How Evaluation Can Improve Your Project

Multi-Scale Evaluation in STEM Education Tutorial

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Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (NSF INCLUDES)

WHAT IS **PROGRAM EVALUATION**?

PROGRAM EVALUATION IS:

Systematic collection of data about the activities, characteristics, and results of programs to (1) to make judgments about the program, (2) improve or further develop program effectiveness, (3) inform decisions, and/or (4) increase understanding.

Michael Quinn Patton

TODAY'S PRESENTATION

INSIGHT

How does your project work?

RESULTS

To what extent has your project accomplished what you set out to do?

IMPROVEMENT

What could you do to make your project work better?

INSIGHT

INSIGHT

Stakeholder Perspectives

INSIGHT

Your perspectives

INSIGHT

IMPROVEMENT

March 2, 2017

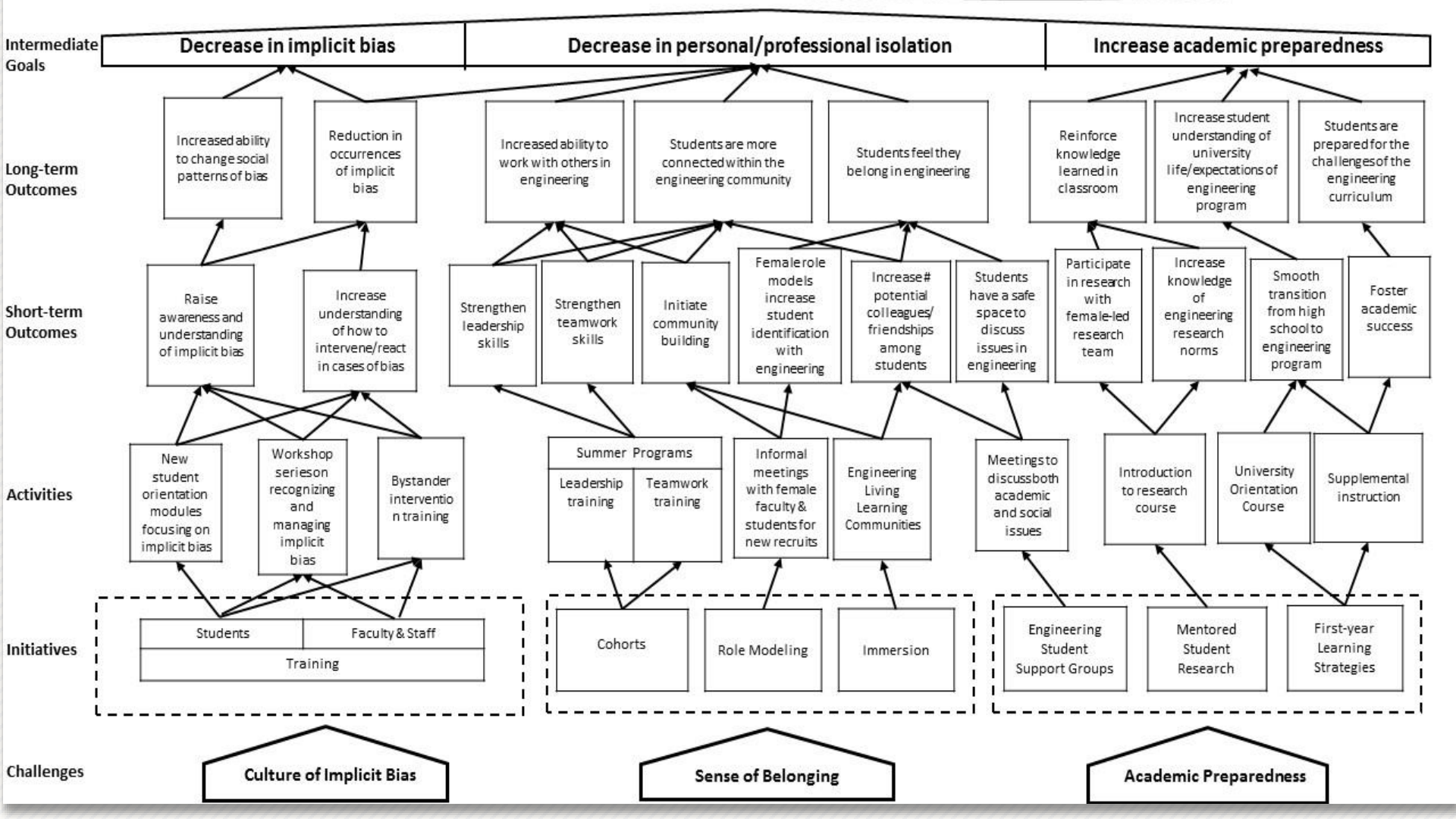
IMPROVEMENT

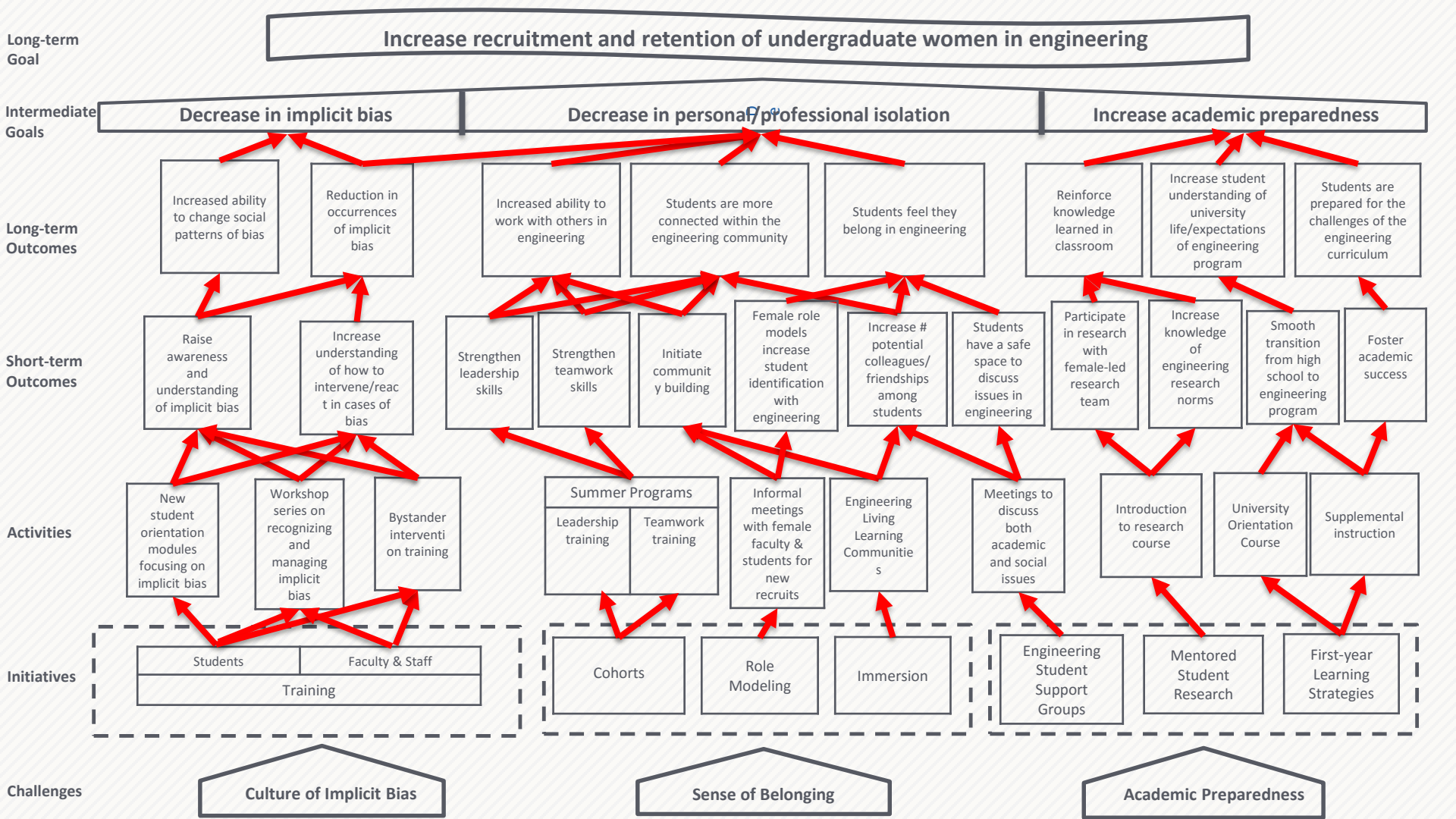
68%

of evaluators reported non-use of data as a major problem

Fleischer, Dreolin N.; Christie, Christina A.
American Journal of Evaluation, v30 n2 p158-175 2009

