

Scaling Change from Idea to Embedded, Sustainable Innovation



TRANSFORMING HIGHER EDUCATION -
MULTIDIMENSIONAL EVALUATION OF TEACHING

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Session Goals

- Deeper understanding of systemic approaches to change in higher education
- Recognition that scalable and sustainable change requires multiple change levers aimed at multiple levels of the system
- Opportunity to reflect and connect with other change leaders on strategies for scaling change in STEM education to the national level

Drawing on our work in the TEval initiative.



Intro /Outline of Session

- **Part I: Framing**
 - What /how are you scaling?
 - Brief intro to TEval
 - Cases studies at 4-levels: dept, college, institution, national
 - Lessons learned / Cross case studies
 - Theories of change
- **Part II: Breakout Discussions: Scaling Change in Your Context**
 - What's your change?
 - What are compelling tools / strategies / framing for scaling?
- **Part III : Report out / Debrief**



Pair-Share about Your Context (3 min)

- What project are you (interested in) scaling?
- What level are you trying to scale to (e.g., a full department, a school, your institution)?

Next, how we are scaling change at multiple levels in TEval.



The TEval Initiative

Widespread use of EBEPs

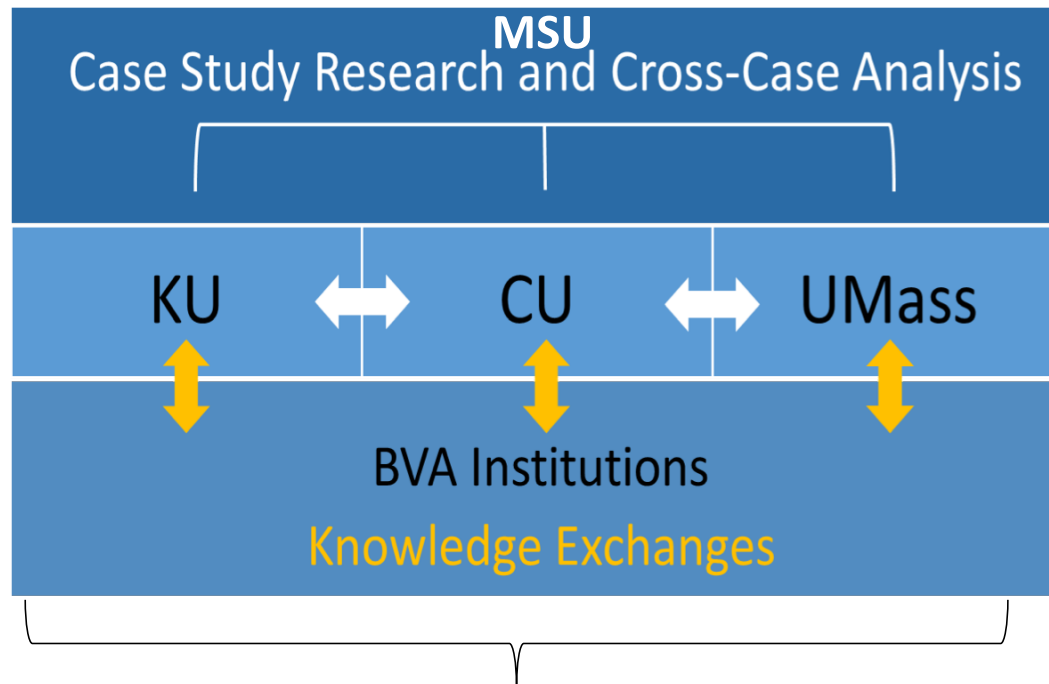
Support and reward for
faculty to learn develop
and implement EBEPs

Establish valid and
reliable measures of
teaching and guidelines
for their use

Overarching Goal: advance understanding of the institutional change processes that foster improved evaluation by studying the adoption and integration of new approaches at three universities.



