LTC Faculty Workshop

Department and Program Assessment Strategies

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Workshop Overview

- What do you hope to learn as a result of this workshop?
- My intentions were to:
  - Review student learning outcomes
  - Review and link senior integrative exercises to learning outcomes
  - Begin development work on assessment instruments for measuring student achievement of learning outcomes based on integrative exercises

Process

- Each work session includes:
  - Brief presentation
  - Individual work time
  - Time for discussing and sharing with peers
- Ask questions!
- Flexible based on the needs of the participants (some may be at different stages along the development process)

Stage Setting

- What is Assessment?
- The Assessment Process Model

Essentials for an Assessment Program

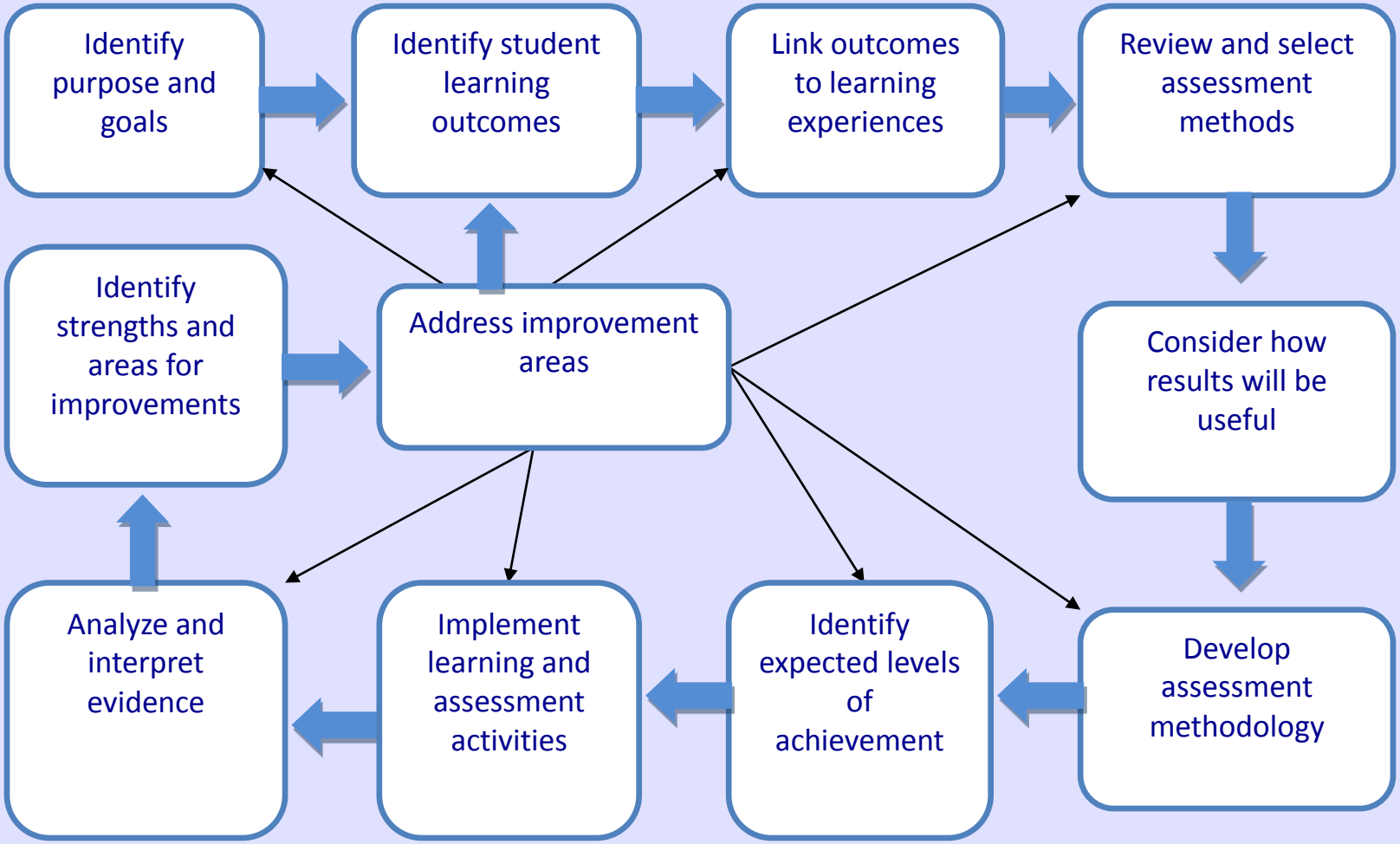
(Adapted from Palomba & Banta, 1999)

