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## "Instructors' Workshop on Training Fundamentals"

Arnoma Hotel, Bangkok (Thailand) 01<sup>st</sup> November, 2014 (Saturday)

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Chairman – AFFA WGET

TOT - Pedagogy & Andragogy







# Module 5: Assessing Learner Performance







- Introduction
- Module Objectives
- The Criteria for Good Assessment
- Key Terms Used in the Language of Assessment
- Planning Scheme of Assessment
- General Principles in Test Construction







- Types of Assessment Items
- Preparing a Marking Scheme/ Test Plan for Assessments
- Pitfalls in Assessment
- Reflecting on this Module
- Module Activity







### Introduction

- is perhaps the most important part of the training process...!
- in assessing the performance of your trainees, you are making a Judgment about whether or not they have met to objectives of the module
  - their level of COMPETENCE!







### Introduction

- the Assessment Process must be conducted as <u>systematically</u> & <u>objectively</u> as possible...
- Criterion-Reference Tests
  - are tests where there is an unarguable, objective measure of the correctness of the answer that holds good, independent of the level of the class of trainees or the examiner's strictness







### Introduction

- Criterion-Reference Tests
  - there is a single criterion for passing or failing each test.
  - the level of success in training for a job must be independent of the average quality of the trainee...









### Introduction

### Assessment of Learners' Performance

Criterion-Reference Tests

e.g. the case of a trainee maintenance technician who should be able to identify 8 of the 10 (80%) possible faults in a given refrigerated container, but when tested, Identifies only 6 of them (60%)









### Introduction

- Criterion-Reference Tests
- when it is said that the trainee has identified 60% correctly, the results of a measurement are being described...this performance did NOT meet the criterion of 80%
- the Objective was NOT accomplished: therefore, the trainee <u>cannot be certified</u> as having achieved the Objective!







### **Module Objectives**

## On completion of this Module, you should be competent to:

- identify the criteria for good assessment
- plan a Scheme of Assessment/Test Plan
- identify appropriate assessment methods for specific Learning Outcomes...
- design a range of Assessment Items
- produce a Marking Scheme for openresponse items
- identify common pitfalls in conducting assessment









# Questions?

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### The Criteria for Good Assessment

The most important
Requirements of Test items
are that they are
VALID & RELIABLE!



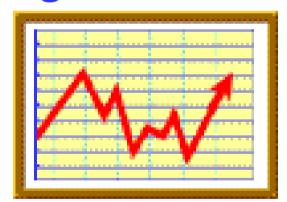




### The Criteria for Good Assessment

### **Validity**

- refers to the 'truth' of the assessment made
- in assessing learners, we are making claims to know them in the areas being assessed...
- it is very important that our assessment methods measure as accurately as possible –



"What it is we intend to measure?"







# The Criteria for Good Assessment Validity

A Valid Test must include the following items:

- reproduce faithfully the Conditions,
   Behaviour & Standards described in the Objectives...
- cover all the skills, knowledge, and attitudes describe in the Objective, but seek to test nothing else...

A Valid Test must call for the type of behavior described in the Objective!







### The Criteria for Good Assessment

### Reliability

- refers to the capability of a Test
- to yield the same scores with different raters (persons scoring the test)
- to yield the same results if administered at different points in time to equally competent trainees









### The Criteria for Good Assessment

### Reliability

- reliable assessment will measure the same thing consistently (some assessment methods are inherently more reliable than others...)
- a <u>well-constructed</u> MCQ may be much more reliable than essays...!
- to increase their reliability, tests should be designed in such a way that the conditions can be reproduced every time they are used







### The Criteria for Good Assessment

### Reliability

- accurate assessment must be both <u>Valid</u>
   & <u>Reliable</u>. Reliability itself is NOT enough!
  - e.g. an assessment method can be very reliable in the sense that the same results are consistently produced.

However, it may simply be measuring the wrong things well, like knowledge or skills that are not the real focus of the Learning Objectives...



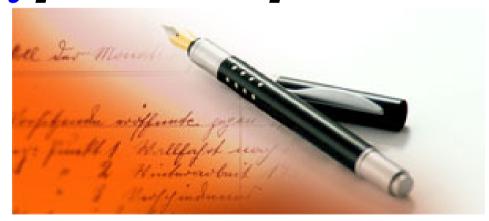




### The Criteria for Good Assessment

### **Reliability**

A MCQ exam may produce reliable evidence concerning trainees' ability to recall factual information, but this would NOT be a valid measure of practical competence!









# The Criteria for Good Assessment Reliability

### Other qualities of good test are:

- <u>Balance</u> that the distribution of items reflects the relative importance of the objectives to be tested...
- Efficiency not too time consuming to administer, & designed so that it allows for quick & efficient scoring & processing of results...







### The Criteria for Good Assessment

### Reliability

### Other qualities of good test are:

• <u>Fairness</u> – the test should be constructed & administered so as to give each trainee an equal chance to demonstrate his capabilities.

Fairness also means that the test should encourage the trainee to use all his acquired capabilities to produce the correct response...









