

IOP302 – Personnel psychology

Study unit 1 – The historical background of industrial psychology

- Personnel psychology is concerned with all aspects of the theory of psychology applied to understanding differences between individuals in work settings. Psychology is the scientific study of behaviour and the mind. Industrial psychology is a field of specialisation in psychology.
- Major fields of industrial psychology:
 1. Personnel psychology:
 - Scientific study of individual differences in work settings.
 - Personnel psychology represents the overlap between psychology and HR management (HRM).
 - This is an applied discipline that focuses on individual differences in behaviour and job performance and on methods of scientifically measuring and predicting such differences to enhance the quality of personnel decisions.
 2. Organisational psychology:
 - Focuses on the influence organisations may have on the attitudes and behaviour of their employees.
 - Organisational psychology is more concerned with social and group influences, culture and climate, and leadership behaviour on the overall effectiveness or performance of the organisation.
 - Fields of interest: Leadership, group dynamics, conflict, decision-making, communication, motivation, power, organisational culture and climate, organisational change, and organisational development and structure
 3. Ergonomics:
 - Objective of this field is to modify the work environment to be compatible with the characteristics of human beings.
 - Human-machine interface; interactions between humans and systems
 4. Career psychology:
 - Concerned with counselling employees and assisting them in making career choices.
 - Core focus is the psychological contract between organisations and employees.
 - Focuses on areas such as the career development of employees, the meaning of work in people's lives, individual vocational behaviour across the lifespan, career counselling and guidance, etc.
 5. Organisational development:
 - Concerned with improving or changing organisations to make them more efficient.
 - Involves the planned, deliberate change in an organisation to resolve a particular problem. The change may involve people, work procedures or technology.
 6. Consumer psychology:
 - Behaviour that consumers display in searching for, purchasing, using, evaluating and disposing of products and services, behaviour that they expect will satisfy their needs.
 - Looks at the way consumers make decisions to spend their resources on products or services.
 7. Employment relations:
 - Aka labour or industrial relations
 - Focus is primarily the behavioural dynamics related to the juxtaposition of conflict and common ground in any employment relationship.
 - Emphasis falls on the collective relationship and trade union-related dynamics are therefore relevant.
 8. Cross-cultural industrial psychology:
 - Looks at similarities and differences in individual psychological and social functioning in various cultures and ethnic groups.
- Licensing and certification of psychologists:
 - The Health Professions Council of SA (HPCSA) is a statutory body, established in terms of the Health Professions Act, which, together with the professional board, is committed to promoting the health of the population, determining standards of professional education and training, and setting and maintaining fair standards of professional practice.
 - In order safeguard the public and indirectly the professions, registration in terms of the Act is a prerequisite for practising any of the health professions with which the council is concerned.
 - Registration confers professional status upon a practitioner and therefore the right to practise his chosen profession.
 - Practitioners enjoy the security of being registered in terms of an Act in the knowledge that no unqualified person may practise the profession.

- Mission of the HPCSA: “Protecting the public and guiding the professions”
- If any person feels that he has been abused by people who claim to be knowledgeable about the field of industrial psychology or claim to have been registered as an industrial psychologist, a formal complaint can be lodged with the HPCSA.
- The council will protect the human rights of practitioners and the public. Any complaint made against a practitioner by any member of the public will be investigated by the council.
- All professional and practicing psychologists must be registered with the HPCSA, which through the Professional Board for Psychology controls and applies the laws regarding psychological training and professional actions.
- The requirement for registration at the Board for Psychology as a psychometrist, HR counsellor, career counsellor, or employee wellbeing counsellor is a 4-year or honours degree in I/O psychology and a completed approved 6 month practicum.
- In order to register as an industrial psychologist with the Professional Board, a master’s degree and a formal internship are required. The duration of the internship is one year.

Study unit 2 – Research methods in industrial psychology

- The role and use of research in personnel psychology:
 - Knowledge of research methods makes us better able to find useful solutions to problems rather than merely stumbling across them by chance.
 - Research can be used to develop new practices, such as a new selection procedure.
 - Knowledge of research will enable you to evaluate the work of others or new practices or procedures introduced by others before the organisation implements these at a considerable cost and not being convinced of their effectiveness.
- The research process:
 1. Step 1: Formulating the research question:
 - The research process begins with the identification of the problem: What question or problem needs to be answered?
 - Based on the kind of answer that is required, we distinguish between various types of questions:
 - i. Exploratory questions:
 - Often asked when a relatively new field or area is investigated.
 - Results can often be used to generate more specific research questions that should be addressed in consecutive studies.
 - ii. Descriptive questions:
 - Provides a picture of a state of events.
 - Researchers may describe levels of productivity, numbers of employees who left during the year, average levels of job satisfaction, etc.
 - iii. Predictive questions:
 - Researchers try to predict which employees will be productive, which ones are likely to leave, and which ones will be dissatisfied.
 - This info is used to select applicants who will be better employees.
 - iv. Evaluative questions:
 - Set to determine the quality or effectiveness of a programme, practice or procedure.
 - v. Causal questions:
 - Question asking why events occur as they do.
 - Tries to find causes: why production is at a certain level or why employees leave
 - Variables:
 - i. Independent / predictor variables – variables that are manipulated or controlled by the researcher.
 - ii. Dependent / criterion variable – most often the object of the researcher’s interest. Usually some aspect of behaviour.
 - Types of research:
 - i. Qualitative research – aims to provide in-depth information and a deeper understanding of behaviour at work. Best kind of research method for discovering underlying motivations, feelings, values, attitudes, and perceptions.
 - ii. Quantitative research – aims to describe or explain a variable or situation. This type of research collects some type of numerical data and uses statistical analysis to answer a given research question.

