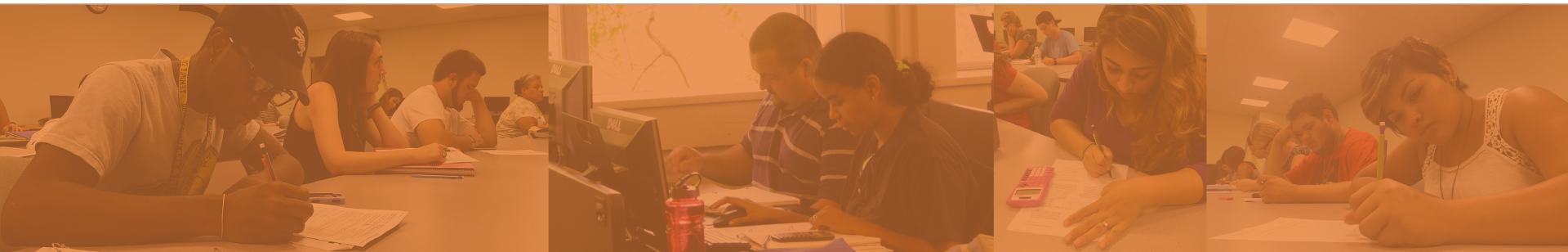Dana Center
Mathematics
PATHWAYS

CSU EO 1110 Fall Meeting: Promoting Continuous Improvement

San Francisco, California
October 5, 2018
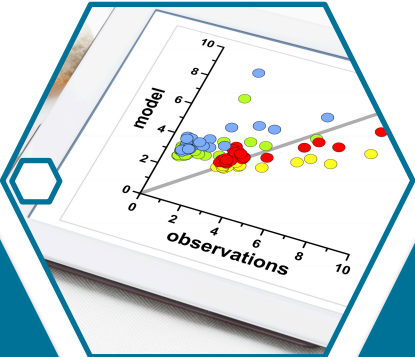
Facilitators

Dr. Martha Ellis, Director of Higher Education Strategy, Policy, and Services, Charles A. Dana Center

Dr. Mary Hendrix, Texas Regional Coordinator and VP emeritus of Student Success, Texas A&M Commerce

Connie Richardson ,Manager of Curriculum, Mathematics, Higher Education, Charles A. Dana Center

Cell Phones, Tablets, Laptops

Parking Lot

Self Care

Active "Classroom" Behaviors

Group Norms

Make equity central.

Focus on fulfilling our charge.

Seek clarification in language and ideas to increase understanding.

Understand that those who work, learn.

Look for solutions, not blame.

Focus on systems, not people.

Recognize that everyone has expertise.

Be honest.

Share talk time.

About the Dana Center

Equity — Access — Excellence

2018

Dana Center by the Numbers

By the close of 2017, the Dana Center had contributed to the **implementation of math pathways** in higher education systems, institutions, and campuses in 29 states.

Meeting Outcomes

Participants will:

- Review operational processes of the first cycle of implementation of EO 1110, including institutional planning, scheduling courses, and placing and advising of students

- Refine plans for gathering evidence to inform continuous improvement of placement, advising, curriculum and instruction

- Adopt strategies for engaging faculty and staff in a sustained continuous improvement process

- Provide input for the First Term Reflections meetings in January and February.

Who is in Attendance?

Please stand up if you are …

- An Administrator
- A Math Faculty
- English Faculty
- A Director of Advising
- A Student Services Leader
- An Institutional Researcher
- A Course Lead
- A Faculty Development Lead
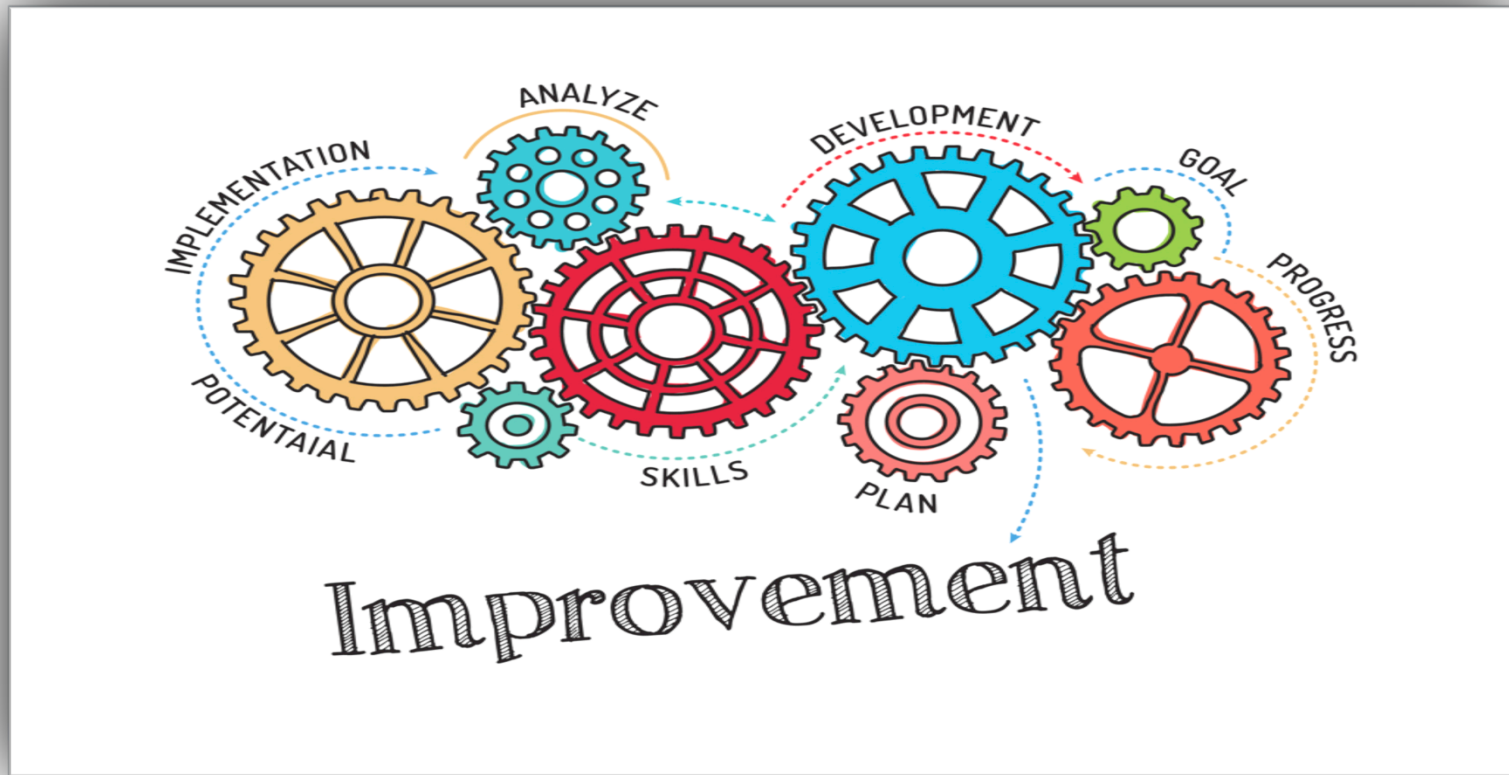- A Registrar

Completion and Equity

CSU Graduation 2025 Initiative lays out ambitious goals for increasing degree attainment and achieving equitable outcomes.

