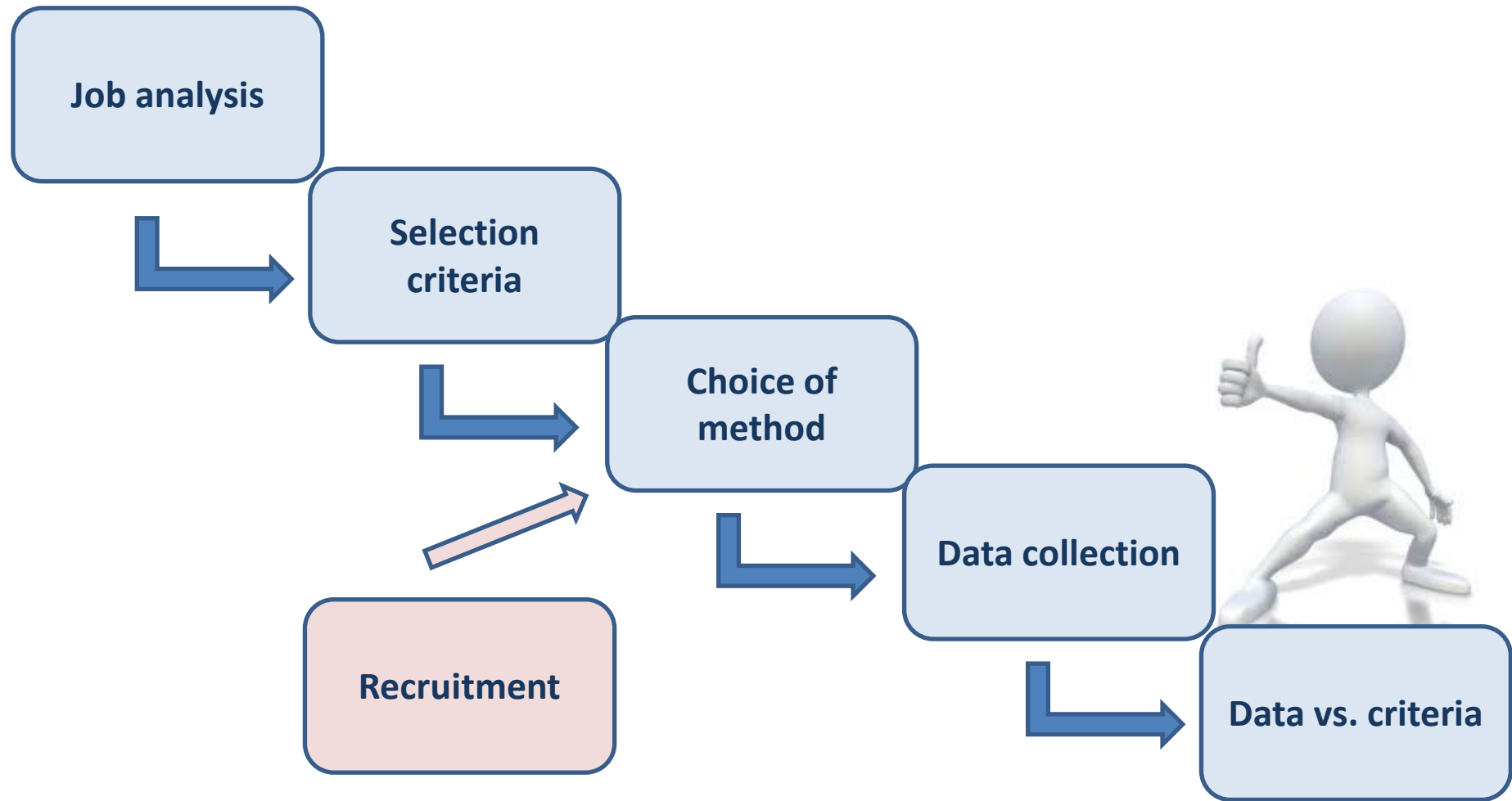


Personnel selection methods

Jakub Procházka

Human Resources Management

Context of the selection procedure



Job analysis

Goal:

- Description of the work activities typical for the position,
- the education, certificates, soft and professional competencies needed to perform the job well.

Competency-based approach:

Competency = A combination of knowledge, skills, abilities, and other characteristics that enable a person to be successful in their role.

