Program Review and Assessment Committee

October Meeting 2017: Thursday, October 19, 1:30-3:00pm, UL Lilly Auditorium

Agenda

Attending: K. Alfrey, P. Altenburger, J. Barbee, K. Black, L. Bozeman, C. Buyarski, D. DeMeester, G. Durham, T. Freeman, E. Grommon, M. Hansen, W. Helling, C. Kacius, J. Lash, X. Liu, S. Lowe, C. Marsiglio, M. Petrovic, E. Ramos, K. Reda, A. Rao, M. Urtel, C. Walcott, S. Weeden.

- 1. Welcome, Review and Approval of September Minutes (5 minutes)
 - a. S. Weeden called the meeting to order at 1:30 pm and postponed approval of minutes until end of meeting due to training focus of this meeting.
 - b. S. Weeden introduced Vice Chancellor Johnson.
- 2. Greetings—Kathy Johnson, Executive Vice Chancellor and Chief Academic Officer (5 minutes)
 - a. Vice Chancellor Johnson offered thanks for PRAC's service to campus. Noted that in her travels she has discovered that peer public institutions do not have PRACs.
 - b. She stated that PRAC has contributed to IUPUI's reputation as an innovator in the use of data to inform decisions and in transparency. She sees PRAC as engine for driving this culture and reputation.
 - c. She noted the top priorities for her office, including:
 - i. Review of PULs to make sure they are accessible and can be documented.
 - ii. Record of Experiential and Applied Learning (other IU campuses have become interested in REAL which has led to additional conversations before official roll out).
 - iii. Capstones and ePortfolios "work has been very valuable" and a problemrepository is being developed to aid faculty in creating capstone course projects.
- 3. Primer on Effective Assessment Practices (70 minutes)
 - a. S. Weeden introduced the panel including, Terri Tarr, Karen Alfrey, Susan Kahn and Michele Hansen. (See slides and handout).
 - b. S. Kahn: This introductory portion included the following topics: definitions of assessment and its importance; differences among course, program, and campus levels of assessment; definitions of key terms and concepts; and writing meaningful and assessable student learning outcomes.
 - c. M. Hansen: This portion focused on creating a culture of assessment and included the following topics: embedding assessment in courses; creating learning

- experiences designed to produce key learning outcomes; using course level results to support program- and institutional-levels of assessment.
- d. Terri Tarr: This portion focused on a planning framework for learning and assessment, and included the following topics: using an assessment matrix to build assessment; differences between typical course design and backwards course design; sample course planner format; and writing clear and assessable student learning outcomes. It included an outcomes-writing activity.
- e. K. Alfrey: This portion focused on program level assessment and included the following topics: methods for organizing program assessment; identifying where learning outcomes occur within the curriculum; selecting when/where to collect evidence; identifying targeted levels of performance; and the need for on-going conversations about assessment within the program.
- f. M. Hansen: This portion focused on types of assessment measures and included the following topics: direct measures to assess knowledge and skills; indirect measures to assess perceptions of knowledge and skills; signature assignments as common outcome data across the curriculum.
- g. K. Alfrey: This concluding portion focused on using assessment to motivate improvement and enhance accountability, and was followed by brief Q&A.

4. Announcements and Adjournments

- a. Motion made, seconded and passed to approve September minutes.
- b. On a motion made and approved, the meeting adjourned at 2:59 p.m.



Program Review and Assessment Committee October 19, 2017

A Primer on Effective Assessment **Practices**

IUPUI

Presenters

Karen Alfrey, School of Engineering & Technology

Michele Hansen, Institutional Research & Decision Support

Susan Kahn, Institutional Effectiveness/PAII

Terri Tarr, Center for Teaching & Learning



Workshop Outcomes

As a result of this workshop, participants will be able to:

- 1. Define assessment.
- 2. Explain why assessment is important.
- 3. Describe differences among course-, program-, and campus-level assessment.
- Define key assessment-related terms and concepts, including "direct" and "indirect measure," "authentic assessment," and "signature assignment."
- 5. Write a meaningful and assessable learning outcome.
- 6. Describe and use IUPUI assessment resources.



Definitions

Think-Pair-Share Question

What is assessment? How is assessment different from grading?



What is assessment?

"Assessment is the systematic collection, review, and use of information about educational programs undertaken for the purpose of improving student learning and development."