Placement and remediation reform are essential components to reaching these goals.

Implementation: A broad framework

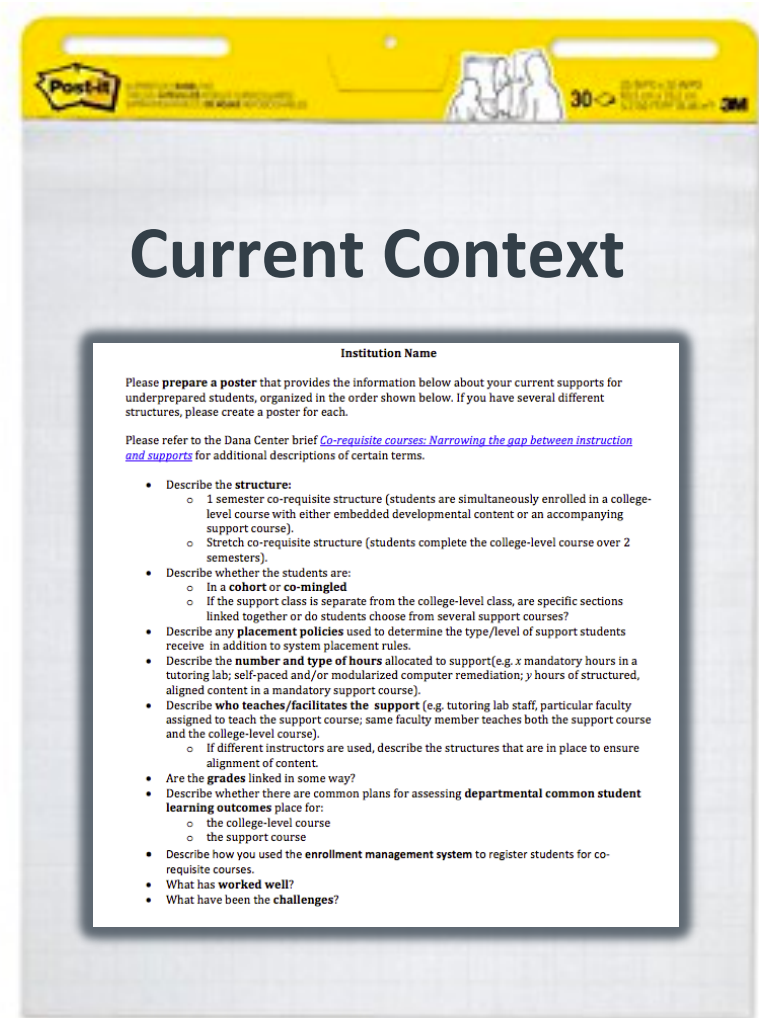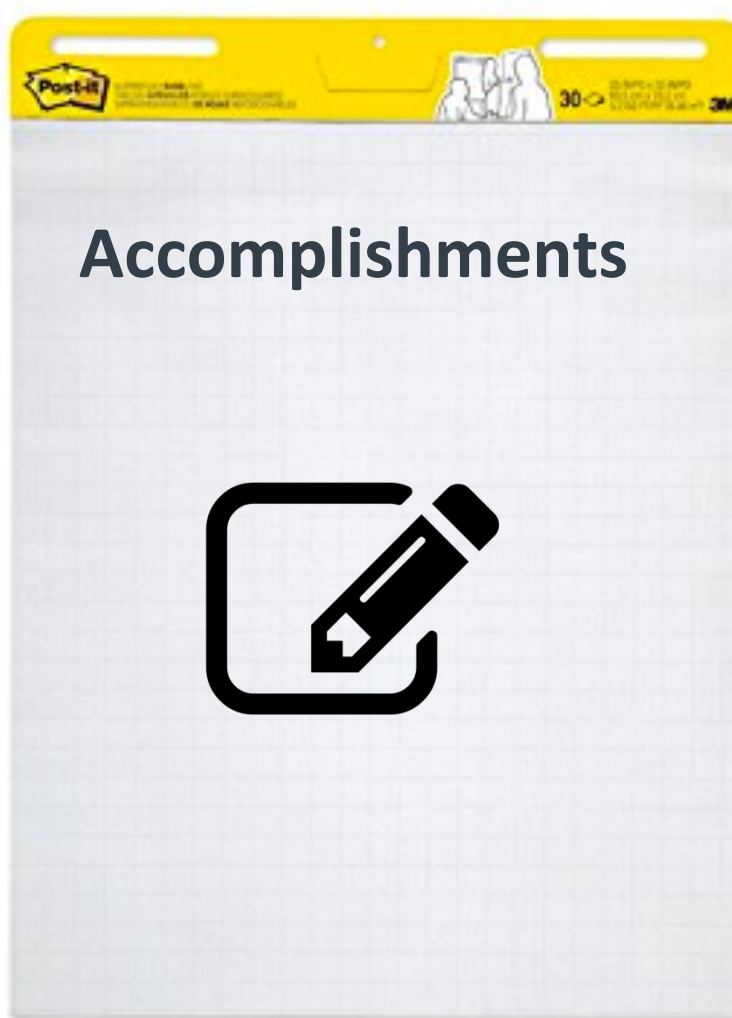| Stage of Implementation	Description
Getting Started	Commitment and leadership
Planning	Collect and review data to define problem, establish goals, and create a plan.
Implementing	Carry out the plan.
Continuous Improvement	Evaluate and improve.

Continuous Improvement

Continuous Improvement is an ongoing process through which we collect and analyze data and engage with others to identify areas of strength and areas in need of improvement.

Continuous Improvement Framework

Capturing Current Context

Accomplishments

Current Context

Institution Name

Please **prepare a poster** that provides the information below about your current supports for underprepared students, organized in the order shown below. If you have several different structures, please create a poster for each.

Please refer to the Dana Center brief *Co-requisite courses: Narrowing the gap between instruction and supports* for additional descriptions of certain terms.