Person-job fit: Traditional approach based on job analysis

- Looking for the right person whose competencies match the demands of the job

Person-organization fit:

- *Looking for someone with a high potential for the organization,*
- *who has congruent values and beliefs with the organization. The specific job is then designed according to the competencies of the successful candidate.*

Typical criteria for personnel selection

GMA

General mental ability, intelligence

Personality

Conscientiousness: how will invest energy

Agreeableness: will treat others with respect

Emotional stability: will be resistant to stress

Integrity

Strong moral principles

Professional competences

Specific for each job

Soft skills

Leadership, communication, teamwork...

Experience

Network, tacit knowledge...

The most commonly used selection methods

Self-selection:

- Description of specific requirements for applicants

Biographical data:

- CV
- Motivation letter
- Questionnaire on previous experience
- References

Interviews:

- Telephone interview
- Unstructured interview
- Situational interview
- Behavioral interview

Sample problems:

- Work sample test
- Fictitious problems
- Assessment centre*

Psychometric tests/questionnaires:

- GMA tests
- Performance tests (e.g. attention)
- Integrity tests
- Personality questionnaires
- Proficiency tests (e.g. knowledge tests, language tests)
- Projective methods

Real situations:

- Internships
- Trainee programmes
- Job tryouts
- Student competitions
- Headhunting

*may also include psychodiagnosis, interview and other methods

Predictive validity of selection methods

The Validity and Utility of Selection Methods in Personnel Psychology: Practical and Theoretical Implications of 85 Years of Research Findings

Frank L. Schmidt
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This article summarizes the practical and theoretical implications of 85 years of research in personnel selection. On the basis of meta-analytic findings, this article presents the validity of 19 selection procedures for predicting job performance and training performance and the validity of paired combinations of general mental ability (GMA) and the 18 other selection procedures. Overall, the 3 combinations with the highest multivariate validity and utility for job performance were GMA plus a work sample test (mean validity of .53), GMA plus an integrity test (mean validity of .45), and GMA plus a structured interview (mean validity of .43). A further advantage of the latter 2 combinations is that they can be used for both entry level selection and selection of experienced employees. The practical utility implications of these summary findings are substantial. The implications of these research findings for the development of theories of job performance are discussed.

From the point of view of practical value, the most important property of a personnel assessment method is predictive validity: the ability to predict future job performance, job-related learning

conscientiousness and personal integrity, structured employment interviews, and (for experienced workers) job knowledge and work sample tests.

Table 1
Predictive Validity for Overall Job Performance of General Mental Ability (GMA) Scores Combined With a Second Predictor Using (Standardized) Multiple Regression

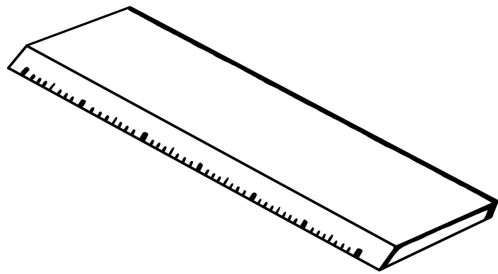
Personnel measures	Validity (<i>r</i>)	Multiple <i>R</i>	Gain in validity from adding supplement	% increase in validity	Standardized regression weights	
					GMA	Supplement
GMA tests ^a	.51					
Work sample tests ^b	.54	.63	.12	24%	.36	.41
Integrity tests ^c	.41	.65	.14	27%	.51	.41
Conscientiousness tests ^d	.31	.60	.09	18%	.51	.31
Employment interviews (structured) ^e	.51	.63	.12	24%	.39	.39
Employment interviews (unstructured) ^f	.38	.55	.04	8%	.43	.22
Job knowledge tests ^g	.48	.58	.07	14%	.36	.31
Job tryout procedure ^h	.44	.58	.07	14%	.40	.20
Peer ratings ⁱ	.49	.58	.07	14%	.35	.31
T & E behavioral consistency method ^j	.45	.58	.07	14%	.39	.31
Reference checks ^k	.26	.57	.06	12%	.51	.26
Job experience (years) ^l	.18	.54	.03	6%	.51	.18
Biographical data measures ^m	.35	.52	.01	2%	.45	.13
Assessment centers ⁿ	.37	.53	.02	4%	.43	.15
T & E point method ^o	.11	.52	.01	2%	.39	.29
Years of education ^p	.10	.52	.01	2%	.51	.10
Interests ^q	.10	.52	.01	2%	.51	.10
Graphology ^r	.02	.51	.00	0%	.51	.02
Age ^s	-.01	.51	.00	0%	.51	-.01

