IOP3702

Personnel Psychology: Organisational Entry

UNISA college of economic and management sciences

YOUR LECTURERS

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AIM OF GROUP DISCUSSION

- To present an overview of the subject matter
- To consider the differences between the two prescribed books
- To establish a scientific approach to personnel psychology
- To advise students on how to prepare for the exam
- To obtain feedback from students

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- Chapters 1-6 (excluding ch 3)
- If something is not discussed here, that does not necessarily mean that it is not applicable and/or important.
- Due to time constraints we cannot always cover everything or there would not be enough time to discuss anything new.
- Today we will show you how everything in this module fits together.
- The 101-tutorial and prescribed book are your important tutorial matter

- CONCENTRATE ON THE OUTCOMES AND ASSESSMENT CRITERIA WHEN PREPARING FOR THE EXAMINATION (Tut Letter 101) – We derive our examination questions from it. So, if you understand and can “answer” the assessment criteria of each outcome you should not have any problems in the examination.

PREPARATION FOR THE EXAMINATION

Bear the following in mind when studying for this course:

- The format of the May/June and October/November examination is the same.
- There will be no multiple-choice questions
- The examination will consist of three sections

  Section A: Three 10 mark questions of which you have to do two (20 marks)

  Section B: Three 15 marks questions of which you have to do two (30 marks)

  Section C: A compulsory 25 mark question (25 marks)
- The examination will count out of 75 marks for the two hour paper. This should make it easier to give sufficient facts in the time available.
- Study the prescribed book as indicated in the study guide.
- Assignment questions are no indication of what to concentrate on.
- No statistical or questions that require mathematical calculations will be asked in the examination!

Muchinsky *et al.* (2005)
CHAPTER 1
The historical background of industrial psychology

&

Coetzee & Schreuder (2010)
CHAPTER 1
Introduction to personnel psychology

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PERSONNEL PSYCHOLOGY

DEFINITION

Personnel psychology is an applied discipline that focuses on individual differences in behaviour and job performance and on methods of measuring and predicting such performance

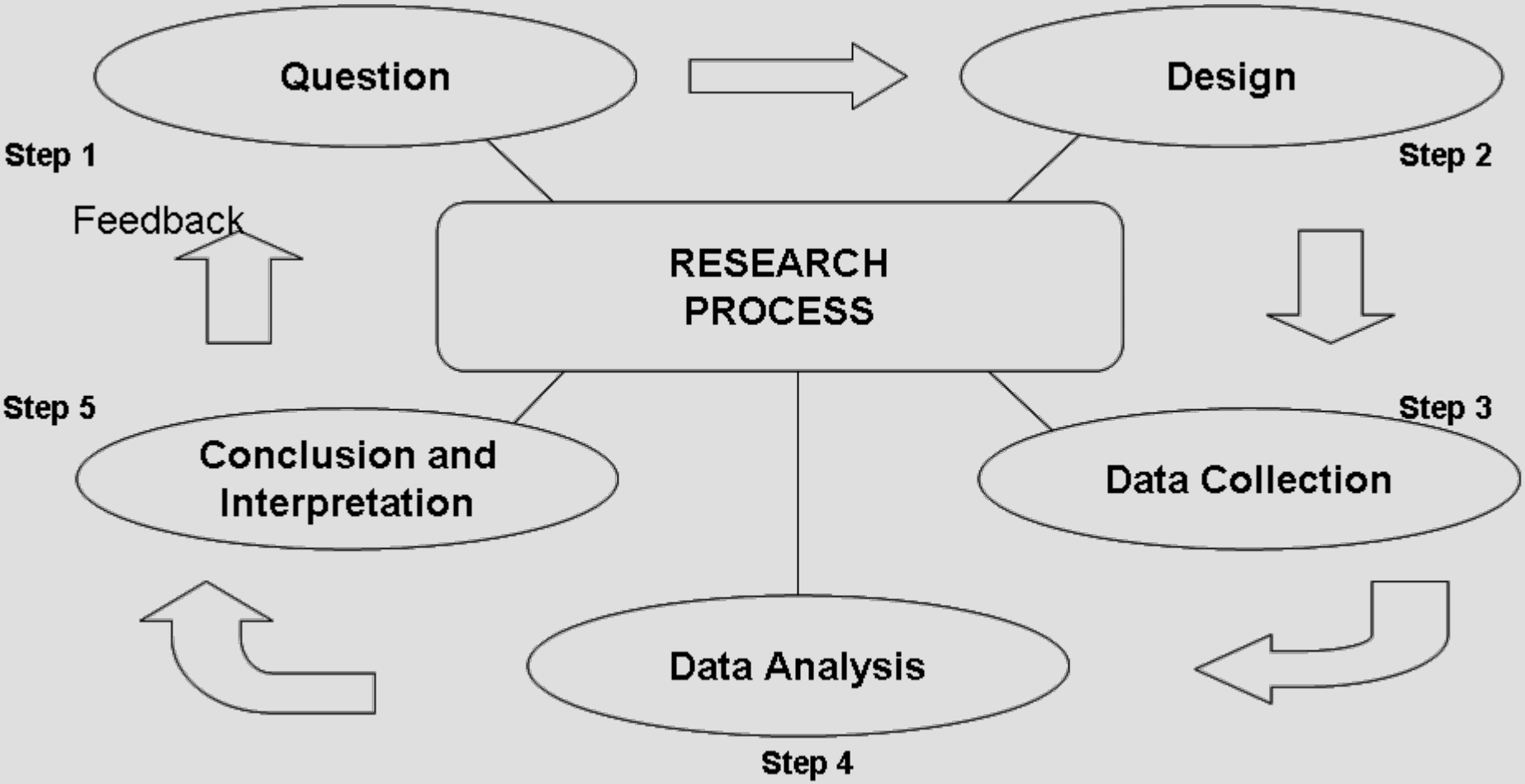
- 3702 is about recruiting, selecting and settling employees into the workplace
- 3706 is about managing the employee once he or she has been appointed

Muchinsky *et al.* (2005)
CHAPTER 2
Research methods in industrial psychology

&

Coetzee & Schreuder (2010)
CHAPTER 2
Research methods in personnel psychology

THE RESEARCH PROCESS



- STEP 1: Statement of the research problem
- STEP 2: How do you design a study to answer the question?
- STEP 3: How do you measure the information you need, and collect the data to answer the research problem?
- STEP 4: How do you analyse the data, i.e. make sense of it:
  - QUALITATIVE – use content analysis
  - QUANTITATIVE – use statistical analysis, i.e. descriptive statistics, correlation, regression, inferential statistics or meta analysis

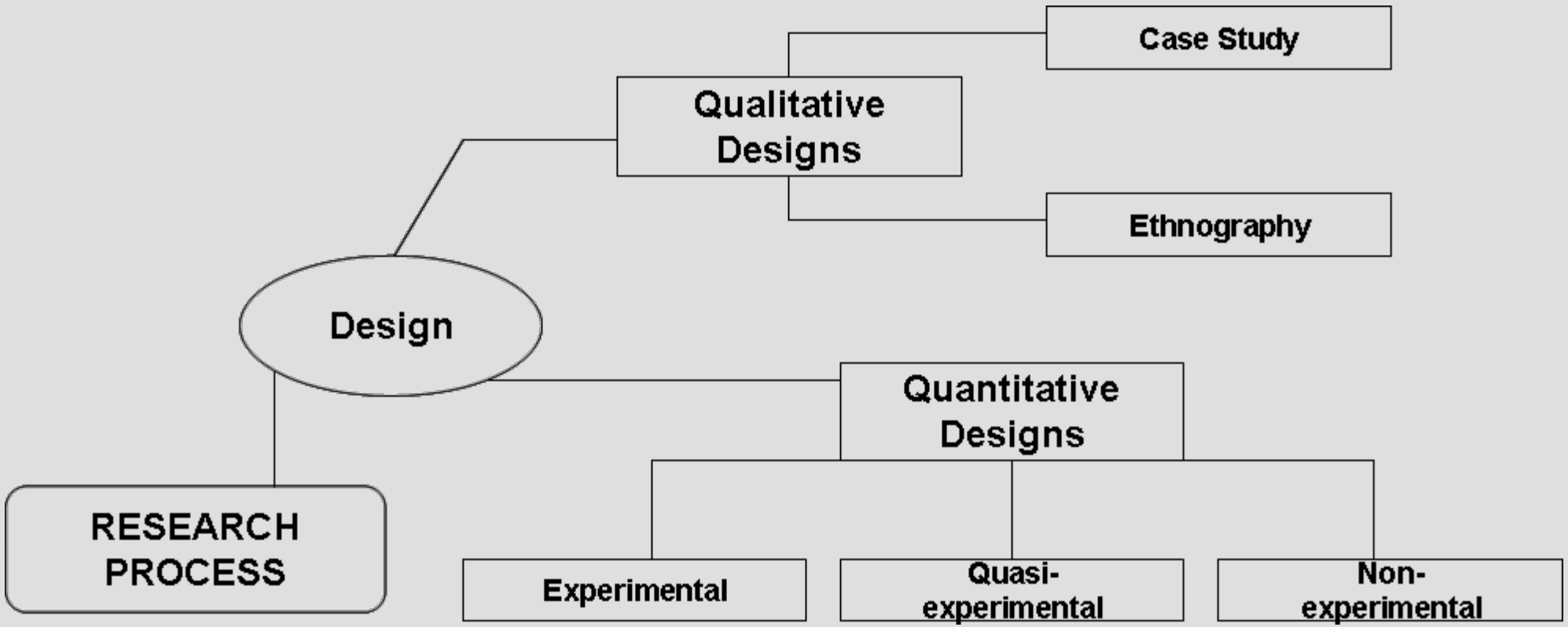
  Explained from page 31 to page 38
- STEP 5: How do you draw conclusions from the data?

STEP 1 - TYPE OF RESEARCH QUESTIONS

Question Type	Example
Predictive questions	If you try to predict something, e.g. which employees will be productive Can the results of a selection interview be used to successfully predict the performance of an applicant?
Evaluative question	To determine the quality or effectiveness of a programme, practice or procedure How effective is the current interviewer training programme that is being used in the organisation?

Question Type	Example
Descriptive question	A picture of a state of events, e.g. levels of productivity Is there a relationship between the type of interview conducted and the interviewer's success of rating an applicant's personality?
Exploratory question	If a relatively new field is investigated What are the kind of influencing techniques that candidates use in a selection interview?
Causal question	This is the most difficult to answer - why do events occur as they do? Does feedback after a negative selection decision cause a decrease in the negative effect on job applicants?

STEP 2 - THE RESEARCH DESIGN

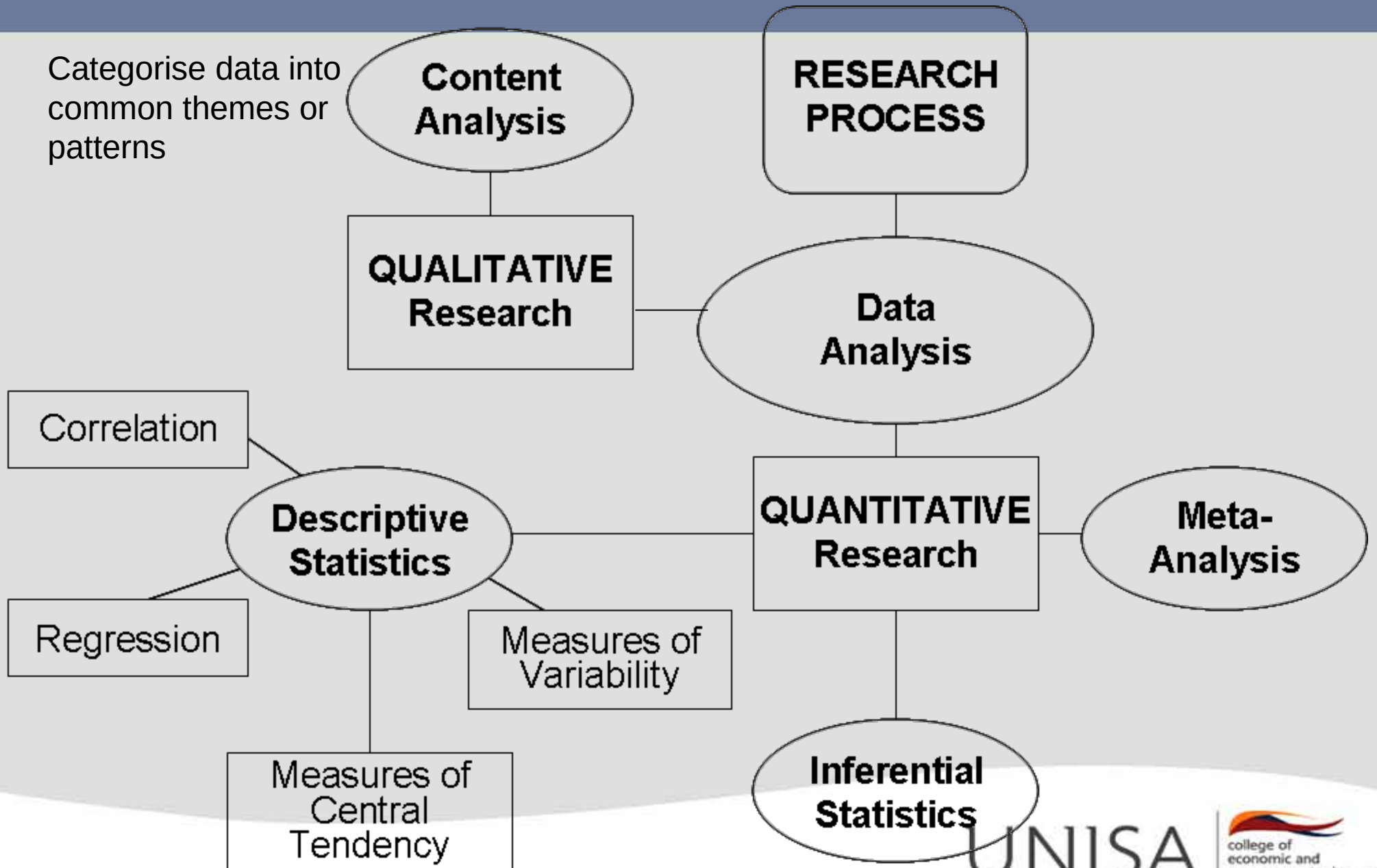


STEP 3 - DATA GATHERING TECHNIQUES

Technique	Definition	Quantitative or Qualitative Application
Surveys (Questionnaires)	A survey is a set of questions that requires an individual to express an opinion, answer or provide a rating regarding a specific topic.	Closed-ended questions can be asked in a structured questionnaire for a quantitative study. Open-ended questions can be asked in a semi-structured or unstructured questionnaire for a qualitative study.
Observation	The researcher observes (which entails watching and listening) employees in their organisational setting.	Using a pre-developed checklist to rate the existence or frequency of certain behaviours and events in a quantitative study. When the research questions are more exploratory (in a qualitative study), the researcher can take detailed notes
Interviews	Interviews are one-on-one sessions between an interviewer and an interviewee, typically for the purpose of answering a specific research question.	Although a structured interview format can be used in a quantitative study, interviews are used most often in qualitative studies where a semi-structured or unstructured interview can be used to gather information.
Focus Groups	It is a method of data collection in which pre-selected groups of people have facilitated discussion with the purpose of answering specific research questions.	Usually used in a qualitative study.
Archival Data	Archival data, or also called documentary sources of information, is material that is readily available and the data is already captured in one form or another.	In a quantitative study, the archival data would consist of numerical information like questionnaire responses, test scores, performance ratings, financial statistics or turnover rates. In a qualitative study, the archival data would include textual information like documents, transcripts of interviews, letters, annual reports, mission statements or other official documentation.

STEP 4 - ANALYSIS OF THE DATA

Categorise data into common themes or patterns



META-ANALYSIS

Meta-analysis is a statistical procedure designed to combine the result of many individual, independently conducted, empirical studies into a single result or outcome

The logic behind meta-analysis:

- You can arrive at a more accurate conclusion regarding a particular research topic if you combine or aggregate the results of many studies that address the topic, instead of relying on findings from a single study.

Muchinsky *et al.* (2005)
CHAPTER 3
Criteria: Standards for decision-making

&

Coetzee & Schreuder (2010)
CHAPTER 4
Job Analysis and criterion development

CRITERIA

- Each time you evaluate someone or something, you use **CRITERIA**
- Use different standards to determine what makes a good (or bad) movie, dinner, football game, etc.
- In the context of Industrial Psychology criteria are important for defining “goodness” of employees, programmes, units in organisations, organisation itself.
- Using different criteria = different results (disagreement)

CRITERIA (Definition)

Criteria can be defined as the evaluative standard by which objects, individuals, procedures or groups are assessed for the purpose of ascertain their quality.

Criteria are the evaluative standards which are used as reference points in making judgements

CONCEPTUAL VS ACTUAL CRITERIA

Conceptual criteria

A conceptual criteria is a theoretical construct, an abstract idea that can never actually be measured. It is an ideal set of factors that constitutes a successful person as conceived in psychologists mind.

Actual Criteria

Actual criteria serve as measure of the conceptual criteria that we would prefer to (but cannot) assess. The decision then becomes which variables to select as the actual criteria.

The relationship between conceptual and actual criteria can be expressed in terms of three concepts: **deficiency**, **relevance**, and **contamination** **[see fig 3.1 p 48 of Muchinsky *et al*. (2005) and fig. 4.7 p 129 of Coetzee & Schreuder (2010)]**

Criterion deficiency is the degree to which the actual criteria fail to overlap the conceptual criteria, that is how deficient the actual criteria are in representing the conceptual ones.

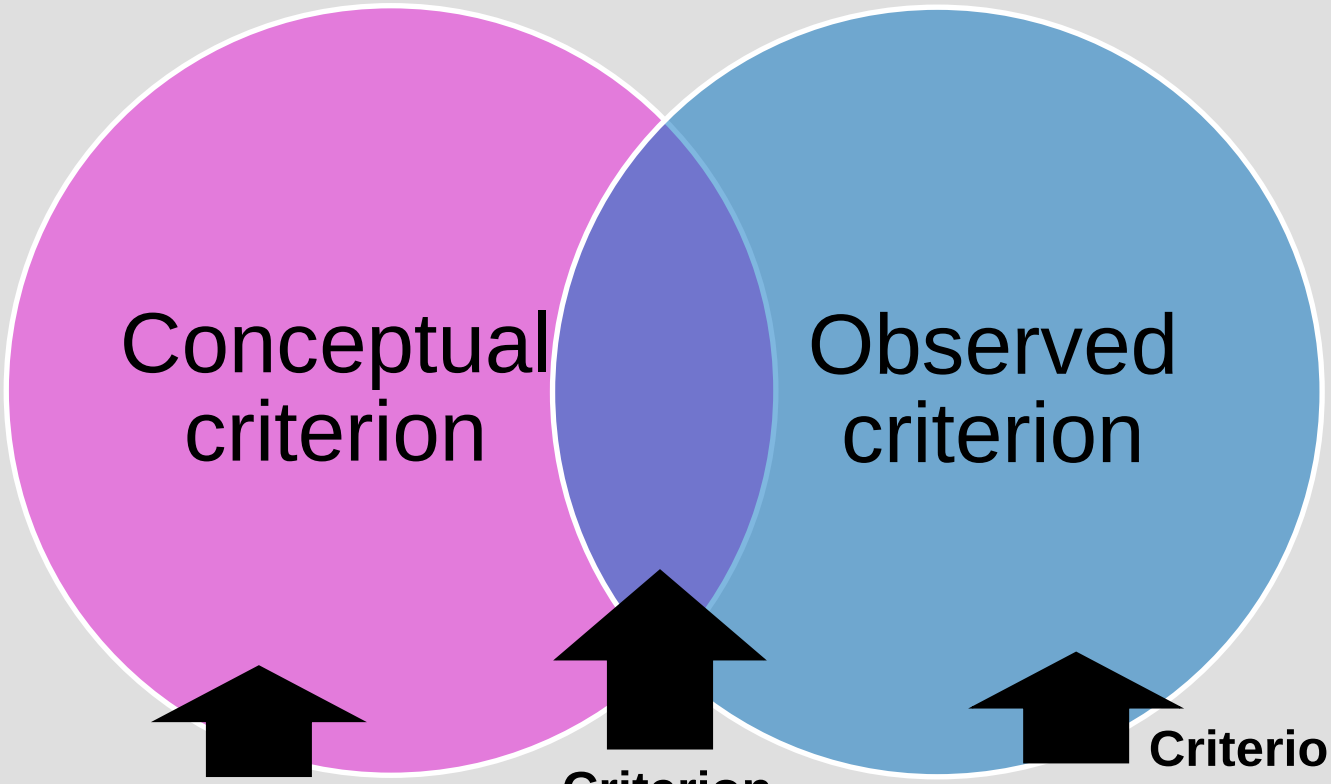
Criterion relevance is the degree to which the actual criteria and conceptual criteria coincide.

