



MBTI® MANUAL GLOBAL SUPPLEMENT SERIES

Canada (Canadian French)

Supplement to the MBTI® Manual for the Global Step I™ and Step II™ Assessments

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CONTENTS

| | |
|--|-----------|
| Introduction | 1 |
| Translation Process | 2 |
| Data Collection | 3 |
| MBTI® Global Step I™ Assessment Results for the Canadian French Sample | 3 |
| MBTI® Type and Preference Distributions | 3 |
| Relationships Between MBTI® Global Step I™ and Form M Preference Pair Results | 5 |
| Global Step I™ Preference Pair Intercorrelations | 5 |
| Reliability and Validity of Global Step I™ Results | 6 |
| MBTI® Global Step II™ Assessment Results for the Canadian French Sample | 12 |
| Relationships Between MBTI® Global Step II™, Form Q, and European Step II™ Facet Results | 12 |
| Global Step II™ Facet Intercorrelations | 12 |
| Reliability and Validity of Global Step II™ Results | 12 |
| Global Step II™ Facet Distributions | 15 |
| Conclusion | 16 |
| Notes | 17 |
| References | 18 |

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. Respondents 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 respondents, 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 Canada (Canadian French) sample—hereafter, *Canadian French* sample—to the Global Step I and Step II assessments translated into the Canadian French language. 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 in Canadian French was created by drawing on existing commercial MBTI Form M and Form Q translations into Canadian French developed by Psychometrics Canada. The Canadian French translation of Form Q was again reviewed by a professional linguist as well as in-country expert reviewers; modifications were made to item wordings to reflect improvements, changes in language usage since the original translation, and/or other corrections needed to further improve the quality and accuracy of the translation. The remaining items were translated

following standard procedures. All changes were reviewed by the linguist as well as in-country expert reviewers, iteratively, until an agreed-upon 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 Canadian French 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 representative sample of individuals in Canada who read Canadian French was obtained from a market research firm. Targets were set based on the French-speaking population of Canada and provided by Psychometrics Canada. Table 2 shows the demographic target and actual obtained percentages. The resulting Canadian French sample consists of 176 individuals,

Table 2 | Demographic summary: Canadian French sample

| Demographic | Target % | Actual % |
|-----------------------------|----------|----------|
| Age group | | |
| 18–24 years | 12 | 12 |
| 25–44 years | 38 | 41 |
| 45–64 years | 33 | 40 |
| 65+ years | 17 | 7 |
| Mean age: 43 years | — | — |
| Gender | | |
| Female | 50 | 44 |
| Male | 50 | 56 |
| Country of residence | | |
| Canada | — | 100 |
| Employment status | | |
| Working full-time | 60 | 65 |
| Working part-time | 15 | 14 |
| Not working for income | 15 | 7 |
| Retired | 5 | 8 |
| Student | 5 | 6 |
| None of the above | — | <1 |

Note: N = 176. Percentages in a given category may not total 100% due to rounding of decimals.

44.3% women and 55.7% men. The age range is 18–80, with an average of 43 years (standard deviation = 14.3). All individuals reported residing in Canada.

MBTI® GLOBAL STEP I™ ASSESSMENT RESULTS FOR THE CANADIAN FRENCH 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 Canadian French 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 ISTP and ISTJ. The least common types are ENTP and ENTJ.

Table 3 | Reported MBTI® type distribution: Canadian French sample

| Sensing | | Intuition | | | |
|--------------------------------|--------------------------------|-------------------------------|------------------------------|---------|--------------|
| Thinking | Feeling | Thinking | | | |
| ISTJ n = 24 13.6% | ISFJ n = 10 5.7% | INFJ n = 3 1.7% | INTJ n = 3 1.7% | Judging | Introversion |
| ISTP n = 30 17.0% | ISFP n = 18 10.2% | INFP n = 11 6.3% | INTP n = 9 5.1% | | |
| ESTP n = 16 9.1% | ESFP n = 9 5.1% | ENFP n = 14 8.0% | ENTP n = 2 1.1% | Judging | |
| ESTJ n = 10 5.7% | ESFJ n = 12 6.8% | ENFJ n = 3 1.7% | ENTJ n = 2 1.1% | | |

Note: N = 176.

Table 4 | Reported MBTI® type preference and preference combination distributions: Canadian French sample

| Preferences | | Orientation pairs | | Process pairs | | Orientation of energy and perceiving pairs | | Judging and external orientation pairs | | | | | | |
|-------------|-----|-------------------|-----------|---------------|------|--|----|--|-----------|----|------|-----------|----|------|
| n | % | n | % | n | % | n | % | n | % | | | | | |
| E | 68 | 38.6 | EJ | 27 | 15.3 | ST | 80 | 45.5 | ES | 47 | 26.7 | TJ | 39 | 22.2 |
| I | 108 | 61.4 | EP | 41 | 23.3 | SF | 49 | 27.8 | EN | 21 | 11.9 | TP | 57 | 32.4 |
| S | 129 | 73.3 | IJ | 40 | 22.7 | NF | 31 | 17.6 | IS | 82 | 46.6 | FJ | 28 | 15.9 |
| N | 47 | 26.7 | IP | 68 | 38.6 | NT | 16 | 9.1 | IN | 26 | 14.8 | FP | 52 | 29.5 |
| T | 96 | 54.5 | | | | | | | | | | | | |
| F | 80 | 45.5 | | | | | | | | | | | | |
| J | 67 | 38.1 | | | | | | | | | | | | |
| P | 109 | 61.9 | | | | | | | | | | | | |

Note: N = 176.

Table 4 shows the distributions of preferences as well as four two-preference 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 Is, Ss, and Ps are more prevalent than Es, Ns, and Js, while the T and F preferences are more evenly distributed.

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

Table 5 | Reported MBTI® type distribution for men: Canadian French sample

| Sensing | | Intuition | | | |
|--------------------------------|--------------------------------|------------------------------|------------------------------|---------|--------------|
| Thinking | Feeling | Thinking | | | |
| ISTJ n = 14 14.3% | ISFJ n = 5 5.1% | INFJ n = 0 0.0% | INTJ n = 1 1.0% | Judging | Introversion |
| ISTP n = 20 20.4% | ISFP n = 10 10.2% | INFP n = 7 7.1% | INTP n = 5 5.1% | | |
| ESTP n = 12 12.2% | ESFP n = 4 4.1% | ENFP n = 6 6.1% | ENTP n = 2 2.0% | Judging | |
| ESTJ n = 5 5.1% | ESFJ n = 5 5.1% | ENFJ n = 2 2.0% | ENTJ n = 0 0.0% | | |

Note: n = 98.

