How Evaluation Can Improve Your Project

Multi-Scale Evaluation in STEM Education Tutorial

Pam Bishop, PhD
Director, National Institute for STEM Evaluation and Research (NISER)
Associate Director for STEM Evaluation, National Institute for Mathematical and Biological Synthesis (NIMBioS)
WHAT IS PROGRAM EVALUATION?

PROGRAM EVALUATION IS:
Systematic collection of data about the activities, characteristics, and results of programs to (1) 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?

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Stakeholder Perspectives
INSIGHT

Your perspectives
Stakeholder Perspectives
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
Increase recruitment and retention of undergraduate women in engineering

**Long-term Goal**

Decrease in implicit bias

- Increased ability to change social patterns of bias
- Reduction in occurrences of implicit bias

Decrease in personal/professional isolation

- Increased ability to work with others in engineering
- Students are more connected within the engineering community
- Students feel they belong in engineering

Increase academic preparedness

- Reinforce knowledge learned in classroom
- Increase student understanding of university life/expectations of engineering program
- Smooth transition from high school to engineering program

**Intermediate Goals**

**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
- 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
- Engineering Student Support Groups
- Mentored Student Research
- First-year Learning Strategies

**Initiatives**

- Summer Programs
  - 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
INSIGHT + IMPROVEMENT = RESULTS

You better show great results if you want to stay funded

Why, what do you know, I have great results right here

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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!

Pam Bishop, PhD
Director, National Institute for STEM Evaluation and Research (NISER)
Associate Director for STEM Evaluation, National Institute for Mathematical and Biological Synthesis (NIMBioS)
pambishop@nimbios.org