# Questions?

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### Key Terms used in the Language of Assessment

### **Summative Assessment**

- refers to any assessment where final marks or grade are allocated to a learner's performance
- typically, this is related to end-of-module (EOM) exams...
- all assessments that contribute to the overall assessment mark/grade are at some stage summatively assessed in that the decision is final – at least for that course...







### Key Terms used in the Language of Assessment

### Formative Assessment

 assessment is an ongoing process, closely linked to instruction, & fundamental in dev. effective learning



 when assessment is primarily focused on dev. Learning rather than making summative decisions abt. level of performance, it is referred to as Formative Assessment







### Key Terms used in the Language of Assessment

### **Formative Assessment**

 should be carefully planned & monitored in order to ensure that learners have been adequately prepared for Summative Assessment









### Key Terms used in the Language of Assessment

### Assessment Scheme/Test Plan

 refers to the document that details the overall assessment strategy used for a course of study

## A scheme of assessment typically identifies the followings:

- when assessment is to takes place?
- what assessment methods are to be employed?
- the marks/weighting for each assessment?







### Key Terms used in the Language of Assessment

### Assessment Scheme/Test Plan

 refers to the document that details the overall assessment strategy used for a course of study

## A scheme of assessment typically identifies the followings:

- who is responsible for conducting assessment?
- what resources are needed for assessment?
- the conditions under which assessments are to be conducted?







### Key Terms used in the Language of Assessment

### **Assessment Evidence**

- refers to any work produced by learners which is assessed, whether for purpose of formative or summative assessment
- this would include :
  - learners' responses in both fixed term exams & all ICAs









### Key Terms used in the Language of Assessment

### Assessment Evidence

- refers to any work produced by learners which is assessed, whether for purpose of formative or summative assessment
- this would include:
  - witness testimonies
  - accreditation of prior learning
  - peer assessment

It provides raw data about learner performance from which assessment judgments & decisions are based...







### Key Terms used in the Language of Assessment

### **Assessment Methods**

- refers to the activities with which we provide learners in order to produce assessment evidence
- some of the most commonly used methods:
  - MCQs
  - short & long answers
  - essays,
  - project work,
  - case studies
  - practical laboratory assignments, etc.









### Key Terms used in the Language of Assessment

#### **Assessment Items**

- is any discrete part of an exam or test...

- could be as small as a MCQ or as large as

an ICA or project...

- while 'assessment methods' refers to assessment activities in the general sense, 'assessment items' are specific tasks used







## Questions?

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### Planning a Scheme of Assessment

### **Key Planning Decision - Why Assess?**

- many reasons why we want to assess what has been learned from a course of study:
  - selecting & grading learners
  - maintaining standards
  - diagnosing learners difficulties
  - supporting the development of learning
  - evaluating the effectiveness of the teaching & learning strategy...







### Planning a Scheme of Assessment

### **Key Planning Decision – Why Assess?**

- for any course of study, it is very important to clearly establish where the emphasis is to be placed for assessment purposes...
- however, assessment should have a strong formative emphasis irrespective of the type
   by purpose of the summative assessment...









### Planning a Scheme of Assessment

### **Key Planning Decision – What to Assess?**

- usually not possible to assess everything that is contained in a module...
- it is necessary to make careful decisions concerning what combinations of knowledge, skills & attitudes are to be assessed & to what level?







### Planning a Scheme of Assessment

### **Key Planning Decision – What to Assess?**

- decisions in this area are crucial in defining what is important about the module:

## WHAT IS ASSESSED MUST ACCURATELY REFLECT WHAT IS IMPORTANT IN THE MODULE!







### Planning a Scheme of Assessment

### **Key Planning Decision - What to Assess?**

#### It is essential that:

- careful Content Evaluation has been conducted to identify what is to be assessed (both in terms of product & process & with appropriate weightings)
- a clear definition of 'standard' for the module needs to be established!









### Planning a Scheme of Assessment

### **Key Planning Decision - What to Assess?**

#### It is essential that:

 all trainers assessing on the module have a shared-agreement of the standard procedures for systematic review & development are established & employed...









### Planning a Scheme of Assessment

### **Key Planning Decision - What to Assess?**

You may find it useful to construct a 'Table of Specifications' to aid your decision-making in this area of assessment planning A 'Table of Specifications' is a planning tool to ensure that:

- the assessment items relate clearly to the Learning Outcomes of a course
- using a representative sample of test items both in terms of coverage & level of difficulty







### Planning a Scheme of Assessment

### **Key Planning Decision - What to Assess?**

### Preparing a 'Table of Specifications' involves:

- selecting the Learning Outcomes to be assessed
- outlining the Subject Content
- relating the Learning Outcomes to the Subject matter & identifying what is to be assessed & its weightage







### Planning a Scheme of Assessment

### **Key Planning Decision - What to Assess?**

Preparing a 'Table of Specifications' involves:

- building a table to reflect this process
- distributing test items proportional to the relevant cells of the table...