If you don’t know where you’re going, any road will get you there


Intermediate Goals
Decrease in implicit bias
Decrease in personal/professional isolation
Increase academic preparedness
Long-term Outcomes
Increased ability to change social patterns of bias
Reduction in occurrences of implicit bias
Increased ability to work with others in engineering
Students are more connected within the engineering community
Students feel they belong in engineering
Reinforce knowledge learned in classroom
Increase student understanding of university life/expectations of engineering program
Students are prepared for the challenges of the engineering curriculum
Short-term Outcomes
Raise awareness and understanding of implicit bias
Increase understanding of how to intervene/react in cases of bias
Strengthen leadership skills
Strengthen teamwork skills
Initiate community building
Female role models increase student identification with engineering
Increase # potential colleagues/ friendships among students
Students have a safe space to discuss issues in engineering
Participate in research with female-led research team
Increase knowledge of engineering research norms
Smooth transition from high school to engineering program
Foster academic success
Activities
New student orientation modules focusing on implicit bias
Workshop series on recognizing and managing implicit bias
Bystander intervention training
Summer Programs
Leadership training
Teamwork training
Informal meetings with female faculty & students for new recruits
Engineering Living Learning Communities
Meetings to discuss both academic and social issues
Introduction to research course
University Orientation Course
Supplemental instruction
Initiatives
Students
Faculty & Staff
Training
Cohorts
Role Modeling
Immersion
Engineering Student Support Groups
Mentored Student Research
First-year Learning Strategies
Challenges
Culture of Implicit Bias
Sense of Belonging
Academic Preparedness


Long-term Goal
Increase recruitment and retention of undergraduate women in engineering
Intermediate Goals
Decrease in implicit bias
Decrease in personal/professional isolation
Increase academic preparedness
Long-term Outcomes
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RESULTS

INSIGHT + IMPROVEMENT = RESULTS

4 TIPS FOR REPORTING RESULTS

1 NO SURPRISES

Keep key stakeholders in the loop about the progress your project has made.

2 DISSEMINATION PLAN

Identify at the start of the evaluation process who will need what information, and how you will get it to them.

3 APPROPRIATE FORMAT

Use the appropriate format for the appropriate audience.

4 CREATE UNDERSTANDING

Be sure to review findings with your stakeholders, including unexpected or negative results. These are an opportunity for improvement.

