WHAT DO WE HOPE TO ACCOMPLISH TODAY?

- The objectives for this presentation are:
  1. Chairs will be equipped to lead faculty in creating effective program level assessment plans that focus on the improvement of student learning.
  2. Chairs will understand how to lead faculty in using data for insights about student learning, and how to apply the insight to improve instructional/curricular experiences for students.
  3. Chairs will be provided with the tools and templates needed to accomplish assessment plan implementation using a best-practice, collaborative paradigm.
SCENARIO
As a new department chair, I began asking faculty about the purpose behind one of the program options available to students. On the surface, it appeared that the degree was a random collection of courses from other degree options. The initial responses from senior faculty only confirmed what I perceived. Additionally, the original program proposal documents were not on file, so I did not have the option to review the rationale and design components. However, on file were previous assessment reports, a curriculum map, and course objectives. When I questioned faculty members more, they could convey what was idealized and hoped for from graduates, but not how we knew if it was being accomplished or how we could tell if it was really working as desired. I had some of the building blocks, but realized that I had to help the faculty put the pieces together so that we could really grasp the true impact of the program on student learning and what we needed to improve. Some pieces were missing and some were not being utilized fully. It was not a start from scratch endeavor, but rather a desire to capitalize on what was already there.

“I had some of the building blocks, but realized that I had to help the faculty put the pieces together so that we could really grasp the true impact of the program on student learning. ”

DESIRED RESULT OF OUR PROGRAMS
There can be a tendency to focus primarily on the content in the program.
However, each discipline has distinctive ways of explaining and justifying ideas.
It is important to focus on helping students to become better thinkers – both in general and as it relates to each discipline.
MORE THAN STUDENT KNOWLEDGE

Although it is important for students to know the content, we really want evidence of good thinking and true learning (understanding).

- We need evidence that our programs are achieving this outcome with students.
- Therefore, we need a collection of evidence that students understand:
  - *Why?* (it works)
  - *So what?* (why it matters)
  - *How?* (to apply it)

TO INCREASE RELIABILITY & VALIDITY:

Since no single assessment is perfect, we need to be able to see patterns (that overcome inherent measurement error).

Therefore, use varied types of assessments over time:

- authentic tasks and projects
- academic exam questions, prompts, and problems
- quizzes and test items
- informal checks for understanding
- student self-assessments

Sound assessment requires multiple evidence over time – a photo album vs. a single snapshot.
VARIETY OF ASSESSMENTS ALLOW US:

To more accurately diagnose student difficulties and misconceptions.
To provide a variety of methods for students to demonstrate their understanding.
To make informed instructional decisions and enhance curriculum design.

The *most important* consideration in determining what type of assessment to use is the *kind of information* you want to gather.

IN OUR DEPARTMENTS

No professional staff has to start from scratch. Often, we have many of the components of good learning in place already.

A major change requires broad-based involvement and support. Share the responsibility of implementation.

Proposed solutions should be based on the best available evidence rather than popular trends.
STEP 1: YOUR DIRECTION

- Determine where you are headed
- Take an inventory of what you have already accomplished

STEP 2: CREATE A COMMON SET OF TERMS

Include:
- Definition of assessment
- Definition of program assessment
- Two types of assessment

Overall, create a list that is manageable with terms that are essential.
ASSESSMENT VS. PROGRAM ASSESSMENT

  - **Assessment** is a framework for focusing faculty attention on student learning and for provoking meaningful discussions of program objectives, curricular organization, pedagogy, and student development. (p. 4)
  - **Program Assessment** is an ongoing process designed to monitor and improve student learning. Faculty develop explicit statements of what students should learn, verify that the program is designed to foster this learning, collect empirical data that indicate student attainment, and use these data to improve student learning. (p. 5)
- Today, we will focus on "collect empirical data that indicate student attainment."

IN YOUR GROUPS...

