

### **Technical Brief for the**

## MBTI® FORM M and FORM Q ASSESSMENTS

### **Thailand**

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#### 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 measurement properties of the MBTI Form M and Form Q assessments with a Thailand sample. To that end, it examines the reliability of the MBTI Form M and Form Q assessments, reports on type distribution in a sample of Thai participants, and provides comparisons with the US national representative sample (NRS) used in the MBTI® Manual (Myers, McCaulley, Quenk, & Hammer, 1998) 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 *preference pairs*:

- Extraversion (E) or Introversion (I)—how you direct and receive energy
- Sensing (S) or Intuition (N)—how you take in information
- Thinking (T) or Feeling (F)—how you decide and come to conclusions
- Judging (J) or Perceiving (P)—how you approach the outside world

The assessment combines an individual's four preferences—one from each preference pair, 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 an individual possesses. Unlike the MBTI assessment, those instruments usually consider one end of a trait to be more positive and the other to be more negative.

### THAI TRANSLATION

The Thai translation of the MBTI assessment used in this study was completed following CPP's standard

translation process, which is based on industry-standard methods for assessment translation (International Test Commission, 2005). The 230-item research version of the MBTI assessment was first translated into Thai using a double forward process by two independent subject matter experts—working with Potentia, the Thai distributor—who are literate in Thai and English. The translations were then sent to a professional linguist for review and integration into a single translation. The integrated translation was returned to the two translators and iteratively reconciled into a final translation.

#### THAILAND SAMPLE

A sample composed of 2,337 Thai respondents who completed the research version of the MBTI assessment in Thai was obtained for this study. It is important to note that this is not a representative sample, but rather a sample of convenience. Therefore, no inferences may be drawn about the preferences or type distribution of the population of Thailand. The data reported in this technical brief should be used for psychometric information purposes only.

The Thailand sample includes 71% women and 29% men. Respondents' ages ranged from 19 to 62 years (mean = 33.0, SD = 9.6); 75% were employed full-time or part-time, 19% were students, 1% were retired, 3% were not working for income, and 2% responded "none of the above." A demographic summary of this sample is presented in Table 1.

Table 2 includes the number and percentage of respondents of each type in the sample. As shown, the most frequently occurring type for this sample is ISTJ (18.8%), followed by ESTJ (16.7%). The least common types are ENFP (1.3%) and ENTP (1.3%). Type distributions for women and men in the Thailand sample are presented in Tables 3 and 4.

Table 5 shows the number and percentage of respondents for each preference for the Thailand 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 US national representative sample (NRS; Myers et al., 1998).

Demographic	Sample %	Demographic	Sample %
Age		General Line of Work	
Mean age: 33 yrs		Education, training, and library	16
Gender		Business and financial operations	14
Female	71	Personal care and personal service	9
Male	29	Healthcare practitioner and technical	8
<b>Employment Status</b>		Healthcare support	8
Working full-time	67	Office and administrative support	8
Working part-time	8	Architecture and engineering	6
Not working for income	3	Sales and related	6
Retired	1	Computer and mathematical	3
Enrolled as full-time student	19	Life, physical, and social sciences	3
None of the above	2	Arts, design, entertainment, sports, and media	2
Organizational Level		Community and social services	2
Entry level	40	Food preparation and food service	2
Nonsupervisory	7	Building and grounds cleaning and	1
Supervisory	16	maintenance	
Management	5	Construction and extraction	1
Executive	2	Farming, fishing, and forestry	1
Top executive	0	Legal	1
No response	31	Military	1
		No response	9

Note: N = 240. Due to rounding, percentages may not total 100%.

