i>n</i> = 114 5.9%	<b>ENTJ</b> <i>n</i> = 151 7.9%	Judging

Note: *n* = 1,918.

centage of each type in the New Zealand sample to that in the U.S. National Representative Sample (Myers, McCaulley, Quenk, & Hammer, 1998). In this sample, ENTJs are more than four times more prevalent than in

the U.S. population, whereas ISFPs are less common in the New Zealand sample than in the U.S. sample. Type distributions for women and men in the New Zealand sample are presented in Tables 3 and 4.

**TABLE 4. MBTI® TYPE DISTRIBUTION IN THE NEW ZEALAND SAMPLE: MEN**

SENSING		INTUITION		
Thinking	Feeling	Feeling	Thinking	
<b>ISTJ</b> <i>n</i> = 309 16.1%	<b>ISFJ</b> <i>n</i> = 44 2.3%	<b>INFJ</b> <i>n</i> = 31 1.6%	<b>INTJ</b> <i>n</i> = 118 6.2%	Judging <b>INTROVERSION</b>
<b>ISTP</b> <i>n</i> = 137 7.1%	<b>ISFP</b> <i>n</i> = 30 1.6%	<b>INFP</b> <i>n</i> = 51 2.7%	<b>INTP</b> <i>n</i> = 139 7.2%	Perceiving
<b>ESTP</b> <i>n</i> = 160 8.3%	<b>ESFP</b> <i>n</i> = 34 1.8%	<b>ENFP</b> <i>n</i> = 109 5.7%	<b>ENTP</b> <i>n</i> = 206 10.7%	Perceiving <b>EXTRAVERSION</b>
<b>ESTJ</b> <i>n</i> = 324 16.9%	<b>ESFJ</b> <i>n</i> = 49 2.6%	<b>ENFJ</b> <i>n</i> = 36 1.9%	<b>ENTJ</b> <i>n</i> = 141 7.4%	Judging

Note: *n* = 255.

Table 5 includes the number and percentage of respondents for each preference for the New Zealand sample as a whole, and separately for each gender. 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 5. MBTI® PREFERENCE DISTRIBUTIONS FOR THE NEW ZEALAND SAMPLE AND THE U.S. NATIONAL REPRESENTATIVE SAMPLE (NRS)**

Preference	New Zealand Sample (N = 3,836)		U.S. NRS (N = 3,009)		New Zealand Sample: Women (n = 1,918)		New Zealand Sample: Men (n = 1,918)	
	n	%	n	%	n	%	n	%
Extraversion (E)	2,265	59.0	1,483	49.3	1,206	62.9	1,059	55.2
Introversion (I)	1,571	41.0	1,526	50.7	712	37.1	859	44.8
Sensing (S)	2,131	55.6	2,206	73.3	1,044	54.4	1,087	56.7
Intuition (N)	1,705	44.4	803	26.7	874	45.6	831	43.3
Thinking (T)	2,605	67.9	1,210	40.2	1,071	55.8	1,534	80.0
Feeling (F)	1,231	32.1	1,799	59.8	847	44.2	384	20.0
Judging (J)	2,160	56.3	1,629	54.1	1,108	57.8	1,052	54.8
Perceiving (P)	1,676	43.7	1,380	45.9	810	42.2	866	45.2

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

## RELIABILITY OF THE FORM M PREFERENCES

The internal consistency reliabilities (Cronbach's alphas) for the New Zealand sample and the U.S. National Representative Sample are reported in Table 6. The reliabilities of the four dichotomies are good for the New Zealand sample and are very similar to those reported in the *MBTI® Manual* (Myers et al., 1998).

## 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 New Zealand sample. The results are presented in

Table 7. The shaded cells indicate that factor 1 is S–N, factor 2 is E–I, factor 3 is T–F, and factor 4 is J–P. The four-factor structure produced by this analysis shows that the New Zealand MBTI Form M items are measuring their intended constructs, the four dichotomies.

**TABLE 6. MBTI® DICHOTOMY INTERNAL CONSISTENCY RELIABILITIES FOR THE NEW ZEALAND SAMPLE AND THE U.S. NRS**

Dichotomy	Cronbach's Alpha	
	New Zealand Sample	U.S. NRS
Extraversion–Introversion	.91	.91
Sensing–Intuition	.91	.92
Thinking–Feeling	.88	.91
Judging–Perceiving	.90	.92