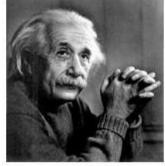


### Planning a Scheme of Assessment

### **Key Planning Decision – How to Assess?**

A real skill is involved in dev. Assessment items that are valid as well as promoting learning...

It must be recognized that assessment is NOT an exact science & that all methods have Limitations in terms of the measurement of Human Capability rendered!



Einstein

Genius mind







### Planning a Scheme of Assessment

# Key Planning Decision – How to Assess? Key question to ask in designing & using Methods of Assessment:

- do they accurately measure identified Learning Outcomes?
- is a sufficient range employed to encourage Learner motivation & enable students to display competence in different ways?
- are they fostering (whenever possible) an understanding of the key concepts, models & principles of the subject matter?







### Planning a Scheme of Assessment

### **Key Planning Decision - How to Assess?**

**Key question to ask in designing & using Methods of Assessment:** 

- do they make cost-effective use of time in generating sufficiency of evidence to infer competence?
- is independent learning & the dev. of selfassessment skills encouraged where possible?
- do they provide fair assessment situations for learners?







### Planning a Scheme of Assessment

### **Key Planning Decision – How to Assess?**

**Key question to ask in designing & using Methods of Assessment:** 

- are they systematically organized into effective assessment scheme?
- have learners been clearly & consistently informed on all aspects of the assessment scheme, (like timing, type of assessment, assessment specifications & the evidence that is needed to meet those specifications)?









# Questions?

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### Planning a Scheme of Assessment

- How to Interpret the Products of Assessment?
  - different assessment methods produce different types of data relating to learner performance...
  - need to consider what this is telling us in terms of learning...







#### Planning a Scheme of Assessment

- How to Interpret the Products of Assessment?
  - responses to MCQs test are likely to give a different picture of learner understanding or competence than observing direct performance in a simulation or conducting an experiment!







### Planning a Scheme of Assessment

- How to Interpret the Products of Assessment?
- important to recognize the limitations of the assessment methods we are using...
- to understand that any single assessment may provide only a very temporary picture of learner performance; variety of methods & the use of formative assessment are advocated...
- this is to make the assessment fairer & more valid!







### Planning a Scheme of Assessment

- How to Interpret the Products of Assessment?
- the diagnosis of learning is particularly significant at this stage of the assessment process...
- we are interested both in what individuals are learning well, and in areas where difficulty is experienced...







### Planning a Scheme of Assessment

- How to Interpret the Products of Assessment?
- we are interested in the reasons behind such performances...it is here that the interface with teaching & learning approaches is most crucial!







### Planning a Scheme of Assessment

- How to Interpret the Products of Assessment?
- we need to assess the extent to which our teaching & learning strategy has contributed to present learner performance...
- assessment outcome do NOT simply tell learners how well they have performed; they provide us with important insights abt. our practice as professional, vocational educators...
- in this way, we can facilitate learning from a more informed basis & with greater focus!







### Planning a Scheme of Assessment

- How to Interpret the Products of Assessment?
- we need to guard ourselves as far as possible, from subjectivity & bias in assessment
- in assessment situation it is important to ensure :
  - assessment is only against specified criteria,
     and in accordance with agreed marking schemes
  - there is uniformity of assessment practice by trainers involved in the assessment...









### Planning a Scheme of Assessment

## **Key Planning Decision – How to Communicate Assessment Decisions to Learners?**

- good feedback is key factor in learning
- the information we give to learners concerning their performance in assessment is crucial to their future learning!
- assessment decisions are NOT simply grades on a piece of papers, but represents judgment of worth...







#### Planning a Scheme of Assessment

## **Key Planning Decision – How to Communicate Assessment Decisions to Learners?**

 while it is recognized that learners perceived assessment outcomes in individualized ways, tutor grading is a major source of self definition in the areas assessed...







### Planning a Scheme of Assessment

## **Key Planning Decision – How to Communicate**Assessment Decisions to Learners?

- many are likely to internalized the assessment we make of them...
  - "Nothing breeds success like success"
    - this maxim equally applies for failure!
- how we communicate assessment decisions to learners (both in term of what we say & how we say it) is of vital importance to subsequent learning...







#### Planning a Scheme of Assessment

## **Key Planning Decision – How to Communicate Assessment Decisions to Learners?**

 it is not simply the feedback given but the actions we take in making the outcomes of assessment useful for future learning







### Planning a Scheme of Assessment

## **Key Planning Decision – <u>How to Communicate</u>**Assessment Decisions to Learners?

In order to promote future learning from Assessment Decisions that we make, it is essential that:

 learners are provided with a clear explanations of the basis of assessment decisions

(they need to know what they have not demonstrated in the assessment and why is it important? This should be enacted sooner rather than later)

it is likely to be more prominent in both the tutor
 & the learners' mind...







### Planning a Scheme of Assessment

## **Key Planning Decision – How to Communicate Assessment Decisions to Learners?**

- it means that the motivated individuals can start to tackle the gaps in their learning earlier rather than later!
- clear guidance is given on possible courses of action for learners to dev. competence in areas presently lacking or not sufficiently established..







