Making Decisions Based on Indicator Performance

AMEGA 2018, EGAD Workshop #1

John Donald, Brian Frank, Jake Kaupp

EGAD Workshop 1: Data to influence program quality and make decisions
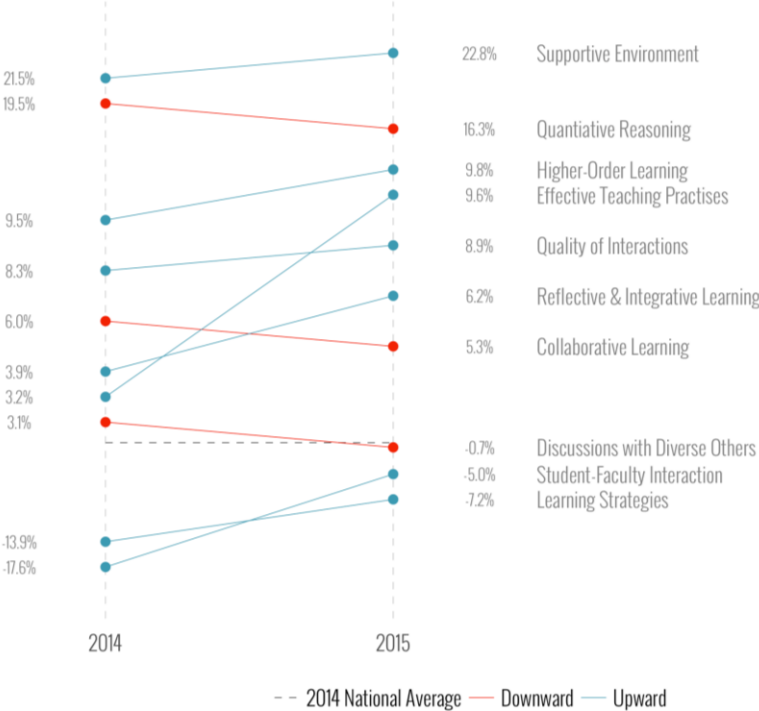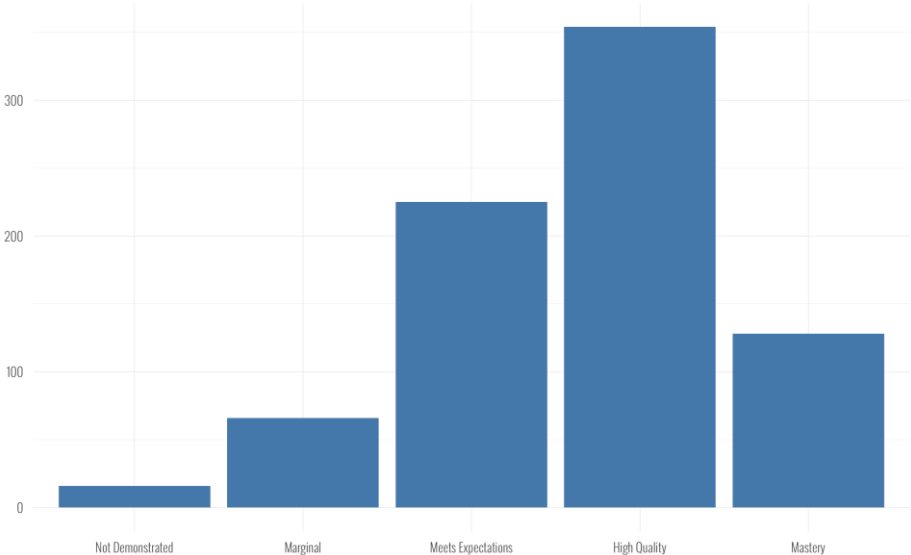
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Workshop Goals

1. Explore moving from thinking about "Using" assessment data to make change, to "Influencing" change through assessment data.

