

**Topic 10**  
**Recruitment, selection & assessment**

**Key readings**  
Chmiel, ch.4  
Warr, ch.5  
Bach & Sisson, chs. 4&5

**Key themes**

- Link to job analysis
- Employment trends & implications
- Two models: predictivist v constructivist
- The predictivist approach
  - selection as rational and strategic
  - evaluating selection processes – reliability, validity, utility and fairness
  - best methods? – psychometric tests, competence frameworks
- The constructivist perspective
  - the role of applicants
  - social processes (recruitment, the interview)

Job analysis/work role analysis

**confirms the nature and contribution of the job role**

- scope and authority
- job demands (overload, underload), choices and constraints
  - ambiguities and uncertainty
- complexity and technical challenge

**Person Specification**

- \* establishes **criteria** (essential, desirable and disqualification qualities) on which to evaluate applicants
- \* offers a **structure** for the interview - identifies areas of questioning
- \* encourages **objectivity** about selection, reduces influences of personal whim/preferences

**Changing nature of organisations and work**

- Flatter, leaner, more flexible organisations
- Flexible, multiskilled, dynamic jobs/roles
- Work more varied, team-based, empowered
- Temporary workforce (services/project work)
- Virtual 'meetings', 'offices', 'teams'
- Increased diversity (women, ages, minorities)
- Requirements linked to organisation, not job
- Skill shortages - high level/technical/'soft'

**Implications**

- Selecting for future demands, not past/current
- Selecting for the organisation, not the job
- Strategic job analysis, not just task-based e.g. look for industry knowledge
- New skills - ability to learn/trainability, self-motivation, teamwork skills, adaptability (Os not KSAs)
- Need 'enlarged' criterion of performance

### The effects of increasing environmental change

Bach & Sisson ch.5

- **Job analysis** cannot be static - must account for changing job specifications
- Increases **criticality of employee attributes** like adaptability, role flexibility, commitment to job. Need generalists, not specialists.
- Exchange view of selection - increases **the negotiating power of some applicants** with sought after skills.

### Herriot & Anderson (1997)

see **Additional Readings**

- 'Environmental drivers'
- Resulted in 'deep rooted' changes in organisations
- 'Dominant predictivist paradigm' becoming 'maladaptive to its environment'
- Research should focus on:
  - selecting for change,
  - multiple levels of analysis,
  - cross-cultural transferability of theory,
  - different theory (predictivist versus constructivist)

### Recruitment context

- Economic & technological environment
- Labour market supply & demographics
  - Changing skill requirements
  - Skill shortages
  - Slower growing workforce
  - More diverse workforce
- Changing attitudes to work
- Recent government legislation
  - Data Protection Act 1998
  - Human Rights Act 1998 (Incorporates European Convention on Human Rights in UK law)

### The predictivist perspective

“Selection methods are.. referred to as ‘predictors’, with the more accurate methods accounting for future job performance more fully than less accurate predictors. (Chmiel, p.72)

- selection is of **individuals** (viewed as ‘subjects’)
- jobs & organisations are relatively **stable**
- the goal is **person-job fit**
- assessment of ‘fit’ can be made **scientific, rigorous and objective**

### Selection as rational and strategic

- ‘**Effective selection procedures are the foundation of any successful HR strategy**’ (IRS, 1997)
- Early HRM texts e.g. Tichy et al (82); Beer et al (85)
- Aimed at the systematic assessment of performance

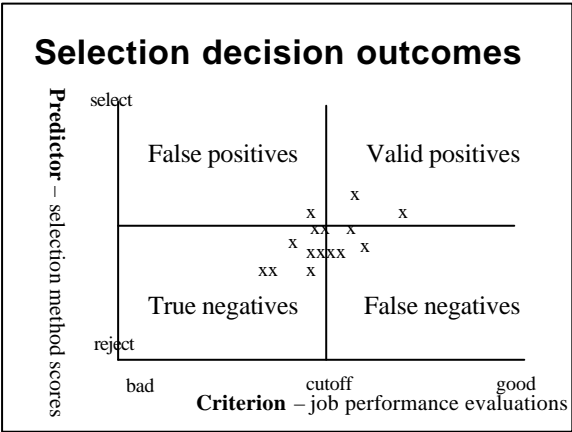
### Evaluating selection methods

- criterion-related (predictive) validity
- reliability
- financial return of selection method (overall cost & cost/hire; utility)
- adverse impact (fairness, equal opportunities)
- organisational results (tenure of hires, productivity, career progress, success rate)

**PREDICTORS** the signals used by the organisation to predict future job performance (e.g. interview rating, test scores, group discussion rating)

