

Formal Assessments

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Introduction

- **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 Tests:** Determine if learners have understood the information taught in class

Standardized Tests

- Developed, administered, and scored under specific guidelines that require them to meet psychometric standards
- Should be used and interpreted by trained professionals who understand the purposes and limitations of standardized tests
- Read verbatim script of procedures to students
- Conditions and directions are the same whenever and wherever administered

Standardized Tests

- Specific time limits
- Guidelines on how, when, and by whom the test is to be given
- Specific guidelines on the manner in which the test is distributed and retrieved
- Each test-taker is given same questions, phrased in a precise manner for each participant
- Precise scoring guidelines

Types of Standardized Tests

- **Criterion Referenced:** Test scores are compared to a predetermined standard
 - Does the test taker possess the skills?
- **Norm Referenced:** Test 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

Types of Standardized Tests

- **Achievement Tests:** Measure what a child has learned and/or what skills have been developed by instruction
 - Examples: WAEC, Iowa Test of Basic Skills, Stanford Achievement Test
- **Readiness Tests:** Measure prerequisite skills, knowledge, attitude, or behaviors necessary for the learner to succeed in school
 - Examples: JAMB, Boehm Test of Basic Concepts, Metropolitan Readiness Test

Types of Standardized Tests

- **Development screening tests:** Identify children who may be at risk for developmental or learning problems who may benefit from further intervention
 - Examples: Ages and stages questionnaires: A parent-completed child monitoring system, Early screening inventory

Types of Standardized Tests

- **Diagnostic tests:** Identify children with special needs or talents
 - Examples: Assessment, evaluation, and programming system for infants and children
- **Intelligence Tests:** Analyse children’s strengths and weaknesses and/or identify for special intervention
 - Examples: Stanford-Binet Intelligence Scale, Wechsler Intelligence Scale for Children (WISC)

Achievement Items

- Which answer has almost the same meaning as the word in bold?
 To **soak** your feet
 A. rest B. warm C. rub with oil D. keep in water
- Which set of numbers below has the greatest mean?
 A. 3, 4, 8
 B. 1, 5, 6
 C. 1, 2, 9
 D. 1, 6, 6
- How do forest fires caused by lightning help a forest?
 A. They attract rain clouds.
 B. They permit new plants to sprout and grow.
 C. They drive away animals that eat plants.
 D. They reduce the chance of soil erosion.

Readiness Items

- Does your child...
 1. Walk forward in a straight line (gross motor)?
 A) Not yet B) Occasionally C) Consistently
 2. Follow one-step directions without needing directions repeated?
 A) Not yet B) Occasionally C) Consistently
 3. Identify colors by name?
 A) Not yet B) Occasionally C) Consistently
 4. When shown a letter, can produce the sound made by that letter?
 A) Not yet B) Occasionally C) Consistently

Development Screening Items

	Hearing and Understanding	Talking
Birth-3 Months	<ul style="list-style-type: none"> •Startles to loud sounds •Quiets or smiles when spoken to •Seems to recognize your voice and quiets if crying 	<ul style="list-style-type: none"> •Makes pleasure sounds (cooing, gooing) •Cries differently for different needs
4-6 months	<ul style="list-style-type: none"> •Moves eyes in direction of sounds •Responds to changes in tone of your voice •Notices toys that make sounds •Pays attention to music 	<ul style="list-style-type: none"> •Babbling sounds more speech-like with many different sounds, including <i>p</i>, <i>b</i> and <i>m</i> •Chuckles and laughs •Vocalizes excitement & displeasure
7-12 months	<ul style="list-style-type: none"> •Turns and looks in direction of sounds •Listens when spoken to •Recognizes words for common items like "cup", "shoe", "book", or "juice" •Begins to respond to requests (e.g. "Come here" or "Want more?") 	<ul style="list-style-type: none"> •Babbling has both long and short groups of sounds such as "tata upup bibibibi" •Uses speech or noncrying sounds to get and keep attention •Imitates different speech sounds •Has one or two words (hi, dog,dada, mama) around first birthday, although sounds may not be clear

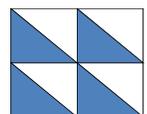
<http://www.asha.org/public/speech/development/01.htm>

Diagnostic Items

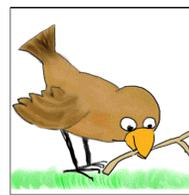
What is missing from this picture?



Make this pattern from these blocks:



Arrange these pictures in order so they tell a story.


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. 

Types of Test Scores

- **Raw score:** Number correct from actual test
- Other types of scores result from mathematical transformations of raw score based on comparison with a normative group:
 - **Grade equivalent:** Approximate grade level at which the child is performing on a certain test
 - **Standard scores:** Score based on the standard deviation
 - **Percentile rank:** Percent of those who score at or below a particular score

Grade Equivalent

Raw Score	Grade Equiv	Raw Score	Grade Equiv	Raw Score	Grade Equiv
1	2.3	11	3.3	21	4.3
2	2.4	12	3.4	22	4.4
3	2.5	13	3.5	23	4.5
4	2.6	14	3.6	24	4.6
5	2.7	15	3.7	25	4.7
6	2.8	16	3.8	26	4.8
7	2.9	17	3.9	27	4.9
8	3.0	18	4.0	28	5.0
9	3.1	19	4.1	29	5.1
10	3.2	20	4.2	30	5.2

Standard Scores: z

Raw Score	Standard Score	Raw Score	Standard Score
34	-1.5	47	0.1
36	-1.2	48	0.3
37	-1.1	49	0.4
38	-1.0	51	0.6
40	-.07	52	0.8
41	-0.6	53	0.9
42	-0.5	54	1.0
43	-0.4	55	1.1
44	-0.2	57	1.4
46	0.0		

z: Number of Standard Deviations above or below the mean

Percentile Rank

Raw Score	Percentile Rank	Raw Score	Percentile Rank	Raw Score	Percentile Rank
57	99	47	46	37	17
56	96	46	39	36	14
55	94	45	36	35	12
54	93	44	33	34	11
53	88	43	32	33	10
52	82	42	29	32	10
51	79	41	24	31	10
50	69	40	21	30	7
49	61	39	20	29	5
48	56	38	18		

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
- Test scores for an entire class can identify areas where children perform well and areas where children need more instruction

Disadvantages of Standardized Tests

- One test 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”)

Non-Standardized Formal Assessments

- **Teacher-Developed Tests:** Determine if learners have understood the information taught in class
 - 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

Ethics of test-taking practices

- Are the following ethical or unethical?
 1. Provide practice on questions from the actual test.
 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 form of the test that was administered last year.

Ethics of test-taking practices

- Are the following ethical or unethical?
 5. Within 1 month of testing, give practice tests with the same format using language similar to test questions on the actual test.
 6. Within 1 month of testing, give revisions on content that specifically matches the test.
 7. Regularly provide instruction on only the content that specifically match those areas measured by the test.