- In your groups, brainstorm and record a list of assessments that you currently use to “collect empirical data that indicate student attainment.”
TYPES OF ASSESSMENT

- Share examples from brainstorming activity

- Two types of assessments:
  - Direct
  - Indirect

DIRECT ASSESSMENTS

Examples of Direct Assessments (see handout):

- Published tests
- Locally developed tests
- Embedded assignments and course activities (see next slide)
- Competence interviews (oral exams for individuals or groups)
- Portfolios (students create compilations; usually required to reflect on their achievement of learning objectives and how the presented evidence supports their conclusions)
- Collective portfolios (faculty decide the objectives to be examined, identify relevant student material like exams and assignments, decide on a sampling scheme, then collect materials and assess them)

EMBEDDED ASSIGNMENTS AND COURSE ACTIVITIES

- Class activities
- Community service learning or fieldwork
- Culminating projects (e.g., senior capstones)
- Group projects and presentations
- Homework assignments
- In-class presentations
- In-class writing assignments
- Poster presentations
- Student research conference
- Senior recitals and exhibitions
- Many of the classroom assessment techniques described by Angelo and Cross (1993) could be adapted for program assessments (embedded in a classroom).


INDIRECT ASSESSMENTS

Examples of Indirect Assessments (see handout):

- Surveys
- Interviews
- Focus groups
- Reflective essays (students reflect on some aspect of their university experience)
BACK TO YOUR GROUPS...

- Review your previous list of assessments
- For each assessment that you listed, determine if it is direct or indirect.
- What about student satisfaction surveys or interviews?

STUDENT SATISFACTION SURVEYS OR INTERVIEWS

- Student satisfaction does not assess student learning. Student satisfaction is important in the overall success of a program/institution, but should not be used for student learning assessment. (Hatfield)
### ASSESSMENT TERMINOLOGY

<table>
<thead>
<tr>
<th>Term A</th>
<th>Term B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td>Indirect</td>
</tr>
<tr>
<td>Traditional measurement</td>
<td>Performance measurement</td>
</tr>
<tr>
<td>Formative</td>
<td>Summative</td>
</tr>
<tr>
<td>Quantitative</td>
<td>Qualitative</td>
</tr>
<tr>
<td>Value-added judgment</td>
<td>Absolute judgment</td>
</tr>
<tr>
<td>Authentic assessment</td>
<td></td>
</tr>
<tr>
<td>Triangulate</td>
<td></td>
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</tbody>
</table>

### Definition Table

<table>
<thead>
<tr>
<th>Term A</th>
<th>Definition</th>
<th>Vs.</th>
<th>Term B</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td>Students demonstrate that they have achieved a learning objective.</td>
<td>Vs.</td>
<td>Indirect</td>
<td>Students (or others) report perceptions of how well students have achieved an objective.</td>
</tr>
<tr>
<td>Traditional measurement</td>
<td>Students exhibit how well they have achieved an objective by taking traditional tests (e.g., multiple choice test).</td>
<td>Vs.</td>
<td>Performance measurement</td>
<td>Students exhibit how well they have achieved an objective by doing it (e.g., piano recital).</td>
</tr>
<tr>
<td>Formative</td>
<td>Assessment is designed to give feedback to improve what is being assessed (i.e., along the way).</td>
<td>Vs.</td>
<td>Summative</td>
<td>Assessment is designed to provide an evaluate summary (i.e., at the end).</td>
</tr>
<tr>
<td>Quantitative</td>
<td>Assessment findings are summarized with a number that indicates the extent of learning.</td>
<td>Vs.</td>
<td>Qualitative</td>
<td>Assessment findings are verbal descriptions of what was discovered.</td>
</tr>
<tr>
<td>Value-added judgment</td>
<td>Student learning is demonstrated by determining how much students have gained through participation in the program.</td>
<td>Vs.</td>
<td>Absolute judgment</td>
<td>Students exhibit mastery of learning objectives at a specific level of mastery.</td>
</tr>
<tr>
<td>Authentic assessment</td>
<td>The assessment process is similar to or embedded in relevant real-world activities.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Triangulate</td>
<td>Multiple lines of evidence lead to the same conclusion.</td>
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<td></td>
</tr>
</tbody>
</table>
STEP 3: INTERACT WITH THE TERMS

- Make sure your faculty understand the terms (and are in agreement with what they mean).
- Give opportunities for the practice.

BACK TO YOUR GROUPS...

Example:
- Major Field Test (MFT)
  - Which terms apply to this assessment?
  - What does this assessment measure?
  - What does the assessment tell you?