Table 6 | Reported MBTI® type preference and preference combination distributions for men: Canadian French sample

| Preferences | Orientation pairs | | Process pairs | | Orientation of energy and perceiving pairs | | Judging and external orientation pairs | | | |
|-------------|-------------------|------|---------------|---------|--|---------|--|---------|-----------|---------|
| | n | % | n | % | n | % | n | % | | |
| E | 36 | 36.7 | EJ | 12 12.2 | ST | 51 52.0 | ES | 26 26.5 | TJ | 20 20.4 |
| I | 62 | 63.3 | EP | 24 24.5 | SF | 24 24.5 | EN | 10 10.2 | TP | 39 39.8 |
| S | 75 | 76.5 | IJ | 20 20.4 | NF | 15 15.3 | IS | 49 50.0 | FJ | 12 12.2 |
| N | 23 | 23.5 | IP | 42 42.9 | NT | 8 8.2 | IN | 13 13.3 | FP | 27 27.6 |
| T | 59 | 60.2 | | | | | | | | |
| F | 39 | 39.8 | | | | | | | | |
| J | 32 | 32.7 | | | | | | | | |
| P | 66 | 67.3 | | | | | | | | |

Note: n = 98.

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 Canadian French sample are shown in table 9.³ The overall agreement rate of whole types between the Global Step I and Form M assessments was 74%, higher than the 60% agreement rate between Form G and Form M reported in the 1998 *MBTI® Manual* (Myers, McCaulley, Quenk, & Hammer).

Global Step I™ Preference Pair Intercorrelations

Intercorrelations of Global Step I continuous scores in the Canadian French 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 Canadian French sample findings are likewise consistent with those reported for Form M in the 1998 *MBTI® Manual* (Myers et al.).

Table 7 | Reported MBTI® type distribution for women: Canadian French sample

| Sensing | | Intuition | | | |
|--------------------------------|-------------------------------|-------------------------------|------------------------------|---------|--------------|
| Thinking | Feeling | Thinking | | | |
| ISTJ n = 10 12.8% | ISFJ n = 5 6.4% | INFJ n = 3 3.8% | INTJ n = 2 2.6% | Judging | Introversion |
| ISTP n = 10 12.8% | ISFP n = 8 10.3% | INFP n = 4 5.1% | INTP n = 4 5.1% | | |
| ESTP n = 4 5.1% | ESFP n = 5 6.4% | ENFP n = 8 10.3% | ENTP n = 0 0.0% | Judging | Extraversion |
| ESTJ n = 5 6.4% | ESFJ n = 7 9.0% | ENFJ n = 1 1.3% | ENTJ n = 2 2.6% | | |

Note: n = 78.

Table 8 | Reported MBTI® type preference and preference combination distributions for women: Canadian French sample

| Preferences | | Orientation pairs | | Process pairs | | Orientation of energy and perceiving pairs | | Judging and external orientation pairs | |
|-------------|---------|-------------------|---------|---------------|---------|--|---------|--|---------|
| n | % | n | % | n | % | n | % | n | % |
| E | 32 41.0 | EJ | 15 19.2 | ST | 29 37.2 | ES | 21 26.9 | TJ | 19 24.4 |
| I | 46 59.0 | EP | 17 21.8 | SF | 25 32.1 | EN | 11 14.1 | TP | 18 23.1 |
| S | 54 69.2 | IJ | 20 25.6 | NF | 16 20.5 | IS | 33 42.3 | FJ | 16 20.5 |
| N | 24 30.8 | IP | 26 33.3 | NT | 8 10.3 | IN | 13 16.7 | FP | 25 32.1 |
| T | 37 47.4 | | | | | | | | |
| F | 41 52.6 | | | | | | | | |
| J | 35 44.9 | | | | | | | | |
| P | 43 55.1 | | | | | | | | |

Note: n = 78.

Reliability and Validity of Global Step I™ Results

This section covers measurement properties for the Canadian French translation of the MBTI Global Step I 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

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

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

| Preference pair | Global Step I™ and Form M preference pair results | |
|------------------------|---|--------------------|
| | Correlation between continuous scores | Agreement rate (%) |
| E-I | .96 | 94 |
| S-N | .95 | 93 |
| T-F | .98 | 89 |
| J-P | .96 | 94 |
| Overall agreement rate | | 74 |

Note: N = 176.

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 Canadian French sample and for the global sample for comparison purposes. The Canadian French sample alphas range from .81 to .86.

VALIDITY

An instrument is said to be valid when it measures what it has been designed to measure (Ghiselli, Campbell, & Zedeck, 1981; Murphy & Davidshofer, 2005). Validity can be demonstrated using a number of different approaches. *Convergent* validity and *discriminant* validity are often examined by looking at the patterns of relationships on different instruments. An initial examination of convergent and discriminant validity was conducted by analyzing relationships found between the Canadian French translation of the MBTI Global Step I assessment and the *Adjective Check List* (ACL; Gough & Heilbrun, 1983).

Table 10 | Intercorrelations of Global Step I™ continuous scores: Canadian French sample

| Preference pair | E-I | S-N | T-F | J-P |
|-----------------|------|------|------|------|
| E-I | — | -.20 | -.15 | -.15 |
| S-N | -.24 | — | .27 | .48 |
| T-F | -.29 | .34 | — | .23 |
| J-P | -.15 | .42 | .28 | — |

Note: Correlations for the Canadian French sample (N = 176) are below the diagonal; those for the global sample (N = 16,773) are above the diagonal.

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

| Sample | N | Cronbach's alpha | | | |
|-----------------|--------|------------------|-----|-----|-----|
| | | E-I | S-N | T-F | J-P |
| Canadian French | 176 | .86 | .84 | .81 | .84 |
| Global | 16,773 | .89 | .87 | .89 | .88 |

ACL assessment. A portion of the Canadian French sample participants ($n = 37$) also completed a translated version of the ACL when completing the research version of the MBTI assessment. The ACL consists of 300 different adjectives—such as *intelligent*, *alert*, *clear-thinking*, and *noisy*—encompassing a wide variety of behaviors. Respondents were asked to select the adjectives they believed were self-descriptive (Gough & Heilbrun, 1983). According to Gough and Heilbrun, results for any respondent with fewer than 20 adjectives or more than 250 adjectives checked should be cautiously interpreted; those with fewer than 10 or more than 270 checked are almost always invalid. As a result, respondents with too many or too few adjectives were omitted prior to analysis. The more conservative approach was taken here, and respondents with fewer than 20 adjectives or more than 250 adjectives checked were removed from the analysis of the ACL. Scales on the ACL assessment result from combinations of adjectives. Selected ACL scale means, standard deviations, and Cohen's d (Cohen, 1992; mean differences expressed in units of standard deviation⁴) for MBTI preferences for the Canadian French sample are presented in tables 12–15.