- Describe the **structure:**
  - 1 semester co-requisite structure (students are simultaneously enrolled in a college-level course with either embedded developmental content or an accompanying support course).
  - Stretch co-requisite structure (students complete the college-level course over 2 semesters).
- Describe whether the students are:
  - In a **cohort** or **co-mingled**
  - If the support class is separate from the college-level class, are specific sections linked together or do students choose from several support courses?
- Describe any **placement policies** used to determine the type/level of support students receive in addition to system placement rules.
- Describe the **number and type of hours** allocated to support(e.g. x mandatory hours in a tutoring lab; self-paced and/or modularized computer remediation; y hours of structured, aligned content in a mandatory support course).
- Describe **who teaches/facilitates the support** (e.g. tutoring lab staff, particular faculty assigned to teach the support course; same faculty member teaches both the support course and the college-level course).
  - If different instructors are used, describe the structures that are in place to ensure alignment of content.
- Are the **grades** linked in some way?
- Describe whether there are common plans for assessing **departmental common student learning outcomes** place for:
  - the college-level course
  - the support course
- Describe how you used the **enrollment management system** to register students for co-requisite courses.
- What has **worked well**?
- What have been the **challenges**?

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Redesign work is hard and systemic

- Our universities are complex
- Can not do redesign in isolation
- Redesign impacts many areas of the university
- Universities hire curious, inquisitive people who work in an academic, research space where asking questions is the norm
- Lots of "noise" during any change as this is intellectualism out loud.

The 20-60-20 Phenomenon

- 20% readily embrace

- 60% will take a wait and see position

- 20% will vehemently oppose

Leading

- Importance of quality leadership cannot be overemphasized

- Leaders everywhere in the university

- Takes raw courage

- Facilitate listening and reflection

- People commit to causes, not plans

Leading change

- Change is not episodic
- Change process ebbs and flows
- Culture of your institution evolves

Tinker

Change

Transform
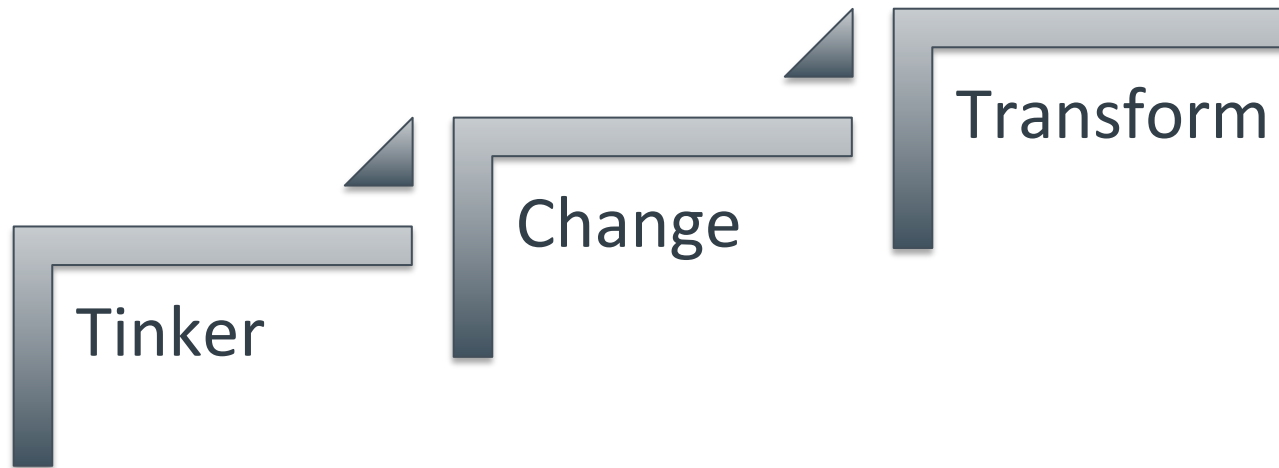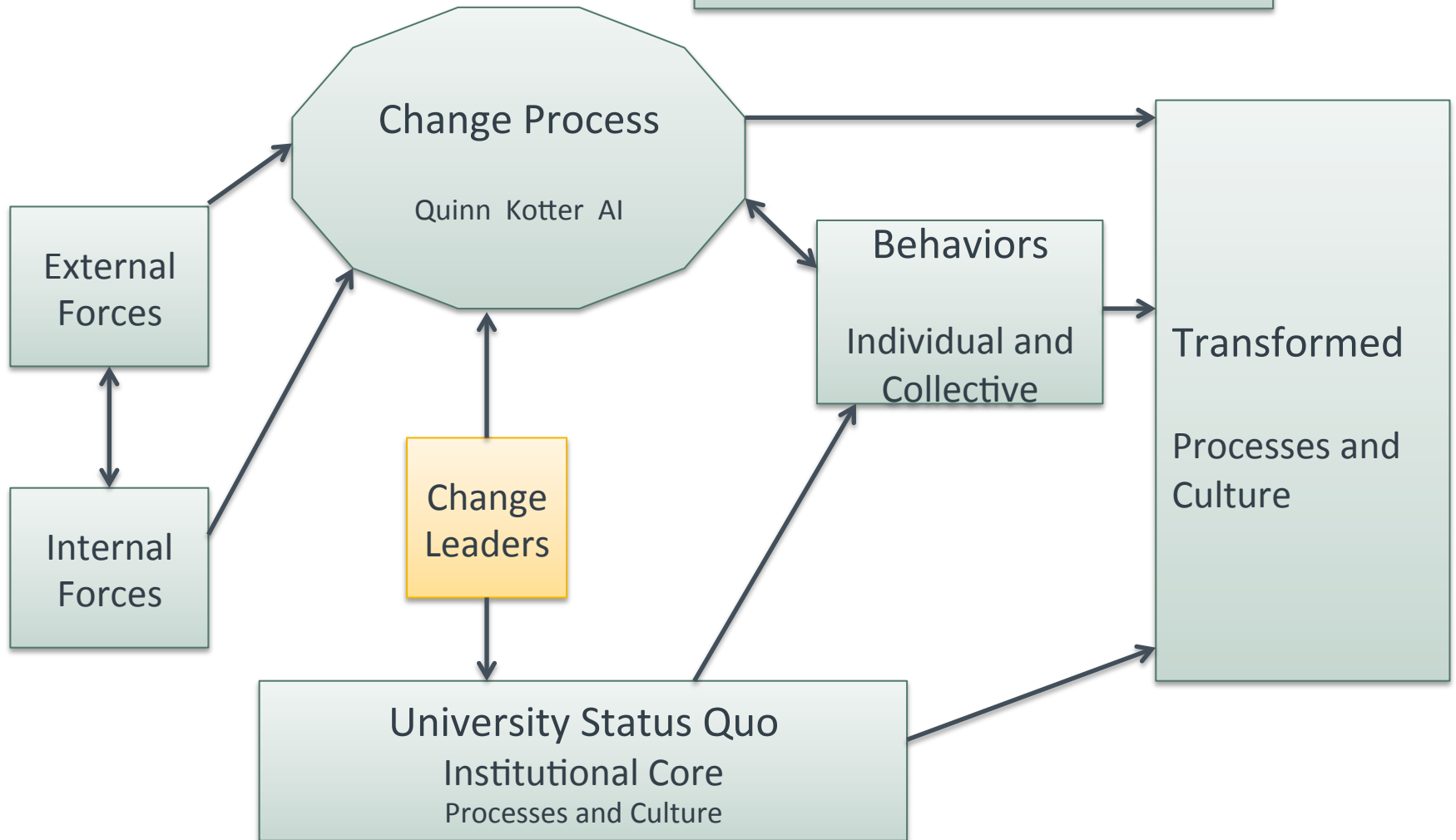
Culture

