

# The Change-maker's Toolkit

**Preparing Faculty to Make Academic Change Happen**

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# “How to start a movement” —Derek Sivers



Video available at <https://www.youtube.com/watch?v=V74AxCqOTvg&t=76s>



# Time for some writing!

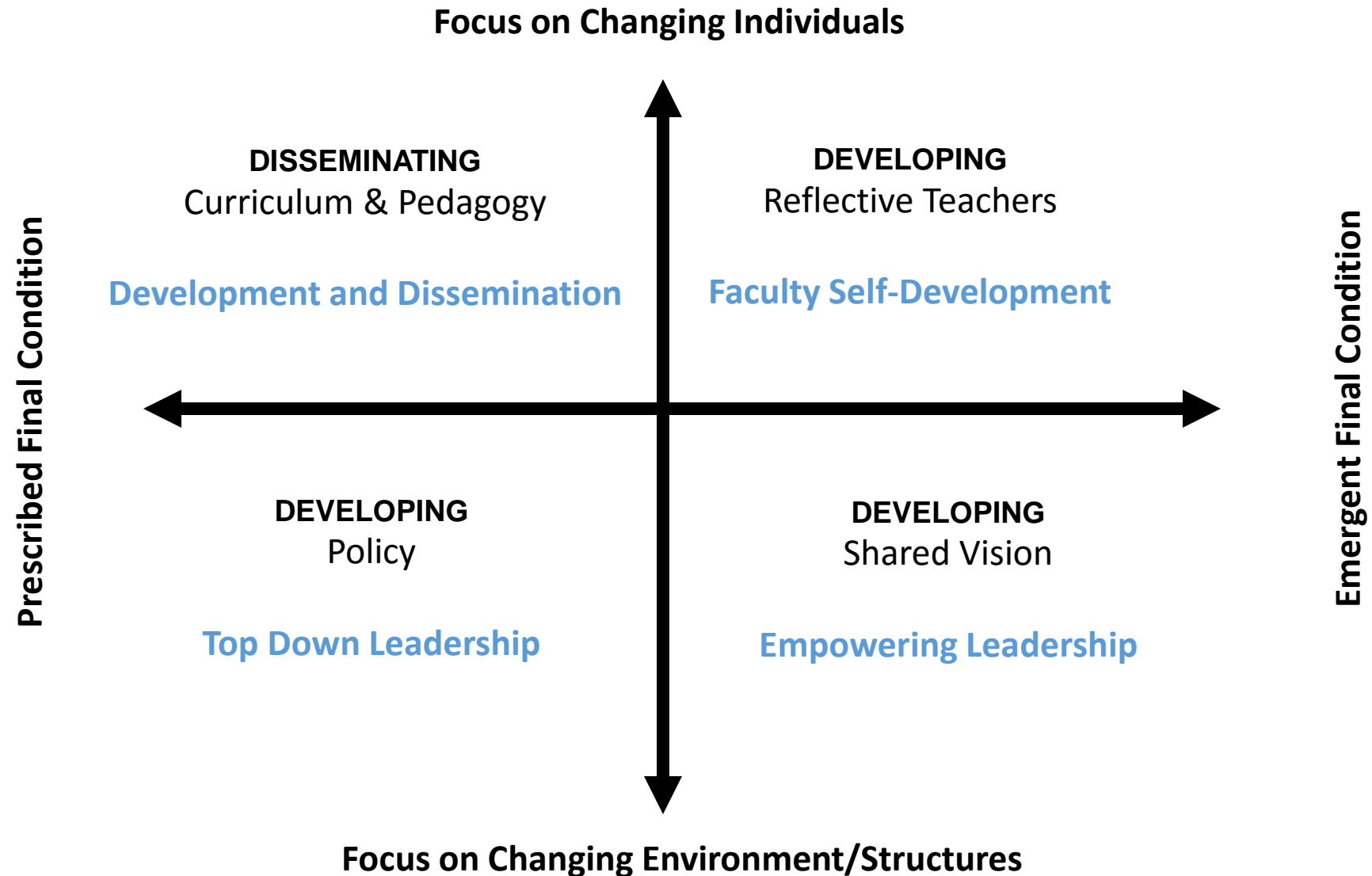


Think for a minute about a recent change project that you have been engaged with...

What particular skills, abilities, “tools,” were important to the success of the project?

