Northern Illinois University

Making Effective Decisions for Enhancing Program Quality: Using Data and Information from Multiple Sources

Assessment Workshop

October 11, 2019

Accreditation, Assessment and Evaluation (AAE)

Institutional Effectiveness

Please cite as: Northern Illinois University (2019). Making Effective Decisions for Enhancing Program Quality

Introductions

- AAE Team- Institutional Effectiveness
- Red Folder Contents
- Table Introductions- within your groups
- Burning questions - Report out

Table Introductions

- Introduce yourself to your group members and share why you chose to attend this workshop.
- Do you have a "burning question" about your degree program assessment?

Burning Questions from 2018 Assessment Workshop

1. How can the program ensure consistency between Student learning Outcomes (SLOs), curriculum maps, and assessment methods?
2. How can the program translate qualitative judgments into numeric data?
3. How can faculty feel supported in doing programmatic assessment?
4. What is expected in the mid-status reports?

Assessment Workshop: Goals

Participants will:

1. Acquire knowledge to develop an effective curriculum map that is aligned to programmatic student learning outcomes (SLOs)

2. Infer how a *curriculum map* can be used to cover the curriculum and develop an effective assessment plan

Assessment Workshop: Goals

Participants will:

3. Apply acquired knowledge in developing a **"data placemat"** to triangulate evidence collected through various methods to assess a program's student learning outcomes

4. Experience consensus building within their teams as they make thoughtful data-informed decisions for enhancing program quality

5. Discuss ideas and questions related to curriculum mapping and data-informed decision making with peers

Our Work Today…

- What to Expect
  - Group Activities and active participation
  - Breaks are built-in
  - Aha! (aka Eureka moments)
- Content Covered
  - Assessment terms
  - How to develop an effective curriculum map
  - Connection between curriculum mapping, student learning outcomes, and assessment data
  - Triangulating assessment results and other information available to make data-informed decisions
  - Data Placemat technique