### Planning a Scheme of Assessment

## **Key Planning Decision – How to Communicate**Assessment Decisions to Learners?

- It is not particularly useful in itself to be told that you are not competent at something, or that you do not excel a particular topic
- in order to transform this potentially negative state of thinking & feeling into one of achievement & satisfaction, there is a need to know what to do & where to go concerning the dev. of learning....







### Planning a Scheme of Assessment

## **Key Planning Decision – How to Communicate**Assessment Decisions to Learners?

- we are often led to feel that learning is in some way mystical & you either "get it" or "don't get-it"
- it is NOT learning that is mystical; it is the lack of knowing, and appropriate learning support that creates the feeling of mystification!







### Planning a Scheme of Assessment

## **Key Planning Decision – How to Communicate Assessment Decisions to Learners?**

- the feedback process in assessment can be an excellent vehicle to promote motivation...
- by de-mystifying learning, it helps learners to feel that they can become successful in their efforts...







### Planning a Scheme of Assessment

## **Key Planning Decision – How to Communicate Assessment Decisions to Learners?**

In order to promote future learning from Assessment Decisions that we make, it is essential that:

 rapport is often considerably enhanced if learners tutors have a genuine interests in their learning & make efforts to understand how they are performing









# Questions?

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### General Principles in Test Construction

There are some very Important Rules that apply to all Tests, regardless of their Form...

When constructing ANY Test, you should remember to:

- try to design the test to reflect accurately the conditions, behaviour & standards as described in the Objective...
- give trainee clear, easy to understand instruction...







### General Principles in Test Construction

There are some very Important Rules that apply to all Tests, regardless of their Form...

When constructing ANY Test, you should remember to:

- use short, concise sentences, avoiding big or unnecessary words
- use positive statements when at all possible
- when using negative statements (if unavoidable), bring the trainees' attention to the negative by underlining or bold-type







### General Principles in Test Construction

There are some very Important Rules that apply to all Tests, regardless of their Form...

### When constructing ANY Test, you should remember to:

- avoid using trick question as these do nothing to help the trainees' morale & tests little but his cleverness
- arrange (if possible), for easy scoring as this will save you time & make the scoring easier for the trainee to understand...

Above Rules apply for EVERY Test; it will make your Course tests a lot more accurate & more agreeable to both you & your trainees!









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### **Types of Assessment Items**

- Assessment Items are the "Nuts & Bolts" of ANY assessment strategy...
- they are what we get learners to do in order for them to show us that they are competent in the areas assessed...
- basically, assessment items can be seen in terms of 2 broad categories :

free







### **Types of Assessment Items**

## Basically, assessment items can be seen in terms of 2 broad categories:

- Fixed Response
- where the students chooses an answer from limited options provided
- Open Response
- where the students, to varying degrees, choose the answer they provide









### **Types of Assessment Items**

### All Assessment Items share 2 important features:

- Design & Presentation must meet high standards for that type of item
- the item must validly assess identified Learning Outcomes









### **Types of Assessment Items**

## In selecting the type of test & test items, the General Rule is that:

#### Skills

- are best tested by performance tests (the trainee performs the task described in the objective under real or simulated conditions)

### Knowledge

- is best tested by oral or written tests

#### Attitudes

- are tested by observations or performance or by means of questionnaires







### **Types of Assessment Items**

#### Alternate Response or True-False Items

- these are among the most common types of test & among the easiest to construct...
- the response are simple, requiring the trainee simply to determine if a statement is either True or False...
- the instruction usually requires the trainee to check or circle the correct answer...
   don't try to trick the trainee by inserting an occasional checking of false statement...!







### **Types of Assessment Items**

#### Alternate Response or True-False Items

### **Examples:**

 Male employees in the Operations Dept. are required to work on holidays **T / F** 

 Female employees in the Admin Dept. work 30 hours per week T / F

- T / F Seat belts are required equip in all company vehicles
- T / F Employees are required to use seat belts when operating company vehicles







### **Types of Assessment Items**

#### Alternate Response or True-False Items

#### Note:

- the questions are all short & stated in a positive manner so as not to mislead the trainee
- the order of the placing of the T & F
  is consistent. Never change the order
  in the responses...The trainee will
  see it as an unfair trick
- Clues to answers are to be avoided...!









### **Types of Assessment Items**

#### Alternate Response or True-False Items

### Suggestions for constructing True/False Tests:

- consider if these tests will really test the knowledge that you want the trainee to have?
- since they are so easy to construct, you may be tempted to use them when a different form of test would give a better measure of the trainee's knowledge...!
- another possibility is to provide a box after a statement & allow the trainee to write in True or False







### **Types of Assessment Items**

#### Alternate Response or True-False Items

### Suggestions for constructing True/False Tests:

- try to keep the number of True & the number of false statements more or less in balance, & avoid setting a pattern...
- take care that the statement is not one which can be sometimes true & sometimes false.