"Culture eats strategy for breakfast"
-Peter Drucker

- Artifacts—climate, behavior, structure, processes—easy to observe

- Beliefs and values of institution—shared social experience

- Underlying assumptions—the way we do things

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Your Culture

- Write down 3 to 5 phrases that describe the culture of your university:
    - Climate
    - Behavior
    - Structure
    - Values
    - Underlying assumptions

Kotter's leading change model
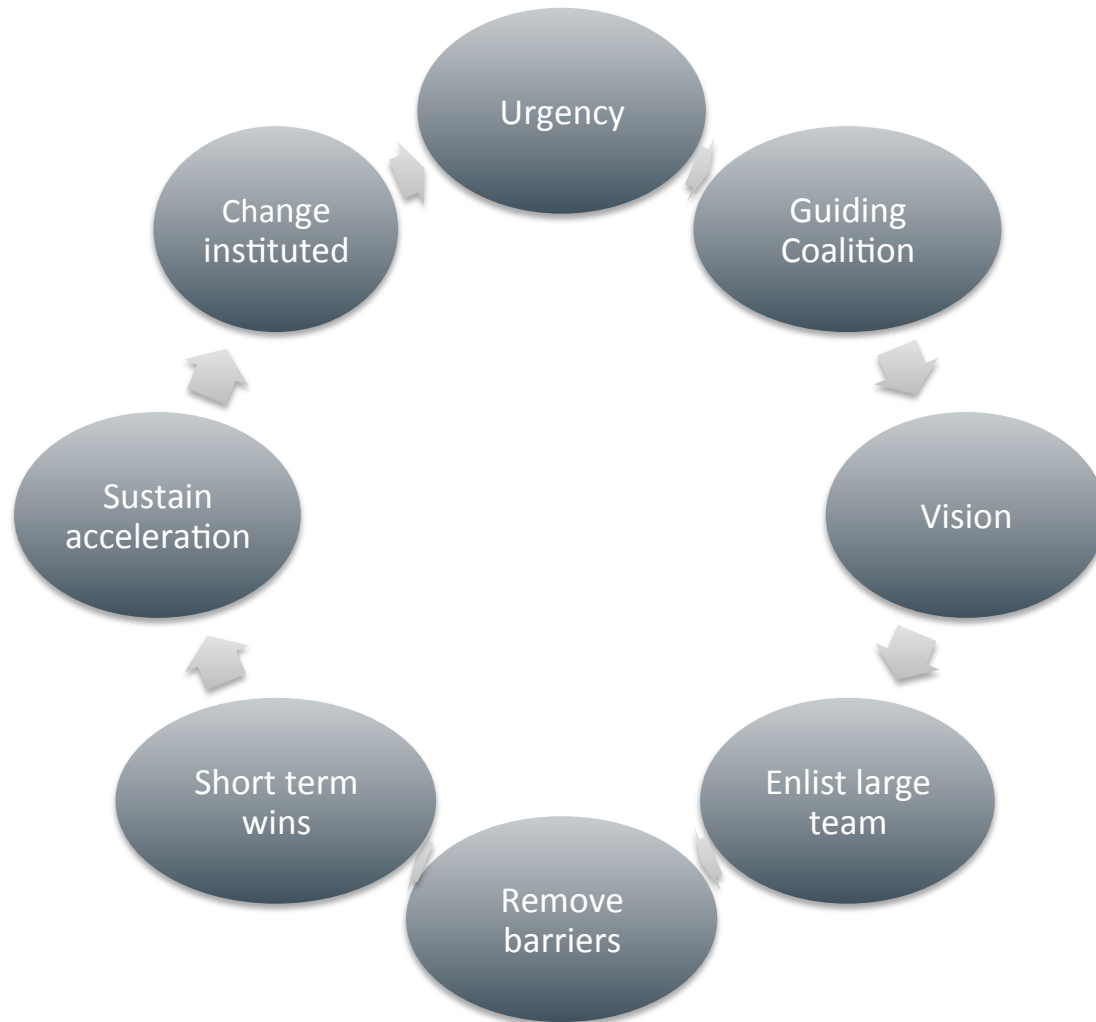
Kotter, 2013

Vision

Endgame is not EO1110 implemented—it is student learning and success

Vision and Why

- **Painting the future and bringing it to life**

Identify the "why"

Craft the message—the why

Communicate the message

Preparing for continuous improvement

- Think of a change initiative that was successful at your university. What promoted that success?

