Technical Brief for the

MBTI® FORM M AND FORM Q ASSESSMENTS

Traditional Chinese

Nancy A. Schaubhut
Richard C. Thompson

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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 a translation of the MBTI Form M and Form Q assessments developed for areas of China where Traditional Chinese is understood. To that end, it examines the reliability of the Traditional Chinese translation of the MBTI Form M and Form Q assessments, reports on type distribution in a sample of participants who completed the instrument in Traditional Chinese, and provides comparisons with the U.S. National Representative Sample (NRS) to examine similarities and differences between the samples.

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.

TRADITIONAL CHINESE SAMPLE

Following the translation of the MBTI assessment into Traditional Chinese, a sample of participants was obtained for this study. It is important to note that this Traditional Chinese research 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 and uses Traditional Chinese. The data reported in this technical brief should be used for psychometric information purposes only.

Traditional Chinese Sample Description

This sample is composed of 131 individuals who completed the MBTI®—Global Research Version of the assessment in Traditional Chinese. This version of the assessment includes 230 MBTI items and contains the current commercial versions of the MBTI assessment (Form M, Form Q, and European Step I™ and Step II™ assessments). The sample includes 77% women and 23% men. Respondents' ages ranged from 17 to 55 years (mean = 29.1, *SD* = 9.0); 56% were employed full-time or part-time, 13% were students, 1% were retired, and 30% 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 sales and related occupations; 17% in arts, design, entertainment, sports, and media; 16% in business and financial operations; 14% in office and administrative support; and the remainder in various fields. Of those who were employed and reported organizational level, 51% were nonsupervisory, 18% entry level, 15% supervisory, 11% management, and 5% executive. All respondents reported their country of origin and residence as China, Hong Kong, or Taiwan.

As shown in Table 1, the most frequently occurring types for this sample are ISTJ (11.5%) and ENFP (11.5%). The least common types are INFJ (0.8%) and ESFP (2.3%). Self-selection ratios (SSRs) were computed by comparing the percentage of each type in the Traditional Chinese sample to that in the U.S. National Representative Sample (Myers, McCaulley, Quenk, & Hammer, 1998). In this sample, INTJs are over three times more prevalent than in the U.S. population. On the other hand, ESFPs and INFJs are less common in the Traditional Chinese sample than in the U.S. sample. Again, since this Traditional Chinese research sample is not representative of the general population, no inferences should be made about the population's distribution of type. While some differences in type distribution were found between the U.S. National Representative Sample and the Traditional Chinese sample, a study by Yang and Zhao (2009) showed

TABLE 1. TYPE DISTRIBUTION IN THE TRADITIONAL CHINESE SAMPLE

	SENSING		INTUITION			
	Thinking	Feeling	Feeling	Thinking		
INTROVERSION	ISTJ *n* = 15 11.5% SSR = 0.99	ISFJ *n* = 12 9.2% SSR = 0.66	INFJ *n* = 1 0.8% SSR = 0.51	INTJ *n* = 10 7.6% SSR = 3.64	Judging	
	ISTP *n* = 6 4.6% SSR = 0.85	ISFP *n* = 7 5.3% SSR = 0.61	INFP *n* = 6 4.6% SSR = 1.04	INTP *n* = 8 6.1% SSR = 1.85	Perceiving	
EXTRAVERSION	ESTP *n* = 6 4.6% SSR = 1.07	ESFP *n* = 3 2.3% SSR = 0.27	ENFP *n* = 15 11.5% SSR = 1.41	ENTP *n* = 10 7.64% SSR = 2.39	Perceiving	
	ESTJ *n* = 13 9.9% SSR = 1.14	ESFJ *n* = 7 5.3% SSR = 0.43	ENFJ *n* = 6 4.6% SSR = 1.83	ENTJ *n* = 6 4.6% SSR = 2.54	Judging	

Note: *N* = 131.

type distribution similarities between Chinese and U.S. managers.

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). Best-fit type preferences for another Traditional Chinese sample are presented in a paper by Beuke, Freeman, & Wang (2006).