Criterion contamination is the part of the actual criteria that is unrelated to the conceptual criteria.

Also distinguish between error and bias

(measures something else vs. measures something related to nothing at all)

Criterion distortion



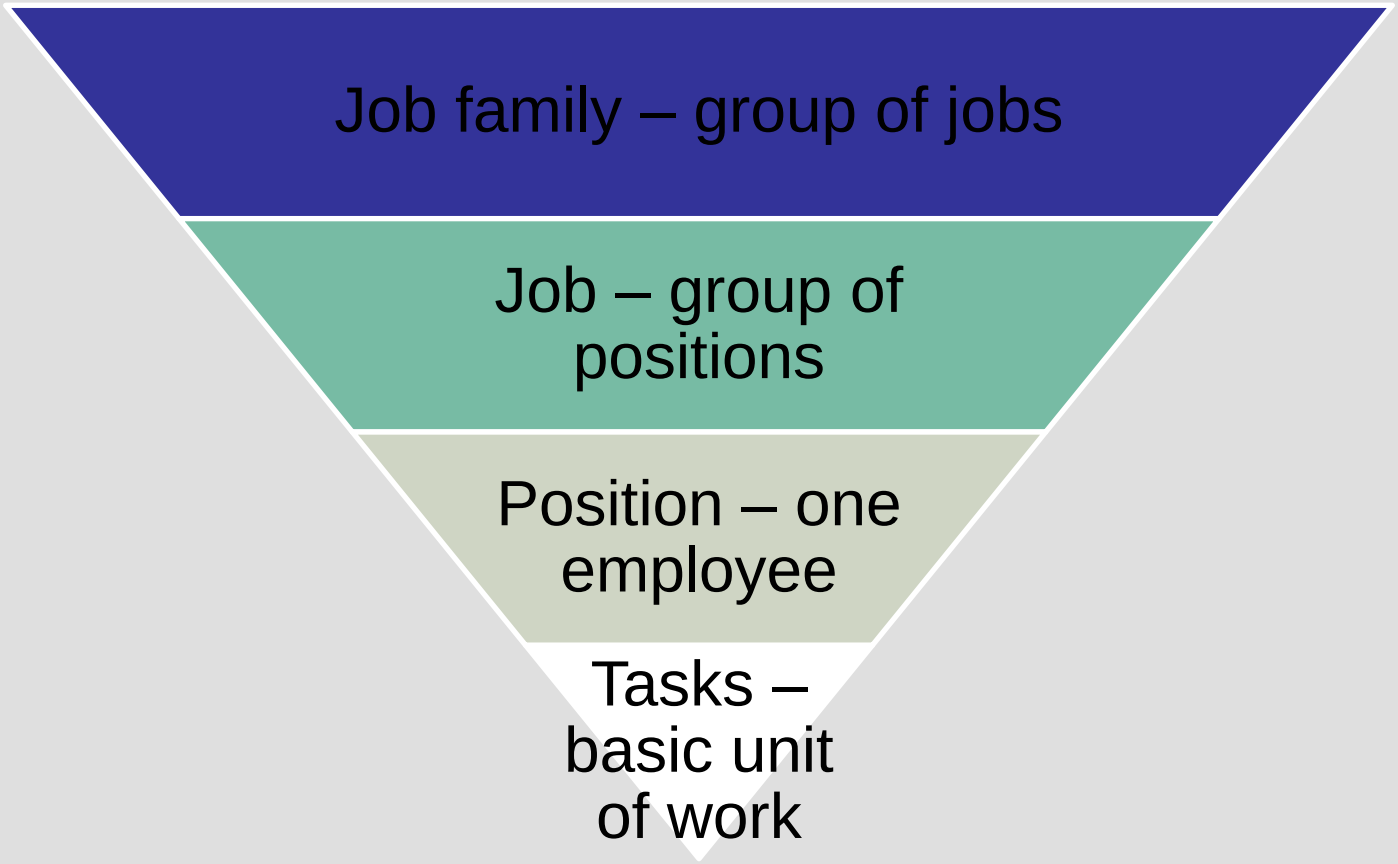
JOB ANALYSIS

Can be defined as the collection of data describing observable (or otherwise verifiable) job behaviours performed by workers, including both what is accomplished as well as what technologies are employed to accomplish the end result, and verifiable characteristics of the job environment with which workers interact, including physical mechanical, social and informational elements.

A thorough JA documents the tasks that are performed on the job, the situation in which the work is performed (i.e. tools used) and the human attributes needed to perform the work.

This data is used to make various personnel decisions.

The components of a job

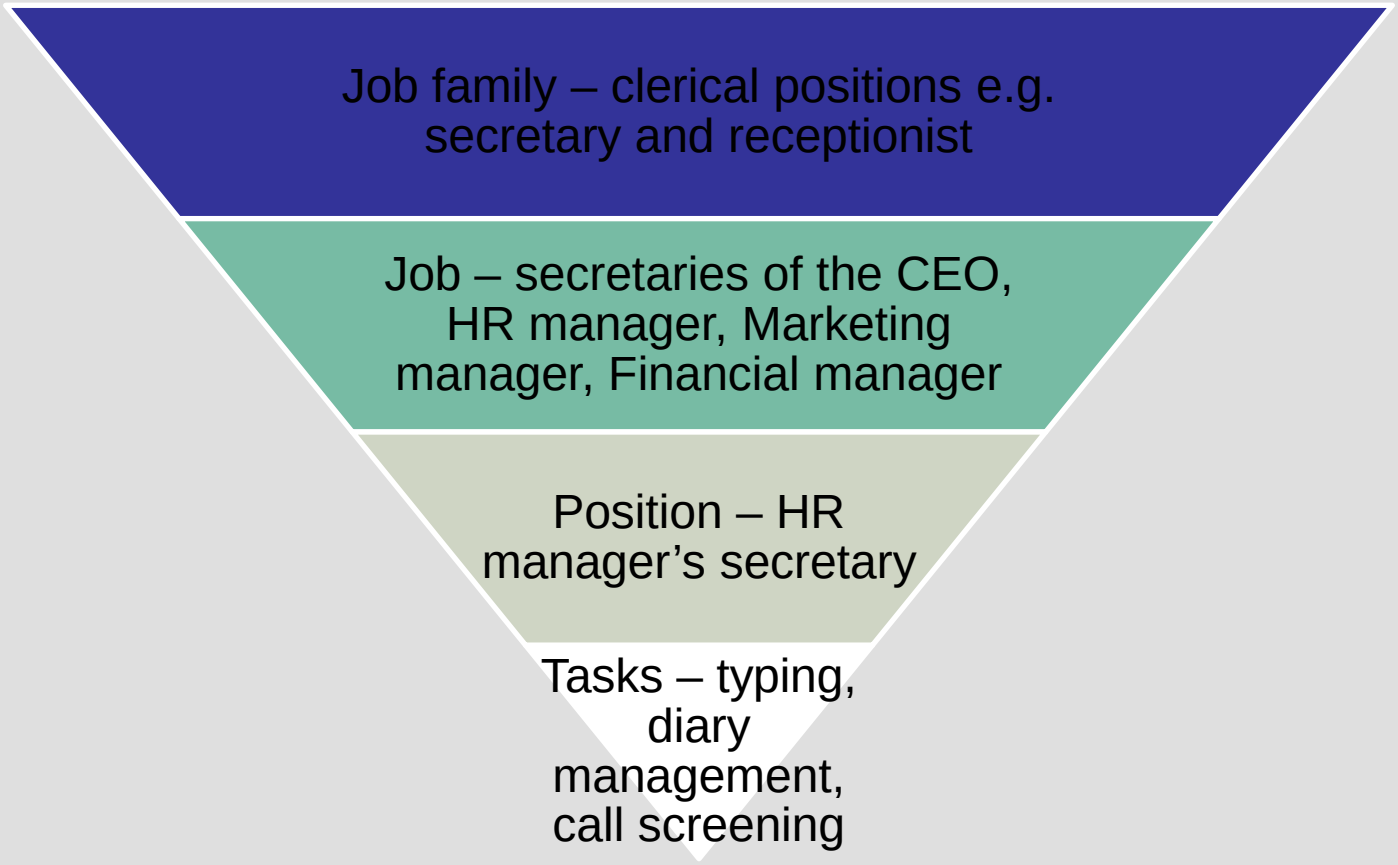


JOB ANALYSIS PROCEDURES

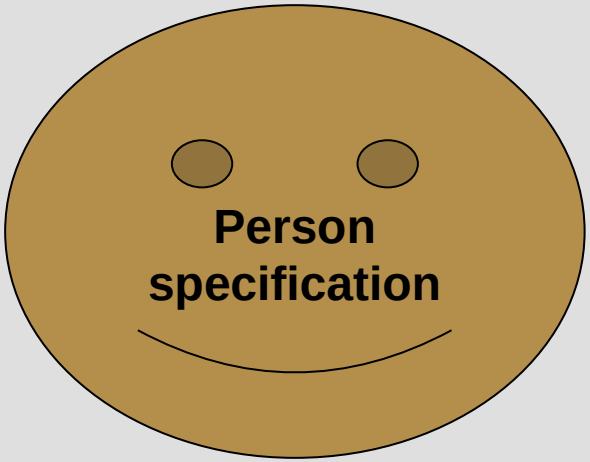
A clear understanding of JA requires knowledge of **four** job-related concepts;

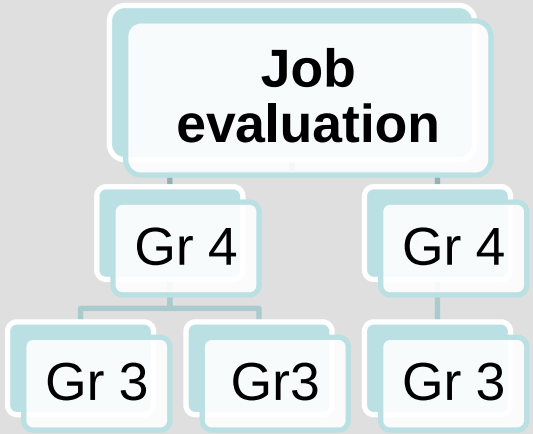
1.	**TASK**	–	the basic units of work that are directed towards specific job objectives.
2.	**POSITION**	–	A set of tasks performed by a single employee.
3.	**JOB**	–	*Similar positions* are grouped or aggregated to form a job.
4.	**JOB FAMILY**	–	*Similar jobs* are aggregated to form a job family.

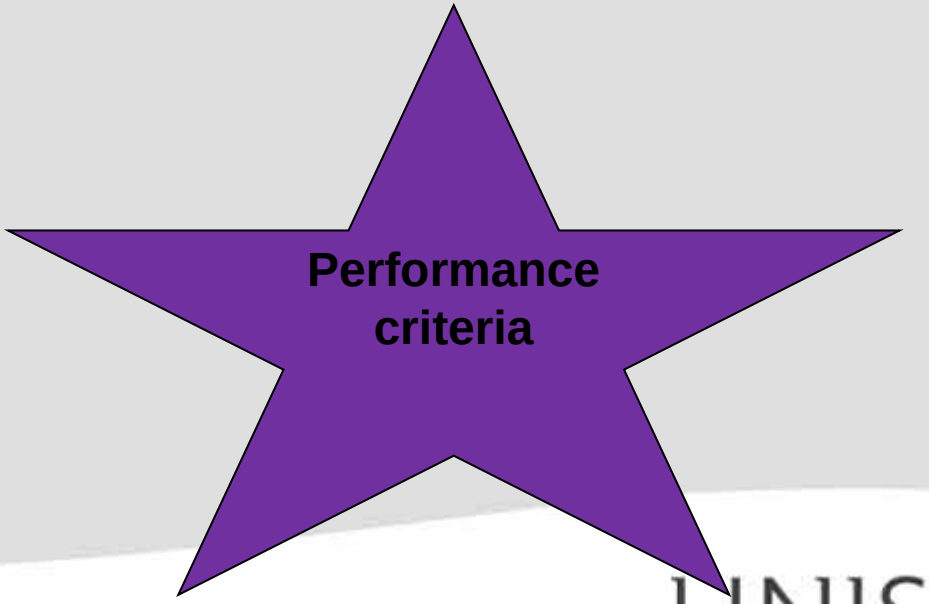
The components of a job - secretary



Job analysis info: uses







USES OF JOB ANALYSIS INFORMATION (JAI)

1. The most important use of JAI is the identification of competence and competencies for a specific position.

    - A ***competence*** is the **"WHAT"** needs to be achieved
    - A ***competency*** refers to **"HOW"** it is achieved

2. Provides a basis for organising different positions into a job, and different jobs into a job family.

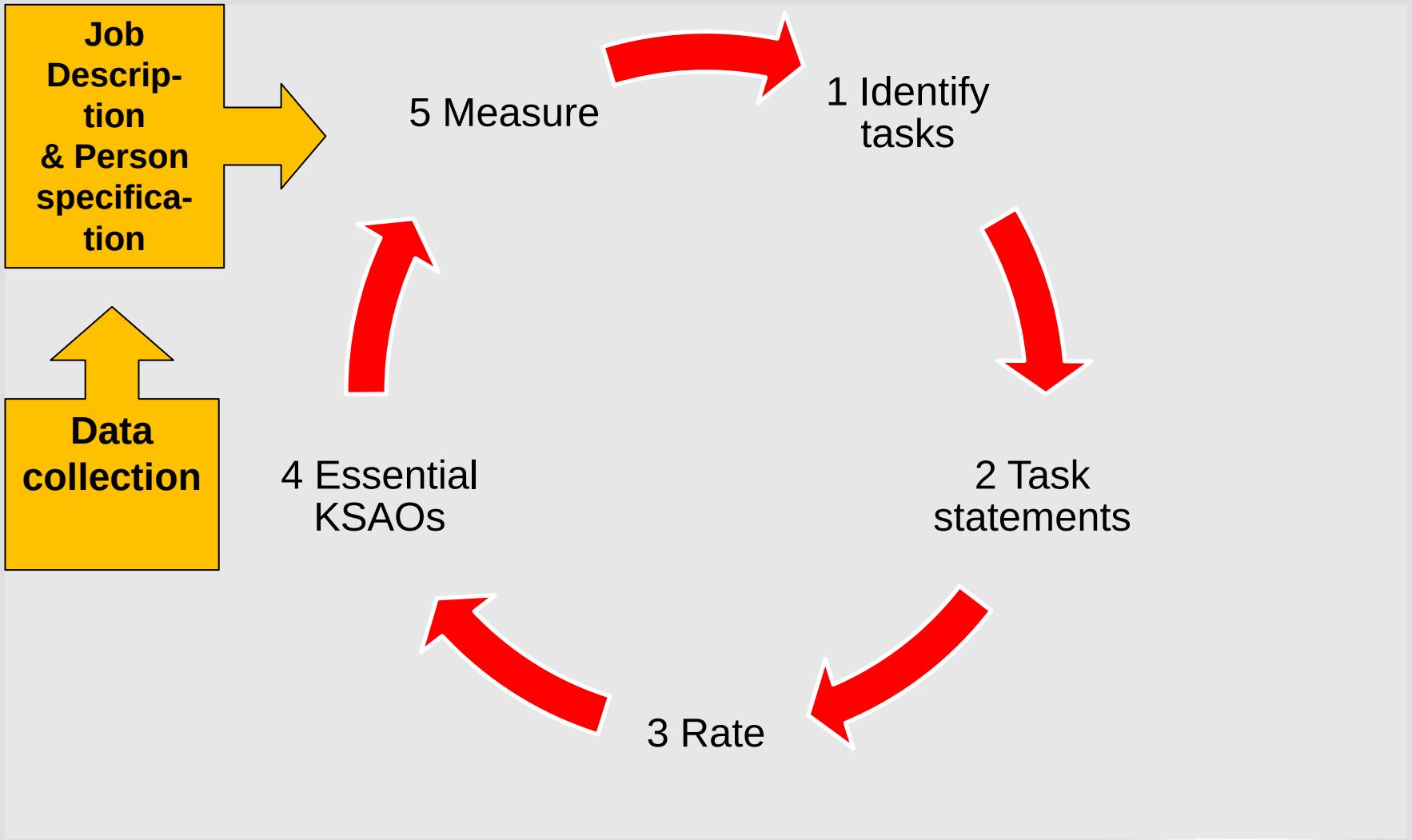
3. JAI contributes to determine the content of training needed to perform the job.