- Collective agreement on the goals and objectives for learning
- Shared understanding of where and how learning objectives are addressed in the curriculum
- Shared understanding of the purpose of assessment which is consistent with the mission and values of the institution
- Annual and long term plans for assessment
- Faculty members are highly involved in designing, implementing and reviewing the assessment program

Essentials, continued

- Appropriate involvement of students, staff, and administrators
- Most important criterion for selecting an assessment method is whether or not it will indicate whether students are learning and developing in ways faculty have agreed are important
- Examine, share, and act of assessment finding on a regular and systematic basis
- Review the assessment program and components on a regular basis

Assessment Process Model



Learning Outcomes Review

1. Crafting student learning outcomes presentation (handout)
2. Individual review of department/program outcomes
3. Pair and share department/program outcomes

Crafting Student Learning Outcomes

- Basic: what we expect students to learn and be able to demonstrate.
- Technical: specific statements that describe the knowledge, skills, and dispositions that learners are expected to gain as a result of their participation in a learning experience
- Importance: play the same role in assessment as the research question or hypothesis does in research

Best Practices

- Specific to the curriculum they are associated with
- Focus on what is critical
- Focus on what students should achieve; not on what faculty will do or what the program includes
- Clear and understandable to both faculty ***and*** students
- Written with acceptable specificity (faculty can reach consensus, level and type of curriculum)

Best Practices, continued

- Prefers concrete action verbs such define, classify or formulate over more vague verbs such as understand or know (see table in handout)
- Are realistic given available resources
- Are assessable (can you envision ways of measuring the outcome?)
- May or may not include a performance target

Remember

- SMART
  - Specific
  - Measurable
  - Acceptable
  - Realistic
  - Targeted
- Outcomes should reviewed on a regular basis and revised as necessary

Outcomes Work Time

- Spend some time reviewing your student learning outcomes.
- Are there any changes you might recommend to your department or program?
- Are there others here who have similar outcomes?

BREAK

Senior Integrative Exercises

- Comps, Capstone and Other Experiences
- Course-embedded assessment approach
  - Using tests, products, or performances required in a course to examine student achievement of student learning outcomes
  - Carleton already has experience with this approach (Writing portfolio, QUIRK)
  - Integrative exercises could be a significant component of the assessment plan at the department and college level

Senior Integrative Exercises, cont.

- To be useful as an assessment technique:
  - The link between the requirements of the integrative exercise and the learning outcomes must be explicit (agreed upon, documented)
  - You need some method for capturing information for outcomes assessment
  - You need to store the information for later reporting and/or for combining with other information

Integrative Exercise Work Time

- Spend some time reviewing the information you have brought with you regarding your Comps/capstones/other experiences
- First, outline the key or critical requirements of the experience (worksheet)
- Next, outline the key or critical expectations of the student in terms of what knowledge, skills or dispositions they are suppose to demonstrate to successfully complete the experience.
- Are there others here who have similar requirements and expectations?

Example
Capstone Course

- Primary Requirement is a Senior Thesis
- Expectations include
  - Student will critically analyze conflicting sources
  - Student will demonstrate ability to synthesize information from a variety of sources
  - Student will be able to use effective argumentation strategies to advance his/her thesis
  - Student will demonstrate an effectively oral defense of his/her thesis

Creating a Learning Outcomes and Requirements Matrix

- Draft a document showing the relationship between the requirements of comps/capstone experience and your program's student learning outcomes (worksheet)
- Outcomes in rows; requirements/expectations in columns
- Rate the strength of the relationship between the two {High, Medium, Low, None (leave blank)}

Matrix Example
Philosophy Capstone w/ Senior Thesis

Department Outcomes	Senior thesis Critical analysis	Senior thesis Synthesis	Senior thesis Argumentation	Senior thesis Oral defense
Recognize, analyze, evaluate and utilize logical argumentation	Medium		High	Medium
Demonstrate familiarity with at least two major periods in western philosophy				
Effectively employ contrasting modes of thought in constructive dialogue	High	Medium		Low
Develop, defend, and support a philosophical thesis using original arguments	High	High	High	High

Matrix Work Time

- Complete your table
- Analyze your results
  - How many outcomes have cells with entries of “High”?
  - How many outcomes show “Low” entries or are blank?
- For validity reasons, you will want to share your results with other in your department or program to see if there is consensus
- Let us know if you end up with zero “High” ratings

Developing Assessment Instruments

With apologies to Red Green, any tool can be the wrong tool

1. What are the student learning outcomes to be assessed?
2. Where are these outcomes supposed to be achieved?
3. How will you assess them (methodology)?
   a) What are you already doing that you can adopt or adapt?
   b) What information does the College already collect?
   c) When developing, consider…
      - Which methods reinforce your educational values?
      - Which methods could also be used to provide a learning experience?