INSIGHT

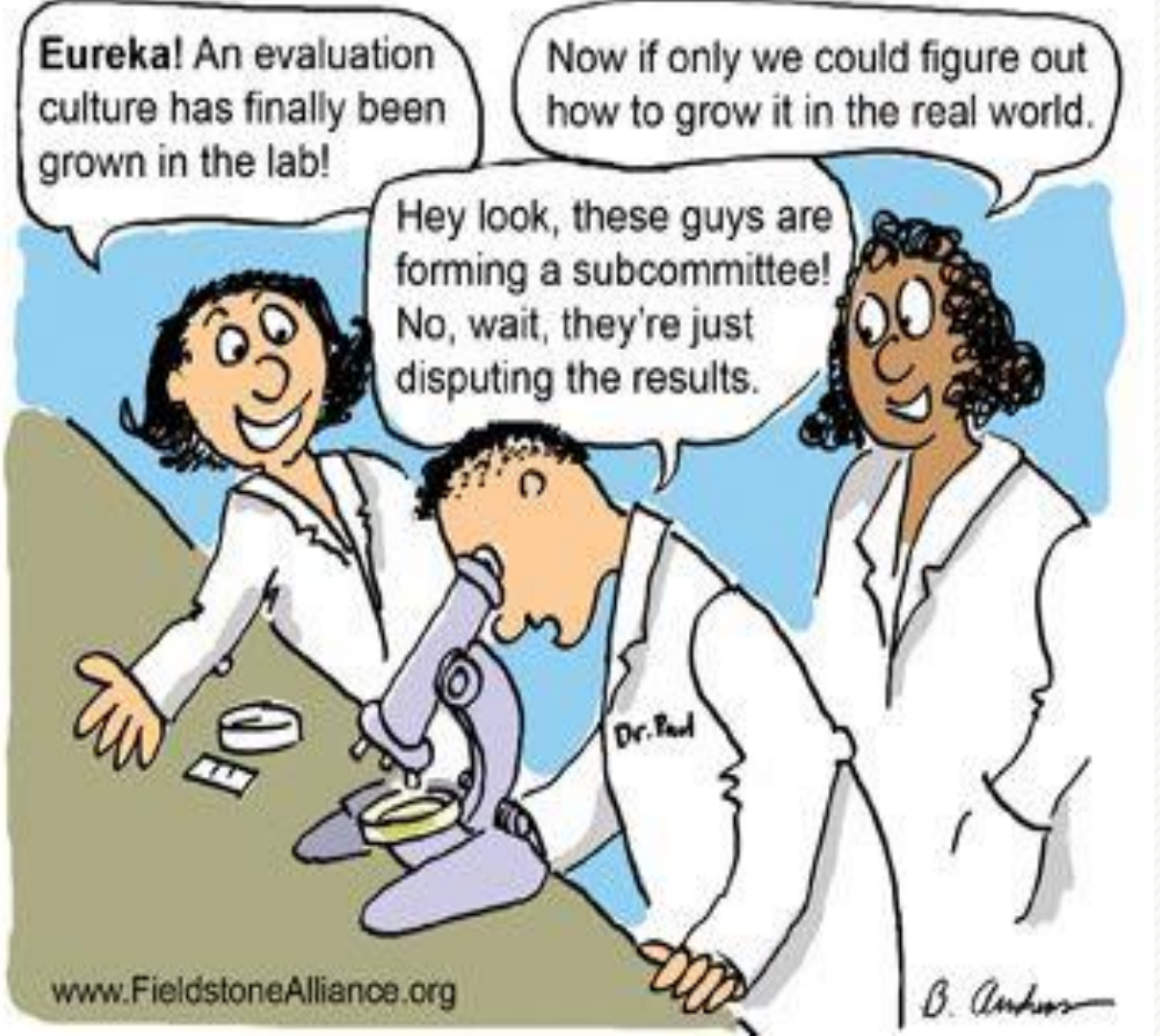
Know how your project works

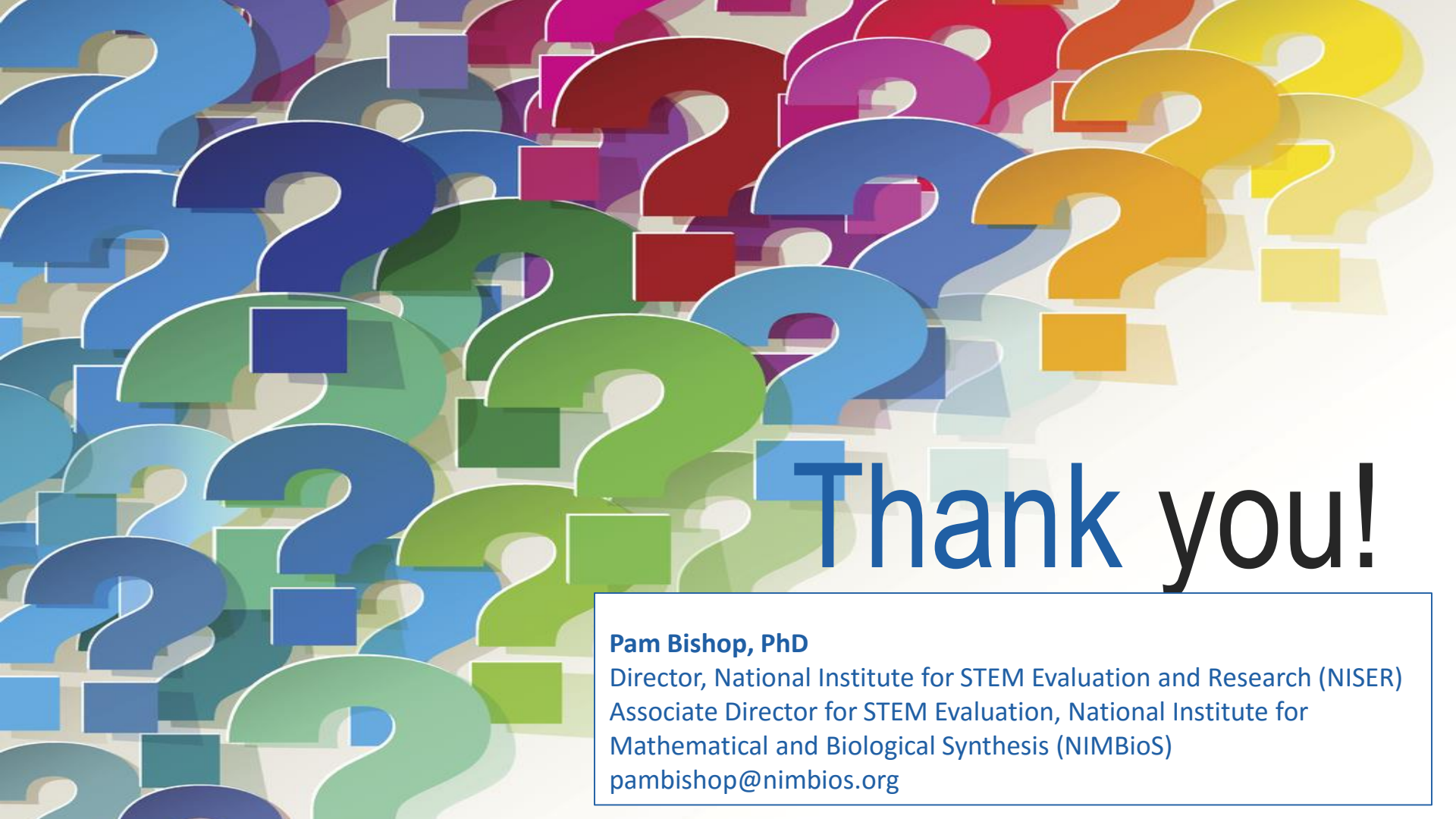
IMPROVEMENT

Understand how to make your project work better

RESULTS

Be able to showcase your accomplishments





Thank you!

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