



16PF[®] Assessa Questionnaire

Manual Supplement 2015

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Introduction

This 16PF Assessa manual supplement complements “A guide to using the 16PF Psychological Risk Questionnaire and Psychological Screening Report for Overseas Filipino Workers (OFW) screening”. The results reported in the manual are based on research carried out by OPP during 2014. This manual supplement provides further evidence of the psychometric soundness of the instrument.

History of the 16PF Assessa Questionnaire

The 16PF Assessa Questionnaire is based on the 16PF Psychological Risk Questionnaire.

The 16PF Psychological Risk Questionnaire is available in two languages; US English and Filipino. The questionnaire is presented in two parts. Part I consists of the normal personality items that comprise the 16PF Fifth Edition Questionnaire, whilst Part II consists of mental health-oriented scales.

The 16PF Assessa Questionnaire is a shortened version of this questionnaire; it measures the same scales, but does so using fewer items per scale than in the 16PF Psychological Risk Questionnaire. It is also available in two languages; US English and Filipino.

The items exhibiting the best psychometric properties were retained for inclusion in the 16PF Assessa Questionnaire.

Stages of the development process

- **1999:** The development of the 16PF Psychological Risk Questionnaire was undertaken in US English. The most recently published version of the 16PF Questionnaire (the 16PF Fifth Edition) was used for Part I, the set of normal personality scales. The original mental health-oriented scales of the Clinical Analysis Questionnaire (CAQ), developed by Cattell and his colleagues (Cattell & Bjerstedt, 1967), were revised and restandardized to make up Part II.
- **2013:** The Filipino version of the 16PF Psychological Risk Questionnaire was created. Part I comprised the existing Filipino version of the 16PF Questionnaire (Fifth Edition). Part II comprised a translated version of Part II of the US English Questionnaire, with the addition of extra research items.
- **2013:** Part II of the 16PF Psychological Risk Questionnaire was launched as a standalone measure of mental health-oriented scales (in Filipino and US English). This was named the 16PF Mental Health Questionnaire.
- **2013-2014:** Research data was gathered from Overseas Filipino Worker (OFW) applicants for the US English and Filipino versions of the 16PF Questionnaire and the 16PF Mental Health Questionnaire.
- **2014-2015:** The research data was analysed and used to create the 16PF Assessa Questionnaire (in US English and Filipino).

Sample

The samples of respondents whose data were used to develop the 16PF Assessa questionnaire are described in Table 1. All respondents were Overseas Filipino Worker (OFW) applicants, who completed either the 16PF Questionnaire or the 16PF Mental Health Questionnaire between 2013 and 2014.

It should be noted that, due to the way the data was collected, each sample comprised a different group of individuals. However, as can be seen from the table, the demographic composition of each sample was largely similar, although those taking the questionnaires in English tended to be more highly educated.

Table 1: Sample characteristics.

	Filipino		US English	
	Part I	Part II	Part I	Part II
Total sample size	2,306	2,467	322	785
Females	1,459 (63%)	1,518 (62%)	180 (56%)	402 (51%)
Males	847 (37%)	949 (38%)	142 (44%)	383 (49%)
Mean age	31	32	29	30
Max age	61	58	52	60
Min age	15	15	18	15
College Graduate (or higher)	31%	27%	88%	71%
College Undergraduate	27%	29%	9%	20%
High School Graduate	28%	30%	2%	6%
High School Undergraduate	8%	8%	1%	<1%
Elementary Graduate	4%	5%	0%	<1%
Elementary Undergraduate	1%	1%	0%	0%
No Grade Completed	<1%	<1%	0%	2%

Descriptive statistics

Statistical information (mean and standard deviation) for the OFW applicant samples can be found in Tables 2 and 3.