Validity

- To what extent does the instrument measure what it is supposed to measure

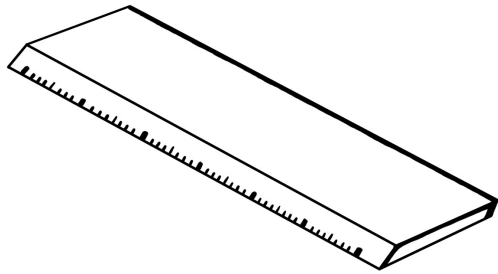
If I measure the height of 1,000 people by repeatedly attaching this ruler:

- Would such a measurement be consistent with the theory of how height should be measured?
- Will I measure the same result as if I used a certified platinum-iridium alloy ruler at normal atmospheric pressure and 0 °C?
- If I line people up by size according to measurements, does the optical comparison confirm the result?
- Will the result allow me to predict who will bang their head on the door frame?



Reliability

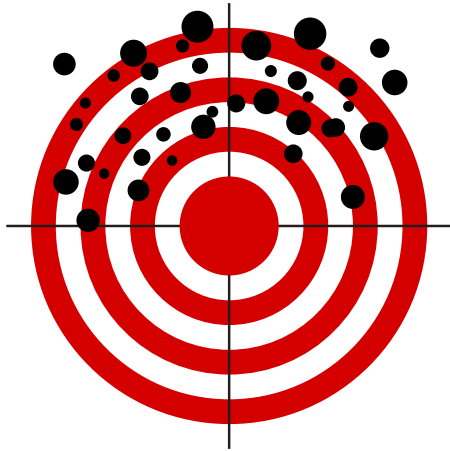
- How consistent the results provided by the instrument are in the conditions where they should be consistent.



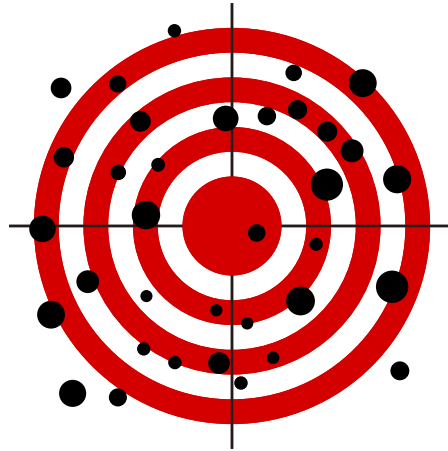
If I measure Peter's height by repeatedly attaching this ruler:

- Will I get the same result every time when I measure him 10 times?
- Will I get the same result if I measure him with the first half of the ruler and the second half of the ruler?
- Will I get the same result as Kate and John if they measure Peter's height with the same ruler?

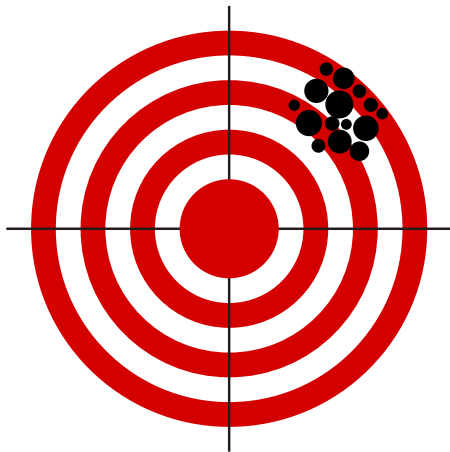
Reliability and validity



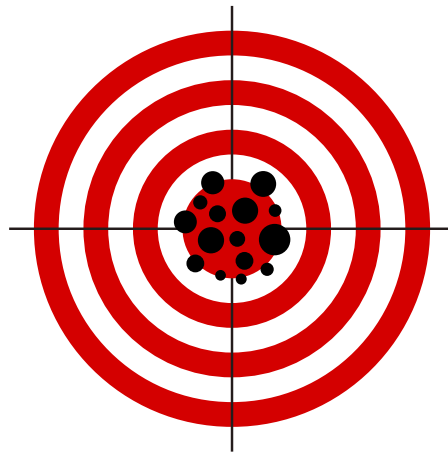
Unreliable and not
valid



Unreliable and
therefore not valid



Reliable but not
valid



Reliable and valid

Reliability and validity

- The method must have sufficient reliability and validity to be trusted.
- A method with low reliability cannot be valid.

Example: I want to predict work performance using a crystal ball. Different fortune tellers using the same ball will arrive at different predictions (low reliability). Such a prediction will probably not be valid (low validity).

