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# **Literate test takers plus equipped test users equal useful 16PF profiles**

**by Cas H. Prinsloo**

**Paper presented on 18 August 2000 at the  
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Centre, Johannesburg.**

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$$\xi_{ij\phi\dots n} + \beta_{ab\eta\dots n} + (?) = \text{📄} \checkmark$$

**Black box?**

**...or**

**Good results as a function of  
test taker, test user and  
other known factors?**

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## **Testing under conditions with special cross-cultural implications**

- **Brief: Isolate the effects of test language, home language and culture**
- **Can score differences be attributed to instrument “deficiencies” or true trait differences?**

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## **Literate test takers** **(What does it mean?)**

### **Two core aspects:**

- **Mastery of test situation**
- **Mastery of test language**

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## **Mastery of test situation (being “test wise”)**

- **anxiety (>)**
- **computer literate**
- **able to code answers**
- **self-discipline**
- **motivation**  
**(high/low stakes)**

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## **Mastery of test language (or content)**

- **Mainly English nowadays?  
(world of work)**
- **14- to 16-year olds'  
newspaper reading level**
- **Gr 12 pass of 2<sup>nd</sup> language  
HG or 66% at LG  
(RAU research data; <  
2-8 %)**
- **Culturally appropriate  
items**

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- **Current HSRC research #**
  - **Proficiency test**
  - **Synonyms test**
  - **Additional feedback**
  
- **Retest on same test takers with two languages**

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## Equipped test users (What does that mean?)

### Two kinds of equipment:

- **Internal**
- **External**



## **Equipment “internal” to the test user**

- **MA-level training (including practical work)**
- **Motivation to test well**
- **Psychometrics wise**
- **Research methodology**
- **Scientifically literate**
- **Skills and understanding to match own needs and product characteristics**

## Equipment “external” to the test user

- **Consultancy, advice and service from experts**
- **Technical and user manuals**
- **Other (“I’ve gone on a mission lately to explain methodological issues”)**
  - **IIR paper**
  - **SIP paper**
  - **Article submitted**

## **Test user and test producer interface** (IIR conference 1/3 & 23/6/99)

- **Fair personality assessment (defined & contextualised)**
- **Integrated meta-picture**
- **Uses/applications of tests (Why? Where? How?)**
- **Controlling bodies, acts, guidelines and codes**
- **User and producer domains and responsibilities**
- **Other roleplayers**

## **Methodology issues in personality assessment**

**(SIP congress 9/6/2000)**

- **Background to research or instrument development (previous findings/theory)**
- **Method per se**
  - **sample/target population**
  - **instruments (validity)**
  - **procedures**
- **Reporting the findings**
- **Discussing the findings**
- **Conclusions and recommendations**

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## **Personality assessment res. & instrument dev. in the changing SA policy context** (article submitted)

- **Reasons and purposes**  
(statutory push and best practice pull)
- **Roleplayers/obligations**  
(test publishers and test users)
- **Core issues (SA92/16PF 5®)**  
(means, reading proficiency,  
samples, statistics, manuals)
- **Current position and  
future intentions (further  
instrument development,  
fieldwork, analyses)**
- **Conclusions (nuanced and  
rational)**

**Illustration/progress w.r.t. recent 16PF(5)© data  
(→ acid test on whether or not profiles would allow valid and practical use)**

- **Some statistics (frequency distributions, means, SDs, etc. to describe data in a preliminary, work-in-progress way)**

## Frequency distributions

- **N=716**
- **m=409, f=306**
- **75 < Afr/Eng/Zulu/NS/  
SS/Tsw < 175**
- **<=20=48%; 21-31=40%**
- **Std 10=502; 150=post-gr**
- **Stu.=55%, workers=rest**
- **Black=68%, white=29%**

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## Means and SDs

	<u>Sc. m(409)</u>	<u>f(306)</u>	<u>Bl(447)</u>	<u>Wh(189)</u>	<u>AvSD</u>
A	12,50	15,25	13,08	14,54	4,6
B	6,91	8,06	5,91	10,13	2,6
C	13,38	13,29	13,08	13,85	4,1
E	14,51	13,66	14,34	13,49	3,8
F	11,67	11,93	10,95	12,97	4,4
G	13,88	14,68	14,35	14,10	4,1
H	11,11	9,91	10,87	9,52	5,6
I	9,08	14,57	10,17	13,71	4,7
L	14,46	13,72	14,54	12,98	3,7
M	9,85	9,17	9,84	8,71	4,5
N	10,66	10,97	10,11	12,11	4,5
O	11,99	13,59	12,61	12,88	4,3
Q1	18,83	18,70	18,79	18,60	4,3
Q2	7,22	7,61	6,99	8,30	5,9
Q3	14,13	14,24	14,69	13,58	3,9
Q4	9,03	10,43	8,98	11,03	4,6