RELIABILITY OF THE FORM M PREFERENCES

The internal consistency reliabilities (Cronbach's alphas) for the Traditional Chinese sample and the U.S. National Representative Sample are reported in Table 3. The reliabilities of the four dichotomies are good for the Traditional Chinese sample and are generally in line with those reported in the *MBTI® Manual* (Myers et al., 1998).

TABLE 2. PREFERENCE DISTRIBUTIONS FOR THE TRADITIONAL CHINESE AND U.S. NATIONAL REPRESENTATIVE SAMPLES

	Traditional Chinese Sample (N = 131)		U.S. National Representative Sample (N = 3,009)	
Preference	*n*	%	*n*	%
Extraversion (E)	66	50.4	1,483	49.3
Introversion (I)	65	49.6	1,526	50.7
Sensing (S)	69	52.7	2,206	73.3
Intuition (N)	62	47.3	803	26.7
Thinking (T)	74	56.5	1,210	40.2
Feeling (F)	57	43.6	1,799	59.8
Judging (J)	70	53.4	1,629	54.1
Perceiving (P)	61	46.6	1,380	45.9

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

TABLE 3. PREFERENCE PAIR INTERNAL CONSISTENCY RELIABILITIES FOR THE TRADITIONAL CHINESE AND U.S. NATIONAL REPRESENTATIVE SAMPLES

	Traditional Chinese Sample	U.S. National Representative Sample
Dichotomy	Cronbach's Alpha	Cronbach's Alpha
E–I	.86	.91
S–N	.75	.92
T–F	.88	.91
J–P	.86	.92

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

The reliabilities are also similar to those found with another Traditional Chinese sample in a study by Beuke et al. (2006). However, alpha is somewhat lower for the Sensing–Intuition (S–N) dichotomy. A lower S–N alpha was also reported for a Latin/North American Spanish research sample (Schaubhut, 2008) and a Simplified Chinese research sample (Schaubhut & Thompson, 2010).

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 Traditional Chinese sample are reported in Table 4.

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

TABLE 4. PREDICTION RATIOS FOR THE TRADITIONAL CHINESE SAMPLE

Item Code	ESTJ Prediction Ratio	INFP Prediction Ratio	Item Code	ESTJ Prediction Ratio	INFP Prediction Ratio
EI1	.71	.95	SN17	.69	.56
EI2	.73	.71	SN18	.67	.88
EI3	.74	.67	SN19	.70	.64
EI4	.65	.56	SN20	.83	.74
EI5	.90	.67	SN21	.60	.83
EI6	.81	.63	SN22	.69	.56
EI7	.69	.58	SN23	.80	.58
EI8	.72	.80	SN24	.78	.66
EI9	.60	.77	SN25	.74	.60
EI10	.64	.77	SN26	.63	.58
EI11	.64	.97	TF1	.66	.69
EI12	.75	.83	TF2	.74	.67
EI13	.62	.70	TF3	.77	.66
EI14	.66	.78	TF4	.92	.70
EI15	.70	.72	TF5	.75	.86
EI16	.81	.69	TF6	.78	.68
EI17	.72	.85	TF7	.68	.89
EI18	.67	.67	TF8	.61	.68
EI19	.78	.63	TF9	.57	.74
EI20	.84	.60	TF10	.67	.58
EI21	.38	.63	TF11	.71	.64
SN1	.60	.74	TF12	.57	.67
SN2	.75	.57	TF13	.79	.70
SN3	.78	.64	TF14	.78	.68
SN4	.78	.61	TF15	.85	.88
SN5	.74	.66	TF16	.78	.75
SN6	.58	.57	TF17	.83	.73
SN7	.67	.67	TF18	.79	.68
SN8	.67	.85	TF19	.66	.89
SN9	.69	.76	TF20	.82	.61
SN10	.70	.57	TF21	.72	.79
SN11	.57	.79	TF22	.64	.69
SN12	.54	.61	TF23	.56	.90
SN13	.65	.56	TF24	.59	.64
SN14	.85	.66	JP1	.62	.79
SN15	.77	.54	JP2	.71	.75
SN16	.57	.54	JP3	.71	.85

