BASIC TRAITS INVENTORY

technical manual

DEVELOPED BY NICOLA TAYLOR, PhD & GIDEON P DE BRUIN, DLITT ET PHIL

PSYCHOMETRICS

DEVELOPED BY

NICOLA TAYLOR, PhD AND GIDEON P DE BRUIN, DLITT ET PHIL

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JVR Psychometrics

Johannesburg Head Office

15 Hunter Avenue, Ferndale, Randburg, 2194

P.O. Box 2560, Pinegowrie, 2123, Johannesburg, South Africa

+27 11 781 3705/6/7 (tel), +27 11 781 3703 (fax), info@JVRafrica.co.za

Cape Town Regional Office

3rd Floor, Imperial Bank Terraces, Tyger Waterfront, Carl Cronje Drive, Belville

P.O. Box 5534, Tygervalley, 7536, Cape Town, South Africa

+27 86 133 3916 (tel), +27 86 100 4225 (fax), capeinfo@JVRafrica.co.za

Free State Regional Office

8 Hugenote Street, Jordania, Bethlehem, 9700, South Africa

+27 58 303 3843 (tel), freestate-info@JVRafrica.co.za

(Website) www.JVRpsychometrics.co.za

(Blog) www.psychologyafrica.com

About the Authors

NICOLA TAYLOR obtained her undergraduate BSc and Honours in Psychology at the University of Stellenbosch before moving to Johannesburg to complete her MSc and PhD (Psychology) at the University of Johannesburg. Nicola also completed her internship as a psychometrist at the Institute for Child and Adult Guidance there. In 2005, Nicola took part in a research exchange programme with the Rijksuniversiteit Groningen in the Netherlands, where she spent six months as a research exchange student. Nicola Taylor is a Director at JVR Psychometrics, which is part of the JVR Africa Group. She runs the Centre of Research Excellence, where she is responsible for managing the evaluation of the psychometric assessments distributed by JVR in terms of their appropriateness in the South African context. She and her team also develop assessments for JVR Psychometrics. Nicola often conducts research with organisations in order to determine the effectiveness of programmes or the assessments used within the organisation. She has co-authored articles published in peer-reviewed journals, contributed to book chapters, and read a number of papers at local and international conferences. Her research focus is on cross-cultural psychological assessment, particularly within the field of personality assessment, test construction, and the validation of psychometric assessments in the South African context.

DEON DE BRUIN received his MA (Counselling Psychology) and D.Litt. et Phil. (Psychology) degrees from the Rand Afrikaans University. His first professional appointment at a university was as a counselling psychologist at the Student Counselling Service of the University of the Free State in the early 1990's. From 1995 to 2001 he taught courses in Psychometrics, Personality, and Research Methods first at the Rand Afrikaans University and then the University of Stellenbosch. He returned to Johannesburg to become the director of the Institute for Child and Adult Guidance in 2002. At the beginning of 2005 he accepted the position of Professor in the Industrial Psychology programme in the Department of Human Resource Management at the

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University of Johannesburg. Deon's research focuses on cross-cultural psychological assessment, with a particular emphasis on personality, career development and work-related stress. His teaching focuses on research methods in Industrial Psychology. He has published more than 20 articles in scientific journals on the topics of psychological test construction, career development, and cross-cultural personality assessment. He also regularly reads papers on these topics at local and international conferences.

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CHAPTER ONE

INTRODUCTION

The Basic Traits Inventory (BTI) is a personality inventory that has been developed in South Africa in order to assess the Big Five factors of personality. These factors are: Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism. The Basic Traits Inventory also includes a measure of social desirability.

Each of the five factors is subdivided into four or five facets, which allows the test user to create a more meaningful and in-depth personality profile for the test taker. These facets are described more fully under the definitions of the constructs.

The Basic Traits Inventory is an easy to use, easy to understand personality inventory. The Basic Traits Inventory uses language that people are likely to use every day, and not complicated psychological terms. The BTI can be used in almost any context where personality assessment is done, such as psychodiagnostics, recruitment and selection, personal development, educational settings, counselling, and research.

The BTI was designed to be administered to individuals 16 years and older, and has a 10^{th} grade reading level. It is available in English and Afrikaans, has 193 items and usually takes between 30 and 40 minutes to complete. The BTI should be used by individuals with appropriate training in psychology and psychometric assessment, and should be used within the scope of laws that govern the use of psychological assessment in the country of application.

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CHAPTER TWO

THE CONCEPTUAL FRAMEWORK

2.1 Development of the Basics Traits Inventory

The development of the Basic Traits Inventory started at the beginning of 2002. It was clear at that stage that there were no appropriate, locally developed personality inventories available in South Africa. The last locally produced personality inventory, the South African Personality Questionnaire (SAPQ; Steyn, 1976) was removed from the market after being deemed unsuitable in 1991 (Taylor & Boeyens, 1991). From that point onwards, the tests used for personality assessment in South Africa have been adapted (or simply used as they are) from international personality questionnaires, with little regard for the cultural diversity so characteristic of South Africa.

The authors decided to develop a new measure of personality for South Africa, using a model that has been shown to have cross-cultural applicability worldwide. The Big Five personality factors have received a lot of attention over the last two decades, and evidence for these five factors (Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism) has been found in both Western and non-Western cultures (e.g., McCrae et al., 2004). Although only a few studies had been conducted in South Africa (Heuchert, Parker, Stumpf, & Myburgh, 2000; Taylor, 2000) on the so-called Big Five personality factors, there was some evidence that the five factors were relevant to South Africa.

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2.2 The Big Five Personality Factors

The Big Five model of personality was born of research done using the lexical approach to personality description. The lexical hypothesis assumes that most socially relevant and notable individual differences will become encoded as single words in natural language (Goldberg, 1990). In other words, the terms used in describing personality in this model are also the terms that people would use in everyday language to describe themselves and others.

The emergence of the Big Five personality factors has produced an extensive amount of research in the area of personality theory and assessment over the past two decades. The Big Five offers a structure for personality that is best described by five global domains or factors that characterise individual differences with regards to personality. These factors are generally called Extraversion, Neuroticism, Openness to Experience, Conscientiousness, and Agreeableness. This model was not based on any single particular theory of personality, and numerous factor analyses of existing personality inventories returned very similar structures to that of the Big Five (McCrae & Costa, 1989; McCrae, Costa & Piedmont, 1993; Trull, Useda, Costa & McCrae, 1995). There have been numerous validations of the Big Five across cultures, which have provided good support for the generalisability of the factors (McCrae, et al., 2005; Trull & Deary, 1997).

2.3 Scales

The definitions for the factors and facets of the Basic Traits Inventory are given below. For a detailed literature review of the factors and their facets, consult Taylor (2004) <http://hdl.handle.net/10210/1665>.

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2.3.1 Extraversion (E)

Extraversion refers to the degree to which an individual enjoys being around other people, likes excitement and stimulation and is cheerful in disposition. Extraversion is subdivided into five facets.

- **Ascendance**

  The degree to which a person enjoys entertaining and leading or dominating large groups of people.

- **Liveliness**

  The degree to which a person is bubbly, lively and energetic.

- **Positive affectivity**

  The tendency to frequently experience emotions such as joy, happiness, love, and be enthusiastic, optimistic and cheerful.

- **Gregariousness**

  The tendency to have a need for frequent social interaction and a preference for being surrounded by people.

- **Excitement-seeking**

  The degree to which a person has a need for adrenaline-pumping experiences and stimulation from noisy places, bright colours or other such intense sensations.

2.3.2 Neuroticism (N)

Neuroticism refers to a person's emotional stability, and the general tendency to experience negative affect in response to their environment. Neuroticism is subdivided into four facets.

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- **Affective instability**

  The tendency to be easily upset, have feelings of anger or bitterness and be emotionally volatile.

- **Depression**

  A tendency to experience guilt, sadness, and hopelessness, and to feel discouraged and dejected.

- **Anxiety**

  The tendency to experience worry, nervousness, apprehensiveness, and tension.

- **Self-consciousness**

  The degree to which a person is sensitive to criticism, and has frequent feelings of shame and embarrassment.

2.3.3 Conscientiousness (C)

Conscientiousness is the degree of effectiveness and efficiency with which a person plans, organises and carries out tasks. Conscientiousness is subdivided into five facets.

- **Order**

  The tendency to keep everything neat and tidy and in its proper place, and to be methodical.

- **Self-discipline**

  The tendency to start tasks immediately and carry them through to completion, and to be able to motivate oneself to complete unpleasant tasks.

- **Dutifulness**

  The tendency to stick to principles, fulfil moral obligations and be reliable and dependable.

- **Effort**

  The degree to which an individual sets ambitious goals and works hard to meet them, and is diligent and purposeful.

- **Prudence**

  The tendency to think things through carefully, check the facts and have good sense.

2.3.4 Openness to Experience (O)

This construct deals with the extent to which people are willing to experience new or different things and are curious about themselves and the world. Openness to Experience is subdivided into five facets.

- **Aesthetics**

  The tendency to have an appreciation for art, music, poetry and beauty, without necessarily having artistic talent.

- **Actions**

  The degree to which a person is willing to try new and different activities.

- **Values**

  The degree to which a person is willing to re-examine social, political and religious values.

- **Ideas**

  The degree to which a person has intellectual curiosity, enjoys considering new or unconventional ideas, and relishes philosophy and brain-teasers.

- **Imagination**

  The degree to which a person has a vivid imagination, enjoys fantasies and being creative-thinking.

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2.3.5 Agreeableness (A)

Agreeableness relates to the degree to which an individual is able to get along with other people, and has compassion for others. Agreeableness is subdivided into five facets.

- **Straightforwardness**

  The tendency to be frank and sincere, and value honesty.
- **Compliance**

  The degree to which a person defers to others, inhibits aggression and is able to "forgive and forget".
- **Prosocial tendencies**

  The degree to which a person has a concern for the greater community, and willingly devotes time to help the less privileged.
- **Modesty**

  The degree to which a person is humble and self-effacing.
- **Tendermindedness**

  The tendency to have sympathy and concern for others.

Detailed descriptions of each of the facets and a guide to interpretation for high and low scorers can be found in chapter 4.

CHAPTER THREE

ADMINISTRATION AND SCORING

The Basic Traits Inventory is available both as well as in paper-and-pencil format. If you are using the pen and paper option, you will require:

- A question booklet (English or Afrikaans)
- An answer sheet (English or Afrikaans)

The Basic Traits Inventory is also available on the JVR Online platform and accessibility to this assessment is managed through JVR's Client Services. JVR Online is an online administration platform that was developed to host our local and self-published assessments as well as a number of international assessments. Individual user portals can be set up by the JVR Bureau Service, so clients can easily manage their assessments and have access to client reports straight after completion of an assessment. The portal was designed to be easily managed and reporting of assessment results and number of assessments completed can be automated. For more information on JVR Online and to set up your free portal please contact the Client Services (clientservices@JVRafrica.co.za).

3.1 Administration

Clear and easy-to-follow instructions for test takers are printed on the question booklet and are repeated in the online version for candidates to follow. The test administrator may either read the instructions aloud, or allow the test taker to read through them silently. After answering any questions the test taker may have, the test administrator should ask the test taker not to make any marks in the question booklet, which is reusable.

If the assessment is being completed online, the correct links need to be set up and adequate internet connectivity must be available. The test administrator must also ensure that the test taker is comfortable using a computer.

Before starting the test, test takers should be asked to complete the biographical section, filling in their name, date of birth, the date of the assessment, and their gender. These details are necessary to determine which norm group will be used.

During testing, the administrator should ensure that answers are correctly marked on the answer sheet or on the computer, and that no items are skipped. Once complete, test takers should be asked to check that each question has only one answer, and that all the questions have been answered.

3.2 Scoring

Scoring of the paper-and pencil version of the Basic Traits Inventory is done online through your JVR Online portal. The online assessment is scored automatically and a report of choice is generated and is sent to the administrator's secure e-mail address.

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3.3 Report Options

The Individual Profile Report gives a summary of the test taker's performance on the Basic Traits Inventory by comparing the test taker's scores with those obtained by the appropriate norm group. This is done by converting the test taker's raw scores into McCall's T scores. T scores typically range between 20 and 90 and have a mean of 50 and a standard deviation of 10. Scores below 40 can be interpreted as low, and scores above 60 are seen as high.

The Counsellor's Section of the Individual Profile Report also provides the relevant stanines (mean of 5, standard deviation of 1.96) for the test taker's scores. Interpretations of high and low scores are given in the following chapter.

A case study on interpretation of the Basic Traits Inventory is provided in Appendix A, and examples of the various reports are given in Appendix B.

There are two report options available to choose from:

- BTI INDIVIDUAL PROFILE REPORT: This report provides T-Scores and Stanines on factors and facets, as well as descriptions of all scales.
- BTI COMPETENCY PROFILE REPORT: The 7-page report provides competency scores derived from the BTI scales.