- A method with high reliability may not be valid.

Example: I predict job performance of sales representative by measuring his height by a certified platinum-iridium ruler. I measure height very reliably (high reliability), but the performance prediction is probably not valid (low validity) because corporal height is not very useful for sales predictions.

- **I need to consider the validity and reliability of selection method which I want to use.**
- **The supplier should be able to provide the data (validation study).**

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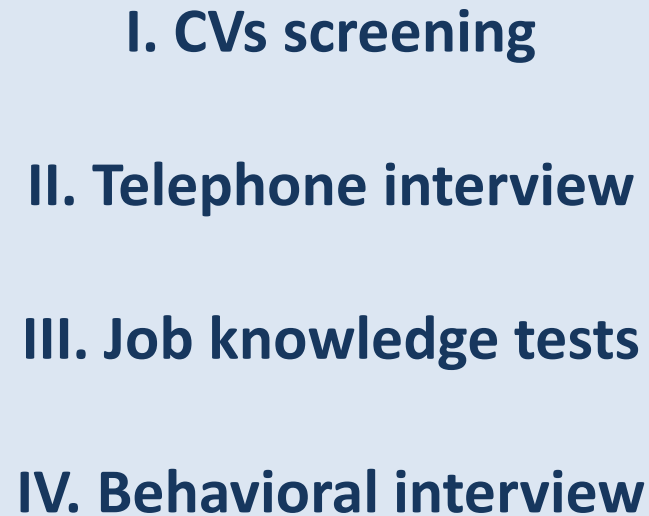
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Selection procedure

Example:

- 
- I. CVs screening**
 - II. Telephone interview**
 - III. Job knowledge tests**
 - IV. Behavioral interview**

The number of candidates is decreasing

Financial and time demands are growing

Employment interview: validity

- Trained interviewer(s)
- Same interviewer(s) for all candidates
- Recording answers, note-taking

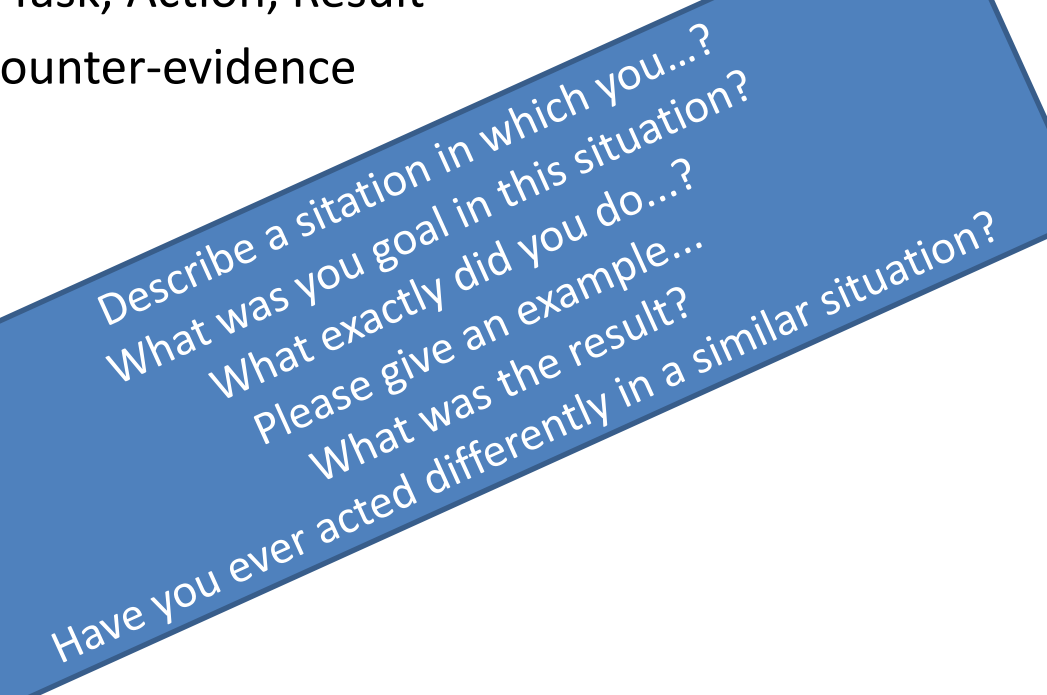
Structure:

- Preset criteria relevant to the position, same for all candidates
- Preset questions, relevant to criteria, same for all candidates
- Scoring each response individually
- Scoring by comparing the response with the criteria