2. Review your process for making decisions in the context of your assessment data.
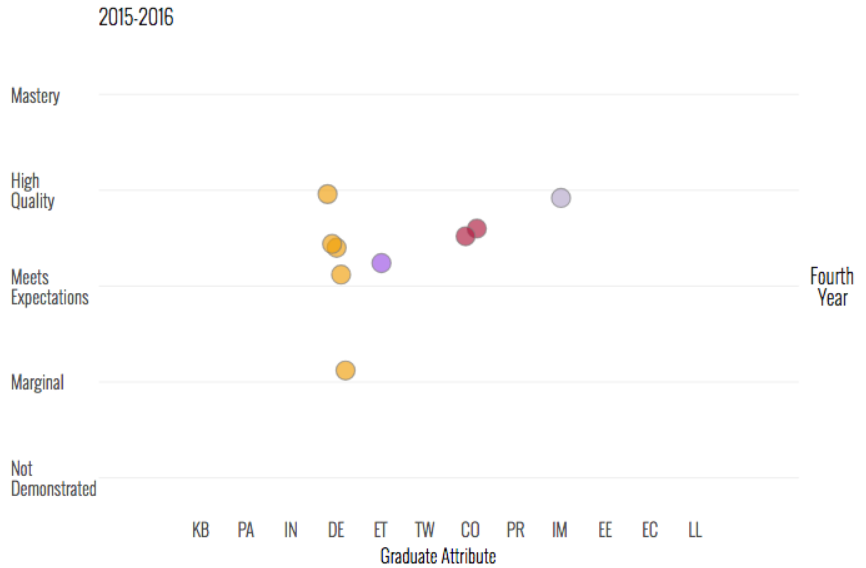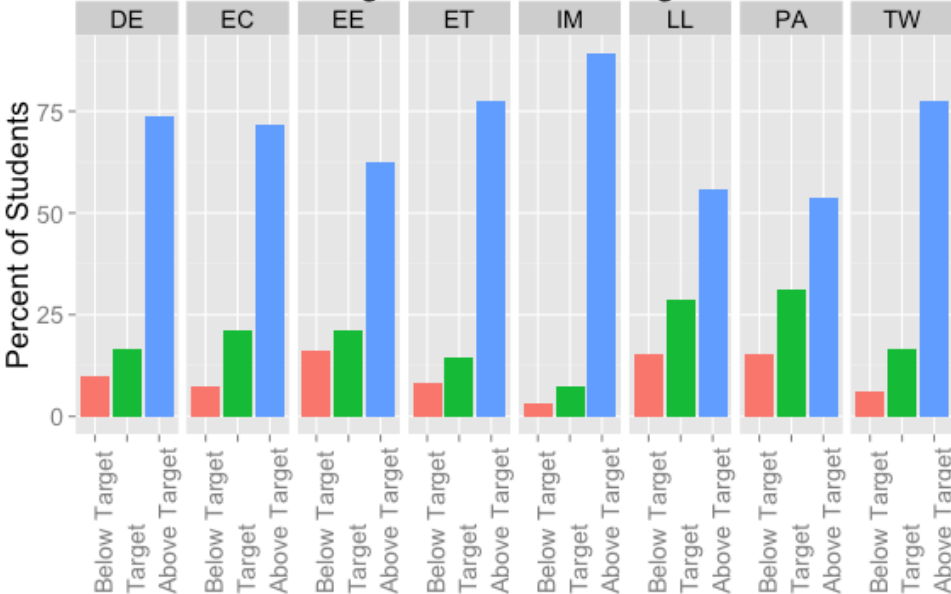
Indicator Data – How are we Using it?

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Handout

Side 1: Assessment data as influence

Side 2: Questions about making decisions

"Using" data

Relatively few institutions are making decisions about curriculum based on assessment data (see Jonson 2014, referring to Blaich and Wise 2011, Kuh 2014).

Jonson, J. L., Guetterman, T., & Thompson Jr, R. J. (2014). An integrated model of influence: Use of assessment data in higher education. *Research & Practice in Assessment*, 9.

Moving from "Using" data to "Data influence"

Long before a program has measurable performance change, benefits can emerge

"Use" of assessment data can include (Jonson 2014 – Table):

Instrumental	Findings influence actions or decision making (traditional interpretation of "use");
Conceptual	Evaluation leads to different understandings or enlightenment
Affirmation	Findings confirm effectiveness of existing practices, policies or understandings

Closing the Loop

In order to "close the loop", an institution needs to:

- Gather, evaluate, improve assessment (3 years?)
- Re-assess until data is trustworthy (more years?)
- Make curriculum changes (another year)
- Evaluate success of changes (another year)

This is a multi-year process!