  Truth or Falsity must be absolute!
- when scoring, it is easiest to assign the same amount of weight (value) to each item. The total value should always be 100%







### Multiple Choice Items (MCQs)

- often vary in format & structure, but essentially, provide the student with a question and a choice of response answers (typically 4 or 5)
- certain stimulus material such as tables, diagrams, graphs, etc. may also be provided to set a context for the question(s)...
- the learner must select his/her answer from the options given...







### Multiple Choice Items (MCQs)

**Examples:** Check the Correct Answer

• Attendance is recorded on form:

1321 2721 X 1001

Vehicle Maintenance is performed by the :

Contractor

Motorpool \_\_X\_

Employee \_\_\_\_







### Multiple Choice Items (MCQs)

**Examples:** Circle the Correct Answers (s)

- The personnel director has the right to :
  - a/ analyze company profits
  - b/ decide company policy
  - c/ supervise office cleaning
  - d/ negotiate salary increases







### Multiple Choice Items (MCQs)

#### Suggestions for designing/evaluating MCQs:

- is the question within the syllabus & Table of Specifications?
- does it test appropriate abilities & exclude, as far as possible, irrelevant ones?
- is the question at the correct level of difficulty?
- is the question clearly presented?
- is all necessary information provided?
- is the question as precise & unambiguous as possible?







### Multiple Choice Items (MCQs)

### Suggestions for designing/evaluating MCQs:

- is the question presented in the best possible manner?
- is the key arguably correct & the distracters arguably incorrect?
- are the distracters plausible to the level of learners being assessed?
- is the question free of clues?
- are the grammar, spelling, terminology, abbreviation and units correct?







### Multiple Choice Items (MCQs)

#### **Uses of MCQs**

MCQs are very popular as a means of assessment. If well designed, they provide:

- a strong objective base for assessment in that the answers are, in most cases, clearly correct & marking is free from subjectivity involved in other assessment methods
- ease of marking, as test papers can be quickly processed, especially with electronic marking system







#### Multiple Choice Items (MCQs)

#### **Uses of MCQs**

MCQs are very popular as a means of assessment. If well designed, they provide:

- high level of reliability
- cost-effective method of assessing a wide range of learning abilities...









### Multiple Choice Items (MCQs)

### **Limitations of MCQs**

As with all Assessment Methods, MCQs have Limitations as a complete approach to assessing learning. e.g. they are NOT particularly appropriate for assessing:

- skills applications, whether technical or human communications
- complex activities that require a number ( of international abilities & skills
- attitudes, dispositions & values
- creativity









# Questions?

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### **Matching Items**

- Matching test could be considered as a group of Multiple-Choice items combined together but having a Single set of responses...
- This form of tests is not used as frequently as True-False or MCQ & is usually more difficult to Construct
   & Score







### <u>Matching Items</u> <u>Examples</u>:

Show the number of the activity recorded on the Forms Listed in column A through D:

- A. Form E 1021
- **1**
- 1. Accident (on the job) report
- \_\_\_ B. Form E 1082
- 2. Accident (off the job) report
- C. Form A 0720
- 3. Hazardous condition report
- \_\_\_ D. Form B 0681
- 4. Absence report

5. Sick Leave report

- note that there are more possible answers than requested of answers, the trainer
- 6. Vehicle damage report

answers than requested. Were there the same # of answers, the trainee who only knew 3 of the 4 answers would automatically get the 4<sup>th</sup> correct!







#### **Matching Items**

#### Suggestions for designing Matching Questions:

- place all parts of the question & matching items on the same page to avoid confusion...
- keep the directions simple & the letters & corresponding numbers clear (use all capitals for one set & numbers for the other)







#### **Matching Items**

#### Suggestions for designing Matching Questions:

- never use the same number of items in both columns unless a response is used more than once
- if a response is to be used more than once, include that into your instruction e.g. "each answer in Column B can be used more than once, or not at all"...







### **Types of Assessment Items**

#### **Matching Items**

### Suggestions for designing Matching Questions:

- keep the columns as short as possible
- keep the scoring as simple as possible











# Questions?

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### **Types of Assessment Items**

#### **Completion-Type Items**

- this form of Test is commonly used to measure familiarity with rules, procedures, formulas, etc.
- it requires the examinee to complete a statement in which a critical or unique element is missing.