Trudy Banta



Assessment vs. Grading

Grading: Focus on individual students; instructors determine grades/scores; students receive feedback

Assessment: Focus on groups of students (in a course, program, out-ofclass experience); assessors determine extent to which students are mastering desired outcomes, identify needed improvements to learning, and consider where (co)curricula and teaching/learning strategies need to be rethought



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Purposes of Assessment

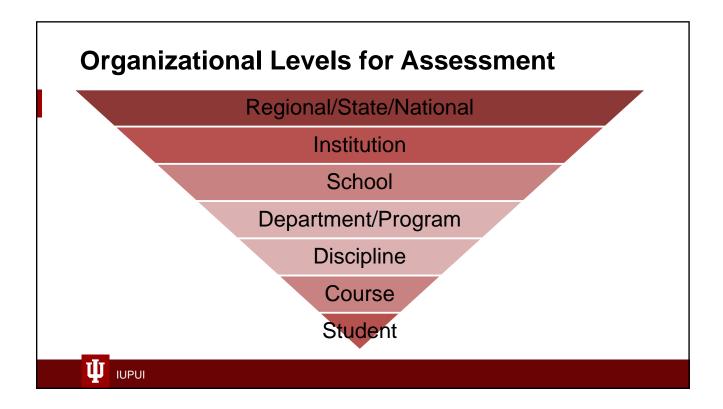
- 1. Ongoing improvement of student learning and achievement
 - o Traditional teaching/learning approaches are not as effective with today's students
 - New technologies offer new possibilities for improving and supporting student learning and success
 - o Effective use of evidence of student learning is essential to improving student and institutional learning and success
- 2. Accountability
 - Document value of higher education to individuals and society



Creating a Culture of Assessment

- 1. Embed assessment within courses.
- 2. Create learning experiences that are designed to produce key learning outcomes identified for the department's or school's graduates.
- 3. Learning results at the course level can flow upward to support programlevel assessment and can provide evidence regarding the General Education, school, department, institutional learning outcomes.





SECTION TWO

Planning Framework for Learning and Assessment



Program Review and Assessment Committee October 19, 2017

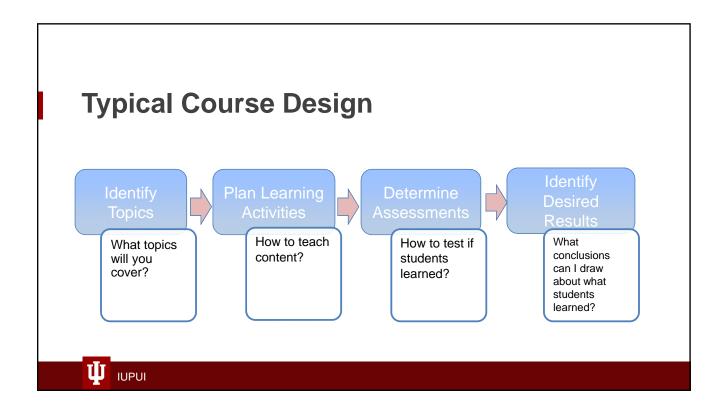
A Primer on Effective Assessment Practices

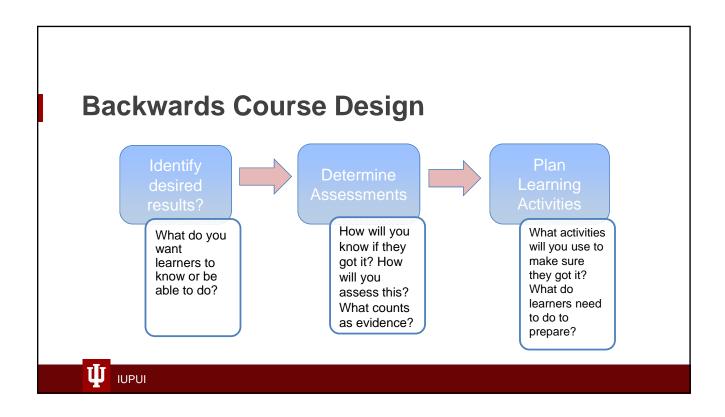
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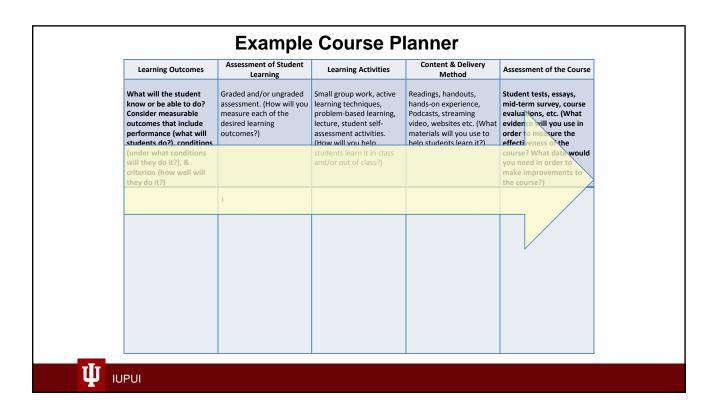
Planning for Learning and Assessment

What general outcome are you seeking?	How would you know it (the outcome) if you saw it? (What will the student know or be able to do?)	How will you help students learn it? (in class or out of class)	How could you measure each of the desired behaviors listed in #2?	What are the assessment findings?	What improvements have been made based on assessment findings?