Assessment Data and Influence (Jonson 2014)

Table 1

Heuristic Model of Influence: Dimensions, Subtypes, and Definitions

Dimension	Subtype	Definition
Sources of Influence	Findings-based	Based on student learning evidence
	Process-based	Based on evidence about the process of assessment rather than on learning evidence including consideration of methodology or data (e.g., measurement issues, sample size).
Effects of Influence	Instrumental	Involves a direct action or a decision and commitment to take educational practice or policy actions.
	Conceptual/Cognitive	Involves new understandings, ways of thinking, or processing information that may lead to considering action but lacks the actual commitment to act.
	Affect	Involves participant's disposition, emotions, or tendency regarding assessment process or assessment evidence
	Affirmation	Involves a confirmation of the appropriateness or effectiveness of an existing practice, policy, or understanding.
Results of Influence	Improved student learning	Results in evidence of improved student learning.
	Personal transformation	Results in a personal transformation of stakeholders (e.g., feeling empowered and motivated, changes of beliefs).
	Communities of practice	Results in building new or strengthening existing communities of practice.
	Symbolic/Political	Results in generating or sustaining support for policies or practices.
Time of Influence	Immediate	Occurs concurrent with the assessment process.
	End of Cycle	Occurs surrounding the conclusion of an assessment cycle (e.g., end of term)
	Long-term	Occurs in the future or extends beyond the assessment cycle.

Data Sources

Data Influences

Examples (Jonson 2014)

Coding Results: Findings-based Sources of Influence and Effects of Influence Dimensions (n = 28 cases)

Effects of Influence	Case Examples
Instrumental (n = 6)	Students write at an acceptable level but continue to struggle with expressing their ideas in a concise and readable way. Several adjustments have been made to help students produce acceptable writing. Specifically, a phased sequence of topic selection, outlining, rough drafts reviewed by instructor and peer groups members has been used.
	Paper structure is being modified to focus on the application of core concepts. Specifically, common ... problems are presented to students; students select one and (i) identify three core concepts related to the problem, (ii) develop an intervention, (iii) discuss how the intervention will impact core concepts, and (iv) develop a plan to assess the efficacy of the intervention. Hopefully this will force student to relate what they learn to the (real world environment)
Conceptual (n = 6)	Faculty submitted samples of various types of questions with a range of difficulty, indicating that students found defining terms and identifying images easier than the more interpretive, analytical question that links work with more than one issue/answer.
	Based on the letters evaluated, students demonstrated good technical knowledge, but some are in need of improved writing skills. Additional writing exercises may need to be incorporated into subsequent courses, so that students have additional opportunities to enhance their writing skills.
Affirmation (n = 9)	Results of artifacts that demonstrate students' mastery of the student learning outcome seem to affirm the effectiveness of the department's efforts.
	Assessment results confirmed what we already knew from the (exam) reports that student learning (of) the learning outcomes is high. No program changes are planned.

Group Activity 1 – in same/related institutions

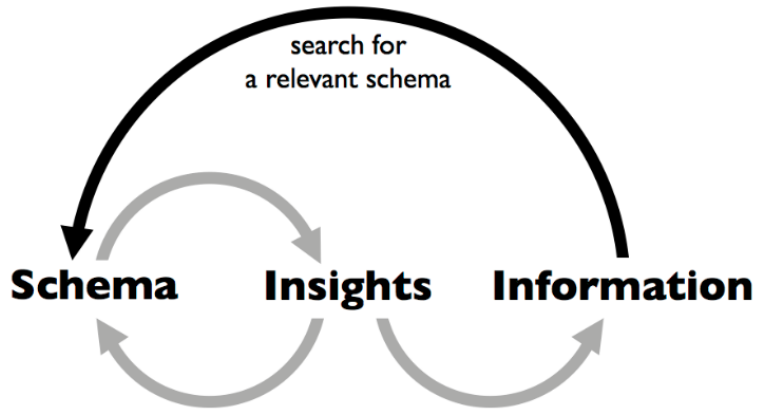Using the **Influence framework** to frame the discussion (handout side 1):

1. How is your institution using evidence? Can you find examples for each of the sub-types?

2. What impact is it having?

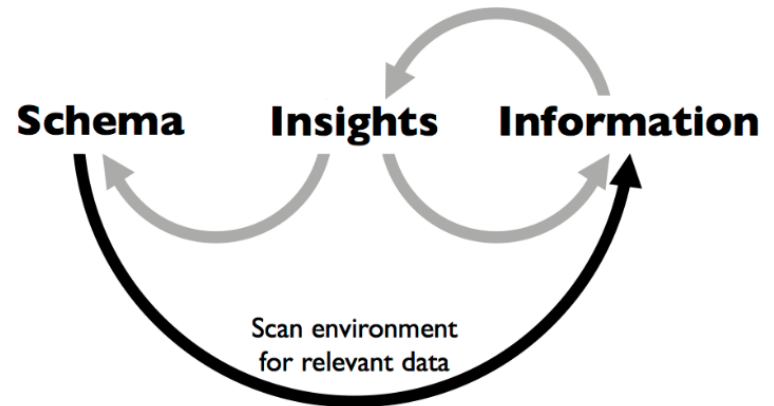   Designate a note-taker to report out after the discussion.