(cont'd)

TABLE 4. PREDICTION RATIOS FOR THE TRADITIONAL CHINESE SAMPLE *CONT'D*

Item Code	ESTJ Prediction Ratio	INFP Prediction Ratio	Item Code	ESTJ Prediction Ratio	INFP Prediction Ratio
JP4	.67	.71	JP14	.69	.70
JP5	.62	.81	JP15	.67	.71
JP6	.63	.83	JP16	.88	.74
JP7	.65	.72	JP17	.87	.67
JP8	.64	.66	JP18	.66	.62
JP9	.58	1.00	JP19	.58	.71
JP10	.73	.81	JP20	.75	.78
JP11	.69	.81	JP21	.71	.74
JP12	.57	.68	JP22	.82	.80
JP13	.83	.77			

factor analysis with varimax rotation was conducted using the item responses from the Traditional Chinese sample. The results are presented in Table 5. These results should be interpreted with caution, as the sample size was relatively small for conducting this kind of analysis. The shaded cells indicate that factor 1 is J–P, factor 2 is T–F, factor 3 is E–I, and factor 4 is S–N. The four-factor structure produced by this analysis shows that the Traditional Chinese MBTI Form M items are measuring their intended scales, the four dichotomies.

TABLE 5. FACTOR ANALYSIS ROTATED COMPONENT MATRIX FOR THE TRADITIONAL CHINESE SAMPLE

Item Code	Factor 1 (J–P)	Factor 2 (T–F)	Factor 3 (E–I)	Factor 4 (S–N)	Item Code	Factor 1 (J–P)	Factor 2 (T–F)	Factor 3 (E–I)	Factor 4 (S–N)
EI1	.10	.79	–.08	–.13	EI12	.28	.58	–.16	–.31
EI2	.03	.55	.11	–.14	EI13	–.01	.37	–.19	–.07
EI3	–.01	.45	.16	.10	EI14	.22	.49	–0.2	–.36
EI4	–.04	.37	–.12	.15	EI15	–.05	.52	–.01	–.11
EI5	.07	.43	–.15	–.09	EI16	–.07	.56	.04	–.09
EI6	–.22	.52	.08	.09	EI17	.05	.58	–.12	–.14
EI7	–.20	.33	–.01	.12	EI18	.02	.50	–.04	.11
EI8	–.07	.59	.08	–.01	EI19	–.07	.46	.09	.00
EI9	.27	.45	–.29	–.20	EI20	–.08	.54	.07	.14
EI10	.20	.49	–.09	–.17	EI21	–.05	.52	.27	.08
EI11	.17	.65	–.27	–.06					

(cont'd)