- Have past change initiatives in your university failed? Is so, what barriers prevented success?
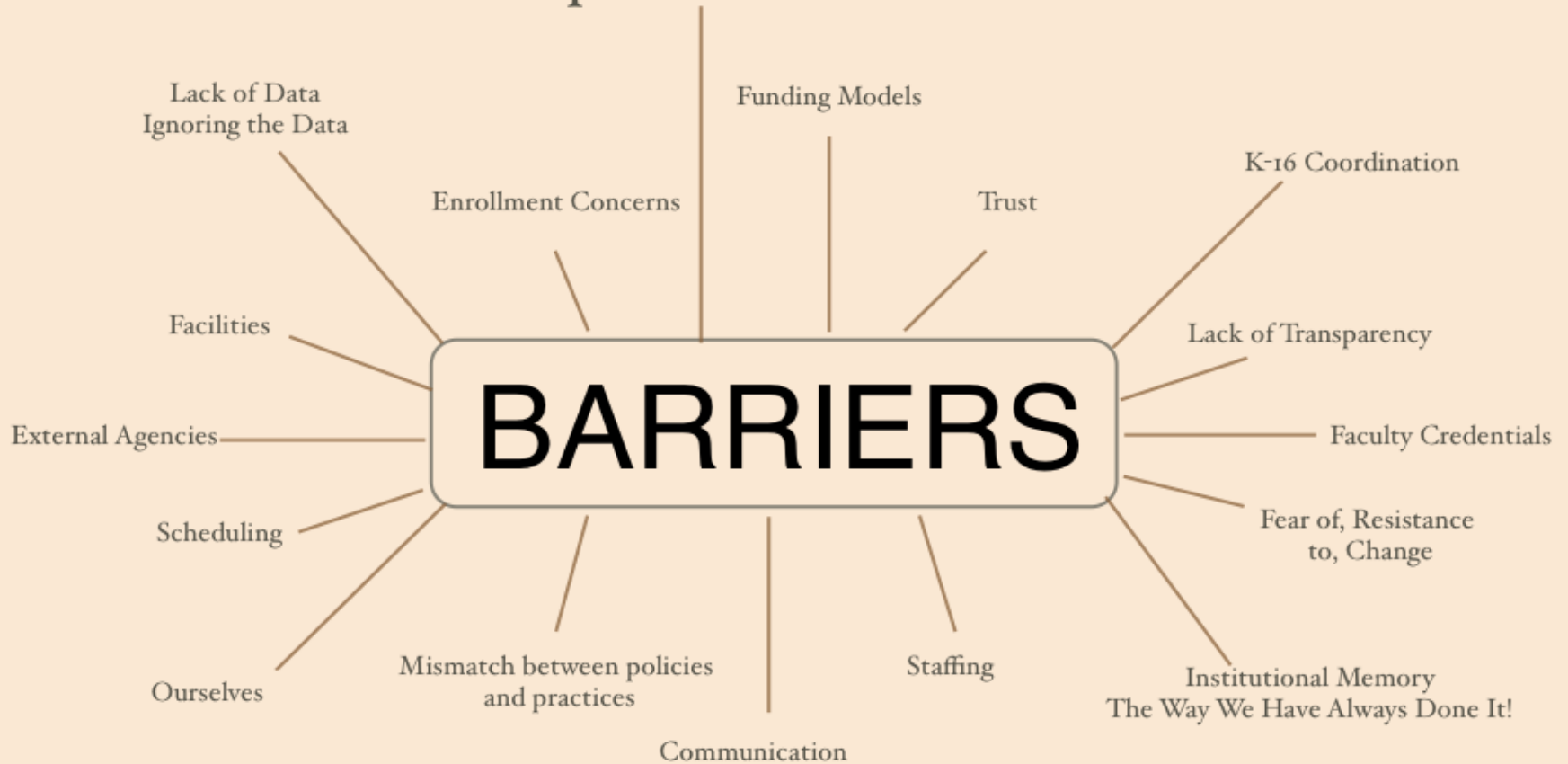
Preparing for continuous improvement

- Which of the most common barriers do you have—silos, parochialism, complacency, this too shall pass, it's the students' fault, rules and procedures?

- Barriers can be commonly stated and accepted statements that, while appearing helpful, can deter attempts to get past legacy obstacles. These are statements like:
  - "It's just not done that way," or,
  - "We tried that before and it did not work."

Pulling it all together

- Draft the "why vision" of this work—continuous improvement plan

- Your Culture

- Your Successes

- Data from your institution
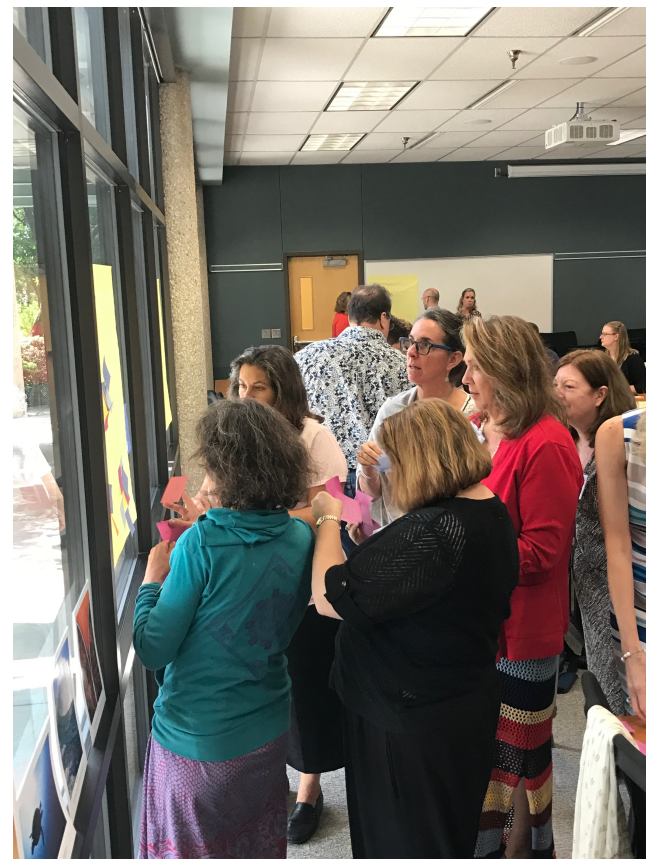
- Anticipating challenges

Anticipating Challenges to Remove Barriers

- Anticipating Challenges

- Assume that, five years from now, you have failed to achieve your transformational goals. Identify on the chart below the likely major causes of that "mortality." Consider what specifically might happen that could derail the effort and conduct a "pre-mortem." A *pre-mortem* is a way to anticipate challenges and to come up with strategies to navigate and/or pre-empt them. For each cause, delineate specific leadership strategies you will employ to anticipate and avert or address the challenges.