Table 12 | ACL scale means, standard deviations, and Cohen's *d* for Global Step I™ E–I preferences: Canadian French sample

| ACL scale | ACL scale description | Extraversion | | Introversion | | Cohen's <i>d</i> |
|-----------------------------------|--|--------------|-----------|--------------|-----------|------------------|
| | | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | |
| Sum of number checked | Total number of adjectives checked | 68.57 | 25.48 | 62.65 | 23.69 | -0.24 |
| Sum of favorable checked | Total number of favorable adjectives checked | 31.21 | 11.23 | 27.74 | 13.18 | -0.28 |
| Sum of unfavorable checked | Total number of unfavorable adjectives checked | 5.36 | 4.33 | 5.43 | 6.05 | 0.01 |
| Communality | An indicator of providing common or similar responses compared to the responses of people in general | 6.71 | 3.65 | 4.96 | 3.34 | -0.51 |
| Achievement | To strive to be outstanding in pursuits of socially recognized significance | 8.43 | 5.06 | 6.52 | 4.39 | -0.41 |
| Dominance | To seek and maintain a role as leader in groups, or to be influential and controlling in individual relationships | 4.36 | 4.72 | 0.83 | 3.69 | -0.86 |
| Endurance | To persist in any task undertaken | 5.50 | 5.05 | 5.17 | 5.10 | -0.06 |
| Order | To place special emphasis on neatness, organization, and planning in one's activities | 4.43 | 4.60 | 4.57 | 4.02 | 0.03 |
| Intracception | To engage in attempts to understand one's behavior or the behavior of others | 7.00 | 4.08 | 7.39 | 5.15 | 0.08 |
| Nurturance | To engage in behaviors that provide material or emotional benefits to others | 6.86 | 4.82 | 6.96 | 6.82 | 0.02 |
| Affiliation | To seek and maintain numerous personal friendships | 13.36 | 5.88 | 10.39 | 5.85 | -0.51 |
| Exhibition | To behave in such a way as to elicit the immediate attention of others | 3.07 | 3.58 | -0.87 | 3.38 | -1.14 |
| Autonomy | To act independently of others or of social values and expectations | 4.50 | 4.15 | 2.78 | 4.27 | -0.41 |
| Aggression | To engage in behaviors that attack or hurt others | 0.36 | 3.95 | -2.70 | 4.61 | -0.70 |
| Change | To seek novelty of experience and to avoid routine | 4.14 | 2.91 | 1.74 | 3.67 | -0.71 |
| Succorance | To solicit sympathy, affection, or emotional support from others | 1.43 | 2.41 | 1.91 | 2.59 | 0.19 |
| Deference | To seek and maintain subordinate roles in relationships with others | 0.00 | 4.22 | 0.57 | 4.39 | 0.13 |
| Self-Control | To control one's behaviors and emotions | -1.57 | 3.25 | 0.70 | 3.13 | 0.71 |
| Self-Confidence | Poise, self-assurance, and belief in one's ability to achieve one's goals | 6.93 | 3.60 | 2.74 | 3.98 | -1.09 |
| Personal Adjustment | The ability to cope with situational and interpersonal demands, and a feeling of efficacy | 6.71 | 2.81 | 5.65 | 4.31 | -0.28 |
| Ideal Self | Strong sense of personal worth; or harmony between what one is and what one wants to be | 3.93 | 4.45 | 3.22 | 5.59 | -0.14 |
| Creative Personality | The desire to do and think differently from the norm, and a talent for originality | 2.71 | 2.97 | 1.96 | 3.30 | -0.24 |
| Military Leadership | Steadiness, self-discipline, and good judgment of the kind required in positions of military (or related) leadership | 6.21 | 3.81 | 4.83 | 4.31 | -0.34 |
| Adult | Attitudes of independence, objectivity, and industriousness associated with the concept of "mature adult" | 4.29 | 5.17 | 3.48 | 5.29 | -0.15 |

Note: Extraversion, *n* = 14; Introversion, *n* = 23. For information on Cohen's *d*, see note 4 at the back of this supplement.

Table 13 | ACL scale means, standard deviations, and Cohen's *d* for Global Step I™ S–N preferences: Canadian French sample