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CHAPTER FOUR

INTERPRETATION AND USE OF RESULTS

4.1 General Interpretive Information

The following section gives a brief description about how the Basic Traits Inventory scales may be interpreted. Background and technical information is provided in chapter 5. For interpretation purposes, the reliability of the Big Five factors is very high. It is suggested that the five factors be used for making decisions about people, and that the facets be treated as hypotheses about behaviour.

4.1.1 Extraversion

Individuals who score high in Extraversion are generally those who enjoy being around people, especially large gatherings, and tend to be assertive, active and talkative. They like stimulation and excitement, and are generally cheerful and optimistic. Individuals scoring low in Extraversion tend to prefer their own company, are reserved and independent and do things at an even pace.

- **Ascendance**

  Individuals who score high on Ascendance enjoy entertaining and leading or dominating large groups of people. They are happy to be the centre of attention, and may actively seek out the spotlight. Individuals who score low on Ascendance prefer to avoid situations that would draw attention to themselves and usually let others take the lead.

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- **Liveliness**

  Individuals who score high on Liveliness are usually seen to be bubbly, lively and energetic. Everybody usually knows when they are excited about something, and they will often be seen running or walking briskly when going about their daily tasks. Individuals who score low on Liveliness are by no means sluggish – they simply prefer to go about things at an even pace. They are seen to be calm, and often quiet, preferring measured tones to excited outbursts.

- **Positive Affectivity**

  People who score high on Positive Affectivity tend to be seen with a smile on their face. They are generally enthusiastic, optimistic and cheerful, and will often experience emotions such as joy, happiness, and love. People who score low on Positive Affectivity are often seen to be serious and earnest, and see themselves as realistic and level-headed.

- **Gregariousness**

  Individuals who score high on Gregariousness have a need for frequent social interaction and actively seek out events where they will have the opportunity to be around people. They are seen as sociable and enjoy meeting new people. Individuals who score low on Gregariousness prefer to spend time on their own, or with close friends. They tend to avoid large gatherings, and when forced to go, will tend to seek out people they know and stick with them.

- **Excitement-seeking**

  Individuals who score high on Excitement-seeking can be described as thrill-seekers. They enjoy the rush of adrenaline they get from high-risk activities, and look for stimulation in bright colours, busy environments and loud music. Individuals who score low on Excitement-seeking tend to avoid activities that they see as dangerous, and are more likely to watch others take part in adrenaline-

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pumping pursuits than actively participate. They prefer to take part in quieter sports, and don't need excessive stimulation.

4.1.2 Neuroticism

The heart of the Neuroticism domain is the tendency to experience negative affects such as fear, sadness, embarrassment, anger, and fretfulness. Along with these, individuals high in Neuroticism tend to be prone to irrational ideas, are less able to control their negative emotions, and cope poorly with stress. Individuals who score low on Neuroticism are emotionally stable: calm, even-tempered and composed.

- **Affective Instability**

  Individuals who score high on Affective Instability tend to get upset easily, and may be sensitive to perceived slights. They can be prone to mood swings and may easily lose their temper. Individuals who score low on this facet are not easily provoked, and are even-tempered. They tend to handle stressful situations calmly and do not get flustered easily.

- **Depression**

  Individuals who score high on Depression tend to be prone to feelings of guilt, sadness, and hopelessness, and often withdraw to contemplate their relationships and evaluate their position in life. They tend to experience feelings of melancholy and loneliness, and are easily discouraged. Individuals who score low on this facet rarely experience these emotions, or tend to avoid contemplating them.

- **Anxiety**

  Individuals who score high on Anxiety would perhaps be described as showing "nervous tension". They are prone to worry, and often panic in stressful situations.

They tend to fret about what could go wrong. Individuals who score low on Anxiety tend to be relaxed, calm and collected.

- **Self-consciousness**

  Individuals who score high on Self-consciousness tend to be sensitive to criticism, and have frequent feelings of shame and embarrassment. They feel intimidated by authority figures, and try not to attract attention to themselves. Individuals who score low on Self-consciousness tend to be fairly confident and self-assured. They are not easily perturbed by awkward circumstances.

4.1.3 Conscientiousness

Conscientiousness has to do with the self-discipline required in the planning, organising, and carrying out of tasks. Individuals high in Conscientiousness are focused, strong-willed, and determined. They also tend to be dependable, hardworking, achievement orientated, and persevering. Low scorers tend to be more relaxed in working towards their goals, and may tend to be more hedonistic, distractible and impulsive than high scorers. Individuals who score low on the Order facet of Conscientiousness prefer less organised environments and dislike routine.

- **Order**

  Individuals who score high on Order tend to keep everything neat and tidy and in its proper place, and to be methodical. They like to do things in a systematic way, and find routine comforting. Individuals who score low on Order don't mind unstructured environments, and often tend to be surrounded by what seems to be chaos, although they probably know where everything is. They prefer to work according to their own schedule, and feel restricted by routine.

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- **Self-discipline**

  Individuals who score high on Self-discipline are able to start tasks immediately and carry them through to completion. They are able to motivate themselves to complete unpleasant tasks. Individuals who score low on Self-discipline find it difficult to sit down and complete a task long before the deadline is due. They tend to procrastinate or leave things to the last minute, often missing deadlines.

- **Dutifulness**

  Individuals who score high on Dutifulness tend to stick to their principles, fulfil moral obligations and be reliable and dependable. They keep their promises, and have strong ethical values. Individuals who score low on Dutifulness place less importance on doing things the "right" way, or may simply have values different to those in their close community.

- **Effort**

  Individuals who score high on Effort tend to set ambitious goals and work hard to meet them. They are seen to be diligent and purposeful, and may often put more effort into a task than is expected of them. Individuals who score low on Effort tend to try and find the best, or easiest, way to complete a task. They may also depend on external driving forces to provide goals for them.

- **Prudence**

  Individuals who score high on Prudence tend to think things through carefully, and check all the facts before making a decision. They like to consider all the pros and cons of any situation, and dislike having to make off-the-cuff decisions. Individuals who score low on Prudence are seen to be spontaneous, and may make impulsive and rash decisions. However, they often are able to identify the most important aspects when making a quick decision, even if they do not necessarily consider all the possible consequences of the decision.

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4.1.4 Openness to Experience

Individuals scoring high in Openness are curious about their world, lead experientially rich lives, and give thought to new ideas and unconventional values. Open people actively seek out novel experiences and tend to reflect on ideas. They enjoy and are able to grasp new ideas and have a wide range of interests. Individuals scoring low on Openness tend to be conventional and conservative. They seem to have a narrower scope and intensity of interests, and are generally unwilling to question traditional values and ways of thinking.

- **Aesthetics**

  Individuals who score high on Aesthetics have an extraordinary appreciation for art, music, poetry and beauty, without necessarily having artistic talent. They will actively seek out what they deem to be the "finer things in life". Individuals who score low on Aesthetics tend to view the arts as fanciful and unrealistic. They are generally unimpressed by aesthetics, and seek more grounded, practical pursuits.

- **Actions**

  Individuals who score high on Actions have a desire to experience as many new things as possible. They will try almost anything once, "just to see", and will jump at the idea of a change or something different. Individuals who score low on Actions feel comfortable with the status quo, and may even resist change if it is imposed on them. They may come across as unadventurous, but they simply feel safer with what they know as opposed to the unknown.

- **Values**

  Individuals who score high on Values are willing to re-examine social, political and religious values, and challenge them. They may lead somewhat unconventional lifestyles, and support the underdog in arguments. They accept people from

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different backgrounds as equals. Individuals who score low on Values tend to accept authority and honour tradition. They tend to believe that norms present in society are there for the good of society and should not be challenged.

- **Ideas**

  Individuals who score high on Ideas display intellectual curiosity, and they enjoy discovering how things work. They like considering new or unconventional ideas, and will often take part in philosophical debates. Individuals who score low on Ideas tend to view philosophical debates as frivolous, and focus more on the practical aspects of life. They may also restrict themselves to a narrow range of interests, and develop specialist knowledge in those areas.

- **Imagination**

  Individuals who score high on Imagination tend to get lost in their thoughts, as they have rich inner experiences. They enjoy coming up with creative, albeit sometimes unrealistic, solutions to problems. Individuals who score low on Imagination tend to be down-to-earth, and rarely indulge in daydreaming.

4.1.5 Agreeableness

Individuals high in Agreeableness tend to be sympathetic towards others, straightforward, selfless, are eager to help, and believe that others will be as helpful in return. Individuals who score low on Agreeableness tend to be sceptical, manipulative, competitive, and self-centred. In other words, they look after their own interests.

- **Straightforwardness**

  Individuals who score high on Straightforwardness tend to be frank and sincere, and dislike lying. They place high value in honesty, although may sometimes lack tact in their candidness. Individuals who score low on Straightforwardness tend to

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feel that people do not necessarily need to know all the facts regarding a matter. They may purposefully keep information from others to either spare others from pain, or to further their own interests.

- **Compliance**

  Individuals who score high on Compliance find it difficult to say “no”. They tend to avoid arguments, and generally find it easy to forgive others, often apologising just to keep the peace. Individuals who score low on Compliance tend to be fairly strong-willed, and may often come into conflict with others, especially authority figures. They are independent, and like to do things differently from the norm.

- **Prosocial Tendencies**

  Individuals who score high on Prosocial Tendencies tend to have a deep concern for the welfare of others, and will often be involved in charity work, community projects and any venture that entails the upliftment of others. They tend to be kind, generous, helpful and considerate. Individuals who score low on Prosocial Tendencies are generally not concerned with the greater community, and are not willing to go out of their way to further the cause of less privileged people.

- **Modesty**

  Individuals who score high on Modesty tend to be humble and unassuming. They will play down their achievements and may even give others the credit for their efforts. Individuals who score low on Modesty are happy to show off their achievements, and often seek out praise for their accomplishments. They want to be acknowledged for their contribution to a project or venture.

- **Tendermindedness**

  Individuals who score high on Tendermindedness tend to show a deep compassion and concern for others. They understand people, and are willing to put aside time to listen to their troubles. However, they may be easily emotionally manipulated.

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Individuals who score low on Tendermindedness tend to place their own needs before that of others, and have little desire to become involved in other people's problems. They are able to make difficult decisions regarding people, without becoming emotionally attached or feeling guilty.

CHAPTER FIVE

DEVELOPMENT & STANDARDISATION

The intention to ensure construct validity of the Basic Traits Inventory from the outset demanded the specification of precise definitions of the five factors. An extensive literature review (Taylor, 2004) provided these definitions, as well as those for the facets that would help define each factor. The five domains in the Basic Traits Inventory each consist of five facets, apart from Neuroticism, which has four.

The items in the Basic Traits Inventory are written in the form of statements, where the test-taker needs to indicate the degree to which they agree with a statement on a five-point Likert-type scale, ranging from Strongly Agree to Strongly Disagree. The items were kept as short as possible, and the authors tried to follow closely the guidelines set out for writing items that would be used in translation (Van de Vijver & Leung, 1994).

Contrary to convention, the items are all keyed positively in the direction of their dimension. In other words, negative terms such as “not”, “never”, and “no” are excluded from the inventory. The purpose of this is to allow for easy translatability, avoid confusion in deciding on a response, and to keep items to the point. An item-sort revealed that conceptual confusion arose when negatively worded and negatively keyed items were included in the scale.

The items of the Basic Traits Inventory are grouped according to their respective facets, and these are presented together for each factor, instead of in random order. This is done in order to contextualise the items for the test-taker, and therefore attempt to remove any vagaries that might arise from a single item in a non-specific context. No formal demarcations are made

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between factors or their facets. The Basic Traits Inventory is therefore presented as a single list of items.

The initial version of the Basic Traits Inventory consisted of 173 items. However, after thorough analysis, it was apparent that some items did not function as well as they should (Taylor, 2004). The revision resulted in the addition of seven items to the Basic Traits Inventory and changes to 12 other items. Furthermore, a social desirability scale (consisting of 13 items) was included to provide a measurement of social desirability. The social desirability items are placed between facets throughout the test. The present version of the Basic Traits Inventory therefore consists of a single list of 193 items.

The BTI items were translated into Afrikaans by one of the authors and back-translated to English by another bilingual South African psychologist. The original and back translations were compared and minor changes to the translations made. Feedback after a pilot administration to a small sample of students and adults was obtained, and again a few minor adjustments were made to the items and instructions. The equivalence of English and Afrikaans forms are investigated in both Taylor (2004) and Taylor (2008).

The full description of the development process, with equivalence of forms is provided here:
http://hdl.handle.net/10210/1665

http://hdl.handle.net/10210/3250

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CHAPTER SIX

STANDARDISATION & NORM SAMPLES

6.1 Standardisation sample

The initial standardisation sample consisted of 5352 participants, most of whom were applicants for a clerical position in the South African Police Services. Table 1 contains the number of participants in each data collection group. There were 1735 men and 3323 women (294 unspecified) in the sample. Table 2 indicates the number of participants in each ethnic group, and Table 3 shows the demographic breakdown of participants according to home language.