2. Step 2: Choosing an appropriate design for the study:
 - How do you design a study to answer the question?
 - A research design is a plan or blueprint of how one intends to conduct the research. Research design can be distinguished from one another in terms of 2 aspects:
 - i. Naturalness of the research setting
 - Refers to the environment in which the study is conducted.
 - The natural environment of the organisation is desirable, because we would like to investigate the variable exactly as it occurs.
 - ii. Degree of control that the researcher has
 - In a natural organisational setting there are a number of other aspects / variables present that do not necessarily form a part of the study.
 - The perception of fairness is a possible variable in a selection process, apart from the feedback provided. This is called an extraneous variable.
 - Within quantitative research, there are 3 types of research-design: Non-experimental, experimental, and quasi-experimental.
 - Within qualitative research, the most common research-designs are: Case study, ethnography (the art and science of describing a group or culture), grounded theory, phenomenological research and narrative research.
3. Step 3: Collecting the data:
 - How do you measure the information that you need and collect the necessary data in order to answer the research question?
 - In this stage, there are 3 activities that should be completed:
 - i. The people from whom the data will be collected should be identified.
 - ii. The tools that will be used to collect the data should be selected or developed.
 - iii. The tools should be applied in order to actually collect the data.
 - In the first step of data collection, a relevant sample must be identified and drawn.
 - Data gathering techniques:

Technique	Definition	Quantitative / qualitative application
Surveys	A set of questions that requires an individual to express an opinion or answer, or provide a rating regarding a specific topic.	Quan: Closed-ended questions can be asked in a structured questionnaire Qual: Open-ended questions can be asked in a semi-structured or unstructured questionnaire
Observation	Observes employees in their organisational setting.	Quan: Pre-developed checklist to rate existence or frequency of certain behaviours and events Qual: Detailed field notes
Interviews	One-on-one sessions between an interviewee, typically for the purpose of answering a specific research question.	Quan: Structured interview format Qual: Most often used with qualitative studies, where semi-structured or unstructured interview can be used
Focus groups	Method of data collection in which pre-selected groups of people have a facilitated discussion with the purpose of answering specific research questions	Usually used in a qualitative study
Archival data	Aka documentary sources of info, is material that is readily available, where the data has already been captured in one form or another	Quan: archival data would consist of numerical info Qual: archival data would include textual info

4. Step 4: Analysing the data:
 - How do you analyse the data?
 - Generic steps for qualitative data analysis:
 - i. Organise and prepare the data by scanning, transcribing or typing the data and arranging it into different types of information
 - ii. Obtain a general sense of the data by reading through it and reflecting on its overall meaning
 - iii. Do a detailed analysis by coding the data (organising into meaningful categories and labelling each category)

- iv. Generate a description of the setting or people as well as categories and identify a small number of themes.
 - v. Convey the findings of the analysis.
 - vi. Make an interpretation of the meaning of the data.
- In a quantitative study, statistical analysis is normally used:
 - i. Measures of central tendency: mean, median and mode
 - ii. Measures of variability:
 - iii. Regression
 - iv. Correlation
- 5. Step 5: Drawing conclusions from research:
 - How do you draw conclusions from analysing the data?
 - The findings from one study influence research problems in future studies.
- Ethical standards for conducting research in organisations have 4 basic requirements:
 - No harm should come to an individual as a result of his participation in a research study.
 - The participant must be fully informed of any potential consequences of his participation (informed consent).
 - Interviewees must understand that their participation is voluntary
 - All reasonable measures should be taken to ensure that the anonymity and confidentiality of the data collected are maintained.

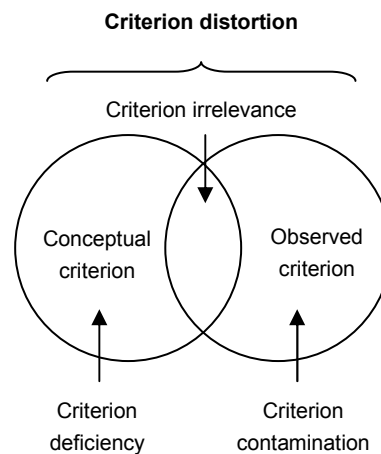
Researchers who violate these rights, particularly in studies that involve physical or psychological risk, can be subject to professional censure and possible litigation.

Study unit 3 – Criteria: standards for decision making

- Criteria within the context of personnel selection, placement, performance evaluation, and training are defined as evaluative standards that can be used as yardsticks for measuring employees' degrees of success on the job. Criteria are often used to measure performance constructs that relate to worker attributes and behaviour that constitute successful performance.
- 5 steps in development of criteria:
 1. Job analysis and / or organisational needs analysis
 2. Development of conceptual and actual criteria (measures of actual behaviour relative to expected behaviour, as identified in step 1).
 3. Identify criterion dimensions underlying measures of actual behaviour.
 4. Develop reliable measures with high construct validity (for each identified element)
 5. Determine predictive validity of each predictor for each one of criterion measures
- Conceptual vs. actual criteria:
 - Conceptual criteria are ideas or theoretical constructs that cannot be measured. To make the conceptual criteria measurable, it has to be turned into actual criteria.
 - Actual criteria can serve as real measures of the conceptual criteria.
 - The relationship between conceptual and actual criteria can be expressed in terms of:
 - ✓ Relevance
 - Criterion relevance refers to the degree to which the actual criteria and conceptual criteria coincide. The greater the match between the conceptual and actual criteria, the greater is the criterion relevance.
 - The usefulness of criteria is evaluated in terms of its judged relevance (i.e. whether the criteria are logically related to the performance domain being measured)
 - Relevant criteria represent important organisational, team, and individual outcomes such as work-related behaviours, outputs, attitudes, or performance in training, as indicated by a review of information about the job or work.
 - ✓ Deficiency
 - Criterion deficiency and contamination reduce the usefulness and relevance of criteria.
 - Criterion deficiency occurs when an actual criterion is missing information that is part of the behaviour one is trying to measure, that is, the criterion falls short of measuring job performance or behaviour perfectly.
 - Criterion deficiency refers to the extent to which the actual criterion fails to overlap the conceptual criterion.
 - ✓ Contamination
 - Criteria contamination occurs when an actual or operational criterion includes information (variance) unrelated to the behaviour (the ultimate criterion) one is trying to measure.

- Criteria contamination can result from extraneous factors that contribute to a worker's apparent success or failure in a job.
- Criteria contamination may be subdivided into 2 distinct parts:
 - Error – random variation (e.g. due to non-standardised procedures in testing, individual fluctuations in feelings) and cannot correlate with anything except chance alone.
 - Bias – represents systematic or consistent criterion contamination, and it can correlate with predictor measures. Bias typically presents itself in the following forms:
 - ❖ Bias to knowledge of predictor information – one of the most serious sources of contamination of criterion data, is prior knowledge of or exposure to predictor scores.
 - ❖ Bias in ratings – aka halo effect.
 - ❖ Bias due to group membership – the fact that individuals belong to certain groups may result in bias in terms of hiring or promoting these individuals.