The TEval Initiative



Lead Collaborators

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A Common Framework (and Tools)

- *To advance an externalized and more comprehensive vision of inclusive & scholarly teaching*
- *To support gathering and organizing evidence from multiple sources*

**7 Dimensions
of Teaching
Activity**
(Articulated in
a Rubric)



GOALS,
CONTENT, &
ALIGNMENT



TEACHING
PRACTICES



ACHIEVEMENT
OF LEARNING
OUTCOMES



CLASS
CLIMATE



REFLECTION
& ITERATIVE
GROWTH

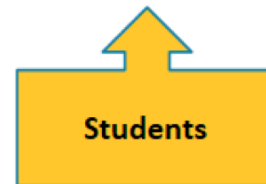
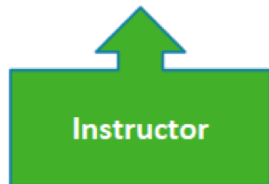


MENTORING
& ADVISING



INVOLVEMENT IN
TEACHING SERVICE,
SCHOLARSHIP
OR COMMUNITY

**3 Sources of
Evidence**



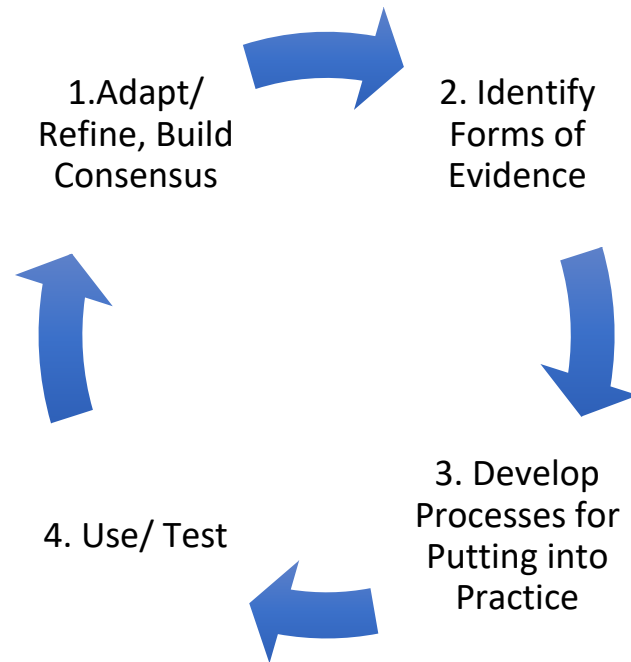
Based in scholarship on peer review, scholarly teaching and its evaluation (e.g., Bernstein & Huber, 2006; Glassick et al., 1997; Hutchings, 1995;1996; Lyde, Grieshaber, & Byrns, 2016)



Common Processes: Support Department as a Key Unit of Change

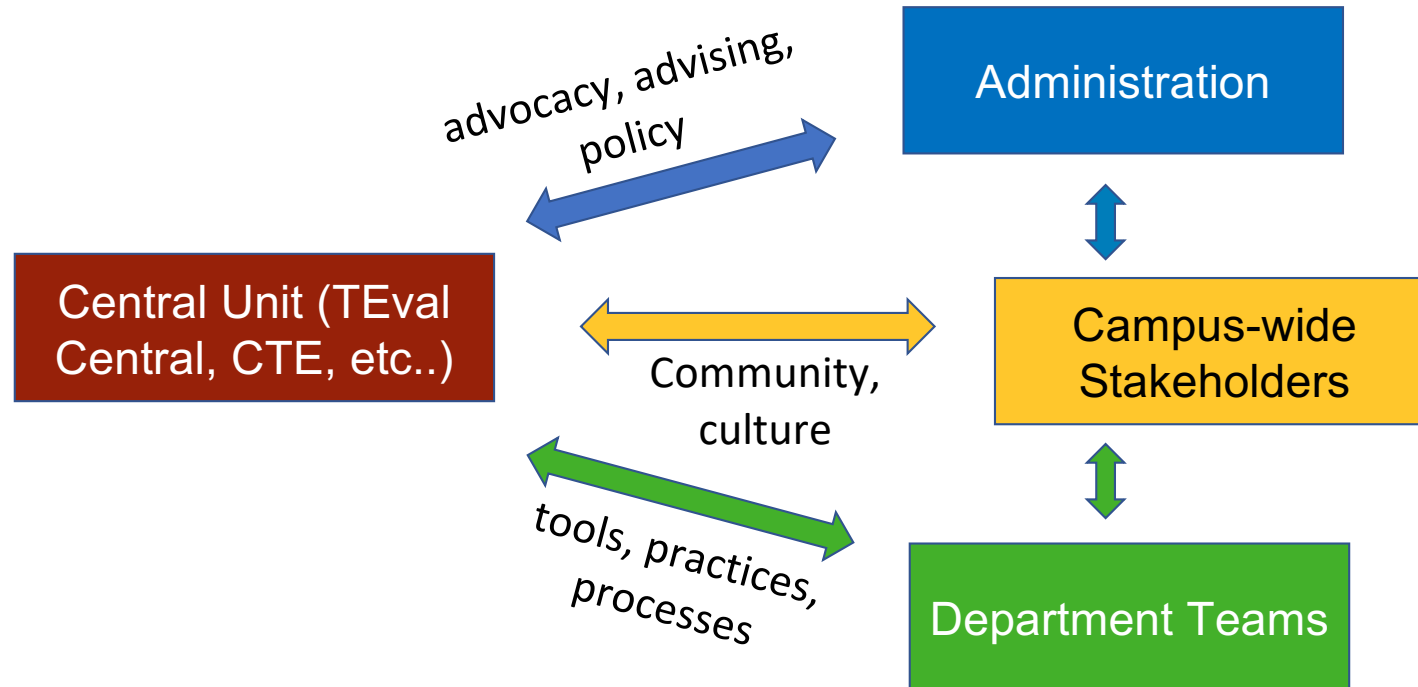
Departments act as incubators to adapt, use and refine the rubric

