

Formal Assessments

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Outline

- Formative vs. Summative Assessment
- Formal Assessments
 - Standardized Tests
 - Teacher-Developed Assessments

Types of Assessment

- **Formative Assessment:** Evaluation before or during instruction to provide feedback to teacher/student
 - Teachers can modify and differentiate learning activities
 - Students identify what they do/do not know
- **Summative Assessment:** Evaluation after instruction for grading
 - Confirm what students understand and can do based on the curriculum objectives
- **Self-Assessment:** Students monitor their own learning and use the feedback to make adjustments in their learning
- These are distinct but inter-related types of assessment

Formative vs. Summative Assessment

- A pre-test for teachers to determine what letters a child can identify
- A comprehensive exam in child development
- The WAEC
- During teaching practice, daily feedback from a supervising teacher
- A teacher's questions at the end of a lesson to determine whether students have grasped the main idea
- End of term examinations
- This slide...

Summative Assessment: Assessment **OF** Learning

- Students demonstrate the degree to which they have met curriculum outcomes
- Used to make decisions about future programs and/or placements

Summative Assessment: Assessment **OF** Learning

- Potential users of information:
 - **Teachers:** Communicate with parents and others about student's proficiency and progress
 - **Parents and students:** Make educational and vocational decisions
 - **Potential employers:** Hire employees
 - **Post-secondary institutions:** Accept students
 - **Principals, school administrators, teachers:** Review and revise programs

Summative Assessment: Assessment **OF** Learning

- Because Summative Assessment can have important and far-reaching outcomes, this requires the assessment process to be:
 - Accurate
 - Fair
 - Based on evidence from a variety of contexts and assessment methods

Formal Assessments

- **Formal Assessments:** Pre-developed tests related to specific developmental skills or curriculum content
- Types of Formal Assessments
 - **Standardized Test:** Assessment given under uniform conditions and scored according to uniform procedures
 - Purpose of standardized testing: Compare all students on the same measure
 - **Teacher Developed Assessment:** Determine if learners have understood the curriculum objectives

Types of Formal Assessments

- **Criterion Referenced:** Scores are compared to a predetermined standard/criterion
 - Does the test taker possess the skills?
- **Norm Referenced:** Scores compared to performance of a group
 - What is the rank of the test taker compared to a group?

Norm or Criterion Referenced?

1. Comparison of your students to other students in the nation
2. Test given to know if students understood the science lesson
3. Driving test for drivers license
4. Selection for scholarships
5. Boards for medical doctors
6. Job interview

Standardized Tests

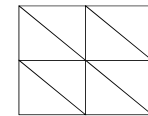
- Developed, administered, and scored under specific guidelines that require them to meet psychometric standards
- Conditions and directions are the same whenever and wherever administered
- Read verbatim script of procedures to students
- Each test-taker is given same questions, phrased in a precise manner
- Used and interpreted by trained professionals who understand the purposes and limitations of standardized tests

Standardized Intelligence Test Items

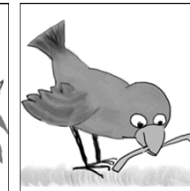
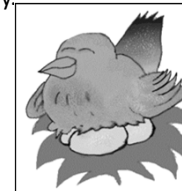
What is missing from this picture?







Make this pattern from these blocks:



Arrange these pictures in order so they tell a story.



Standardized Intelligence Test Items

- Mechanic : Car :: Pediatrician :
A. Ant B. Senior citizen C. Child
- What comes next in this series:
5 10 15 20 25 30
- What comes next in this series: 
A.  B.  C. 

Advantages of Standardized Tests

- When rigorous standards were used for development and test users employ appropriately, the results are trustworthy
- Results can be useful to plan educational interventions for children
- Scores for an entire class can identify areas where children perform well and areas where children need more instruction

Disadvantages of Standardized Tests

- One score should NOT be used as the only source to make life-changing educational decisions for a child
- Instruction can be geared solely toward helping children answer test items correctly instead of helping children develop knowledge and skills (called “teaching to the test”)
 - This reduces the validity of the test

Non-Standardized Formal Assessments

- **Teacher-Developed Assessment:** Determine if learners have understood the curriculum
 - Advantage: Can be used to plan instruction and assign grades to children
 - Disadvantage: Quality of the test may be poor, so the decisions made based on the results may not be accurate

Tips for Creating Teacher-Developed Assessments

- **The purpose of a test/exam is for students to communicate what they have learned about the course**
- Items should reflect the course objectives
- Items should assess students' overall understanding of the topic
 - AVOID: Detailed questions that try to trick students based on obscure points
- Items should cover the broad range of course content and what was emphasized in class
- Multiple item types can be effective
- Have a colleague edit the test for errors or multiple interpretations of items

Teacher-Developed Assessment

- **Objective items:** Specific predetermined answer
 - Multiple Choice
 - True/False (Disadvantage: 50% probability of getting item correct)
 - Matching
 - Fill in the blank
- **Subjective items:** Teacher makes judgment to assess
 - Essay
 - Short Answer
 - Performance Assessment