**CRITERIA** the measures of successful job performance used by the organisation against which the predictor is judged (e.g. supervisor rating of a good employee)

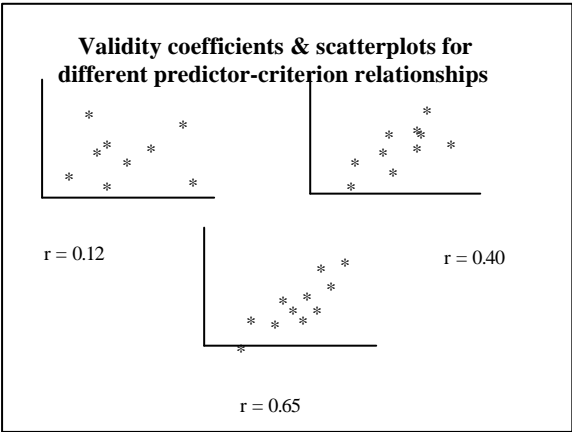
- ### Selection criteria
- job performance
    - output measures
    - quality measures
    - absences
    - personnel turnover
    - rate of advancement
    - accident rate
    - appraisal rating
    - employee comparisons
    - rankings
  - training criteria
    - speed of learning
    - exam results
    - scores on achievement tests
    - course assessment
    - trainer assessment



Hypothetical test score and job performance rating data collected on 11 operative employees

MAT score = # items correct on 100 item test at time of employment  
 Performance rating = Supervisor rating (scale of 1-100) after 6 months' employment

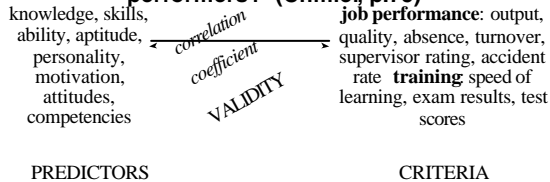
Employee rating	Mechanical Ability Test	Job performance
A	86	74
B	97	91
C	51	67
D	60	31
E	70	52
F	73	70
G	79	74
H	46	59
I	67	44
J	71	61
K	88	52



VALIDITY	VALIDATION
Does the method measure what it is <b>intended</b> to measure?	A process of <b>establishing a relationship</b> between performance on a selection method and other independently observable measures of the attributes being tested.
Is the method <b>relevant</b> to the job?	
Do people's scores on the method <b>correlate</b> with actual job performance?	

### Validation of selection methods

“...the crucial question from the organization’s perspective is: ‘How accurate are these decisions in selecting individuals who subsequently turn out to be effective job performers?’ (Chmiel, p.75)



### Types of validity

- Criterion-related validity** the relationship between the predictor & the criterion
- Face validity** apparent relevance, credibility & acceptability
- Content validity** does the predictor reflect the right subject matter?
- Construct validity** does the predictor measure the construct (theoretical aptitude or ability) it is supposed to?

### Common terms - validity

- correlation coefficient** the relationship between two variables (e.g. the predictor and the criterion)
- criterion-related validity** correlation between a measure of individual differences and a measure of work behaviour
- validation study** assessment of criterion-related validity for a specific sample of employees

### Common terms - validation

- concurrent validation** predictor & criterion ratings are obtained within a short time-frame from job incumbents
- restriction in range (on distribution of predictor & criterion ratings)** this results when only the higher performing, or similar, job incumbents are used to obtain predictor/criterion ratings
- predictive validation** predictor ratings obtained from ‘true’ applicants; criterion ratings obtained after a period of employment from job incumbents

### Common terms - validation (cont.)

- meta-analysis**  
the combination of several validation studies to increase sample size
- validity generalisation**  
extent to which the findings of one validation study can be generalised to another selection situation

**Schmidt & Hunter (1998)** The validity and utility of selection methods in personnel psychology: practical and theoretical implications of 85 years of research findings. *Psychological Bulletin*, 124, 2, 262-274.

- general mental ability alone (.51)
- work sample tests alone (.54)
- general mental ability + integrity tests results (.65)
- general mental ability + work sample tests (.63)
- unstructured interviews (.38)
- assessment centres (.37)

*Meta-analyses of large-sample studies focusing on 19 selection methods*

## Reliability

Consistency of measurement when a person is assessed by the same method at a different time

Acceptable test-retest correlation coefficient .70

### Contaminating factors

test conditions  
administration instructions  
scoring  
temporary states  
test content

## Utility - the value of a selection system to an organisation

- Cost/benefit ratio
- As investment in people increases, perceived benefits of assessment increases