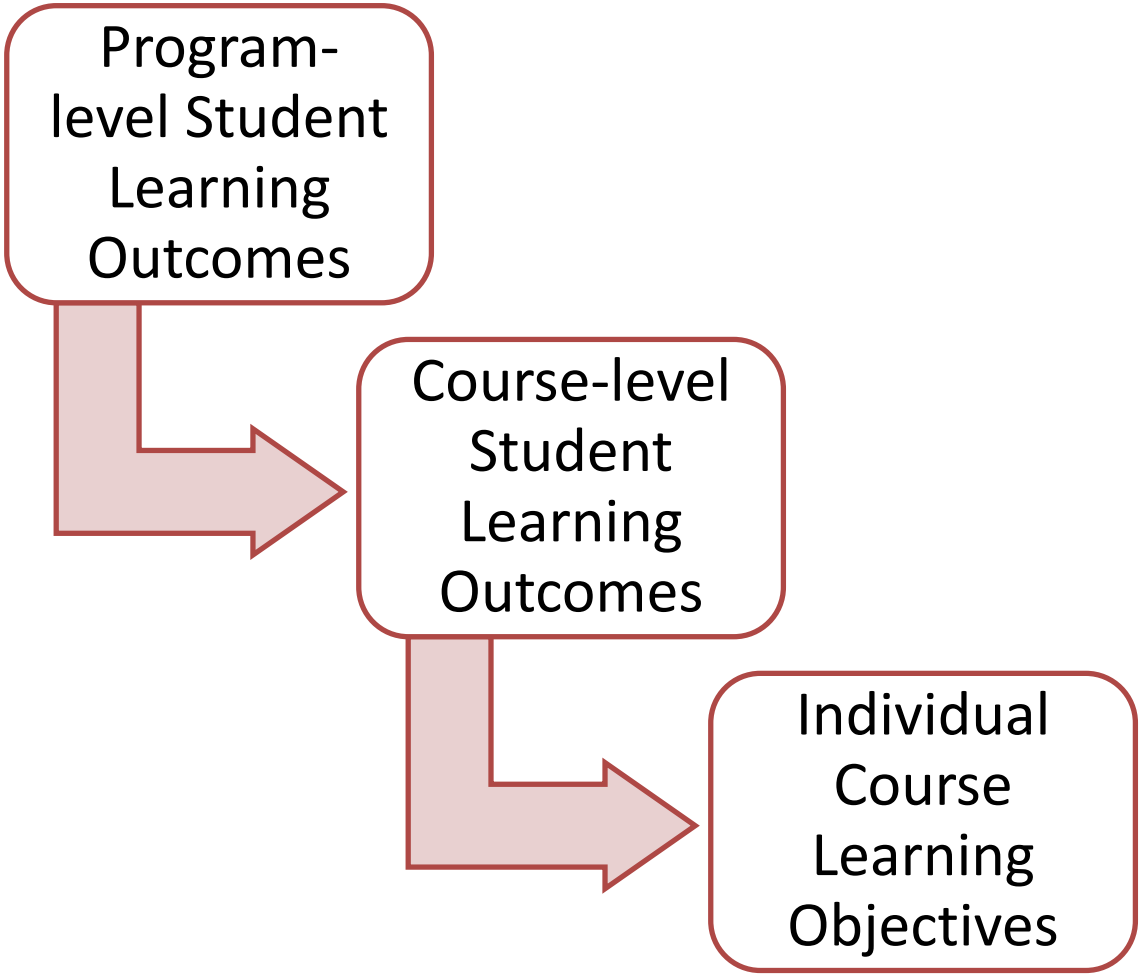
Schedule of Events

- 8:00 a.m. – 8:30 a.m. Check-In and TRIVIA loop
- 8:30 a.m. – 8:40 a.m. Workshop Goals and Introductions
- 8:40 a.m. – 9:00 a.m. Assessment Framework
- 9:00 a.m. – 9:05 a.m. 1st Break- Coffee Refills
- 9:05 a.m. – 10:05 a.m. Mock case and Curriculum Mapping
- 10:05 a.m. – 10:15 a.m. 2nd Break and TRIVIA answers
- 10:15 a.m. – 11:35 a.m. Data Placemats
- 11:35 a.m. – 11:45 am. Reflections and Evaluation