A central unit provides scaffolding for this process





Common Processes: A Systems Approach to Support Sustained Use & Institutionalization





TEval Case Studies at four levels

- Department
- College
- Institution
- National



A Tale of Two Departments

Dept 1: Linguistics

-Robust teaching culture
-Broad buy-in
-Wanted more consistency in eval

Adapted rubric, implemented, collected data, refined

Annual peer review, P&T, and GTA eval

Dept 2: C&P Engr

-Small champion group
-Formative peer review triads

-Developed, tested & built buy-in
-Dept chair change
-New student rating tool

-All faculty in triads
-Rubric for P&T and annual eval
-Aligned w/other dept processes
-\$100k AAU award

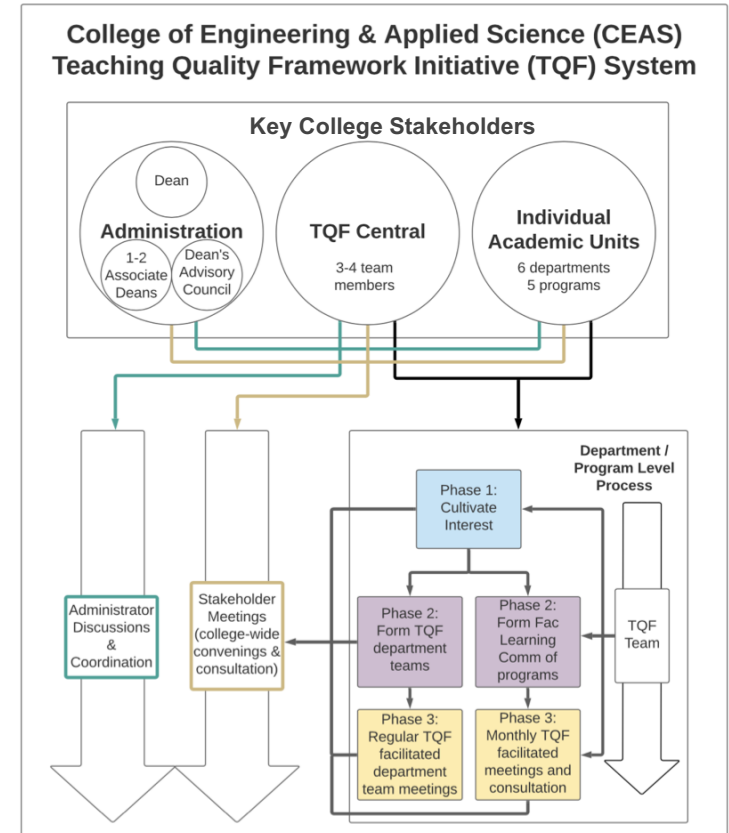
What Is Happening in these Cases:

- Identifying on-ramps
- Empowering formal and informal leaders (e.g., dept teams, grants)
- Community and sharing
- Resources to scaffold work
- Rubric -> shared vision
- Iteration
- Opportunism/leveraging disruption