| ACL scale | ACL scale description | Sensing | | Intuition | | Cohen's <i>d</i> |
|-----------------------------------|--|----------|-----------|-----------|-----------|------------------|
| | | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | |
| Sum of number checked | Total number of adjectives checked | 61.33 | 20.05 | 74.50 | 32.26 | 0.55 |
| Sum of favorable checked | Total number of favorable adjectives checked | 27.07 | 11.65 | 34.40 | 13.53 | 0.60 |
| Sum of unfavorable checked | Total number of unfavorable adjectives checked | 5.56 | 5.61 | 5.00 | 5.03 | -0.10 |
| Communality | An indicator of providing common or similar responses compared to the responses of people in general | 5.30 | 3.50 | 6.50 | 3.60 | 0.34 |
| Achievement | To strive to be outstanding in pursuits of socially recognized significance | 6.59 | 4.89 | 9.00 | 3.74 | 0.52 |
| Dominance | To seek and maintain a role as leader in groups, or to be influential and controlling in individual relationships | 1.96 | 4.59 | 2.70 | 4.00 | 0.17 |
| Endurance | To persist in any task undertaken | 5.30 | 5.04 | 5.30 | 5.23 | 0.00 |
| Order | To place special emphasis on neatness, organization, and planning in one's activities | 4.89 | 4.13 | 3.50 | 4.40 | -0.33 |
| Intracception | To engage in attempts to understand one's behavior or the behavior of others | 6.26 | 4.61 | 9.90 | 4.09 | 0.81 |
| Nurturance | To engage in behaviors that provide material or emotional benefits to others | 6.04 | 6.09 | 9.30 | 5.62 | 0.55 |
| Affiliation | To seek and maintain numerous personal friendships | 10.67 | 5.76 | 13.80 | 6.20 | 0.53 |
| Exhibition | To behave in such a way as to elicit the immediate attention of others | -0.04 | 3.82 | 2.40 | 3.81 | 0.64 |
| Autonomy | To act independently of others or of social values and expectations | 3.56 | 4.38 | 3.10 | 4.09 | -0.11 |
| Aggression | To engage in behaviors that attack or hurt others | -1.89 | 4.77 | -0.60 | 4.03 | 0.28 |
| Change | To seek novelty of experience and to avoid routine | 1.56 | 2.75 | 5.60 | 3.95 | 1.30 |
| Succorance | To solicit sympathy, affection, or emotional support from others | 1.56 | 2.61 | 2.20 | 2.25 | 0.26 |
| Deference | To seek and maintain subordinate roles in relationships with others | 0.11 | 4.18 | 1.00 | 4.69 | 0.21 |
| Self-Control | To control one's behaviors and emotions | 0.04 | 3.24 | -0.70 | 3.65 | -0.22 |
| Self-Confidence | Poise, self-assurance, and belief in one's ability to achieve one's goals | 3.44 | 4.31 | 6.70 | 3.50 | 0.79 |
| Personal Adjustment | The ability to cope with situational and interpersonal demands, and a feeling of efficacy | 5.52 | 3.64 | 7.50 | 4.06 | 0.53 |
| Ideal Self | Strong sense of personal worth; or harmony between what one is and what one wants to be | 3.04 | 5.21 | 4.70 | 4.99 | 0.32 |
| Creative Personality | The desire to do and think differently from the norm, and a talent for originality | 1.67 | 2.67 | 3.80 | 3.94 | 0.70 |
| Military Leadership | Steadiness, self-discipline, and good judgment of the kind required in positions of military (or related) leadership | 4.78 | 4.37 | 6.90 | 3.07 | 0.52 |
| Adult | Attitudes of independence, objectivity, and industriousness associated with the concept of "mature adult" | 4.00 | 5.66 | 3.20 | 3.79 | -0.15 |

Note: Sensing, *n* = 27; Intuition, *n* = 10.

Table 14 | ACL scale means, standard deviations, and Cohen's *d* for Global Step I™ T–F preferences: Canadian French sample

| ACL scale | ACL scale description | Thinking | | Feeling | | Cohen's <i>d</i> |
|-----------------------------------|--|----------|-----------|----------|-----------|------------------|
| | | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | |
| Sum of number checked | Total number of adjectives checked | 60.35 | 21.29 | 72.36 | 27.54 | 0.50 |
| Sum of favorable checked | Total number of favorable adjectives checked | 26.52 | 12.05 | 33.21 | 12.35 | 0.55 |
| Sum of unfavorable checked | Total number of unfavorable adjectives checked | 5.74 | 6.12 | 4.86 | 4.09 | -0.16 |
| Communality | An indicator of providing common or similar responses compared to the responses of people in general | 5.48 | 3.74 | 5.86 | 3.23 | 0.11 |
| Achievement | To strive to be outstanding in pursuits of socially recognized significance | 6.61 | 4.68 | 8.29 | 4.66 | 0.36 |
| Dominance | To seek and maintain a role as leader in groups, or to be influential and controlling in individual relationships | 2.39 | 4.14 | 1.79 | 4.93 | -0.14 |
| Endurance | To persist in any task undertaken | 5.30 | 4.96 | 5.29 | 5.30 | 0.00 |
| Order | To place special emphasis on neatness, organization, and planning in one's activities | 4.91 | 4.21 | 3.86 | 4.22 | -0.25 |
| Intracception | To engage in attempts to understand one's behavior or the behavior of others | 5.91 | 4.80 | 9.43 | 3.80 | 0.79 |
| Nurturance | To engage in behaviors that provide material or emotional benefits to others | 5.35 | 6.18 | 9.50 | 5.08 | 0.72 |
| Affiliation | To seek and maintain numerous personal friendships | 10.00 | 5.95 | 14.00 | 5.26 | 0.70 |
| Exhibition | To behave in such a way as to elicit the immediate attention of others | 0.87 | 3.33 | 0.21 | 4.84 | -0.17 |
| Autonomy | To act independently of others or of social values and expectations | 3.91 | 4.34 | 2.64 | 4.14 | -0.30 |
| Aggression | To engage in behaviors that attack or hurt others | -1.26 | 4.75 | -2.00 | 4.39 | -0.16 |
| Change | To seek novelty of experience and to avoid routine | 2.00 | 2.71 | 3.71 | 4.55 | 0.49 |
| Succorance | To solicit sympathy, affection, or emotional support from others | 1.52 | 2.66 | 2.07 | 2.27 | 0.22 |
| Deference | To seek and maintain subordinate roles in relationships with others | -0.13 | 3.81 | 1.14 | 5.01 | 0.30 |
| Self-Control | To control one's behaviors and emotions | -0.39 | 2.79 | 0.21 | 4.14 | 0.18 |
| Self-Confidence | Poise, self-assurance, and belief in one's ability to achieve one's goals | 3.83 | 4.12 | 5.14 | 4.66 | 0.30 |
| Personal Adjustment | The ability to cope with situational and interpersonal demands, and a feeling of efficacy | 5.39 | 4.10 | 7.14 | 3.11 | 0.47 |
| Ideal Self | Strong sense of personal worth; or harmony between what one is and what one wants to be | 2.91 | 4.97 | 4.43 | 5.45 | 0.29 |
| Creative Personality | The desire to do and think differently from the norm, and a talent for originality | 1.83 | 2.76 | 2.93 | 3.73 | 0.35 |
| Military Leadership | Steadiness, self-discipline, and good judgment of the kind required in positions of military (or related) leadership | 4.74 | 4.70 | 6.36 | 2.84 | 0.39 |
| Adult | Attitudes of independence, objectivity, and industriousness associated with the concept of "mature adult" | 3.65 | 5.68 | 4.00 | 4.45 | 0.07 |

Note: Thinking, *n* = 23; Feeling, *n* = 14.