### **Completion-Type Items Examples:**

Fill in the missing word(s) in the following statements:

- 1. New employees have \_\_days to enroll for insurance.
- 2. Correctly written objectives have \_\_\_\_ elements?
- 3. The elements (parts) of a training objective are \_\_\_\_\_ (notice that there is a single line here, to avoid giving clues to the answer to number 2.)
- 4. As voltage across a resistor decreases, the current value through it \_\_\_\_\_

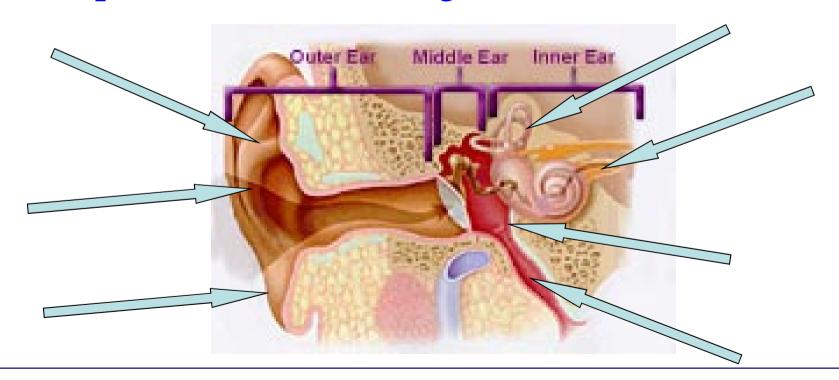






### **Completion-Type Items Example:**

In the diagram below, write in the names of the ear parts as indicated by the lines:



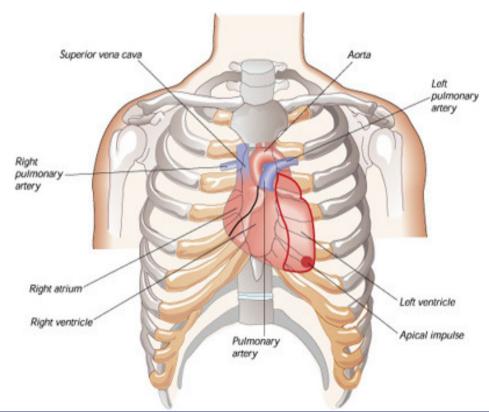




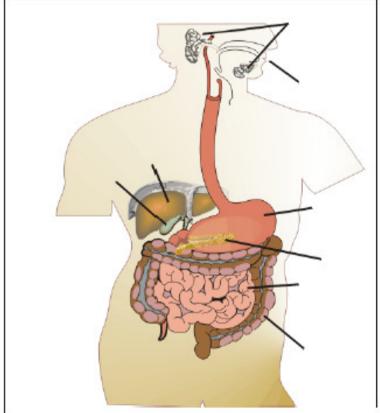


### **Completion-Type Items**

### Example:



In the diagram below, write in the names of the body parts indicated by the lines.



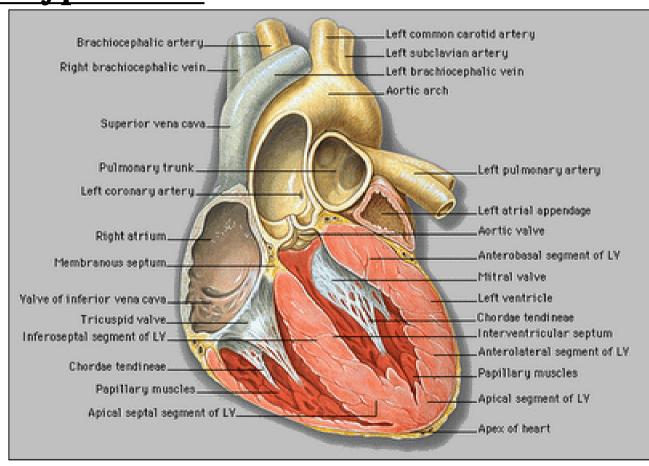






### **Completion-Type Items**

### Example:









### **Completion-Type Items**

#### **Limitations:**

- the examples are just few of the many varieties of Completion tests.
- they take longer time to construct than True-False or MCQs, but if constructed properly, provide the trainee less opportunity to guess at answers or look for patterns in the test...!







### **Completion-Type Items**

### Suggestions for designing Completion-Type:

- when possible put the blanks toward the end of the sentence for ease in scoring...
- make blanks the same length if possible (the trainee cannot then look for clues to the length of the missing word!)
- avoid using a blank for each missing word when there are more than one. This too can provide clues
- avoid ambiguous statements!







#### **Completion-Type Items**

### Suggestions for designing Completion-Type:

- avoid statements from assigned reading. Mere rote learning or memorization should be discouraged! Rather test application of learning!
- avoid "giving away" the answer to one question by providing it in the statement of another question...
- e.g. A. The inventor of polio vaccine was \_\_\_\_\_
- e.g. B. Dr. Salk invented polio vaccine in the year\_\_\_

This example may be rather obvious; but trainees are alert to any small clues you may inadvertently give to them!









# Questions?

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### **Essay-Type Items**

- an essay test can call for either a short response to a question (1 or 2 sentences), or require a long written response such as describing some activity or piece of equip. in details...
- it can also be a report similar to the one trainees may have to prepare on the job...