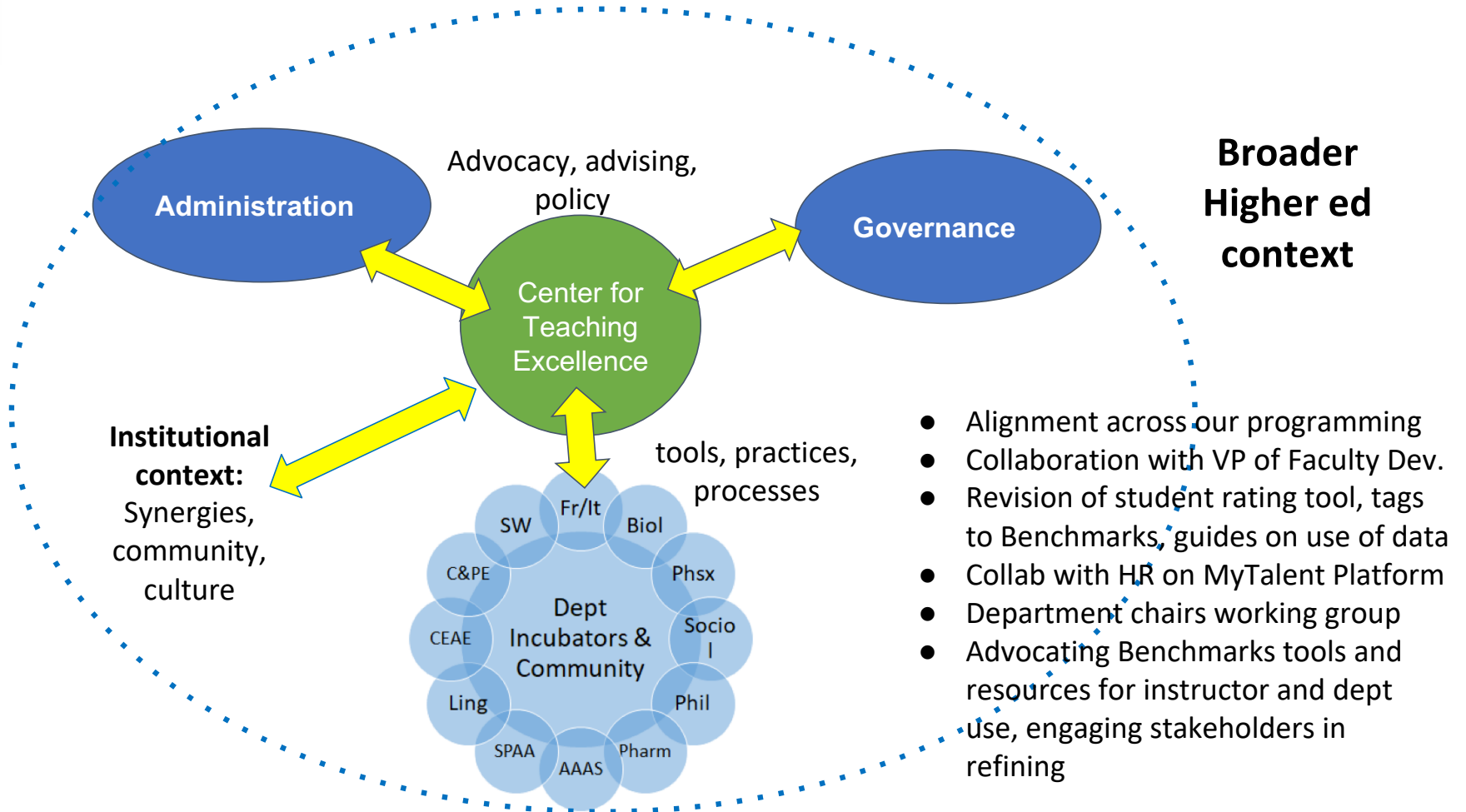
The College Story ...