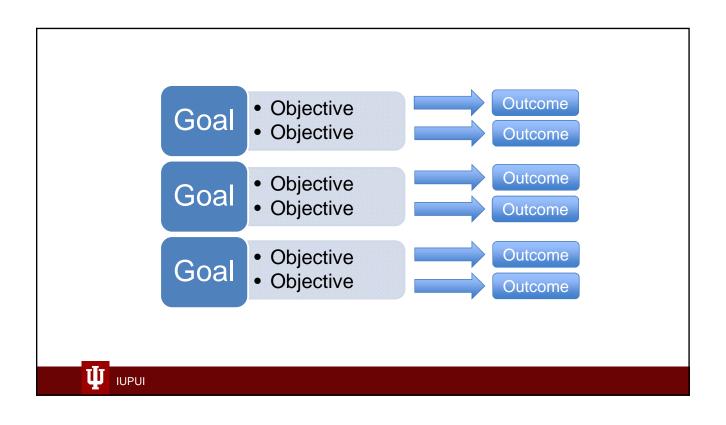
Learning Outcomes	Assessment of Student Learning	Learning Activities	Content & Delivery Method	Assessment of the Course
What will the student know or be able to do? Consider measurable outcomes that include performance (what will students do?), conditions	Graded and/or ungraded assessment. (How will you measure each of the desired learning outcomes?)	Small group work, active learning techniques, problem-based learning, lecture, student self- assessment activities. (How will you help	Readings, handouts, hands-on experience, Podcasts, streaming video, websites etc. (What materials will you use to help students learn it?)	Student tests, essays, mid-term survey, course evaluations, etc. (What evidence will you use in order to measure the effectiveness of the
(under what conditions will they do it?), & criterion (how well will they do it?)		students learn it in class and/or out of class?)		course? What data would you need in order to make improvements to the course?)
Compute responses of linear circuits with and without initial conditions using one-sided Laplace transform techniques. [ABET a,e,k] Note: This is just one component – building foundations of Laplace transforms	Laplace Homework Assignment Part 1: Generate example problems for the two properties assigned to each student Part 2: Teach group members your properties and generate Laplace quiz questions Laplace quiz (includes one application question)	Students: Solve example problems individually/small groups Participate in Laplace Jigsaw activity Generate Laplace quiz questions/small group	Instructor: * Lecture: Introduce fundamentals of Laplace transforms * Model problem- solving: Solve example problems	Comparison of grades on Laplace from previous years Comparison of quality of questions Mid-semester student feedback Canvas analytics on use of Laplace resources Final course evaluation (one question on Laplace activity and quiz)

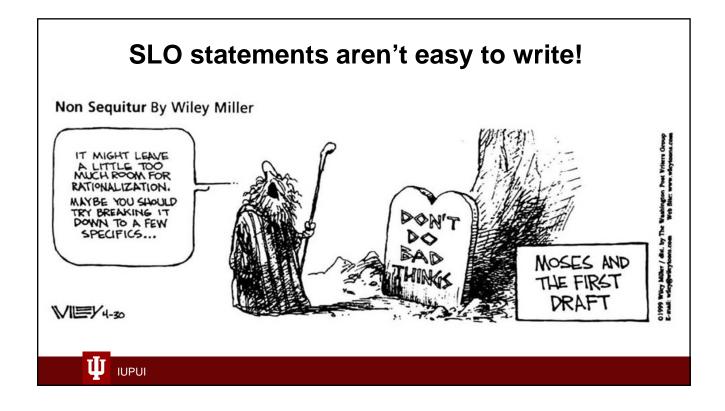
Why are student learning outcomes (SLOs) important?

- Focus learning targets
- Guide selection of learning activities
- Define expectations (students' and the instructor's) about what is "good"
- Provide a basis for assessments
- Aid students' self-assessment, self-regulation of learning

(Nicol and Macfarlane-Dick, 2006; Dweck, 2002)







What's the difference? Which do you prefer? Why?

Art History

After taking this course, students will be able to:

- understand the key elements of visual analysis (in terms of form, color, line, style, etc.)
- appreciate the social, political, religious, and philosophical contexts of art objects

After taking this course, students will be able to:

- Organize a final oral presentation about a representative work of art, one that conducts a visual analysis of the work (in terms of form, color, line, style, etc.), and
- Situate the work within its social, political, religious, and philosophical contexts



Characteristics of effective student learning outcomes (SLOs)

- 1. The learning activity is made evident
- 2. The intended outcome
 - is measurable
 - is useful and meaningful
 - clarifies what you plan to assess (the artifact or performance)



...How does this learning outcome do?

Upon completing this course, students will be able to write a scholarly research paper

that synthesizes the ideas and evidence of several peerreviewed secondary sources.

- ✓ Is the learning activity evident?
- ✓ Is the learning outcome measurable?
- ✓ Is the intended outcome useful and meaningful?
- ✓ Does this learning outcome clarify what you intend to assess?



Writing Student Learning Outcomes

- 1. Describe what students should be able to **demonstrate**, **represent or produce** based on their learning histories.
- 2. Rely on **active verbs** that identify what students should be able to demonstrate, represent, or produce over time.