- Cause of "Mortality"
- Leadership Strategies
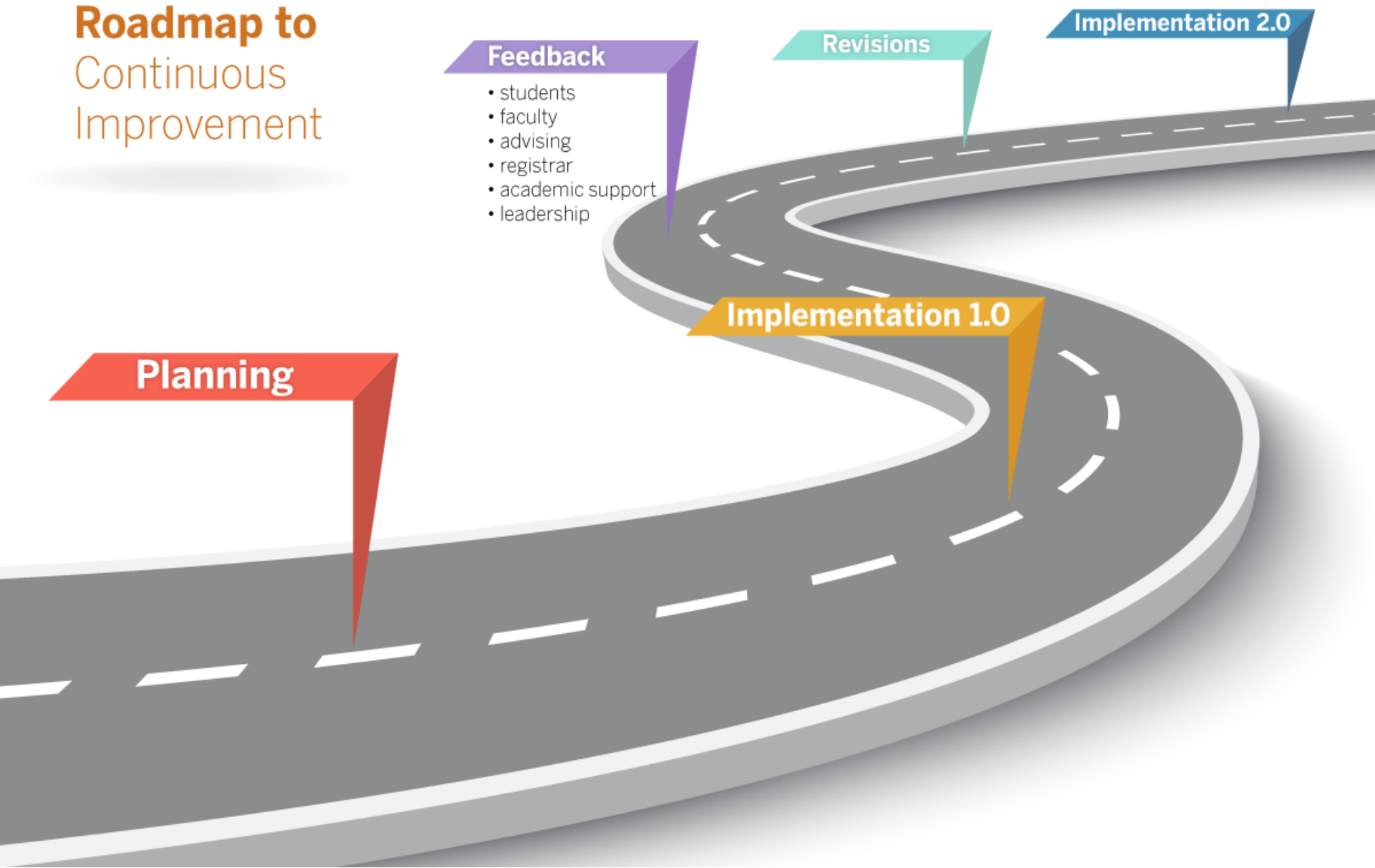- Actions to Mitigate Risk

Gallery Walk

As you rotate with your campus team:

- Record ideas that resonate with *you* based on your role on your campus team

- As a team, identify ideas that you are excited about or want to learn more about

Roadmap to Continuous Improvement

Planning

Feedback
- students
- faculty
- advising
- registrar
- academic support
- leadership

Implementation 1.0

Revisions

Implementation 2.0

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Continuous Improvement of Structural Change

- Registration
- Advising
- Placement
- Structures

- Surveys
- Interviews
- Placement Data
- Reports

Image credit: Ihorzigor/iStock/Thinkstock

Continuous Improvement of Curriculum and Pedagogy

- Deans
- Department Chairs
- Course Coordinators
- Faculty
- TAs, Tutoring Labs
- Faculty Developers

Image credit: Scanrail/iStock/Thinkstock

- Student Information
- Classroom Assessment Techniques
- Common Assessment Questions
- Surveys

Continuous Improvement

- Engage the right people.
  - Leadership
  - Diverse stakeholders
  - Experts
- Set clear and appropriate goals (roles).
  - Short-term
  - Long-term
- Develop a climate of trust and commitment.

Communication of Continuous Improvement

"The single biggest problem in communication is the illusion that it has taken place."

George Bernard Shaw

Communication and engagement

- This work requires communication and engagement across the institution.

- Communication disseminates information; it builds awareness.

- Engagement encourages people to process and act upon information; it builds ownership.

- Communication and engagement must be bi-directional.

Basics of planning communications

- Who needs to know?

- What do they need to know?

- When do they need to know it?

- Who should the information come from?

- What are the best ways to get the information to them?

Get the right information to the right people at the right time.
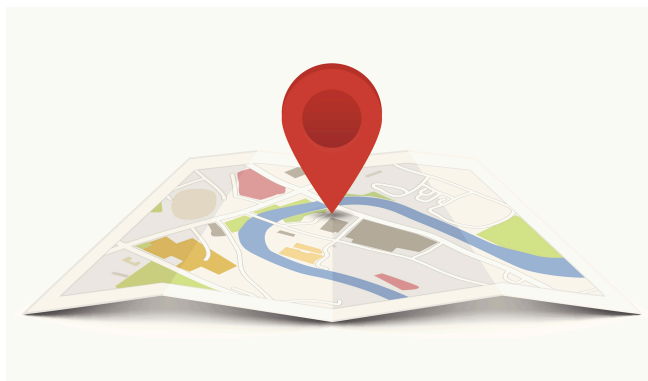
Continuous Improvement for Systemic Change
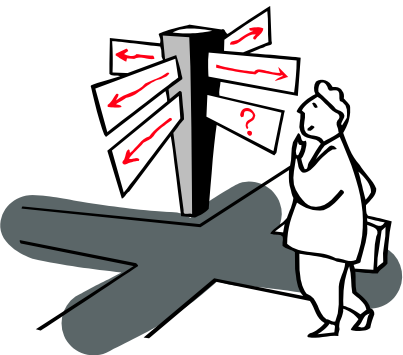
Where are you going?
What is your goal?
What do you want your students to accomplish in long run?