- Department as key unit for change (at our types of institutions)
- Necessary but not sufficient
- College level can:
 - initiate (cajole, require)
 - scale / coordinate
 - harden (enact in policy)
 - sustain improvements (fund)
 - advocate up
 - link to national





Institutional Scale





National Scale (to be cleaned up)



The National Academies of Sciences, Engineering, and Medicine Workshop

Recognizing and Evaluating Science Teaching in Higher Education
Proceedings of a Workshop—in Brief

Student ratings have long been used by many institutions of higher education as a primary form of summative evaluation of teaching. In recent years, studies have brought into question the validity of student ratings, highlighting the need for more effective evaluation methods that recognize and reward evidence-based teaching practices. To begin to frame the national conversation around the reform of teaching evaluation, the Roundtable on Systemic Change in Undergraduate STEM Education convened a 2-day workshop September 11-12, 2019, to discuss issues

NSEC Webinar on Advancing Teaching Evaluation Practices

Wednesday, October 28, 2020

Start Time: 10:00 am PT | 11:00 am MT | 12:00 pm CT | 1:00 pm ET
End Time: 11:15 am PT | 12:15 pm MT | 1:15 pm CT | 2:15 pm ET

Register in advance for this meeting:
<https://zoom.us/join/zoom/register/UJlocequpigsH9cFcjaRw7lpAdFwS3TYGUZT>

After registering, you will receive a confirmation email containing information about joining the meeting.

Speakers

- Ginger Clark, Associate Vice Provost for Academic and Faculty Affairs, Director, Center for Excellence in Teaching, University of Southern California
- Sierra Dawson, Associate Vice Provost for Academic Affairs, University of Oregon

The National Academies of Sciences, Engineering, and Medicine

TEval
TRANSFORMING HIGHER EDUCATION - MULTIDIMENSIONAL EVALUATION OF TEACHING

Transforming Teaching Evaluations
Jan 14-27, 2021

ASCN NSEC
TRANSFORMING INSTITUTIONS
June 9-11, 2021 | Online

Mar 10-12, 2021, Knowledge Exchange
Oct 2021, 100+

Outcomes: Growing Network
Coordinating Taxonomy / Language
Framing national dialog
Advocating for a movement

The National Academies of Sciences, Engineering, and Medicine

TEval
TRANSFORMING HIGHER EDUCATION - MULTIDIMENSIONAL EVALUATION OF TEACHING

Open Meeting
May 23-24 (incl. teaching eval)

Fall 2022



Lessons from TEval: Scaling to the Department, College, Institution, and National Levels

- **Build on the institutional and national landscapes**
 - Respond to concerns of institutional leaders, faculty, disciplinary associations, and national organizations
 - Articulate a vision that connects narratives, addresses concerns, and inspires effort
- **Work from the top-down, bottom-up, and middle-out**
 - Build faculty capacity and engagement
 - Seek the expertise, buy-in, and explicit support of institutional leaders at various levels
 - Identify “champions” in formal and informal roles as well as allies with related priorities
- **Develop evidence and examples**
 - Provide resources, offer compelling evidence, highlight examples
- **Honor institutional cultures /contexts, while also leveraging the power of cross-national connections and collaboration**
 - Create occasions for conversations, visibility, and fostering connections