Maki, 2010



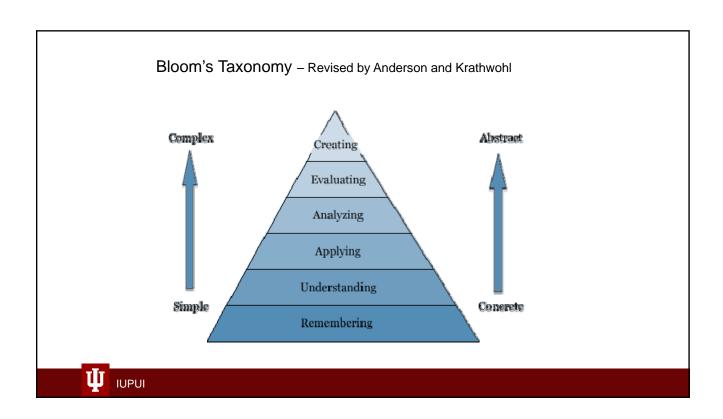
Importance of Action Verbs

- 1. Action verbs result in overt behavior that can be observed and measured
- 2. Certain verbs are unclear or relate to covert, internal behaviors that cannot be observed or measured.

Avoid:

- understand
- know
- learn
- appreciate
- become aware of
- · become familiar with





Remember	<u>Understand</u>	<u>Apply</u>	<u>Analyze</u>	<u>Evaluate</u>	<u>Create</u>
define	explain	solve	analyze	reframe	design
identify	describe	apply	compare	criticize	compose
describe	interpret	illustrate	classify	evaluate	create
label	paraphrase	modify	contrast	order	plan
list	summarize	use	distinguish	appraise	combine
name	classify	calculate	infer	judge	formulate
state	compare	change	separate	support	invent
match	differentiate	choose	explain	compare	hypothesize
recognize	discuss	demonstrate	select	decide	substitute
select	distinguish	discover	categorize	discriminate	write
examine	extend	experiment	connect	recommend	compile
locate	predict	relate	differentiate	summarize	construct
memorize	associate	show	discriminate	assess	develop
quote	contrast	sketch	divide	choose	generalize

Poor, Better, Best

Poor

• Understand the scientific method.

Better

• Apply the scientific method in problem solving.

Best

• Design a grounded research study using the scientific method.



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Poor, Better, Best

Poor

• Become familiar with correct grammar and literary devices.

Better

Demonstrate the use of correct grammar and various literary devices.

Best

 Demonstrate the use of correct grammar and various literary devices in creating an essay.



Let's try some

- 1. Acquire an understanding of randomness and probability.
- Use sources well.
- 3. Understand economic risk analysis techniques
- 4. Use a standard C program development environment
- 5. Appreciate the connection of music of the past to music of the present.



SECTION THREE **Model for Program-level Assessment**

Model for Program-level Assessment

The Big Picture

- Program-level student learning outcomes defined by ABET ("a-k")
- Accreditation visits every 6 years; targeted data collection every three
- All faculty who teach required undergraduate BME courses are involved in the process
- Data collection activities are well-defined; before-and-after activities prompt broader conversations



Assessment Schedule

Task	Frequency	Scheduled	Scheduled				
ABET visit	6 years	Fa 2016	n/a	Fa 2022	n/a		
Assessment		Su 2017/	Su 2020/	Su 2023/	Su 2026/		
plan review/		2017-18	2020-2021	2023-24	2026-2027		
a-k outcomes							
data							
collection							
a-k Outcomes	3 years	Su 2018	Su 2021	Su 2024	Su 2027		
Assessment							
Alumni		Fa 2018	Fa 2021	Fa 2024	Fa 2027		
Survey/							
Focus Group/							
IAB Meeting							
Student		Sp 2019	Sp 2022	Sp 2025	Sp 2028		
Satisfaction							
Surveys							
Self-Study	6 years	n/a	2021-2022	n/a	2027-2028		



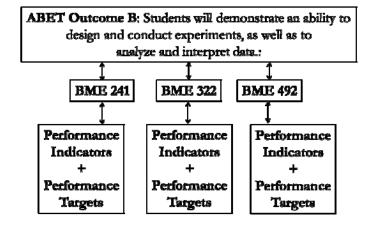
Model for Program-level Assessment

Assessment Plan: Where to assess outcomes?

195					×	xxxxx	×	xxxxx	×		×
196	x	x		х	x		XXXXX		x		х
197		×									x
222	×	x		×	xxxxx			xxxxx	xxxxx		xxxxx
241	xxxxx	xxxxx		xxxxx					x		x
331	x	xxxxx	XXXXX	×	×						
334	×	x	x	×	XXXXX						XXXXX
381	xxxxx										
383	×	×	xxxxx	×							×
322	×	x		xxxxx							
352	×				×	XXXXX			×	XXXXX	
354	×	×		×					xxxxx		x
411		x		×	xxxxx						
442	×	xxxxx		x							x
461	xxxxx	x	x								
491/492	x	x	xxxxx	xxxxx	x	xxxxx	xxxxx	×	xxxxx	xxxxx	xxxxx
402					x						
360					xxxxx		xxxxx				



Assessment Plan: What to assess





Model for Program-level Assessment

Performance Indicators

- Describe the specific task students will be asked to undertake in order to demonstrate their achievement of a given outcome
- Linked to a specific assignment, exam, or other component of a particular course



Target for Performance

"What score should an engineer who is competent in this learning outcome be expected to achieve at this stage of education?"