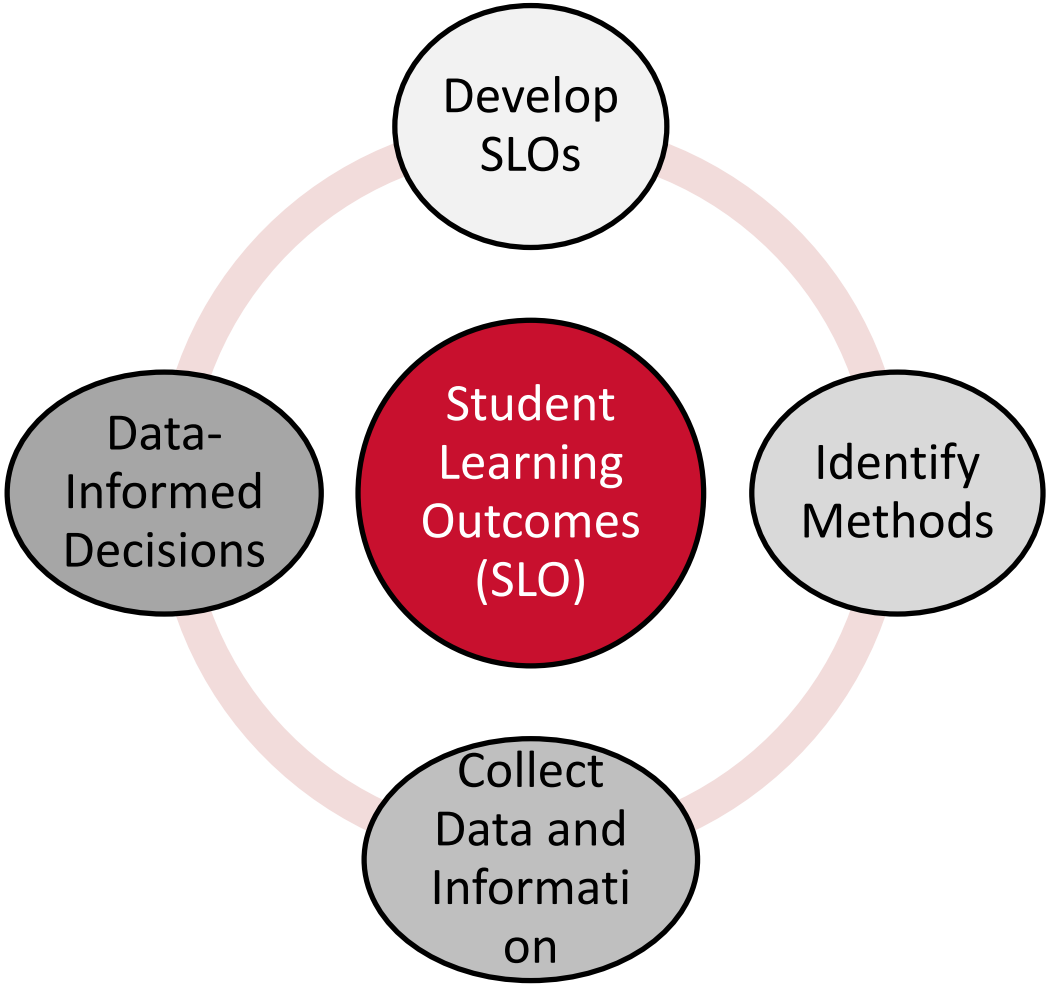
Why Assess?

Assessment is a means of gathering data and information that can be used in determining if an institution or a program is accomplishing its mission and learning goals

- Student Learning
- Program Evaluation and Improvement
- Accountability
- Accreditation


Program-level Student Learning Outcomes
Course-level Student Learning Outcomes
Individual Course Learning Objectives

Assessment Framework



Steps in Program Assessment

Step 1: Identify program standards

Step 2: Develop program goals/competencies

Step 3: Identify student learning outcomes

Step 4: Identify assessment methods

Step 5: Set student and program-level targets

Step 5: Collect data and information

Step 6: What are the data telling you about student learning?

Step 6: Review progress and areas for growth

Step 7: Act when, how, and where needed

Step 8 : Revise plan where needed

- Why do we focus on assessing student learning?
- What are Student Learning Outcomes (SLOs)?
- What are some ways to assess various SLOs?
- Am I responsible for assessing SLO's?
- How is SLO assessment relevant to my teaching or research?
- Can data regarding SLOs benefit faculty? students? program?
- What resources exist if I need help?

Mock Case Review

- Program Description- MA in Archaeology
- Student Learning Outcomes for the program
- MA Archaeology Curriculum Map
- Potential Assessment Methods

Curriculum Mapping

What? Why? How? When?

- Purposes and use of mapping
- What can be mapped
- Various approaches to engage in mapping learning

Levels of Mapping

- Within courses
- Program level
- Between general education and degree major
- Co-curricular
- Accreditation standards

Purpose and Use

- Provides an overview of the structure of the curriculum and contribution of individual courses to the goals and outcomes of the program
- Explores alignment within a program, between gen education and the specific program
- Identifies where and how particular outcomes are expected , explicitly taught for, and assessed
- Identifies program strengths (SLOs that are comprehensively addressed) and gaps (SLOs that are not covered
- Identifies course patterns in delivery of curriculum the way it is intended to in optimal sequence
- Advising tool to provide students an overview of each course in the curriculum, why it should be taken in order
- Relationships between what students learn and competencies expected by potential employers

Five questions

1. Purpose: What are we mapping and why? What pieces of the educational environment need to be aligned?
2. Scope: What parts of the learning environment are included or left out by this approach?
3. Participation: Who should be involved in the conversations?
4. Form: How many layers do our maps need to address educational complexity?
5. Limitations: What ways of seeing are we excluding in our maps?