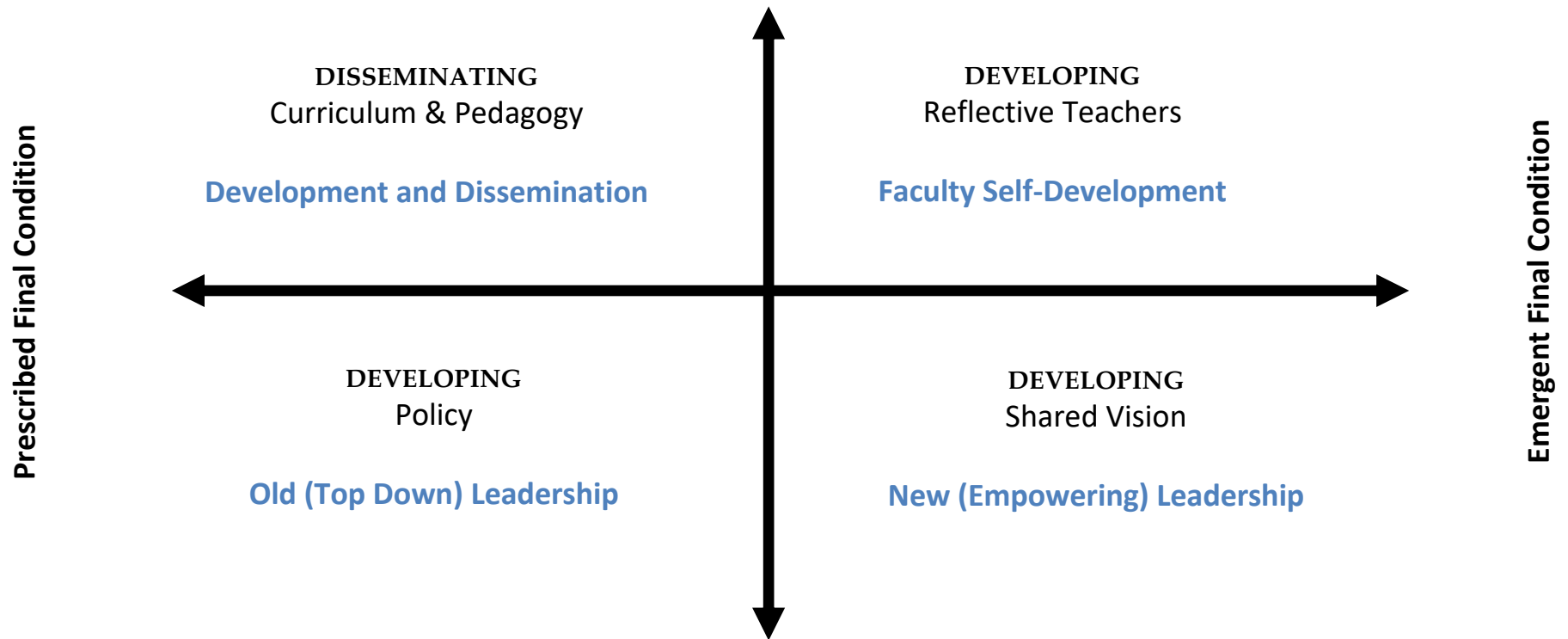


Strategies for Change: Two Useful Models

- 1) Systems of Change (4-square)
- 2) Levers of Change (4 -frames)