	Corrected simple correlation	Corrected partial correlation
Interviewer training	.41**	0.16
Interviewer standardization	.31**	0.04
Note-taking	.36**	-0.09
Individual vs. panel	-0.05	-0.16
Level of structure	.63**	

Behavioral interview

- Premise: „The best predictor of future behaviour is past behaviour“
- Structured interview focused on pre-selected competencies
- Open questions on past behaviour
- Asking for specific examples
- STAR structure: Situation, Task, Action, Result
- Search for evidence and counter-evidence

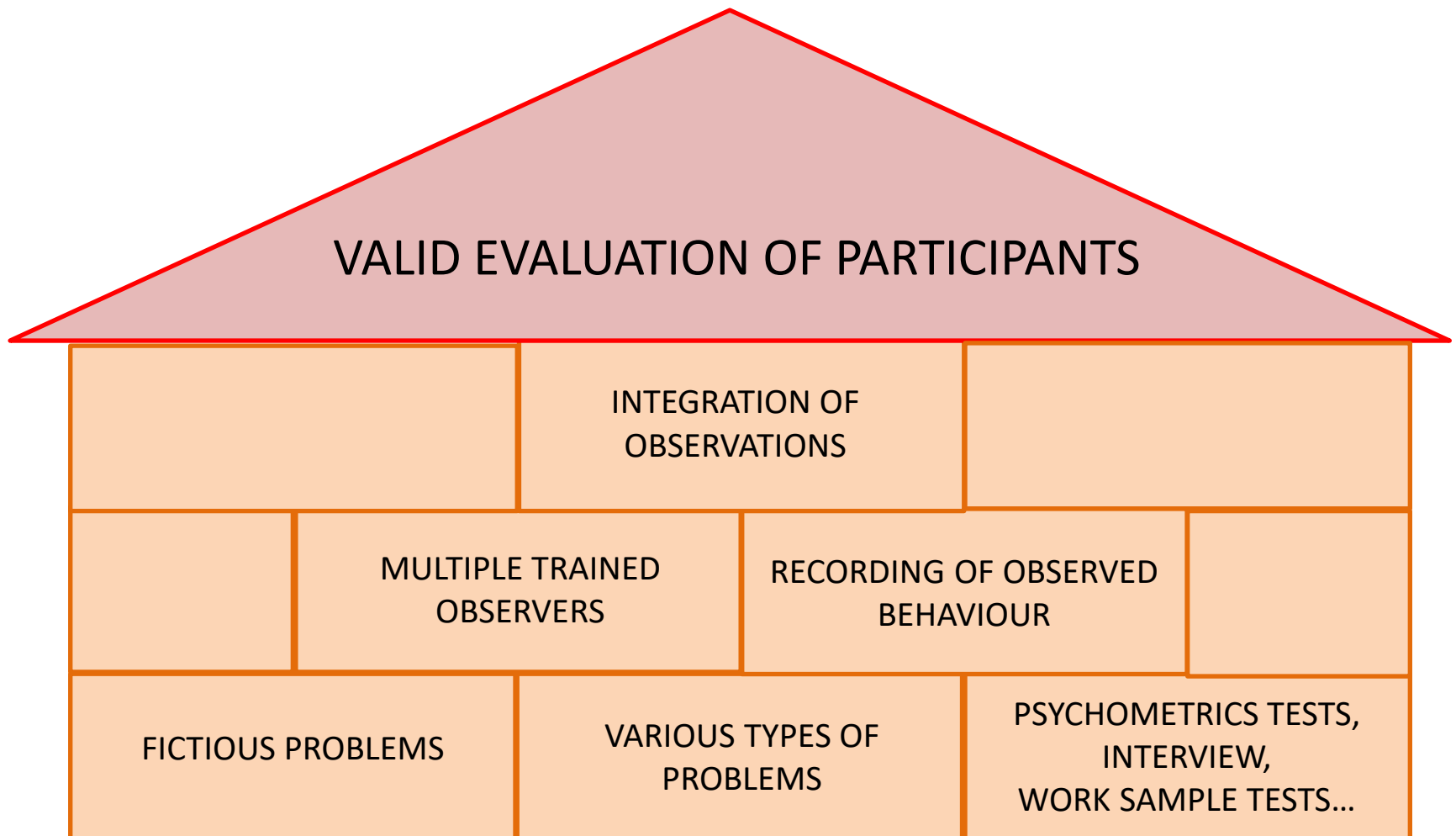


Describe a situation in which you...?
What was your goal in this situation?
What exactly did you do...?
Please give an example...
What was the result?
Have you ever acted differently in a similar situation?

