Continuous Quality Improvement in Program Assessment:
Using Student Learning Outcomes Effectively

Paula S. Krist, Ph.D.
Director, OEAS
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AGENDA

- ❑ Faculty concerns
- ❑ Student Support concerns
- ❑ Program assessment & course assessment
- ❑ Writing and measuring student learning outcomes: SMART and MATURE
- ❑ Assessment mapping
- ❑ Implementation at UCF

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Faculty Concerns

- "extra work"
- bureaucracy
- already assessing
- academic freedom
- diploma shows that learning outcomes are reached
- why specify *program* assessment*?*

Student Support Concerns

- ❑ "extra work"
- ❑ bureaucracy
- ❑ already assessing
- ❑ how to get faculty involved in student support services assessment efforts

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Working with Faculty

❑ Alliance with Faculty Center for Teaching and Learning (FCTL):

■ perception of assessment and its usefulness

■ understanding of program assessment

■ perception of assessment personnel

❑ FCTL/OEAS/Student Support understanding of each others' efforts

Working with Faculty

- ❑ address faculty concerns:
  - ❑ define academic freedom
  - ❑ empathize about bureaucracy
- ❑ guide the evolution of program assessment:
  - ❑ emphasize existing assessment expertise
  - ❑ focus on student learning
  - ❑ emphasize complimentary efforts of Student Support areas
- ❑ <u>provide support</u>

Premises for Assessment of Student Learning Outcomes

❑ Academic programs should be able to show that students have a standard set of competencies at graduation.

❑ Students and programs should have a shared understanding of what those are and how they will be measured.

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Program Assessment

- ☐ student centered
- ☐ formative
- ☐ results lead to change
- ☐ fosters program improvement:
  - curriculum
  - course content

Course Assessment

❑ student centered
❑ formative and summative
❑ formative fosters course improvement:
   - content
   - teaching strategies
   - assessment mechanisms

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Student Learning Outcomes: Think SMART

- ❑ Specific
- ❑ Measurable
- ❑ Attainable & Aggressive
- ❑ Results-Oriented
- ❑ Time-bound

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SPECIFIC

❑ The outcome is associated with communication skill(s); critical thinking skill; and/or discipline-specific knowledge, skill, belief or attitude.

❑ The outcome is important to the program.

MEASURABLE

❑ Outcomes should be able to be measured. (This is where they differ from "goals.")

ATTAINABLE & AGGRESSIVE

❑ The outcome should indicate reasonable stretch targets.

RESULTS-ORIENTED

❑ The outcome helps to identify where program improvements are needed.

▪ Example: examine specific scales in a test to determine if these are known by students. Curriculum can be examined to see where these could be reinforced.

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TIME-BOUND

❑ The outcome specifies when the student will achieve the given knowledge, skill, behavior or attitude.

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Examples of
Student Learning Outcomes

Communication student learning outcome:

Graduates of the BS program in Imaginary Science will demonstrate proficiency in oral communication of the kind expected in professional paper presentations.

Examples of
Student Learning Outcomes

Critical thinking student learning outcome:

Graduates of the BS program in Hypothetical Engineering will accurately solve problems that address engineering economics issues such as life-cycle analysis.

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Examples of Student Learning Outcomes

Discipline-Specific student learning outcome:

Graduates of the BS program in Global Education will be able to apply the 10 fundamental principles of effective teaching. *(List them.)*

MATURE: Measuring Student Learning Outcomes

- ❏ Match
- ❏ Appropriate methods
- ❏ Target
- ❏ Useful
- ❏ Reliable
- ❏ Effective and Efficient

MATCH

❑ The measures match the specific student learning outcome. (All undergraduate programs identify outcomes in communication, critical thinking, and discipline-specific knowledge, skill, behavior or attitude.)

APPROPRIATE METHODS

Choose measurement approaches that are appropriate:

- **direct measures**: direct examination or observation of student knowledge, skills, or attitudes against measurable learning outcomes
- **indirect measures**: perceived extent or value of learning experiences

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TARGET

❑ Each measure should indicate the desired level of performance.