"If our program is on track to produce successful engineers, what percentage of students should be scoring at that level? What percentage indicates a concern to be addressed?"



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Model for Program-level Assessment

Example Assessment Plan: Outcome B

Outcome B: Students will demonstrate an ability to design and conduct experiments, as well as to analyze and interpret data.

		Where	Year(s)/Semester	· ·
D 6			***	
Performance	Method(s) of	data are	of Data	Target for
Indicators	Assessment	collected	Collection	Performance
Students will successfully	Pre-lab assignment	BME 241	Every three years (next: fall	70% of students will earn a
complete a laboratory	Data pages from lab notebook		2017)	grade of 70% or higher on the
assignment with pre-lab, data	Lab reports			lab assignment
collection, and analysis				
Students will use statistical	Exam problem	BME 322	Every three years (next: spring	70% of students will score at
methods to analyze and			2018)	least 70% on the assessed
interpret data				problem
Students will determine the	Exam problem	BME 322	Every three years (next: spring	70% of students will score at
minimum number of samples			2018)	least 70% on the assessed
needed to ensure the power of a				problem
statistical test				
Design teams will develop,	Final design reports	BME 491/492	Every three years (next: spring	80% of teams will score at least
implement, and evaluate the			2018)	60% of the points on the
success of a Verification and				Verification/Validation section
Validation plan				of the design report

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Example Assessment Plan: Outcome D

c	Performance Indicators	Method(s) of Assessment	Where data are collected	Year(s)/Semester of Data Collection	Target for Performance
	Students will demonstrate good citizenship when participating in team projects.	Teamwork assessment forms	BME 222 BME 354	Every three years (next: spring 2018)	70% of students will score an average of at least 2.5 (on a scale of 0-3) on a team citizenship rubric
	Students will perform lab experiments as part of a 2-3 member team, with each team member taking on well-defined roles on each lab.	Laboratory reports	BME 222 BME 354	Every three years (next: spring 2018)	70% of lab groups will score at least 80% on assessed labs 100% of assessed team lab reports will clearly delineate the contributions of each team member
	Students will complete a major 2-semester design project as part of a 4-5 member team	Teamwork assessment forms Sponsor assessment forms	BME 491/492	Every three years (next: spring 2018)	90% of students will score an average of at least 2.5 (on a scale of 0-3) on a team citizenship rubric



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Products of Assessment Plan: Data

Outcome D

Outcome E

Outcome E

Outcome E

Outcome E

Outcome F

Outcome Outcom

Products of Assessment Plan: Conversations About Outcomes

"In your class, what are you most concerned about in terms of subject areas or competencies where your students struggle the most?"

"Is your assessment process doing a good job of highlighting those areas of concern?"

"What have you tried, or do you plan to try, to help students improve in those areas of concern? What should we be doing elsewhere in the program to help scaffold that learning/skill development?"



Model for Program-level Assessment

Continuous Improvement

- 1. Changes in an individual course (or a particular assignment in the course)
- 2. Changes to other courses in the curriculum that support that learning outcome
- 3. Changes in the assessment process itself
- 4. Review of results in the next assessment cycle to see whether changes have had an effect



Continuous Improvement Examples

- Lack of familiarity with Linear Algebra noted among engineering students in all majors
- Feedback given to Math department
- Engineering Calculus sequence revamped to include "Multidimensional Mathematics"
- Assessments after this change show stronger grounding in Linear Algebra among engineering students



Model for Program-level Assessment

Continuous Improvement Examples

- Weak MatLAB programming skills noted in BME juniors
- In-class MatLAB exercise added to first week of BME 33400 Biomedical Computing
- Although we are still below our targets for performance for some groups of students, overall MatLAB performance improved



Continuous Improvement Examples

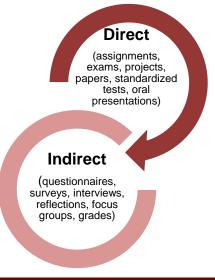
- Faculty panel of reviewers noted student reluctance to use some common design and analysis tools as part of Senior Design capstone projects
- BME faculty currently discussing changes that would give students earlier and more frequent exposure to those tools



SECTION FOUR

Types of Assessment Measures

Student Learning Measures (see handout)



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Assessment of Student Work

"No assessment of knowledge, conceptual understanding, or thinking or performance skills should consist of indirect evidence alone" (Linda Suskie, 2009).