In summary, criterion contamination distorts the actual criterion because certain factors are included that don't belong. Criterion deficiency distorts the actual criterion because certain important dimensions of the conceptual criterion are not included in the actual criterion. Both criterion contamination and criterion deficiency are undesirable in the actual criterion, and together they distort the conceptual criterion. Also referred to as criterion distortion:



- Job analysis:
 - Job analysis refers to the process whereby information about jobs, roles and positions within the organisation is systematically gathered and the skills, abilities and knowledge required for successful performance identified.
 - A job analysis provides a deeper understanding of individual jobs and their behavioural requirements and, therefore, creates a firm basis on which to make people-related decisions.
 - The objective of job analysis is to define each job in terms of the behaviours necessary to perform it.
- Sources of job information:
 - Most critical issue in job analysis is the accuracy and completeness of the information about each job. Major sources relied upon to obtain these info:
 - ✓ SME's – usually the person who is most familiar with the job content
 - ✓ Supervisors
 - ✓ Job analysts
- Jobs can be analysed from a task-oriented or a worker-oriented perspective:
- Other analytical procedures can also be followed to gain further understanding of a job. These are:
 - A linkage analysis that unites the 2 basic types of job analysis, namely task-oriented and worker-oriented analysis. Here the relationship between the KSAO and tasks performed is examined.
 - A "hybrid" job-analysis procedure that looks at both the job functions performed and the human behaviours and attributes.

- Types of information to be collected when conducting a job analysis:
 - Work activities – these activities are divided into:
 - ✓ Task-oriented:
 - ✓ Seeks to understand a job by examining the tasks performed, where after task statements are developed that are concise expressions of tasks performed.
 - ✓ Often specific to a particular job and give little information on the skills or qualities needed to do the job adequately
 - ✓ Worker-oriented:
 - Seeks to understand a job by examining the human attributes needed to perform it successfully. These human attributes are classified into 4 categories, namely:
 - **Knowledge:** specific types of information people need to perform a job
 - **Skills:** proficiencies needed to perform a task
 - **Abilities:** relatively enduring attributes that are generally stable over time
 - **Other:** includes aspects such as personality factors
 - Work performance
 - Job context
 - Machines, tools, equipment, and work aids used
 - Job-related tangibles and intangibles such as materials processed and services rendered
 - Personnel requirements
- General data collection methods:
 - Observation
 - ✓ Helps one to understand not only the jobs in question, but work in general.
 - ✓ Works best with jobs involving manual operations, repetitive tasks, or other easily seen activities.
 - ✓ Times selected for observation should be representative of the worker's routine.
 - Interviews
 - ✓ Can be open-ended or can involve structured or standardised questions.
 - ✓ Most effective when structured with a specific set of questions based on observations, other analyses of the types of jobs in question, or prior discussions with HR professionals, trainers, or managers.
 - ✓ Concern regarding interview is the fact that any one source of info can be biased.
 - Critical incidents and job / work diaries
 - ✓ Critical incident technique (CIT) asks SME's to identify critical aspects of behaviour or performance in a particular job that have led to success or failure.
 - ✓ Job / work diaries require workers and / or supervisors to keep a log of their activities over a prescribed period of time.
 - ✓ Diaries are very time consuming.
 - Questionnaires / surveys
 - ✓ Advantages: 1) more cost effective since it allows the collection of info from workers simultaneously, 2) survey methods are considered to be more reliable as it is anonymous, 3) responses can be statistically analysed.
 - Existing data
 - ✓ Results from previous job analysis are usually available.
- Job analysis techniques:
 - Methods providing general information about worker activities:
 1. Position analysis questionnaire:
 - Based on worker-orientated approach
 - Generalised work behaviours are rated and the instrument has a moderate level of behaviour specificity
 - Contains 194 items organised into 6 main dimensions: Information input, mental processes, work output, relationships with other persons, job context, and other job-related variables
 - PAQ regarded as one of the most widely used and thoroughly researched methods of job analysis
 - Inexpensive & takes relatively little time to use
 2. Job structure profile:
 - ✓ Revised version of the PAQ
 - ✓ Includes changes to item content and style
 - ✓ It emphasises its use by a job analyst, rather than the incumbent.
 3. Job elements inventory
 - ✓ Designed as alternative to PAQ.
 - ✓ Has a readability level appropriate for an employee with only a tenth-grade education

- 4. Functional job analysis
 - Designed as a quick method that could be used by the US dept of labour to analyse and compare the characteristics, methods, work requirements, and activities to perform almost all jobs in the US.
 - Methods providing info about tools and equipment:
 - ✓ Job components inventory:
 - Developed to take advantage of the PAQ's strengths while avoiding some of its problems.
 - Consists of > 400 questions covering 5 major categories: tools & equipment, perceptual & physical requirements, mathematical requirements, communication requirements, and decision-making & responsibility
 - It is reliable, can differentiate between jobs, can cluster jobs based on their similarity to one another, and unlike PAQ, is affected by the amount of info available to the analyst.
 - Methods providing info about KSAO's / competencies:
 1. Occupational information network (O*NET):
 - ✓ Automated job classification system that replaces the DOT.
 - ✓ Focuses on cross-job descriptors.
 - ✓ Based on a content model that consists of 5 categories of job descriptors needed for success in an occupation:
 - Worker requirements
 - Worker characteristics
 - Experience requirements
 - Occupational requirements
 - Occupation-specific requirements
 - Major advancement in understanding the nature of work, in large because its developers understood that jobs can be viewed at 4 levels: economic, organisational, occupational, and individual.
 - ✓ Fleishman Job analysis survey:
 - ✓ Taxonomy based job analysis method based on more than 30 years of research
 - ✓ Consists of a comprehensive list of abilities. These can be divided into the broad categories of verbal, cognitive, physical, and sensory or perceptual-motor abilities.
 - ✓ Job adaptability inventory:
 - 132-item inventory which taps the extent to which a job incumbent needs to adapt to situations on the job.
 - It has 8 dimensions:
 - Handling emergencies or crisis situations
 - Handling work stress
 - Solving problems creatively
 - Dealing with uncertain and unpredictable work situations
 - Learning work tasks, technologies and procedures
 - Demonstrating interpersonal adaptability
 - Demonstrating cultural adaptability
 - Demonstrating physically-orientated adaptability.
 - ✓ Personality-related position requirements form:
 - Devoted to identifying personality predictors of job performance
 - Not intended to replace other job analysis devices, but rather to supplement job analysis by examining important personality attributes in jobs.
 - Computer-based job analysis:
 1. Work profiling system:
 - ✓ WPS consists of 3 different questionnaires for the following groups of employees: managerial and professional; service and administrative; manual and technical
 - ✓ The WPS can provide job descriptions, people specifications, assessment methods that can be used to assess candidates for a vacancy, and individual development planner for a job incumbent, a tailored appraisal document for the job, and a person-job match, which can match candidates against the key requirements of the job.
- Competency modelling is viewed as an extension rather than replacement of job analysis. Just as job analysis seeks to define jobs and work in terms of the match between required tasks and human attributes, competency modelling seeks to define organisational units in terms of the match between the goals and missions of those units and the competencies required to meet those goals and accomplish those missions.