How will you get there?
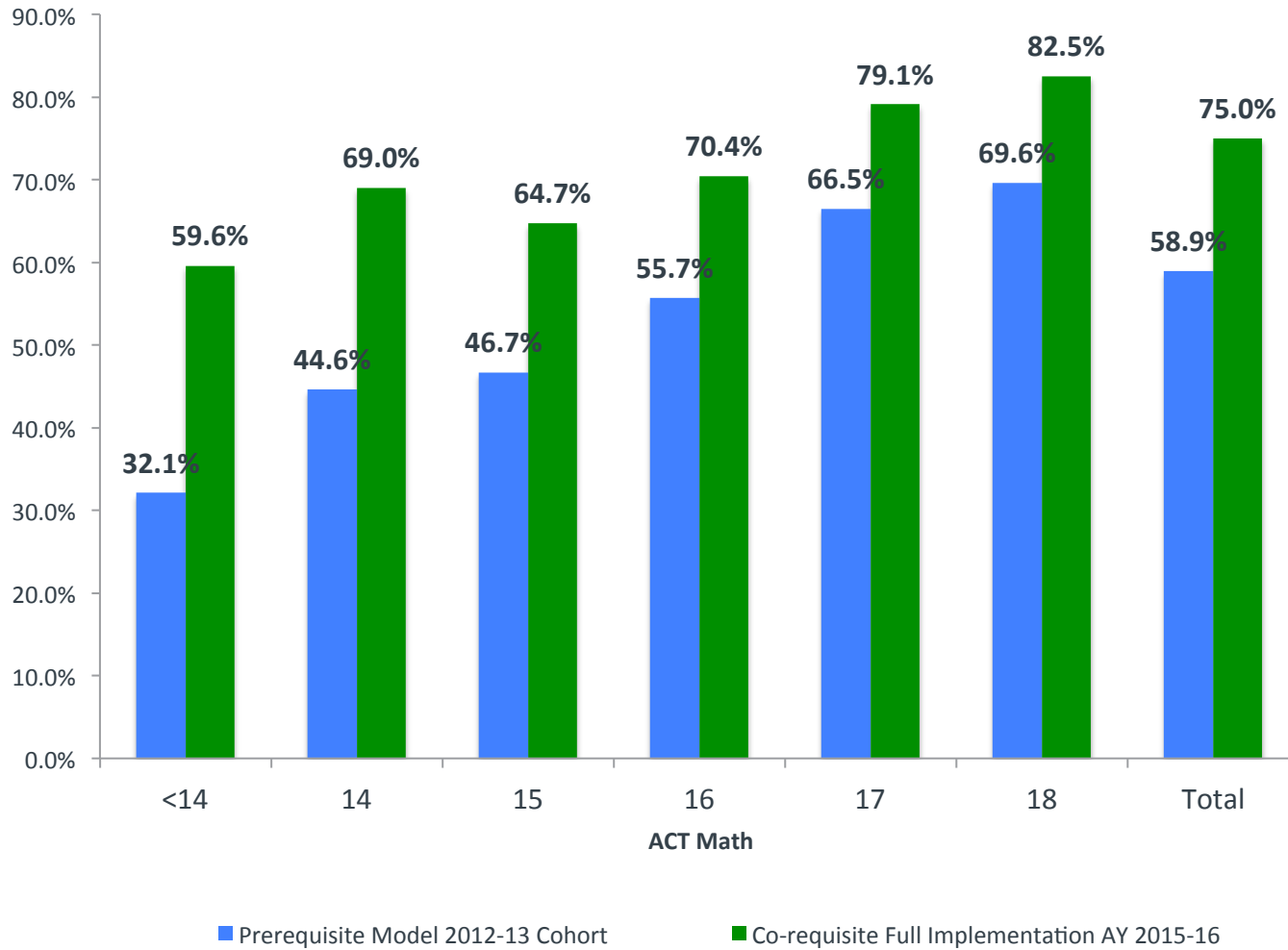*Actions to improve structural, curricular, and pedagogical changes*

What will tell you that you've arrived?

*Evidence—quantitative and qualitative—along the way and at the end*

Did your students achieve?

Tennessee Universities
Gateway Math Success in One Year

Tennessee Board of Regents Brief #3: *Co-Requisite Remediation Full Implementation 2015-16*

Results of TBR Full Implementation Co-requisite Writing in Universities

2012-13 Cohort
Co-requisite Full Implementation AY 2015-16
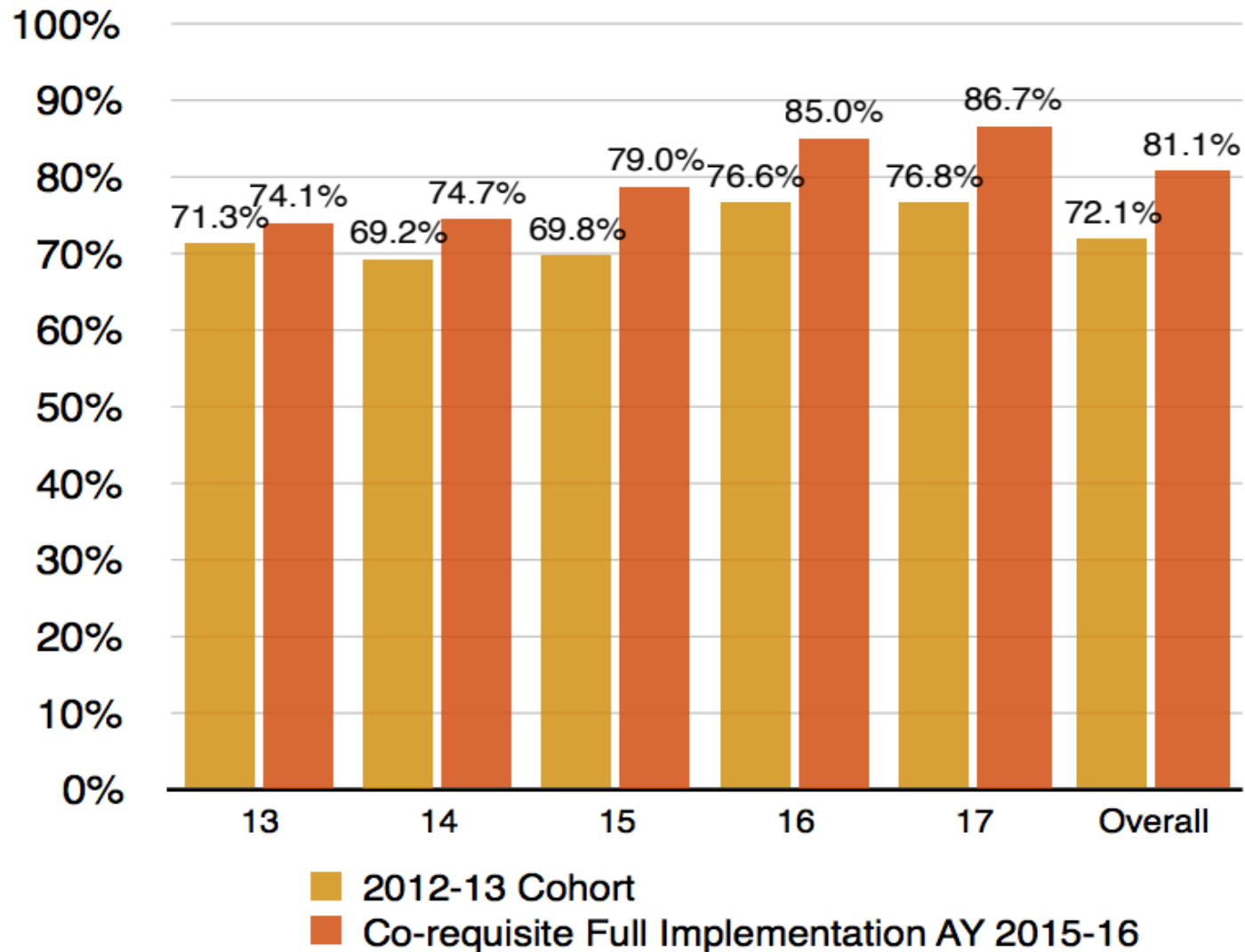
Other Examples