Work sample test



Assessment centre



Fictitious problems

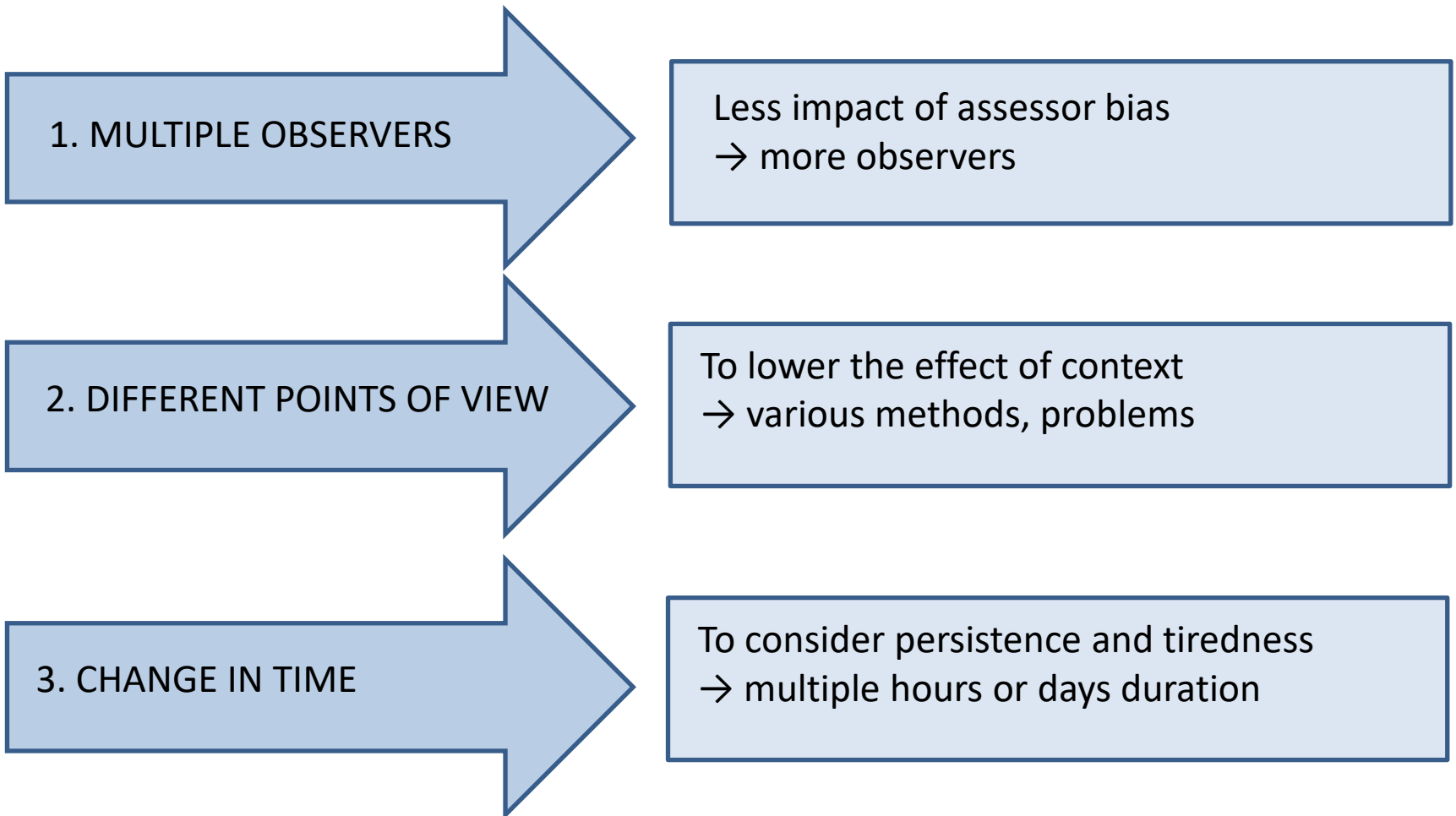
Example:

You are driving along in your car on a wild, stormy night. You pass by a bus stop, and you see three people waiting for the bus:

1. An old lady who looks as if she is about to die.
2. An old friend who once saved your life.
3. The perfect man (or) woman you have been dreaming about.

Which one would you choose to offer a ride to, knowing that there could only be one passenger in your car.