- Main differences between Job analysis & Competency modelling:

	Job analysis	Competency modelling
General description	<ul style="list-style-type: none"> • examines both work that gets performed and the human attributes needed to perform the work 	<ul style="list-style-type: none"> • considers sets of behaviours that are instrumental in the delivery of desired results or outcomes • identifies the competencies that an organisation desires in its employees • does not consider the work performed

	Job analysis	Competency modelling
Generalisability of the information across jobs within an organisation	<ul style="list-style-type: none"> • identify specific and different KSAsOs that distinguish jobs • KSAsOs are exclusive, differentiating one job from another • far more detailed than most competency models 	<ul style="list-style-type: none"> • competencies generally identified to apply to employees in all jobs • more universal and abstract "core competencies" of an organisation • applicable to a broad range of jobs and specifically designed to be as inclusive as possible
Method by which the attributes are derived	<ul style="list-style-type: none"> • technical methods designed to elicit specific job information 	<ul style="list-style-type: none"> • review sessions and group meetings
Degree of acceptance within organisation for the identified attributes	<ul style="list-style-type: none"> • viewed as arcane by employees • does not include organisational level issues of vision and values in conduct • no "populist appeal" 	<ul style="list-style-type: none"> • employees readily identify with and relate to competencies • captures the language and spirit that are important to the organisation • links personal qualities of employees to the larger overall mission of the organisation

- Competency frameworks / competency models describe the competencies required for effective or excellent performance on the job.
- Job evaluation is a procedure that is useful for determining the relative value of jobs in the organisations, which in turn helps determine the level of compensation.
- Job performance criteria:
 - Desirable job performance criteria can be defined by 3 general characteristics. The criteria must be:
 - ✓ Appropriate
 - ✓ Stable
 - ✓ Practical
 - Criteria should be relevant to and representative of the job, while they should endure over time and across situations
 - Criteria measures can be:
 1. Objective – criteria are taken from organisational records and should be void of any subjective evaluation (production, sales, turnover, absenteeism, accidents, etc)
 2. Subjective – mainly comprise judgements that are made of an employee's performance. Usually a rating or ranking. Most frequently used.
 3. Dynamic – refers to levels of job performance that changes over time. Its significance is that job performance is not always stable or consistent over a period of time.

Study unit 4 – Predictors: Psychological assessments

- Psychological assessments are the most frequently used predictors in industrial psychology.
- Behaviour is generally predictable, and the systematic study of behaviour is a means to making reasonably accurate predictions.
- Most behavioural research is aimed at making predictions of relevant behaviour. These predictions typically require the use of 2 types of variables:
 - Criterion – that which is being predicted. Most typically characterises some type of behaviour.
 - Predictor – one used in predicting the criterion. Predictor is any variable used to forecast a criterion.
- The objective evaluation of psychological tests involves primarily the determination of the reliability and the validity of the tests in specified situations:
 - Reliability
 - ✓ Reliability – the extent to which scores on a measure are free from random error, i.e. how consistent or stable the measure is.
 - ✓ A measure should yield the same estimate on repeated use when the measured trait has not changed.
 - ✓ Test reliability is the consistency of scores obtained by administering the same measure again to the same person under the same circumstances.
 - ✓ Types of reliability used in IO Psychology:
 - Test-retest reliability:
 - Administer the measure twice to the same group of test-takers
 - Reliability coefficient in this case is simply the correlation between the scores obtained on the first and second application of the measure.
 - This coefficient is also called coefficient of stability.
 - Drawback: the testing circumstances may be different for both the test-taker and the physical environment which may contribute to systematic error variance.
 - For most types of measures, this technique is not appropriate for computing reliability
 - Equivalent-form reliability
 - 2 equivalent forms of the same measure are administered to the same group on 2 different occasions.
 - The correlation obtained between the 2 sets of scores represents the reliability coefficient.
 - The 2 measures should be truly equivalent, i.e. they should have the same number of items; the scoring procedure should be exactly the same; they must be uniform in respect of content, representativeness, and item difficulty level; and the test mean and variances should be more or less the same.
 - Internal-consistency reliability
 - Obtained by splitting the measure into 2 equivalent halves and computing the correlation coefficient between these 2 sets of scores. This coefficient is also called a coefficient of internal consistency.
 - The corrected reliability coefficient is calculated by means of the Spearman-Brown formula.
 - Inter-rater reliability
 - Inter-scorer reliability can be determined by having all the test-takers' test protocols scored by 2 assessment practitioners. The correlation coefficient between these 2 sets of scores reflects the inter-scorer reliability coefficient.
 - Inter-scorer reliability thus refers to the consistency of ratings between raters.
 - Intra-scorer reliability coefficient refers to the consistency of ratings for a single rater.
 - Validity
 - ✓ Test validity – tells us what a test score means and denotes the degree of certainty that we are assessing what we think we are assessing.
 - ✓ Validity pertains to how appropriate the test is in predicting the predictor construct (what is measured), and to what extent true and meaningful estimates or inferences can be made based on the test results or scores.
 - ✓ Types of validity (the different ways in which validity information is gathered):
 - Content validity:
 - Non-statistical type of validity that refers to whether the items contained in a measure are representative of the particular behavioural or psychological aspect that the test was designed to measure.