4. JAI provides one basis for determining the content of performance evaluation or appraisal.

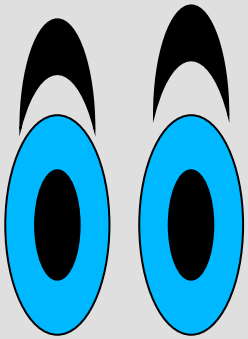
Other Uses:

JAI can be used in vocational counselling and offering insight into the KSAO's needed to perform successfully in various occupations

JA process

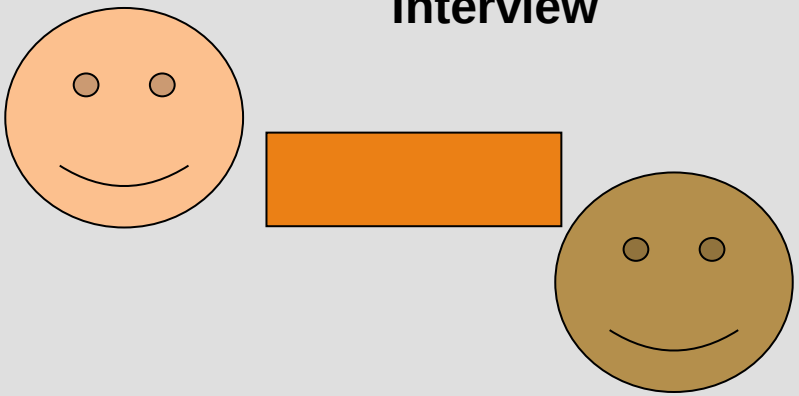

Job Descrip-tion & Person specifica-tion
1 Identify tasks
2 Task statements
3 Rate
4 Essential KSAOs
5 Measure
Data collection

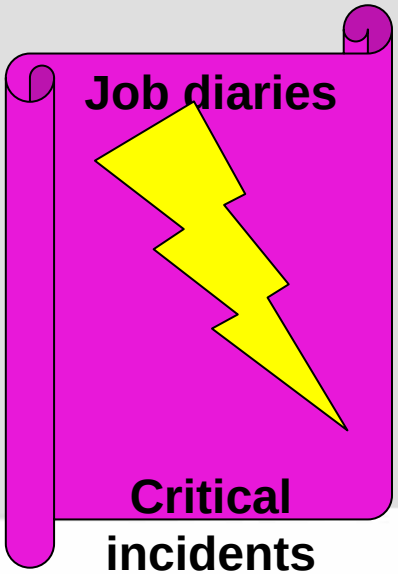
General data collection methods

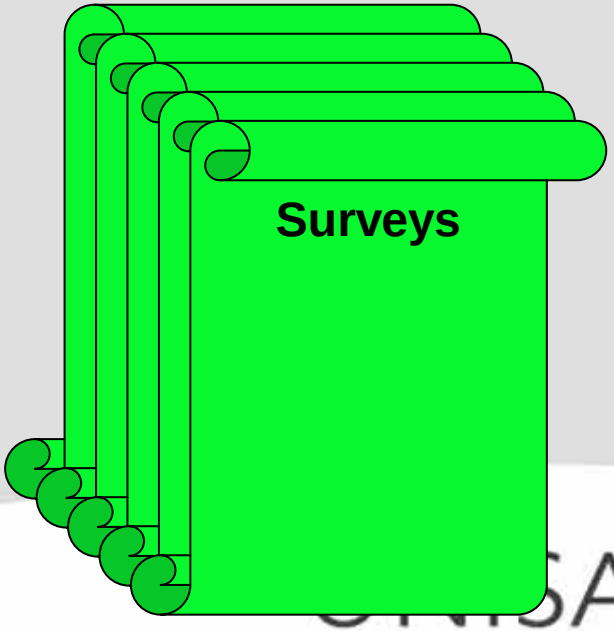


Observation

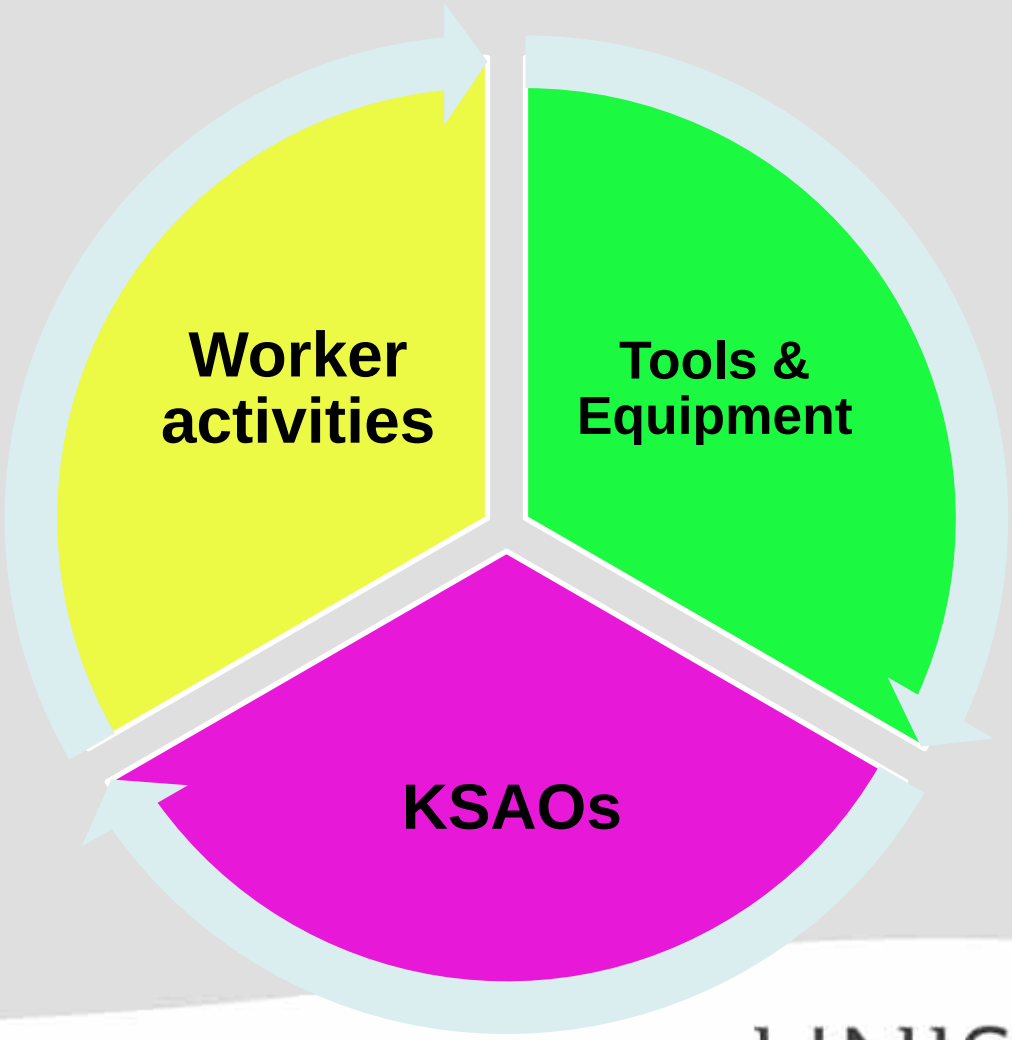
Interview



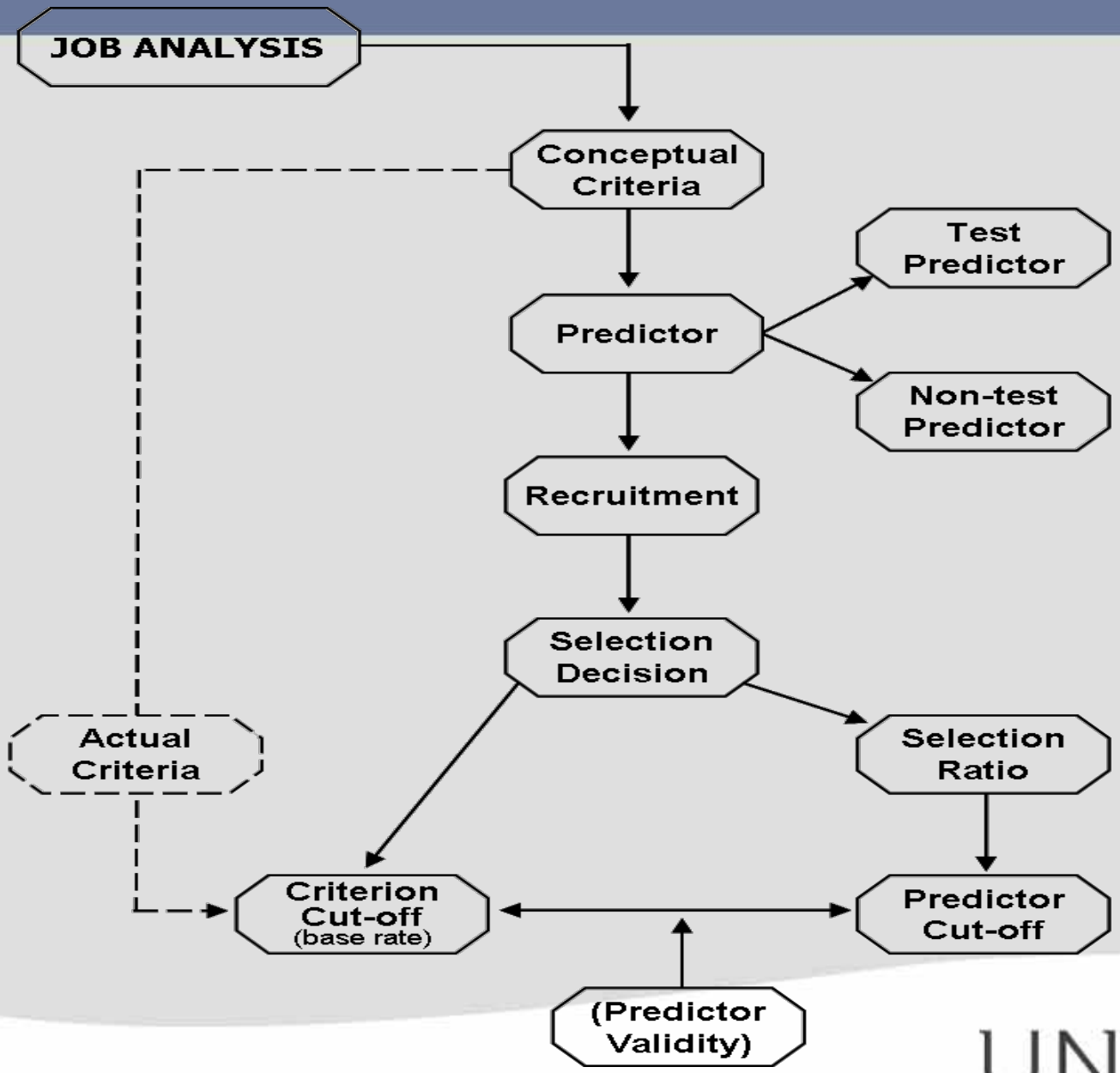




Specific methods



SELECTION DECISIONS



Standards of criteria

- Objective criteria
  (production, sales, tenure or turnover, absenteeism, theft)
- Subjective criteria
  (employee performance)

Sources of Job Information

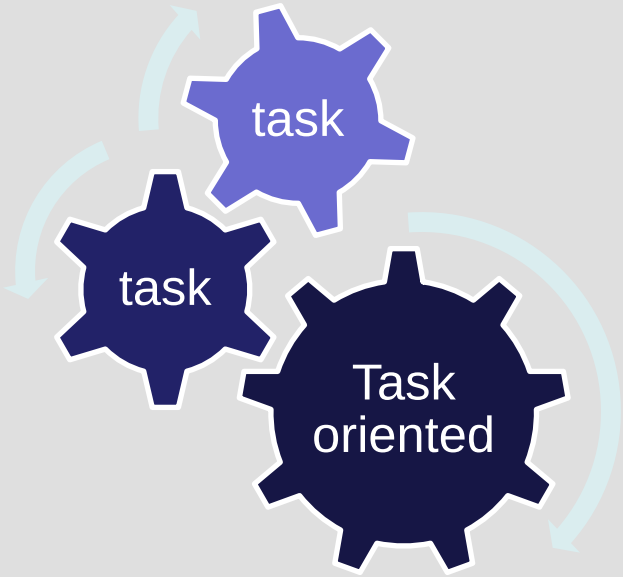
There are three major sources of job information:

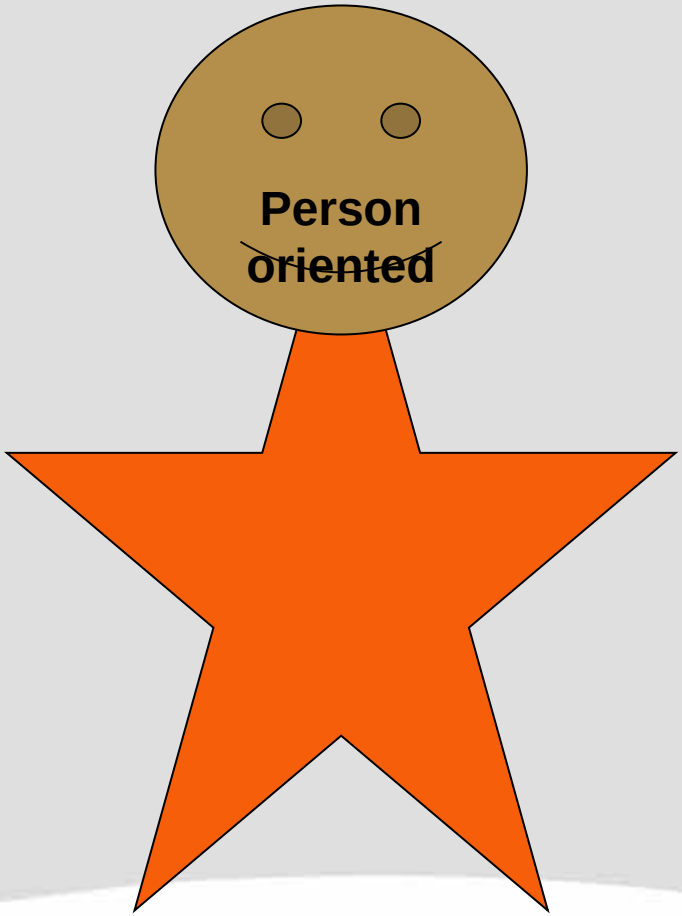
1. Job incumbent
2. Supervisor
3. Job Analyst

Note that each source is a subject matter expert (SME).

A SME refers to a person that has up to date experience with the job for a long enough period to be familiar with all of its tasks.

Types of JA





COMPETENCY MODELING

Definition of Competency

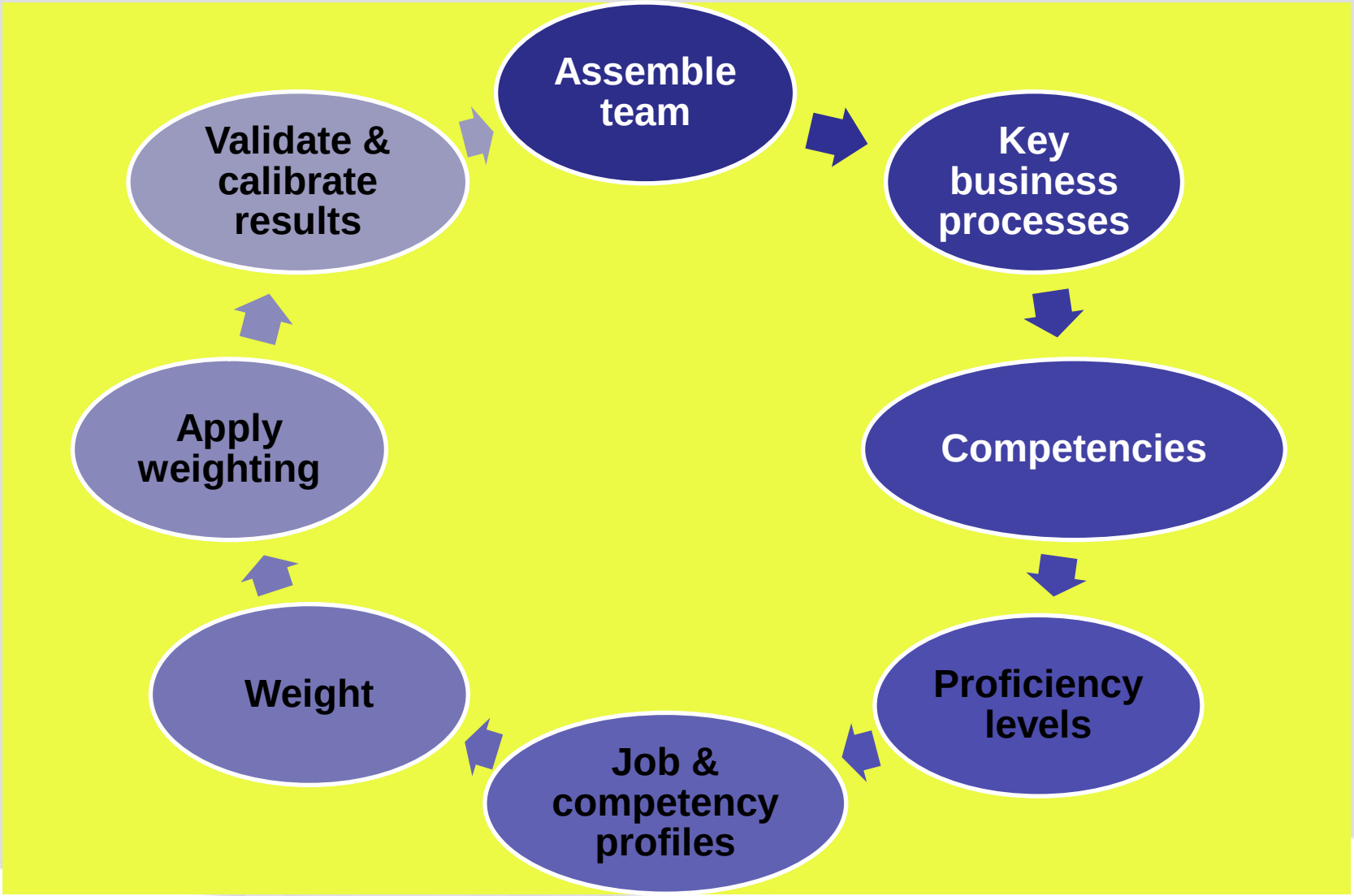
"…sets of behaviours that are instrumental in the delivery of desired results of outcomes"

"...an underlying characteristic of a person which results in effective and/or superior performance of a job"

Job analysis and competency modelling differ in three main areas:

- The generalisability of the information across jobs within an organisation.
- The method by which the attributes are derived.
- The degree of acceptance within the organisation for the identified attributes.

Competency modelling



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JOB PERFORMANCE CRITERIA

Objective Criteria

- Production
- Sales
- Tenure or turnover
- Absenteeism
- Accidents
- Theft

Subjective criteria

- Judgements made of an employee's performance
- Usually rating or ranking
- Most frequently used judgemental criteria

Muchinsky *et al.* (2005)
CHAPTER 4
Predictors: Psychological assessments

&

Coetzee & Schreuder (2010)
CHAPTER 5
Psychological assessment: predictors of human behaviour

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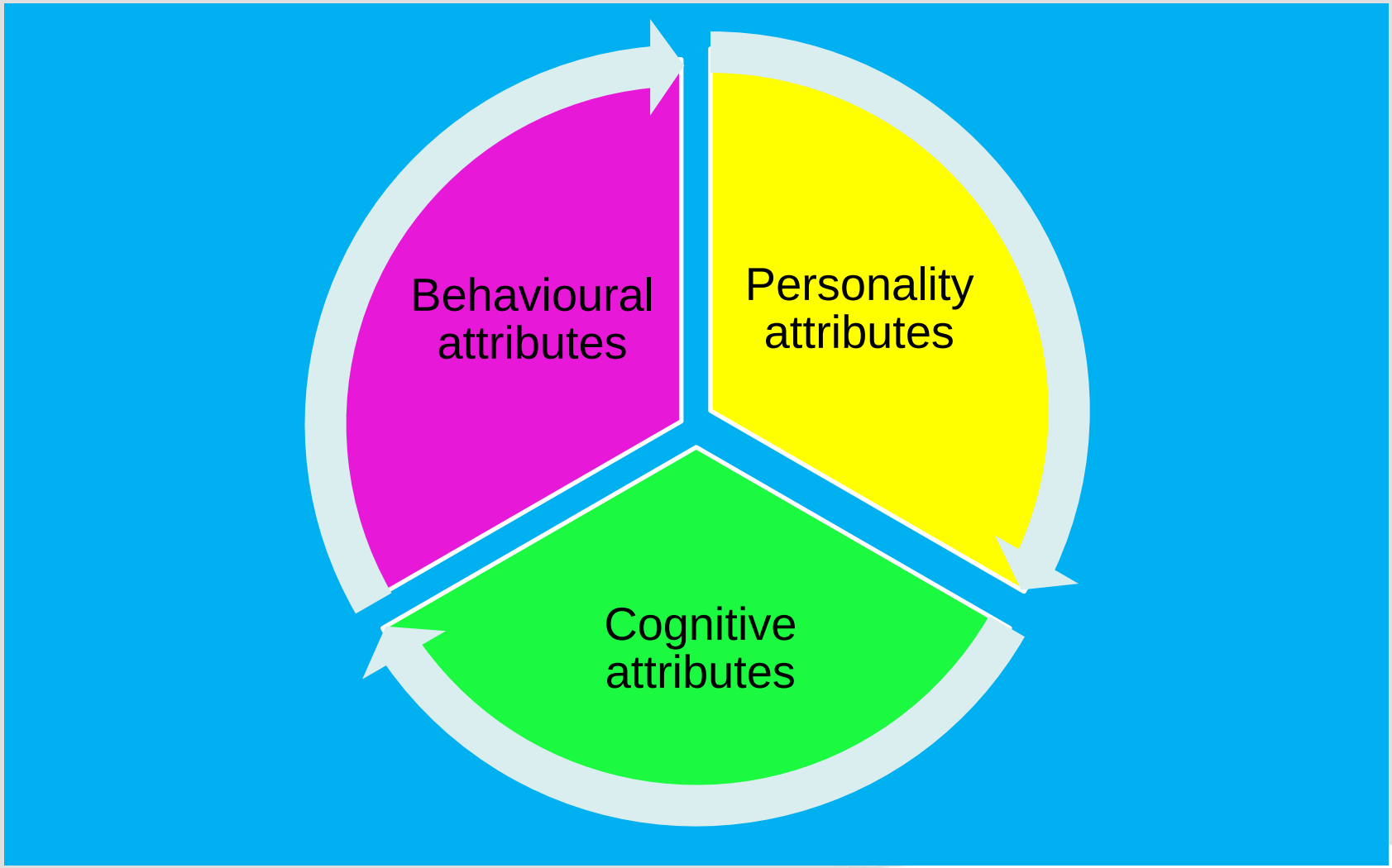
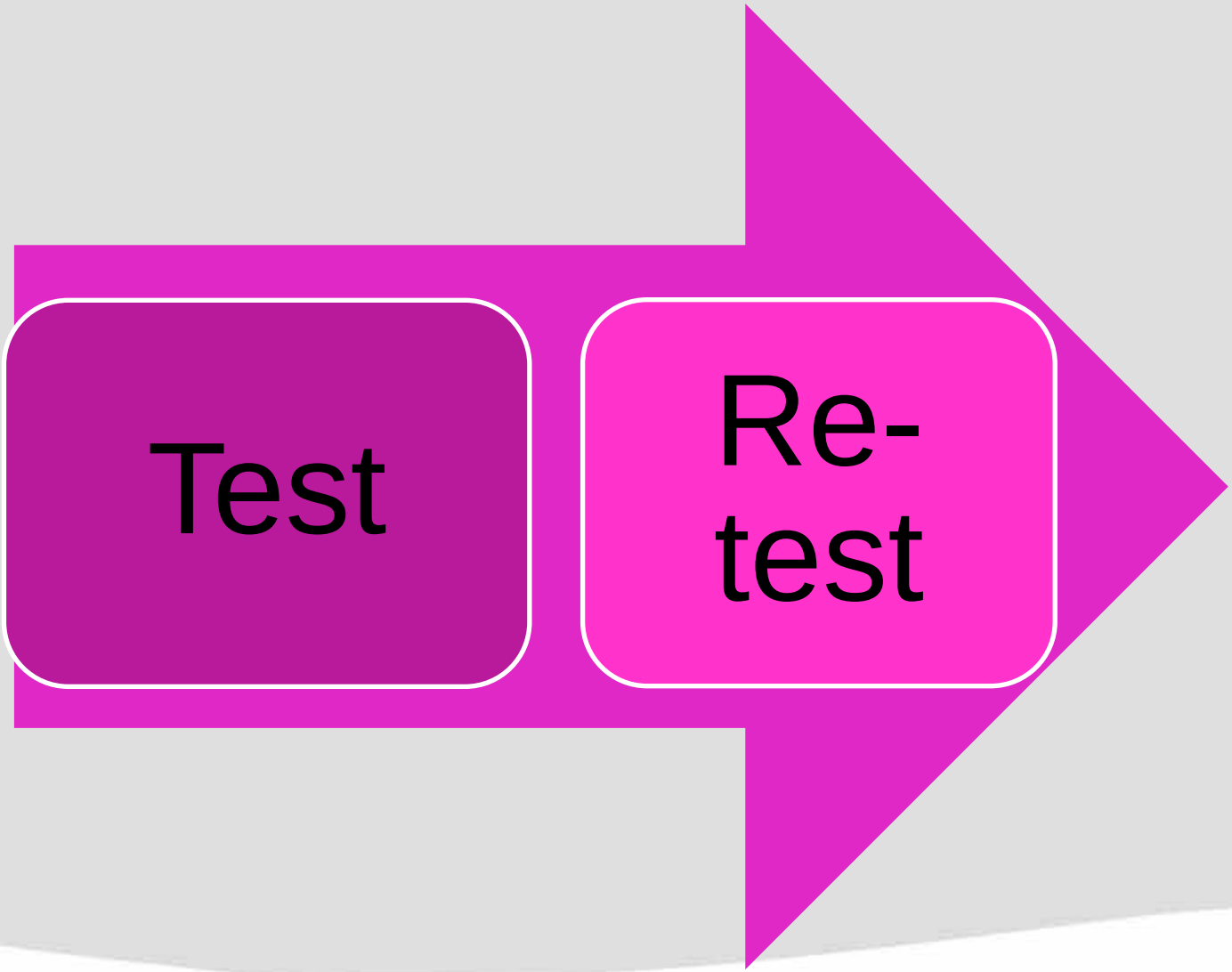
Psychological assessment: predictor constructs