Table 2. Raw score means and standard deviations for 16PF Assessa Part I scales

Primary Factor		Filipino version (n=2,306)			US English version (n=322)		
		No. of items	Raw score Mean (SD)	Sten Mean (SD)	No. of items	Raw score Mean (SD)	Sten Mean (SD)
A	Warmth	7	8.3 (3.3)	5.4 (1.9)	7	9.6 (3.3)	5.4 (1.7)
B	Reasoning	7	2.0 (1.8)	5.0 (1.8)	7	3.4 (1.9)	5.4 (1.9)
C	Emotional Stability	7	10.7 (2.7)	5.5 (1.9)	7	10.7 (3.1)	5.3 (1.6)
E	Dominance	7	9.3 (3.0)	5.5 (2.0)	7	10.4 (2.6)	5.5 (1.9)
F	Liveliness	7	7.9 (3.0)	5.6 (2.0)	7	7.9 (3.5)	5.5 (2.1)
G	Rule-Consciousness	7	11.6 (2.5)	5.1 (1.6)	7	9.5 (2.6)	5.4 (1.8)
H	Social Boldness	7	8.1 (3.4)	5.3 (2.0)	7	9.1 (4.0)	5.2 (1.9)
I	Sensitivity	7	7.7 (3.2)	5.6 (2.0)	7	8.3 (3.8)	5.7 (1.9)
L	Vigilance	7	7.0 (2.8)	5.5 (1.8)	7	9.5 (3.0)	5.4 (1.9)
M	Abstractedness	7	4.7 (3.3)	5.4 (1.7)	7	2.4 (2.7)	5.8 (1.7)
N	Privateness	7	5.0 (3.0)	5.4 (1.7)	7	7.3 (3.2)	5.6 (1.8)
O	Apprehension	7	6.6 (3.4)	5.3 (1.8)	7	8.1 (3.2)	5.3 (1.9)
Q1	Openness to Change	7	7.6 (3.0)	5.6 (1.9)	7	8.2 (3.0)	5.3 (1.8)
Q2	Self-Reliance	7	6.7 (3.4)	5.4 (2.0)	7	3.3 (3.1)	5.4 (1.9)
Q3	Perfectionism	7	12.0 (2.5)	5.0 (1.3)	7	11.1 (2.8)	5.2 (1.8)
Q4	Tension	7	4.1 (3.4)	5.7 (1.8)	7	4.3 (3.5)	5.2 (1.8)
Global Factor							
EX	Extraversion	(-)	(-)	5.5 (1.7)	(-)	(-)	5.5 (1.7)
IN	Independence	(-)	(-)	5.5 (1.7)	(-)	(-)	5.4 (1.7)
TM	Tough-Mindedness	(-)	(-)	5.5 (1.4)	(-)	(-)	5.6 (1.6)
SC	Self-Control	(-)	(-)	5.2 (1.3)	(-)	(-)	5.2 (1.5)
AX	Anxiety	(-)	(-)	5.6 (1.8)	(-)	(-)	5.5 (1.8)

Table 3. Raw score means and standard deviations for 16PF Assessa Part II scales

Scale		Filipino version (n=2,467)			US English version (n=785)		
		Number of items	Raw score Mean (SD)	Sten Mean (SD)	Number of items	Raw score Mean (SD)	Sten Mean (SD)
Mental Health Indicators							
PS	Psychological Inadequacy	7	3.8 (2.8)	5.4 (1.9)	6	3.7 (3.0)	5.6 (1.8)
HC	Health Concerns	7	3.0 (2.6)	5.5 (1.9)	6	2.3 (2.6)	5.7 (1.6)
ST	Suicidal Thinking	7	1.8 (2.3)	5.5 (1.6)	7	2.6 (2.4)	5.4 (1.9)
AD	Anxious Depression	7	3.9 (3.2)	5.6 (1.8)	7	2.8 (2.7)	5.8 (1.7)
LE	Low Energy State	7	2.8 (2.6)	5.8 (1.6)	7	2.9 (2.7)	5.7 (1.6)
SR	Self-Reproach	6	3.4 (2.5)	5.6 (1.7)	7	3.0 (2.6)	5.4 (1.9)
AW	Apathetic Withdrawal	7	3.1 (2.5)	5.6 (1.9)	7	2.0 (2.2)	5.7 (1.6)
PI	Paranoid Ideation	6	3.3 (2.4)	5.7 (1.6)	7	4.1 (2.9)	5.6 (1.8)
OT	Obsessional Thinking	6	3.4 (2.1)	5.3 (2.0)	7	4.6 (2.8)	5.6 (1.9)
AP	Alienation & Perceptual Distortion	7	2.3 (2.4)	5.8 (1.6)	7	4.3 (3.0)	5.5 (1.8)
TS	Thrill-Seeking	7	7.0 (2.6)	5.5 (2.0)	7	5.6 (3.1)	5.5 (2.0)
TI	Threat Immunity	7	8.4 (3.2)	5.4 (1.8)	6	8.6 (2.6)	5.3 (1.8)
Coping Factors							
EC	Response to Emotional Challenges	(-)	(-)	5.4 (2.0)	(-)	(-)	5.5 (2.0)
RR	Reliability and Responsibility	(-)	(-)	5.0 (1.6)	(-)	(-)	5.2 (1.9)
DM	Decision Making	(-)	(-)	4.9 (2.0)	(-)	(-)	5.4 (2.0)
IR	Interpersonal Relationships	(-)	(-)	5.3 (1.9)	(-)	(-)	5.3 (2.0)

Reliability

Reliability gauges the consistency of test results. As a generic term, it relates to a number of different aspects of consistency. Essentially, a reliable test yields the same approximate results when administered repeatedly under similar conditions. Reliability is relevant as it describes how accurately an instrument measures the construct. It is closely related to measurement error. The higher the reliability, the smaller the band width around the observed score. It is within this band width that a person's true score is most likely to be.