Table 1: Number of Participants in Each Data Collection Group

Group	*n*	%
Police applicants	3146	58.8
Police trainees	184	3.4
Second year psychology students (2004)	685	12.8
Second year psychology students (2003)	177	3.3
Aspirant psychology masters level students	92	1.7
Students in a bridging course	750	14.0
Medical aid call centre employees	145	2.7
MBA students	173	3.2
Total	5352	100.0

Table 2: Number of Participants in Each Ethnic Group

Ethnicity	n	%
Black	3548	66.3
White	790	14.8
Coloured	180	3.4
Asian	139	2.6
Other	31	0.6
Unspecified	664	12.4
Total	5352	100.0

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6.2.1 Groups for comparison

The issue of what is meant by the term "culture" is complicated. Each of South Africa's eleven official language groups, along with the other non-official languages in South Africa has its own unique cultural traditions and identity. Within the Black ethnic group, at least nine different languages are spoken, so there are essentially at least nine different cultural groups within the Black group. However, Heuchert, et al. (2000) asserted that it would be reasonable to assume that the different linguistic groups within an ethnic group would be more culturally similar to each other than they would be similar to other ethnic groups. For instance, although the Xhosa and Zulu South African cultures are different, it is assumed that they are more likely to have greater cultural similarities to one another than Afrikaners and Xhosas would (Heuchert et al., 2000).

Ramsay, Taylor, De Bruin and Meiring (2005) conducted a test of measurement invariance of the Basic Traits Inventory across three Black language groups. It was found that for practical purposes, the Basic Traits Inventory was invariant across the three language groups. This suggests that combining Black language groups would not introduce too much variance to cross-cultural comparisons. Due to the small sample sizes of the various groups, only comparisons between Black and White subgroups were made.

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Table 3: Number of Participants in Each Language Group

Language	Frequency	Percent
English	494	9.2
Afrikaans	384	7.2
Xhosa	116	2.2
Zulu	188	3.5
Sesotho	187	3.5
Setswana	755	14.1
Swati	48	0.9
Tsonga	392	7.3
Venda	245	4.6
Ndebele	195	3.6
Sepedi	1067	19.9
Indigenous African (not specified)	597	11.2
Other	26	0.5
Unspecified	658	12.3
Total	5352	100.0

6.3 Norm Groups

Four different norm groups are available for report generation. Research shows that different populations (adolescent, student, applicant, incumbent, general population) tend to have slightly different distributions on measures of personality (e.g., Schmit & Ryan, 1993). The student norm group is for use in the selection and development of students for the purposes of bursary grants, graduate programmes, or post-graduate training. The working adult norm is for use in the selection and development of adults in the working environment. The Police norm is for use for selection and development of security personnel and police officers. The adolescent norm is for use with learners in high school aged 13 years to 18 years for development and career guidance processes.

In all cases, norms are available for men and women, as research has shown consistent large differences across gender on scale scores of the Basic Traits Inventory. The differences between ethnic and language groups have not demonstrated consistently large differences across groups,

which is why there are not separate norms for language or ethnicity groups. Please refer to Taylor (2008) for more detail (http://hdl.handle.net/10210/3250).

6.3.1 Student norm group

The demographic composition of the student norm group is given in Table 4. The norms were created using only students, in order to control the effect that applicant groups may have on the norms. Norms are currently available separately for men and women. The data were collected between 2006 and 2010.

Table 4: Demographic Composition of the Student Norm Group (*N* = 5184)

Variable	n	%
Gender		
Men	2080	40.1
Women	3104	59.9
Ethnicity		
Black	1175	22.7
White	1117	21.5
Coloured	348	6.7
Other	1833	35.3

Both McCall's T scores (M = 50, SD = 10) and stanines (M = 5, SD = 1.96) were calculated for the raw scores of the Basic Traits Inventory scales. The mean and standard deviation for each factor is presented in Table 5 below.

Table 5. Mean and Standard Deviation of Factors for the Student Norm Group

Scale	Men		Women	
	Mean	SD	Mean	SD
Extraversion	124.92	18.34	122.27	18.88
Neuroticism	82.68	22.08	90.08	23.46
Conscientiousness	154.48	20.42	156.36	20.80
Openness to Experience	119.32	15.60	120.60	15.70
Agreeableness	130.21	16.39	133.56	16.35

6.3.2 Police norm group

The demographic composition of the police norm group is given in Table 6. This group consists of applicants for entry-level police positions and is suitable for use with applicants for security personnel positions. The data were collected between 2008 and 2010.

Table 6: Demographic Composition of the Police Norm Group (*N* = 5205)

Variable	n	%
Gender		
Men	3578	68.7
Women	1627	31.3
Ethnicity		
Black	4206	79.2
White	62	1.2
Coloured	1019	19.2
Asian	17	0.3
Other	8	0.2

Both McCall's T scores (M = 50, SD = 10) and stanines (M = 5, SD = 1.96) were calculated for the raw scores of the Basic Traits Inventory scales. Norms are currently available separately for men and women. The mean and standard deviation for each factor is presented in Table 7 below.

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Table 7. Mean and Standard Deviation of Factors for the Police Norm Group

Scale	Men		Women	
	Mean	SD	Mean	SD
Extraversion	120.83	16.84	121.24	17.65
Neuroticism	71.91	18.16	75.52	19.41
Conscientiousness	170.72	20.57	169.99	20.07
Openness to Experience	119.85	14.99	118.82	15.44
Agreeableness	138.84	18.74	138.04	18.79

6.3.3 Working adult norm group

The demographic composition of the working adult norm group is given in Table 8. The group consists of a mixture of job applicants and incumbents in varying levels of different types of organisations, that either completed the BTI for selection or development purposes. The data were collected between 2008 and 2010.

Table 8: Demographic Composition of the Working Adult Norm Group (*N* = 2117)

Variable	n	%
Gender		
Men	994	46.9
Women	1123	53.0
Ethnicity		
Black	695	49.9
White	414	29.7
Coloured	221	15.9
Asian	62	4.5
Other	1	0.1

Both McCall's T scores (M = 50, SD = 10) and stanines (M = 5, SD = 1.96) were calculated for the raw scores of the Basic Traits Inventory scales. Norms are currently available separately for men and women. The mean and standard deviation for each factor is presented in Table 9 below.

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Table 9. Mean and Standard Deviation of Factors for the Working Adult Norm Group

Scale	Men		Women	
	Mean	SD	Mean	SD
Extraversion	123.60	15.38	119.61	15.30
Neuroticism	75.76	19.96	78.13	20.17
Conscientiousness	167.31	19.74	166.96	19.08
Openness to Experience	121.24	13.94	120.80	14.02
Agreeableness	136.91	15.80	138.11	16.10

6.3.4 Adolescent norm group

The demographic composition of the adolescent norm group is given in Table 10. The group consists of high school students from across the country. The data were collected from 2010, with the majority of cases collected from 2014 to 2017.

Table 10: Demographic Composition of the Adolescent Norm Group (*N* = 865)

Variable	n	%
Gender		
Boys	450	52.0
Girls	415	48.0
Ethnicity		
Black	313	36.2
White	321	37.1
Coloured	91	10.5
Asian/Indian	35	4.0
Other	8	0.9
Not specified	97	11.2
Age		
13 years	13	1.5
14 years	150	17.3
15 years	218	25.2
16 years	178	20.6
17 years	176	20.3
18 years	130	15.0

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Both McCall's T scores (M = 50, SD = 10) and stanines (M = 5, SD = 1.96) were calculated for the raw scores of the Basic Traits Inventory scales. Norms are currently available separately for boys and girls. The mean and standard deviation for each factor is presented in Table 11 below.

Table 11. Mean and Standard Deviation of Factors for the Adolescent Norm Group

Scale	Boys		Girls	
	Mean	SD	Mean	SD
Extraversion	121.39	15.83	121.19	17.39
Neuroticism	84.14	18.39	97.11	24.81
Conscientiousness	150.72	20.86	156.53	24.25
Openness to Experience	114.52	14.89	123.72	14.70
Agreeableness	129.92	15.11	135.21	15.89

6.4 Reliability of Norm Groups

The Cronbach alpha coefficient for internal consistency reliability was calculated for all scales of the Basic Traits Inventory. The internal reliability coefficients for the five factors of the Basic Traits Inventory appear in Table 12. For all five factors and all groups, internal consistency reliability can be considered excellent (above .85).

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Table 12. Cronbach's Alpha Coefficient for Basic Traits Inventory Factors for Norm Groups

Norm	Group	Extraversion	Neuroticism	Conscientiousness	Openness to Experience	Agreeableness
Students	Men	.90	.94	.94	.88	.88
	Women	.91	.95	.94	.88	.88
	Total	.90	.94	.94	.88	.88
Police	Men	.87	.91	.94	.87	.9
	Women	.87	.91	.93	.87	.89
	Total	.87	.91	.94	.87	.89
Working adults	Men	.85	.93	.94	.86	.88
	Women	.86	.94	.94	.87	.89
	Total	.86	.93	.94	.87	.89
Adolescents	Boys	.86	.92	.94	.87	.87
	Girls	.87	.94	.95	.87	.87
	Total	.86	.94	.95	.88	.87

The internal reliability coefficients for the facets of the Basic Traits Inventory appear in Table 13. Most scales have acceptable internal consistency reliability values (above .70) across all four norm groups. Openness to Values and Modesty consistently demonstrated lower reliability coefficients across groups, suggesting that these two scales should not be used for decision-making purposes and certainly not in isolation. The best tactic for interpretation is to use the overall factor score first, and use the facet scores for additional information regarding the composition of the factor score.

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Table 13. Cronbach's Alpha Coefficient for Basic Traits Inventory Facets for Norm Groups

Scale (no. items)	Students			Working adults			Police			Adolescents		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Boys	Girls
E1 (7)	.81	.80	.81	.75	.74	.74	.78	.78	.77	.75	.75	.75
E2 (8)	.73	.71	.75	.64	.64	.64	.67	.67	.68	.65	.63	.68
E3 (6)	.76	.74	.78	.68	.65	.70	.67	.68	.67	.74	.69	.78
E4 (7)	.86	.86	.87	.80	.79	.80	.78	.78	.78	.80	.79	.80
E5 (8)	.84	.83	.83	.77	.78	.76	.68	.69	.67	.78	.79	.77
N1 (8)	.86	.86	.87	.85	.83	.86	.78	.77	.79	.87	.83	.89
N2 (9)	.86	.86	.87	.82	.81	.83	.76	.76	.77	.86	.79	.88
N3 (9)	.86	.84	.87	.80	.79	.80	.71	.71	.71	.80	.76	.80
N4 (8)	.87	.85	.87	.84	.83	.84	.79	.78	.79	.84	.81	.84
C1 (8)	.86	.86	.86	.79	.78	.80	.78	.79	.76	.87	.85	.87
C2 (10)	.87	.86	.88	.85	.84	.87	.82	.82	.82	.85	.83	.87
C3 (9)	.77	.77	.78	.80	.80	.81	.83	.84	.82	.81	.78	.83
C4 (6)	.75	.75	.75	.74	.75	.74	.75	.76	.73	.79	.77	.79
C5 (8)	.81	.82	.82	.81	.83	.80	.75	.76	.74	.80	.77	.81
O1 (7)	.83	.83	.84	.81	.79	.83	.75	.75	.74	.79	.77	.78
O2 (6)	.70	.70	.71	.67	.69	.65	.72	.71	.72	.67	.65	.66
O3 (7)	.72	.71	.74	.70	.69	.71	.71	.71	.71	.66	.63	.66
O4 (6)	.50	.51	.52	.42	.40	.45	.43	.41	.48	.50	.50	.47
O5 (6)	.83	.81	.84	.79	.78	.80	.74	.74	.74	.81	.79	.81
A1 (7)	.66	.67	.66	.71	.71	.71	.73	.73	.72	.68	.64	.71
A2 (8)	.71	.68	.74	.70	.67	.73	.72	.72	.73	.67	.69	.66
A3 (8)	.79	.79	.79	.76	.75	.77	.76	.76	.74	.76	.72	.77
A4 (7)	.62	.59	.65	.58	.54	.61	.56	.57	.52	.63	.64	.62
A5 (7)	.79	.78	.79	.77	.74	.79	.77	.77	.78	.76	.72	.76

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CHAPTER SEVEN

PSYCHOMETRIC PROPERTIES

7.1 Descriptive Statistics

The descriptive statistics for men and women are given below in Table 14. A t-test for the difference in means was done, and Cohen's *d* is given as an estimate of effect size. Although there are a number of significant mean differences across gender, the only facet with an effect size of larger than 0.20 is Anxiety, which can be described as having a medium effect size (*d* = 0.36).