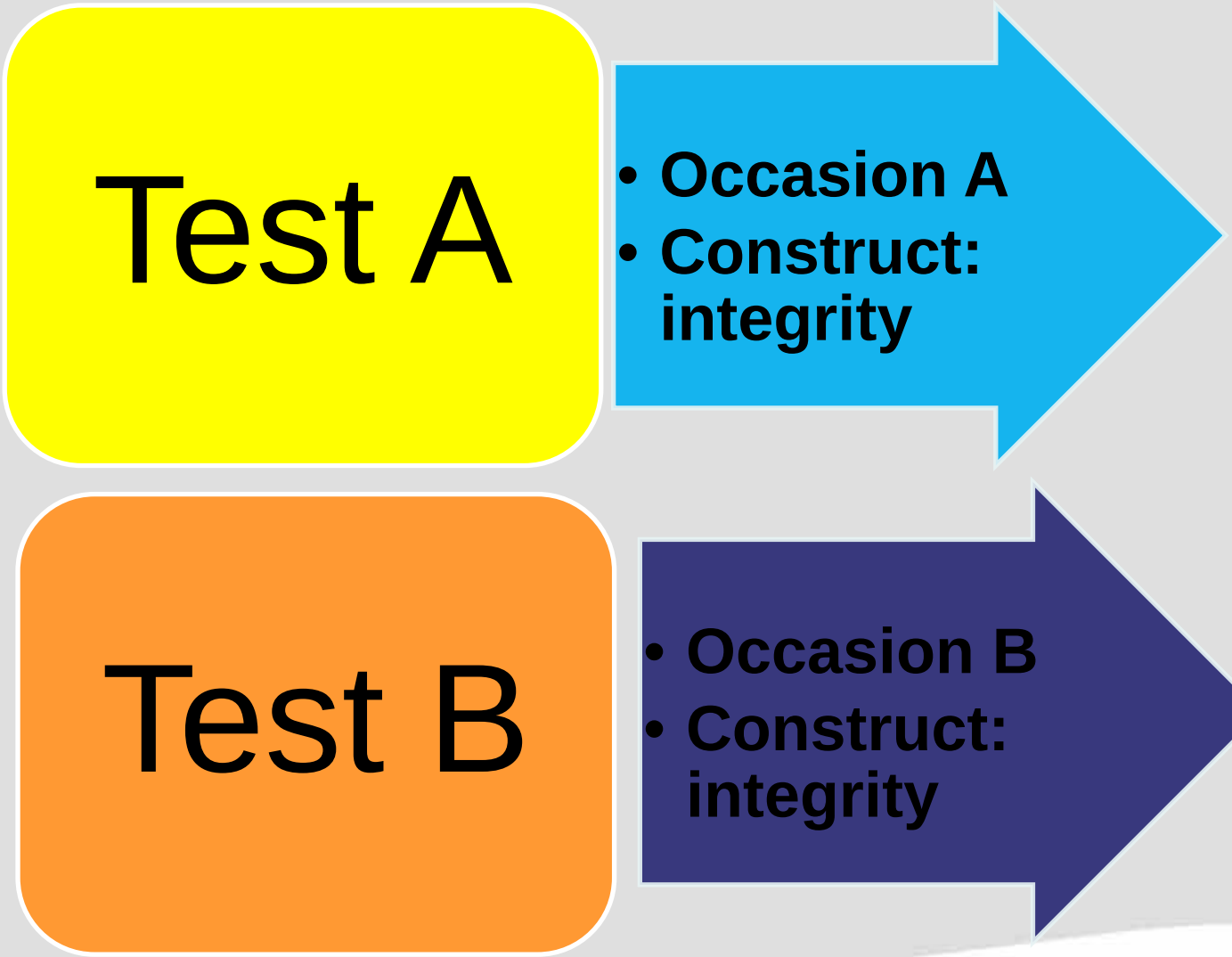


Reliability

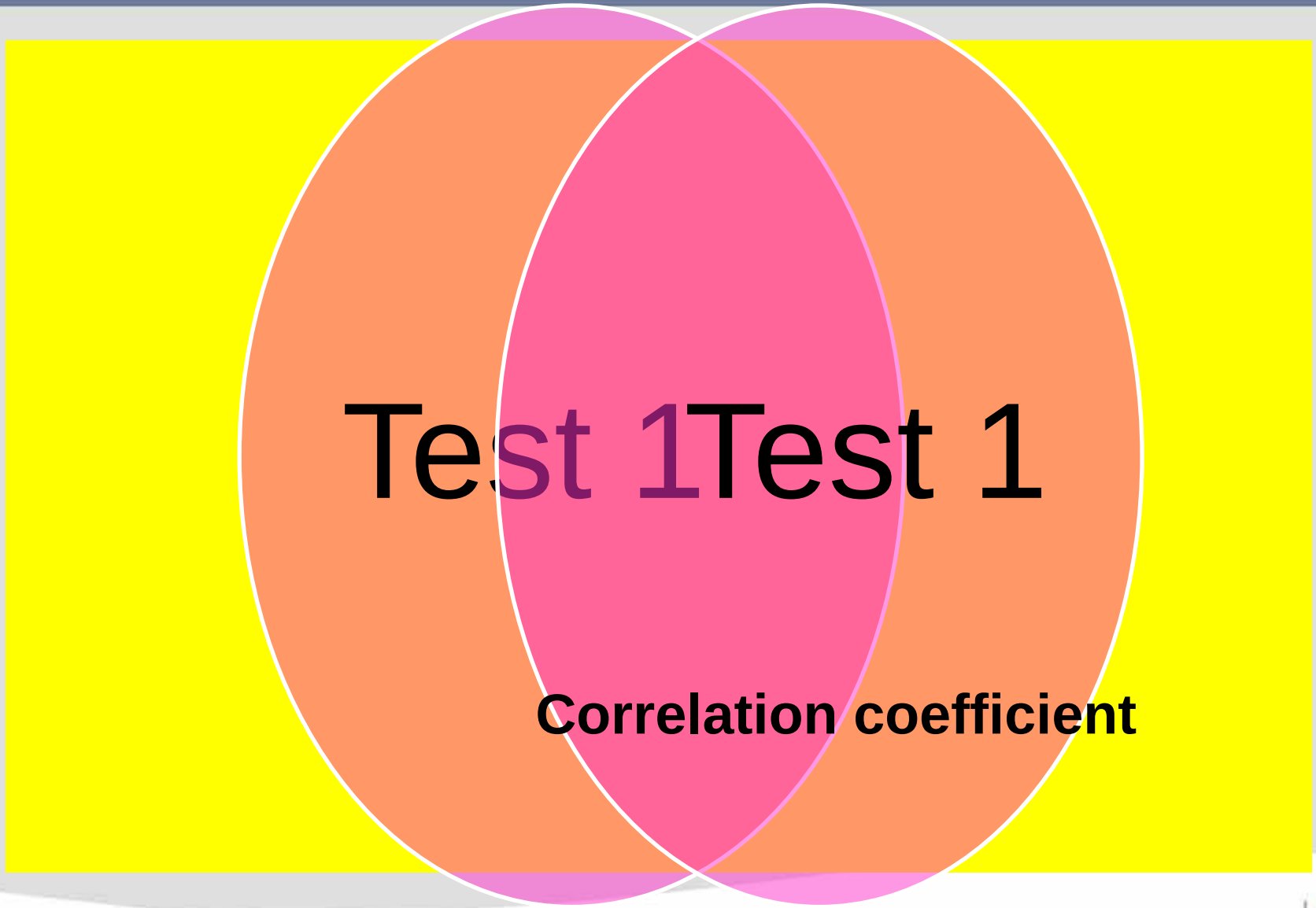


Reliability coefficient

Reliability: alternate form



Reliability: internal consistency



Reliability: measurement error

Unsystematic

- **Test construction**
- **Test administration**
- **Test taker characteristics**
- **Test scoring**

Systematic

Test measures construct different from the psychological attribute it was intended to measure

Predictors: Psychological Assessments

A predictor is any variable to forecast a criterion.

Assessing the quality of predictors

- *Reliability* (consistency of a measure)
  - Test-retest reliability
  - Equivalent-form reliability
  - Internal consistency reliability
  - Inter rater reliability
- *Validity* (accuracy and precision)
  - Criterion-related validity → CONCURRENT / PREDICTIVE
  - Content validity → Degree to which the predictor covers a representative sample of the behaviour being assessed
  - Construct validity → Most theoretical and complex e.g. IQ - construct Use predictor to measure construct

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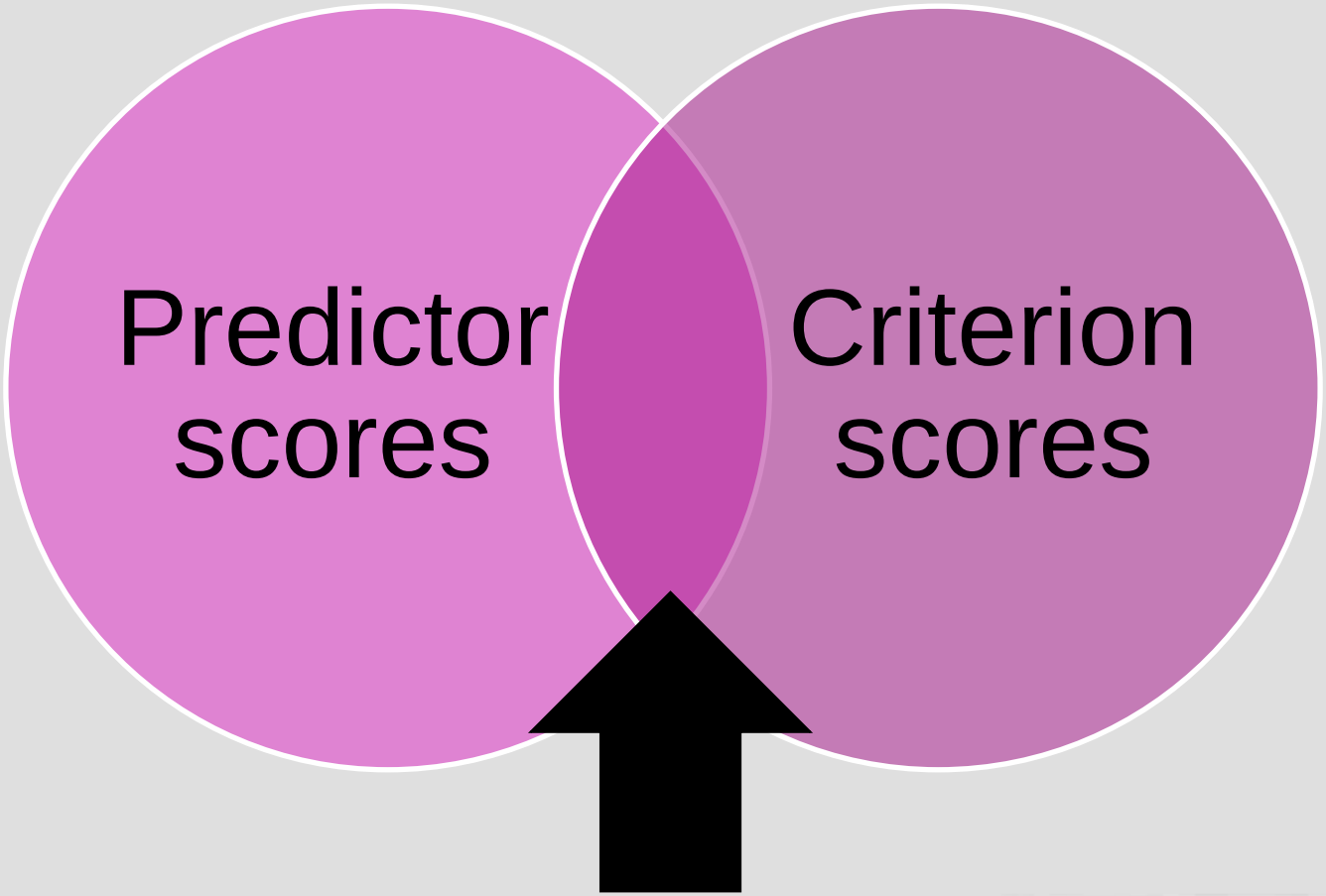
Validity coefficient



CONCURRENT VS PREDICTIVE VALIDITY

Criterion (job performance data) can be collected in either a concurrent- or a predictive-validity design. The major distinction is the time interval between collection of the predictor and criterion data.

Concurrent validity

Present workers take a test scores are correlated with job performance.

Several problems with this type of validity

Predictive validity

The preferred method used in personnel selection. Test is given to all applicants, but not used as a selection instrument. Data on job performance are subsequently collected and the original test scores are then compared to the actual Job performance.

Validity generalisation

Validity generalisation refers to a predictor's validity spreading or generalising to other jobs beyond the one in which it was validated.

Fair practice

- **Fair use & application**
- **Test taker needs & rights**
- **Predictor match purpose**
- **Consider moderating factors**

ETHICAL STANDARDS IN TESTING

To prevent misuse of tests:

- American Psychological Association (APA) guidelines
- Society for Industrial & Organisational Psychology (SIOPSA):
  Guidelines for the Validation and Use of Personnel Selection Procedures
- SHL Group:
  Guidelines for best practice in occupational assessment in South Africa

Main responsibility lies with the industrial psychologist

SA has some of the strictest rules in the world concerning:

- Who can buy
- How advertised (no free samples)
- Who is in control (industrial psychologist)
- Who can administer

Assessment practices standards

Test taker right to privacy

Information confidentiality

Test taker written informed consent

OTHER ETHICAL ISSUES

Privacy:

- only test what is needed for job e.g. do not use personality for a job where it is irrelevant to performance (mechanics)
- not to reveal more information than the persons wants.

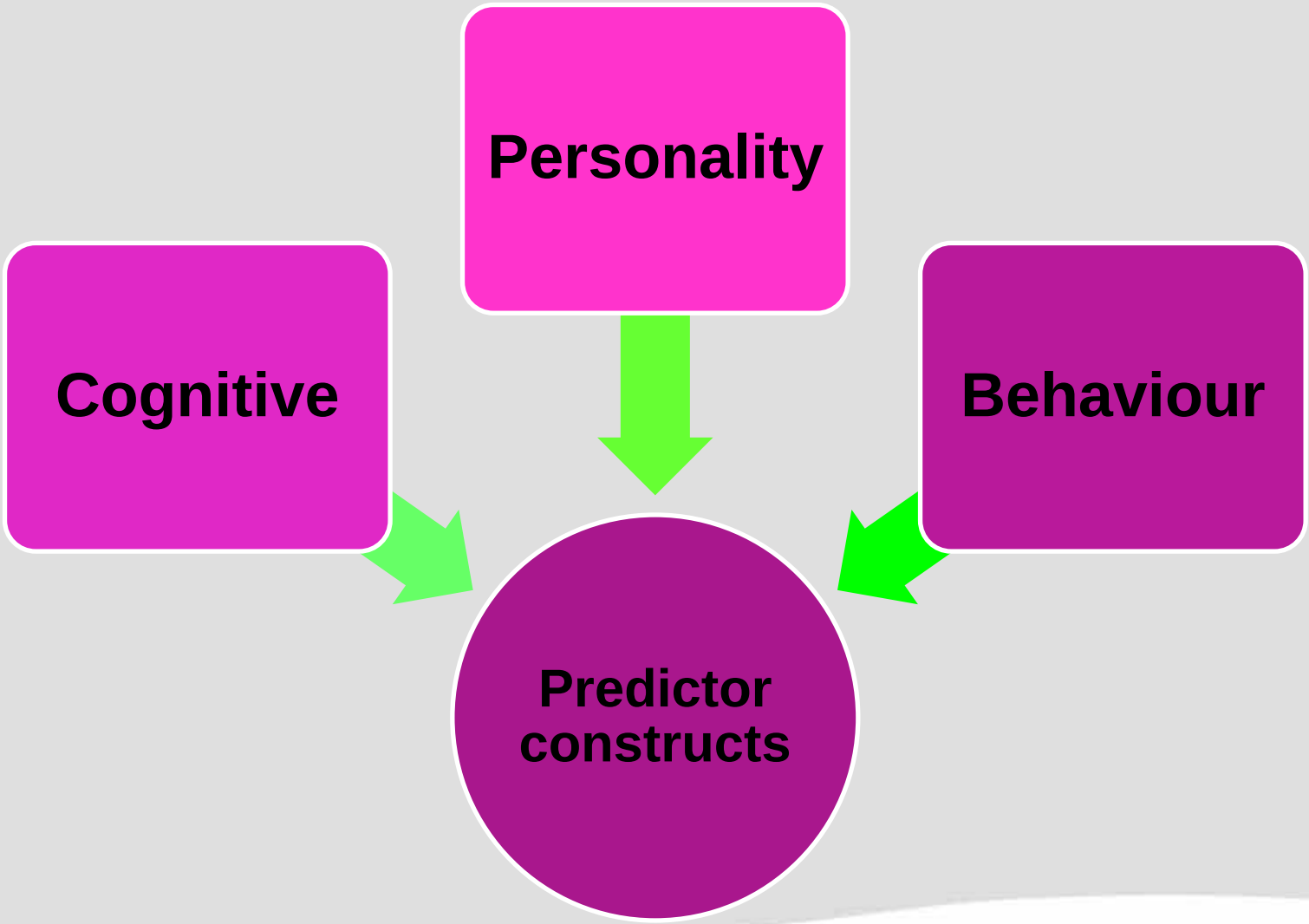
Confidentiality:

- access should be controlled
- tell applicant:
  - the purpose of the test,
  - how results will be used and
  - who will see the results

Retention of records:

- How long (legal requirements)?
- Who has access?
- How secure?
- For what purpose?