#### **Essay-Type Items**

#### **@Examples:**

- 1. Given the description of the Asiana training centre, describe in 1 page or less how you would set up classroom A to show a film to 17 trainees? (25pts) Include in your description:
  - A. When you would order equipment?
  - B. What you would order?
  - C. How you would seat trainees?
- 2. Complete Accident Report E107 based on the Case Study provided. You have 10 minutes to complete the Form (10pts)







#### **Essay-Type Items**

#### **@Examples:**

- 3. Describe, in your own words, how you measure the legibility of a piece of artwork? The description should be in 200 words or less (10pts)
- 4. Prepare an essay on the value to your training centre of Individualized Instructions (self-paced). Describe the circumstances in which it works effectively & identify obstacles that will hinder this kind of training. Limit your essay to 4 pages. You have 1 hour to complete the task (40pts)







#### **Essay-Type Items**

#### Suggestions for designing Essay-Type Items:

- give complete, concise directions. This will save many questions later...
- when possible, establish for the trainees:
  - Length of essay answer
  - Amount of time to complete the task
- if the test includes essay items or is made up entirely of essay items, you should let the trainees know the value of each item so that they can apportion their time to the best advantage...







#### **Essay-Type Items**

### Suggestions for designing Essay-Type Items:

- try to keep scoring simple.
- when preparing the test item, determine its value in relation to others based on the amount of knowledge, time & effort it requires...
- scores should total 100%





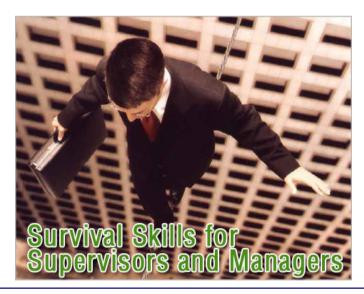


#### **Essay-Type Items**

#### The Use of Essay-Type Items:

The main advantage of essay-testing as compared with Objective testing is that

it provides a means to assess a wide range of higher-level cognitive abilities









#### **Essay-Type Items**

### The Use of Essay-Type Items:

#### Such items can assess students' ability to:

- analyze relationships
- compare & contrast options
- explain cause-&-effect relations
- make predictions
- organize datas to support a viewpoint
- point out advantages & disadvantages of an option
- identify assumptions in a position(s) taken







#### **Essay-Type Items**

#### The Use of Essay-Type Items:

#### Such items can assess students' ability to:

- integrate data from several sources
- evaluate the quality or worth of an item, product or action...









#### **Essay-Type Items**

#### The Limitation of Essay-Type Items:

#### 4 Main limitations:

- they take a long time to mark
- it is difficult to established marking criteria that can be applied consistently by markers
- subjectivity is the major concern with essay-type
- fewer essay items can be used as compared to objective tests...









## Questions?

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#### **Performance Tests**

- are the most authentic form of assessment as they measure direct competence in real world situations
- is one that directly measures identified learning, focusing on the actual competence displayed in the performance...
- a driving test is a typical example of a performance test – the examinee is tested on real driving performance in context, i.e. on the road







#### **Performance Tests**

#### The Use of Performance-based Assessments:

- be more valid because the focus is on real-life performance!
- measure a range of complex skills & processes real-world or authentically simulated contexts
- link clearly with learning & instruction in a planned developmental manner
- motivate learners through meaningful
   & challenging activities









#### **Performance Tests**

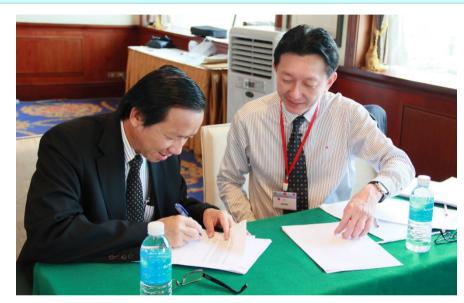
#### The Constraints of Performance-based:

- unlike many traditional pencil & paper tests, they demand considerable time in the assessment process
- some courses focus predominantly on the acquisition of knowledge & understanding rather than on actual performance applications
- professional judgment is often very significant in making assessment decisions & this can lead to problems of subjectivity & bias...









## Questions?

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#### **Preparing A Marking Scheme for Assessment**

- having well designed & accurate marking scheme
   & scoring system for the assessment that learners
   complete is essential to the assessment process...
- for MCQs, this is a simple process of tabulating the number of correct scores on test items...
- however, as assessment item become more complex, it is necessary to identify what exactly is going to be assessed from the activity & what allocation of marks are to be apportioned to various components...







#### **Preparing A Marking Scheme for Assessment**

- once it is clear what areas of performance are to be assessed, clear criteria need to be established.
- these performance criterias define the key attributes – whether knowledge, skills or attitudinal components – that are to be assessed...?
- performance criteria can then be organized into a marking scheme for that assessment. This then becomes a Checklist for assessing the performance of the learner...







#### **Preparing A Marking Scheme for Assessment**

- a) Instructions to trainee
- performance to be tested: to light a match
- instructions: you will find in front of you a match-box. Take 1 match, light it & let it burn half-way down.

  Blow it out & dispose of the match. You will have 3 mins to do this.







- b) <u>Conditions (for the instructor/test administrator)</u>
- a full matchbox & an empty ashtray should be placed on the table in front of the trainee. The trainee shall be given the written test question. The instructor shall ask the trainee to read the question & be told to "Start Now". The instructor will then observe, time & score the performance according to the scoring key below...