Table 15 | ACL scale means, standard deviations, and Cohen's *d* for Global Step I™ J–P preferences: Canadian French sample

| ACL scale | ACL scale description | Judging | | Perceiving | | Cohen's <i>d</i> |
|-----------------------------------|--|----------|-----------|------------|-----------|------------------|
| | | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | |
| Sum of number checked | Total number of adjectives checked | 61.46 | 17.42 | 66.75 | 27.35 | 0.22 |
| Sum of favorable checked | Total number of favorable adjectives checked | 27.08 | 9.29 | 30.13 | 13.92 | 0.24 |
| Sum of unfavorable checked | Total number of unfavorable adjectives checked | 5.23 | 5.78 | 5.50 | 5.31 | 0.05 |
| Communality | An indicator of providing common or similar responses compared to the responses of people in general | 5.23 | 3.37 | 5.83 | 3.64 | 0.17 |
| Achievement | To strive to be outstanding in pursuits of socially recognized significance | 6.31 | 4.48 | 7.75 | 4.80 | 0.31 |
| Dominance | To seek and maintain a role as leader in groups, or to be influential and controlling in individual relationships | 0.69 | 4.17 | 2.96 | 4.40 | 0.52 |
| Endurance | To persist in any task undertaken | 5.46 | 5.17 | 5.21 | 5.04 | -0.05 |
| Order | To place special emphasis on neatness, organization, and planning in one's activities | 5.31 | 3.43 | 4.08 | 4.56 | -0.29 |
| Intracception | To engage in attempts to understand one's behavior or the behavior of others | 7.31 | 4.39 | 7.21 | 4.98 | -0.02 |
| Nurturance | To engage in behaviors that provide material or emotional benefits to others | 7.00 | 6.99 | 6.88 | 5.67 | -0.02 |
| Affiliation | To seek and maintain numerous personal friendships | 10.08 | 4.70 | 12.29 | 6.50 | 0.37 |
| Exhibition | To behave in such a way as to elicit the immediate attention of others | -0.85 | 3.93 | 1.42 | 3.75 | 0.59 |
| Autonomy | To act independently of others or of social values and expectations | 2.85 | 4.52 | 3.75 | 4.16 | 0.21 |
| Aggression | To engage in behaviors that attack or hurt others | -2.46 | 5.06 | -1.04 | 4.31 | 0.31 |
| Change | To seek novelty of experience and to avoid routine | 0.92 | 2.43 | 3.58 | 3.76 | 0.79 |
| Succorance | To solicit sympathy, affection, or emotional support from others | 2.92 | 2.40 | 1.08 | 2.36 | -0.78 |
| Deference | To seek and maintain subordinate roles in relationships with others | 1.92 | 4.46 | -0.50 | 4.01 | -0.58 |
| Self-Control | To control one's behaviors and emotions | 1.77 | 3.37 | -1.21 | 2.84 | -0.98 |
| Self-Confidence | Poise, self-assurance, and belief in one's ability to achieve one's goals | 2.77 | 3.27 | 5.17 | 4.63 | 0.57 |
| Personal Adjustment | The ability to cope with situational and interpersonal demands, and a feeling of efficacy | 6.31 | 3.99 | 5.92 | 3.79 | -0.10 |
| Ideal Self | Strong sense of personal worth; or harmony between what one is and what one wants to be | 2.08 | 3.43 | 4.25 | 5.78 | 0.43 |
| Creative Personality | The desire to do and think differently from the norm, and a talent for originality | 1.62 | 2.36 | 2.58 | 3.51 | 0.31 |
| Military Leadership | Steadiness, self-discipline, and good judgment of the kind required in positions of military (or related) leadership | 5.46 | 4.68 | 5.29 | 3.91 | -0.04 |
| Adult | Attitudes of independence, objectivity, and industriousness associated with the concept of "mature adult" | 3.85 | 5.43 | 3.75 | 5.17 | -0.02 |

Note: Judging, *n* = 13; Perceiving, *n* = 24.

MBTI® GLOBAL STEP II™ ASSESSMENT RESULTS FOR THE CANADIAN FRENCH 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 16). The Global Step II assessment replaces the Form Q assessment and the European Step II assessment.

Table 16 | Relationships between Global Step II™, Form Q, and European Step II™ facet results: Canadian French sample

| Global Step II™ facet | Correlation between continuous scores | |
|----------------------------------|--|---|
| | Global Step II™ and Form Q facet results | Global Step II™ and European Step II™ facet results |
| E–I facets | | |
| Initiating–Receiving | .97 | .95 |
| Expressive–Contained | .99 | .91 |
| Gregarious–Intimate | .96 | .98 |
| Active–Reflective | .83 | .87 |
| Enthusiastic–Quiet | .99 | .95 |
| S–N facets | | |
| Concrete–Abstract | .94 | .93 |
| Realistic–Imaginative | .99 | .99 |
| Practical–Conceptual | .87 | .87 |
| Experiential–Theoretical | .93 | .97 |
| Traditional–Original | .96 | .95 |
| T–F facets | | |
| Logical–Empathetic | .92 | .93 |
| Reasonable–Compassionate | .91 | .93 |
| Questioning–Accommodating | .50 | .56 |
| Critical–Accepting | .81 | .83 |
| Tough–Tender | .95 | .93 |
| J–P facets | | |
| Systematic–Casual | .94 | .97 |
| Planful–Open-Ended | .96 | .96 |
| Early Starting–Pressure-Prompted | .92 | .91 |
| Scheduled–Spontaneous | .93 | .92 |
| Methodical–Emergent | .95 | .88 |

Note: *N* = 176.

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

Table 16 presents the relationships between MBTI Global Step II, Form Q, and European Step II facet results for the Canadian French sample.

Global Step II™ Facet Intercorrelations

Intercorrelations of Global Step II facets are presented in table 17. 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 Canadian French 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 Canadian French translation are presented in table 18.

VALIDITY

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

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. 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 preferences for I, N, F, or P; or from 2 to 5 when a respondent has preferences 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 in three or more facets within any one preference pair. The percentage of out-of-preference facet scores for each preference pair in the Canadian French sample is shown in table 19.

