OBJECTIVES
- Overview how the Backward Design process creates a curriculum for a sustainable pharmacy profession.
- As part of the Backward Design process, determine what constitutes acceptable evidence of competency in the outcomes and results (assessment).
- Describe AAC&U’s Liberal Education initiative, including development of the LEAP outcomes and VALUE assessment rubrics.
- Elucidate a plan for using VALUE rubrics for program-level assessment.
- Participate in a process to tailor the VALUE rubrics to meet institution-specific needs.
- Relate benefits and challenges of using VALUE rubrics as part of backward design curriculum development.

OUR GRADUATES NEED TO BE:
- Responsible - being eager to assume personal, community, and entry-level professional responsibilities
- Able - to use personal, social and professional knowledge and values to make wise judgments, solve problems, communicate clearly, continue to learn and grow, and work with others in the context of self, family, community, and profession
- Prudent - as a result of significant experience grappling with big, significant ideas and questions about our cultures, past, present and future

BACKWARD DESIGN
- Stage 1: Identify desired outcomes and results.
- Stage 2: Determine what constitutes acceptable evidence of competency in the outcomes and results (assessment).
- Stage 3: Plan instructional strategies and learning experiences that bring students to these competency levels.
- Stage 4: Identify prerequisites.

THREE DIMENSIONAL CURRICULUM

ANNOUNCEMENT
- This Special Session: Backward Design—Assessing a Curriculum, is being recorded with audio and speaker materials synchronized and available for purchase and future viewing as part of the meeting value package. Visit the sales booth located near the AACP Registration and Information Desk on Floor 2 for more information. Enjoy the session!
Stage 1: Identify desired outcomes and results.

Stage 2: Determine what constitutes acceptable evidence of competency in the outcomes and results (assessment).

Stage 3: Plan instructional strategies and learning experiences that bring students to these competency levels.

Stage 4: Identify prerequisites.

Wiggins & McTighe. Understanding by Design. 2005

Because we need engaged and informed citizens, who are knowledgeable about themselves and their world, the following outcomes are seen as essential:

- Knowledge of Human Cultures and the Physical and Natural World
  - Focused on engagement with big questions, enduring and contemporary
- Intellectual and Practical Skills
  - Practiced extensively across the curriculum, in the context of progressively more challenging problems, projects, and standards for performance
- Personal and Social Responsibility
  - Anchored through active involvement with diverse communities and real-world challenges
- Integrative Learning
  - Demonstrated through the application of knowledge, skills, and responsibilities to new settings and complex problems

LEAP PROMOTES:

- Essential Learning Outcomes
- High Impact Practices
  - Helping Students Achieve the Essential Learning Outcomes
- Authentic Assessments
- Probing Whether Students Can APPLY Their Learning - to Complex Problems and Real-World Challenges
- Inclusive Excellence
- Diversity, equity, quality of learning for all groups of students

HIGH IMPACT PRACTICES

- First-Year Seminars and Experiences (Camp Seminar)
- Common Intellectual Experiences
- Learning Communities (a continuation of Camp Seminar)
- Writing-Intensive Courses (WE courses)
- Collaborative Assignments and Projects (physiology, pathophysiology, therapeutics ...)
- Undergraduate Research (elective)
- Diversity/Global Learning
- Service Learning, Community-Based Learning (IPE, health literacy)
- Internships
- Capstone Courses and Projects
- E-portfolios

AUTHENTIC ASSESSMENTS

VALUE RUBRICS

- Used for program evaluation, not evaluation of a course or student performance.
- Places individual faculty judgment within national shared experience; national benchmarks
- Developed by teams of faculty and disciplinary experts who iteratively gathered, analyzed, synthesized, and drafted institutional level rubrics (and related materials) for the LEAP outcomes.
- Each VALUE rubric contains the most common and broadly shared criteria or core characteristics considered critical for judging the quality of student work in that outcome area.
- The VALUE rubrics reflect faculty expectations for essential learning across the nation regardless of type of institution, mission, size or location.