Constructed Response

- Any type of assessment or evaluation in which the student must create the response to a prompt or task.
- Examples include essays, oral exams, exhibitions, products, poster presentations, practical exams, oral presentations, demonstrations, performances, research papers, capstone projects, and supervised internships or practicums
- Advantages
  - Assess a wide range of knowledge, skills and dispositions at various levels
  - Assess ability to apply knowledge and skills
  - May be considered more authentic
- Disadvantages
  - Can't use a simple answer key
  - Must work to achieve consistency in rating when using multiple raters
  - Performance to be measured needs to be clear to the student at the onset
- Lessen disadvantages by developing criteria and indicators for defining the performance and distinguishing between performance levels

Example of Need

- Senior Art Exhibition (Senior Capstone Experience)

Approaches to Measuring Constructed Response Artifacts

Checklist, Performance List or Rubric?

Checklist

- Listing of required elements of a performance or product
- Score is assigned based on whether element is present or not
- Useful for assessing simple performances or achievement in which dichotomous types of judgments are to be made

Checklist Example

- Peer assessment of group work. One criterion is participation in group problem solving.

Participates in group problem solving	☐ **Yes (1 pt)** ☐ **No (O pt)**

- What is missing?
  - Quality?
  - What does “participate” mean?
  - What do you do with partial performances?

Performance List

- Listing of required elements of performance or product
- Quality dimension added through use of some kind of scaled scoring system
- Provides more scoring flexibility
  - Point values used in the scale (1 to 3, 1 to 5)
  - Weighting of the elements (x1, x2, etc)

Performance List Example

- Peer assessment of group work. One criterion is participation in group problem solving.

Participates in group problem solving	Outstanding 3	Satisfactory 2	Tolerable 1	Unsatisfactory 0

- What is missing?
  - What is the difference between “outstanding” and “satisfactory”?
  - Need criteria and indicators that explain the difference between the levels of performance

Rubrics

- Devices for organizing and interpreting data gathered from observations or artifacts of student learning
- Instruments that attempt to make subjective measurements as objective, clear, consistent and as defensible as possible
- List the criteria on which performance, achievement or development is to be measured
- Permit differentiation between levels of performance, achievement or development

Rubrics, continued

- A continuum of quality, achievement or growth is used to assign point values or for descriptive purposes (exceeds expectations,…)
- For each criteria and value level, descriptors of the characteristics of the product or performance are provided to aid measurement

Rubric Example

- Peer assessment of group work. One criterion is participation in group problem solving.

Criteria	Outstanding 3	Satisfactory 2	Tolerable 1	Unsatisfactory 0
Participates in group problem solving	Actively looks for and suggest solutions to problems	Does not actively look for solutions; participates in the refining of solutions suggested by others	Does not suggest solutions; does not participate in refinement of solutions suggested by others; is willing to try out solutions suggested by others	Does not try to solve problems, does not help others solve problems; unwilling to try solutions suggested by others; does not provide any assistance

Day Two

- Day One Review
  - Reviewed student learning outcomes and identified potential changes
  - Reviewed various types of student work that may provide evidence of achievement of department/program student learning outcomes (comps, capstones, etc.)
  - Developed a matrix to document the strength of the connections between those assignment requirements and the department/program student learning outcomes
- Day Two Overview
  - Developing Your Assessment Instrument
  - Establishing Your Feedback Loops
  - Next Steps

Developing Your Assessment Instrument

Rubric Construction

Matrix Development Example
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Rubric Development Example

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Rubric Development Example

- Recognize, analyze, evaluate and utilize logical argumentation
- Effectively employ contrasting modes of thought in constructive dialogue
- Develop, defend, and support a philosophical thesis using original arguments