Principles of AC



Sample program of AC

08:00 Assessors meeting

09:00 Welcome, schedule

09:15 Group task: logical problem

10:00 Group task: creative problem

10:45 Break

11:00 Group task: conflict situation

12:00 Lunch

13:00 A: Two individual tasks + structured interview

B: Tests, written tasks

16:00 Farewell

16:15 Assessors meeting

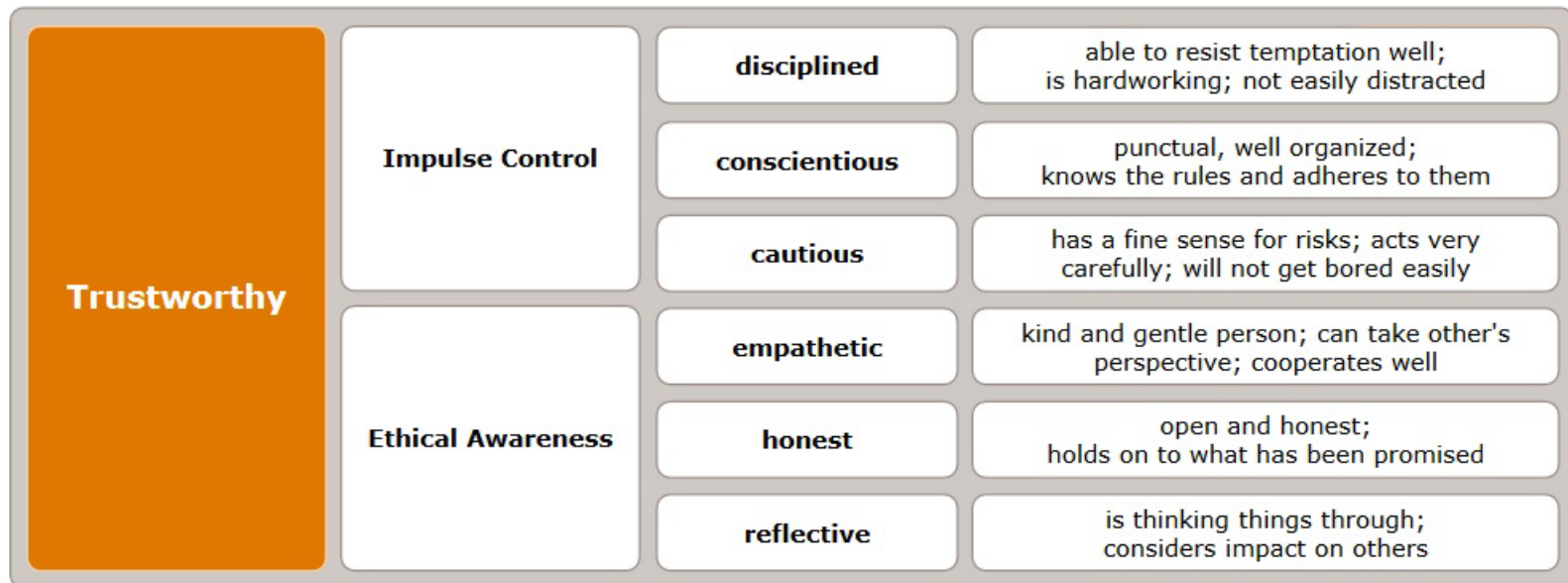
18:30 Closing of AC



Integrity test



squares – concept model



scales correspond with critical aspect of situation; high levels = low susceptibility regarding critical aspect of situation

www.cut-e.com

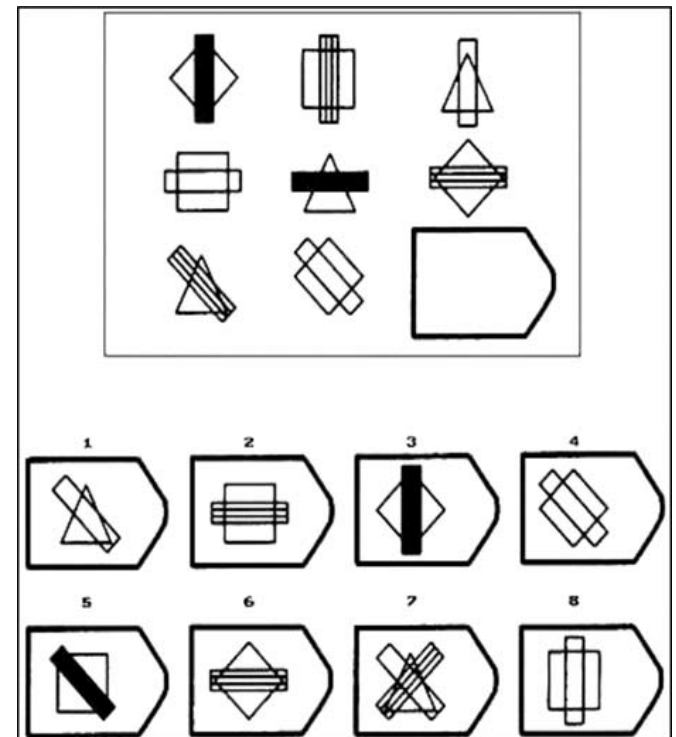
Questionnaire, 36 questions, 7.5 minutes average administration, internal consistency > .85