Report out from Activity 1

Thinking about your data analysis... Note: need to determine where to put this slide.
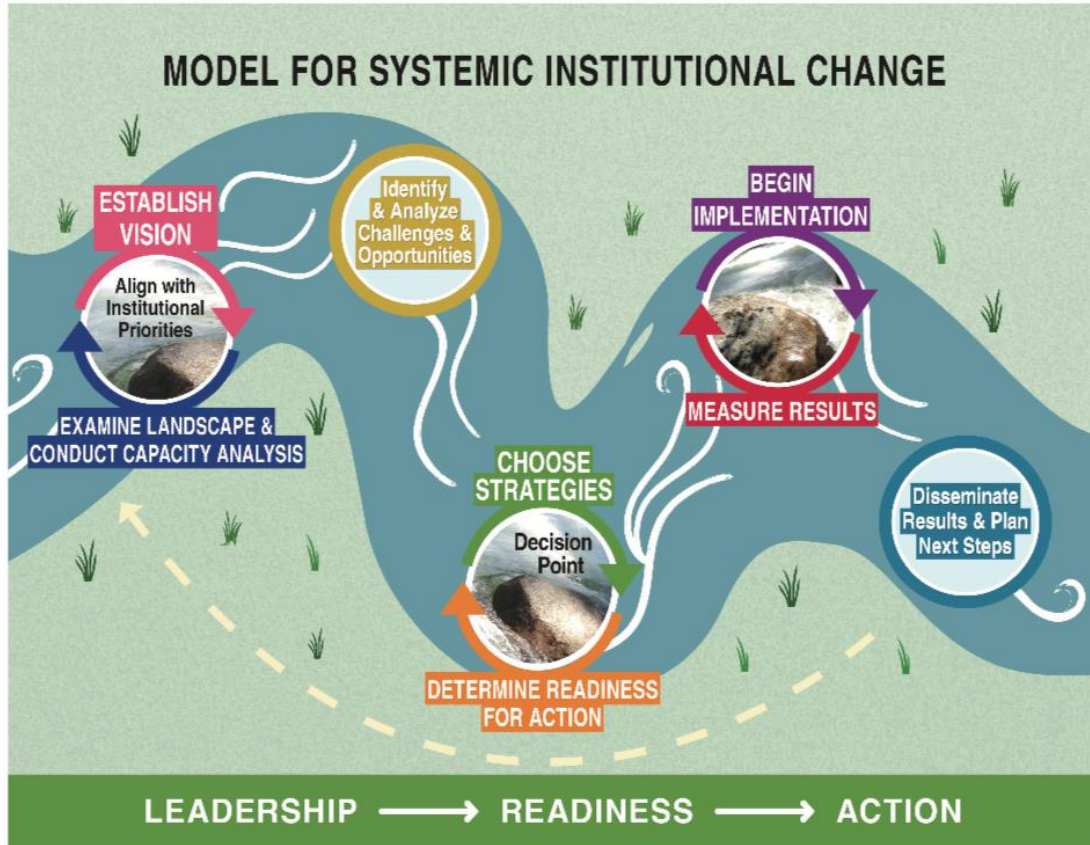
Change processes

Elrod, S., & Kezar, A. (2017). Increasing Student Success in STEM: Summary of A Guide to Systemic Institutional Change. Change: The Magazine of Higher Learning, 49(4), 26–34.

Making decisions ("findings-based instrumental" influence)

Institutions are moving toward making decisions based on data.

Questions about making decisions from data

A. Questions about the data

- Reliability - consider multiple direct measures, plus indirect measures
- Validity
- Significance of performance gap
- Known context about source of data

B. Questions about people

- What stakeholders are involved, and at what point in the process? People as data sources vs. Decision makers
- Who influences vs. makes decisions?

C. Questions about process

- Is work involved appropriate for the significance of the issue
- Timing - how often is evidence discussed, when
- Degree to which it supports long-term goal of improving student ability
- What is the official process (flowchart)
- How is data aggregated and reported at various points in process

Group Activity 2 – in same/related institutions

Questions:

1. Using the influence model - what influence has the CI process had at the institution? How can broad influence be improved?

2. How does your decision making process incorporate the questions (handout side 2) ?

Designate a note-taker to report out after the discussion.

Report-out

Disseminating ideas from the workshop