



Personality and Assessment Development Centres in South Africa

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Stellenbosch March 2007

> Outline

- Career Milestones and Assessment Milestones
- Occupational Personality Questionnaire (OPQ) in South Africa and Globally
- Assessment Centre Validity Trends
- Assessment Centres and Personality
- Conclusions

> South African Railways (SAR) or SAS 1979



- Assessment of Train drivers
- Air hostesses
- Managers

> University of South Africa (UNISA) 1983



- Lecturing Personnel Psychology
- Guion and Gotter (1965)
Personnel Psych. " ..it must be concluded that, taken as a whole, there is no generalizable evidence that personality measures can be recommended as good practical tools for employment selection" (p.159)
- Hunter and Hunter (1884)
- Schmitt, Gooding, Noe, Kirsch (1984)
- Thornton and Byham (1982)

> Revisiting Validity

Validity Coefficients of Predictors

Predictor	Studies	Validity
Job tryout	20	,44
Biographical inventory	12	,37
Experience	425	,18
Interview	10	,14
Training and experience	65	,13
Academic achievement	11	,11
Education	425	,10
Age	425	-,01

Hunter and Hunter (1984)

> Revisiting Validity

Validity Coefficients of Predictors

Predictor	Studies	Validity
Special aptitude	31	,27
Personality	62	,15
Mental ability	53	,25
Bio data	99	,24
Work sample	18	,38
Assessment centre	21	,41
Supervisor / peer evaluations	31	,43
Physical ability	22	,32

Schmitt, Gooding, Noe, Kirsch (1984)

> Colorado State University (CSU) 1989



- Gaugler, Rosenthal, Thornton (1987)
50 studies, N=4180
Mean Validity of AC and OAR = 0.36
- SIOP and DDI Assessment Center Conference
- SHL and the Occupational Personality
- Criterion Referenced Personality Questionnaires
*Democratic, Controlling, Data rationale, Detail
Conscious*



- Barrick and Mount (1991) The Big Five: Personality is OK!
- The OPQ in South Africa
- Reliability and Language Proficiency
- OPQ Concept Model UK vs. SA versions
- Global development of the OPQ32 (2000)
- Culture fairness studies

> Recent Study: April 2006

Kriek & Joubert (SHL SA) and Brown SHL Group (SHL Report, 2006)

Sample

- Collected data from various South African companies using the OPQ32i as part of normal HR practice and consulting projects over the last 4 years
- Sample contained 20132 respondents
 - 9103 African
 - 2087 Asian
 - 3177 Coloured
 - 5765 Whites
- Home language for only 12867 known
 - 3495 English (Indians and Whites)
 - 3836 Afrikaans (Coloured and Whites)
 - 2965 Nguni (Zulu, Xhosa, Swati and Ndebele)
 - 2571 Sotho (North Sotho, South Sotho and Tswana)

> Findings

- Subgroup mean reliabilities
 - Race mean alpha 0,66 - 0,78
 - Language mean alpha 0,64 - 0,77
- Subgroup Mean Differences
 - Race: The highest d statistic is a moderate effect size $d = 0.48$ on Decisive, and $d = 0.40$ on Controlling and Forward Thinking.
6 out of 32 Scales $d > 0.30$
 - Language: The highest d statistic is a moderate effect size $d = 0.46$ on Forward Thinking
- Subgroup Construct Equivalence
 - A comparison of covariance structures was carried out using Structural Equation Modelling with EQS

> Conclusion

- The analysis suggests that the pattern of relationships between scales can be considered the same for Race and Language groups.
- Analysis of covariance structures for the sets of data suggest that these can be considered to be samples from the same population of scale relationships.
- The evidence supports Construct Equivalence of the OPQ32i in South Africa for Race and Language Groups.

> General Conclusions and Recommendations

- By refining items and using more basic English language, reliabilities of second language users increased
- Use of a minimum language proficiency hurdles in the assessment of second language users help control the reliability of personality assessments
- Work related Personality Questionnaires (COPS) seems to produce better cross cultural results than more clinical or broad based general personality questionnaires