GMA tests

Group administration x Individual administration

Multidimensional x One-dimensional

Computer administered x Paper-pencil



Raven progressive matrice

Recommended resources

Journal of Organizational Behavior
J. Organiz. Behav. **20**, 549–560 (1999)

Further analysis of employment interview validity: a quantitative evaluation of interviewer-related structuring methods

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²Department of Psychology, Texas A&M University, College Station, Texas 77845, U.S.A.

Summary

The purpose of this investigation was to analyze the relationship between four interviewer-related factors and the validity of the employment interview. Using a regression approach to meta-analysis, an analysis of 120 interview studies with a total sample size of 18,158 suggested that: (1) training should be provided to interviewers regardless of whether the interview itself (i.e. the questions and rating scales) is

Psychological Bulletin
1998, Vol. 124, No. 2, 262–274

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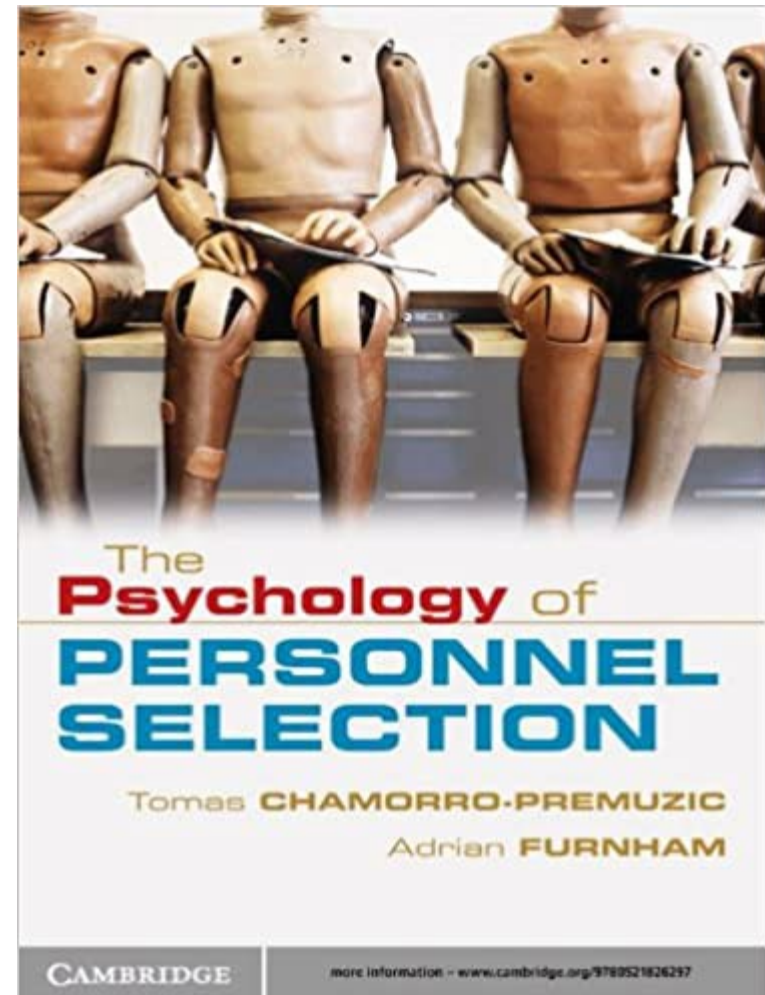
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conscientiousness and personal integrity, structured employment interviews, and (for experienced workers) job knowledge and work sample tests.

On the basis of meta-analytic findings, this article examines



AT A JOB INTERVIEW



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Thank you for your attention...