TABLE 5. FACTOR ANALYSIS ROTATED COMPONENT MATRIX FOR THE TRADITIONAL CHINESE SAMPLE *CONT'D*

Item Code	Factor 1 (J–P)	Factor 2 (T–F)	Factor 3 (E–I)	Factor 4 (S–N)	Item Code	Factor 1 (J–P)	Factor 2 (T–F)	Factor 3 (E–I)	Factor 4 (S–N)
SN1	.04	.28	–.09	.16	TF11	.07	–.08	.36	–.29
SN2	.09	–.16	.08	.42	TF12	.42	.16	.24	–.22
SN3	.11	–.06	.01	.39	TF13	.17	–.39	.36	.27
SN4	.20	–.06	–.17	.35	TF14	.08	–.39	.38	.32
SN5	.15	.11	.01	.37	TF15	.15	–.05	.74	–.08
SN6	.29	–.06	–.21	.07	TF16	.20	–.24	.52	.10
SN7	.16	–.06	–.43	.23	TF17	.08	–.33	.66	.06
SN8	.45	.00	.15	.50	TF18	.17	–.28	.48	.20
SN9	.20	.12	–.18	.34	TF19	.26	–.01	.53	–.07
SN10	.06	.09	.14	.44	TF20	.07	.21	.54	.13
SN11	.21	.28	–.28	.05	TF21	–.10	.15	.54	–.09
SN12	.07	.31	–.05	–.12	TF22	.11	–.01	.39	.15
SN13	–.02	–.08	–.32	.29	TF23	.41	–.05	.17	–.13
SN14	.25	.05	.08	.56	TF24	.09	.22	.40	–.17
SN15	.00	–.20	–.30	.57	JP1	.32	.04	.12	–.07
SN16	.02	–.14	.47	.08	JP2	.53	–.16	.04	.07
SN17	.02	.04	–.20	.45	JP3	.56	–.08	.01	.15
SN18	.43	–.08	.19	.39	JP4	.50	–.21	–.15	.15
SN19	.03	–.09	–.18	.46	JP5	.40	.25	.07	.10
SN20	.22	.27	.27	.63	JP6	.57	–.04	.04	–.03
SN21	.04	.39	–.12	.22	JP7	.55	.09	.18	.18
SN22	.08	.03	–.07	.22	JP8	.34	–.23	–.14	.18
SN23	–.17	–.21	.11	.50	JP9	.51	.11	.28	–.07
SN24	.24	–.23	–.07	.54	JP10	.61	–.01	.12	.20
SN25	.17	.13	.05	.16	JP11	.50	.04	.15	.22
SN26	–.14	.03	–.36	.24	JP12	.35	–.01	.20	–.14
TF1	.26	–.10	.43	.01	JP13	.57	–.01	.22	.18
TF2	.24	–.45	.35	–.03	JP14	.37	–.09	.20	.23
TF3	.25	–.03	.49	.07	JP15	.44	.02	.06	.08
TF4	.08	.02	.58	–.06	JP16	.61	–.04	–.08	.15
TF5	.04	–.16	.64	–.07	JP17	.56	.11	–.07	.11
TF6	.25	–.12	.48	.39	JP18	.26	–.13	.18	.02
TF7	.33	–.11	.49	–.16	JP19	.38	.04	.07	–.04
TF8	.48	.06	.19	.08	JP20	.61	–.04	–.11	.30
TF9	.28	.00	.44	–.30	JP21	.60	.27	.17	.12
TF10	–.07	–.26	.33	.30	JP22	.64	.05	.05	.26

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, yielding a total of 20 facets (see Table 6). 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 Traditional Chinese sample and the U.S. National Representative Sample. The Traditional Chinese sample alphas range from .26 (Practical–Conceptual) to .80 (Logical–Empathetic). Overall, this sample's alphas are slightly lower than those of the U.S. National Representative Sample. This is consistent with

TABLE 6. FACET INTERNAL CONSISTENCY RELIABILITIES FOR THE TRADITIONAL CHINESE AND U.S. NATIONAL REPRESENTATIVE SAMPLES

	Traditional Chinese Sample	U.S. National Representative Sample
Form Q Facets	Cronbach's Alpha	Cronbach's Alpha
E–I Facets		
Initiating–Receiving	.68	.85
Expressive–Contained	.67	.79
Gregarious–Intimate	.57	.60
Active–Reflective	.57	.59
Enthusiastic–Quiet	.71	.72
S–N Facets		
Concrete–Abstract	.53	.81
Realistic–Imaginative	.67	.79
Practical–Conceptual	.26	.67
Experiential–Theoretical	.57	.83
Traditional–Original	.61	.76
T–F Facets		
Logical–Empathetic	.80	.80
Reasonable–Compassionate	.69	.77
Questioning–Accommodating	.35	.57
Critical–Accepting	.59	.60
Tough–Tender	.65	.81
J–P Facets		
Systematic–Casual	.69	.74
Planful–Open-Ended	.64	.82
Early Starting–Pressure-Prompted	.65	.70
Scheduled–Spontaneous	.74	.82
Methodical–Emergent	.51	.71

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

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). 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 Practical–Conceptual and Questioning–Accommodating, were evaluated for potential translation problems. Since no such problems were apparent, from a reliability perspective these facet scales may not work as well in this culture.

CONCLUSION

While the sample reported here is relatively small, it demonstrates that the translation and measurement properties of the assessment are adequate. Therefore, translations of the MBTI Forms M and Q can be widely used with individuals who understand Traditional Chinese. 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

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