The aspect of reliability addressed here is that of internal consistency, or homogeneity, of the test items, as measured by Cronbach's coefficient alpha (Cronbach, 1951). Internal consistency of the 16 factors measured by the 16PF questionnaire reflects the degree to which that set of scale items is sampling the same personality domain. In statistical terms, internal consistency reliability displays how large the intercorrelation is between the items that make up each of the 16 personality scales. Cronbach's coefficient alpha essentially calculates the average value of all possible split-half reliabilities. Internal consistency can be viewed as reliability estimated from a single test administration. As the intercorrelations among items within a scale increase, reliability of the scale itself increases. Internal consistency is lowered to the degree that items on the same scale measure different traits, or to the extent that scale items are not intercorrelated. However, it needs to be noted that – even though a high reliability coefficient is desirable – it can also lead to a scale that is too narrow in measuring a construct.

Cronbach alpha coefficients for the 16PF Assessa questionnaire were calculated based on the sample of Filipino respondents described above. Tables 4 and 5 present the coefficients for each primary scale.

Two aspects need to be taken into consideration when judging the obtained reliability coefficients.

Firstly, as mentioned earlier, reliability is dependent on the breadth of the measured construct. The 16PF Assessa factors measure distinct constructs. Nevertheless, when measuring the factors of personality, several behavioural preferences related to the construct are covered in the items constituting one factor. For example, the items of the factor Warmth (A) do not only cover the extent to which a person cares about others, but also how much a person is interested in spending time with others as well as in talking about other people's personal concerns. Making the scale more reliable by removing aspects of the constructs (ie including items about only a restricted number of behavioural preferences per scale) would mean that the construct is not accounted for in its whole range. In other words, one would increase reliability at the expense of measuring the construct adequately.

Secondly, the 16PF Assessa instrument is a personality questionnaire. Personality questionnaires are usually based on self-reports and thus measure typical behaviour. Reporting on typical behaviour rather than displayed behaviour, as is the case with ability tests, introduces more variance in the responses provided by an individual (Chernyshenko, Stark, Chan, Drasgow, & Williams, 2001), thus lowering the reliability. In addition, when judging the reliability coefficients, the application of the questionnaire needs to be considered.

Table 4. Internal consistency for 16PF Assessa Part I scales

		Filipino version (n=2,467)		US English version (n=322)	
	Primary Factor	Number of items	Cronbach's alpha	Number of items	Cronbach's alpha
A	Warmth	7	.48	7	.58
B	Reasoning	7	.69	7	.63
C	Emotional Stability	7	.44	7	.62
E	Dominance	7	.40	7	.37
F	Liveliness	7	.41	7	.58
G	Rule-Consciousness	7	.49	7	.46
H	Social Boldness	7	.56	7	.75
I	Sensitivity	7	.44	7	.60
L	Vigilance	7	.29	7	.47
M	Abstractedness	7	.55	7	.59
N	Privateness	7	.38.	7	.54
O	Apprehension	7	.49	7	.48
Q1	Openness to Change	7	.39	7	.40
Q2	Self-Reliance	7	.56	7	.63
Q3	Perfectionism	7	.57	7	.56
Q4	Tension	7	.61	7	.66

Table 5. Internal consistency for 16PF Assessa Part II scales

		Filipino version (n=2,306)		US English version (n=785)	
	Primary Factor	Number of items	Cronbach's alpha	Number of items	Cronbach's alpha
PS	Psychological Inadequacy	7	.65	6	.68
HC	Health Concerns	7	.63	6	.70
ST	Suicidal Thinking	7	.69	7	.65
AD	Anxious Depression	7	.70	7	.65
LE	Low Energy State	7	.65	7	.62
SR	Self-Reproach	6	.64	7	.60
AW	Apathetic Withdrawal	7	.56	7	.58
PI	Paranoid Ideation	6	.57	7	.62
OT	Obsessional Thinking	6	.42	7	.58
AP	Alienation & Perceptual Distortion	7	.63	7	.63
TS	Thrill-Seeking	7	.45	7	.55
TI	Threat Immunity	7	.56	6	.51

Summary

The results reported in this 16PF Assessa manual supplement provide good evidence of the instrument's psychometric qualities. Users of the questionnaire can be confident that the instrument remains a reliable and valid tool for the objective assessment of personality.

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