What “tools” might have helped you to accomplish your goals, if only you had them?

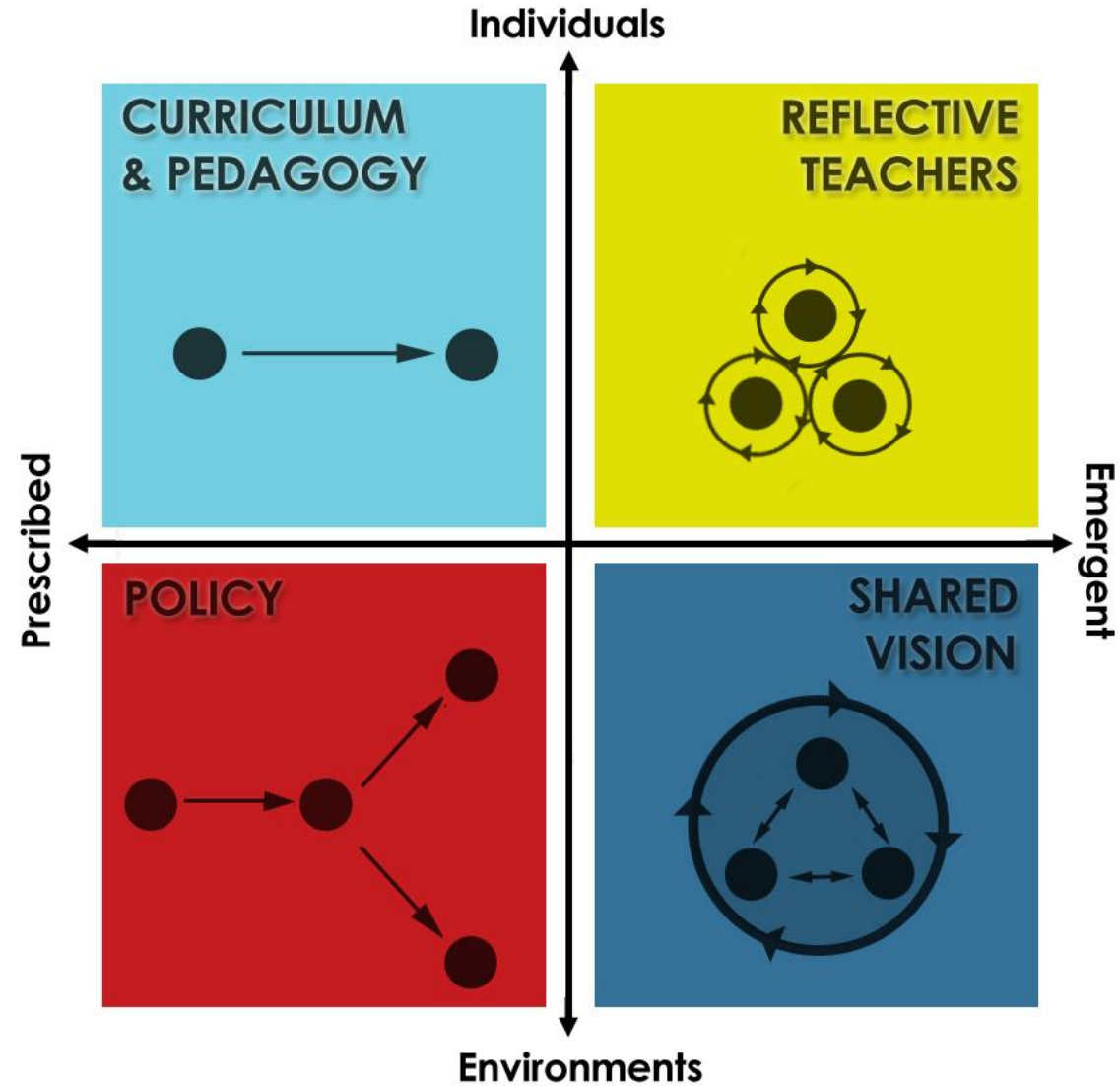
# Four Categories of Change Strategies



\*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).



