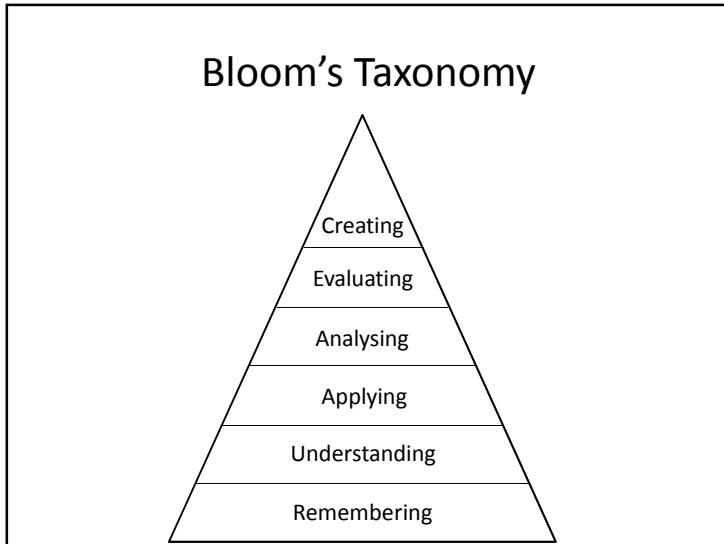


Developing Effective Assessments

Dr. K. A. Korb
University of Jos

Overview

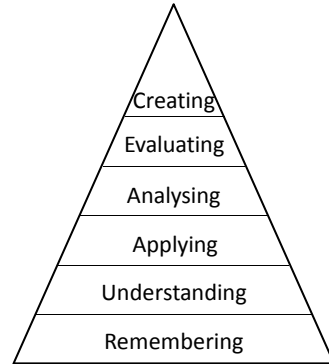
- Bloom's Taxonomy in assessment
- Classroom assessment
- Process of developing a formal assessment



Category	Definition	Keywords for Objectives
Remember	Recall information	Recite. Define. Identify. Describe. Recognize. Know. List. Name.
Understand	Understand the meaning of a concept	Comprehend. Explain. Summarize. Translate.
Apply	Use a concept in a familiar situation; Use a procedure	Apply. Compute. Predict. Demonstrate. Implement. Use.
Analyze	Break information into parts to explore relationships	Analyze. Compare. Contrast. Differentiate. Distinguish. Diagram.
Evaluate	Make judgment about the value of a concept based on standards	Criticize. Critique. Evaluate. Justify. Support.
Create	Generate new ideas, products, or ways of viewing something	Create. Design. Generate. Plan. Construct. Produce. Invent.

Bloom's Taxonomy

1. What is the definition of rote memorization?
2. What are the advantages and disadvantages of teaching for meaningful learning?
3. How can you use meaningful learning in your classroom?
4. Create your own lesson that focuses on meaningful learning.
5. What are the similarities between meaningful learning and constructivism?
6. Why should students engage in meaningful learning?



Bloom's Taxonomy

- One assumption of Bloom's Taxonomy is that if a child has mastered a higher level, they have also mastered lower levels
- When creating assessments, ensure that higher levels of thinking are assessed.

Classroom Assessment

- Grading System
 - Clear and understandable
 - Designed to support learning and provide frequent feedback
 - Based on hard data
 - Fair to all students
 - Able to defend to parent and/or administrator

Classroom Assessment

- Christine is just not very bright. She tries hard, but just doesn't have much cognitive ability.
- Monday is bright, but he is lazy. He knows when he has done enough and quits working.
- Mercy is bright, but she comes from a home in which English is not spoken. She will most likely do much better when she is proficient in English.
- John is a huge discipline problem and is frequently in school discipline for misbehavior.

Classroom Assessment

- What should grades measure?
 - Achievement in the specific class
 - Effort
 - Ability
 - Personality
 - Interests
 - Attitude

Process of Developing a Formal Assessment

1. Test Conceptualization: Idea for a test
2. Test Construction: Drafting test items
3. Test Tryout
4. Item Analysis
5. Test Revision

Test Conceptualization

- Step 1: Describe purpose and rationale for test
 - What will the test measure? For what purpose will the test will be used?
- Step 2: Describe the target population for the test
 - Consider: age, educational status, language (which language and level of language ability), literacy level
- Step 3: Clearly define the variable(s) of interest
 - Reference: theory, empirical literature, developmental guidelines, cultural definitions
- Step 4: Create item specifications
 - Describe the content to be covered and/or developmental milestones
- Step 5: Choose an item format
- Step 6: Explain administration and scoring procedures

