WORKSHOP:
ASSESSING
INFORMATION LITERACY
CONCEPTS

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AGENDA

- Introductions
- Mini-Needs Assessment
- Assessment Basics
  - The Assessment Triangle
  - Types of Assessment
- Using Standards
- Rubrics
- Using evidence of student learning
INTRODUCTIONS

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  Director, Master of Arts with emphasis in science teaching (MAst) program

Please introduce yourself:
  Name
  Position
**Individual writing (4 mins)**

1. Describe an assessment that you have used effectively in your classes (i.e., one that provides an accurate picture of students’ understanding).

2. Outline a specific assessment concern/problem you want to resolve in the near future.

*Share your ideas with your group (4 mins)*
The Assessment Triangle

- cognition
  - model of how students represent knowledge & develop competence in the domain

- observations
  - tasks or situations that allow one to observe students’ performance

- interpretation
  - method for making sense of the data

*Must be coordinated!*
Understanding how people learn....

- For example, social constructivist learning theory
  - In practice this means that students need opportunities to co-construct meaning from learning activities.
Types of Assessment

- **Diagnostic:** Before instruction occurs, its purpose is to access students’ prior knowledge and interest.
- **Formative:** During the course of instruction to check students’ understanding, but is only formative if the teacher uses the information to adjust instruction.
- **Summative:** Occurs at the end of instruction.

Without the use of formative assessment, one is only using continuous summative assessment.
Educative assessment systems are (Wiggins, 1998, p.12):

- “designed to teach -- to improve performance (of student and teacher) and evoke exemplary pedagogy...”
- built upon “meaningful performance tasks that are credible and realistic (authentic), hence engaging to students.”

An educative assessment makes for a productive learning opportunity...it is a two-for-one!

Discuss in your group (5 minutes):
- When have you used an educative assessment?
Frameworks are based upon the *Information Literacy Competency Standards for Higher Education* (ACRL, 2000).

Framework has six concepts, each with:
- a central concept,
- a set of knowledge practices, and
- a set of dispositions.

For example:
- **Concept #1**: “Authority is constructed and contextual”
- **Knowledge practice #1**: Learners can “define different types of authority, such as subject expertise, societal position, or special experience.”
- **Disposition #1**: Learners “develop and maintain an open mind when encountering varied and sometimes conflicting perspectives.”

However, standards and frameworks are not curriculum or assessments, but do help us focus on specific learning goals.
A learning objective should be **specific** and **measurable**.

Instruction should be aligned with learning goal(s)
- “Opportunity to learn"

Assessment standards
- Students should understand your expectations
- Use clear product descriptors and rubrics
- Are not just a list of criteria and distribution of points
- Each criteria should have a unique description of the quality of each level...provides feedback to students on what they did well and what needs improvement
- Provide a translation of rubric to grade

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Exemplary (4)</th>
<th>Proficient (3)</th>
<th>Partially Meets Standard (2)</th>
<th>Not Yet (1)</th>
<th>Missing (0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spelling &amp; Grammar</td>
<td>Correct grammar, spelling, &amp; punctuation</td>
<td>Some grammar, spelling, and/or punctuation errors</td>
<td>Multiple grammar, spelling, and/or punctuation errors</td>
<td>Consistently poor grammar, spelling, and/or punctuation</td>
<td>Nothing to assess.</td>
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ACTIVITY: LEARNING OBJECTIVE & ASSESSMENTS

- Write a clear learning objective for a lesson (2 mins):
  - "Students will be able to...." (process)
  - "Students will understand..." (content)

- Design a set of assessments for a lesson that would address your learning objective (5 mins).

  Diagnostic   Formative   Summative
Individual write (7 mins)...describe:

- How you could observe if students were making progress toward the objective.
- At the end of your instruction how you could determine if students had a deep understanding of your learning goal.

Q: Would you grade either of these assessments?
- Why or why not?

Q: How would you ensure that students had the opportunity to learn these concepts?

Discuss with your group (5 mins)
To analyse for effective instruction...
- which concepts students learned
- which concepts student struggled with, and potentially retained misconceptions

Reflect upon your instruction....
- What positive claims can you make about student learning in your classes? (...and what instruction you would keep the same)
- How could you adjust your instruction to better support student learning?

Set a goal for your instruction and assessment with the learning goal you wrote today.
REFERENCES


<table>
<thead>
<tr>
<th>Level:</th>
<th>Problem</th>
<th>Equipment</th>
<th>Procedure</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>0: Verification</td>
<td>Given</td>
<td>Given</td>
<td>Given</td>
<td>Given</td>
</tr>
<tr>
<td>1: Guided inquiry</td>
<td>Given</td>
<td>Given</td>
<td>Given</td>
<td>Open</td>
</tr>
<tr>
<td>2a: Open guided inquiry</td>
<td>Given</td>
<td>Given</td>
<td>Open</td>
<td>Open</td>
</tr>
<tr>
<td>2b: Open guided inquiry</td>
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<td>Open</td>
<td>Open</td>
<td>Open</td>
</tr>
<tr>
<td>3: Open inquiry</td>
<td>Open</td>
<td>Open</td>
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From: Hackling, 2005
IV. USING EVIDENCE OF STUDENT LEARNING

Types of evidence:

- Whole group measures on assignments (i.e., grades)
- Strategically select a sub-sample of student work to analyse, by a particular lens or rationale...
  - gender (e.g., male/female students), because we are trying to recruit more women into science...
  - performance level (e.g., top, middle, and bottom third)
  - degree (i.e., majors/non-majors)
- Informally interview and/or survey students for what helped them learn