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Direct Measures of Student Learning

- 1. Require students to demonstrate their knowledge and skills.
- 2. They provide tangible, visible, and self-explanatory evidence of what students have and have not learned as a result of a course, program, or activity (Suskie, 2004, 2009; Palomba and Banta, 1999).
- 3. Authentic assessment tasks are often multidimensional and require higher levels of cognitive thinking such as problem solving and critical thinking.
- 4. Can be integral aspect of student and faculty work.

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Indirect Measures

- 1. Capture students' perceptions of their knowledge and skills.
- 2. They supplement direct measures of learning by providing information about how and why learning is occurring (learning processes).
- 3. Students' perceptions of the extent to which courses, activities, or assignments have enhanced their achievement of the stated learning outcomes may be obtained by using the following methods: self-assessment, peer-feedback, end-of-course evaluations, questionnaires, focus groups, or exit interviews.

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Authentic, Embedded Assessment

- Goal of many undergraduate and graduate programs is for students to become lifelong learners by enhancing students' communication skills, critical thinking, and problem solving abilities (PULs).
- With authentic, embedded assessment tasks students are asked to demonstrate what they know and are able to do in meaningful ways.
- Authentic assessment tasks are often multidimensional and require higher levels of cognitive thinking such as problem solving and critical thinking.
- Embedded assessment means that "that opportunities to assess student progress and performance are integrated into the instructional materials and are virtually indistinguishable from the day-to-day classroom activities" (Wilson and Sloane, 2000).
- The end-of-course Research Paper in Biology.



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Signature Assignments

Definition of a Signature Assignment

Signature assignments enable you to collect common student learning outcome data across class sections for course-level or program-level assessment and review when sections of the same course are offered by multiple faculty members with varied pedagogies.



Signature Assignments: Key Characteristics

- 1. Well-aligned with course-level learning objectives.
- 2. Focused on emulating real world applications of course knowledge in terms of process and content.
- 3. Often require students to reflect on their work.
- 4. Collaboratively designed by faculty who teach in various sections of a given course.



Signature Assignments: Benefits

- 1. Allow for the collection of uniform assessment data across different sections of a single course. (signature assignments must be used in all sections of the course)
- 2. Provide significant common data sets for use in documenting the achievement of learning objectives at the programmatic and institutional levels.
- 3. Promote faculty discussions of student learning, pedagogy, and assessment.



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Signature Assignments: Process for Faculty

- Review the targeted course-level learning objectives to ensure similar understandings of them.
- Brainstorm, draft, and revise an assignment (tasks, problems, etc.) that aligns with the targeted objectives.
 - The action verbs that describe student behaviors are a good place to start in constructing an effective assignment.
- 3. Faculty discuss their expectations for student work and design a rubric for the assignment (the AAC&U VALUE rubrics can serve as templates). https://www.aacu.org/value/rubrics
- 4. Faculty agree to collect and collaboratively review student work samples.



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Signature Assignments: In Sum

- 1. Building Signature Assignments Requires Substantial Levels of Intentionality:
 - Careful planning of course sequences and embedded assignments.
 - Assignments and grading approaches carefully created to elicit and evaluate student responses.
 - Implemented collaboratively by instructional staff.
- 2. However, the result is a powerful method for demonstrating student mastery of course content and for improving teaching and learning generally.



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Signature Assignments Distinguishing Features

- 1. Can be an assignment, task, activity, project or exam purposefully created or modified to collect evidence for a specific learning outcomes.
- 2. Can be designed to facilitate the assessment of learning outcomes derived from the PULs and program-level outcomes.
- 3. Work well when they are course-embedded.
- 4. Ideally, other coursework builds toward the signature assignment and the signature assignment measures the culmination of what the student learned in the course for intended learning outcomes.



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Direct Measure of Student Learning

- 1. Create an signature assignment (e.g., paper that requires students to integrate learning experiences).
- 2. Develop approaches to assess levels of learning.
- 3. Team grade or compare ratings.
- 4. Revise grading approaches as appropriate.

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Library of Signature Assignments and Resources

- 1. Library of Signature Assignments from Various Disciplines
 - https://www.assignmentlibrary.org/
- 2. National Institute of Learning Outcomes Assessment (NILOA)
 - http://learningoutcomeassessment.org/



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SECTION FIVE

Using and Reporting on Assessment Outcomes

Uses of Assessment Outcomes

Think critically about your process, your data, and what they tell you about your program. With those results as your guide:

- 1. Motivate **improvement** at the course and program level
 - o ...to student learning, skills, and preparation to contribute to the discipline and the community
 - o ...to other aspects of the program in response to constituent feedback
- 2. Provide **accountability** to external stakeholders



Reporting on Assessment Outcomes

Regardless of the type of reporting (program review, program accreditation self-study, campus PRAC report, etc.), readers want to know:

- 1. What did you do? (process)
- 2. What did you learn from it? (assessment results)
- 3. What changes did you make as a result of your findings? (improvement)
- 4. What were the results of those changes? (closing the loop)