  ▪ e.g., Students will score 100% on the group of questions on the first test in CHM1234 that test knowledge of correct procedures to follow when using the lab.

USEFUL

❑ Measures help identify areas for program improvement. (Could include curriculum revision, course evaluation, change in teaching methods, etc.)

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RELIABLE

❑ Measures are based on tested, known methods.

EFFECTIVE & EFFICIENT

❑ Each approach accurately and concisely measures the outcome.

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Program Assessment Measures

direct measures
- standardized exams
- locally developed exams
- external examiner
- oral exams
- minute papers
- portfolios (with rubrics)
- behavioral observations
- simulations
- project evaluations
- performance appraisals

indirect measures
- written surveys and questionnaires:
  - student perception
  - alumni perception
  - employer perception of program
- exit and other interviews
- focus groups
- student records

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Linking Learning Outcomes and Measures

Graduates of the BS program in Imaginary Science will demonstrate proficiency in oral communication of the kind expected in professional paper presentations.

Measure 1: In the Capstone Course IS4321, each student will earn at least 90% on the oral presentation section of their capstone project. A scoring rubric will be used to assess elements of communication proficiency for specific skills.

Linking Learning Outcomes and Measures

Graduates of the BS program in Imaginary Science will demonstrate proficiency in oral communication of the kind expected in professional paper presentations.

Measure 2: On the graduating senior survey, at least 90% of the B.S.I.S. program respondents will indicate that the program has increased their oral communication proficiency.

Linking Learning Outcomes and Measures

Graduates of the BS program in Hypothetical Engineering will accurately solve problems that address engineering economics issues such as life-cycle analysis.

Measure 1: Students will demonstrate proficiency by earning a minimum grade of 80% on the questions dealing with engineering economics on a test administered in HE2037.

Linking Learning Outcomes and Measures

Graduates of the BS program in Hypothetical Engineering will accurately solve problems that address engineering economics issues such as life-cycle analysis.

Measure 2: In the engineering economics sub-group of the FHE examination administered twice every year, students will equal or exceed the national average. All students are required to take this examination.

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Linking Learning Outcomes and Measures

Graduates of the BS in Global Education program will apply the 10 fundamental principles of effective teaching. *(List them.)*