## RELIABILITY OF THE FORM M PREFERENCES

The internal consistency reliabilities (Cronbach's alphas) for the Thailand sample and the US NRS are reported in Table 6. The reliabilities of the four preference pairs are good for the Thailand sample, although somewhat lower than 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 its factors. 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

SENSING		INTUITION			
Thinking	Fee	ling	Thinking		
ISTJ n = 45 18.8%	<b>ISFJ</b> <i>n</i> = 23 9.6%	INFJ n = 5 2.1%	INTJ n = 4 1.7%	Judging	
ISTP n = 20 8.3%	ISFP n = 24 10.0	INFP n = 5 2.1%	INTP n = 9 3.8%	Perc	
<b>ESTP</b> <i>n</i> = 20 8.3%	<b>ESFP</b> <i>n</i> = 8 3.3%	<b>ENFP</b> <i>n</i> = 3 1.3%	<b>ENTP</b> <i>n</i> = 3 1.3%	Perceiving	

Note: N = 240.

	ITION	INTU	SENSING		
	Thinking	ing	Feeli	Thinking	
Judging	INTJ n = 0 0.0%	INFJ n = 3 1.8%	<b>ISFJ</b> n = 20 11.8	ISTJ n = 31 18.2%	
Perc	INTP n = 5 2.9%	INFP n = 3 1.8%	<b>ISFP</b> n = 20 11.8%	ISTP n = 14 8.2%	
Perceiving	<b>ENTP</b> <i>n</i> = 1 0.6%	<b>ENFP</b> <i>n</i> = 2 1.2%	<b>ESFP</b> n = 7 4.1%	<b>ESTP</b> <i>n</i> = 14 8.2%	
Judging	<b>ENTJ</b> <i>n</i> = 4	<b>ENFJ</b> <i>n</i> = 6	<b>ESFJ</b> n = 13	<b>ESTJ</b> n = 27	

*Note:* n = 170.

TABLE 4. MBTI® TYPE DISTRIBUTION IN THE THAILAND SAMPLE: MEN **SENSING** INTUITION **Thinking** Feeling **Thinking** Judging **ISTJ** ISFJ INFJ INTJ INTROVERSION n = 14n = 3n = 2n = 420.0% 4.3% 2.9% 5.7% **ISTP ISFP INFP INTP** n = 6n = 4n = 2n = 4Perceiving 8.6% 5.7% 2.9% 5.7% **ENFP ENTP ESTP ESFP EXTRAVERSION** n = 6n = 1n = 1n = 22.9% 8.6% 1.4% 1.4% Judging **ESTJ ESFJ ENFJ ENTJ** n = 13n = 5n = 1n = 218.6% 7.1% 1.4% 2.9%

*Note:* n = 70.

	Thailan	l Campla	US N	DC	Thailand	Cample	Thailan	d Sample:
		d Sample 240)	(N=3)		Thailand Women	(n = 170)		( <i>n</i> = 70)
Preference	n	%	n	%	n	%	n	%
Extraversion (E)	105	43.8	1,483	49.3	74	43.5	31	44.3
Introversion (I)	135	56.3	1,526	50.7	96	56.5	39	55.7
Sensing (S)	198	82.5	2,206	73.3	146	85.9	52	74.3
Intuition (N)	42	17.5	803	26.7	24	14.1	18	25.7
Thinking (T)	147	61.3	1,210	40.2	96	56.5	51	72.9
Feeling (F)	93	38.8	1,799	59.8	74	43.5	19	27.1
Judging (J)	148	61.7	1,629	54.1	104	61.2	44	62.9
Perceiving (P)	92	38.3	1,380	45.9	66	38.8	26	37.1

Note: Source for the US NRS is the MBTI® Manual (Myers et al., 1998).

factor analysis with varimax rotation was conducted using the item responses from the Thailand sample. The results are presented in Table 7. The shaded cells indicate that factor 1 is S–N, factor 2 is T–F, factor 3 is E–I, and factor 4 is J–P. The four-factor structure produced by this analysis shows that the Thailand MBTI Form M items are measuring their intended constructs, the four preference pairs. However, several of the items do not show a strong relationship with the S–N factor. Historically, the S–N scale has been somewhat challenging to measure, and it is possible that the translation into Thai made that even more challenging. As a result, caution should be exercised when interpreting the data.