PRAC Assessment Reports: Purposes

- 1. Document ongoing assessment and improvement efforts and accomplishments for unit and campus stakeholders
 - o Reports serve as source material for annual IUPUI Assessment Report
- 2. Demonstrate to external stakeholders that IUPUI gives sustained, systematic attention to student learning and its improvement
 - Guidelines and rubric based on assessment/improvement cycle:
 Outcomes→Measures→Findings→Improvements→Outcomes



PRAC Assessment Reports: Considerations for Writers

- Provide context on unit(s): programs offered, assessment cycle, focus of this year's report.
- Include learning outcomes and their source (e.g., unit faculty, accrediting association, professional association).
- Distinguish learning outcomes from program outcomes. (Reports can include both, but most should focus mainly on learning.)
- Ensure alignment among outcomes, measures, findings, and improvements (may require referring to findings from previous years).



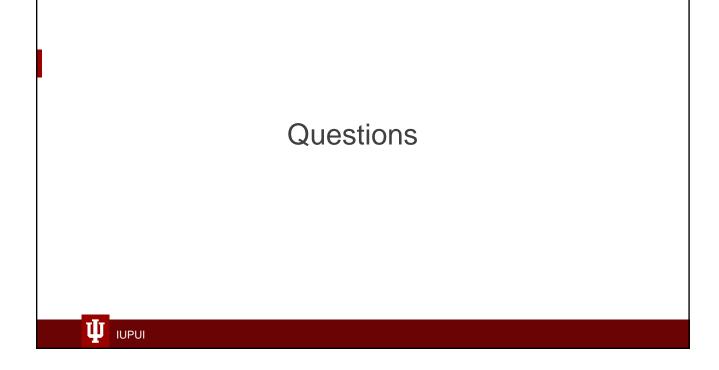
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Annual PRAC Report Review

- Carried out by PRAC Report Review Subcommittee
- Provides collegial feedback to units on strengths and areas for improvement in their PRAC reports
- Helps ensure that assessment reporting at IUPUI is accomplishing its purposes and continuously improving (internal quality assurance/"assessing assessment")
- Has achieved high level of concurrence among reviewers
- Offers reviewers opportunity to discuss and learn about assessment across IUPUI



Campus Resources for Assessment



Contact us:

- Karen Alfrey, <u>kalfrey@iupui.edu</u>
- Michele Hansen, mjhansen@iupui.edu
- Susan Kahn, skahn@iupui.edu
- Terri Tarr, <u>tatarr@iupui.edu</u>





Assessment Resources

IUPUI Assessment Support

<u>Center for Service and Learning (CSL).</u> The CSL offers a wide range of initiatives and resources to strengthen teaching, research, and assessment related to service learning and civic engagement. Visit the <u>Assessment Resources</u> portion of the CSL website to see tools and resources to assess civic learning. http://csl.iupui.edu/

<u>Center for Teaching and Learning (CTL).</u> The CTL provides individual consultations, workshops, webinars, and resources to support faculty in the assessment of student learning, the use of instructional technology for assessment, mid-semester feedback, class observations, course and curriculum planning, and more. http://ctl.iupui.edu/

Institutional Research and Decision Support (IRDS). The vision of IRDS is to provide accurate, timely, and actionable information to support decision making at IUPUI and allow for greater coordination and alignment of activities to enhance student success, learning, and institutional effectiveness. The IRDS website provides access to a wide range of IUPUI data that can be helpful in assessment efforts, including DFWI reports, enrollment management dashboards, student success and learning dashboards, student survey dashboards and much more. The IRDS Evaluation Toolbox is designed to provide helpful easy-to-access tools and resources to administration, faculty, advisors, and program staff. http://irds.iupui.edu/

<u>IUPUI ePortfolio</u>. Electronic portfolios support teaching and learning, assessment, student development, advisement and career counseling, professional presentation, and more. This website provides background information about ePortfolios in general and IUPUI's ePortfolio Initiative in particular, and keeps you in touch with all things ePortfolio at IUPUI. https://eportfolio.iupui.edu/

<u>IUPUI High-impact Practice Taxonomies.</u> The units that support the <u>RISE Initiative</u> (Center for Teaching and Learning, Center for Research and Learning, Study Abroad, Center for Service and Learning), along with the Division of Undergraduate Education and University College, created taxonomies to guide the instruction and assessment of high-impact courses. https://rise.iupui.edu/resources/course-development/taxonomies/

IUPUI Planning and Institutional Improvement (PAII). PAII staff provide campus, state, regional, national, and international leadership for outcomes assessment in higher education and oversee IUPUI's efforts to maximize learning at IUPUI. PAII does this through a combination of student assessment and program review, ongoing processes aimed at setting goals and standards for student learning, systematically gathering and analyzing evidence to assess student performance in relation to those standards, and implementing changes in the classroom to heighten student achievement. http://planning.iupui.edu/