Types of predictors



PSYCHOLOGICAL TESTS

Psychological tests have been the most frequently used predictors in industrial psychology.

Types of tests

ADMIN

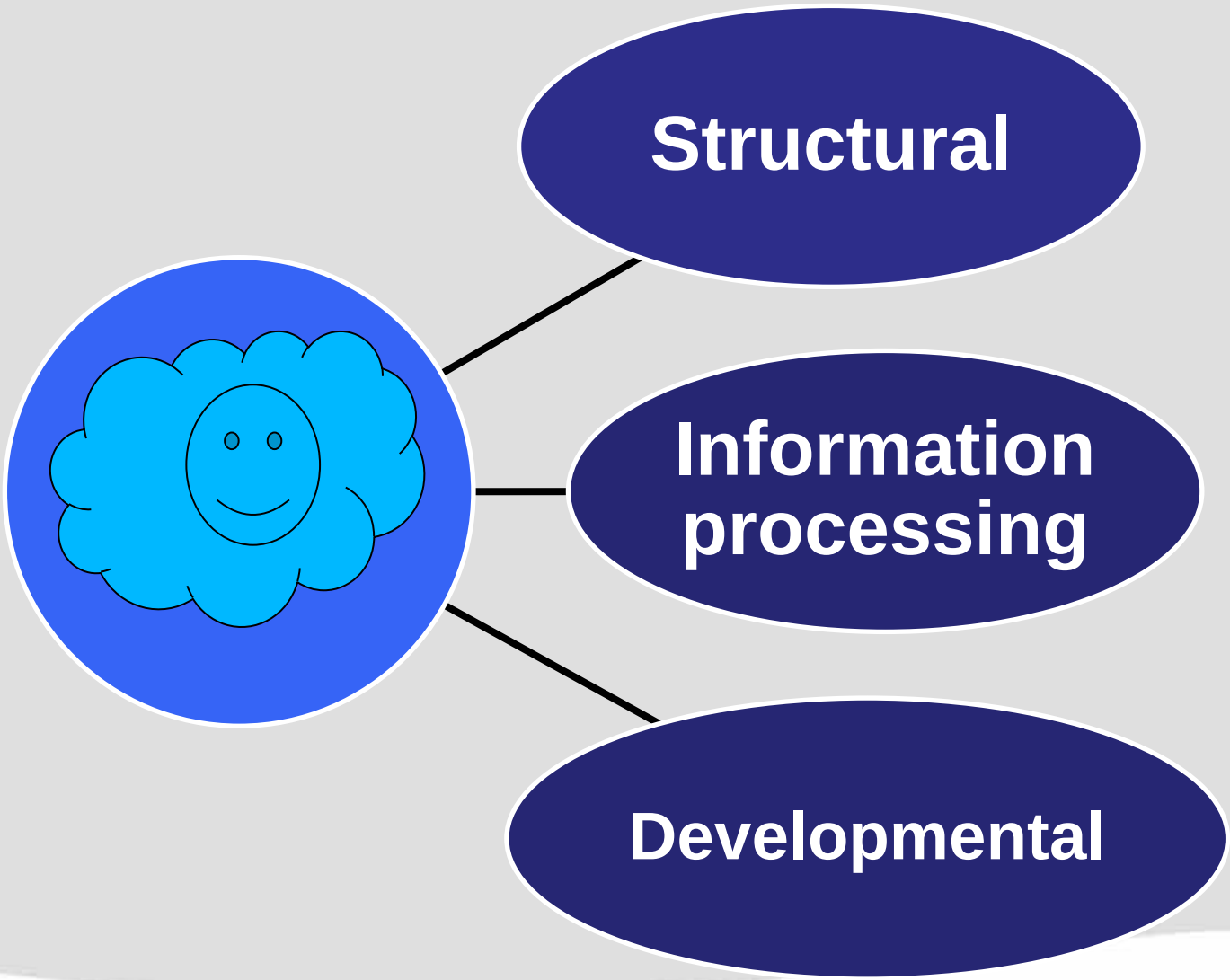
- speed vs. power tests
- individual vs. group tests
- paper-and-pencil vs. performance tests

Test Content

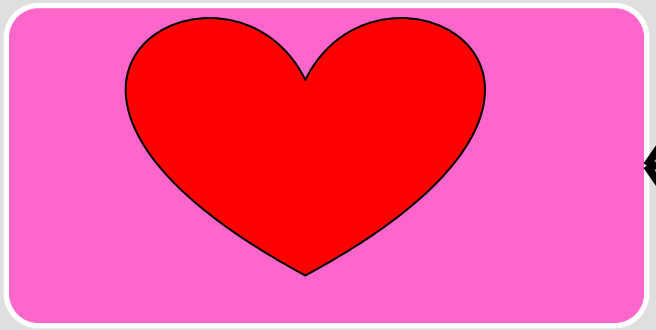
CONTENT

- intelligence tests
- mechanical aptitude tests
- sensory/motor ability tests
- personality and interest inventories
- integrity tests
- testing physical abilities

Cognitive predictors



Personality predictors



- **Projective techniques**
- **Structured personality assessment**
- **Specific personality constructs**

NON-TEST PREDICTORS: INTERVIEWS

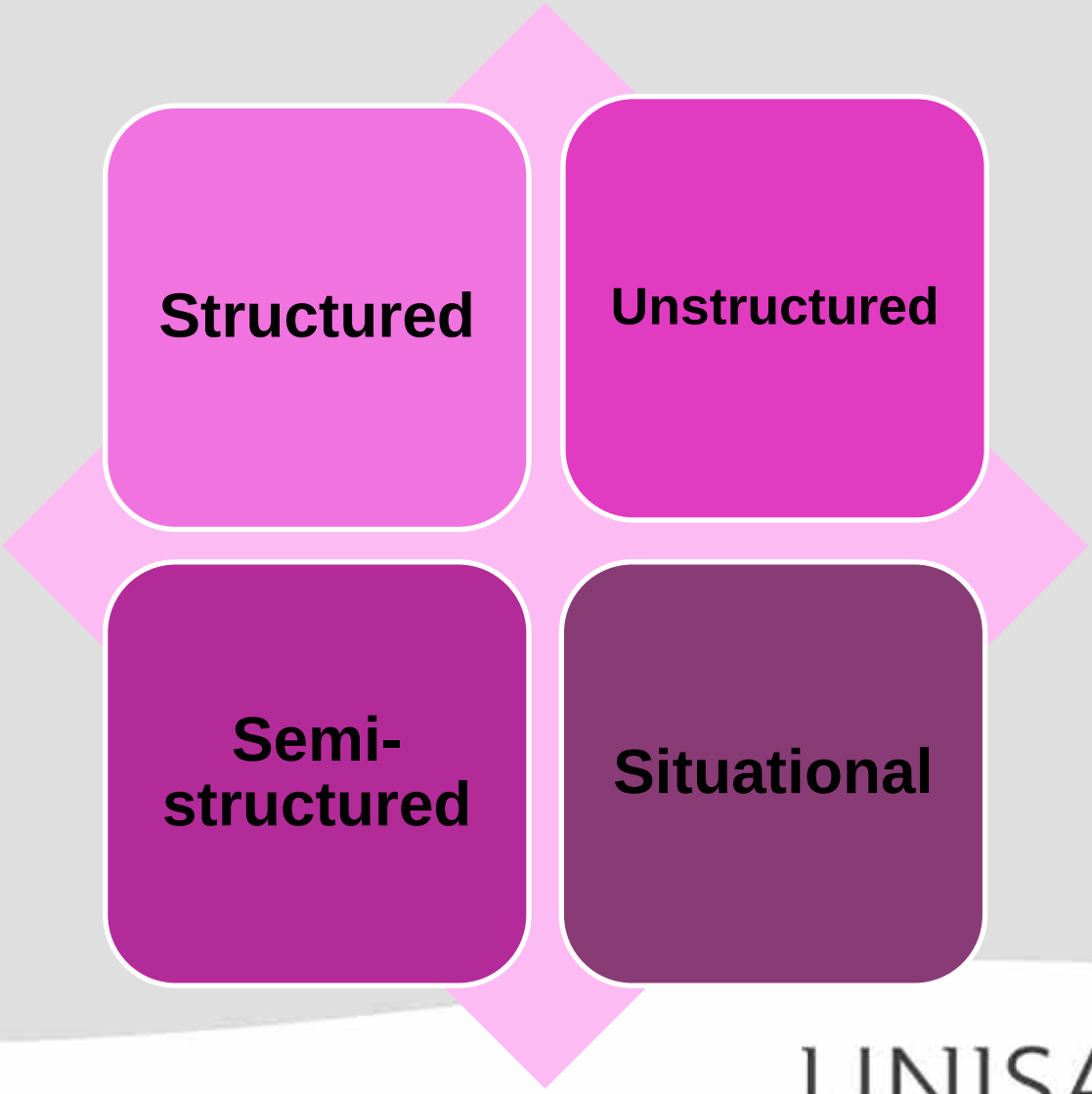
Interviews are the most popular selection method.

Degree of structure

Interviews can be classified along a continuum of structure (structured, semi-structured, unstructured interview)

Structured	Unstructured
▪ Questions are prepared in advance ▪ Follow-up questions ▪ Carefully systematically planned	▪ Unplanned questions ▪ May or may not ask follow-up questions

Interviews



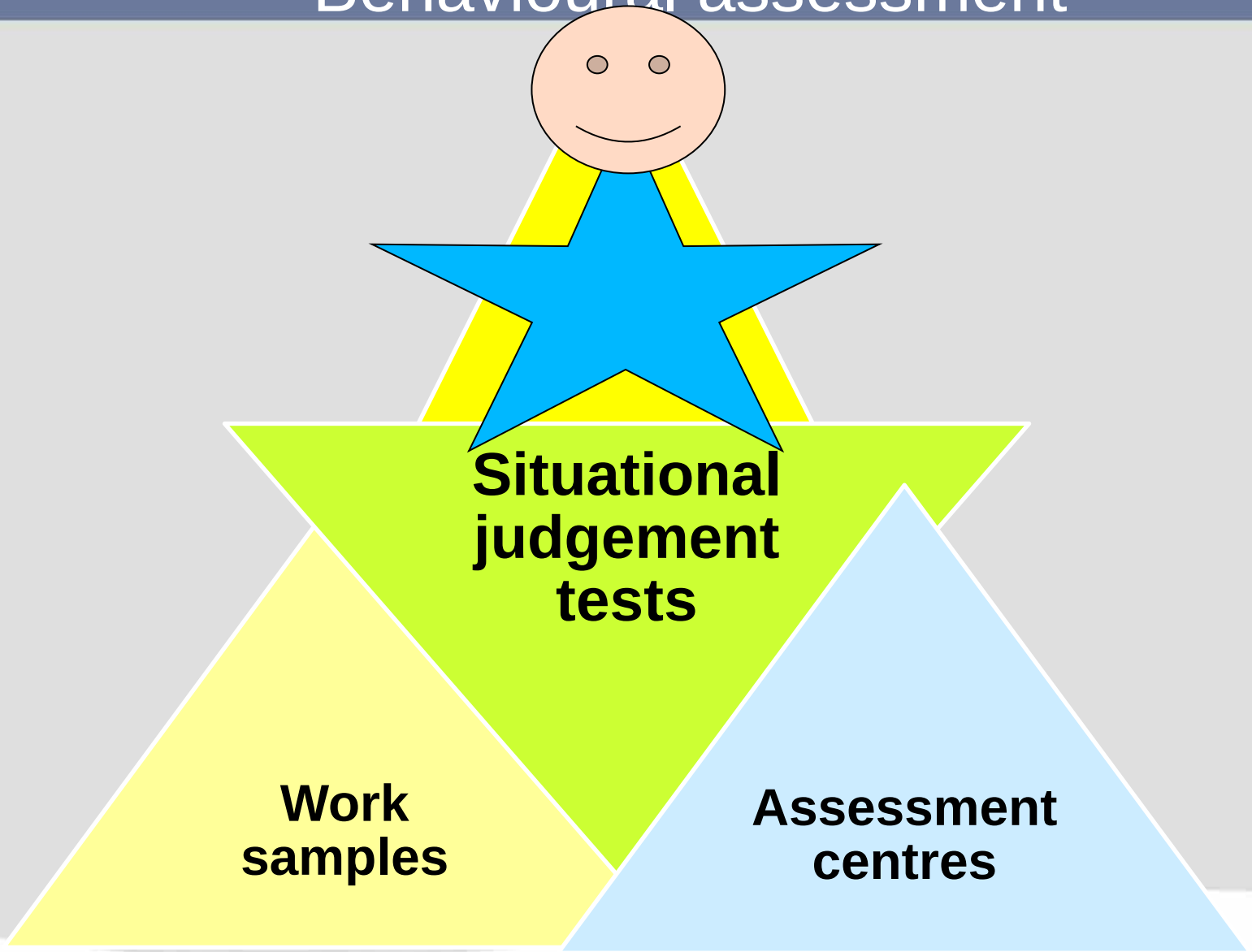
SITUATIONAL INTERVIEW (SI)

- A Situational Interview presents the applicant with a situation and asks for a description of the actions he would take in that situation.

- SI can focus on:
  - Hypothetical, future orientated situations
    - Applicants are asked how they would respond if they were confronted with typical problems
  - Past situations
    - Focus on how applicants have handled situations in the past, that have required the skills and abilities necessary for effective job performance

Ø The candidate's responses are then scored on a scale.

Behavioural assessment



ASSESSMENT CENTRES

Purpose: To evaluate (usually) management personnel for promotion, transfer or training

Provide a group-orientated, standardised series of activities that provide a basis for judgements or predictions of human behaviour believed or known to be relevant to work performed in an organisation.

The validity of assessment centres is determined by comparing judgments of performance made in the assessment centre with some criterion of performance back on the job, usually rated job performance, promotions or salary. Validity of assessment centres 0,47 - 0,64

Assessment centres also do not have the racial or sex bias of other predictors - culture-fair predictors of job performance.

One of the top predictors of job performance.

WORK SAMPLES

- Can use work samples for e.g. for mechanic

  One of the tasks could be: how to drain oil from the gearbox
- Has a high face validity
- Blue collar jobs
  - Effective when job includes working with things rather than people
  - Assess what person can do ≠ potential
  - Time consuming and costly to develop
- Validity of work sample 0,42 - 0,66
- Work samples are among the most highly valid means of personnel selection.
- More applicable to practical jobs

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SITUATIONAL EXERCISES

- White-collar counter-part of work samples, more applicable to professional/managerial positions.

- Best examples:
  - In-basket (problem solving skills)
  - Leaderless Group Discussion (inter-personal sensitivity)

- Criterion of success for managers more difficult to define, therefore more difficult to predict = lower validity

Work samples = replica of job

Situational exercise = mirror part of job

Validity 0,20 - 0,35

BIOGRAPHICAL INFORMATION

Biographical information is frequently recorded on an application blank. Problems:

- Equal access (e.g. male vs. female sports)
- Invasive (e.g. religion, dating behaviour)
- “Fake ability” (distort responses to create a more socially desirable impression)

Biographical data successful in predicting earnings, absenteeism and productivity. 0,79 validity coefficient for predicting the turnover employees.

LETTER OF RECOMMENDATION

Least valid of all predictors (average validity of 0,13)

Restricted range:

- Almost all letters are positive (employer might want to get rid of poor performer)
- Applicants themselves choose who will write the letters - pick people that will make them look good

REFERENCE CHECKING

- This refers to the gathering and use, at one or more stages of the personnel selection process, of information about applicants.

- A popular way of checking references is by telephone. Candidate are required to furnish the names and contact numbers of previous employers and other people that may be contacted for this purpose.

- The following information may be gathered:

  - job experience
  - job performance
  - his/her character
  - physical and mental health

EMOTIONAL INTELLIGENCE (EI)

- EI can be regarded as the “soft” side issues of individual differences - such as moods, feelings, emotions.

- The relevance of these constructs to the world of work have been denied for many years, but we are now coming to realise that moods, feelings and emotions play a significant role in the workplace.

Five dimensions to the construct of EI

1. Knowing one’s emotions
2. Managing one’s emotions
3. Motivating oneself
4. Recognising emotions in others
5. Handling relationships

ONLINE ASSESSMENT

A method for collecting data or administering instruments.

The benefit is the capability to deliver assessments direct to the test taker.

The concerns are the verification and psychometric quality:

- This involves administration without direct supervision
- Verification - did the person completing the test do so unaided
- Psychometric quality - are the scores distorted as the person was not observed completing the questionnaire

Assessment of predictors along 4 evaluative standards

- Cost: Look at indirect/hidden costs.
- Applicability: How many jobs does the predictor cover.
- Fairness: Must not unfairly discriminate against a group.
- Validity: Not one ideal predictor with a 100% validity, otherwise not ideal in others.