Four Categories of Change Strategies

Focus on Changing Individuals

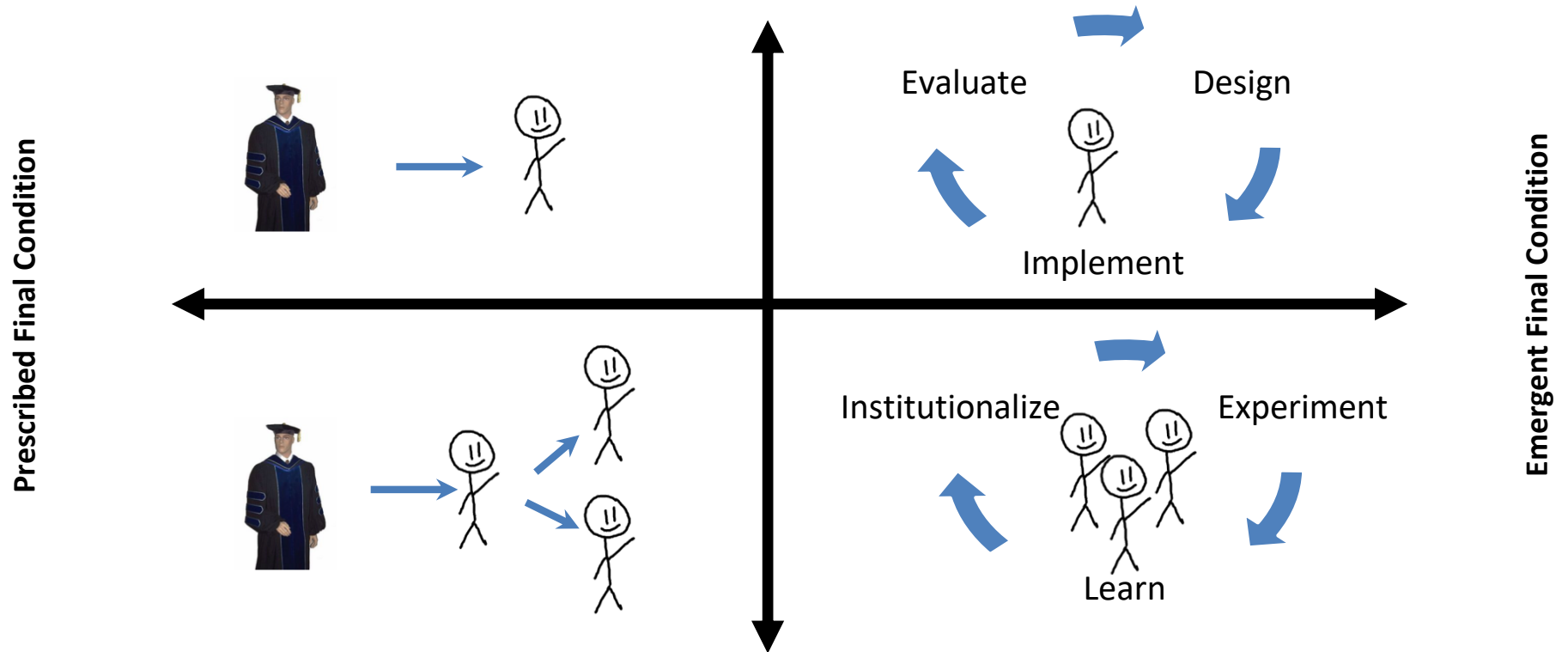


Focus on Changing Environment/Structures

C. Henderson, A. Beach, and N. Finkelstein, "Facilitating change in undergraduate STEM instructional practices: An analytic review of the literature. *Journal of Research in Science Teaching*, 48(8), 952-984 (2011).
M. Borrego & C. Henderson (2014). Increasing the Use of Evidence-Based Teaching in STEM Higher Education: A Comparison of Eight Change Strategies. *Journal of Engineering Education*, 103(2), 220-252.

How they Work

Focus on Changing Individuals



Focus on Changing Environment/Structures

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How they Work

Focus on Changing Individuals



Key Findings:

- Focus on the department
- Balance prescriptive and emergent
- Holistic / Ecosystem Approach
- Need for Maintenance