Objective Items

- **Strengths**
 - Assesses students' breadth of knowledge
 - Reliable scoring
 - Easy to grade
 - When thoughtfully prepared, assesses different levels of thinking
- **Weaknesses**
 - Unable to give credit for partial knowledge
 - Takes considerable time and experience to prepare items

Forced Choice Items

- **Components**
 - Stem: Question/Problem
 - Determines level of knowledge assessed
 - Correct answer
 - Distracters: Wrong answers
 - Contain likely misconceptions
 - Should be clearly wrong BUT also probable
 - Ensure they emphasize knowledge of the class, NOT irrelevant knowledge (e.g., spelling)

Creating Forced-Choice Items

- Present one clear problem in the stem
- Make all distracters probable (but clearly incorrect)
- Vary the position of the correct choice randomly (try to avoid C)
- Avoid similar wording in the stem and correct choice
- Avoid phrasing the correct choice in more technical terms than distracters
- Correct answer and distracters should have same length

Creating Forced-Choice Items

- Avoid absolute terms (always, never)
- Keep stem and distracters grammatically consistent
- Avoid using two distracters with the same meaning
- Emphasize NEGATIVE wording
- Use “none of the above” with care
- Avoid “all of the above”

Bad Forced-Choice Items

- The most significant cause of World War II was:
 - a) American aid to Great Britain
 - b) Italy’s conquering of Ethiopia
 - c) Japan’s war on China
 - d) the devastation of the German economy as a result of the Treaty of Versailles
- Bats are the most common mammal. The one of the following that is not a mammal is an:
 - a) Wolf
 - b) Giraffe
 - c) Alligator
 - d) Leopard

Bad Forced-Choice Items

- Which is a function of the circulatory system?
 - a) to support the vital organs of the body
 - b) to circulate blood through the body
 - c) to transfer nerve impulses from the brain to the muscles
 - d) to provide for the movement of the body’s large muscles
- The definition of population density is:
 - a) how many people live in your city
 - b) how many people voted
 - c) frequency of people per square mile in a country
 - d) how many people are married

Essay Items

- Strengths
 - Assesses critical and creative thinking
 - Students are more likely to meaningfully organize information when studying
 - Easier to write the questions
- Weaknesses
 - Scoring takes time
 - Scoring can be biased

Creating Essay Items

- Questions should clearly indicate the elements to be covered in the answer.
 - Bad: Explain operant conditioning.
 - Good: Explain the four types of operant conditioning, giving an example of each.
- Require students to think about and **apply** topics from class, not just repeat their notes.
 - Bad: State the four elements in observational learning.
 - Good: Describe how observational learning could be achieved in learning how to make pounded yam. Be sure to include a description of each of the four elements of observational learning.

Essay Items

- **Rubric:** Scoring scale that describes criteria for grading
- Constructing Rubrics
 - Establish criteria based on critical elements of essay
 - Determine levels of achievement for each criterion
 - Develop a clear description for each level of achievement
 - Determine rating scale for whole rubric

Example Rubric

Levels of Achievement			
Criteria	1	2	3
Topic Sentence	Not present; reader has no idea of what paragraph is about	Present but does not give the reader a clear idea of what the paragraph is about	Provides a clearly stated overview of the paragraph
Supporting Sentences	Rambling and unrelated to topic sentence	Provide additional information but not all focused on topic sentence	Provide supporting detail relating to topic sentence
Summarizing Sentence	Nonexistent or unrelated to preceding sentence	Relates to topic sentence but doesn't summarize information in paragraph	Accurately summarizes information in paragraph and is related to topic sentence

Example Marking Scheme

- a) *Explain the four factors required for a multicultural society. **1.5 points apiece. TOTAL: 6***
- b) *For each factor listed in part (a), describe whether this condition is currently met within the Jos environs and explain why. **1.5 points apiece. TOTAL: 6***
- c) *Describe the concept of universal orientation as it relates to intercultural relationships. Be sure to state whether the universal orientation is beneficial or not. **2 points for definition, 4 for explanation. TOTAL 6***
- d) *What can you as a teacher do to develop a universal orientation? Be specific. **TOTAL: 6 points***

Marking Essay Items

- Write a model answer for each item when setting the questions
- Prepare rubric or marking scheme when setting the questions
- Require students to answer each item
- Score all answers to one item before marking the next item
- Score all responses to single item in one sitting
- Score answers without knowing the identity of the student

Ethics of test-taking practices

- Are the following ethical or unethical?
 1. Provide practice on questions from the form of the test that was administered last year.
 2. Teach test-taking skills, such as pacing/timing, strategies for answering multiple-choice questions, eating and resting well before the test, etc.
 3. Give additional lessons in the content where students performed poorly on the exam last year.
 4. Provide practice on questions from the actual test.
 5. Provide instruction on only the content that specifically match those areas measured by the test.