Get test for situation = trade-off

Trade-offs between the 4 different standards

Muchinsky *et al.* (2005)
CHAPTER 5
Personnel decisions
CHAPTER 6
Fairness in personnel decisions

&

Coetzee & Schreuder (2010)
CHAPTER 6
Recruitment and Selection

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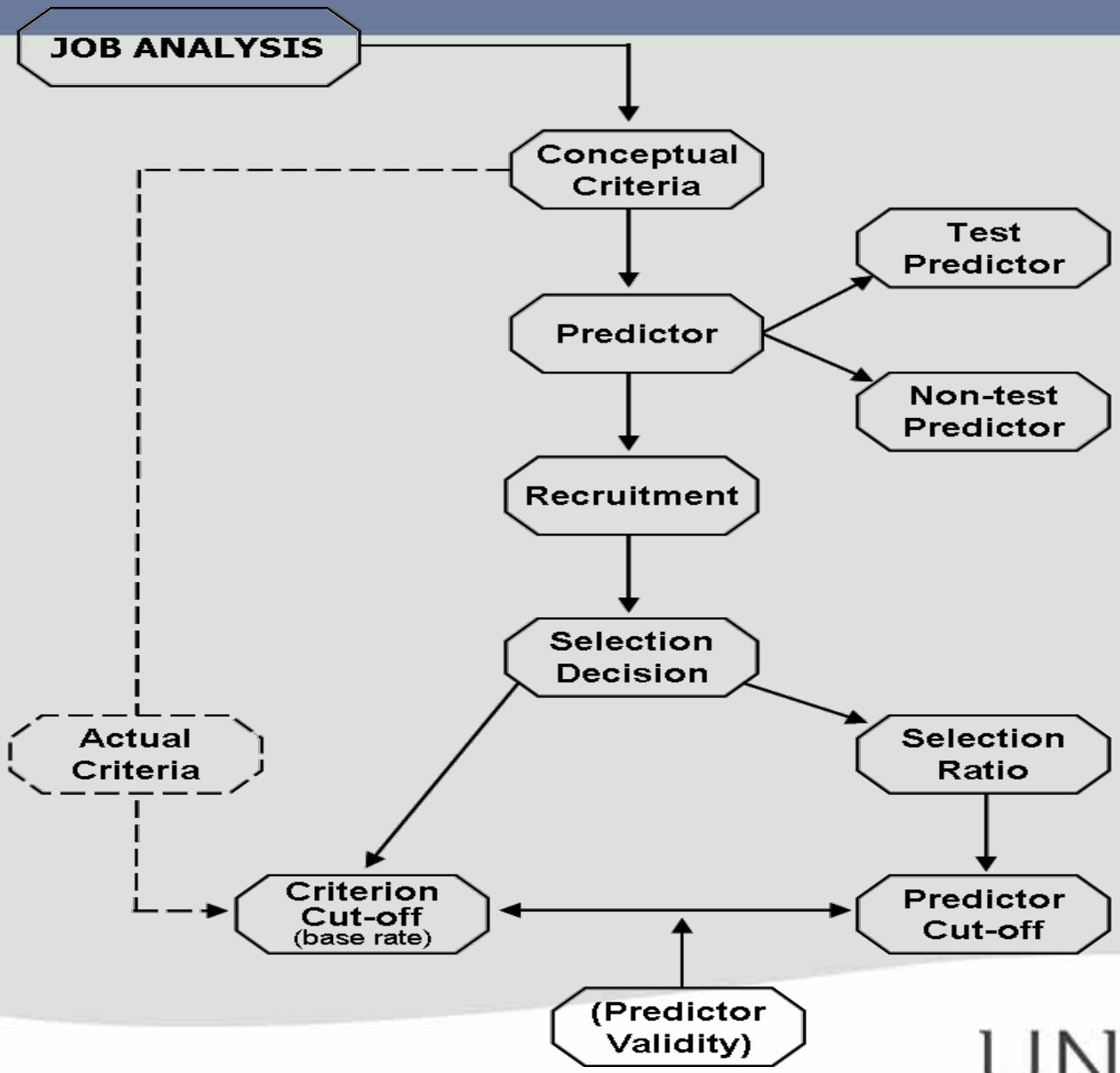
SELECTION DECISIONS



RECRUITMENT

The personnel function of recruitment refers to the process of attracting people to apply for a job

SOCIAL VALIDITY

When job applicants view the selection process of an organisation as fair, of high quality and as acceptable one can say that the social validity of that organisations' selection procedure is high

RECRUITMENT

- Both parties are engaged in assessing the degree of fit with each other
- **Mutual process especially if you want a better employee**

- Affirmative action: recruit previously disadvantaged, who might not otherwise seek employment
  - place advert so that designated group will see and read it
  - visit schools/universities of designated groups
  - cannot state that you specifically want a male or a female

VS

- Glamour advertising that over-emphasises good points and ignores bad points (high turnover)

AFFIRMATIVE ACTION (AA)

AA is a social policy aimed at reducing the effects of prior discrimination.

Four goals of AA

1. Correct present inequities
2. Compensate past inequities
3. Provide role models
4. Promote diversity

Has AA been effective in meeting national goals of prosperity in employment?

- Recruitment
- Psychological and behavioural effect

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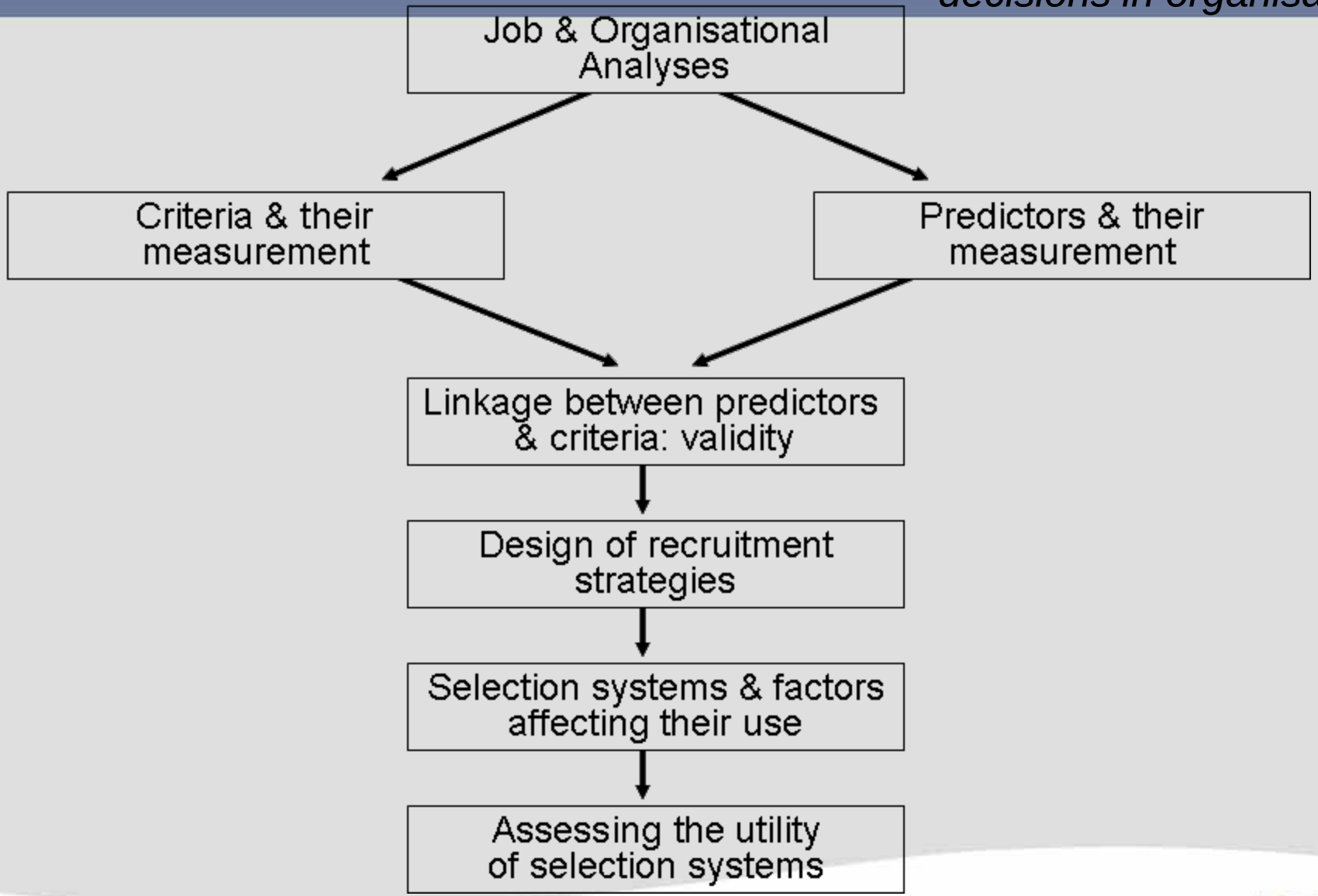
Figure 5.2 *Model of personnel decisions in organisations*



SELECTION

Personnel selection is the process of identifying from the pool of recruited applicants those to whom a job will be offered. p137 in Muchinsky e*t al.*, (2005) or p185 in Coetzee & Schreuder (2010)

IMPLICATIONS

•Selection implies that some applicants will get hired while others will not

•Some applicants are better suited than others for a particular job and the purpose of selection is to identify the “better” applicants

Three factors determine the quality of the newly selected employees and the degree to which they will have an impact on the organisation:

• validity of the predictor

• selection ratio

• base rate

	Predictor	Criterion
Employee	Test Score	Job-performance rating
A	1	3
B	7	8
C	2	5
D	5	7
E	8	7
F	6	6
G	4	5
H	8	9
I	2	3
J	4	6
K	6	9
L	5	4
M	3	6
N	3	4
O	7	7

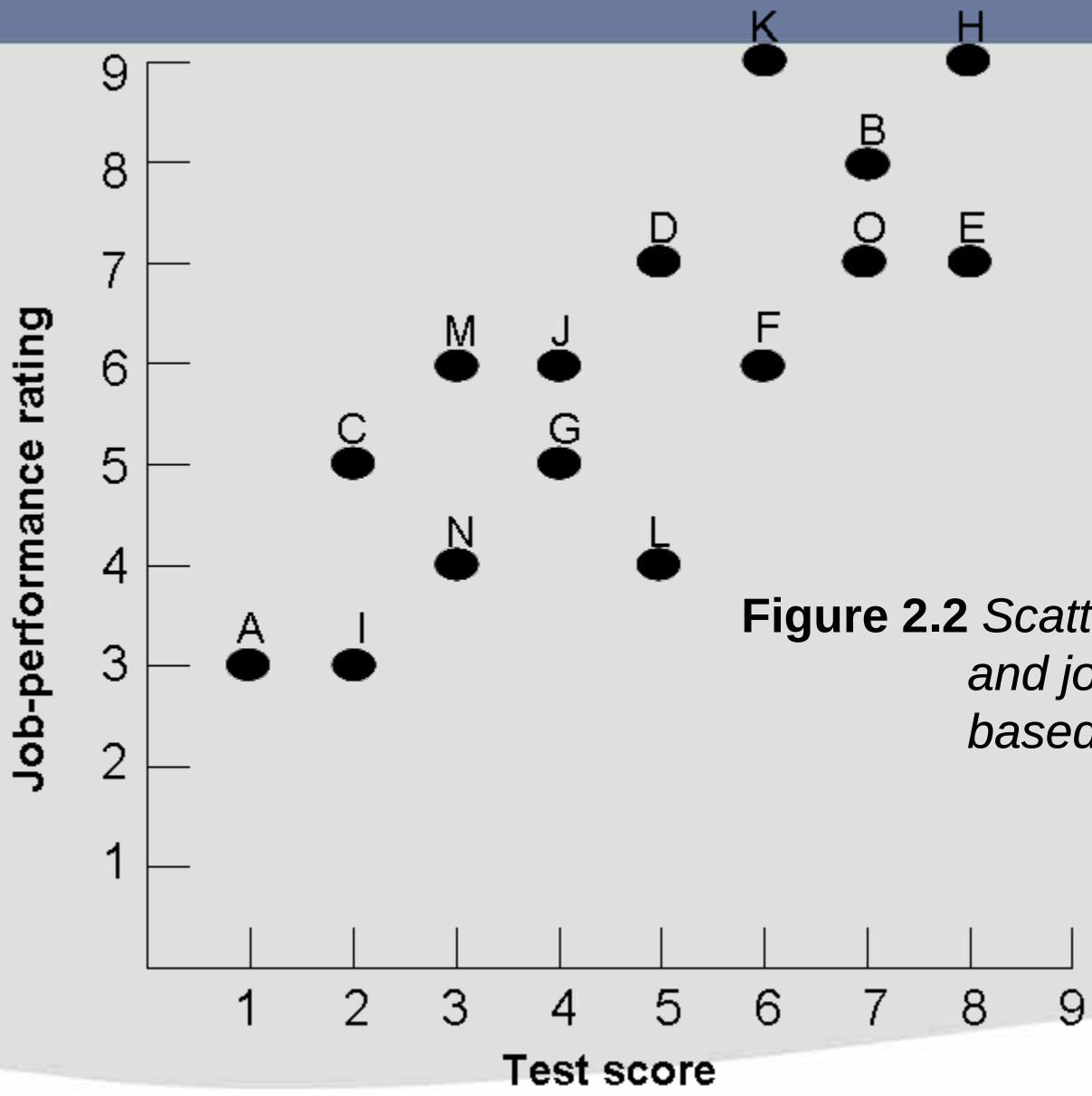
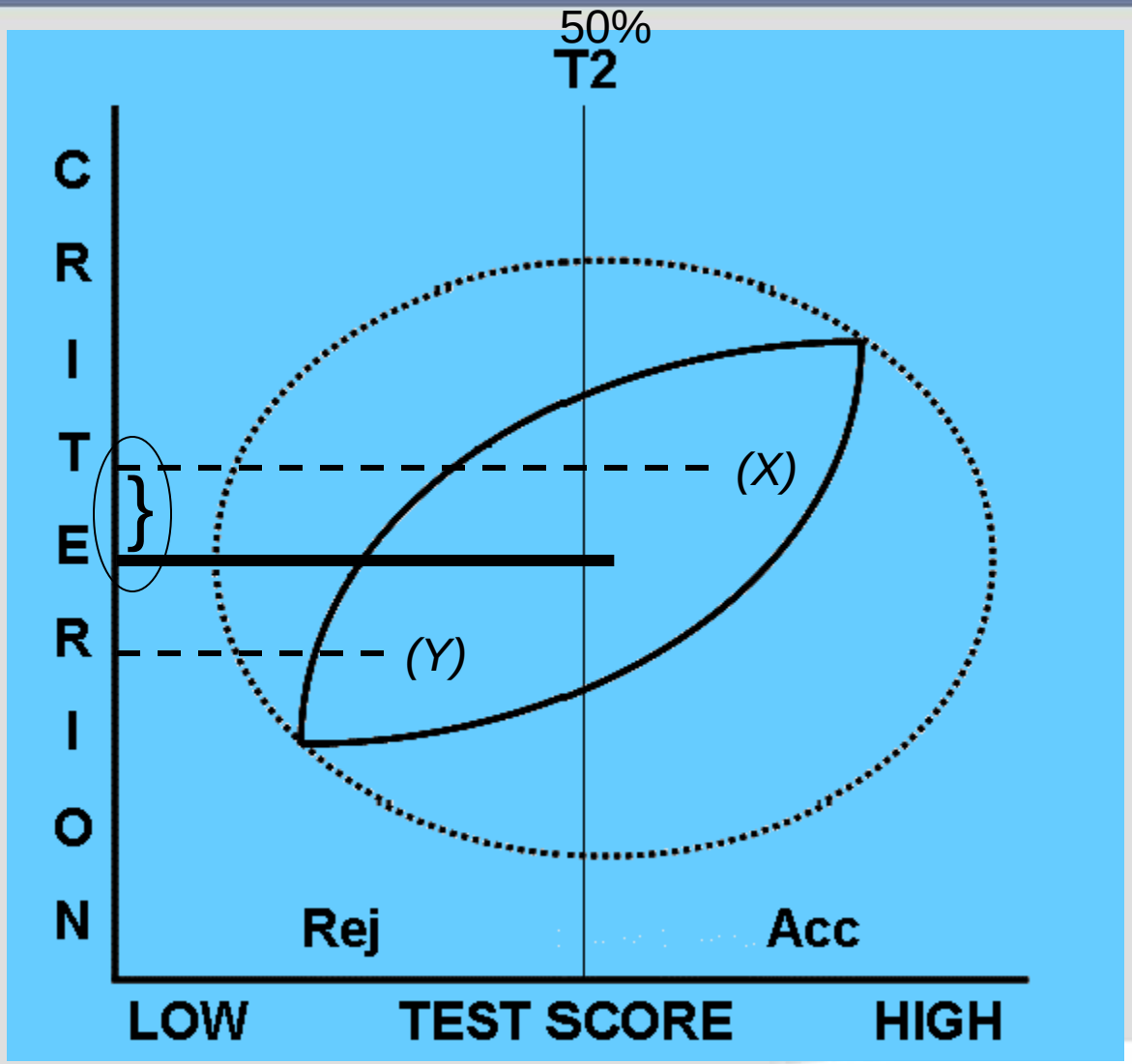


Figure 2.2 *Scatter plot for test scores and job-performance ratings based on 15 employees*

PREDICTOR VALIDITY



$r = 0,8$

SELECTION RATIO

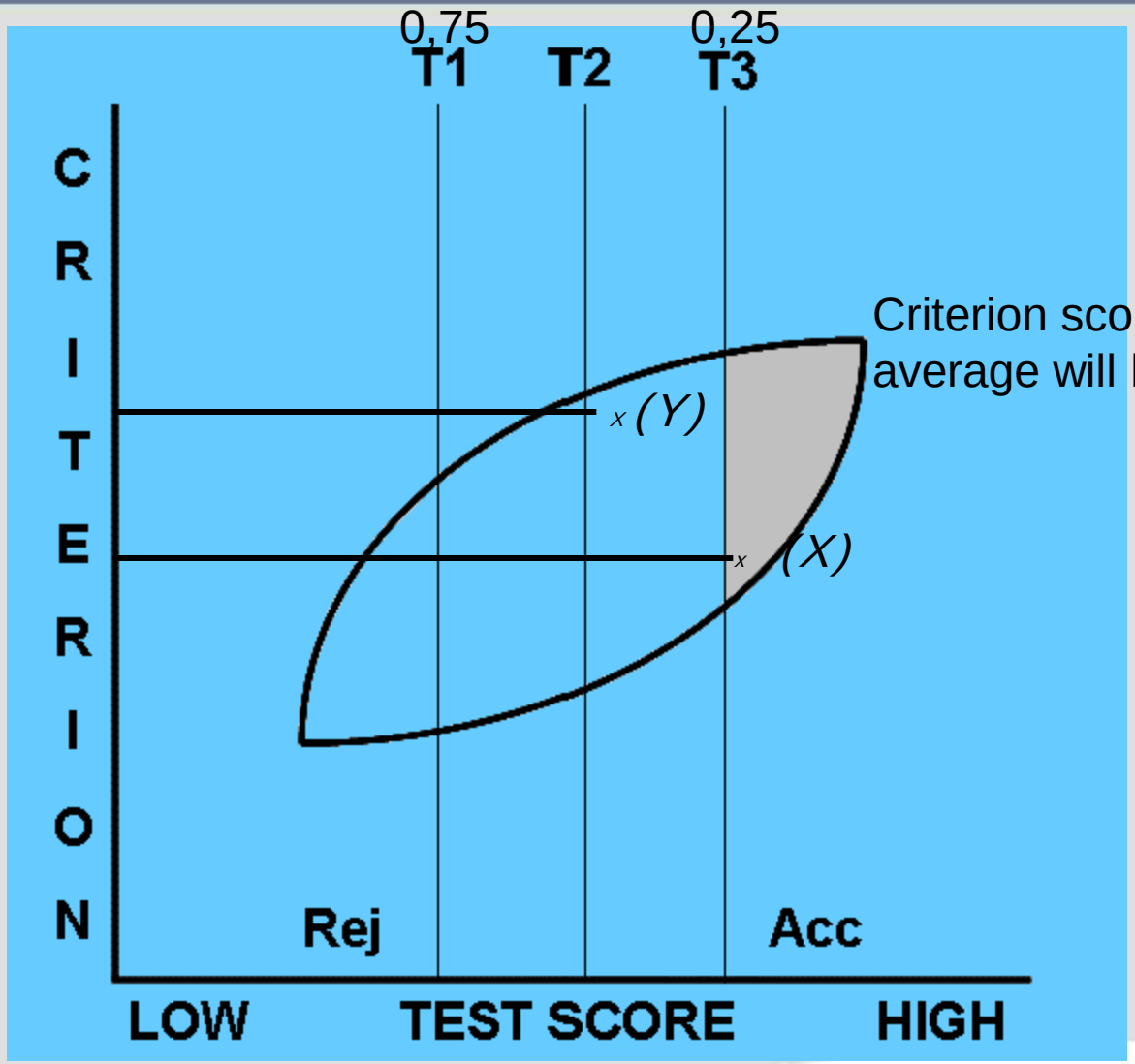
THE SELECTION RATIO REFERS TO THE PROPORTION OF APPLICANTS THAT ARE PLACED IN RELATION TO THOSE TESTED WHO ARE AVAILABLE FOR PLACEMENT **(SR = n/N)**

Select only best (small SR) **OR** Leave only worst (Large SR)