- ✓ The predictor used should closely match the purpose for which the assessment results will be used.
 - ✓ Moderating factors that result from the social, political and cultural context of the assessment should be taken into account, especially considering how these factors may impact on the assessment results.
- Tests are categorised into 3 different levels of complexity, and each level requires different levels of expertise from the assessment practitioner.
- The classification system in South Africa only uses 2 categories – whether an assessment measure is regarded simply as either a psychological measure or not:
 - ✓ Psychological tests: tests that may be used by psychometrists under the control of a psychologist with regard to:
 - The choice of a test
 - Administration and scoring
 - Interpretation
 - Reporting on results
 - ✓ Prescribed tests for use by other professionals, such as speech, occupational and physiotherapists.
- In order to register as a psychometrists, one should:
 - ✓ Possess an honours degree in Psychology, which included modules in testing and assessment
 - ✓ Complete an appropriately supervised practicum minimum of 6 months in psychological testing and assessment, under guidance and supervision of a senior psychologist, within 12 months.
 - ✓ Obtain at least 70% in the examination of the Professional Board for Psychology.
- Ethical principles:
 - ✓ Privacy
 - Any report on a test-taker's assessment results should contain only information that is relevant to the purpose of the assessment.
 - One should communicate the purpose of the assessment prior to communicating the results.
 - When results are communicated, it should be done in a manner that is in line with the purpose of the assessment.
 - ✓ Confidentiality
 - Psychological assessors' primary responsibility lies with protecting the confidentiality of the information they have obtained during assessment.
 - Personal information may be released to someone else only if the test-taker has given unambiguous consent, usually in written form.
 - ✓ Informed consent
 - Written informed consent is based on the premise that the language in which the test-taker is informed of the purpose of the assessment should be one that is reasonably understandable to the test-taker.
 - Test-taker should give consent with regard to who will have access to the test results.
- Types of predictors:
 - Cognitive assessment
 - ✓ Cognitive ability tests have the highest predictive validities with regards to academic performance and job performance.
 - ✓ However, there are also differences in mean scores across racial and ethnic groups, leading to criticism of adverse impact, and also to the development of more relevant cognitive constructs to be measured.
 - ✓ Approaches to cognitive assessment:
 - Structural approach
 - Primary goal of structural researchers was to determine the structure of the intellect.
 - Spearman concluded that intelligence consists of one single factor g (general mental ability)
 - Any cognitive task requires a certain quantity of g, but tasks also require additional abilities that are specific to the task, which he referred to as specific abilities or s-factors.
 - Assessing g-factors – mainly intelligence tests, aptitude test batteries – assessing mainly s-factors.
 - Intelligence measures can be split between:
 - ❖ Individual intelligence measures – consist of a number of verbal and non-verbal sub-tests which, when scored together, provide an indication of a person's general intelligence. Verbal, non-verbal and total IQ scores are usually obtained.

- ❖ Group intelligence measures – used when large numbers of people need to be assessed simultaneously for the purposes of, e.g. placement in industry or admission to educational institutions.
 - Sternberg developed a triarchic theory of intelligence, proposing that there are 3 major kinds of intelligence, namely academic intelligence, practical intelligence, and creative intelligence.
 - Information-processing approach
 - Tests in this paradigm assess specific cognitive activities or processes such as sensory processing, coding strategies and memory.
 - Identification of the cognitive processes underlying how people remember and learn new things is key to this approach
 - Disadvantage to this approach is that testing requires computer administration in most cases, which may be expensive and may limit the number of people that can be tested at a time.
 - Also a disadvantage is that computer literacy may be a moderating factor with regards to the final test score.
 - Developmental approach
 - In this approach, intelligence is defined as the capacity of people to adapt to circumstantial demands.
 - This approach is largely based on the developmental theories of Piaget and Vygotsky, who believed that the acquisition of cognitive competence is a social phenomenon.
 - Dynamic assessment is an assessment that incorporates a training intervention into the assessment process with the aim of assessing not only the current level of cognitive ability but also the potential or future level of ability.
 - Dynamic assessment has been well received in SA as it acknowledges that lack of education or other socio-economic opportunities affect cognitive functioning.
 - Aptitude refers to a person's ability to acquire a specific skill, or attain a specific level of performance.
 - Although the abilities measured in aptitude tests relate to the verbal and non-verbal abilities measured in conventional intelligence tests, aptitude tests do not provide an overall measure of intelligence but rather an indication of differential abilities.
- Personality assessment
 - ✓ Personality inventories – measures aimed at assessing individuals' personality generally measure some or other emotional, motivational, interpersonal, and attitudinal characteristics.
 - ✓ Personality tests require subjective assessment (not right or wrong)
 - ✓ Assumption is that if we can assess aspects of a person's personality, we should be able to predict more or less how that person would behave in the job context.
 - ✓ Personality assessment is possible because of 2 basic principles underlying personality theory:
 - People are relatively consistent in their behavioural patterns, implying that each person has a coherent set of traits and action patterns that recur across time.
 - People are distinct from one another in terms of their behaviour.
 - ✓ Types of personality tests:
 - Projective techniques
 - Based on the assumption that there are aspects of a person that he is not aware of or does not want to declare, yet these impact on the person's particular personality and behaviour.
 - Test-takers are given ambiguous stimuli and requested to provide the first intuitive response that comes to mind.
 - Projective techniques are not useful in the IO field and are not appropriate for employee decision-making in selection or promotion.
 - Structured personality assessment
 - Assumption in this type of assessment is that a person's score on various personality dimensions provides an indication of that person's personality structure, and that various personality dimensions relate to various behaviours that may be required in a particular job.
 - ✓ Measures of specific personality constructs
 - Measures of emotional intelligence
 - According to Goleman aspects such as a person's self-control, persistence, self-motivation and emotional self-awareness provide additional information about a person's behaviour which is not accounted for in intelligence tests.
 - Measures of integrity
 - Growing interest in integrity tests for pre-employment screening has been sparked by the need to identify potential counterproductive work performance.

- Degree of structure:
 - Highly unstructured interview – no predetermined schedule and the questions that are asked are open questions given in no particular order.
 - Highly structured interviews have predetermined procedures for eliciting, observing, and evaluating responses. The questions have been determined in advance and all applicants are asked the same questions. A clearly-defined interview schedule is prepared beforehand, and it specifies both the content and the order in which questions are asked.
 - Typical predictor constructs assessed:
 - Predictor constructs most often assessed in interviews were personality traits and applied skills.
 - Highly-unstructured and highly-structured interviews do not tend to measure the same constructs.
 - Highly-unstructured interviews often focus more on constructs such as general intelligence, education, work experience, and interests, whereas highly-structured interviews often focus more on constructs such as job knowledge, interpersonal and social skills, and problem-solving.
 - Factors influencing interview outcomes:
 - First impression effect – basing judgements on the immediate impression made by the candidate
 - Compatibility effect – demographic or other similarities between the interviewer and the candidate bias other judgements
 - Halo effect – Judgements in other dimensions may be biased negatively or positively by judgements in one key dimension.
 - Leniency errors – some interviewers tend to score all candidates highly
 - Central tendency errors – some interviewers tend to give all candidates average scores.
 - Contrast effect – candidates are compared to one another rather than against criteria
- Online-testing:
 - Benefits of online-testing:
 - ✓ Technological advancement benefits psychological practice by providing us with the ability to design, deliver, score and interpret tests more efficiently.
 - ✓ During design, the speed and accuracy of computers are well applied and computers make testing more flexible, as tests can be tailored individually based on real-time feedback on performance.
 - ✓ Turnaround time for testing large pools of candidates across the world at the same time is enhanced, and computer-generated reports are fast, efficient and very objective, because observer bias is not a factor.
 - ✓ Computerised testing has made it possible to test people with disabilities in that voice-activated and touch-screen response options are available.
 - ✓ Computerised testing enables highly-efficient storing and saving of data and information to the extent that databases for norms and standardisation can be built.
 - Disadvantages of online-testing:
 - ✓ Benefit for observing of the test-taker behaviour is lost.
 - ✓ Test-taker may be distressed about not being able to ask questions and be put at ease.
 - ✓ Because computerised assessment limits supervision and sometimes totally omits this, critiques of online testing warn against people assisting one another during test completion, non-standardised testing conditions, and potential uncertainty about the test-taker's identity.
 - ✓ Quality of generic report writing has been scrutinised, based on the assumption that it should still be the psychologist who interprets the results rather than receiving results based on generic deductions.
 - ✓ Computer literacy of the test-taker is an issue.
 - ✓ Computer accessibility is a requirement.
 - ✓ Potential technology crashes as a result of electricity failure or software incompatibilities.