For the assessments on your brainstorming list, determine:
- Which terms apply to the assessment?
- What does the assessment measure?
- What does the assessment tell you?
STEP 4: USE A TEMPLATE

- Create or find an easy to use template and framework for your assessment plans.
- These can be customized to fit the unique aspects of your discipline.

WHAT IS AN ASSESSMENT PLAN?

- “The assessment plan should explain ‘who is going to do what, when they will do it, and how they will use the information that is generated’” (Palomba & Banta, 1999 in Allen, 2004).
- Parts of the plan (see template):
  - List of PLSLOs in the first column
  - Where the objective will be assessed
  - How the objective will be assessed
  - When and how often the objective will be assessed
  - Who will be involved
### SAMPLE ASSESSMENT PLAN (PARTIALLY)

<table>
<thead>
<tr>
<th>Student Learning Outcome</th>
<th>Where the PLSLO will be assessed</th>
<th>How the PLSLO will be assessed</th>
<th>When and how often the PLSLO will be assessed</th>
<th>Who will be involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use the techniques of statistics to describe data sets.</td>
<td>Praxis Exam, MAT 3343</td>
<td>Praxis results in statistics, Embedded test questions in MAT 3343</td>
<td>Aggregated Praxis data every 3 years, Data gathered each time MAT 3343 is offered</td>
<td>Hopkins, Glasgow</td>
</tr>
<tr>
<td>Compute correctly the derivative and integral for standard functions.</td>
<td>MAT 1195, 2255, 2263</td>
<td>Student work (assignment) in MAT 1195, 2255, 2263</td>
<td>Data gathered every other year</td>
<td>Faculty teaching calculus in their respective courses</td>
</tr>
<tr>
<td>Use proofs as an effective tool for communicating results.</td>
<td>MAT 3313, 3332, 4663, and 4483</td>
<td>Embedded test questions in each of the 4 courses</td>
<td>Data gathered each time the course is offered</td>
<td>Hopkins in 3313, 4663, Bowling in 3332</td>
</tr>
<tr>
<td>Explain how differences in life assumptions produce differences in life, just as differences in axiomatic systems produce differences in mathematical structure.</td>
<td>MAT 3313, 4483, 4663, Graduate Survey</td>
<td>Student work (assignment) in each of the 3 courses, Survey question</td>
<td>Data gathered each time the course is offered, Annual survey of graduates</td>
<td>Hopkins in 3313, 4663, Bowling in 4483, Hopkins conducts survey</td>
</tr>
</tbody>
</table>

### INDIVIDUAL WORK

- Using the “Template for the Assessment Plan,” fill in your current assessment plan (or as much of it as you know).
STEP 5: CHOOSE ASSESSMENTS

• Choose assessments and points for assessment that fit your overall plan (where you are headed).

CHOOSING ASSESSMENT STRATEGIES

- Do not choose a strategy simply because it is available; it may not even assess any of your PLSLOs.
- Choose differing strategies that provide a complementary view of the program. Consider the "photo vs. photo album" analogy.
- Should have some formative and some summative.
- Use multiple types of direct assessments.
- As a general rule, use indirect assessments for program effectiveness rather than student learning assessments.
- "Assessment strategies vary in their demands on faculty time and department resources, the need for outside support, and their credibility with faculty" (Allen, 2004, p. 59). Be sure the faculty are on board and have confidence that the assessment will collect usable data that will measure the intended objective.
- "A reasonable place to examine learning is where students normally demonstrate their learning – in courses" (Allen, p. 59).
STEP 6: CREATE A FORMAL PLAN

Your plan should include:
• List of PLSLOs
• Curriculum Map
• Assessment Plan
• Communication Plan

STEP 7: DEVELOP A PLAN FOR COLLECTION

Data (collected in courses) will be sent:
• To whom?
• By when?
• In what format?
STEP 8: DEVELOP A PLAN FOR ANALYSIS

- Pursue resources to help you
- Provide resources to help your faculty

FINAL THOUGHTS

Remember, program assessment development is a continuous process. It can be refined over time.

Assessment development activities should result in resources that are adaptable to the changing needs of students and programs.
REFERENCES