- c) <u>Scoring Key</u> (for the instructor/test administrator) (20 pts each question or item)
  <sub>YES</sub> NO
  - 1. The trainee takes a match & closes the box
- 2. He lights the match striking it away from himself
- 3. He avoids burning himself
- 4. He blows out the match & puts it in the ashtray
- 5. He completed task in the allotted time







- Checklist can vary in format but essentially they should all provide a breakdown of important procedures or operations in an assessment activity...
- for each component of the Checklist, there will be a statement or example of competent performance &, if marks are allocated, a mark weighting so that:
- Marks allocated reflect the knowledge & abilities which the assessment activity requires the learner to demonstrate







- for each component of the Checklist, there will be a statement or example of competent performance &, if marks are allocated, a mark weighting so that:
- adequate provision is made for acceptable alternative answers (if appropriate)
- the scheme is sufficiently broken-down & structured to allow the marking to be as objective as possible







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## MONITORING THE PROGRESS OF LEARNING

#### **Learning Outcomes**

- Assess learners' progress using appropriate methods
- Provide timely feedback to learners' progress
- Make adjustments to training programme in response to learner's progress
- Review with learners opportunities to transfer learning to the workplace







### Assess Learners' Progress using Appropriate Methods

As you train, you have to keep eye-contact with your class. Observe:

• Trainees who are unusually quiet

- Trainees who are always flipping their workbook
- Trainees who are sleeping or not paying attention



'Rule of 12?'







### Assess Learners' Progress using Appropriate Methods

As you train, you have to keep eye-contact with your class.

Ask questions to assess the progress of learning:

- Ask to confirm if they have learnt
- Ask to emphasize a learning point
- Ask questions to lead a trend of thought
- Ask about the steps in a procedure







### Other Methods to Assess Learning Progress includes:

- Conduct a quiz
- Have a group discussion
- Do an exercise
- Give them an individual project assignment
- Give them a short oral test (with individual answers to be submitted)
- Get feedback from peers & 3rd parties
- Give them a written test
- Have a competition
- Play a guessing game









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#### Pitfalls in Assessment

- There are a number of pitfalls in assessment that can affect how fairly & validly we assess learners...
  - the problems are rarely prevalent with Objective Test Items, but are significant concerns when assessing assignments that involved professional judgments on levels of competent performance

Typical pitfalls in assessment needs to be avoided as far as possible!







#### Pitfalls in Assessment

#### The Halo Effect

 this is where our existing conceptions of a learner's work affect subsequent marking

If we are used to a high standard of work from a student (cohort), we may develop a tendency to over-mark future poorer work...!

The converse is also true in the case of students who are generally perceived as less able...









#### Pitfalls in Assessment

#### **Contrast Effect**

 this arises when outcomes of an assessment are affected by comparing a particular one, whether the work is good or bad...

If we have just assessed several weak assignment & are then presented with a quite well-presented one, there is a danger of giving it more marks than it perhaps really deserves...!







#### Pitfalls in Assessment

### Assessing Progress & Effort rather than Achievement

this occurs when an Assessor is distracted by the efforts & progress a learner has made, rather than focusing on the actual attainments in relation to the Learning Outcomes & Assessment Criteria







#### Pitfalls in Assessment

### Lack of Clarity with the Marking Scheme & the Standard Required

- This is a common problem, resulting from not being sure about what to assess & what allocation of marks to make to parts of the assessment activity...
- it is most essential assessors are familiar with the learning outcomes & the Type & Standard of learners' performance relating to the assessment..!







#### Pitfalls in Assessment

#### **Discriminatory Practices**

In assessment, as in other situations, this
occurs when the assessor discriminates –
either positively or negatively – in relation
to a learner because of race, gender,
creed, sexual preference or special needs...

Care needs to be taken to ensure that learners receive fair & equal opportunities during their assessments!







#### Reflecting on this Module 5

- this module has provided you with an understanding of the range assessment methods which you may incorporate in your training...
- the criteria for good assessment has also been clearly identified.
- it will provide you with a good guide in ensuring that the assessment mode you have chosen is both valid & reliable...!







#### References & further Reading Resources

- Kolb, D.A. (1984) –
   "Experiential Learning"
   Englewood Cliffs, NJ: Prentice Hall
- Ausubel, D (1963) –
   "The Psychology of Meaningful Verbal Learning"

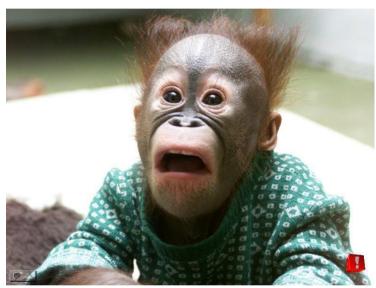
**New York: Grune & Stratton** 

Ballantyne, R., Bruce, C Packer, J., (1993) –
 "Action Learning in Vocational Education
 & Training, Theoretical Background" Vol. 1
 TAFE National Staff Development Committee









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