7.2 Reliability

The internal consistency reliability coefficients were calculated for each of the factors, as well as for the individual facets. The Cronbach's alpha coefficients for the factors are given in Table 15, and for the facets in Table 16. For interpretation purposes, the reliability of the Big Five factors is very high. It is suggested that the five factors be used in making decisions about people, and that the facets be treated as hypotheses about behaviour.

7.2.1 Total Group

The reliability coefficients of each of the five factors in the total group were all satisfactory: Extraversion (α = 0.87); Neuroticism (α = 0.92); Conscientiousness (α = 0.93); Openness to Experience (α = 0.87); and Agreeableness (α = 0.89). Most of the facets have acceptable reliabilities, with the exception of Openness to Values (α = 0.44) and Modesty (α = 0.56), which have low reliability coefficients.

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Table 14: T-test for Mean Differences across Gender

	Men		Women				
Factor/Facet	**Mean**	**SD**	**Mean**	**SD**	***df***	***t***	***d***
Extraversion	117.51	17.29	115.63	17.25	5054	3.672**	0.11
Ascendance	23.76	4.81	23.16	4.88	5050	4.130**	0.12
Liveliness	26.47	5.02	26.58	5.09	5050	-0.739	0.02
Positive affectivity	22.03	3.93	22.33	3.90	5053	-2.588*	0.08
Gregariousness	24.84	4.82	24.78	5.10	5053	0.418	0.01
Excitement-seeking	20.47	6.20	18.84	5.57	5052	9.524**	0.29
Neuroticism	76.18	20.65	81.36	22.30	5054	-8.032**	0.23
Affective Instability	16.37	6.04	17.16	6.37	5051	-4.284**	0.12
Depression	18.92	6.26	19.93	6.71	5051	-5.216**	0.15
Self-Consciousness	23.03	6.36	24.15	6.81	5054	-5.654**	0.16
Anxiety	17.87	5.80	20.15	6.43	5054	-12.401**	0.36
Conscientiousness	164.32	19.41	164.81	19.99	5054	-0.827	0.02
Effort	31.68	5.02	31.76	5.05	5054	-0.545	0.02
Order	39.99	6.00	40.30	6.21	5052	-1.718	0.05
Dutifulness	36.93	4.59	37.13	4.62	5052	-1.482	0.04
Prudence	24.84	3.57	24.83	3.50	5046	0.137	0.00
Self-Discipline	30.96	4.75	30.93	5.03	5045	0.218	0.01
Openness to Experience	119.17	14.83	118.59	14.97	5046	1.314	0.04
Aesthetics	24.90	5.11	25.04	5.43	5044	-0.903	0.03
Ideas	22.15	3.65	21.60	3.73	5044	4.946**	0.15
Actions	26.03	4.19	26.37	4.15	5041	-2.791**	0.08
Values	22.29	3.44	22.35	3.49	5038	-0.520	0.02
Imagination	23.93	3.63	23.34	3.86	5038	5.239**	0.15
Agreeableness	135.42	19.74	137.08	18.64	5037	-2.947**	0.09
Straightforwardness	27.15	4.41	27.19	4.40	5035	-0.321	0.01
Compliance	28.53	5.00	28.73	4.94	5034	-1.370	0.04
Prosocial Tendencies	28.62	5.41	29.53	5.10	5019	-5.846**	0.18
Modesty	24.84	3.95	24.45	4.03	4937	3.217**	0.10
Tendermindedness	27.65	4.14	28.36	4.15	4926	-5.621**	0.17

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Table 15: Cronbach Alpha Coefficients for Factors of the Basic Traits Inventory

Scale (number of items in parenthesis)	Total	Black	White
Extraversion (36)	.87	.85	.92
Neuroticism (34)	.93	.92	.95
Conscientiousness (41)	.93	.92	.94
Openness to Experience (32)	.87	.85	.91
Agreeableness (37)	.89	.88	.89

7.2.2 White Group

The White group had reliability coefficients of above 0.80 for all five factors (Table 15). For the White group, the reliability coefficients for the five factors were: Extraversion (α = 0.92); Neuroticism (α = 0.95); Conscientiousness (α = 0.94); Openness to Experience (α = 0.91); and Agreeableness (α = 0.89). At a facet level, only one facet had a low reliability coefficient in the White group, namely Openness to Values (α = 0.58).

7.2.3 Black Group

For the Black group, the reliability coefficients for the five factors were: Extraversion (α = 0.85); Neuroticism (α = 0.92); Conscientiousness (α = 0.92); Openness to Experience (α = 0.85); and Agreeableness (α = 0.88). Two facets had low alpha coefficients in the Black group, namely, Openness to Values (α = 0.38), and Modesty (α = 0.51).

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Table 16: Alpha Coefficients for Facets of the Basic Traits Inventory

Scale (number of items in parenthesis)	Total	Black	White
Ascendance (7)	.74	.72	.83
Liveliness (8)	.68	.63	.77
Positive affectivity (6)	.64	.65	.83
Gregariousness (7)	.79	.74	.87
Excitement-seeking (8)	.78	.68	.87
Affective instability (8)	.85	.80	.88
Depression (9)	.83	.78	.90
Self-consciousness (9)	.80	.75	.89
Anxiety (8)	.84	.81	.88
Effort (8)	.80	.73	.89
Order (10)	.83	.78	.90
Dutifulness (9)	.77	.76	.83
Prudence (6)	.71	.67	.78
Self-discipline (8)	.79	.74	.84
Aesthetics (7)	.82	.78	.88
Ideas (6)	.69	.65	.76
Actions (7)	.68	.64	.77
Values (6)	**.44**	**.38**	**.58**
Imagination (6)	.77	.73	.87
Straightforwardness (7)	.73	.71	.66
Compliance (8)	.70	.69	.71
Prosocial tendencies (8)	.76	.73	.80
Modesty (7)	**.56**	**.51**	.67
Tendermindedness (7)	.77	.74	.82

Note. Coefficients where α < .60 are indicated by boldface.

7.3 Factor Analysis

According to the theory on which the inventory is based, a structure of loadings consistent with the defined five factors of the Basic Traits Inventory was expected to emerge for each of the comparison groups. In other words, the facets that make up each of the factors should only have a loading on the factor they define, and no other factor. Therefore, on the basis of theory, five factors were extracted in order to be able to make meaningful group comparisons. The scores for the 24 facets were subjected to a maximum likelihood factor analysis with a Promax rotation (k = 4). Table 17 shows the factor correlation matrix for the total group.

7.3.1 Total Group

The expected five factors emerged clearly, accounting for 59.95% of the variance in the correlation matrix. Inspection of the factor pattern matrix for the total group (see Table 17) showed that each of the facets had primary salient loadings on their posited factors, and Straightforwardness the only facet with a secondary loading of 0.31 on Conscientiousness.

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Table 17: Factor Pattern Matrix of the Basic Traits Inventory for the Total Group

Facets	Factors				
	E	N	C	O	A
Ascendance	**.54**	-.05	.16	.04	-.09
Liveliness	**.77**	.06	.10	-.11	.00
Positive affectivity	**.50**	-.11	.05	-.04	.18
Gregariousness	**.65**	-.05	-.08	.05	.04
Excitement-seeking	**.55**	.15	-.28	.12	-.09
Affective Instability	.10	**.72**	-.01	.06	-.13
Depression	-.06	**.85**	.00	.05	.05
Self-Consciousness	-.01	**.81**	.02	-.02	.10
Anxiety	.00	**.83**	.09	-.07	.05
Effort	.10	.04	**.73**	-.03	-.05
Order	-.02	.06	**.81**	-.09	-.01
Dutifulness	.06	.00	**.66**	.03	.13
Prudence	-.09	.06	**.83**	.12	-.10
Self-Discipline	.02	-.04	**.77**	.01	-.03
Aesthetics	-.01	.02	-.10	**.62**	.08
Ideas	.00	-.08	.03	**.75**	-.03
Actions	.21	.00	.07	**.45**	.05
Values	-.04	.09	-.04	**.47**	.04
Imagination	.03	-.04	.15	**.57**	.03
Straightforwardness	.00	-.10	**.31**	-.09	**.46**
Compliance	.10	.03	-.11	-.10	**.82**
Prosocial Tendencies	.01	-.02	.04	.08	**.60**
Modesty	-.12	.09	-.02	.12	**.53**
Tendermindedness	-.03	.02	.00	.16	**.65**

Note. Facets with factor loadings above .30 are indicated in boldface.

7.3.2 White Group

Table 18 shows the factor structure of the Basic Traits Inventory for the White group. A five-factor solution accounted for 62.09% of the variance in the correlation matrix for the White group. The structure of the resultant pattern matrix for the White group closely resembled the theoretical structure. Once again, all five factors emerged clearly, and all facets had primary salient loadings on their posited factor. Openness to Action had a secondary loading of 0.37 on Extraversion, Positive Affectivity a secondary loading of 0.30 on Agreeableness, and Excitement-seeking a secondary loading of -0.31 on Conscientiousness.

Table 18: Factor Pattern Matrix of the Basic Traits Inventory for the White Group (N=762)

Facets	Factors				
	E	N	C	O	A
Ascendance	**.68**	.05	.19	.06	-.18
Liveliness	**.79**	.09	.19	-.10	-.01
Positive affectivity	**.37**	-.25	.11	-.06	**.30**
Gregariousness	**.76**	.00	-.12	-.07	.17
Excitement-seeking	**.58**	.01	**-.31**	.05	-.08
Affective Instability	.17	**.80**	.00	.02	-.20
Depression	-.03	**.84**	-.07	.11	.02
Self-Consciousness	-.09	**.75**	-.06	-.07	.23
Anxiety	.04	**.83**	.12	-.09	.08
Effort	.09	.07	**.75**	.05	-.08
Order	-.03	.01	**.71**	-.15	.04
Dutifulness	-.09	-.06	**.63**	.03	.22
Prudence	-.08	.06	**.79**	.15	-.02
Self-Discipline	.04	-.09	**.80**	-.05	-.07
Aesthetics	-.12	.00	.06	**.70**	.06
Ideas	.01	-.11	-.01	**.75**	-.03
Actions	**.37**	-.08	-.14	**.41**	.12
Values	-.05	.03	-.06	**.45**	.04
Imagination	.13	.06	.06	**.67**	-.01
Straightforwardness	.11	-.08	.10	-.13	**.55**
Compliance	-.03	.06	-.16	-.04	**.86**
Prosocial Tendencies	.09	.05	.03	.14	**.47**
Modesty	-.16	.01	.10	.11	**.51**
Tendermindedness	.01	.09	.10	.14	**.64**

Note. Facets with factor loadings above .30 are indicated in boldface.

7.3.3 Black Group

Table 19 shows the factor structure of the Basic Traits Inventory for the Black group. A five-factor solution accounted for 58.56% of the variance in the correlation matrix. The expected five factors emerged clearly. Straightforwardness had a secondary loading of 0.30 on Conscientiousness.

Table 19: Factor Pattern Matrix of the Basic Traits Inventory for the Black Group (N=360)

Facets	Factors				
	E	N	C	O	A
Ascendance	**.57**	-.06	.04	.01	-.01
Liveliness	**.72**	.04	.11	-.13	.01
Positive affectivity	**.45**	-.07	.11	.03	.10
Gregariousness	**.62**	-.06	-.03	.11	-.05
Excitement-seeking	**.51**	.22	-.23	.13	-.07
Affective Instability	.03	**.70**	-.02	.05	-.07
Depression	-.02	**.84**	-.02	-.01	.08
Self-Consciousness	.00	**.80**	.07	.01	.02
Anxiety	-.01	**.81**	.05	-.02	.02
Effort	.16	.09	**.67**	-.11	.03
Order	-.03	.02	**.84**	-.05	-.05
Dutifulness	.04	.00	**.74**	-.03	.09
Prudence	-.09	.02	**.76**	.16	-.12
Self-Discipline	-.01	-.03	**.71**	.07	.00
Aesthetics	.04	-.01	-.12	**.58**	.07
Ideas	.05	-.07	.03	**.67**	.00
Actions	.15	.03	.07	**.52**	.01
Values	-.07	.13	.02	**.46**	.04
Imagination	.02	-.07	.20	**.47**	.06
Straightforwardness	.01	-.04	**.30**	-.08	**.48**
Compliance	.09	-.01	-.09	-.09	**.80**
Prosocial Tendencies	.05	-.02	-.02	.06	**.66**
Modesty	-.16	.13	-.01	.15	**.50**
Tendermindedness	-.06	-.02	.03	.17	**.60**

Note. Facets with factor loadings above .30 are indicated in boldface.

7.4 Congruence Coefficients

After a maximum likelihood factor analysis with a Promax rotation (k = 4), the resultant factor structures of the Black group were obliquely rotated to a target group's factor structure. The program used for target rotation was the Comprehensive Exploratory Factor Analysis package (CEFA; Browne, Cudeck, Tateneni, & Mels, 1999) version 1.10. The factors and facets of the target-rotated factor structures were then compared using Tucker's phi as a congruence coefficient.