Prescribed Final Condition

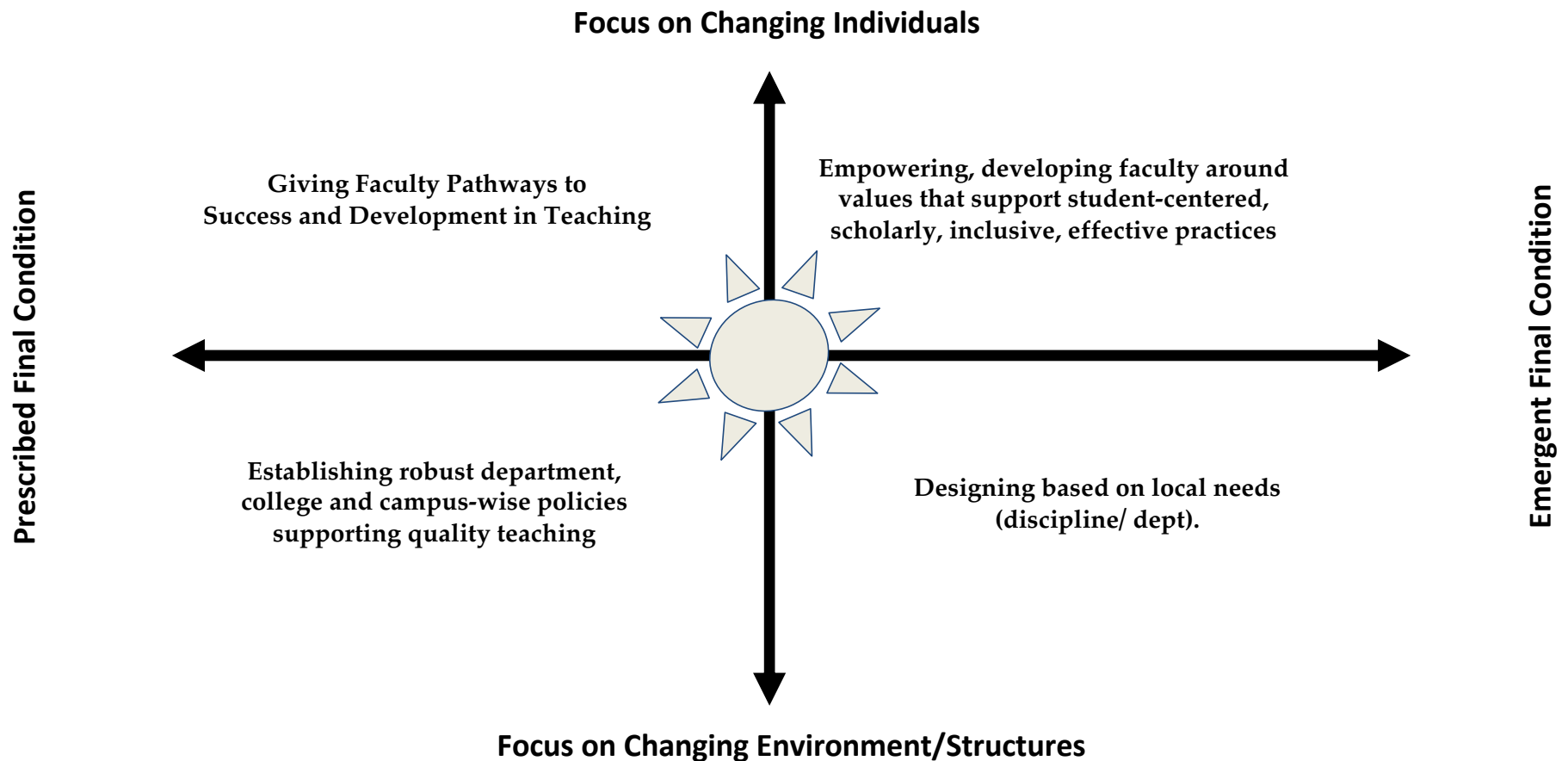
Emergent Final Condition



Focus on Changing Environment/Structures

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M. Borrego & C. Henderson (2014). Increasing the Use of Evidence-Based Teaching in STEM Higher Education: A Comparison of Eight Change Strategies. *Journal of Engineering Education*, 103(2), 220-252.

Four Categories for Changing Teaching Eval



C. Henderson, A. Beach, and N. Finkelstein, "Facilitating change in undergraduate STEM instructional practices: An analytic review of the literature. *Journal of Research in Science Teaching*, 48(8), 952-984 (2011).
M. Borrego & C. Henderson (2014). Increasing the Use of Evidence-Based Teaching in STEM Higher Education: A Comparison of Eight Change Strategies. *Journal of Engineering Education*, 103(2), 220-252.

Windows on Change



Bolman & Deal Frames

Bolman, L. G., & Deal T. E. 2021. Reframing Organizations: Artistry, Choice, and Leadership. 7th ed. Wiley.

A Multi-Frame Model of Organizational Analysis

Structural

- *Emphasis on identifying and improving formal policies and organizational arrangements*

Human Resources

- *Emphasis on addressing the demographics, experiences, needs, and aspirations of the people within the organization*

Political

- *Emphasis on issues of leadership, power, and formal resource allocation and how these can be deployed in support of the intended change*

Symbolic/Cultural Frame

- *Emphasis on issues of meaning and culture within an organization*

Using the Frames to Suggest Strategic Interventions: Examples

- **Structural**

- Creation of department committees/ task forces
- Cross-institutional networks for mutual support and idea exchange
- Analysis, revision, and tracking of tenure and promotion policies

- **Political**

- Leadership development for deans, chairs, and committee chairs
- Institution-level committees to analyze, create, & implement policies
- Institutional data-gathering and dissemination to guide decisions & policies

- **Human Resource**

- Leadership development and faculty professional development focused on approaches to evaluation
- Mentoring and coaching programs
- Grants to support and provide time for department-level planning and collaboration

- **Symbolic and Cultural**

- Publicity and communication
- Events to highlight and share ideas
- Celebrations of progress



Brief or Clarifying Questions?



Part II- Breakout Discussions: Identifying Strategies for Scaling Change

1. Select a Level (Table)

Choose a level/ focus for the change effort you'd like to consider:

- 1- Department
- 2- College/School
- 3- Institution
- 4- National

Join that table!

2. Discuss at Tables

- What is your change?
- What strategies and tools have been/could be effective for scaling at your chosen level?

Identify a reporter who will share a few main take-aways.



Part III- Report Out and Debrief

Your key take-aways: strategies and tools for scaling change at:

1. Department level
2. College/School level
3. Institution level
4. National level



THANK YOU



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Much more at

TEval.net