BASE RATE

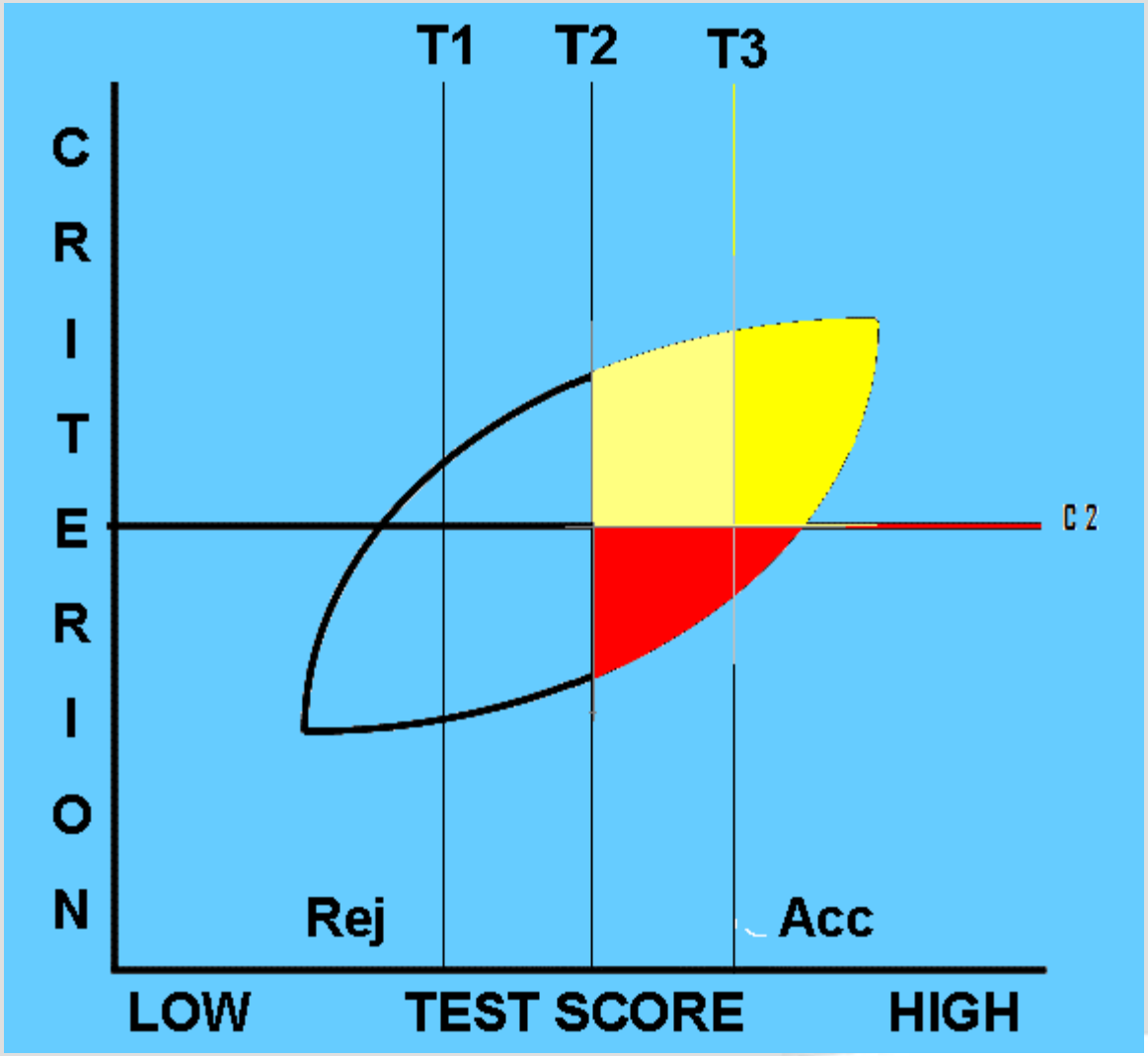
THE PROPORTION OF PERSONS JUDGED SUCCESSFUL USING CURRENT SELECTION PROCEDURE

SELECTION RATIO



Criterion scores on average will be ↑

SELECTION RATIO



% OF PRESENT EMPLOYEES CONSIDERED SATISFACTORY

Largest gains in average criterion performance will occur with a base rate of 0,5 : greater gain in actual number of NEW employees that will be successful in performing their job.

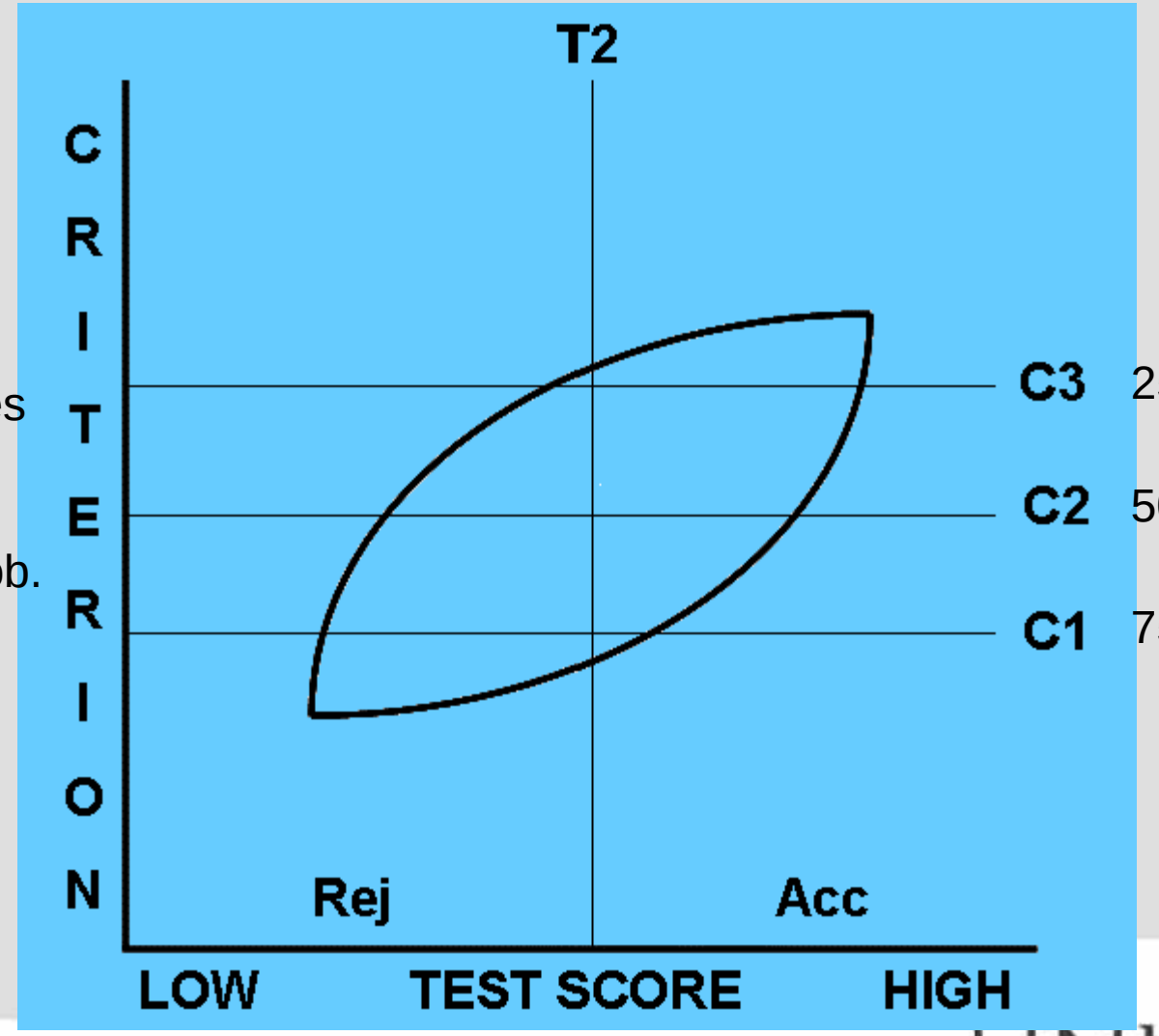
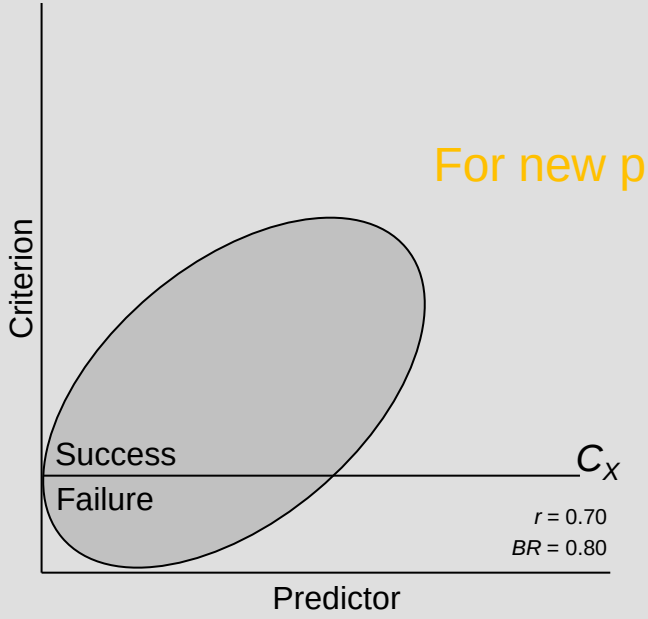
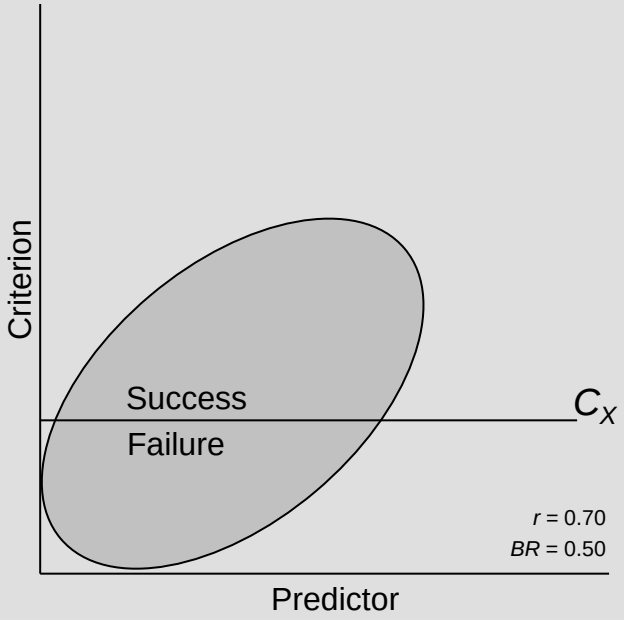
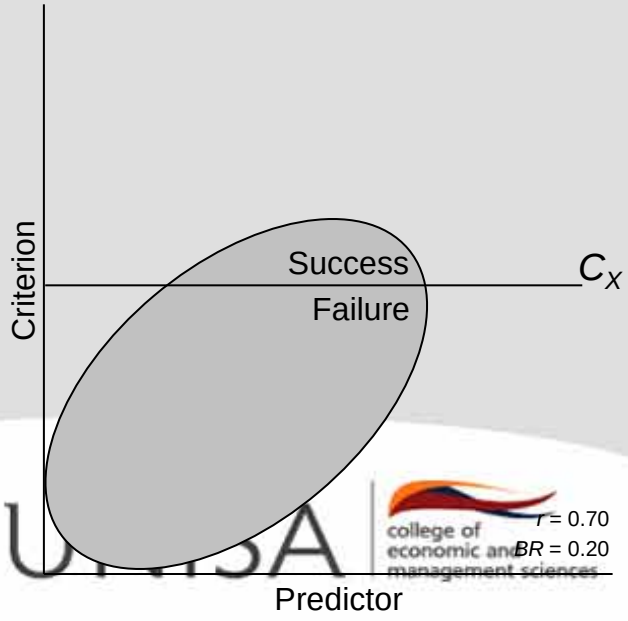


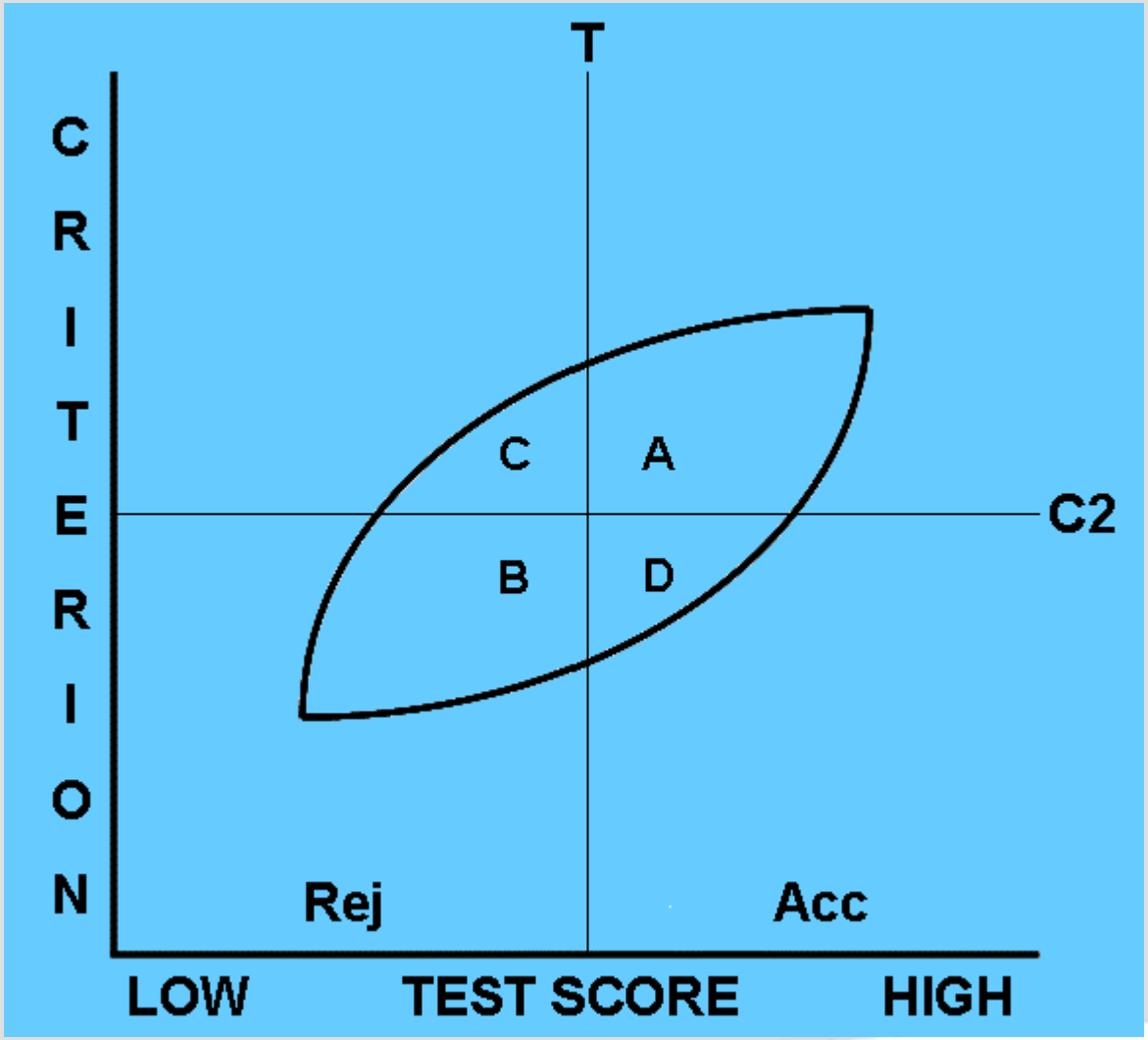
Fig 6.9 Varying base rates on a predictor with a given validity

For new predictor br = 0,5 is highest utility








T
CRITERION
C
A
B
D
C2
Rej
Acc
LOW
TEST SCORE
HIGH

FAIRNESS IN PERSONNEL DECISIONS

DEFINITION OF FAIRNESS:

- If all the parties received equitable treatment
- If there was conformity with universally accepted standards
- Consistency was exhibited (Bendix, 1996)

FAIRNESS = SOCIAL CONCEPT

- is a social concept - not a psychometric or statistical concept
- has no single meaning \ no single statistical definition
- is relevant to all personnel decisions and must be applied
- is not just about selection, but also about other personnel decisions

DECISIONS REGARDING:

Selection	Disciplinary steps
Discrimination	Dismissals
Training	Benefits
Promotion	Re-employment

DISTINGUISH BETWEEN:

Bias	Fairness
§ Statistical concept § Impact of psychometric properties of test on test results § When a test makes systematic errors in measurement or prediction	§ Judgement based on values § The way test results are interpreted and applied § Value judgement regarding decisions or actions taken as a result of test scores

SUBSTANTIVE FAIRNESS = DECISION OR ACTION

PROCEDURAL FAIRNESS = THE WAY IT IS DONE

LEGAL FRAMEWORK

EMPLOYMENT EQUITY ACT 55 of 4098

Every person who can do a job (suitably qualified), should have a fair chance to get the job

Chapter 3 Section 20 (3) & (4)

For purposes of this Act, a person may be suitably qualified for a job as a result of any one of, or any combination of that person's--

a. formal qualifications;
b. prior learning;
c. relevant experience; or
d. capacity to acquire, within a reasonable time, the ability to do the job.

(4) When determining whether a person is suitably qualified for a job, an employer must--

a. review all the factors listed in subsection (3); and
b. determine whether that person has the ability to do the job in terms of any one of, or any combination of those factors.

Courts rely on social opinion — test of reasonable man

Burden of proof lies with employer or organisation

Distinguish between direct or indirect discrimination

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LEGAL GUIDELINES WITH REGARDS TO FAIRNESS

§ Inherent requirements of the job
§ Operational requirements
§ Misconduct of employee
§ Incapacity of employee (cannot perform satisfactory)

- Rely on substantive and procedural fairness
- Involve stakeholders in development of policies and decision-making
- Use assessment tools that are valid
- Ensure that candidates are treated equally

MODELS OF FAIRNESS

A. SYSTEMATIC MEAN DIFFERENCE (C&S, p 219)

Difference in group means exist
Causes: socio-economic background & characteristics

Thorndike:
If difference in average test performance exists, then judgement on test-fairness must rest on inferences that are made from the test rather than comparison of mean scores.

Focus attention on fair use of the test scores, rather than on the scores themselves.

Take test item:
The usual temperature for baking a cake is about
a. 250° b. 300° c. 3500 d. 400°

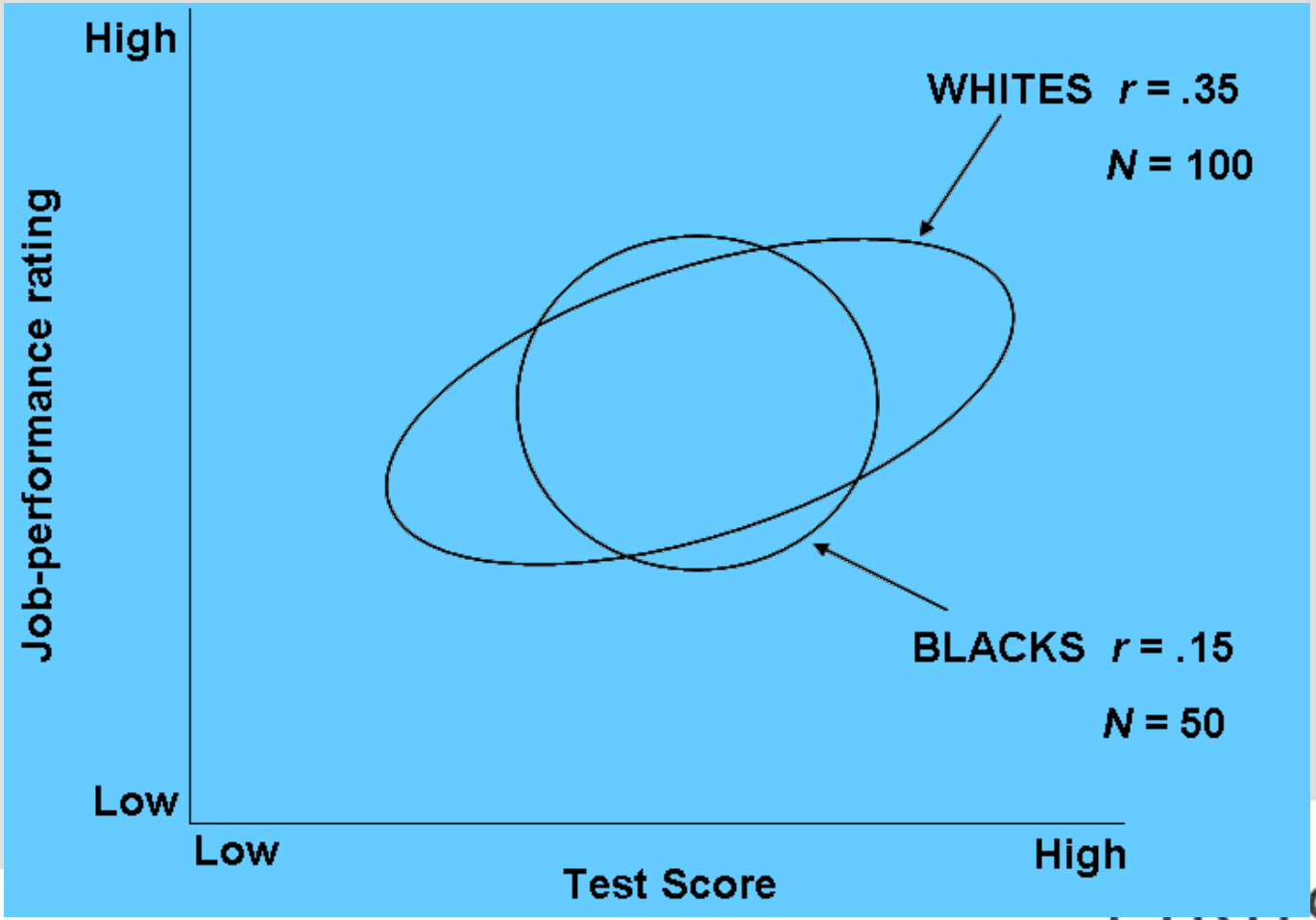
Percentage of right answers favour female over male
BUT IF:
Criterion predicted: how palatable a cake one can bake
Poorer performance of male on item = poorer performance in kitchen

If criterion predicted: range of general information
Item biased against and unfair to males

MODELS OF FAIRNESS

B. DIFFERENCES IN VALIDITY

Tests are predictive for all groups but to a varying degree
Possible cause = sample size



MODELS OF FAIRNESS cont.