Correlations between facets and preference pairs are presented in table 20. The correlation between each facet and its corresponding preference pair is significantly higher than those between the facet and the other three

Table 17 | Intercorrelations of Global Step II™ facets: Canadian French 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. |
|--------------------------------------|------|------|------|------|------|-----|-----|------|------|------|------|-----|------|------|------|-----|-----|-----|-----|-----|
| <i>E–I facets</i> | | | | | | | | | | | | | | | | | | | | |
| 1. Initiating–Receiving | — | | | | | | | | | | | | | | | | | | | |
| 2. Expressive–Contained | .61 | — | | | | | | | | | | | | | | | | | | |
| 3. Gregarious–Intimate | .55 | .51 | — | | | | | | | | | | | | | | | | | |
| 4. Active–Reflective | .72 | .53 | .48 | — | | | | | | | | | | | | | | | | |
| 5. Enthusiastic–Quiet | .59 | .54 | .56 | .55 | — | | | | | | | | | | | | | | | |
| <i>S–N facets</i> | | | | | | | | | | | | | | | | | | | | |
| 6. Concrete–Abstract | -.10 | -.24 | -.20 | -.07 | -.26 | — | | | | | | | | | | | | | | |
| 7. Realistic–Imaginative | -.15 | -.18 | -.11 | -.05 | -.20 | .65 | — | | | | | | | | | | | | | |
| 8. Practical–Conceptual | -.11 | -.11 | -.06 | -.05 | -.13 | .64 | .63 | — | | | | | | | | | | | | |
| 9. Experiential–Theoretical | .06 | .10 | .05 | .01 | .08 | .33 | .29 | .26 | — | | | | | | | | | | | |
| 10. Traditional–Original | -.21 | -.18 | -.16 | -.14 | -.29 | .63 | .49 | .57 | .22 | — | | | | | | | | | | |
| <i>T–F facets</i> | | | | | | | | | | | | | | | | | | | | |
| 11. Logical–Empathetic | -.21 | -.22 | -.11 | -.18 | -.25 | .25 | .32 | .18 | -.02 | .13 | — | | | | | | | | | |
| 12. Reasonable–Compassionate | -.19 | -.25 | -.27 | -.14 | -.22 | .38 | .39 | .25 | .10 | .24 | .64 | — | | | | | | | | |
| 13. Questioning–Accommodating | -.05 | -.01 | -.06 | -.10 | -.04 | .00 | .04 | -.06 | -.18 | -.16 | .41 | .36 | — | | | | | | | |
| 14. Critical–Accepting | -.21 | -.19 | -.12 | -.16 | -.21 | .20 | .18 | .15 | -.12 | .10 | .52 | .48 | .64 | — | | | | | | |
| 15. Tough–Tender | -.19 | -.21 | -.14 | -.13 | -.27 | .24 | .23 | .15 | -.08 | .16 | .58 | .52 | .60 | .66 | — | | | | | |
| <i>J–P facets</i> | | | | | | | | | | | | | | | | | | | | |
| 16. Systematic–Casual | -.20 | -.18 | -.30 | -.17 | -.37 | .35 | .41 | .33 | .01 | .45 | .33 | .43 | .10 | .20 | .27 | — | | | | |
| 17. Planful–Open-Ended | -.09 | -.11 | -.11 | -.01 | -.11 | .19 | .24 | .16 | -.01 | .26 | .16 | .32 | .05 | .08 | .15 | .58 | — | | | |
| 18. Early Starting–Pressure-Prompted | -.11 | -.16 | -.17 | -.10 | -.10 | .25 | .25 | .10 | .07 | .32 | -.02 | .16 | -.13 | -.06 | -.02 | .40 | .38 | — | | |
| 19. Scheduled–Spontaneous | -.13 | -.12 | -.19 | -.12 | -.17 | .40 | .34 | .31 | .07 | .47 | .16 | .30 | .05 | .07 | .15 | .70 | .66 | .40 | — | |
| 20. Methodical–Emergent | -.02 | -.05 | -.06 | .08 | .01 | .06 | .17 | .10 | -.07 | .12 | .06 | .19 | .06 | .00 | .01 | .42 | .37 | .35 | .47 | — |

Note: N = 176.

Table 18 | Internal consistency reliabilities of Global Step II™ facet continuous scores: Canadian French sample

| Global Step II™ facet | Cronbach's alpha |
|----------------------------------|------------------|
| E–I facets | |
| Initiating–Receiving | .76 |
| Expressive–Contained | .69 |
| Gregarious–Intimate | .49 |
| Active–Reflective | .60 |
| Enthusiastic–Quiet | .55 |
| S–N facets | |
| Concrete–Abstract | .66 |
| Realistic–Imaginative | .74 |
| Practical–Conceptual | .73 |
| Experiential–Theoretical | .43 |
| Traditional–Original | .76 |
| T–F facets | |
| Logical–Empathetic | .68 |
| Reasonable–Compassionate | .57 |
| Questioning–Accommodating | .51 |
| Critical–Accepting | .53 |
| Tough–Tender | .64 |
| J–P facets | |
| Systematic–Casual | .74 |
| Planful–Open-Ended | .66 |
| Early Starting–Pressure-Prompted | .49 |
| Scheduled–Spontaneous | .76 |
| Methodical–Emergent | .56 |

Note: N = 176.

Table 19 | Percentage of reported out-of-preference Global Step II™ facet scores: Canadian French sample

| Preference pair | Number of out-of-preference facet scores (%) | | | | | |
|-----------------|--|----|----|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 5 |
| E–I | 71 | 23 | 5 | 1 | 0 | 0 |
| S–N | 61 | 29 | 9 | 1 | 0 | 0 |
| T–F | 70 | 23 | 5 | 2 | 0 | 0 |
| J–P | 54 | 34 | 12 | 0 | 0 | 0 |

Note: N = 176.

preference pairs. This is “compelling evidence for the theoretical hierarchical structure of the Step II facets in relation to the Step I scales” (Quenk, Hammer, & Majors, 2001, p. 104). The Canadian French 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,

Table 20 | Correlations between Global Step II™ facets and preference pairs: Canadian French sample

| Global Step II™ facet | Preference pair | | | |
|----------------------------------|-----------------|------|------|------|
| | E–I | S–N | T–F | J–P |
| E–I facets | | | | |
| Initiating–Receiving | .86 | –.19 | –.24 | –.13 |
| Expressive–Contained | .74 | –.22 | –.26 | –.11 |
| Gregarious–Intimate | .69 | –.18 | –.17 | –.21 |
| Active–Reflective | .81 | –.13 | –.20 | –.08 |
| Enthusiastic–Quiet | .75 | –.28 | –.27 | –.19 |
| S–N facets | | | | |
| Concrete–Abstract | –.20 | .86 | .32 | .35 |
| Realistic–Imaginative | –.17 | .81 | .36 | .36 |
| Practical–Conceptual | –.11 | .78 | .22 | .28 |
| Experiential–Theoretical | .04 | .44 | –.02 | .06 |
| Traditional–Original | –.25 | .78 | .22 | .44 |
| T–F facets | | | | |
| Logical–Empathetic | –.24 | .27 | .89 | .19 |
| Reasonable–Compassionate | –.25 | .39 | .81 | .37 |
| Questioning–Accommodating | –.07 | –.05 | .54 | .03 |
| Critical–Accepting | –.22 | .18 | .67 | .07 |
| Tough–Tender | –.25 | .23 | .78 | .17 |
| J–P facets | | | | |
| Systematic–Casual | –.26 | .45 | .39 | .82 |
| Planful–Open-Ended | –.10 | .25 | .26 | .79 |
| Early Starting–Pressure-Prompted | –.13 | .28 | .05 | .53 |
| Scheduled–Spontaneous | –.16 | .44 | .24 | .91 |
| Methodical–Emergent | .01 | .09 | .09 | .54 |

Note: N = 176.