PRAC Committee. The Program Review and Assessment Committee (PRAC) establishes guidelines for program review for academic and administrative units and provides guidance for student outcomes assessment throughout the institution. It also funds small grants that promise innovative approaches or improved practice in assessment. The activities of the committee are supported by staff in the Office of Planning and Institutional Improvement (PAII). The website includes guidelines for preparing and assessing PRAC reports, a **Glossary of Assessment Terms**, and more. http://planning.iupui.edu/assessment/prac.htm

STEM Education Innovation and Research Institute (SEIRI). SEIRI serves as the science, technology, engineering, and mathematics (STEM) education innovation, research, evaluation, and consultation hub, bringing together expert educational researchers with scientists and discipline-based educational researchers in order to inform and reform pre-college, undergraduate, and graduate education across IUPUI's campus and beyond. SEIRI is available to support grant proposals as an educational evaluator or through intensive educational consultation. https://seiri.iupui.edu/

Assessment, General

The Assessment Institute in Indianapolis. The Assessment Institute in Indianapolis is the nation's oldest and largest event focused exclusively on outcomes assessment in higher education. It is designed to provide opportunities for (1) individuals and campus teams new to outcomes assessment to acquire fundamental knowledge about the field, (2) individuals who have worked as leaders in outcomes assessment to share and extend their knowledge and skills, and (3) those interested in outcomes assessment at any level to establish networks that serve as sources of support and expertise beyond the dates of the Institute. http://planning.iupui.edu/assessment/institute.html

<u>Glossary of Assessment Terms</u>. This glossary developed by the Advanced Practices Subcommittee of PRAC clarifies assessment terminology and offers a common language for discussion. http://planning.iupui.edu/assessment/prac-files/glossary/glossary-terms.pdf

<u>Planning for Learning and Assessment Outline.</u> This grid can be used to guide assessment planning. http://planning.iupui.edu/assessment/prac-files/guidelines/outlinepracreports.doc

Student Learning Outcomes

National Institute for Learning Outcomes Assessment (NILOA). The mission of NILOA is to discover and disseminate ways that academic programs and institutions can productively use assessment data internally to inform and strengthen undergraduate education, and externally to communicate with policy makers, families and other stakeholders. This site may be helpful if you are interested in digging deeper into how to use student learning outcomes for assessment. http://www.learningoutcomesassessment.org/

<u>IUPUI Principles of Undergraduate Learning (PULs).</u> The PULs provide a principles-based framework for the learning outcomes that every undergraduate student should attain. At the campus level, attainment of the PULs for seniors is measured as a continuing assessment strategy. Some professional schools have mapped the PULs to professional accreditation standards. https://due.iupui.edu/undergraduate-curricula/general-education/principles-of-undergraduate-learning/

IUPUI General Education Core. General education provides an academic introduction to life at IUPUI and serves as a unifying framework for the knowledge, skills, habits of mind, and values that students acquire throughout their degree programs. General education is framed by the IUPUI Principles of Undergraduate Learning and exposes students to the fundamental ideas, questions, and intellectual activities that will prepare them to be lifelong learners in a democratic society. Resources for Preparing for the Review of a General Education Course can be found https://due.iupui.edu/undergraduate-curricula/general-education/iupui-general-education-core/

<u>Writing and Assessing Student Learning Outcomes Tip Sheet</u>. This Center for Teaching and Learning resource may be helpful if you need to write or revise course student learning outcomes. http://go.iu.edu/1JOL

Assessment of Student Learning

<u>Classroom Assessment Techniques (CATS) Tip Sheet.</u> CATS are simple, non-graded, in-class activities designed to give instructors and students useful feedback on the teaching and learning process as it is happening. http://go.iu.edu/1JOM

<u>Creating and Using Rubrics Tip Sheet.</u> A rubric is a document that articulates the expectations for an assignment by listing the criteria, or what counts, and describing levels of quality from excellent to poor. http://go.iu.edu/1JON

<u>Direct and Indirect Measures of Student Learning</u>. The definitions and examples of direct and indirect measures of student learning are provided in this handout created by Michele Hansen. http://go.iu.edu/1JOO

<u>AAC&U Value Rubrics</u>. The VALUE Rubric Development Project developed 16 VALUE rubrics for the LEAP Essential Learning Outcomes and all of the rubrics may be downloaded from this site. http://go.iu.edu/1JOP

Student Assignments

<u>Designing a Transparent Assignment</u>. This checklist created by Mary-Ann Winkelmes as part of the <u>TILT</u> (Transparency in Learning and Teaching) project might be helpful if you are redesigning assignments in your course. http://go.iu.edu/1JOQ

<u>DQP Assignment Library</u>. The purpose of this website is to provide a searchable online library of collegiate-level course assignments in a wide variety of academic disciplines that link to one or more proficiencies in the <u>Degree Qualifications Profile</u> (DQP). If you are considering creating a signature assignment or revising an assignment for your course, you may find helpful examples on this site. https://www.assignmentlibrary.org/