VALUE RUBRICS AVAILABLE FOR:

- Inquiry and analysis
- Critical thinking
- Creative thinking
- Written communication
- Oral communication
- Reading
- Quantitative literacy
- Information literacy
- Teamwork
- Problem solving
- Civic knowledge and engagement
- Intercultural knowledge
- Ethical reasoning
- Foundations and skills for life-long learning
- Integrative and applied learning
ACPE Standards stipulate the need for a comprehensive assessment plan, including assessing student achievement of program ability outcomes.

At StLCOP, we prioritized our list of program ability outcomes and will assess 2 to 3 outcomes each year.

For 2010-11, we assessed Critical Thinking & Problem Solving by collecting student work samples from each year in our 6-year academic program.

In May 2011, faculty volunteers participated in two days of Programmatic Assessment using the VALUE rubrics:
- Day 1: Problem Solving
- Day 2: Critical Thinking

After analyzing the data collected, insights to our strengths and recommendations for improvements to assignments, courses, and the curriculum will be provided to the full faculty. Data will serve as a baseline for comparison to our new Pharm.D. curriculum which will be implemented in Fall 2013.

In May 2011: Faculty workshop where we reviewed and discussed the draft VALUE rubrics
- Consensus to use them to help us define our terminal ability outcome definitions and serve as a foundational part of our comprehensive assessment plan to assess ability outcomes across the entire curriculum

In Sept 2009: VALUE rubrics were finalized and published

In Mar 2010: Agreement on terminal ability outcomes
- Prioritization of Problem Solving & Critical Thinking

In Aug 2010: Faculty workshop to experiment with the rubrics
- Gain better understanding of the rubrics
- Thought given to how we might need to modify the rubrics

In Nov 2010: Group of interdisciplinary faculty (n = 30) revised the rubric language to fit our academic program and assignments

In Jan 2011: Faculty reviewed the revised rubrics and identified assignments in their course(s) that address Critical Thinking and/or Problem Solving

In Feb - Apr 2011: CCAC reviewed assignments and collected a random sample of student work from across the curriculum

In May 2011: End-of-year pilot-test Programmatic Assessment Days

Step 1: Reading the rubric
Step 2: Calibrating to the rubric
Step 3: Assessing with the rubric
Step 4: Tying future assignments to the rubric
Assessing an anonymous student work sample with a rubric is very different than grading an assignment for a course grade.

You are NOT grading.

Instead, you are matching performance described in a rubric cell with student performance seen in a work sample.

Your task for the next 7 minutes:

1. Read through the VALUE/STLCOP rubric for the Critical Thinking ability outcome.
   a. All of page 1
   b. Page 2, only the table line labeled “Evidence” and the line labeled “Conclusions and Related Outcomes”

2. Note any words or terms in the rubric that don’t make sense.

Everyone will assess the same student work sample.

Assessment scores will be posted.

We will then discuss and come to consensus as to which cells of the rubric best applies to the work sample.

Calibrating to the rubric helps put aside our grading habits and gets us used to matching the language of the rubric to specific evidence found in each work sample.


**Ground Rules**
- You are not grading.
  - You are matching performance described in a rubric cell with performance seen in a work sample.
- Set aside your knowledge of assignments, students, and courses.
  - When you grade, students, assignments, and courses matter. When you are assessing ability outcomes, only the rubric matters.
  - You are assessing work samples to find out where the student is on the ability outcome rubric, not to see how well the student has done the assignment.

**Ground Rules (Cont’d)**
- Pick one cell per line.
  - There is no 3.5.
  - Cells assume mastery of positive performance in previous cells on the same line.
  - Start at 4 and work your way across the row.
- Zero and N/A exist.
  - Use them if needed.
  - Zero means the criteria from the line was addressed but performance has not achieved the Benchmark level.
  - N/A means the criteria from the line wasn’t addressed.
- Work quickly.
  - Read quickly.
  - Pick the cell that best matches the work.
  - Go with your first instinct.