## Alpha coefficients

<u>Factor</u>	<u>Total (716)</u>	<u>Bl(447)</u>	<u>Wh(189)</u>
A	0,65	0,57	0,75
B	0,73	0,46	0,70
C	0,63	0,60	0,66
E	0,58	0,53	0,64
F	0,67	0,62	0,72
G	0,59	0,54	0,69
H	0,79	0,72	0,87
I	0,66	0,50	0,78
L	0,54	0,41	0,68
M	0,62	0,55	0,71
N	0,67	0,55	0,78
O	0,57	0,39	0,75
Q1	0,42	0,39	0,53
Q2	0,74	0,70	0,79
Q3	0,61	0,48	0,71
Q4	0,69	0,62	0,74

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## Factor structure

Blacks: Rotation Method - Promax

<u>Fact</u>	<u>Extr.</u>	<u>Self-c.</u>	<u>Anxiety</u>	<u>Indep.</u>	<u>Tough-m.</u>
A	<b>-0,27</b>	0,07	-0,05	0,05	<b>0,45</b>
B	0,10	-0,20	-0,20	0,04	-0,17
C	-0,02	0,19	<b>-0,53</b>	0,16	0,04
E	0,09	0,10	-0,05	<b>0,56</b>	0,01
F	<b>-0,42</b>	<b>-0,45</b>	0,03	0,21	0,04
G	-0,11	<b>0,67</b>	0,15	-0,03	0,07
H	<b>-0,34</b>	0,01	0,16	<b>0,35</b>	0,02
I	0,06	-0,06	0,02	-0,12	<b>0,55</b>
L	0,27	-0,02	<b>0,29</b>	<b>0,26</b>	-0,06
M	0,22	<b>-0,29</b>	0,25	0,02	<b>0,04</b>
N	<b>0,54</b>	-0,02	0,02	-0,05	0,01
O	-0,12	0,19	<b>0,64</b>	0,00	0,02
Q1	-0,12	-0,02	0,09	<b>0,40</b>	<b>-0,13</b>
Q2	<b>0,72</b>	-0,03	-0,16	0,00	0,01
Q3	0,11	<b>0,63</b>	0,09	0,25	0,01
Q4	0,29	-0,32	<b>0,21</b>	0,12	0,16

## Total group

Fact	Extr.	Self-c.	Anxiety	Indep.	Tough-m.
A	<b>-0,43</b>	0,09	0,06	0,08	<b>0,42</b>
B	0,22	-0,13	-0,25	0,04	0,43
C	-0,01	0,14	<b>-0,61</b>	0,11	0,07
E	0,04	0,17	-0,02	<b>0,59</b>	-0,05
F	<b>-0,28</b>	<b>-0,34</b>	-0,01	0,25	0,21
G	-0,06	<b>0,57</b>	-0,04	-0,03	0,06
H	<b>-0,40</b>	0,03	-0,18	<b>0,36</b>	-0,08
I	0,04	-0,06	0,15	-0,04	<b>0,60</b>
L	0,17	0,03	<b>0,39</b>	<b>0,19</b>	-0,23
M	0,09	<b>-0,32</b>	0,42	0,07	<b>0,08</b>
N	<b>0,64</b>	0,03	-0,00	-0,00	0,08
O	-0,13	0,15	<b>0,62</b>	-0,07	0,12
Q1	-0,03	-0,02	0,03	<b>0,40</b>	<b>0,06</b>
Q2	<b>0,71</b>	0,04	-0,05	-0,00	0,07
Q3	0,10	<b>0,63</b>	0,04	0,18	-0,06
Q4	0,36	-0,13	<b>0,27</b>	0,14	0,21

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## Correlation between English proficiency and factor scores

- **Amongst Blacks: only C, O & M showed slight correlation (around +/- 0,17) with Synonyms test total**
- **Amongst Whites: only L showed slight correlation (-0,24) with Synonyms test total**

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**In conclusion:**

- **1st steps to compare American and SA English versions**
- **Last par. of abstract (proficiency assessment: never on home lang test takers; USA not such an issue as here)**
- **Revisit criteria?**
- **Over-sensitised research participants @ intuitive responses?**
- **Data please: joint post-gr. research programme**