


# CONSTRUCT VALIDITY OF COMPETENCY DIMENSIONS IN A TEAM LEADER ASSESSMENT CENTRE

The title is centered and overlaid on a background of five light purple circles. One circle is partially behind the word 'ASSESSMENT', another is behind 'CENTRE', and a third is behind 'A TEAM LEADER'. There are also two empty circles below the title.

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# Objective

- The aim of the study was to examine the construct validity of an assessment centre for call centre team leaders
- It made sense to look at the most basic level of validity for this particular model and to ascertain if the exercises were measuring the dimensions as originally intended



# Assessment Centres explained

- Measures a set of performance related traits/dimensions, e.g. flexibility, persuasiveness and interpersonal sensitivity
- Adopts a multi-method multi-trait multi-rater approach, i.e. various selection exercises are used where multiple dimensions are observed and measured by more than one assessor
- Can be seen as a dimension based model

## Dimensions measures in an Assessment Centre

	Structured Interview	Group Exercise	Role Play	Case Study	Verbal Ability VC1.1	Numerical Ability NC2.1
Analytical thinking				X	X	X
Business and commercial awareness		X		X		
Forward thinking	X			X		
Influencing and persuading		X	X	X		
Motivating others		X	X			
Customer focus	X			X		
Developing others	X		X			
Driving results through others	X		X			
Self control	X	X	X	X		



# Assessment Centres explained

- Widely used in selection, placement, succession planning and development of managers
- Objective and non discriminatory
- Focus on performance related traits or dimensions and not specific skills, which may be affected by past opportunities

# Issues surrounding Assessment Centres



- Do the benefits outweigh the costs?
- Method variance : a major concern in looking at construct validity

# Method Variance explained

Competency Dimensions	Exercises		
	Case Study	Group Exercise	Presentation
Strategic Thinking	A1	A2	A3
Self Control	B1	B2	B3

**Convergent Validity**  
(different method, same trait)

**Discriminant Validity**  
(different traits, but same or different methods)

# What others have found



- Lance, Foster, Gentry and Thoresen (2004). Assessors form a general impression during a specific exercise and then derive specific dimension ratings
- Gaugler and Thornton (1989). Number of dimensions might overload assessors and collapse the number of dimensions that they are measuring
- Lievens and Conway (2001). Move from dimension to exercise based model

# The present study aimed to answer the following questions

- 1. Do the dimensions exhibit convergent validity? (i.e. are high correlations found for each dimension across the various exercises?)
- 2. Do the dimensions exhibit discriminant validity?(i.e. are there low correlations between the dimensions?)
- 3. Can the dimensions be meaningfully clustered into a smaller number of dimensions? For example, can the dimensions be clustered into problem solving and interpersonal dimensions as found by other researchers?

# Design and Method



- Sample :138 individuals who participated in a one-day call centre team leader assessment centre
- Selection and development
- The sample included both males and females and all population groups were represented
- Nine competency dimensions were rated using six exercises

# Design and Method cont...



- The nine dimensions were derived from a job profiling exercise involving three large insurance organisations
- Behavioural anchors were then assigned to the dimensions
- The behavioral anchors allowed for performance on a particular dimension to be rated according to a five-point scale

# Design and Method cont...



The dimensions measured included:

- Analytical thinking and decision making
- Business and commercial awareness
- Forward thinking
- Decision making
- Influencing and persuading
- Motivating others
- Customer focus
- Developing others
- Driving results through others
- and Self control

# Design and Method cont...



- The exercises were diverse and included a :
  - case study
  - leaderless group exercise
  - role play
  - structured interview
  - verbal ability assessment and
  - numerical interpretation assessment

# Design and Method cont...



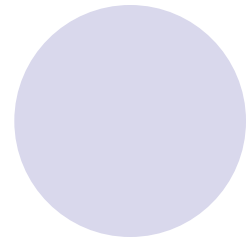
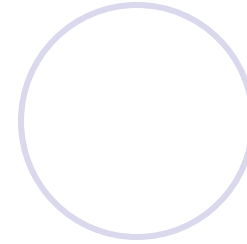
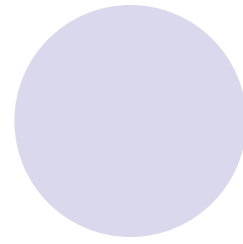
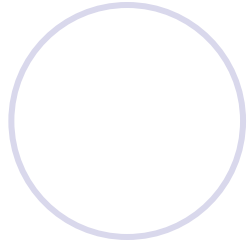
- The assessors consisted of call centre managers and HR practitioners
- Training focused on general assessment skills of observing, recording, categorising and evaluating observed behaviour. All assessors were also taught how to avoid rating errors
- Assessors were taught to make behavioural descriptions of the participants' behaviour. Next, assessors were tasked with defining the dimensions and then classifying and rating behaviours per dimension

# Design and Method cont...



- In each exercise assessors were required to observe and record behaviour and thereafter rate the behaviour on a five-point scale
- Final ratings were then made by a group of assessors based on the combined ratings of all dimensions at the end of each assessment centre

Results



## Construct validity

- Convergent validity
- Discriminant validity
- Clustering of dimensions – factorial validity

# Convergent validity



- To demonstrate convergent validity, one would expect high intercorrelations between all the exercises used to assess any one dimension
- The results obtained did not provide conclusive evidence of construct validity overall, because several intercorrelations were low

# Convergent validity cont...

- 'Good' results, providing strong evidence of convergent validity were obtained for the Analytical Thinking and Motivating Others dimensions only
- For example, .....

<b>Forward thinking</b>	Interview	Case study
Interview	<b>1.00</b>	
Case study	<b>.05</b>	<b>1.00</b>

# Correlations for Self Control

<b>Self control</b>	Interview	Role play	Group exercise	Case study
Interview	-			
Role play	.08	-		
Group exercise	.19	.22	-	
Case study	.10	.35	.24	-

# Discriminant validity



- To demonstrate discriminant validity, one would expect low intercorrelations between the dimensions as assessed by any one exercise.
- The results obtained did not provide conclusive evidence of discriminant validity overall, because several intercorrelations were high, higher in fact than the correlations studied for convergent validity.

# Correlations for Role Play

<b>Role Play</b>	Influence & persuade	Motivating others	Developing others	Driving results	Self control
Influence & persuade	-				
Motivating others	<b>.63</b>	-			
Developing others	<b>.59</b>	<b>.49</b>	-		
Driving results	<b>.56</b>	<b>.41</b>	<b>.71</b>	-	
Self control	<b>.58</b>	<b>.59</b>	<b>.45</b>	<b>.37</b>	-

# Factorial validity



- A factor analysis was performed on the ratings. The results confirmed the findings regarding the convergent and discriminant validity of the assessment centre, because the ratings clustered according to the exercises used and not according to sub-groups of dimensions

# Factorial validity cont...



- A second factor analysis was carried out using a composite score per dimension for each respondent.
- The results neatly clustered the nine dimensions into TWO factors labelled as Interpersonal and Problem Solving (Strategic Thinking)



# Conclusion

- This study found overall lack of construct validity evidence, indicating that the (9) dimensions were not adequately measured in the various exercises
- Construct validity for broad categories (problem solving and interpersonal style ) was found.
- In line with Lance, Foster, Gentry and Thoresen (2004), there is construct validity, but on broad categories of dimension ratings
- Issues such as training, assessor experience and rating methods were all considered, as mentioned by Lievens (2002)

# Conclusion cont...

- The question still is...

Between how many dimensions can raters distinguish properly?

- Limit the dimensions in order to reduce cognitive bias