Test Conceptualization Types of Instruments

- **Self-Report:** Participants report their own demographic characteristics, attitudes, beliefs, knowledge, feelings, and behavior
- **Performance Assessment:** Directly assess performance on a contrived task
- **Observation Schedule:** Researchers observe participants' behavior under specified conditions
- **Checklist:** Identify the frequency or presence of behaviors or characteristics
- **Examination/Test:** Test participants' knowledge of a topic

Self-Report

- **Self-Report:** Participants are asked to report their own attitudes, beliefs, knowledge, feelings, and behavior
 - Self-report can be either a questionnaire or interview
 - Attitudes, beliefs, values, interests, knowledge, feelings, and some types of behavior are typically best assessed by self-report for most target populations

Questionnaire

- **Advantages:**
 - Easy to administer and score
 - Can be administered to larger numbers of test-takers
- **Disadvantages:**
 - The data is typically not as in-depth as an interview
 - Requires a high level of literacy

Interview

- **Advantages:**
 - Gathers rich, in-depth information
 - Can ask test-taker to expand on unclear responses
 - Can be used with any test-taker (e.g., cannot read)
- **Disadvantages:**
 - Takes time to conduct and analyse

Types of Items for Self-Report

- **Open-ended:** Test-takers give their own response
- **Advantages:**
 - More in-depth information
- **Disadvantages:**
 - Test-takers need to have good language/literacy skills
 - Test users have to categorize and code responses (scoring is subjective)
 - Test-takers' responses may not be understandable (Questionnaires)
 - Test-takers often skip these items on questionnaires

Types of Items for Self-Report

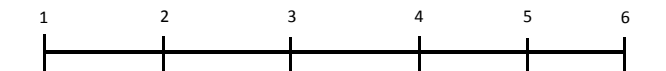
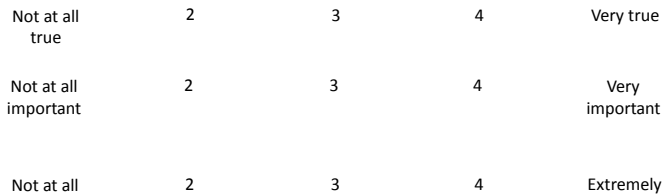
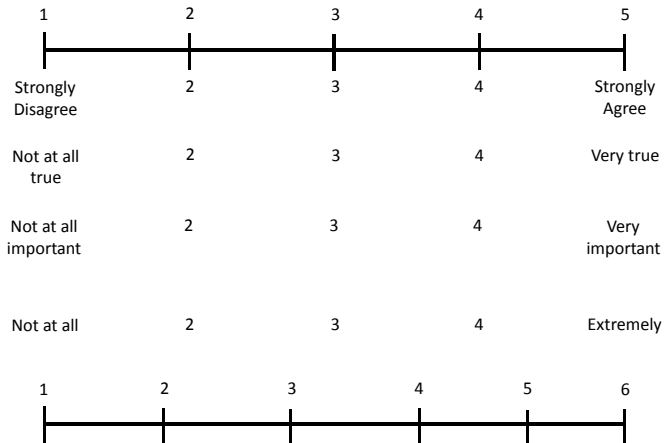
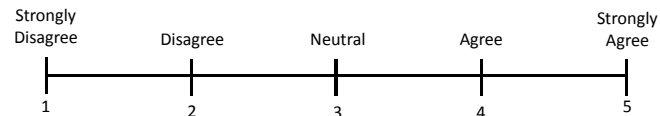
- **Close-ended:** Test-takers select their response from given categories on the test
- Advantages:
 - Easy and objective scoring
 - Response is clear to the test user
- Disadvantages:
 - Test developer must anticipate most common responses
 - Test developer must develop response categories that the target population understands
 - Test developer must develop response categories that are **exhaustive** (all participants have a place to appropriately respond)

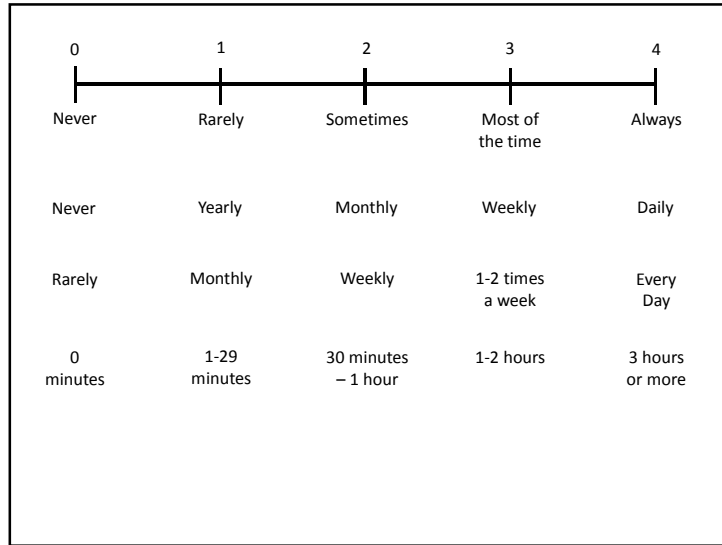
Sample Items

- **Open-Ended:** *What causes you anxiety?*
- **Close-Ended:** *What causes you anxiety?*
 - a) Public speaking
 - b) Large crowds
 - c) Examinations
 - d) Driving

Test Item Formats

- **Rating Scale:** Grouping of words, statements, or symbols on which judgments concerning the strength of a particular trait, attitude, or emotion are indicated by the test-taker.