DIFFERENCES IN REGRESSION LINES

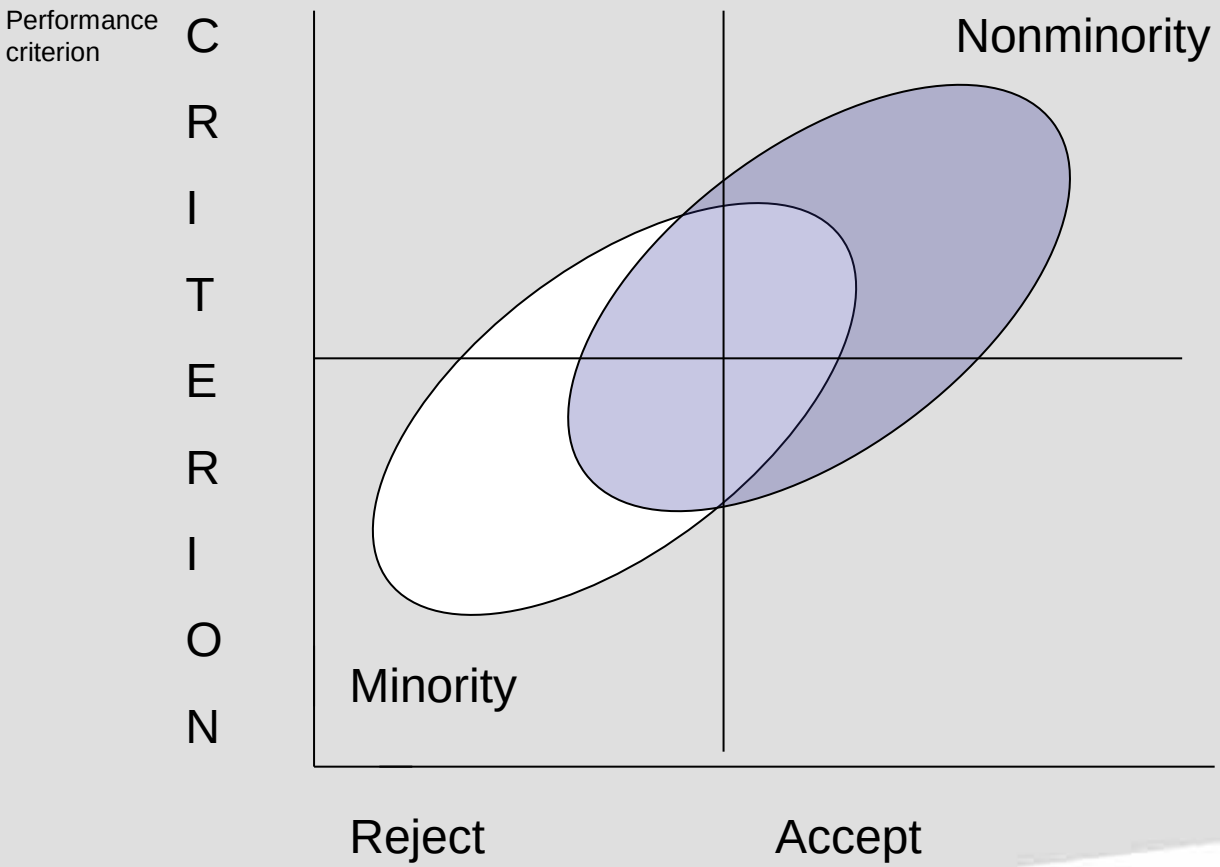
Cleary:
If scores are significantly different for groups on test but job performance is equal

A test is only fair if the regression line is the same

Recommendation – use different regression lines
Common regression line will over predict or under predict some performance

Differential validity

- Figure 6.15 Valid predictor with adverse impact



Both ellipses look the same, they are just at different positions on the graph.

- Adverse impact means that members of one group are selected at substantially greater rates than members of another group.
- This figure is an example of a predictor-criterion relationship that is legal.
- The validity for both groups are equivalent, but the minority group scores lower on the predictor and does poorer on the job.
- What may have happened in this instance is that the factors that depressed the test score of the minority group may also have served to depress job performance scores.
- Adverse impact is defensible in this case.
- The reason is that the minority do poorer on what the organisation considers essential for job success.
- More applicants of the nonminority group will then be selected.

MODELS OF FAIRNESS

D. THORNDIKE'S QUOTA MODEL

Propose that one go further than regression line model.
Requires that success ratio equal selection ratio Proportion of each group that would be successful, should be selected. 30% can be successful, but only 20% were selected.

This ensures that a greater % of the minority group is selected than is likely under the previous models of test fairness.

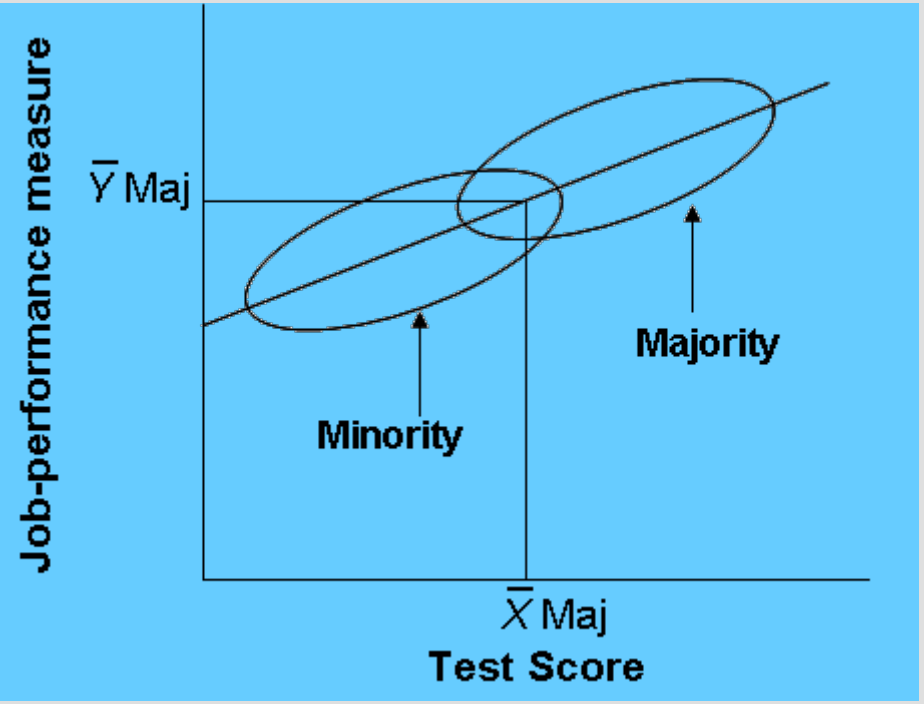


Figure A: *A situation that is "fair" if the Cleary model is used but "unfair" if the Thorndike model is used*

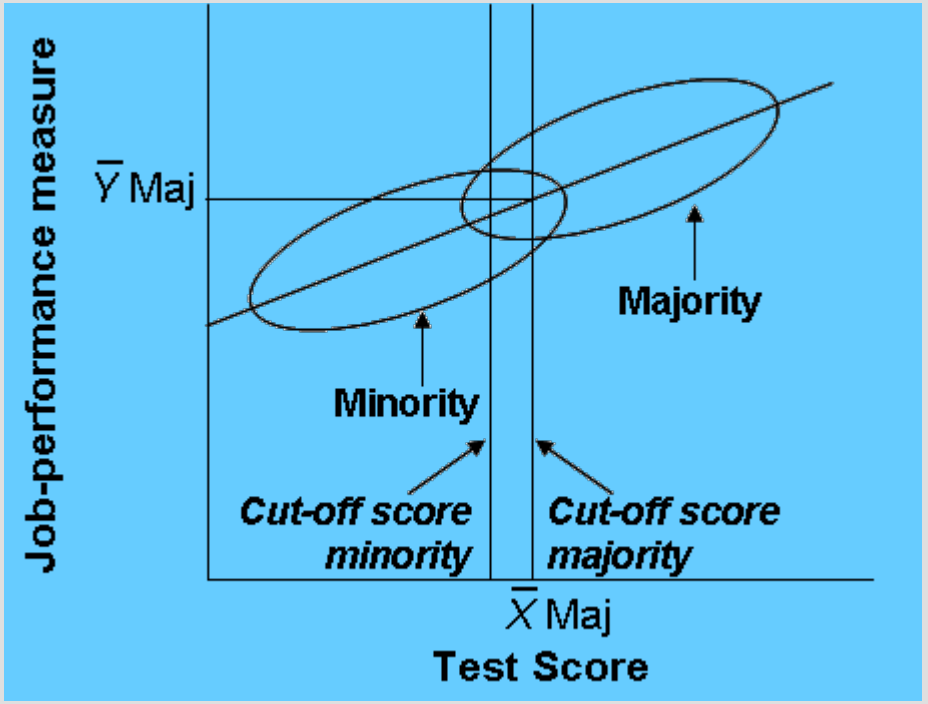
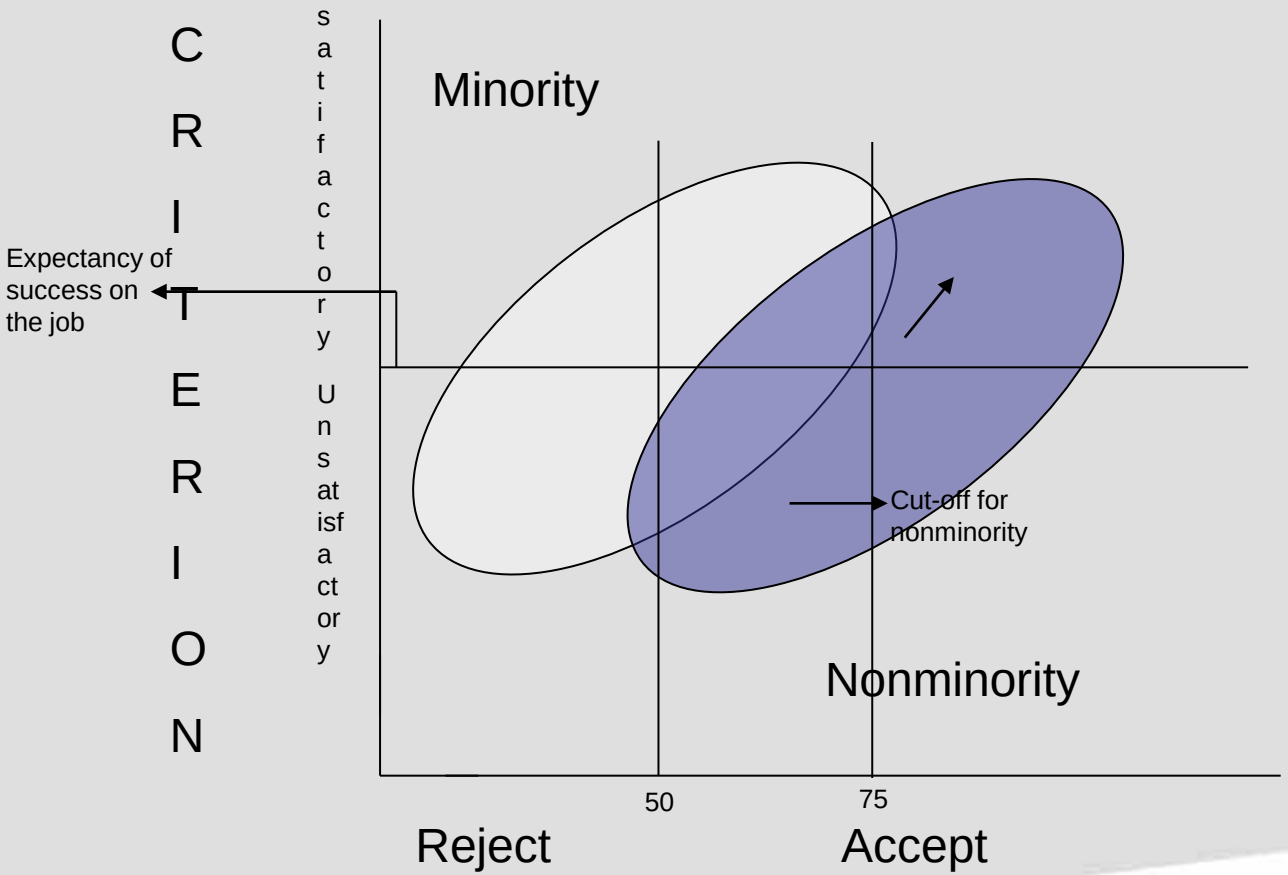


Figure B: *Cut-off points needed to achieve fairness under the Thorndike model*

Differential validity

- Figure 6.16: Equal validity, unequal predictor means



- In this instance we have unequal predictor means for the two groups.
- Because the minority group has a lower predictor mean than the nonminority group, members of the minority group would not be as likely to be selected, even though the probability of success on the job for both groups is essentially the same.
- A strategy that can be used here is to use separate cut-off scores for the different groups. This cut-off score is based on the predictor performance (or score), but the expectancy for success on the job stays the same.
- Even though the test score may mean different things for different groups, as long as the expectancy of success on the job is equal for the two groups, the use of separate cut-off scores is justified.

MODELS OF FAIRNESS

CONDITIONAL PROBABILITY MODEL

Goes one step further than Thorndike's model
People should have an equal chance of selection, regardless of group membership

Basic principle: For both minority and majority groups whose members can achieve a satisfactory criterion score, there should be the same probability of selection regardless of group membership

If probability of being selected when successful = 0,8 for one group, should also be 0,8 for other group

Model will give greater preference for minority group than Thorndike's model

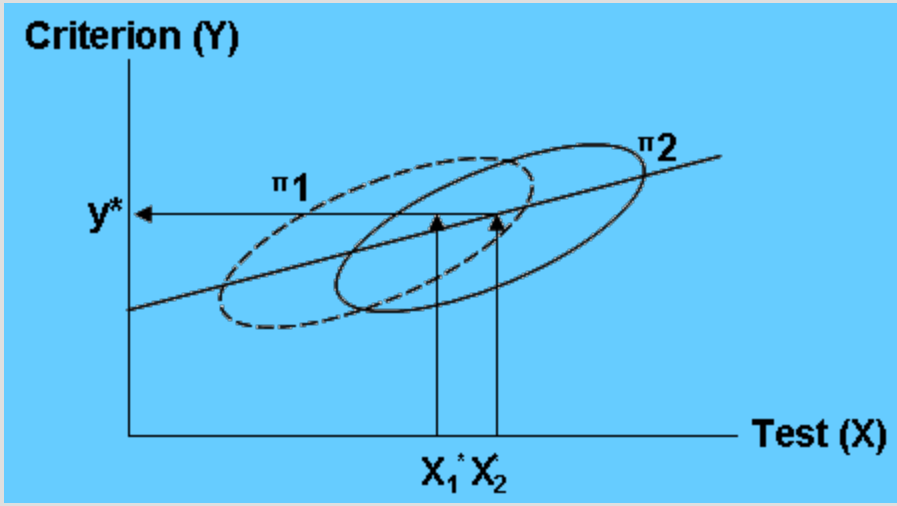


Figure 4(b) *Subpopulations with common regression line. Selection strategy fair according to* ***Constant Ratio Model***

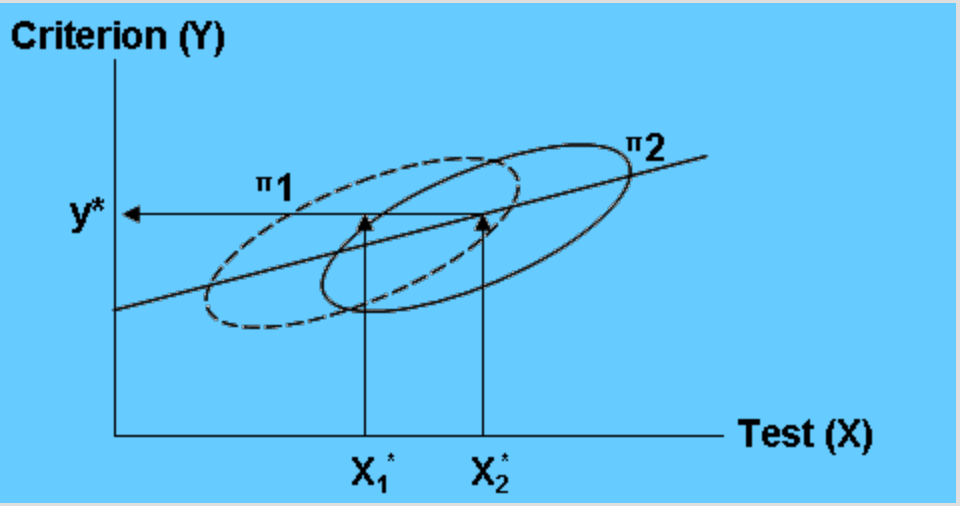


Figure 4(c) *Subpopulations with common regression line. Selection strategy fair according to* ***Conditional Probability Model***

MODELS OF FAIRNESS

EQUAL RISK MODEL

Consider distribution of criterion scores about regression line

Want 70% of selected candidates to succeed, set predictor cut-off at a point which allows 30% risk on criterion success (1/2 standard deviation in a normal distribution)

The risk should be equal in all groups

Model will give greater preference for minority group than Thorndike's model

EVALUATION OF THE MODELS

- o No agreement which is correct / best model
- o Use combination of models
- o South African Society for Industrial Psychology recommends the regression line model

Different cut-offs : cut-offs should be set in such a way that risks are equal
Hire all applicants with at least 70% chance of success (30% risk)

HOW TO ENSURE FAIRNESS

* Use Job analysis

* Avoid criteria that requires prior knowledge

* The testing situation should be the same for everyone

* Selection procedures should be job related

* Fair personnel policies
1. provide information on job relatedness
2. provide feedback
3. establish good rapport

* Perceived fairness of employees influenced by
1. equity
2. equality
3. special needs

* Establish a model of fairness

* Consult with all stakeholders

- Equity = accept individuals differ in attributes and if attributes are inherent job requirements can **select fairly** on attributes
- Equality = minimising differences are all treated the same “opportunity for employment should be extended equally in society”
- CLASH : Attributes are not equally distributed!

- Psychology – focus on equity
- Law – more directed to equality perspective