2004). The lowest correlation between a facet and its corresponding preference pair is between Experiential–Theoretical and S–N.

To further demonstrate convergent and divergent validity of the MBTI Global Step II facets in the Canadian French version, the facets were correlated with scales of one other assessment, the *Adjective Check List* (ACL). Descriptions of the relationships between the MBTI assessment and the ACL follow.

ACL assessment. ACL scales correlated with the Global Step II facets; a selection of these correlations is presented in table 21. The relationships between the MBTI Global Step II assessment and the ACL are consistent with those reported in the *MBTI® Step II™ Manual* (Quenk et al., 2001) and the *MBTI® Step II™ Manual, European Edition* (Quenk et al., 2004).

Table 21 | Selected correlations between Global Step II™ facets and ACL scales: Canadian French sample

| Global Step II™ facet scale | ACL scale | | | | | | | | | | | | |
|----------------------------------|-------------|-----------|-----------|-------|------------|-------------|------------|--------|-----------|--------------|-----------------|---------------------|----------------------|
| | Communality | Dominance | Endurance | Order | Nurturance | Affiliation | Exhibition | Change | Deference | Self-Control | Self-Confidence | Personal Adjustment | Creative Personality |
| E–I facet scales | | | | | | | | | | | | | |
| Initiating–Receiving | -.27 | -.37 | .01 | .05 | -.04 | -.18 | -.58 | -.53 | .16 | .40 | -.49 | -.16 | -.32 |
| Expressive–Contained | .03 | -.10 | .28 | .35 | -.17 | -.07 | -.44 | -.31 | .00 | .17 | -.24 | -.08 | .06 |
| Gregarious–Intimate | -.14 | -.15 | .06 | .14 | -.03 | -.23 | -.39 | -.53 | .04 | .30 | -.32 | -.15 | -.17 |
| Active–Reflective | -.31 | -.37 | .02 | .03 | .00 | -.21 | -.60 | -.60 | .23 | .41 | -.44 | .04 | -.29 |
| Enthusiastic–Quiet | -.14 | -.15 | .09 | .14 | -.04 | -.16 | -.48 | -.47 | .01 | .36 | -.35 | -.07 | -.05 |
| S–N facet scales | | | | | | | | | | | | | |
| Concrete–Abstract | -.05 | -.09 | -.26 | -.35 | .20 | .13 | .28 | .49 | -.04 | -.16 | .16 | .07 | .21 |
| Realistic–Imaginative | -.08 | .07 | -.30 | -.41 | .01 | .09 | .40 | .60 | -.18 | -.25 | .18 | -.01 | .28 |
| Practical–Conceptual | -.07 | .21 | -.05 | -.22 | .04 | .07 | .34 | .52 | -.25 | -.24 | .25 | -.02 | .40 |
| Experiential–Theoretical | .21 | -.06 | -.05 | -.03 | .06 | .12 | .08 | .10 | .01 | -.03 | -.07 | -.03 | .00 |
| Traditional–Original | .20 | .32 | .08 | -.03 | .01 | .11 | .52 | .57 | -.25 | -.55 | .44 | .11 | .52 |
| T–F facet scales | | | | | | | | | | | | | |
| Logical–Empathetic | .06 | -.23 | .02 | -.03 | .28 | .09 | -.22 | -.02 | .39 | .22 | -.06 | .11 | -.15 |
| Reasonable–Compassionate | .01 | -.12 | -.02 | -.18 | .47 | .36 | -.11 | .15 | .29 | .21 | .11 | .23 | -.01 |
| Questioning–Accommodating | .05 | -.27 | .16 | .04 | .49 | .30 | -.44 | -.10 | .46 | .41 | -.09 | .22 | -.14 |
| Critical–Accepting | .10 | -.06 | .19 | .04 | .49 | .33 | -.18 | .07 | .31 | .24 | .11 | .18 | .03 |
| Tough–Tender | .14 | -.36 | .09 | .01 | .57 | .28 | -.28 | .03 | .53 | .38 | -.11 | .23 | -.08 |
| J–P facet scales | | | | | | | | | | | | | |
| Systematic–Casual | .05 | .18 | -.14 | -.24 | -.03 | .19 | .39 | .58 | -.32 | -.56 | .36 | .02 | .38 |
| Planful–Open-Ended | .15 | .06 | -.13 | -.15 | .02 | .10 | .26 | .35 | -.12 | -.29 | .25 | .08 | .20 |
| Early Starting–Pressure-Prompted | -.10 | .27 | -.15 | -.13 | -.06 | .02 | .54 | .30 | -.26 | -.48 | .38 | .09 | .18 |
| Scheduled–Spontaneous | .07 | .14 | -.17 | -.22 | -.17 | -.03 | .23 | .40 | -.34 | -.49 | .20 | -.12 | .25 |
| Methodical–Emergent | -.20 | .08 | -.24 | -.28 | -.18 | -.02 | .12 | .10 | -.14 | -.22 | .15 | -.09 | .04 |

Note: n = 37.

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 giving feedback to respondents, for practitioners the most important verification issue is the accuracy with which the scores reflect their 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 interpretive information that corresponds to the respondent’s verified placement.

Table 22 shows the percentages and rank order of in-preference, midzone, and out-of-preference scores for the 20 Global Step II facets for the Canadian French 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 23.86%, followed by Methodical–Emergent at 19.89%. The Scheduled–Spontaneous facet (1.14%) and the Logical–Empathetic facet (1.70%) appear least likely to elicit out-of-preference responses.

Gender differences on the Step II facets in the Canadian French sample are presented in table 23.