Test Format: Checklists

- Checklists identify the frequency or presence of behaviors or characteristics
 - Trauma Symptom Checklist for Young Children

Your Baby at 2 Months

Child's Name _____ Child's Age _____ Today's Date _____

How your child plays, learns, speaks, acts, and moves offers important clues about your child's development. Developmental milestones are things most children can do by a certain age. Check the milestones your child has reached by the end of 2 months. Take this with you and talk with your child's doctor at every visit about the milestones your child has reached and what to expect next.

What Most Babies Do at this Age:

Social/Emotional

- Begins to smile at people
- Can briefly calm himself (may bring hands to mouth and suck on hand)
- Tries to look at parent

Language/Communication

- Coos, makes gurgling sounds
- Turns head toward sounds

Cognitive (learning, thinking, problem-solving)

- Pays attention to faces
- Begins to follow things with eyes and recognize people at a distance
- Begins to act bored (cries, fussy) if activity doesn't change

Movement/Physical Development

- Can hold head up and begins to push up when lying on tummy
- Makes smoother movements with arms and legs

Act Early by Talking to Your Child's Doctor if Your Child:

- Doesn't respond to loud sounds
- Doesn't watch things as they move
- Doesn't smile at people
- Doesn't bring hands to mouth
- Can't hold head up when pushing up when on tummy

Tell your child's doctor or nurse if you notice any of these signs of possible developmental delay for this age, and talk with someone in your community who is familiar with services for young children in your area, such as your state's public early intervention program. For more information, go to www.cdc.gov/concerned or call 1-800-CDC-INFO (1-800-232-4636).

Adapted from CARING FOR YOUR BABY AND YOUNG CHILD: BIRTH TO AGE 5, Fifth Edition, edited by Steven Shelov and Tanya Nemer Atkisson © 1997, 1999, 2004, 2009 by the American Academy of Pediatrics and GREAT FUTURE: CHECKLIST FOR HEALTH SUPERVISORS OF INFANTS, CHILDREN, AND ADOLESCENTS, Third Edition, edited by Joseph Higgins, Jr., Judith S. Shaw, and Paula M. Dunne © 2008, © Green Village, a Division of the American Academy of Pediatrics. This milestone checklist is not a substitute for a standardized, validated developmental screening tool.

Test Format: Performance Assessment

- Directly assess behavioral performance on tasks
 - Self-regulation
 - Creativity
 - Social skills
 - Identification of letters
 - Gross motor skills

Test Format: Observation

- Measures behaviors only
- Examples
 - Parent-Child Interaction Assessment-II (PCIA)
 - Parent-Child Early Relational Assessment
 - Dyadic Parent-Child Interaction Coding System-II

Test Format: Observation

- Consider:
 - Where and when will the behaviors be observed?
 - What possible situation will the test-taker will be exposed to?
 - How long will test-takers be observed?
 - How will behaviors be recorded?
 - **Duration:** Length of time that behaviors occurs
 - **Frequency Count**
 - **Interval:** Set a stopwatch for a specific interval of time, then record what behavior the test-taker is engaged in

Item Construction Developing Good Items

- Use clear words so all participants understand
- Be precise and specific in the wording of each item so different test-takers do not interpret the item differently
- Ensure the item is not biased or leading toward one response.
- Each item should have only one point (avoid double-barreled items)
- Ensure that each test-taker has a place to respond

Administration and Scoring Guidelines

- Formal assessments requires very clear administration guidelines so all participants complete the assessment under similar conditions
 - Critical for performance and observation assessments
- Scoring guidelines should be clear and provide helpful information for test users

Test Try-Out

- Try items out on participants similar in critical respects to the people for whom the test was designed
- Two types of try-out
 - Gather reliability and validity evidence
 - Sample size: No fewer than 5 participants (preferably at least 10 participants) for every 1 item on the test
 - Conduct under conditions as identical as possible to conditions under which the final test will be administered
 - Determine if the assessment is practical and meaningful
 - Sample size: A handful
 - Ask participants to tell you what parts were unclear or confusing