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The total group was not designated as the target group, because the aim of the congruence test was to establish the degree of similarity between groups, not with the proposed theoretical structure. The White group acted as the target group in the structural comparison. In order to state that the factors and facets manifest in the same way for each group, the congruence coefficients would have to be at or above 0.90 for all factors and facets.

The Black group's pattern matrix was obliquely target rotated to the White group's factor structure. Congruence coefficients were calculated in order to determine the agreement between the factor structures. Table 20 contains the congruence coefficients for the comparisons between the groups.

The congruence coefficients for the factors indicated good agreement between the Black and White groups. Tucker's phi obtained for each of the five factors in the ethnic group comparison was as follows: Extraversion (p_{xy} = 0.96), Neuroticism (p_{xy} = 0.96), Conscientiousness (p_{xy} = 0.96), Openness to Experience (p_{xy} = 0.95), and Agreeableness (p_{xy} = 0.93). At a facet level, all facets had coefficients above 0.90, except for Openness to Actions (p_{xy} = 0.85), and Positive Affectivity (p_{xy} = 0.87).

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Table 20: Congruence Coefficients for the Black and White Groups

Factor/Facet	Congruence coefficient
Extraversion	.96
Ascendance	.92
Liveliness	.99
Positive affectivity	**.87**
Gregariousness	.94
Excitement-seeking	.95
Neuroticism	.96
Affective Instability	.98
Depression	.98
Self-Consciousness	.95
Anxiety	.99
Conscientiousness	.96
Effort	.94
Order	.99
Dutifulness	.96
Prudence	.99
Self-Discipline	.97
Openness to Experience	.95
Aesthetics	.90
Ideas	.99
Actions	**.85**
Values	.98
Imagination	.91
Agreeableness	.93
Straightforwardness	.91
Compliance	.99
Prosocial Tendencies	.97
Modesty	.94
Tendermindedness	.97

7.5 Construct correlations

The Pearson correlation coefficients for the five factors of the Basic Traits Inventory are shown in Table 21. There seems to be a meaningful correlation between Extraversion and Openness to Experience, as well as Extraversion and Agreeableness.

Table 21: Factor Correlation Matrix of the Basic Traits Inventory

Factor	E	N	C	O	A
E	1.000				
N	-.124	1.000			
C	.266	-.434	1.000		
O	.402	-.215	.590	1.000	
A	.598	-.096	.360	.523	1.000

7.6 Construct, item and response bias

The BTI has undergone extensive testing in terms of the presence of possible bias in the assessment, using both classical test theory and item response theory methodology. There was very little evidence for construct and item bias across all groups on each of the five factors of the Basic Traits Inventory. To view the full analysis please follow the following hyperlink:

http://hdl.handle.net/10210/3250

7.7 Summary

The internal consistency reliabilities of the scales of the Basic Traits Inventory can, for the most part, be deemed satisfactory. For all comparison groups, alpha coefficients were at or above 0.85 for the five factors, indicating sufficient internal consistency reliability. Most of the facets demonstrated acceptable internal consistency reliability, however it is suggested that the five factors be used for interpretation purposes, and the facets be regarded as hypotheses about behaviour.

In the factor analysis for the total group, Black group, and White group, all five factors emerged clearly. In the total group and Black group, only Straightforwardness had a secondary loading on

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another factor, namely Conscientiousness. This implies that being frank and sincere may be influenced by two underlying traits, namely Agreeableness and Conscientiousness.

In the White group, there were three facets that had secondary loadings on other factors. Positive affectivity had a secondary loading on Agreeableness, which implies that cheerfulness and a positive disposition are influenced by both Extraversion and Agreeableness. Secondly, Excitement-seeking had a negative secondary loading on Conscientiousness, suggesting that risk-taking is influenced by both Extraversion and Conscientiousness. It is possible that risk-taking is negatively linked to the prudence aspect of Conscientiousness, where individuals who take risks are less likely to consider their decisions carefully, and are perhaps more impulsive than Conscientious individuals. The Openness to Actions facet also had a secondary loading on Extraversion, implying that being open to trying new and different things is influenced by both Openness to Experience and Extraversion.

The congruence coefficients obtained after rotating the Black group's factor pattern matrix to that of the White group, indicate the degree of similarity in the way the personality factors manifest in the two groups. In other words, do the five factors and their facets carry the same meaning in both the Black and the White groups? All five factors had congruence coefficients at or above 0.95, indicating good factor agreement. Inspection of Table 11 showed that the only facets with congruence coefficients less than 0.90 were Openness to Actions and Positive Affectivity. However, their coefficients were either at or above 0.85, which in some circles is deemed satisfactory.

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CHAPTER EIGHT

CONCLUDING COMMENTS

The five-factor model of personality has drawn criticism from observers regarding its ability to fully represent the South African personality landscape (e.g., Laher 2008; Laher & Quy, 2009). However, there is enough evidence to demonstrate the utility of the model for the purpose for which it was built, and the ability of the Basic Traits Inventory in order to do so (Taylor, 2004, 2008).

The Basic Traits Inventory is a good example of an instrument built to measure a specific model of personality in the South African context. The results of the efforts made to ensure construct validity from the outset are evident in the good psychometric properties of the instrument.

While they are not presented in this manual, there have been a number of studies done investigating the construct validity and predictive validity of the Basic Traits Inventory in different contexts. There is a reading list available with the studies done using the Basic Traits Inventory on the JVR Online Resource Centre, and a critical discussion of some of the studies can be found in Taylor & de Bruin (2013).

More work is needed on criterion-related validity studies in organisational settings. In particular, future studies are needed on the ability of the Basic Traits Inventory to predict job performance. While there is good evidence for the utility of instruments that use the Five Factor model of personality in predicting work performance, the Basic Traits Inventory should be tested in its ability to do so.

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In addition, there are early indications as to the value of using the Basic Traits Inventory with adolescents. A standardisation project is underway to create norms for high school learners. The efficacy of the Basic Traits Inventory in clinical and counselling settings has not yet been demonstrated, but is worth exploring based on previous research with the five-factor model of personality.

The psychometric properties of the Basic Traits Inventory show that it provides a good, reliable, and interpretable way of assessing personality using the five-factor model of personality in South Africa. Furthermore, there is strong evidence for the structural equivalence of the Basic Traits Inventory, which provides support for the cross-cultural utility of the inventory in South Africa.

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CHAPTER NINE

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APPENDIX A

CASE STUDY

The table below show resulting scores for a profile produced for John Smith. His case is discussed below.

Table 22: Case Study Scores

Factor/Facet	Result
Extraversion	**51**
Ascendance	52
Liveliness	67
Positive affectivity	48
Gregariousness	55
Excitement-seeking	40
Neuroticism	**58**
Affective Instability	55
Depression	58
Self-Consciousness	51
Anxiety	53
Conscientiousness	**60**
Effort	67
Order	56
Dutifulness	60
Prudence	56
Self-Discipline	56
Openness to Experience	**45**
Aesthetics	50
Ideas	38
Actions	48
Values	50
Imagination	42
Agreeableness	**45**
Straightforwardness	51
Compliance	42
Prosocial Tendencies	42
Modesty	48
Tendermindedness	47

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CASE STUDY INTERPRETATION

Biographical Information

John Smith is a 27 year old man. He has been employed at ABC Construction (a construction and building company) for the past nine years and has been in his current position as a process operator for three years.

After matriculating, John was hired by his current employer in a clerical/support position and worked there for just over four years. He then moved to the operational department and obtained his learnership qualification after two years. During that time, he completed various short courses relevant to his career path.

John was then promoted to process operator and is currently still in that position. With his experience, he will be considered for a future supervision position in his department.

Reason for assessment

He was assessed for development purposes, as part of the HR department's process to assess all employees for the new Performance Management review cycle. The idea was to incorporate the results obtained from the assessment process, together with interviews, into personalised career development plans.

BTI Scales and Facets

John's profile on the BTI indicates a tendency to behave in an extraverted way. His high score on Liveliness means that he probably comes across as energetic and busy, with a great deal of personal energy. He feels comfortable taking the lead, although he may not always seek to be

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there. John would more than likely avoid dangerous and risky situations than actively pursue them. These factors would probably stand him in good stead as a supervisor.

John's total score for the Neuroticism factor indicates a usually calm and even-tempered person who is able to face stressful situations without becoming upset. He experiences fluctuations in mood as much as most other men, and sometimes may be inclined to worry, or become easily disheartened.

John's profile indicates a reliable and dependable person who strictly adheres to ethical principles and moral obligations. He will probably start tasks without delay and carry them through to completion, as well as motivate himself to complete unpleasant tasks. John generally likes setting ambitious goals and working hard to meet them and is diligent and purposeful in his actions and tasks. He tends to think things through carefully, checking all relevant facts, and would avoid being impulsive and making rash decisions.

John's profile displays an average level of Openness to Experience, which tends to the more traditional side. He would probably find it unpleasant to constantly consider and try out new and unconventional ideas, and would likely tend to avoid abstract, philosophical discussions. John focuses more on the practical things that need to be done, and would be uncomfortable in environments that require creativity and change.

John's score for Agreeableness falls in the average range, but also tends towards the lower scores. He is generally frank and sincere in his personal contact with people, although he may be too blunt at times. He has the propensity to be kind, generous, helpful and considerate to people, but will not necessarily come across as being overly so. He would probably be able to make difficult decisions and stick to them.

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Integration

Overall, John comes across as an energetic, hard worker, who likes to stick to tried-and-tested ways of doing things. He would probably prefer to implement methods that he knows work from his experience, and would possibly question new and innovative ways of doing things. His lower Compliance scores indicate that he would resist doing something just because he was told to do so. John would have to be convinced of the practical benefits of change, as his high Conscientiousness, lower Openness to Experience, and low Excitement-Seeking scores show a preference for maintaining the status quo. However, these characteristics are ideal for safety-related environments, where processes and procedures are in place to ensure the safety of employees and efficient running of the business.

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APPENDIX B
BTI SAMPLE REPORTS

BTI Individual Profile Report

BASIC TRAITS INVENTORY

BASIC TRAITS INVENTORY

INDIVIDUAL PROFILE REPORT

DEVELOPED BY:
NICOLA TAYLOR, PhD AND GIDEON P DE BRUIN, DLITT ET PHIL

NAME: Joe Sample
GENDER: Male
REPORT DATE: 19/09/2013

CONFIDENTIAL REPORT

The information in this report is confidential and must not be made known to anyone other than authorised personnel, unless released by the expressed written permission of the person taking the assessment. The information should be considered together with all other information gathered in the assessment process.

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DESCRIPTION OF SCALES

EXTRAVERSION	The degree to which an individual enjoys being around other people, likes excitement and stimulation and is cheerful in disposition.
Ascendance	The degree to which a person enjoys entertaining and leading or dominating large groups of people.
Liveliness	The degree to which a person is bubbly, lively and energetic.
Positive Affectivity	The tendency to frequently experience emotions such as joy, happiness, love, and be enthusiastic, optimistic and cheerful.
Gregariousness	The tendency to have a need for frequent social interaction and a preference for being surrounded by people as opposed to being alone.
Excitement-Seeking	The degree to which a person has a need for adrenaline-pumping experiences and stimulation from noisy places, bright colours or other such intense sensations.

NEUROTICISM	A person's emotional stability, and the general tendency to experience negative affect in response to their environment.
Affective Instability	The tendency to be easily upset, have feelings of anger or bitterness and be emotionally volatile.
Depression	A tendency to experience guilt, sadness, and hopelessness, and to feel discouraged and dejected.
Self-Consciousness	The degree to which a person is sensitive to criticism, and has frequent feelings of shame and embarrassment.
Anxiety	The tendency to experience worry, nervousness, apprehensiveness, and tension.

CONSCIENTIOUSNESS	The degree of effectiveness and efficiency with which a person plans, organises and carries out tasks.
Effort	The tendency to set ambitious goals and work hard to meet them, and to be diligent and purposeful.
Order	The tendency to keep everything neat and tidy and in its proper place, and to be methodical.
Dutifulness	The tendency to stick to principles, fulfil moral obligations and be reliable and dependable.
Prudence	The tendency to think things through carefully, check the facts and have good sense.
Self-Discipline	The tendency to start tasks immediately and carry them through to completion, and to be able to motivate oneself to complete unpleasant tasks.

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OPENNESS TO EXPERIENCE	The extent to which people are willing to experience new or different things and are curious about themselves and the world.
Aesthetics	The tendency to have an appreciation for art, music, poetry and beauty, without necessarily having artistic talent.
Ideas	The degree to which a person has intellectual curiosity, enjoys considering new or unconventional ideas, and relishes philosophy and brain-teasers.
Actions	The degree to which a person is willing to try new and different activities.
Values	The degree to which a person is willing to re-examine social, political and religious values.
Imagination	The degree to which a person has a vivid imagination, enjoys fantasies and is creative-thinking.