Measure 1: All students will demonstrate a 90% accuracy in the identification and application of the 10 fundamental principles of effective teaching within a comprehensive paper targeting a hypothetical classroom situation. A scoring rubric will be used for assessment.
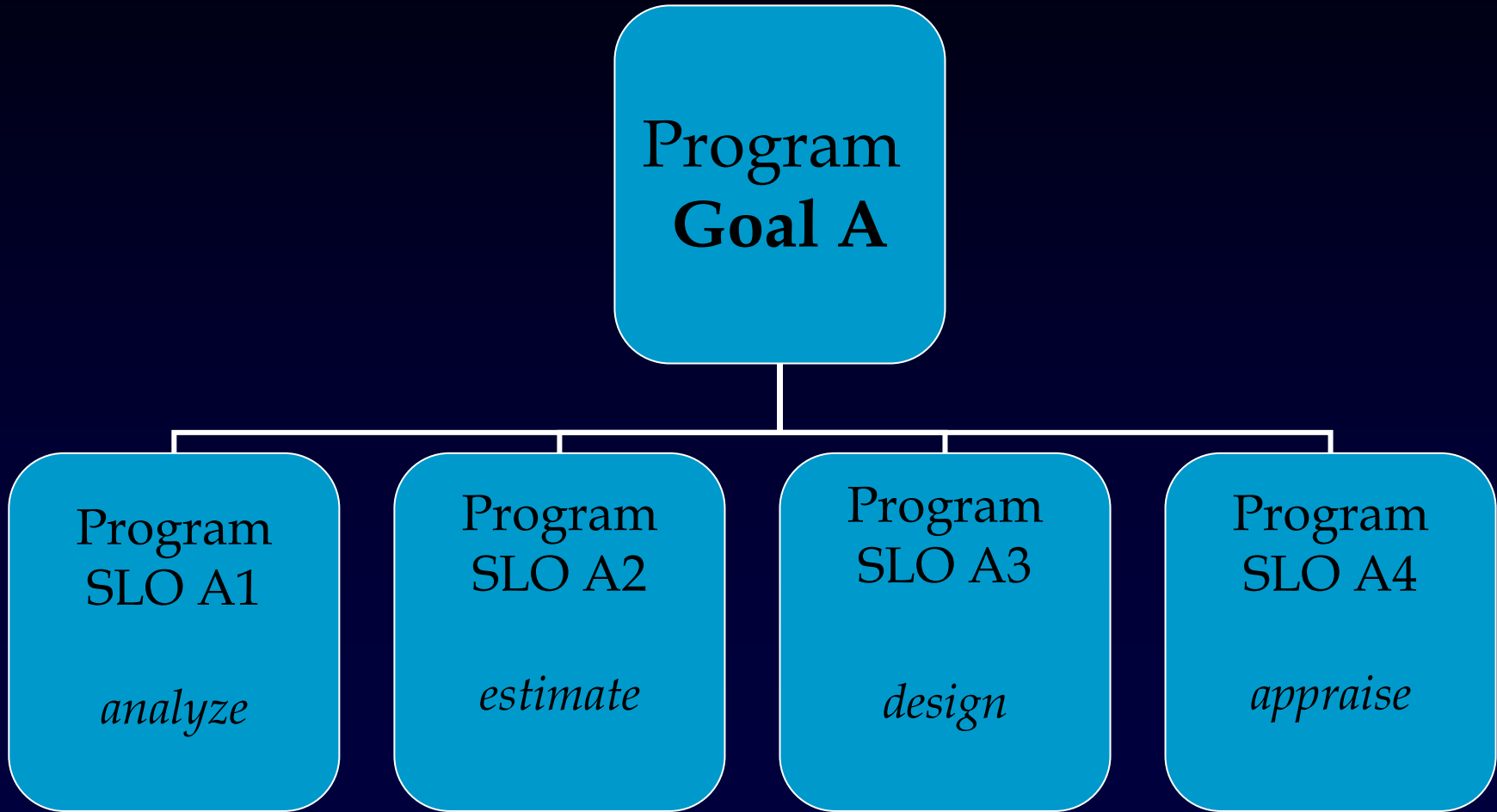
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Linking Learning Outcomes and Measures

Graduates of the BS program in Global Education will be able to apply the 10 fundamental principles of effective teaching *(list them)*.

Measure 2: For the final project in the Capstone Course, GE4567, each student will earn at least a 90% on the integration of the 10 fundamental principles within the project. The integration criteria will be specified in a scoring rubric.

Program **Goal A**

Program SLO A1

analyze

Program SLO A2

estimate

Program SLO A3

design

Program SLO A4

appraise

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Program Assessment Map

SLO's	Course I	Course II	Course III	Course IV	Capstone Course
SLO A1	I *classify*	E *design*			R *analyze*
SLO A2	I *define*			E *choose*	R *design*
SLO B1	I *predict*		E *examine*	R *evaluate*	R *synthesize*
SLO B2		I *translate*	E *specify*	R *plan*	R *evaluate*
SLO B3					

First Year Results

- ❑ 11 small group workshops at FCTL:
  - ❑ up to 15
- ❑ 10 individual consultations
- ❑ Regional NSSE workshop (co-sponsored with FCTL): 35
  - ▪ 8 follow up sessions (2 each of 4 topics)
  - ▪ integration of results into program plans
- ❑ invited to be part of program assessment revision project team

Second Year Results… so far

- 16 small group workshops at FCTL:
  - up to16 in each
- 6 workshops for specific college assessment coordinators
- 25 meetings with specific departments
- 3 workshops for student support groups
- 3 consultations with student support units
- 20 individual faculty consultations by OEAS
- 25 individual faculty consultations by FCTL

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References

Other assessment information is available at:
http:// www.oeas.ucf.edu

Assessment plans: click Assessment Support

Continue the conversation:
pkrist@mail.ucf.edu