Table 22 | In-preference, midzone, and out-of-preference percentages and rankings for the Global Step II[™] facets: Canadian French sample

| Global Step II [™] facet | In-preference | | Midzone | | Out-of-preference | |
|-----------------------------------|---------------|------|---------|------|-------------------|------|
| | % | Rank | % | Rank | % | Rank |
| E–I facets | | | | | | |
| Initiating–Receiving | 53.41 | 10 | 44.32 | 4 | 2.27 | 18 |
| Expressive–Contained | 50.57 | 13 | 42.05 | 7 | 7.39 | 10 |
| Gregarious–Intimate | 53.98 | 9 | 34.09 | 15 | 11.93 | 5 |
| Active–Reflective | 57.39 | 6 | 35.23 | 14 | 7.39 | 10 |
| Enthusiastic–Quiet | 49.43 | 14 | 43.75 | 6 | 6.82 | 12 |
| S–N facets | | | | | | |
| Concrete–Abstract | 58.52 | 5 | 38.07 | 12 | 3.41 | 17 |
| Realistic–Imaginative | 64.20 | 1 | 28.98 | 18 | 6.82 | 12 |
| Practical–Conceptual | 63.07 | 2 | 22.73 | 20 | 14.20 | 4 |
| Experiential–Theoretical | 45.45 | 18 | 39.20 | 9 | 15.34 | 3 |
| Traditional–Original | 59.09 | 4 | 31.82 | 17 | 9.09 | 8 |
| T–F facets | | | | | | |
| Logical–Empathetic | 53.41 | 10 | 44.89 | 3 | 1.70 | 19 |
| Reasonable–Compassionate | 46.59 | 17 | 47.73 | 2 | 5.68 | 16 |
| Questioning–Accommodating | 36.93 | 20 | 51.70 | 1 | 11.36 | 7 |
| Critical–Accepting | 47.16 | 16 | 40.91 | 8 | 11.93 | 5 |
| Tough–Tender | 47.73 | 15 | 44.32 | 4 | 7.95 | 9 |
| J–P facets | | | | | | |
| Systematic–Casual | 56.82 | 7 | 36.36 | 13 | 6.82 | 12 |
| Planful–Open-Ended | 54.55 | 8 | 39.20 | 9 | 6.25 | 15 |
| Early Starting–Pressure-Prompted | 43.18 | 19 | 32.95 | 16 | 23.86 | 1 |
| Scheduled–Spontaneous | 59.66 | 3 | 39.20 | 9 | 1.14 | 20 |
| Methodical–Emergent | 52.84 | 12 | 27.27 | 19 | 19.89 | 2 |

Note: N = 176.

CONCLUSION

Initial analyses of the Canadian French translations of the MBTI Global Step I and Step II assessments demonstrate that they each have good internal consistency reliabilities and are consistent with those of prior forms of the MBTI assessment (i.e., Forms M and Q, European Step I and Step II). Validity was established in several ways. First, included in this supplement are mean ACL scale differences between Global Step I preferences. The differences show meaningful and expected relationships

between the assessments. Next, correlations of the Global Step II assessment with another assessment (the ACL) show anticipated relationships. The percentage of out-of-preference facet scores is also presented. While more research should be conducted, all these analyses show that the Canadian French translations of the MBTI Global Step I and Step II assessments have adequate reliability and validity and are appropriate for use with individuals in Canada who read and understand Canadian French.

Table 23 | Means, standard deviations, and Cohen's *d* of the Global Step II[™] facets by total sample and gender: Canadian French sample

| Global Step II [™] facet | Total sample (<i>N</i> = 176) | | Men (<i>n</i> = 98) | | Women (<i>n</i> = 78) | | Gender difference |
|-----------------------------------|-----------------------------------|-----------|-------------------------|-----------|---------------------------|-----------|----------------------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | Cohen's <i>d</i> |
| <i>E–I facets</i> | | | | | | | |
| Initiating–Receiving | 0.14 | 0.80 | 0.17 | 0.72 | 0.11 | 0.89 | 0.07 |
| Expressive–Contained | 0.18 | 0.79 | 0.21 | 0.78 | 0.13 | 0.79 | 0.11 |
| Gregarious–Intimate | 0.20 | 0.68 | 0.23 | 0.70 | 0.17 | 0.65 | 0.09 |
| Active–Reflective | 0.05 | 0.80 | 0.02 | 0.80 | 0.09 | 0.80 | –0.09 |
| Enthusiastic–Quiet | 0.19 | 0.67 | 0.29 | 0.71 | 0.06 | 0.58 | 0.35 |
| <i>S–N facets</i> | | | | | | | |
| Concrete–Abstract | –0.42 | 0.76 | –0.50 | 0.74 | –0.31 | 0.77 | –0.26 |
| Realistic–Imaginative | –0.27 | 0.87 | –0.39 | 0.83 | –0.12 | 0.90 | –0.31 |
| Practical–Conceptual | –0.21 | 0.88 | –0.24 | 0.83 | –0.16 | 0.93 | –0.09 |
| Experiential–Theoretical | –0.03 | 0.67 | 0.07 | 0.68 | –0.15 | 0.65 | 0.34 |
| Traditional–Original | –0.40 | 0.90 | –0.50 | 0.84 | –0.27 | 0.96 | –0.26 |
| <i>T–F facets</i> | | | | | | | |
| Logical–Empathetic | 0.08 | 0.74 | –0.02 | 0.74 | 0.21 | 0.72 | –0.32 |
| Reasonable–Compassionate | –0.25 | 0.67 | –0.30 | 0.67 | –0.18 | 0.67 | –0.18 |
| Questioning–Accommodating | 0.04 | 0.69 | –0.08 | 0.67 | 0.18 | 0.68 | –0.38 |
| Critical–Accepting | –0.15 | 0.76 | –0.30 | 0.75 | 0.04 | 0.74 | –0.46 |
| Tough–Tender | 0.09 | 0.76 | –0.05 | 0.78 | 0.27 | 0.69 | –0.43 |
| <i>J–P facets</i> | | | | | | | |
| Systematic–Casual | 0.05 | 0.84 | 0.01 | 0.87 | 0.10 | 0.80 | –0.11 |
| Planful–Open-Ended | 0.26 | 0.70 | 0.30 | 0.67 | 0.20 | 0.74 | 0.15 |
| Early Starting–Pressure-Prompted | 0.04 | 0.69 | 0.07 | 0.73 | 0.01 | 0.64 | 0.08 |
| Scheduled–Spontaneous | 0.11 | 0.85 | 0.12 | 0.79 | 0.08 | 0.92 | 0.05 |
| Methodical–Emergent | 0.14 | 0.74 | 0.18 | 0.74 | 0.10 | 0.73 | 0.10 |

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

NOTES

- 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.
- 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.
- 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).
- 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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