AGREEABLENESS	The degree to which an individual is able to get along with other people, and has compassion for others.
Straightforwardness	The tendency to be frank and sincere, as opposed to deceitful and manipulative.
Compliance	The degree to which a person defers to others, inhibits aggression and is able to "forgive and forget".
Prosocial Tendencies	The degree to which a person has a concern for the greater community, and willingly devotes time to help the less privileged.
Modesty	The degree to which a person is humble and self-effacing.
Tendermindedness	The tendency to have sympathy and concern for others.

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INDIVIDUAL PROFILE REPORT

PROFILE OVERVIEW

The profile below provides an overview of the Big Five Factors measured by the Basic Traits Inventory. These factors give an indication of the general personality styles people have that inform their everyday behaviour. These link to everyday attitudes, thoughts and behaviours. More specific behaviours are described by the facets measured by each factor.

INTERPRETATION GUIDELINES

The results are presented using T-scores, which have an average score of 50. Scores between 40 and 50 are low average, and scores between 50 and 60 are high average. Scores below 40 are seen to be very low, and scores above 60 are seen to be very high. There are strengths and weaknesses associated with both high and low scores, depending on the context, so any score must be interpreted with the context in mind.

The T-scores for the facets of the Basic Traits Inventory are presented on the next page. These facets provide an in-depth look into each of the Five Factors to give a better idea of the composition of the total score for each factor. The interpretation of the facet scores is done in the same way as the factor scores.

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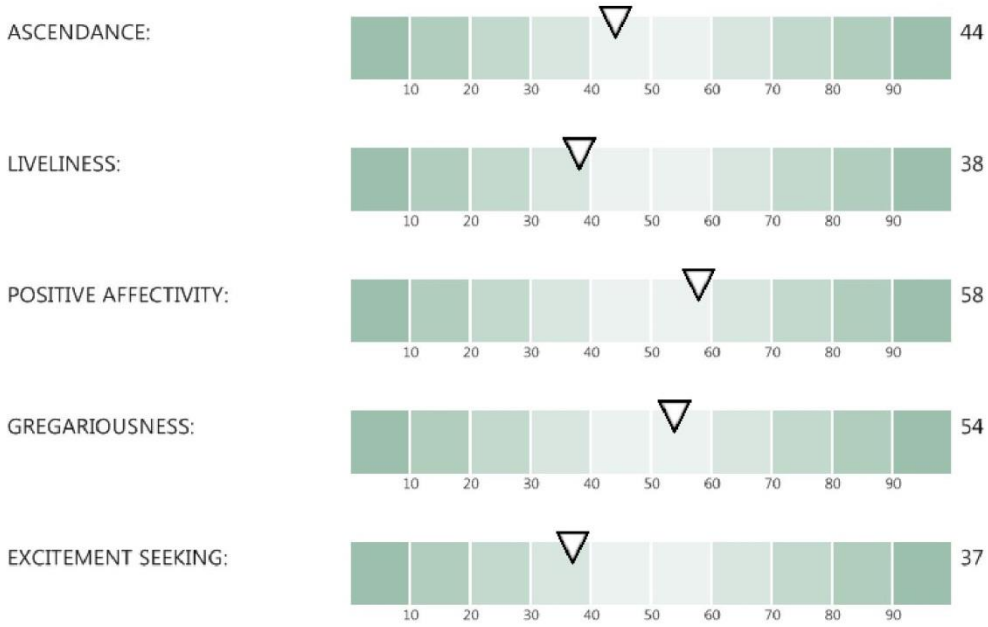
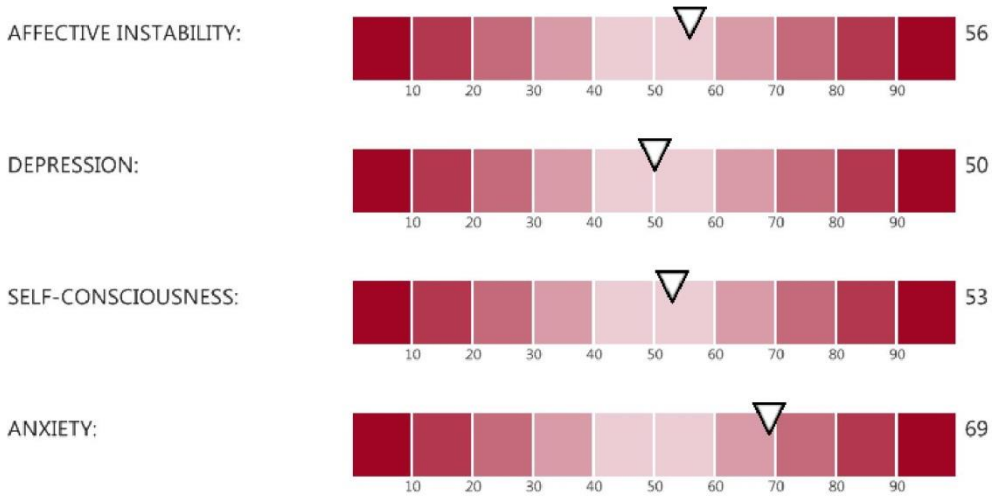
INDIVIDUAL PROFILE

EXTRAVERSION



NEUROTICISM



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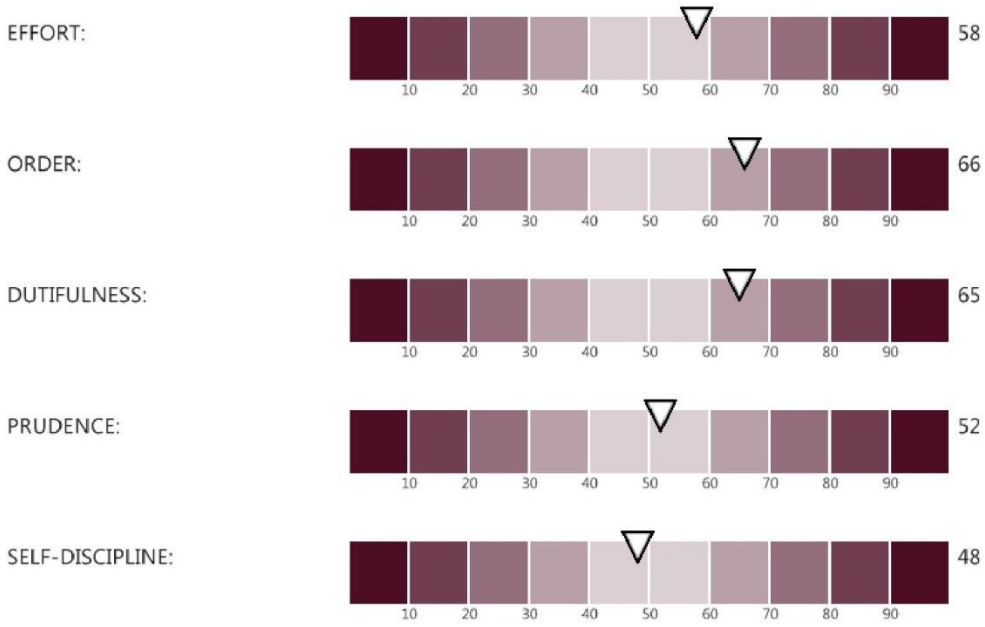
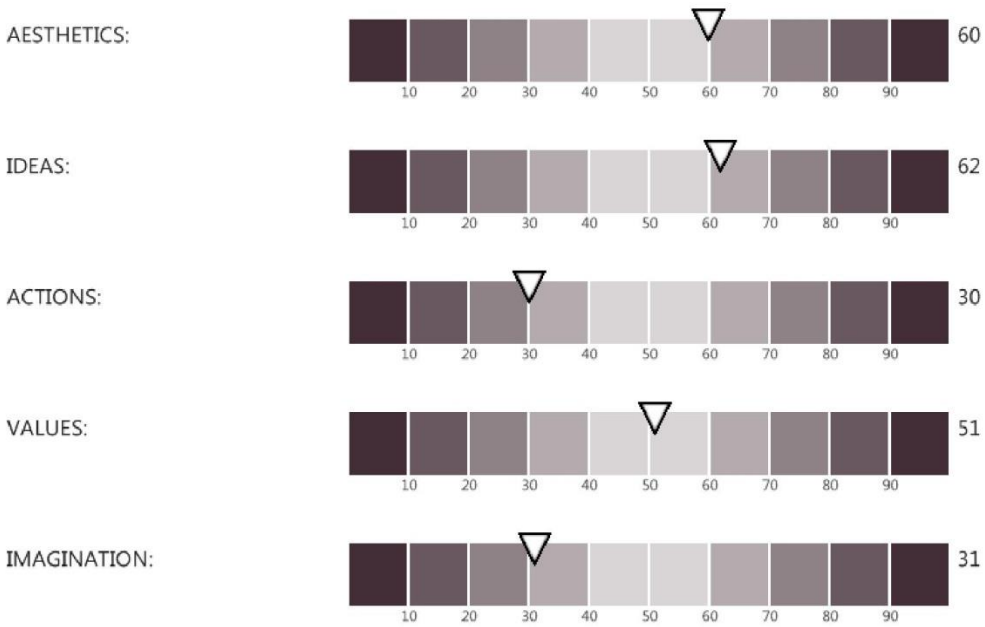
CONSCIENTIOUSNESS



OPENNESS TO EXPERIENCE



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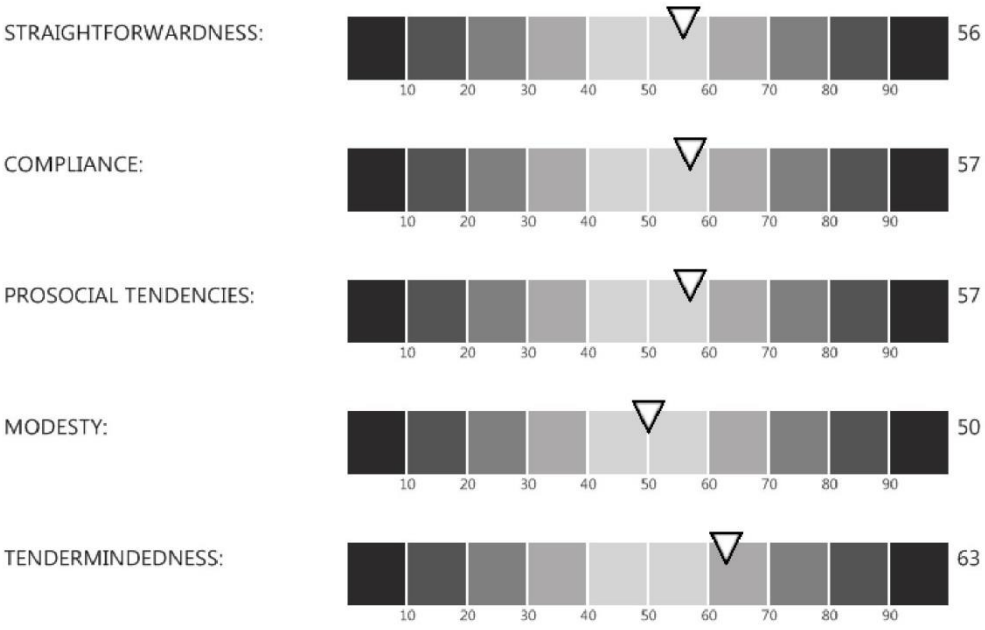
AGREEABLENESS



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COUNSELLOR'S SECTION

CONFIDENTIAL REPORT

NAME: Joe Sample
GENDER: Male
REPORT DATE: 19/09/2013

The McCall's T-scores given below provide an indication of the respondent's standing on each of the factors and facets of the Basic Traits Inventory. Scores between 40 and 60 are within the average range. Stanines are also given for each factor and facet. The number of omitted items is provided for each scale. If there are 3 or more items missing for a facet, or over 10 items missing for a factor, the results should be interpreted with caution.