Study unit 5 – Personnel decisions

- Recruitment – concerned with identifying and attracting suitable candidates. Practices and activities carried out by the organisation with the primary purpose of identifying and attracting potential employees. The recruitment process focuses on attracting a large number of people with the right qualifications, knowledge, skills, abilities, and other desired characteristics (KSAOs) or competencies, to apply for a vacancy.
- Screening – earlier stages of the selection process, with the term “selection” being used when referring to the final decision-making stages. Screening involves reviewing information about job applicants by making use of various screening tools or devices to reduce the number of applicants to those candidates with the highest potential for being successful in the advertised position.
- Selection – represents the final stage of decision-making by applying scientific procedures in a systematic manner in choosing the most suitable candidate from a pool of candidates.
- Sources of recruitment are broadly categorised as internal and external. Internal sources of recruitment are focused on the organisation’s internal labour market as a means of filling vacancies. External sources are people outside the organisation, who may include full-time, subcontracted, outsourced, or temporary staff:

Internal sources of labour	External sources of labour
<p>Skills inventories and career development systems A skills inventory is a record system listing employees with specific skills. Career development systems develop the skills and knowledge of employees to prepare them for a career path. Skills inventories and career development systems are quick ways of identifying candidates.</p> <p>Job posting Information about vacancies is placed on notice boards or in information bulletins. Details of the job are provided and employees may apply. This source enhances the possibility that the best candidate will apply, but it can also cause employees to hop from job to job. In addition, because of a lack of applications, the position may be vacant for a long time.</p> <p>Inside “moonlighting” or contracting In the case of a short-term need or a small job project that does not involve a great deal of additional work, the organisation can offer to pay bonuses for employees to do the work. Employees who perform well could be identified, and this could promote multi-skilling.</p> <p>Supervisor recommendations Supervisors know their staff and can nominate employees for a specific job. Supervisors are normally in a good position to know the strengths and weaknesses of their employees, but their opinions could be subjective and liable to bias and discrimination.</p>	<p>Employment agencies Agencies recruit suitable candidates on the instructions of the organisation. Once candidates have been identified, either the organisation or the agency could do the selection.</p> <p>Walk-ins This occurs when a prospective employee applies directly to the organisation in the hope that a vacancy exists, without responding to an advertisement or recommendation by someone.</p> <p>Referrals This is an inexpensive and quick resource. Current employees refer or recommend candidates from outside the organisation for a specific vacancy. Current employees are not likely to recommend someone who is unsuitable, because this may reflect negatively on them.</p> <p>Professional bodies People who attend conventions have opportunities to network. Advertisements for vacancies can be placed in the publications of professional bodies.</p> <p>Head-hunting Recruitment of top professional people through specialised agencies. These candidates are approached personally with a job offer, or an advertisement can be drawn up specifically with that candidate’s qualifications, experience, and skills in mind.</p> <p>Educational institutions This source can provide an opportunity to approach or invite the best candidates to apply for vacancies or entry-level positions.</p> <p>ESSA Employment Services SA is a national integrated labour market data management system that keeps accurate records of skills profiles, scarce and critical skills, and placement opportunities.</p>

- Jobs which require high skills and knowledge unique to the organisation are better managed as internal promotions or transfers, as these have implications for building a committed workforce. Jobs which do not require costly training and which can be performed at a lower skill level can be externalised with a view to shorter-term employment relationship.
- Recruitment methods:
 - Type of recruitment method chosen by an organisation will be dependent on the type of vacancy and the organisation concerned.
 - Most recruitment methods can be classified as open search techniques. Two examples are:
 - ✓ Advertisements
 - Method most commonly used.
 - When using advertisements as method of attracting potential candidates, 2 issues need to be addressed: the media and the design of the advert.
 - Drawback to print advertising is that there may be a week or more between insertion of the advertisement and the publication of the journal.
 - Four-point guide for the effective design of an advertisement:
 - A = attention
 - I = interest
 - D = desire
 - A = Action
 - To ensure fairness and equity, employers need to consider where the advertisement should be placed in order to reach a large pool of candidates that are as diverse as possible.
 - ✓ E-recruitment
 - Refers to online recruitment, which uses technology or web-based tools to assist the recruitment process by posting advertisements of job vacancies on relevant job sites on the Internet.
 - Key drivers for e-recruitment:
 - Reducing recruitment costs
 - Broadening the selection pool
 - Increasing the speed of time to hire
 - Greater flexibility and ease for candidates
 - Strengthening of the employer brand
 - Disadvantages of e-recruitment:
 - Limiting applicant audience
 - Possible application overload or inappropriate applications.
 - May limit the attraction of those unable to utilise technology fully, e.g. disabled
 - May give rise to allegations of discrimination
 - Applicants may be turned off if the website is badly designed.
- Recruitment planning
 - The job analysis process and its 2 products, namely job descriptions and person specifications, are regarded as the most fundamental pre-recruitment activities.
 - Recruitment planning process:
 - ✓ The actual process of recruitment planning begins with a specification of HR needs as determined by the HR planning process. In addition, the company's affirmative action targets as set out in the employment equity plan must be examined and considered in the recruitment plan.
 - ✓ Project a timetable for reaching the set targets and goals based on expected job vacancies as set out in the recruitment plan.
 - Projecting a timetable involves the estimation of 3 key parameters: the time, the money, and the potential candidates necessary to achieve a given hiring rate.
 - The basic statistic needed to estimate these parameters is the yield ratio or number of leads needed to generate a given number of hires in a given time.
 - Yield ratios include the ratios of leads to invitations, invitations to interviews, interviews to offers, and offers to hires obtained over a specified time period.
 - Time lapse data provide the average intervals between events, such as between the extension of an offer to a candidate and acceptance.
 - ✓ Determine the most appropriate, cost-effective and efficient methods that will yield the best results in the shortest time period.
 - ✓ The recruitment yield pyramid is useful when deciding on a recruitment strategy.