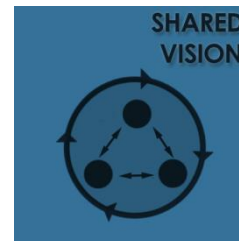
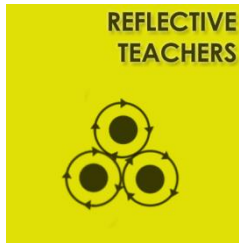
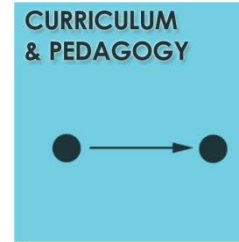
# How they Work



\*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).

# Change tactics differ depending on the category.

- A. Promote project ideas/products to departmental and institutional leadership (e.g., adopt flipped classroom model)
- B. Provide opportunities within your institution for faculty to share good ideas and strategies related to the project goals (e.g., create a learning community)
- C. Empower a committee at your institution to make institutional change (e.g., revise reward structures)
- D. Create department, institutional, or community teams to create new projects through a collaborative process (e.g., constructing a shared vision, rather than seeking buy in, through strategic partnerships)



Assumption: People and systems resist change

Reality: Resistance is a symptom of

1. lack of alignment between strategies and tactic,
2. inappropriate change strategy, or
3. attempting to implement a change that is too distant from the status quo.



# REvolutionizing engineering and computer science departments (RED) solicitation (2016)

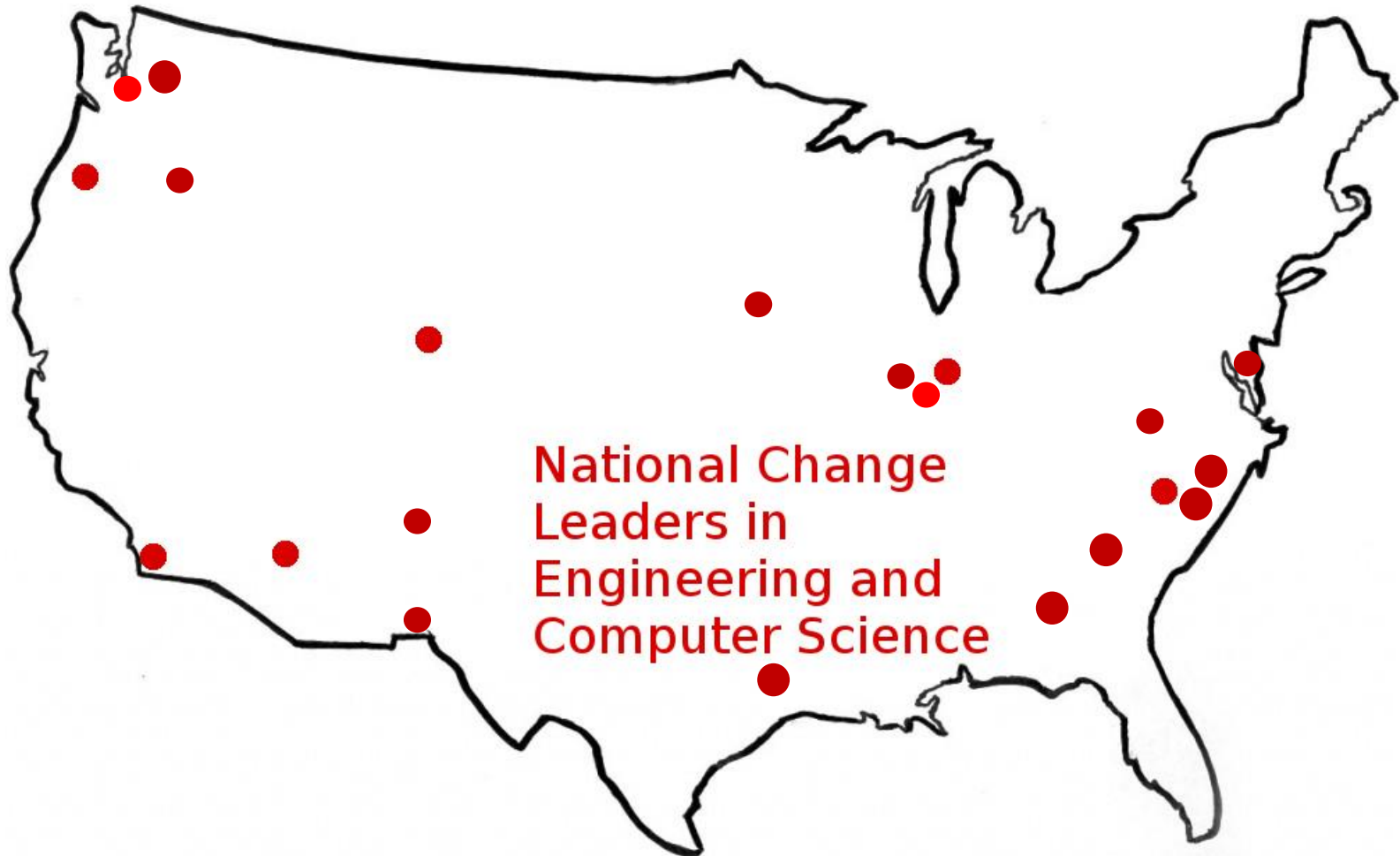
**Departmental cultural barriers to change and to inclusion of students *and* faculty from different backgrounds must be identified and addressed.**