Program-Level Curriculum Mapping

- Exploring relationships between courses in the program and programmatic student learning outcomes
- Scaffolding learning across the program (B,D,P)
- Exploring where learning is assessed or artifacts should be collected
- Figure…

	Introductory Course	Research Methods	Advanced Content Course A	Laboratory / Practicum Course	Advanced Content Course B	Advanced Content Course C	Advanced Content Course D	Capstone Course
Content								
SLO 1: Disciplinary knowledge base (models and theories)	Introduced		Reinforced		Reinforced	Reinforced	Reinforced	Mastery / Assessed
SLO 2: Disciplinary methods		Introduced		Reinforced		Reinforced		Mastery / Assessed
SLO 3: Disciplinary applications	Introduced		Reinforced		Reinforced		Reinforced	Mastery / Assessed
Critical Thinking								
SLO 4: Analysis and use of evidence		Introduced		Reinforced	Reinforced		Reinforced	Mastery / Assessed
SLO 5: Evaluation, selection, and use of sources of information	Introduced	Reinforced		Reinforced		Reinforced		Mastery / Assessed
Communication								
SLO 6: Written communication skills	Introduced	Reinforced		Reinforced		Reinforced		Mastery / Assessed
SLO 7: Oral communication skills		Introduced	Reinforced		Reinforced	Mastery / Assessed		
Integrity / Values								
SLO 8: Disciplinary ethical standards		Introduced		Reinforced	Reinforced			Mastery / Assessed
SLO 9: Academic integrity	Introduced	Reinforced	Reinforced	Reinforced		Reinforced		Mastery / Assessed

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Sample Curriculum Map (Level of Skill)
Updated: 24 January 2017

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	Introductory Course	Research Methods	Advanced Content Course A	Laboratory / Practicum Course	Advanced Content Course B	Advanced Content Course C	Advanced Content Course D	Capstone Course
Content								
SLO 1: Disciplinary knowledge base (models and theories)	Introduced		Reinforced		Reinforced	Reinforced	Reinforced	Mastery / Assessed
SLO 2: Disciplinary methods		Introduced		Reinforced		Reinforced		Mastery / Assessed
SLO 3: Disciplinary applications	Introduced		Reinforced		Reinforced		Reinforced	Mastery / Assessed
Critical Thinking								
SLO 4: Analysis and use of evidence		Introduced		Reinforced	Reinforced		Reinforced	Mastery / Assessed
SLO 5: Evaluation, selection, and use of sources of information	Introduced	Reinforced		Reinforced		Reinforced		Mastery / Assessed
Communication								
SLO 6: Written communication skills	Introduced	Reinforced		Reinforced		Reinforced		Mastery / Assessed
SLO 7: Oral communication skills		Introduced	Reinforced		Reinforced	Mastery / Assessed		
Integrity / Values								
SLO 8: Disciplinary ethical standards		Introduced		Reinforced	Reinforced			Mastery / Assessed
SLO 9: Academic integrity	Introduced	Reinforced	Reinforced	Reinforced		Reinforced		Mastery / Assessed