- Considerations in employee selection:
 - Employee selection is concerned with making decisions about people. Employee selection therefore entails the actual process of choosing people for employment from a pool of applicants by making inferences (predictions) about the match between a person and a job.
 - By applying specific scientific techniques and procedures in a systematic or step-by-step manner, the candidate pool is narrowed through sequential rejection decisions until a selection is made.
 - Psychometric standards to evaluate the quality of staffing decision outcomes:
 - ✓ Reliability
 - Reliability – the extent to which a score from a selection measure is stable and free from error.
 - Reliable methods are accurate and free from contamination.
 - ✓ Validity
 - Validity – the degree to which inferences from scores on tests or assessments are justified by the evidence.
 - Reliability and validity are related. The potential validity of a test is limited by its reliability. Reliability does not necessarily imply validity.
 - Since the linkage between predictors and criteria is the essence of validity, a valid method should also show an association between scores on the assessment tool and desired job behaviours.
 - This linkage is often expressed as a correlation coefficient – known as a criterion-related validity coefficient (r) – representing the strength and direction of the relationship between scores on the predictor and scores on a criterion of job performance.
 - Predictor validity:
 - A valid predictor identifies the more capable people from the total pool of people.
 - The value of the predictor is measured by the difference between the average performance of the accepted group and the average performance of the total group.
 - There is a direct relationship between a predictor's value and its validity: the greater the validity of the predictor, the greater its value, as measured by the increase in average criterion performance for the accepted group over that for the total group.
 - Selection ratios:
 - Selection ratio indicates the relationship between the number of individuals assessed and the number actually hired.
 - Low selection ratios are regarded as being better than high selection ratios, because the more people being assessed, the greater the likelihood that individuals who score high on the test will be found.
 - The smaller the selection ratio, the greater the predictor's value. I.e. the more particular decision-makers are in admitting people (smaller selection ratio), the more likely it is that the people hired will be of the quality the company desire.
 - Prediction errors and cut scores:
 - Level of validity is associated with prediction errors.
 - Prediction errors are generally common when validity coefficients are < 1.00 .
 - 2 types of prediction errors may be committed by decision-makers:
 - ❖ False-positive error – occurs when a decision-maker falsely predicted that a positive outcome would occur, and it did not, the person failed. The decision is false because of the incorrect prediction that the applicant would have performed successfully and positive because the applicant was hired.
 - ❖ False negative error – occurs when a decision led to an applicant who would have performed adequately or successfully was rejected. The decision is false because of the incorrect prediction that the applicant would not have performed successfully and negative because the applicant was not hired.
 - Cut scores are used to minimise both types of errors by moving the score that is used to hire individuals up or down. A cut score is a specified point in a distribution of scores below which candidates are rejected.
 - Methods of establishing cut scores (cut-off scores):
 - ❖ Criterion-referenced cut scores – established by considering the desired level of performance for a new hire and finding the test score (predictor cut-off) that corresponds to the desired level of performance (criterion cut-off)
 - ❖ Norm-referenced cut scores – based on some index of the test-takers' scores rather than any notion of job performance.
 - Standards to use in evaluating the suitability of established cut-off scores:

- ❖ A cut-off score should be set to be reasonable and consistent with the expectations of acceptable job proficiency in the workplace.
 - ❖ Cut-off should be set at a point that selects employees who are capable of learning a job and performing it in a safe and efficient manner.
 - ✓ Utility
 - The concept of utility addresses the cost-benefit ratio of one staffing strategy versus another.
 - Utility analysis considers three important parameters: quantity, quality and cost.
 - Based on utility calculations, industrial psychologists can make more informed decisions with respect to which alternatives to present to managers.
 - The base rate refers to the proportion of candidates who would be successful without the selection measure. A meaningful way of determining the base rate is to choose a criterion measure score above which all employees are considered successful. To be of any use, the selection measure or device must demonstrate incremental validity by improving on the base rate. That is, the selection measure must result in more correct decisions than could be made without using it.
 - ✓ Fairness and legal considerations
 - A Test is fair if it can predict performance equally well for all race, genders and national origins.
 - Two different theories of discrimination:
 - Adverse treatment theory charges an employer with intentional discrimination
 - The adverse impact theory acknowledges that an employer may not have intended to discriminate against a plaintiff, but a practice implemented by the employer had the effect of disadvantaging the group to which the plaintiff belongs.
- A decision framework provides the logical connections between decisions about a resource and the strategic success of the organisation.
- A scientific approach to decision-making reveals how decisions and decision-based measures can bring the insights of the field of industrial and organisational psychology to bear on the practical issues confronting organisation leaders and employees.
- The measurement and decision frameworks provided by the profession of personnel psychology are grounded in a set of general principles for data collection, data analysis, and research design that support measurement systems in all areas of HR-related decision-making in the organisation.
- The employee selection process involves two important procedures:
 - Measurement – entails the systematic collection of multiple pieces of data or information using tests or other assessment procedures that are relevant to job performance.
 - Prediction – involves the systematic process of combining the collected data in such a way as to enable the decision-maker to minimise predictive error in forecasting job performance.
- Strategies for combining job applicant information:
 - Clinical decision-making
 - ✓ Data is collected and combined judgementsly.
 - ✓ Predictions about the likely future performance of a candidate or job applicant are also judgemental in the sense that a set of test scores or impressions are combined subjectively in order to forecast criterion status.
 - ✓ Tend to be regarded as unreliable and idiosyncratic because they are mostly subjective or judgemental in nature, and are therefore error-prone and often inaccurate.
 - Statistical decision-making
 - ✓ Information is combined according to a mathematical or actuarial formula in an objective, predetermined fashion.
 - ✓ Personnel selection uses the statistical model of prediction to select the candidates with the greatest likelihood of job success.
 - ✓ Even if data is collected mechanically, they may still be combined judgementsly.
 - Clinical composite strategy
 - ✓ Data is collected both judgementsly and mechanically, but combined judgementsly.
 - ✓ The decision-maker may subjectively interpret the personality profile of a candidate that derived from the scores of a test without ever having interviewed or observed him.
 - Mechanical composite strategy
 - ✓ Job applicant data is collected judgementsly and mechanically, but combined in a mechanical fashion to derive behavioural predictions from all available data.