# TABLE 6. MBTI® PREFERENCE PAIR INTERNAL CONSISTENCY RELIABILITIES FOR THE THAILAND SAMPLE AND THE US NRS

	Cronbach's Alpha			
Preference Pair	Thailand Sample	US NRS		
Extraversion–Introversion	.83	.91		
Sensing-Intuition	.65	.92		
Thinking–Feeling	.81	.91		
Judging–Perceiving	.85	.92		

Note: Thailand sample N=240; US NRS N=3,009. Source for the US NRS is the MBTI® Manual (Myers et al., 1998).

		TABLE		ANALYSIS I			TMATRIX		
Item Code	Factor 1 (S–N)	Factor 2 (T-F)	Factor 3 (E–I)	Factor 4 (J–P)	Item Code	Factor 1 (S–N)	Factor 2 (T–F)	Factor 3 (E–I)	Factor 4 (J–P)
EI1	.05	.05	.64	.05	SN1	.00	06	.03	.35
EI2	13	05	.54	.17	SN2	.39	01	.02	.11
EI3	09	.06	.31	.16	SN3	.02	03	.02	.27
EI4	.14	.11	.35	13	SN4	.27	21	06	08
EI5	.11	.09	.53	17	SN5	.32	18	16	05
EI6	25	.21	.51	.10	SN6	.28	.12	01	22
EI7	39	.12	.31	09	SN7	12	.08	05	.12
EI8	.02	.07	.56	26	SN8	.40	08	12	06
EI9	06	07	.29	.12	SN9	11	.24	11	.13
EI10	.21	13	.43	11	SN10	46	.22	01	.04
EI11	.13	07	.45	01	SN11	01	17	01	.37
EI12	05	03	.47	23	SN12	.50	27	01	04
EI13	03	.13	.47	.17	SN13	.39	01	02	.03
EI14	.08	17	.46	06	SN14	.29	.14	05	.01
EI15	12	.06	.49	.23	SN15	12	.18	08	.11
EI16	.09	05	.50	02	SN16	03	.45	.09	.10
EI17	03	07	.66	.09	SN17	27	.23	.02	.07
EI18	.07	.06	.43	.25	SN18	.01	.06	03	.33
EI19	28	.12	.50	.03	SN19	16	.28	06	.07
EI20	.23	06	.37	16	SN20	.42	.15	06	.01
EI21	.09	05	.58	03	SN21	.42	17	.15	.02

		TABLE		ANALYSIS IE THAILAN			MATRIX		
Item Code	Factor 1 (S–N)	Factor 2 (T–F)	Factor 3 (E–I)	Factor 4 (J–P)	Item Code	Factor 1 (S–N)	Factor 2 (T–F)	Factor 3 (E–I)	Factor 4 (J–P)
SN22	.13	03	.09	.06	TF22	07	.44	02	.02
SN23	.07	.03	23	05	TF23	12	.55	08	03
SN24	03	.17	02	.18	TF24	.26	.03	01	08
SN25	.17	.04	10	.00	JP1	.21	.14	.02	.48
SN26	38	.01	14	.08	JP2	.29	.08	.06	.55
TF1	.37	.09	.10	.17	JP3	.52	07	.02	.38
TF2	.39	.30	.06	.09	JP4	.01	.13	.10	.56
TF3	.51	.35	.07	.07	JP5	.03	.14	.15	.37
TF4	.23	.36	.14	32	JP6	.39	16	.04	.11
TF5	.09	.42	.03	.30	JP7	.10	.14	.02	.56
TF6	09	.29	06	.01	JP8	.42	03	05	.24
TF7	.05	.58	.01	11	JP9	.14	.20	.01	.57
TF8	.35	.32	12	16	JP10	.22	.32	01	.49
TF9	.23	.32	.03	22	JP11	.04	.50	.01	.25
TF10	02	.43	24	.13	JP12	.16	07	05	18
TF11	17	.18	.17	.05	JP13	.51	.13	.00	.24
TF12	.02	.61	.03	13	JP14	.13	.41	.10	.46
TF13	.20	.26	.23	.32	JP15	.16	.00	.04	.59
TF14	.25	.46	.05	18	JP16	.53	04	.05	.22
TF15	.47	.43	06	13	JP17	.47	.07	.11	.26
TF16	10	.55	.06	.08	JP18	.53	.21	.07	.29
TF17	.15	.56	.07	.20	JP19	.15	06	13	.41
TF18	13	.48	.05	.02	JP20	.50	15	.05	.28
TF19	.11	.47	.03	.14	JP21	.52	04	.03	.30
TF20	.28	.41	.07	37	JP22	.44	.20	.17	.28
TF21	.32	.38	.05	38					