Examples of Rubrics

- Holistic Rubric: Writing
- Analytical Rubric: Writing

Differences to Consider when Constructing Rubric for Assessment

- Purpose
  - Grading rubric used to evaluate performance of each student
  - Assessment rubric is less concerned with an individual's results as focus is describing how a group of students perform; samples may be anonymous
  - Exception is competency/proficiency assessment
- Criteria
  - Grading rubric must addresses all aspects of assignment requirements
  - Assessment rubric is only concerned with student learning outcomes
- Clarity
  - Instructor may be the only one who sees the grading rubric
  - Assessment rubric may be used by multiple faculty members and/or outside reviewers
  - Shouldn't assume meanings are self-evident

Types of Rubrics

- Holistic
  - Single score or rating for an entire product or performance based on an overall impression of a student's work
- Analytical
  - Divides a product or performance into essential traits, components or dimensions so that they can be judged separately (criteria)
  - Each component receives a separate score and various components can be weighted according to relative importance if an overall score is necessary

Holistic or Analytical?

Type	Holistic	Analytical
Use	•For quick snapshots of overall performance •When speed is more important than precision •Simpler products or performances	•When teaching students the nature of quality work or self assessment •For providing detailed feedback •When precisely describing quality is more important than speed •When several dimensions are necessary for clarity about achievement of complex skills, products, or performances
Limitations	•Two students may get same score for very different reasons •Not as good for identifying strengths and weaknesses •Not as useful for students to use	•Slower scoring •Takes longer to learn

Arter & McTighe, 2001

A 10 Step Approach

1. Identify and review performance, process or product to be rated.
2. Determine the essential traits, elements, or components of the assignment. These are the criteria on which the student's work will be assessed.
3. Choose a rubric type (holistic or analytical)
4. Decide on a number of achievement, quality or growth levels (typically between 4 and 6)
5. Beginning with one of the criteria, write a description of what the upper level performance should look like. Concentrate on the essential features and not on what is easiest to measure

A 10 Step Approach, cont.

6. Next, describe what the lowest level of performance would look like
7. Finish by describing what the intermediate levels of performance would look like (if this is difficult, decrease number of intermediate levels)
8. Repeat for all of the other criteria
9. If analytical, determine whether you need an overall score, and, if so, whether various elements should be weighted.
10. Refine and pilot – share with colleagues and students, gather feedback

Criteria and Indicators

- Criteria
  - General descriptors of what is required
  - What you are looking for
- Indicators
  - Provide specific examples that the criterion is being met
  - Suggest that the criterion is being met but are not foolproof, depends on context
  - Clues the performer and rater can use to identify achievement level

Stumped?

- Obtain performance samples from past work
- Sort into groups (high to low)
- Compare those in the high group to those in the low
- Write down distinguishing characteristics
- Cluster and refine into criteria
- Draft indicators
- Try rubric on high and low papers

Concept Words

- Use concept words in your indicators to convey various degrees of performance
  - Always, usually, sometimes, seldom
  - Extremely, mainly, moderately, slightly
  - All, most, some, few
  - Always, generally, sometimes, rarely
  - Many, some, none
  - Completely, partially, incompletely, absent

Assessment Instrument Work Time

- For each of your department, program or concentration outcomes for which you believe there is a strong (high) connection to your comps (capstone, etc…)
- Begin to identify your criteria
- I would recommend starting with a 4 point scale
- Begin to draft indicators

Establishing Feedback Loops

- Like research, assessment is more often a journey than a destination
- Methodology
  - Instrument
  - Still need to rest of your methodology (who, when, how, how many, how often)
- Analysis (who, when, how, how often)
- Communication (who, how, when, how often)
  - Department/program
  - Students
  - Dean

Next Steps

- Review suggested changes in student learning outcomes with department/program
- Review matrix with department/program
- Complete and share rubric with department/program
- Refine and pilot rubric

Pilot and Refine

- Does it allow you to distinguish between levels of performance?
- Multiple versions – instructor, student
- Never perfect – don't let that stop you from starting!
- Multiple reviewers – training, check inter-rater reliability

Fostering Self-Assessment

- Hand out rubric with assignment so student will know your expectations
- When used for grading, return rubric with the grading on it
- Develop a rubric with your students for an assignment or group project
- Have students use the rubric in the draft and revision process
- Have students use the rubric for peer assessment of work
- Have students self assess their work and turn in rubric with their product
- Have students compare their self assessment against faculty assessment