The statistical or mechanical decision-making strategy is regarded as superior to clinical decisions because selection decisions are based on an objective decision-making statistical model.

- Employee placement – the process of assigning workers to appropriate jobs after they have been hired.
- Whereas selection generally involves choosing one individual from among many applicants to fill a given opening, placement, in contrast is often a process of matching multiple applicants and multiple job openings on the basis of a single predictor score.
- Affirmative action
 - Equal opportunity considerations enter into every stage and phase of the recruitment, assessment and selection process.
 - These considerations should be built into every phase.
 - The Act determines that an employer to whom this Act applies has the duty to implement affirmative action measures in respect of people in the designated groups in order to achieve employment equity.
 - Equal opportunity considerations also affect the chain of events from job analysis to the evaluation of effectiveness.

Study unit 6 – Fairness in personnel decisions

- The following apply to the concept of fairness:
 - Fairness is a social rather than a psychometric or statistical concept
 - Fairness has no single meaning, and therefore no single statistical definition.
 - Fairness or the lack thereof, is not the result of the selection instrument or predictor, nor is it the property of the selection procedure used.
 - Fairness is the total of all the variables that play a role in or influence the final personnel decision.
- As far as fairness of the selection process is concerned, a job applicant is looking for fair treatment along 3 dimensions:
 - An unbiased, job-related selection process that gives the applicant the opportunity to demonstrate his capabilities
 - Honest and appropriate interpersonal treatment
 - Timely and informative feedback throughout the selection process and on the hiring decision.
- Unfair discrimination or bias is said to exist when members of a minority group have lower probabilities of being selected for a job when in fact, if they had been selected, their probabilities of performing successfully in a job would have been equal to those of non-minority group members.
- Bias pertains to the impact of the psychometric properties of the test which have an impact on the test result, while fairness pertains to the way in which the results are interpreted and applied. A test may therefore be unbiased and valid, but the results used unfairly, resulting in discrimination and possibly even unfair labour practices.
- Measures of test bias:
 - Test bias – the over-prediction or under-prediction of criterion measures.
 - When selecting the appropriate test to be used in assessing personnel, the following need to be taken into consideration:
 - ✓ Criteria measured by the specific test
 - ✓ Characteristics of groups on which the test norms are based
 - ✓ Test reliability
 - ✓ Test validity
 - ✓ Context in which the attributes being tested for are to be used
 - ✓ Level of difficulty of the test in relation to the levels at which the job requires the attribute being measured
 - ✓ Report on steps taken to guard against test bias
- Types of bias:
 - Intrinsic bias – the intrinsic or psychometric properties of the test which may have an effect on the test result.
 - Predictive or correlational bias – refers to the usefulness, validity, and fairness of the test for the purpose for which it was designed.
- In addition to using external criteria to evaluate a test's fairness, one can also rely on the internal psychometric properties' of a test as an indicator of bias. The following should be considered:

- Differential reliability – a test may show greater reliability for one group than for another.
 - Test item for race interaction – if a test is biased, one could expect to find some pattern of differential achievement among different items.
 - Differential factor structures – factor analysis should identify a test which measures different factors for different racial subgroups
 - Differential item difficulties – a test may show different levels of item difficulty among the items for different subgroups.
- The quest for culture-fair tests:
 - To develop tests which are culture-fair it meant eliminating culturally loaded items or items which may refer to situations or experiences unique to Western society
 - These attempts may cause members of previously disadvantaged groups to perform poorly if they have been exposed to white culture.
 - The previously disadvantaged candidate may perform better on the test, but when faced with work situations which represent white culture, the predicted performance may not match the level of performance demonstrated or attained.
 - Another criterion for developing culture-fair tests has been to eliminate, as far as possible, verbal aspects of the test, based on the premise that previously disadvantaged cultures may not have achieved the level of verbal development required to interpret written instructions successfully or understand the actual test items.
 - Researchers have found that previously disadvantaged groups have performed worse on the non-verbal assessments than on the traditional tests
- Fairness in the South African legal framework:
 - Although fairness differs from legality, the 2 concepts may be related in as far as the law reflects societal notions of fairness.
 - The intention of anti-discrimination legislation pertaining to recruitment, selection, placement and promotion is that every person who can do a job should have a fair chance to get the job.
 - The Labour Relations Act (LRA) does not refer specifically to psychological assessment, but provides guidelines for the fairness of all employment and personnel related decisions.
 - The EEA was introduced to promote fairness and equality in the workplace. The Act proposes 2 ways of achieving this:
 - ✓ To promote equal opportunity and fair treatment in employment through the elimination of unfair discrimination.
 - ✓ To implement affirmative action measures to redress disadvantages in employment experienced by previously disadvantaged groups.
 - The EEA makes specific provision for psychological testing in the workplace. Psychological testing and other similar assessments of an employee are prohibited unless the test being used:
 - ✓ Has been scientifically shown to be valid and reliable
 - ✓ Can be applied fairly to all employees
 - ✓ Is not biased against any employee or group
- Models of test fairness:
 - Systematic mean differences between subgroups on tests model
 - ✓ Unfair discrimination resulting from the use of occupational assessment instruments may be identified when systematic mean differences exist between previously disadvantaged and non-minority group scores, even when the non-minority group mean is lower than the mean achieved by the previously disadvantaged group.
 - ✓ It is imperative to consider the causes of these differences before determining whether the test is biased or unfair.
 - Differences in validity model
 - ✓ This model holds that tests are predictive for all groups, but to differing degrees.
 - ✓ This refers to significant differences in the coefficients calculated for each of the two groups as being an indicator of test bias.
 - Differences in regression lines model
 - ✓ Different groups may score significantly differently on certain selection tests, but perform equally well in the job.
 - ✓ A test is only fair if the regression line is the same.
 - 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.
 - Conditional probability 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 another group.
 - ✓ Model will give greater preference for minority groups
- Equal risk model
 - ✓ Consider distribution of criterion scores about regression line
 - ✓ Want 70% of selected candidates to success, set predictor cut-off at any point which allows 30% risk on criterion success.
 - ✓ The risk should be equal in all groups
 - ✓ Model will give greater preference for minority groups.
- 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:
 - ✓ Provide information on job relatedness
 - ✓ Provide feedback
 - ✓ Establish good rapport
 - Perceived fairness of employees influenced by:
 - ✓ Equity
 - ✓ Equality
 - ✓ Special needs
 - Establish a model of fairness
 - Consult with all stakeholders