> OPQ Validity a Meta-Analysis of Global Studies

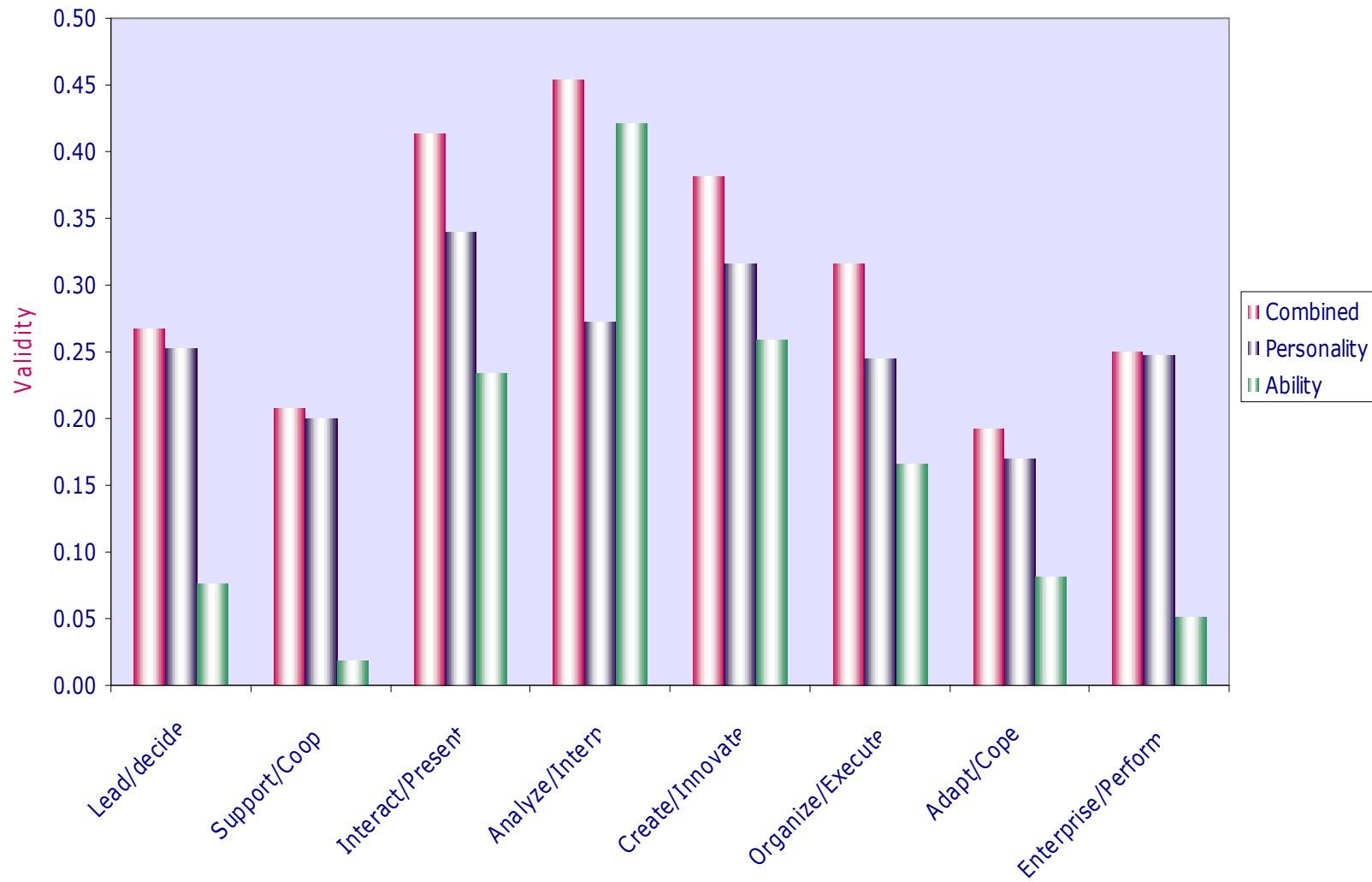
Bartram, D (2005) The Great Eight Competencies:
A Criterion-Centric Approach to Validity.
Journal of Applied Psychology, 90(6), 1185-1203

> OPQ Meta-Analytical Study

Based on 29 validation studies (n=4861) which:

- 11 Countries including SA
- Include personality and/or ability measures
- Line-manager competency ratings of performance
- Overall job performance and/or promotability ratings (6-item manager-rating scales)
- Competency models mapped to Great 8
- Predictors mapped to Great 8

> Great 8 operational validities



> Key findings from the meta-analysis

- Together, Ability and Personality-based predictors correlated between 0.20 and 0.45 with G8 competency ratings.
 - Ability adds to value of Personality for 3 or 4 of the 8 competencies, not all.
- In combination the relationship between all eight of the Great Eight predictors and criteria is $R=0.56$

> Reasons for Higher validities

- Ones and Viswesvaran (2001) reviewed “criterion-focused occupational questionnaires” (COPS) in selection and found higher validities than more general personality questionnaires
- Hunthausen et al. (2003) found instruments with a clear “work related frame of reference” (FOR) yield higher validities than more general
- OPQ inventories cover a wider range of work related personal attributes than personality theory focused inventories such as the five factor model

> Assessment Centres: a recent Meta-Analysis (2007)



- Hermelin, Lievens & Robertson (2007) BPS Occupational Psychology Conference
26 Studies, N = 5850
Mean Validity of AC and OAR = 0.28
- More pre-selection than in 1985
- Observed correlations of abilities = 0.10 also highlight possible indirect range restriction

> Conclusions of this study



- The level of criterion related validities obtained raises questions over the expense involved in the design and delivery of Assessment Centres

> Relationship between Assessment Centres and Personality Inventories: Meta-Analysis

- Collins, Schmitt, Sanchez-Ku, Thomas, McDaniel, Le (2003)
- 425 Articles reviewed, 80 correlations, N=9738
- Cognitive Abilities and Personality are Primary Correlates of Overall Assessment Ratings (OAR)
- Average Construct Level Correlations:

<i>Cognitive Ability</i>	<i>0.67</i>
<i>Extraversion</i>	<i>0.50</i>
<i>Emotional Stability</i>	<i>0.35</i>
<i>Openness</i>	<i>0.25</i>
<i>Agreeableness</i>	<i>0.17</i>
- Multiple R = 0.84

> Conclusions of this study

- Personality and Ability substantially effect the OAR of AC's
- Paper and pencil assessments can be a economically and psychometrically viable substitute for AC's, at least for selection

> In Summary

- COPS and FOR
- Abilities plus Personality increase validity
- Indirect Range Restriction the AC
- Band Width vs. Fidelity
- Development Centres and Assessment Centre Technology
- Need to broaden our Criterion measures not only Performance or Task based assessments
- The use of the internet is the new frontier for Personality and Ability Assessments. It can be even more cost effective but can still be Psychometrically accountable