**These and other threads aim to ensure that students develop deep knowledge in their discipline more effectively and meaningfully, while at the same time building their capacities for 21st century and “T-shaped” professional skills, including design, leadership, communication, understanding historical and contemporary social contexts, lifelong learning, professional ethical responsibility, creativity, entrepreneurship, and multidisciplinary teamwork.**

It is expected that, over time, the awardees of this program will create knowledge concerning sustainable change in engineering and computer science education that can be scaled and adopted nationally across a wide variety of academic institutions. The research on departmental change that results from these projects should inform change more broadly across the STEM disciplines.



Consortium  
(REDCON)



National Change  
Leaders in  
Engineering and  
Computer Science



MACH Workshop 2018  
May 30-June 1

[academicchange.org](http://academicchange.org)

### Making Academic Change Happen

MACH grew out of a faculty grassroots effort – to figure out how to make change easier and spread this information to colleagues. Around lunch tables and in small conference rooms, this group developed the core principles that now comprise the MACH approach, all centered on two philosophical points: translating research to practice and learning by doing. Reach out to one of us to learn how MACH can help you and your colleagues become more successful at making change happen on your campus.  
[www.rose-hulman.edu/mach](http://www.rose-hulman.edu/mach)



**ROSE-HULMAN**  
INSTITUTE OF TECHNOLOGY



# What is REDPAR?

- Provide support for change competencies development among RED teams
- Coordinate RED consortium activities (PI Kickoff Meeting, monthly calls, collaborative projects)
- Examine the collective experiences of RED participants as a way to research change across institutions
- Offer the opportunity for high-level comparison and analysis that would otherwise be lost.