Utility is maximised by:  
validity of selection method - should be high  
selection ratio (hired/applicants) - should be low  
cost of selection system - should be low  
cost of bad selection (recruitment, training, low productivity) - should be high  
criticality of employee - should be high

### Utility of selection will increase:

- for senior posts
- in large homogeneous organisations with a policy of expansion/growth
- when processing a large number of applicants

### The added value of an employee varies:

- over time
- between sectors
- across nations
- might be lower in middle management & higher in boundary role (hotel receptionist)

## Utility equation

estimates the usefulness of a selection method relative to random selection

Change in utility of selection method =

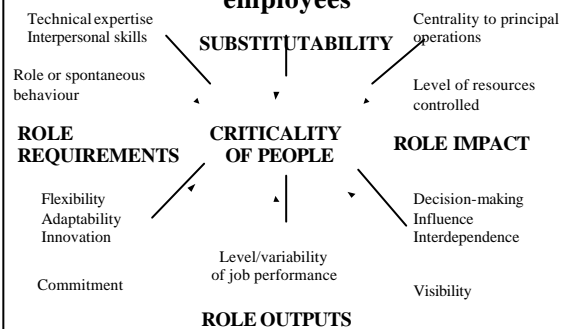
$$\text{tenure} [ \# \text{ selected} * \text{value of change in job performance} * \text{validity} * \text{selection score} ] - [ \text{cost of method} * \# \text{ applications} ]$$

## The utility of selection procedures

### Key terms

<b>Selection ratio</b>	The ratio of the number of applicants hired to the total number of applicants
<b>Success rate</b>	Proportion of hires from a given selection procedure who perform satisfactorily on the job
<b>Base rate</b>	Proportion of hires, using current selection methods, who perform satisfactorily on the job i.e. the status quo
<b>Selection efficiency</b>	The improvement from the base rate to the success rate
<b>Decision outcomes</b>	true positives; true negatives; false positives; false negatives

## Factors affecting the criticality of employees



The ratio of cost to valued output in selection may be most relevant in:

- **situations of external recruitment & merit-based employment practices (eg PRP)** - *not internal recruitment based on tenure, seniority or national wage systems (e.g. public sector)*
- **jobs which are NOT technologically determined** (e.g. *pace/technological control*)
- **jobs where the output is clearly defined** (eg *targets in call centres, production output*)

### Equity of selection procedures

- **Discrimination**
  - adverse treatment (direct)
  - adverse impact (indirect)
- **Legality**
  - preferential treatment
  - proportional representation
  - affirmative action
- **Applicant perceptions**
  - satisfaction with selection process (face validity, fair treatment)
  - satisfaction with company
  - knowledge gained about job & company

### Indirect discrimination (the example of working hours)

**Article 119, equal treatment directive in Sex Discrimination Act 1975**

A provision that affects more women than men - or vice versa - is justified only if shown to be objective and necessary

**Cowley v South African Airways (1998)**

Female baggage handler objected to working double shifts, which would mean finishing work between 10pm and 12. Proved indirect discrimination as this adversely affected more women than men and employer could not justify this.

**Sanderson v BAA plc (1997)**

Security guards required to work rotating roster, not fixed hours. All of 90 males, and 74 of 75 females could comply. No discrimination proved.

### Adverse impact (AI)

Validity & subgroup mean differences

<u>Predictor/selection method</u>	<u>Validity</u>	<u>Subgroup/mean difference</u>
Cognitive ability/aptitude	Moderate	Moderate
Personality	Low	Small
Interest	Low	Inconsistent data
Physical ability	Moderate-high	Large
Biographical information	Moderate	?
Interviews	Low	Small
Work samples	High	Small
Academic performance	Low	Moderate
Selfassessments	Moderate	Small
Assessment centres	High	Small

### Adverse impact (AI) of 5 classes of selection method on minorities (based on Arvey 1979)

<i>Predictor</i>	<i>Blacks</i>	<i>Females</i>	<i>Elderly</i>	<i>Handicapped</i>
Intelligence/verbal test	AI	+	Some	?
Work samples	+	No evidence	No evidence	No evidence
Interview	+	AI	Some	Some
Education	AI	+	Some	?
Physical test	+	AI	?	AI

+ minority does as well or better ? No proof of AI, but likely

### Additional readings/predictivist model

- Herriot, P. & Anderson, N. (1997). Selecting for change: How can personnel and selection psychology survive? In N. Anderson & P. Herriot (Eds.) International Hbk of Selection & Assessment, Wiley. (Short Loan, Andersonian Library)
- Recruitment & Retention May 2002. CIPD Survey Report. Available from [www.cipd.co.uk](http://www.cipd.co.uk)