Capacity Building for Change Through Faculty Communities, Data, and Stories

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WHY?

- Faculty do not have access to academic data to inform their instructional decisions
- Siloed conversations and exploration on student success in STEM intro/gateway courses
- Context: Public, regional PUI with small class sections

DESIRED OUTCOMES

1. Develop actionable dashboards with faculty as co-designers
2. Engage faculty and build community through inquiry and exploring evidence & instructional practices (EBIPs).
3. Refine theories of change.

HOW?

- Focus on student success in intro/gateway STEM courses
- Use participatory and inquiry approaches with faculty as co-designers of data tools
- Explore storytelling to motivate and develop value
- Address faculty "cost"

THEORIES OF CHANGE

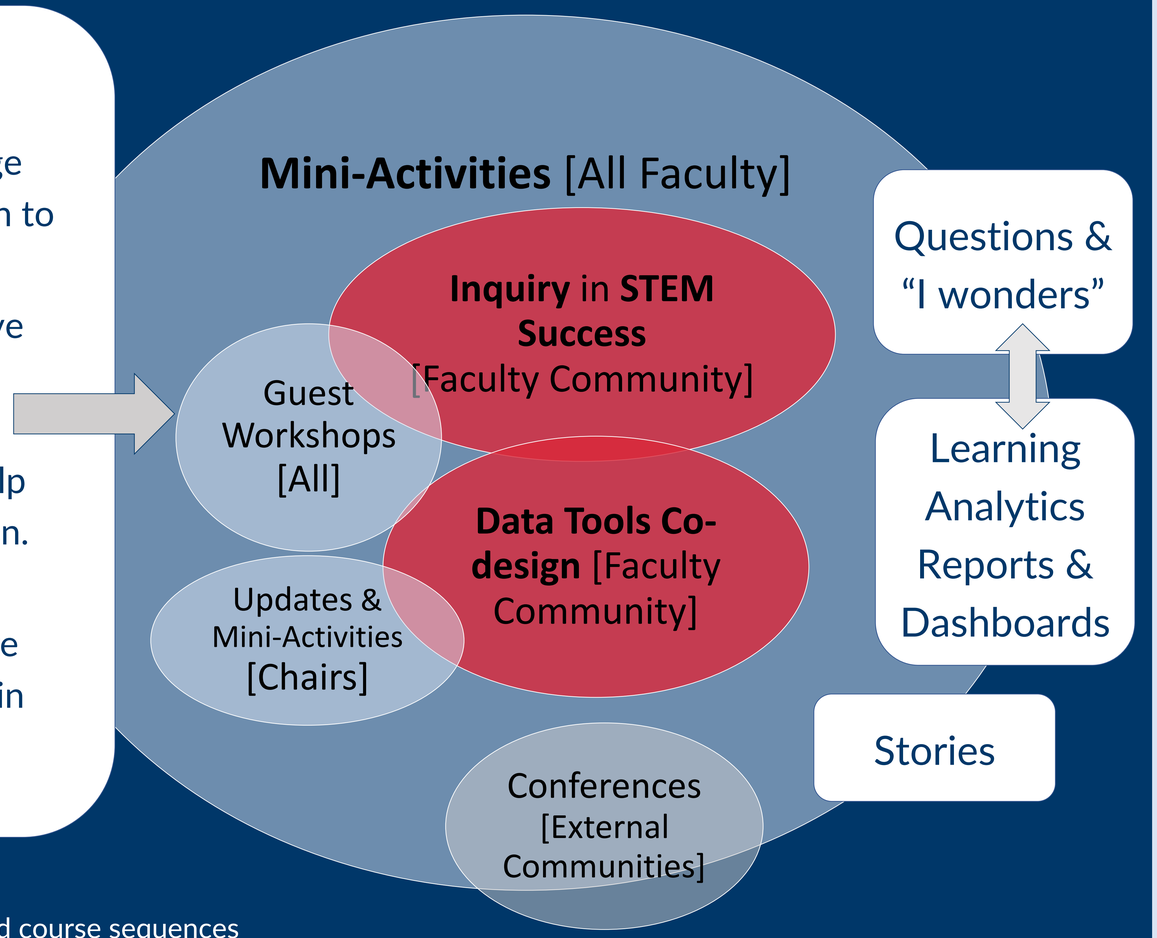
1. Expectancy-value theory of motivation plus cost (Wigfield & Eccles, 2000; (Barron & Hulleman, 2014)
2. Communities of practice and transformation (Kezar & Gehrke, 2016; Shadle et al., 2017)
3. "[S]ignificant conversations and significant networks" (Roxå & Mårtensson, 2009)
4. Storytelling can be powerful in motivating change and sense-making reflection (Kezar et al., 2011; Echeverria et al., 2018; Peterson, 2017; Gandolfi, 2019)
5. Kotter's 8-step change model (1996); ARCC multidimensional capacity building (Harsh et al. 2010)

Engagement+ Data+ Community (with **Stories** as a thread) can seed **Motivation** for **Transformation.**

Framework for our capacity-building IUSE ICT project

ASSUMPTIONS

1. Providing faculty with **multiple ways** to engage cultivate the motivation to consider change.
2. **Data alone** will not drive change - developing **connections** with data, evidence, and peers help motivate transformation.
3. A **systems thinking** approach helps organize transformation efforts in the complex higher education system.



Sample Mini-activity topics

- Bottlenecks, course repeats, and course sequences
- Exploring who are you students with data dashboards
- Establishing expectations and student-centered policies

Invited Guest Workshops - Student Experience Project

- Syllabus as a tool to set the tone for a supportive and inclusive classroom; Maintaining high expectations for learners through cultivating belonging | Sushilla Knottenbelt, University of New Mexico
- Our Classes as Places of Belonging; Centering Belonging and Growth in Conversations of AI Use | Katie Boucher, University of Indianapolis

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WHAT FACULTY WANT TO KNOW & DO

- Student performance: repeats, DFW rates
- Student attributes and preparation
- Identify bottlenecks in course sequences
- Customize course; inform course/sequence redesign
- Assess impacts of changes

LEARNING ANALYTICS

- Who Are Your Students Snapshot (start of semester)
- Course Sequence Grades

BUILDING COMMUNITY

Faculty Active Participation:
20 out of 86 STEM faculty

Mini-activities	**120+** each semester	
Faculty Community	Data Tools Co-design **6**	Inquiry in STEM Success **14**
Department	Math **4** Engineering **5**	Biology **1** Geology **2** Physics **1** Teacher Ed **2**
Rank	Assistant Professor 8	Associate Professor **8**
# semesters	1 semester **6**	2-6 sem. **11**

LESSONS LEARNED

- Covid burnout is real
- Advisory board is magical
- Need for clear framing of expectations for data use
- Stories do not flow easily

BROADER IMPACTS

- Increase faculty motivation and knowledge in EBIS
- Improve student success and retention in STEM intro/gateway courses
- Test change frameworks at a public, regional PUI

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