Assessment Strategies

- Types of assessments; characteristics of assessments; scoring assessments; uses of assessments; understanding of measurement theory and assessment-related issues; and interpreting and communicating results of assessments

Teachers must understand different types of formal and informal assessments, the characteristics of assessments, and how to score a variety of formal and informal assessments.

TYPES OF ASSESSMENTS

- **Standardized Tests, Norm-referenced or Criterion-referenced**
  - Standardized tests are constructed by experts and published for use in different types of classrooms and schools to measure general scholastic achievement and abilities
  - Norm-referenced – assessment instruments that indicate how students perform relative to a peer group
  - Criterion referenced – assessment instruments designed to determine what students know and can do relative to predetermined standards or criteria

- **Achievement Tests**
  - Standardized achievement tests are designed to assess how much students have learned from the things they have specifically been taught
  - Standardized achievement tests are useful in
    - Determining how well a teacher’s students’ performance compares with that of students elsewhere
    - Providing a means of tracking students’ general progress over time

- **Aptitude Tests**
  - A type of test used to predict overall academic performance or to select students for specific instructional programs
  - Types of aptitude tests
    - Scholastic aptitude test – designed to assess a general capacity to learn and used to predict future academic achievement
    - Specific aptitude test – designed to predict future ability to succeed in a particular content area

- **Structured Observations**
  - An informal performance assessment in which the teacher structures the assessment instrument to specifically designate what he/she will be observing

- **Anecdotal Notes**
  - Assessment in which the teacher observes a student and writes down everything that occurs in the situation or the observed time period

Development of this review sheet was made possible by funding from the US Department of Education through South Dakota’s EveryTeacher Teacher Quality Enhancement grant.
• **Assessments of Prior Knowledge**
  - Assessment used to guide instructional decision making procedures; prior knowledge can be assessed using a pretest; asking open-ended questions, or using strategies such as webbing or the K (what do you know) portion of the K-W-L strategy. Information from these assessments help teachers decide what to teach or where to begin teaching depending on students’ prior knowledge and experiences

• **Student Responses During a Lesson**
  - An informal assessment procedure to help students draw conclusions about what students have and have not learned and make reasonable decisions about how future instruction should proceed; this can be done by
    - Asking direct questions to the entire class
    - Asking probing questions
    - Having students complete writing assignments, or journal entries

• **Portfolios**
  - Portfolio assessment is a form of assessment that evaluates a sample, or samples, of students’ work and other accomplishments over a period of time
  - Advantages of portfolio assessment
    - They capture the complex nature of students’ achievement, over a period of time in ways that a single assessment could not do
    - They provide a mechanism through which teachers can combine assessment with instruction
    - The process of constructing a portfolio encourages students to reflect on and evaluate their accomplishments
    - Portfolios influence the nature of the instruction that takes place; because the focus is on complex skills, teachers are more likely to teach those skills

• **Essays Written to Prompts**
  - An assessment that can measure students’ writing abilities, their knowledge of a topic, or both
  - Requiring several essays written with a single prompt for each is better than requiring on one lengthy response to a prompt or a number of prompt

• **Journals**
  - Students’ journals can be assessed for conventional writing skills or for thought processes, or both
  - Teachers can assess students’ responses to open-ended questions, prompts that solicit personal reactions, inferences, generalizations, observations, reflections, self-assessment strategies

• **Self-evaluation**
  - If students are to become self-regulated learners, they must acquire skills in self-monitoring and self-assessment
  - Self-evaluation helps students determine to what degree they have met self-determined and/or teacher-set goals
  - Teachers should ask students’ ideas about evaluation criteria and rubric design
• Self-evaluations scores should be compared to teachers’ ratings and discussed
• Students should reflect on their learning in journals that helps them write about what they learned, the degree to which it was learned, and strategies they used

**Performance Assessments**
• Assessments that require students to create an answer or product to demonstrate knowledge
  • Example: Having students identify acids and bases in a chemistry lab instead of on a written test

**CHARACTERISTICS OF ASSESSMENTS**
• **Validity**
  • The extent to which an assessment instrument actually measures what it is intended to measure
• **Reliability**
  • The extent to which an assessment instrument yields consistent information about the knowledge, skills, or characteristics being assessed
• **Norm-referenced**
  • An assessment instrument that indicates how students perform relative to a peer group
• **Criterion-referenced**
  • An assessment instrument designed to determine what students know and can do relative to predetermined standards or criteria
• **Mean**
  • The arithmetic average of the group of scores; the mean is calculated as a simple average
• **Median**
  • The middle most score in a set of data; to calculate the median, rank order the data and then count halfway down the list of numbers
• **Mode**
  • The most frequently occurring score in a set of scores; the mode represents how the group performed by indicating the score or performance that occurred the most number of times
• **Sampling Strategy**
  • The most widely strategy is to construct a blueprint that identifies the specific things that teachers want to measure and the proportion of the instrument that should address each area

**SCORING ASSESSMENTS**
• **Analytical Scoring**
  • Scoring a student’s performance on an assessment by evaluating various aspects of it separately using a checklist or several rating scales; most useful in conducting formative evaluations and promoting student’s learning
• **Holistic Scoring**
  • Summarizing a student’s overall performance on an assessment with a single score

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• Rubrics
  • A list of components that a student’s performance on an assessment task should ideally include

REPORTING ASSESSMENT RESULTS
• Percentile rank
  • A score that indicates the percentage of people in the norm group getting a raw score less than or equal to a particular student’s raw score

• Stanines
  • Stanines divide the scores into 9 groups of scores and are reported as 1 through 9 with a mean of 5. The standard deviation is 2; this indicates that students who fall between the 3rd and 7th stanines are within the range expected for their age or grade group.

• Mastery Levels
  • The level at which students have accomplished the goals, or mastered, the concept

• Raw Score
  • The first score obtained in testing; this score usually represents the number of items that are correct

• Grade Equivalent Score
  • Grade score assigned to a mean raw score of a group during the norming process

• Standard Deviation
  • A unit of measurement that represents the typical amount that a score can be expected to vary from the mean in a given set of data

• Standard Error of Measurement
  • In all assessment, there is a basic underlying assumption that error exists.
  • The amount of error determined to exist using a specific instrument, calculated using the instrument’s standard deviation and reliability

USES OF ASSESSMENTS
• Formative Evaluation
  • Evaluations collected before and during instruction to assist with planning; formative evaluations are not used to make judgments about a student’s work

• Summative Evaluation
  • Evaluations with the purpose of summarizing how well a particular student, group of students or teacher performed on a set of learning goals or objectives

• Diagnostic Evaluation
  • Individually administered tests designed to determine specific academic problems or deficit areas

UNDERSTANDING MEASUREMENT THEORY AND ASSESSMENT-RELATED ISSUES
• Teachers must understand measurement theory in order to make good instructional decisions as this is one of the most challenging areas of teaching

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• Teachers must understand the characteristics of good classroom assessment: reliability, standardization, validity, and practicality
• Teachers must take student diversity into account when selecting and interpreting classroom assessment

INTERPRETING AND COMMUNICATING RESULTS OF ASSESSMENTS
• Include students in the assessment process; communicate results to them in a timely manner
• Teachers must know how to interpret a wide variety of assessments and use that knowledge to accurately, and confidentially, relate that information to parents

Students preparing for the PRAXIS exam are encouraged to review the portfolio required for this course. In addition, students should review their Student Teaching Internship portfolios, of which the artifacts are aligned with the INTASC Principles.