FACTOR	T-SCORE	STANINE	OMITTED
EXTRAVERSION	**43**	**4**	**0**
Ascendance	44	4	0
Liveliness	38	3	0
Positive Affectivity	58	7	0
Gregariousness	54	6	0
Excitement Seeking	37	2	0
NEUROTICISM	**58**	**7**	**0**
Affective Instability	56	6	0
Depression	50	5	0
Self-Consciousness	53	6	0
Anxiety	69	9	0
CONSCIENTIOUSNESS	**59**	**7**	**0**
Effort	58	7	0
Order	66	8	0
Dutifulness	65	8	0
Prudence	52	5	0
Self-Discipline	48	5	0
OPENNESS TO EXPERIENCE	**46**	**4**	**0**
Aesthetics	60	7	0
Ideas	62	7	0
Actions	30	1	0
Values	51	5	0
Imagination	31	1	0
AGREEABLENESS	**59**	**7**	**0**
Straightforwardness	56	6	0
Compliance	57	6	0
Prosocial Tendencies	57	6	0
Modesty	50	5	0
Tendermindedness	63	8	0
SD	**53**	**6**	**0**

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ITEM RESPONSES

1.	a	40.	a	79.	A	118.	da	157.	A
2.	a	41.	a	80.	A	119.	a	158.	a
3.	da	42.	d	81.	A	120.	a	159.	a
4.	da	43.	d	82.	a	121.	A	160.	a
5.	d	44.	D	83.	A	122.	A	161.	da
6.	da	45.	D	84.	a	123.	A	162.	A
7.	da	46.	D	85.	d	124.	A	163.	A
8.	A	47.	a	86.	A	125.	a	164.	A
9.	a	48.	a	87.	A	126.	a	165.	a
10.	da	49.	a	88.	A	127.	da	166.	a
11.	d	50.	d	89.	A	128.	D	167.	a
12.	d	51.	d	90.	A	129.	A	168.	a
13.	A	52.	d	91.	A	130.	A	169.	d
14.	d	53.	D	92.	a	131.	a	170.	a
15.	d	54.	a	93.	A	132.	a	171.	a
16.	da	55.	D	94.	A	133.	a	172.	a
17.	A	56.	D	95.	A	134.	A	173.	a
18.	a	57.	D	96.	da	135.	d	174.	a
19.	a	58.	a	97.	A	136.	D	175.	a
20.	A	59.	a	98.	A	137.	a	176.	a
21.	A	60.	d	99.	A	138.	da	177.	a
22.	da	61.	a	100.	A	139.	d	178.	a
23.	d	62.	da	101.	a	140.	da	179.	a
24.	a	63.	da	102.	A	141.	da	180.	a
25.	da	64.	a	103.	A	142.	da	181.	A
26.	a	65.	d	104.	A	143.	da	182.	a
27.	a	66.	d	105.	A	144.	a	183.	da
28.	A	67.	D	106.	A	145.	A	184.	da
29.	a	68.	A	107.	da	146.	da	185.	A
30.	a	69.	a	108.	A	147.	a	186.	D
31.	D	70.	da	109.	a	148.	a	187.	A
32.	D	71.	da	110.	A	149.	da	188.	A
33.	D	72.	da	111.	a	150.	da	189.	A
34.	A	73.	a	112.	a	151.	da	190.	A
35.	d	74.	A	113.	A	152.	da	191.	A
36.	D	75.	d	114.	da	153.	d	192.	A
37.	d	76.	d	115.	da	154.	d	193.	da
38.	D	77.	A	116.	A	155.	a		
39.	da	78.	a	117.	a	156.	a		

8%	Response D:	Strongly Disagree
12%	Response d:	Disagree
17%	Response da:	Neither Agree Nor Disagree
32%	Response a:	Agree
29%	Response A:	Strongly Agree

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BTI Competency Profile Report

The scales of the Basic Traits Inventory were mapped to JVR Psychometrics' competency model in order to provide a report that could be used in conjunction with assessment centre exercises using the same (or similar) competency framework. Instructions for interpretation are available in the report, and development guidelines and additional resources will be added systematically to the JVR Online resource centre.

BASIC TRAITS INVENTORY

BASIC TRAITS INVENTORY

COMPETENCY PROFILE REPORT

DEVELOPED BY:
NICOLA TAYLOR, PhD AND GIDEON P DE BRUIN, DLITT ET PHIL

NAME: Janet Sample
GENDER: Female
REPORT DATE: 20/03/2013

CONFIDENTIAL REPORT

The information in this report is confidential and must not be made known to anyone other than authorised personnel, unless released by the expressed written permission of the person taking the assessment. The information should be considered together with all other information gathered in the assessment process.

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INDIVIDUAL PROFILE: DESCRIPTION OF BTI SCALES

EXTRAVERSION	The degree to which an individual enjoys being around other people, likes excitement and stimulation and is cheerful in disposition.
Ascendance	The degree to which a person enjoys entertaining and leading or dominating large groups of people.
Liveliness	The degree to which a person is bubbly, lively and energetic.
Positive Affectivity	The tendency to frequently experience emotions such as joy, happiness, love, and be enthusiastic, optimistic and cheerful.
Gregariousness	The tendency to have a need for frequent social interaction and a preference for being surrounded by people as opposed to being alone.
Excitement-Seeking	The degree to which a person has a need for adrenaline-pumping experiences and stimulation from noisy places, bright colours or other such intense sensations.

NEUROTICISM	A person's emotional stability, and the general tendency to experience negative affect in response to their environment.
Affective Instability	The tendency to be easily upset, have feelings of anger or bitterness and be emotionally volatile.
Depression	A tendency to experience guilt, sadness, and hopelessness, and to feel discouraged and dejected.
Self-Consciousness	The degree to which a person is sensitive to criticism, and has frequent feelings of shame and embarrassment.
Anxiety	The tendency to experience worry, nervousness, apprehensiveness, and tension.

CONSCIENTIOUSNESS	The degree of effectiveness and efficiency with which a person plans, organises and carries out tasks.
Effort	The tendency to set ambitious goals and work hard to meet them, and to be diligent and purposeful.
Order	The tendency to keep everything neat and tidy and in its proper place, and to be methodical.
Dutifulness	The tendency to stick to principles, fulfil moral obligations and be reliable and dependable.
Prudence	The tendency to think things through carefully, check the facts and have good sense.
Self-Discipline	The tendency to start tasks immediately and carry them through to completion, and to be able to motivate oneself to complete unpleasant tasks.

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OPENNESS TO EXPERIENCE	The extent to which people are willing to experience new or different things and are curious about themselves and the world.
Aesthetics	The tendency to have an appreciation for art, music, poetry and beauty, without necessarily having artistic talent.
Ideas	The degree to which a person has intellectual curiosity, enjoys considering new or unconventional ideas, and relishes philosophy and brain-teasers.
Actions	The degree to which a person is willing to try new and different activities.
Values	The degree to which a person is willing to re-examine social, political and religious values.
Imagination	The degree to which a person has a vivid imagination, enjoys fantasies and is creative-thinking.

AGREEABLENESS	The degree to which an individual is able to get along with other people, and has compassion for others.
Straightforwardness	The tendency to be frank and sincere, as opposed to deceitful and manipulative.
Compliance	The degree to which a person defers to others, inhibits aggression and is able to "forgive and forget".
Prosocial Tendencies	The degree to which a person has a concern for the greater community, and willingly devotes time to help the less privileged.
Modesty	The degree to which a person is humble and self-effacing.
Tendermindedness	The tendency to have sympathy and concern for others.

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INDIVIDUAL PROFILE REPORT

PROFILE OVERVIEW

The profile below provides an overview of the Big Five Factors measured by the Basic Traits Inventory. These factors give an indication of the general personality styles people have that inform their everyday behaviour. These link to everyday attitudes, thoughts and behaviours. More specific behaviours are described by the facets measured by each factor.

INTERPRETATION GUIDELINES

The results are presented using T-scores, which have an average score of 50. Scores between 40 and 50 are low average, and scores between 50 and 60 are high average. Scores below 40 are seen to be very low, and scores above 60 are seen to be very high. There are strengths and weaknesses associated with both high and low scores, depending on the context, so any score must be interpreted with the context in mind.

The T-scores for the facets of the Basic Traits Inventory are presented on the next page. These facets provide an in-depth look into each of the Five Factors to give a better idea of the composition of the total score for each factor. The interpretation of the facet scores is done in the same way as the factor scores.

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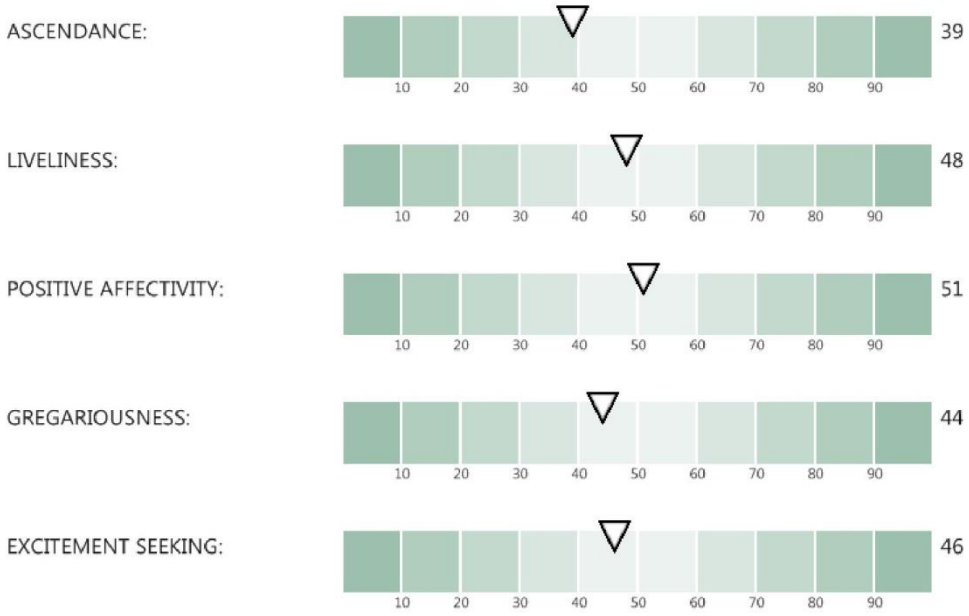
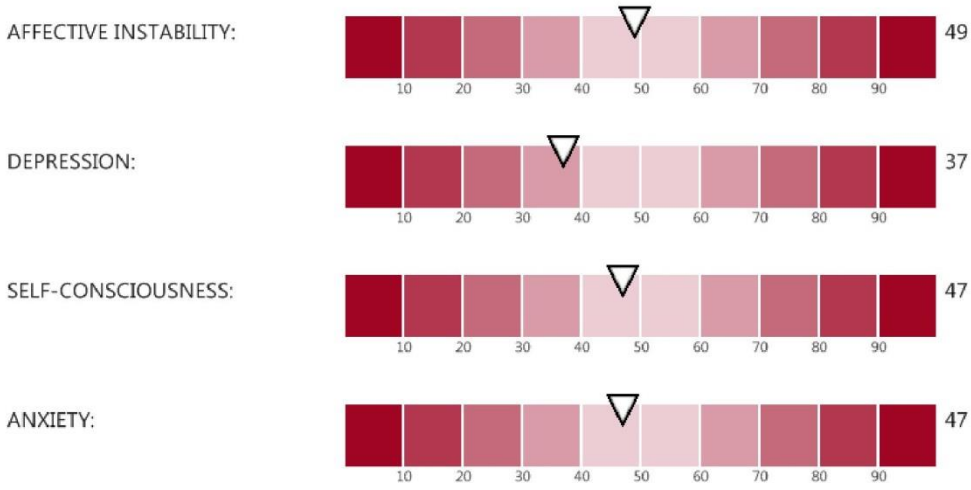
INDIVIDUAL PROFILE