- Georgia
  - Traditional: 20% success rate in two years
  - Co-requisite: 63% success rates
- West Virginia
  - Traditional: 14% success rate in two years
  - Co-requisite: 62% success rates
- Indiana
  - Co-requisite courses in math, along with new quantitative reasoning and technical math pathways
  - Traditional: 29% success rate in three years
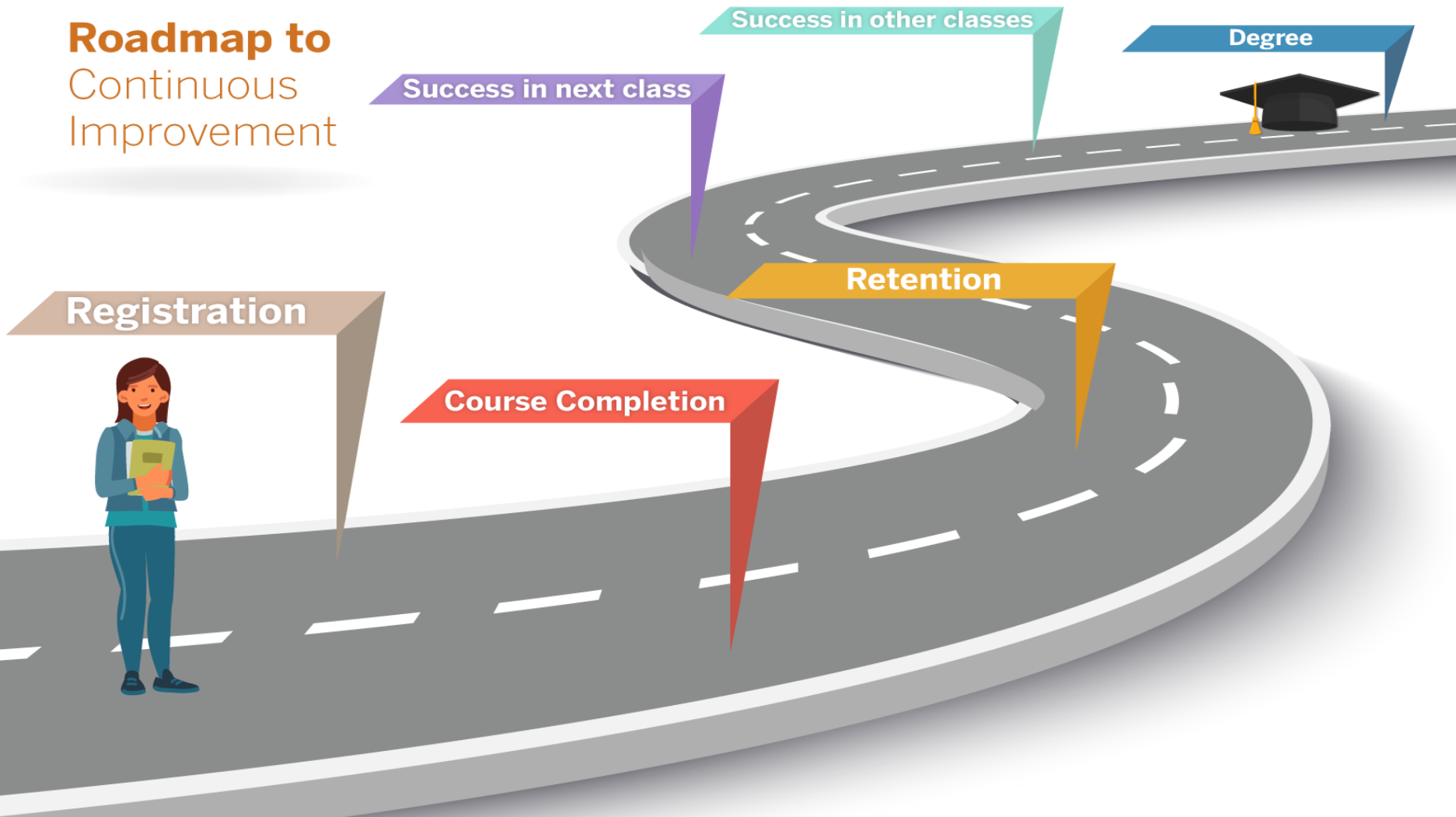 - With changes: 64% success rates

http://completecollege.org/spanningthedivide/#the-bridge-builders

Lunch 12:00 – 12:45

What is your biggest take-away from the sessions so far?

Milestones for Continuous Improvement

Roadmap to Continuous Improvement

Success in other classes

Success in next class

Degree

Registration

Retention

Course Completion

Continuous Improvement plan

- Report out of what you have learned today

- Fill our your evaluation form

- Work on your team plan

Refining Implementation

Guiding Questions

- What works well right now?

- Which adjustments will improve implementation in the short term?

- What about the long term?

- What resources are required to implement these adjustments, and who should be involved?

- What else should we consider as we think about version 2.0?

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Other Resources

CSU Collaboration Spaces

- http://tiny.cc/csu-teams
- http://tiny.cc/csu-math
- http://tiny.cc/csu-english

Calendar

- www.calstate.edu/professional-development-calendar

Recordings and resources are linked to event listings in the archive.

Contact Information

- Dr. Emily Magruder, Director, CSU Institute for Teaching and Learning, at emagruder@calstate.edu
  562-951-4752

- Dr. Zulmara Cline, Co-director, CSU Center for Advancement of Instruction in Quantitative Reasoning at zcline@calstate.edu
  562-951-4778

- Dr. Fred Uy, Co-director, CSU Center for Advancement of Instruction in Quantitative Reasoning at fuy@calstate.edu
  562-951-4713

Contact Information

- Paula Talley, Systems Implementation Lead, Higher Education
    paulatalley@austin.utexas.edu

- General information about the Dana Center
    www.utdanacenter.org

- DCMP Resource Site
    www.dcmathpathways.org

- To receive monthly updates about the DCMP, contact us at
    dcmathpathways@austin.utexas.edu

About the Dana Center

The **Charles A. Dana Center** at The University of Texas at Austin works with our nation's education systems to ensure that every student leaves school prepared for success in postsecondary education and the contemporary workplace.

Our work, based on research and two decades of experience, focuses on K–16 mathematics and science education with an emphasis on strategies for improving student engagement, motivation, persistence, and achievement.

We develop innovative curricula, tools, protocols, and instructional supports and deliver powerful instructional and leadership development.

The University of Texas at Austin
Charles A. Dana Center

2016

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