Note: N = 240.

## 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 preference pairs, 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 preference pairs 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.

TABLE 8. MBTI® FORM Q FACET INTERNAL CONSISTENCY RELIABILITIES FOR THE THAILAND SAMPLE AND THE US NRS

	Cronbach's Alpha			
Form Q Facets	Thailand Sample	US NRS		
E–I Facets				
Initiating–Receiving	.68	.85		
Expressive-Contained	.56	.79		
Gregarious-Intimate	.41	.60		
Active–Reflective	.60	.59		
Enthusiastic–Quiet	.55	.72		
S–N Facets				
Concrete-Abstract	.31	.81		
Realistic-Imaginative	.49	.79		
Practical-Conceptual	.30	.67		
Experiential-Theoretical	.26	.83		
Traditional–Original	.49	.76		
T–F Facets				
Logical-Empathetic	.61	.80		
Reasonable–Compassionate	.58	.77		
Questioning–Accommodating	.36	.57		
Critical–Accepting	.15	.60		
Tough–Tender	.73	.81		
J–P Facets				
Systematic–Casual	.61	.74		
Planful-Open-Ended	.68	.82		
Early Starting– Pressure-Prompted	.62	.70		
Scheduled-Spontaneous	.64	.82		
Methodical–Emergent	.46	.71		

*Note:* Thailand sample N = 240; US NRS N = 3,009. Source for the US NRS is the *MBTI*® *Manual* (Myers et al., 1998).

Internal consistency reliabilities for each facet are reported in Table 8 for the Thailand sample and the US NRS. The Thailand sample alphas range from .15 (Critical-Accepting) to .73 (Tough-Tender), and, as the table shows, the reliability estimates for many of the Form Q measures in the Thailand sample are significantly lower than those in the US NRS. The low reliability estimates are a cause for concern, and caution should be used when interpreting the facet results of the Form Q assessment in Thai. At present, it is not clear whether the challenge is cultural difference, a translation issue, or a matter of participants not taking the assessment seriously. Note that the MBTI Form Q (or, for Europe, Step II<sup>™</sup>) assessment usually works well across a diverse set of international samples and translations, though typically with slightly lower estimates of reliability compared to those in the US NRS (Quenk, Hammer, & Majors, 2004; Schaubhut, 2008; Schaubhut & Thompson, 2010a, 2010b, 2011a, 2011b, 2012, 2013, 2016a, 2016b, 2017a, 2017b, 2017c, 2017d). Reliabilities for nine other translations can be found in the MBTI® Step II<sup>™</sup> Manual, European edition (Quenk et al., 2004).

### **CONCLUSION**

The analyses reported here with an initial Thailand sample demonstrate that the translation and overall measurement properties of the assessment are generally adequate. The Form M assessment performs better than the Form Q assessment and can be used with minimal caution with respondents who reside in Thailand and read Thai. Form Q, however, should be used with caution, and careful attention should be paid to facet results to ensure that they seem accurate for the respondent during interpretation. Over time, as use of the MBTI assessment in Thailand continues to grow, larger and more diverse samples will become available, and the measurement properties of MBTI Forms M and Q in Thai will continue to be evaluated.

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