EXTRAVERSION



NEUROTICISM



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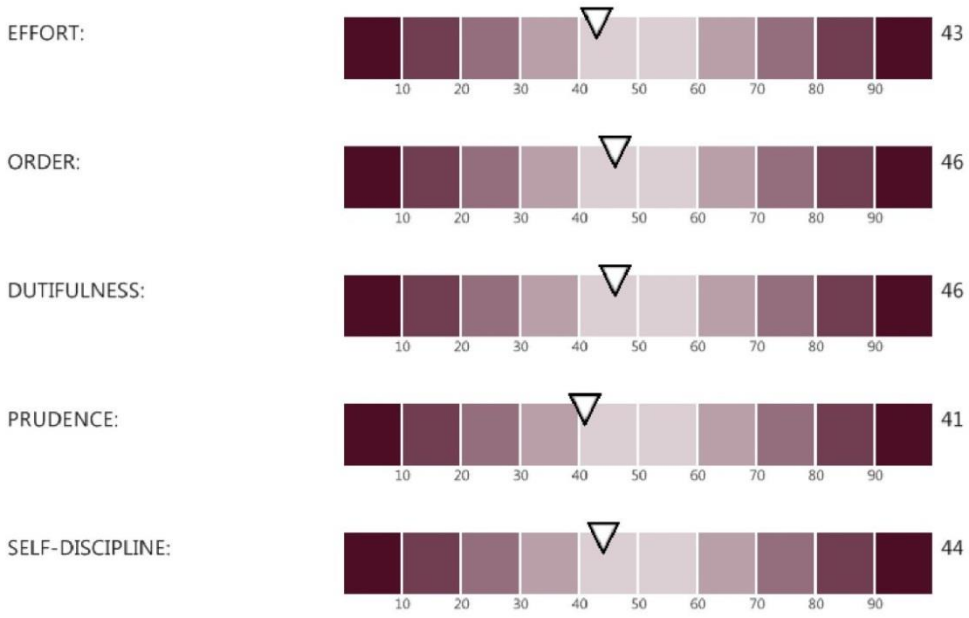
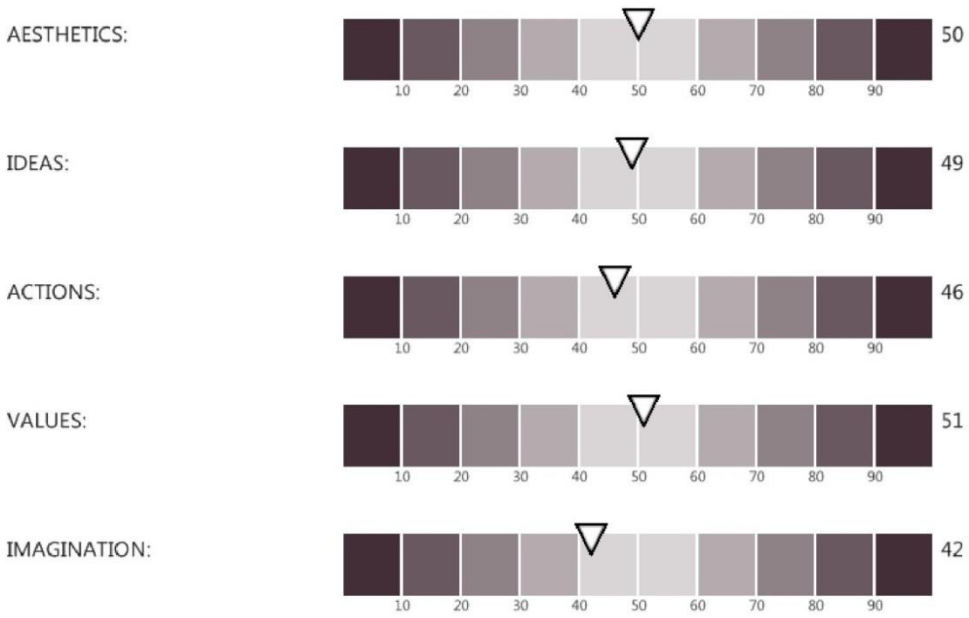
CONSCIENTIOUSNESS



OPENNESS TO EXPERIENCE



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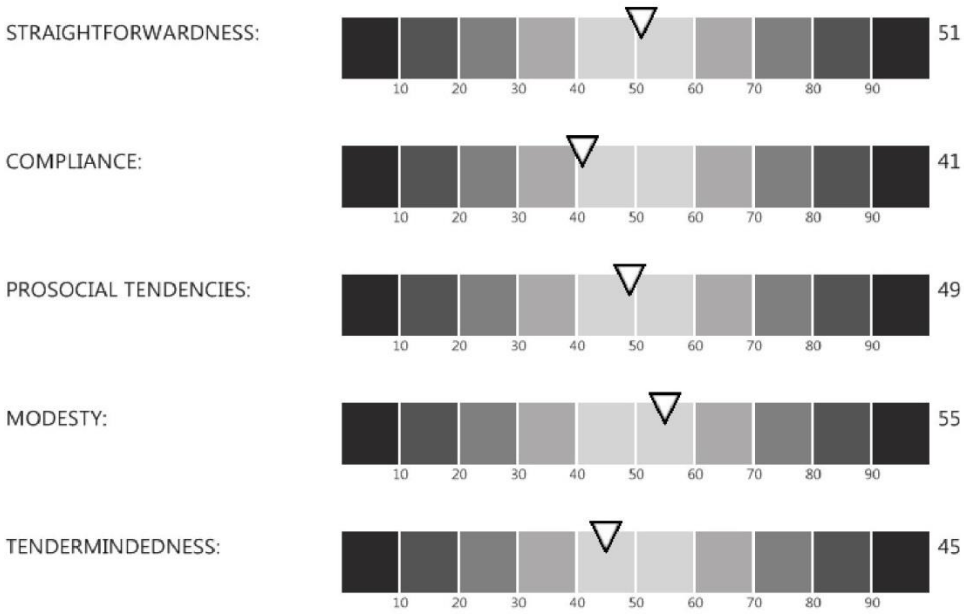
AGREEABLENESS



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COMPETENCY PROFILE: DESCRIPTION OF THE COMPETENCIES

CONSIDERATION / AWARENESS	
CONFLICT MANAGEMENT	The ability to effectively manage and resolve conflict situations in the workplace.
INTERPERSONAL SENSITIVITY	The ability to be empathetic towards the needs and feelings of others.
CLIENT RELATIONS	The ability to provide and maintain customer satisfaction.
TEAMWORK	A genuine intention to work collaboratively towards a common goal.

DRIVE	
DRIVE & COMMITMENT	The ability to stay with a position or plan of action until the desired objective is achieved or it is no longer attainable.

INFLUENCING OTHERS	
LEADING OTHERS	The ability to lead, inspire and empower others to work toward a desired goal.
NEGOTIATION	The ability to bargain between parties to reach an agreement.
PERSUASIVENESS	The ability to communicate in a convincing manner and to influence people.

ORGANISING AND PLANNING	
PLANNING, ORGANISING & CONTROL	The ability to establish courses of action for self and/or others.
TASK STRUCTURING	The ability to implement plans and monitor progress through to completion.

PROBLEM SOLVING	
JUDGEMENT & DECISION-MAKING	The ability to evaluate information and carefully consider a wide range of possibilities and implications when making sound decisions.

TOLERANCE OF STRESS / UNCERTAINTY	
ADAPTABILITY	The ability to maintain effectiveness when changes in the work environment take place.

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COMPETENCY PROFILE INTERPRETATION

Competencies are behaviours that, if done well, will result in effective on-the-job performance. The following graphs show the scores for each of the BTI competencies. The scores range from 1 to 4.

SUGGESTED INTERPRETATION OF SCORES IS PRESENTED BELOW:

SCORES 1 - 1.5: DEVELOPMENT REQUIRED

The candidate will probably require significant development to perform successfully in this area of competence.

SCORES 1.5 - 2.5: COACHING REQUIRED

The candidate would benefit from focused development to enhance overall performance on this competency.

SCORES 2.5 - 3.5: COMPETENT

The candidate would likely demonstrate consistent and effective behaviour in this area of competence.

SCORES 3.5 - 4: STRENGTH

The candidate would likely demonstrate a clear strength in this area of competence.

It is recommended that the results from this assessment be interpreted in combination with other information about the candidate when making selection decisions.

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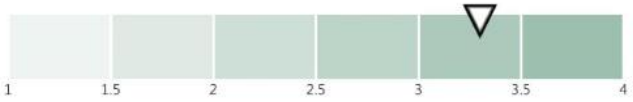
COMPETENCY PROFILE INTERPRETATION

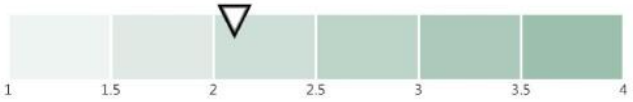
CONSIDERATION / AWARENESS OF OTHERS

CONFLICT MANAGEMENT: 2.8

INTERPERSONAL SENSITIVITY: 3.3



CLIENT RELATIONS: 2.1



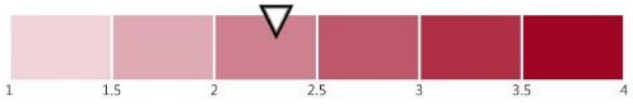
TEAMWORK: 2.3

DRIVE

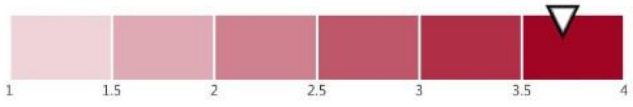
DRIVE & COMMITMENT: 2.3

INFLUENCING OTHERS

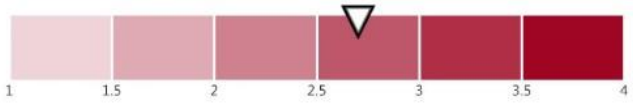
LEADING OTHERS: 2.3



NEGOTIATION: 3.7



PERSUASIVENESS: 2.7



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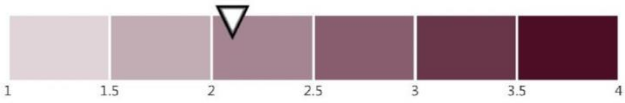
ORGANISING AND PLANNING

PLANNING, ORGANISING & CONTROL: 1.9

TASK STRUCTURING: 2.1

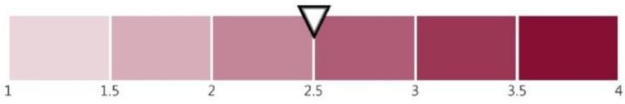


PROBLEM SOLVING

JUDGEMENT & DECISION-MAKING: 2.5

TOLERANCE OF STRESS / UNCERTAINTY

ADAPTABILITY: 2.5



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COUNSELLOR'S SECTION

CONFIDENTIAL REPORT

NAME: Janet Sample
GENDER: Female
REPORT DATE: 20/03/2013

The McCall's T-scores given below provide an indication of the respondent's standing on each of the factors and facets of the Basic Traits Inventory. Scores between 40 and 60 are within the average range. Stanines are also given for each factor and facet. The number of omitted items is provided for each scale. If there are 3 or more items missing for a facet, or over 10 items missing for a factor, the results should be interpreted with caution.

FACTOR	T-SCORE	STANINE	OMITTED
EXTRAVERSION	**43**	**4**	**0**
Ascendance	39	3	0
Liveliness	48	5	0
Positive Affectivity	51	5	0
Gregariousness	44	4	0
Excitement Seeking	46	4	0
NEUROTICISM	**45**	**4**	**0**
Affective Instability	49	5	0
Depression	37	2	0
Self-Consciousness	47	4	0
Anxiety	47	4	0
CONSCIENTIOUSNESS	**43**	**4**	**0**
Effort	43	4	0
Order	46	4	0
Dutifulness	46	4	0
Prudence	41	3	0
Self-Discipline	44	4	0
OPENNESS TO EXPERIENCE	**47**	**4**	**0**
Aesthetics	50	5	0
Ideas	49	5	0
Actions	46	4	0
Values	51	5	0
Imagination	42	3	0
AGREEABLENESS	**48**	**5**	**0**
Straightforwardness	51	5	0
Compliance	41	3	0
Prosocial Tendencies	49	5	0
Modesty	55	6	0
Tendermindedness	45	4	0
SD	**45**	**4**	**0**

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ITEM RESPONSES

1.	a	40.	d	79.	da	118.	a	158.	a
2.	a	41.	da	80.	a	119.	a	159.	a
3.	a	42.	d	81.	a	120.	a	160.	da
4.	d	43.	d	82.	a	121.	a	161.	a
5.	d	44.	d	83.	a	122.	da	162.	a
6.	d	45.	D	84.	a	123.	a	163.	a
7.	d	46.	D	85.	a	124.	da	164.	a
8.	a	47.	d	86.	a	125.	a	165.	d
9.	a	48.	d	87.	a	126.	da	166.	da
10.	da	49.	d	88.	a	127.	A	167.	d
11.	da	50.	d	89.	da	128.	D	168.	a
12.	da	51.	D	90.	a	129.	a	169.	d
13.	a	52.	D	91.	a	130.	a	170.	a
14.	a	53.	D	92.	da	131.	a	171.	a
15.	da	54.	d	93.	a	132.	da	172.	a
16.	a	55.	D	94.	a	133.	da	173.	a
17.	a	56.	D	95.	a	134.	a	174.	da
18.	a	57.	D	96.	da	135.	da	175.	a
19.	a	58.	d	97.	a	136.	da	176.	d
20.	a	59.	da	98.	a	137.	a	177.	da
21.	a	60.	d	99.	A	138.	da	178.	a
22.	a	61.	d	100.	A	139.	a	179.	a
23.	da	62.	d	101.	a	140.	a	180.	a
24.	da	63.	d	102.	a	141.	a	181.	a
25.	da	64.	da	103.	da	142.	d	182.	a
26.	da	65.	d	104.	a	143.	da	183.	a
27.	da	66.	d	105.	da	144.	da	184.	da
28.	a	67.	da	106.	da	145.	A	185.	a
29.	a	68.	d	107.	a	146.	A	186.	a
30.	da	69.	d	108.	da	147.	da	187.	a
31.	da	70.	d	109.	a	148.	a	188.	a
32.	d	71.	d	110.	a	149.	a	189.	da
33.	d	72.	d	111.	a	150.	a	190.	a
34.	d	73.	d	112.	a	151.	a	191.	a
35.	da	74.	d	113.	a	152.	da	192.	a
36.	d	75.	d	114.	da	153.	da	193.	da
37.	d	76.	d	115.	da	154.	da		
38.	d	77.	a	116.	da	155.	d		
39.	d	78.	da	117.	a	156.	a		

4%	Response D:	Strongly Disagree
21%	Response d:	Disagree
25%	Response da:	Neither Agree Nor Disagree
45%	Response a:	Agree
2%	Response A:	Strongly Agree

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