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	Introductory Course	Research Methods	Advanced Content Course A	Laboratory / Practicum Course	Advanced Content Course B	Advanced Content Course C	Advanced Content Course D	Capstone Course
Content								
SLO 1: Disciplinary knowledge base (models and theories)	Exam Questions		Exam Questions		Exam Questions	Exam Questions	Exam Questions	Capstone Portfolio
SLO 2: Disciplinary methods		Exam Questions		Exam Questions		Exam Questions		Capstone Portfolio
SLO 3: Disciplinary applications	Exam Questions		Exam Questions		Class Project		Term Paper	Capstone Portfolio
Critical Thinking								
SLO 4: Analysis and use of evidence		Term Paper		Lab Paper	Class Presentation		Term Paper	Capstone Portfolio
SLO 5: Evaluation, selection, and use of sources of information	Annotated Bibliography	Term Paper		Lab Paper		Term Paper		Capstone Portfolio
Communication								
SLO 6: Written communication skills	Reflection Essays			Lab Paper		Term Paper	Term Paper	Capstone Portfolio
SLO 7: Oral communication skills			Class Presentation	Poster Session	Class Presentation	Class Presentation		
Integrity / Values								
SLO 8: Disciplinary ethical standards		Reflective Paper		IRB/ACUC Proposal	Reflective Paper			Capstone Portfolio
SLO 9: Academic integrity	Class Assignments & Exams	Exams & Term Paper	Class Exams	Class Assignments & Exams	Class Assignments & Exams	Exams & Term Paper	Exams & Term Paper	Capstone Portfolio

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Sample Curriculum Map (Assignments & Embedded Assessments)
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All About Curriculum Maps!

What Is a Curriculum Map?

A curriculum map is a tool/technique that shows some meaningful characteristics about your curriculum at-a-glance, such as **what** is taught, as well as **when** and **how**.

Furthermore, some mapped courses may provide you with measures to use for assessment.

The **"What"**: course content, areas of emphasis, learning outcomes

The **"How"**: learning opportunities and resources for students

The **"When"**: use a timetable to review the curriculum sequence

What are **"assessment measures"**? Tools that demonstrate students' achievement of the expected learning outcomes, which reflect the program's mission and quality.

What Do You Need to Create a Curriculum Map?

- The program's student learning outcomes (SLOs).
- Faculty input
- Possible indicators of the alignment between your SLOs and curriculum, including:
  1. Course syllabi (and the course learning objectives listed in the syllabi)
  2. Course catalogs
  3. Self-reports from faculty members and students, including surveys
  4. Assessment methods you already use (e.g., portfolios, assignments)

What are the Benefits of a Curriculum Map?

- Providing transparency about the program's content and structure
- Mapping the alignment between the **program's** curriculum, student learning outcomes, assessment methods, intended sequence of curriculum delivery
- Identifying gaps, redundancies, and misalignments in the curriculum
- Illustrating the progression of difficulty in the program, which demonstrates whether students are appropriately challenged
- Determining whether students are receiving adequate coverage of your program's SLOs

We Made a Curriculum Map! What Now?

Consider the following…

- Does your curriculum cover all necessary content and progress logically (in terms of course difficulty)?
- Is your curriculum transparent to all stakeholders, including faculty, students, accreditors, and other communities of interest?
- Do your faculty understand how their courses contribute to the program's SLOs?

If your program needs to improve in any of these areas, then your curriculum map can get you started! It is an invaluable tool for improving and communicating about your program!

M.A. in Archaeology Curriculum Map

Course and Title	SLO 1 Knowledge	SLO 2 Competency	SLO 3 Collaboration	SLO 4 Law and Ethics	SLO 5 Communication
ARCH 501 Introduction to Archaeology	B	B			
ARCH 504 Archaeological Methods	B			B	B
ARCH 507 Preservation Law and Ethics			D	D	
ARCH 508 Introduction to Heritage Management	B			D	
ARCH 512 Writing in Archaeology		D			
ARCH 514 Laboratory Methods: Human Osteology	D	D	D	D	
ARCH 516 Geographic Information System Techniques	D	D			
ARCH 522 Ancient Technology	P	P			
ARCH 523 Paleoanthropology	P	P			
ARCH 598 Field School Internship	P	P	P	P	P
ARCH Comprehensive Exam	P	P	P	P	P

Note. B = Beginning; D = Developing; P = Proficient. B, D, and P refer to the level of expertise promoted by the course.