# REDPAR





# The Change-Maker's Toolkit



Communication



Risk Assessment



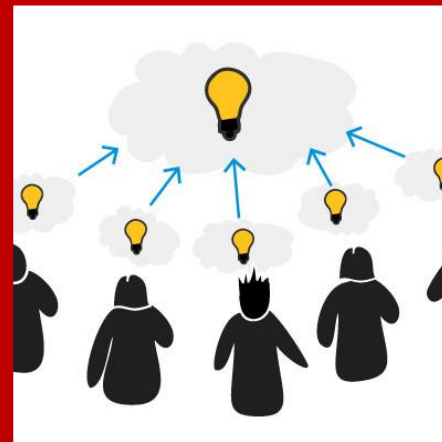
Viewing Scale



Cultural Context



Buy-In



Shared Vision



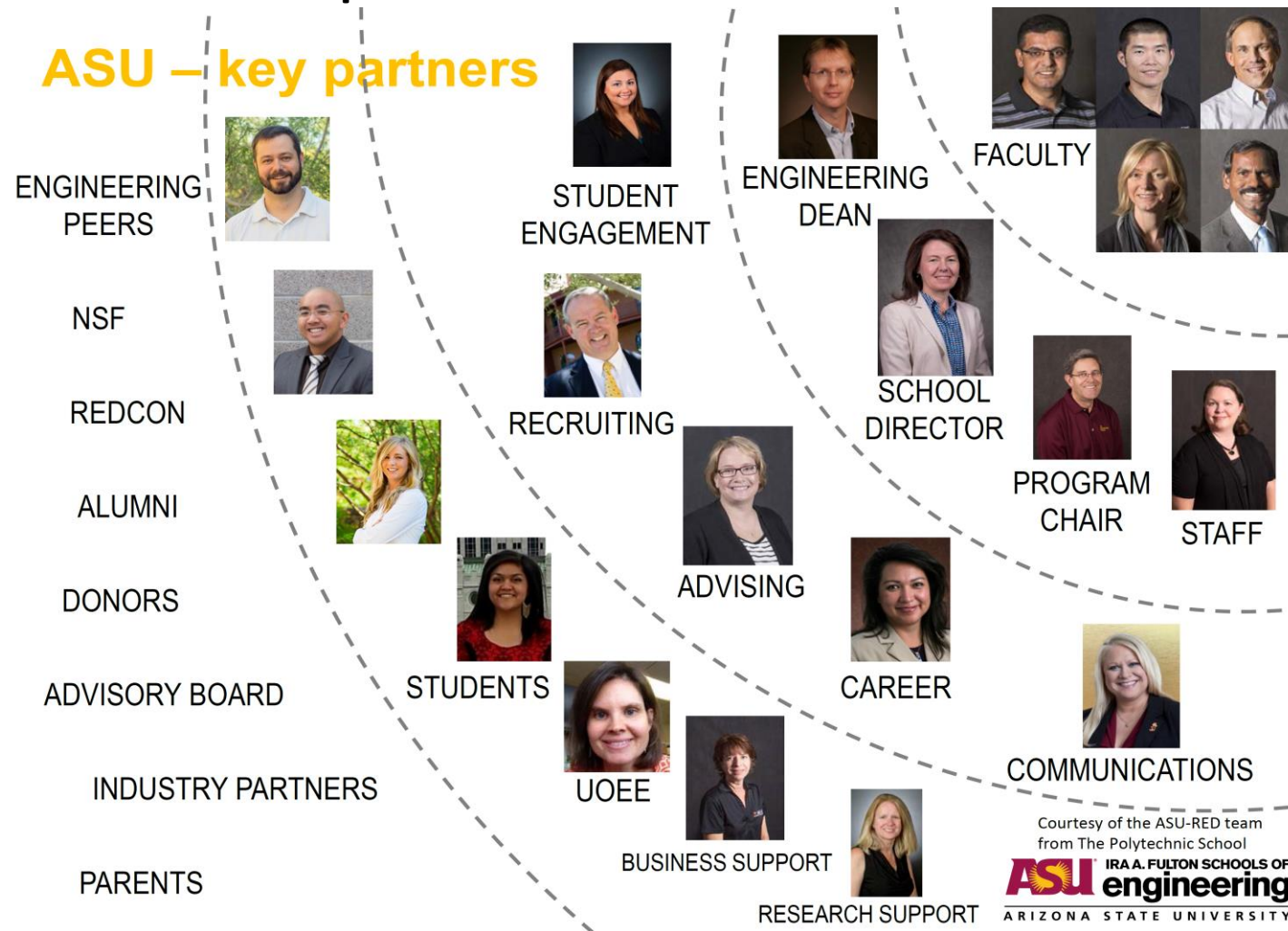
Partnerships



Influence



# Change-maker's Toolkit—Strategic Partnerships



# Change-maker's Toolkit—Communication



Iowa State's RED team brought their core image of the project on cross-functional teams—RIDE—to the RED PI meeting.

More writing!

Let's work on creating the Change Lexicon for your project.

# Change-maker's Toolkit—Shared Vision

Adrianna Kezar (2014)—the reason to empower stakeholders is not to eliminate resistance but to engage them in more than a nominal way.





# REDPAR Research Questions

Our research work poses fundamental questions:

1. How can academic departments successfully change?
2. What lessons can be extracted from their experience to increase the success of change at other institutions?
3. What features of the change experience are most notable?

# The Change-Maker's Toolkit



Communication



Risk Assessment



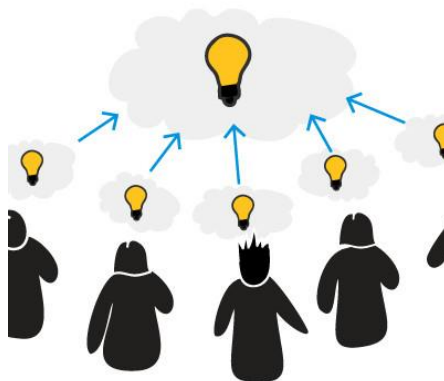
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This material is based upon work supported by the National Science Foundation under Grant No. #1540042. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.