Concepts addressed:
Assessment Strategies

Definitions

- Assessment: It refers to the gathering of information, or data collection.
- Evaluation: It refers to the process of examining the evidence and finding value in it. It is here that judgment and interpretations are made on the collected data.

Assessment Standards (base on NCTM)

Purposes of Assessment

Types of Assessment

- Diagnostic: When assessment takes place before instruction - used to determine student's entry points. It provides Important Information for program delivery and setting goals for students.
- Formative: This form of assessment is also called "along the way." It helps the teacher redirect instructional needs and gives feedback on students' progress.
- Summative: It occurs at the end of a unit! Chapter theme and often entails a culminating task or end of the unit test. The summative assessment is also used at the end of the year or semester to evaluate the students' knowledge.

Phases of Assessment

- Planning your assessment tool
- Gathering evidence through its use
- Interpreting that evidence
- Applying the results to measure growth or determine need for change

Assessment Choices

- Achievement tests
  - Standardized tests
  - Teacher-made tests
  - Diagnostic tests
- Individualizing assessment
  - Observations
  - Conferences and interviews
  - Performance assessment Portfolio assessment

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Teacher-Made Tests

- List the objectives to be measured
- List the thought processes students may need to answer test questions
- Design test items that will match the objectives and the critical thinking process involved
- Prepare the test in an attractive and clear format
- Analyze the results, examining how students responded to each item

Performance Assessments

- The assigned-tasks type of performance assessment may take the form of
  - Investigations
  - Problem-solving situations
  - Assignments combining writing and reading
- The assigned-tasks may be assessed by rubrics and monitored by a checklist based on an appropriate task analysis.

Rubrics

- A rubric is a set of criteria that describe levels of performance
- It "spells out" the elements of student performance that demonstrate achievement of an outcome
- It provides students with "pins" at which to aim - expectations about what will be assessed
- It increases consistency in rating of performances

Types of Rubrics

A Holistic Rubric - This rubric is used to measure the overall effect of a performance task with a set of appropriate guidelines. A holistic rubric is not considered quantitative

An Analytic Rubric - This rubric consists of score points assigned to various elements to be looked for in the task. Analytic rubrics are totally quantitative.

Portfolio

- A portfolio is "a collection of"
  - Student process samples
  - Students product samples
  - Teacher observations
  - Information gathered through assessment and evaluations strategies
  - Parent/students comments

- One method is to have 2 portfolios: a working portfolio and a permanent portfolio.
- To evaluate the portfolio: select criteria to follow such as Stenmark (1991) suggestions:

  Does the student:
Understand the problem or task?
Use a variety of strategies?
Use models, technology, and other resources?
Interpret results?
Solve problems in a cooperative group?
Relate mathematics to other subjects and the real world?
Use appropriate mathematics language and symbols?
Show evidence of self-assessment and self-correction of work?

Types of Portfolios

• The working portfolio
• The showcase portfolio
• Record-keeping portfolio
• Teacher portfolio

Possible Measures and Samples to Include in a Portfolio

1. Required tests and accountability measures
2. Samples across the curriculum
3. Teacher observations and measures
4. Inventories
5. Student evaluations
6. Parents' comments

Teacher Observations and Measures

• Observations (Anecdotal Records)
  Involved observations: done while the teacher instructs and works with students
  Objective observations: done as the teacher watches students function and work independently
• Running Records
  Understanding cueing systems
  Providing information for guiding instruction
• Retellings
• Give children opportunities to show what they have internalized