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

**TABLE 7. FACTOR ANALYSIS ROTATED COMPONENT MATRIX  
FOR THE NEW ZEALAND SAMPLE**

Item Code	Factor 1 (S-N)	Factor 2 (E-I)	Factor 3 (T-F)	Factor 4 (J-P)	Item Code	Factor 1 (S-N)	Factor 2 (E-I)	Factor 3 (T-F)	Factor 4 (J-P)
EI1	-.02	.73	-.01	-.02	SN16	.54	-.11	.15	.15
EI2	-.05	.56	.03	-.05	SN17	.56	-.06	.04	.06
EI3	-.11	.49	.03	.01	SN18	.60	-.05	.17	.16
EI4	.06	.60	-.08	-.01	SN19	.58	-.04	-.01	.10
EI5	.04	.54	-.04	-.02	SN20	.67	-.10	-.03	.12
EI6	-.06	.58	.00	.05	SN21	.29	-.06	-.25	.00
EI7	-.02	.49	-.02	-.01	SN22	.61	-.04	.19	.10
EI8	-.03	.64	-.09	-.04	SN23	.62	.04	.08	.09
EI9	-.04	.57	.01	-.04	SN24	.53	-.05	.07	.18
EI10	-.08	.65	-.07	-.04	SN25	.56	-.04	.04	.13
EI11	-.12	.67	.04	-.08	SN26	.53	-.04	.03	.05
EI12	-.20	.58	.02	-.10	TF1	.08	-.10	.45	.12
EI13	-.13	.55	-.04	-.05	TF2	.14	-.15	.45	.04
EI14	-.07	.53	-.03	-.04	TF3	.08	-.07	.58	.08
EI15	-.01	.57	.04	-.04	TF4	.10	.13	.51	.02
EI16	.05	.52	-.06	-.03	TF5	-.02	-.10	.62	.05
EI17	-.10	.55	-.02	.02	TF6	.04	.01	.59	.00
EI18	-.04	.69	.00	.03	TF7	-.06	-.06	.62	.06
EI19	-.04	.70	-.01	-.02	TF8	-.06	.01	.45	-.06
EI20	.03	.61	-.10	-.01	TF9	-.10	-.01	.55	-.04
EI21	-.06	.62	.00	-.02	TF10	.10	-.01	.43	-.02
SN1	.57	.03	.01	.08	TF11	.00	.05	.46	.01
SN2	.59	-.06	-.01	.14	TF12	.01	.14	.51	-.02
SN3	.52	-.07	.19	.16	TF13	.20	-.19	.45	.07
SN4	.51	-.12	-.02	.10	TF14	.08	-.03	.56	.04
SN5	.45	-.09	-.03	.15	TF15	.16	-.06	.59	.01
SN6	.44	-.05	.09	.02	TF16	.00	-.03	.53	.00
SN7	.59	.00	.11	.13	TF17	-.04	-.06	.61	.09
SN8	.42	-.02	-.11	.13	TF18	.11	-.03	.49	.07
SN9	.64	-.07	.17	.11	TF19	.01	.00	.54	.03
SN10	.62	-.05	.06	.09	TF20	.06	-.04	.54	.10
SN11	.44	.03	.08	.02	TF21	.16	-.01	.49	.00
SN12	.55	.06	-.01	.11	TF22	.14	-.08	.50	.06
SN13	.56	-.05	.10	.09	TF23	.03	.09	.50	-.03
SN14	.62	-.05	.18	.10	TF24	.06	.03	.37	.10
SN15	.56	-.10	.06	.02					

(cont'd)



**TABLE 7. FACTOR ANALYSIS ROTATED COMPONENT MATRIX  
FOR THE NEW ZEALAND SAMPLE (CONT'D)**

Item Code	Factor 1 (S–N)	Factor 2 (E–I)	Factor 3 (T–F)	Factor 4 (J–P)	Item Code	Factor 1 (S–N)	Factor 2 (E–I)	Factor 3 (T–F)	Factor 4 (J–P)
JP1	.10	.00	.00	.62	JP12	.20	–.08	.30	.39
JP2	.11	.02	–.07	.62	JP13	.35	–.06	.03	.52
JP3	.13	–.09	.06	.65	JP14	.12	–.10	.20	.40
JP4	.23	–.02	–.03	.56	JP15	.10	–.03	–.06	.66
JP5	.06	.04	–.04	.45	JP16	.12	–.01	.07	.66
JP6	.13	–.07	–.09	.33	JP17	.10	.02	.01	.62
JP7	.10	–.01	.04	.54	JP18	.17	–.11	.02	.65
JP8	.07	–.01	.02	.52	JP19	.14	.01	.00	.63
JP9	.19	–.04	.07	.64	JP20	–.02	.02	.10	.53
JP10	.24	–.19	.28	.45	JP21	.15	.04	.12	.55
JP11	.04	–.10	.22	.48	JP22	–.01	–.01	.07	.50

Note: N = 3,836.

## 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 8), 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 8 for the New Zealand sample and the U.S. National Representative Sample. The New Zealand sample alphas range from .38 (Questioning–Accommodating) to .83 (Initiating–Receiving). 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 international samples and 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).

## CONCLUSION

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

**TABLE 8. MBTI® FORM Q FACET INTERNAL CONSISTENCY RELIABILITIES FOR THE NEW ZEALAND SAMPLE AND THE U.S. NRS**

Form Q Facets	Cronbach's Alpha	
	New Zealand Sample	U.S. NRS
<b><i>E-I Facets</i></b>		
Initiating–Receiving	.83	.85
Expressive–Contained	.81	.79
Gregarious–Intimate	.66	.60
Active–Reflective	.61	.59
Enthusiastic–Quiet	.74	.72
<b><i>S-N Facets</i></b>		
Concrete–Abstract	.77	.81
Realistic–Imaginative	.77	.79
Practical–Conceptual	.57	.67
Experiential–Theoretical	.78	.83
Traditional–Original	.74	.76
<b><i>T-F Facets</i></b>		
Logical–Empathetic	.75	.80
Reasonable–Compassionate	.70	.77
Questioning–Accommodating	.38	.57
Critical–Accepting	.51	.60
Tough–Tender	.78	.81
<b><i>J-P Facets</i></b>		
Systematic–Casual	.74	.74
Planful–Open-Ended	.80	.82
Early Starting–Pressure-Prompted	.68	.70
Scheduled–Spontaneous	.80	.82
Methodical–Emergent	.65	.71

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

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