The Role of Measurement and Assessment in Teaching
Teachers teach in responsive ways

It is important to know student needs when teaching.

Teachers know about students needs

- Before teaching
- During teaching
- After teaching

What are some ways in which you have seen teachers be responsive?
Some examples of questions teachers have to answer in their instructional roles

- How do I group students?
- Are these materials working?
- Should I use more examples to teach a concept?
- What kind of help do students need in improving their study skills?
- Which students need to be referred for special services?
- How do students learn best?
- How are the students progressing in their learning?
What are some types of assessment used to answer these questions?

- How do I group students?
- Are these materials working?
- Should I use more examples to teach a concept?
- What kind of help do students need in improving their study skills?
- Which students need to be referred for special services?
- How do students learn best?
- How are the students progressing in their learning?
Terms defined

- **Assessment** – full range of procedures used to gain information about student learning and the formation of value judgments concerning learning progress

- **Test** – type of assessment, sample of questions, standard instructions/setting

- **Measurement** – assignment of numbers to results of an assessment using specific rules

*Not all assessment has a measure associated with it!*
General Principles of Assessment

1. Clearly stating what is to be assessed is of highest priority
   - math reasoning is very different from math computation
2. An assessment procedure should be selected because of its relevance to the characteristics or performance to be measured.  
- the learning objective/test purpose defines the type of assessment you use.  
- e.g., “describe” requires that we use essay or oral test; “select” suggests multiple choice; “organize” suggests a supply-type assessment
General Principles of Assessment (contd.)

3. Comprehensive assessment requires a variety of procedures

- Different levels/types of learning require different types of assessment

- Let’s look at one way of categorizing learning

  - Bloom’s taxonomy

    knowledge, understanding, application

    analysis, synthesis, evaluation

- These different types of learning require different types of assessment
General Principles of Assessment (contd.)

4. Proper use of assessment procedures requires an awareness of their limitations
- each assessment type has its limitation
- let's look at some common ones

  Multiple Choice          Essay
  True-False               Performances
  Matching                 Self-reports

- some limitations come as a result of sampling error
- Chance factors also create limitations
- incorrect interpretation – IQ tests are not the same as intelligence scores

Can you think of examples of chance factors?
5. Assessment is a means to an end, not an end in itself

Assessment information helps us make decisions about students, instruction, curriculum.

Assessment information never should be used just to give a grade (though even that is a purpose)

Everyone should understand what the purpose of a specific type of assessment is!

What if you find out that children cannot "classify"?
Assessment and the Instructional Process

- Identify Instructional Goals
- Pre-assess the Learners’ Needs
- Provide Relevant Instruction
- Assess the Intended Learning Outcomes
- Use the Results
  - Give feedback to students, teacher on learning progress
  - Evaluate goals
  - Evaluate curriculum scope and sequence
  - Identify learning strengths, weaknesses
Types of Assessment Procedures

Assessment procedures can be classified by:

- Nature
- Form
- Use in Instruction
- Method of Interpreting results
In sum

- A teacher has many different types of assessment available to him/her.
- It is important to know the purpose of assessment before selecting an assessment approach.
- Any one assessment may serve more than one purpose.