**Step 2: Calibrate to the Rubric**
- Your task for the next 5 minutes:
  1. Read the student work sample

**Student Work Sample**
- PY3 course that requires students to critically evaluate a study and apply it to make an evidence-based decision for a patient population

**Assignment**
- P & T Committee for a VA hospital
  - Had to determine their position and support it with evidence from a study by Andriole et al.
  - Dutasteride should be available on the VAMC drug formulary for off-label use for reducing risk of prostate cancer. Specify if dutasteride should be available to all male veterans or only veterans who meet specific criteria (and state what those criteria should be).
  - Dutasteride should NOT be available on the VAMC drug formulary for off-label use for reducing risk of prostate cancer.

**Assess the Work Sample**
- Using the VALUE/STLCOP rubric for Critical Thinking, assess the student’s
  - **Evidence** in the essay
  - **Conclusions**

  *Circle the cell in the table row that matches the performance seen in the work sample.*
CALIBRATION

Student work samples are collected from across the academic program.

The number of work samples will depend on the number of faculty assessors, the page length of the samples, and the amount of time allotted for the assessment day. (~ four 5-7 page sample/hour/assessor)

Each sample is assessed by two faculty assessors and their scores are compared.

A third assessor is used if there is disagreement between the first two assessments. (Scores must be next to each other to agree)

As faculty are assessing student work samples, they make written notes about how the assignment could be tweaked to better address the rubric criteria.

Make notes about how assignments in their course could be modified to address the rubric criteria.

At the end of the assessment day, faculty assessors share thoughts/ideas for improving student assignments and the rubric.

Currently evaluating the assessment data collected

Expect to see a progressive development of critical thinking as students advance through the curriculum

Not what we’ve found

For the PY3 course, insight was gained on how to modify the assignment to provide students with the opportunity to better practice critical thinking

What challenges did you have with using the VALUE/STLCOP rubric for assessing Critical Thinking in the student work sample? What changes need to be made to the rubric?

How might use of this rubric drive you to modify student assignments at your institution so they better practice Critical Thinking?
**MUST HAVES/NEEDS:**
- A culture of assessment
- A common understanding of the process/rubrics
- Administrative support
- Budget
- Dedicated days/week to complete assessments

**BENEFITS OF USING VALUE RUBRICS**
- Standardized, objective programmatic assessment
- Brings faculty together to a common understanding of abilities
- Guides development and modification of abilities desired of graduates
- Identification of gaps in curriculum which leads to curricular enhancement
- Guides development and modification of practice opportunities (assignments) for development of selected abilities

**CHALLENGES OF USING VALUE RUBRICS**
- Difficulty in achieving consensus on modifying rubric
- Less than optimal applicability of rubric
- Lengthy and intimidating calibration process
- Complex acquisition of ideal samples for assessment
- Work-intensive assessment days

**ADDITIONAL TIPS: LESSONS LEARNED**
- **General:**
  - Topic experts may not be the best to assess the work sample as they may be the most biased (the expert has more difficulty taking off the “grading hat”)
  - Ensure that each rubric cell only contains one behavior
  - A detailed glossary of definitions is extremely helpful
  - It is worthwhile to think through what really characterizes each step
    - i.e. Instead of “Imaginative” in the rubric—maybe comprehensive, insightful, or substantive
    - Are the markers of mastery in the rubric right for you?

- **Critical Thinking Rubric:**
  - Best for assessment of longer essays
  - Collect data on the type of the assignment—research paper, reflective essay, opinion paper, etc.
  - The faculty member submitting the work sample should determine which criteria would be NA

**ADDITIONAL RESOURCES**
- AAC&U Publication

- VALUE Project Overview
  [http://www.aacu.org/value/index.cfm](http://www.aacu.org/value/index.cfm)
Tuesday, July 12, 2011

Special Session: Backward Design—Assessing a Curriculum

Activity Code: MLJ4Z8