Here are some problems we found with this curriculum map…

1) SLO #1 is covered in three courses at the "Beginning" level, two at the "Developing" level, and four at the "Proficient" level.
   - Consider whether this SLO is over-covered.
2) SLO#3 is not covered at the "Beginning" level.
   - Even if this is a higher-level skill, it still needs to be covered at a foundational level.
3) SLO #5 is only covered at the "Beginning" and "Proficient" levels.
   - Could "Communication" be developed in earlier courses before students are expected to show proficiency?

The Mapping Process

Step 1: Identify which SLOs are addressed in a course.
(Use something to highlight the cell as a placeholder)

Step 2: Identify the level of expertise promoted by the course
(**B** = Beginning; **D** = Developing; **P** = Proficient)

EXERCISE: M.A. in Archaeology Curriculum Map

Course and Title	SLO 1 Knowledge	SLO 2 Competency	SLO 3 Collaboration	SLO 4 Law and Ethics	SLO 5 Communication
ARCH 501 Introduction to Archaeology	B	B			
ARCH 504 Archaeological Methods	Methods Presentation (B)			Methods Presentation (B)	Methods Presentation (B)
ARCH 507 Preservation Law and Ethics			Case Study (D)	Case Study (D)	
ARCH 508 Introduction to Heritage Management	B			D	
ARCH 512 Writing in Archaeology		D			
ARCH 514 Laboratory Methods: Human Osteology	D	D	D	D	
ARCH 516 Geographic Information System Techniques	D	D			
ARCH 522 Ancient Technology	P	P			
ARCH 523 Paleoanthropology	P	P			
ARCH Comprehensive Exams	Exam (P)	Exam (P)	Exam (P)	Exam (P)	Exam (P)
ARCH Master's Thesis	Defense (P)	Defense (P)	Defense (P)	Defense (P)	Defense (P)
ARCH 598 Archaeological Field School Internship	Supervisor Ratings (P)	Supervisor Ratings (P)	Supervisor Ratings (P)	Supervisor Ratings (P)	Supervisor Ratings (P)

Note. B = Beginning; D = Developing; P = Proficient. B, D, and P refer to the level of expertise promoted by the course.

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Questions to ask- handout

- Do core courses *cover all outcomes* in a *logical order*?
- Do all core courses *address at least* one outcome?
- Do multiple offerings of the same course address the same outcomes, at the same levels?
- Do some outcomes get more coverage than others?
- Are all outcomes first introduced and then reinforced?
- Are students expected to show high levels of learning too early in the course sequence?
- Do students get practice on all outcomes before being assessed?
- Do all students regardless of the electives they chose experience a coherent progression and coverage of all outcomes?
- What do the electives, individually and collectively, contribute to the achievement of the program's student learning outcomes?
- How do courses increase expectations for learning in relation to particular outcomes?
- How do assignments elicit demonstrations of particular learning outcomes?

Curriculum Map Exercise Report Out

Break # 2

TRIVIA ANSWERS!

Selecting Assessment Methods: Let's think this through…

- Alignment between SLO(s) and Assessment Methods
  - Is my chosen method assessing specific SLOs?
- Number of assessment methods per SLO
  - Is there some triangulation to validate findings?
- Number of SLOs being assessed by each method
  - Am I relying on a single method to assess all learning objectives?
- Type of Assessment Method
  - Direct/Indirect?
  - Formative/Summative?
- Data/Information provided by the assessment
  - Are these data useful in informing me how students are experiencing the program?

Connect Methods to SLOs…

- Content Knowledge (Cognitive)
  - Problem Sets, Tests, Comprehensive Exam
  - Papers, case study analysis
- Skills (Behavioral)
  - Projects, papers, presentations
  - Experiences, internships, simulations, student teaching, service learning
  - Performances
- Attitudes (Affective)
  - Reflection papers, surveys

Master of Arts in Archaeology Assessment Methods Types

Assessment Method	Description	Example
Course-Embedded Assignment	This is a direct assessment method that involves using existing student coursework as data for the assessment of a learning outcome.	**ARCH 504 Archaeological Methods – Methods Presentation:** An individual presentation on the advantages and disadvantages of a laboratory or field method of the student's choice. **ARCH 507 Preservation Law and Ethics – Case Study:** Students' interpretation, evaluation, and solutions regarding national and international ethical dilemmas are evaluated against a rubric containing specific criteria.
Capstone Project	This is a direct assessment method that utilizes a capstone project to integrate knowledge and skills students have acquired throughout their program.	**ARCH 598 Archaeological Field School – Site Excavation Report:** A group presentation and report describing the planning and organization involved in the students' hands-on experience, data collection, data recording, and interpretation of any physical artifacts.
Reflective Student Essays	Reflective essays demonstrate students' understanding and opinions about course content/internship/practicum etc.	**ARCH 598 Archaeological Field School – Essay:** "Thinking back to your experience at archaeological field school, complete the following sentences: a) I learned…, b) I need…, and c) I wonder…"
Portfolio	Students' work (e.g., presentations, research papers, tests) is collected throughout a program and assessed by faculty using a common rubric.	**End of Program Evaluation:** A portfolio from several courses containing presentations, reports intended for scholars and lay-audiences, data recording samples, and artifact descriptions that will be evaluated against a rubric containing specific criteria.
Master's Thesis	Students are evaluated on their ability to conduct an independent research project based on their integration of literature, research design, data collection and analysis, interpretation and presentation of	**Master's Thesis – Sample Category:** Purpose of the study, including the research topic of interest, theoretical background, importance of the topic, relevant definitions and concepts, research problem, hypotheses, and scientific significance will be evaluated against a rubric containing specific criteria.

Data Analysis: Data Placemats

What do you observe?

- **How are the data disaggregated?**
  - Graphs focusing on student level targets
    - Can be created from raw data in tables
  - Student characteristics, rubric criteria, etc.
    - "Networking with clients" questions were disaggregated by race
- **How are different methods connected?**
  - Similar types of data: Alumni survey questions and Internship survey questions
    - Internship supervisors gave students more "Excellent" ratings than they gave themselves
    - Patterns of "Excellent" ratings differed between each race category
  - **Different types of data**
    - Students may want different emphases (notes in the Exit survey) because the IL Real Estate Exam has multiple subsections for different professionals

Data Placemat: Five Steps Process

1. Collect data through methods identified in curriculum map

2. Bring aggregated data for each method to a meeting

3. Reflect and report on your data to inform the group

4. Collective discussion on relevance of results from various methods for the entire program's SLOs

5. Decisions based on discussion and identification of next steps

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Facilitative Process at a Glance

- **Phase 1**

  Facilitator encourages each member to report out individually. This is a **data interpretation meeting** in which stakeholders verbalize the story being told in their own words

- **Phase 2**

  Facilitator facilitates a **data interpretation meeting** in which the team collectively analyzes data and organizes preliminary findings in the form of a **data placemat by SLO**

- **Phase 3**

  Based on group discussion, draw conclusions, make decisions, and suggest next steps…

Making Decisions Exercise…

Your Team tasks

1. Review the data for the course you teach in the MA program
2. Select a facilitator for the exercise. This person is the program coordinator or chair.
3. Your team will facilitate a data interpretation meeting within the team wherein every faculty will have a chance to verbalize findings from their course/s individually
4. Organize the preliminary findings on your data placemat by SLO
5. What are the data telling you collectively?
6. What decisions would you make or next steps for the program?

Team Report out Prompts (3-4 minutes)

- What are some key conclusions you can draw from the findings based on your method?
- What additional data might you need to assess the program's SLOs?
- Any suggestions for gaps or strengths as they exist currently?

Individual Reflection: Now What…

- Think of 2-3 Next Steps
- What supports will you need?

Thank You !

Please contact AAE if you have any lingering questions

(we hope you do!)