



Evaluating Department Diversity, Equity, and Inclusion (DEI) Change: Tips from TECAID's Evaluators

Wednesday, June 13, 2018 (12:00-1:00pm ET)



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CENTER FOR EVALUATION & RESEARCH FOR STEM EQUITY

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Integration of research, evaluation, and consulting

Relationships

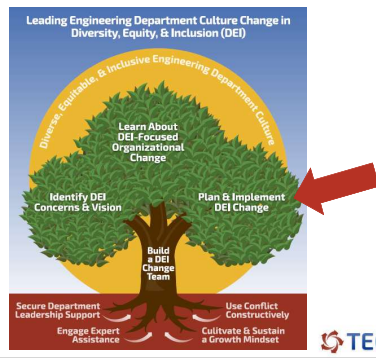

Multiple Methods and Methodologies

Critical Lens

<http://depts.washington.edu/cerse>




Evaluation in the TECAID Model

Evaluation Webinar Overview

- TECAID PROJECT and MODEL OVERVIEW (2:12)
- How do I GET STARTED and What kinds of QUESTIONS should I ask? (6:02)
- What METHODS should I use? (22:00)
- How do I USE THE DATA collected? (30:55)
- TECAID RESOURCES (49:02)



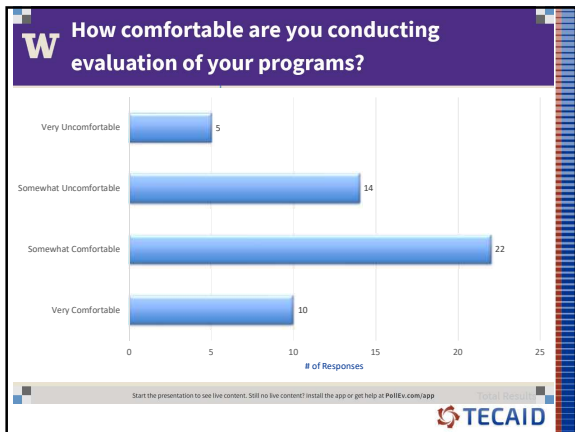
Let's Use Poll Everywhere!

Text "LIZLITZLER" to 22333

OR

Pollev.com/lizlitzler





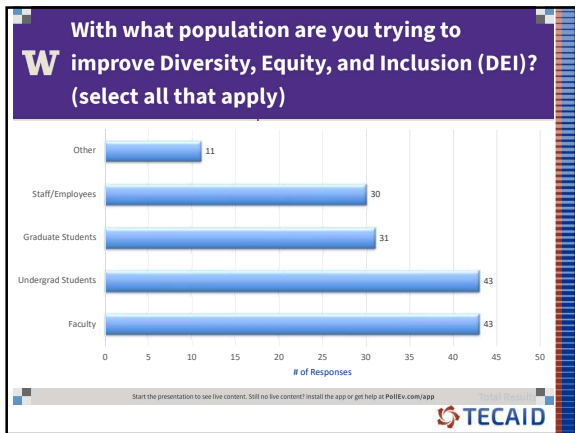
Planning for Evaluation

Did it work?
How well did it work?
(summative)

vs.

How can it be improved?
(formative)

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Planning for Evaluation

Start with the end in mind....Seriously!

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SMART Goals

Example 1: We will double the number of African American Mechanical Engineering majors by Spring 2019 (from 3 to 6 total)

Example 2: This year, we will increase the sense of belonging of women engineering students compared to data from 2016

Example 3: Student design groups in ME 401 will report a greater value of diverse perspectives in the design process (pre-post)

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W What goal do you have for your DEI-related change?

- Broad goal: All of our faculty are thriving and feeling welcome.
- Recruit three underrepresented community college transfer students by Spring 2019.
- Increase the number, retention, belonging, and success of women students in computer science.
- Understand student experiences in cultural studies required courses
- Improve department climate – and find a way to measure the climate
- Increase retention of URM
- I hope to increase the number of women in my department
- Increase the number of URM students
- Increase transparency and fairness in faculty and staff evaluation
- Change culture
- Improving the sense of belonging for UMR students, reduction of stereotype threat
- Improve climate and retention in the next 3 years
- A greater sense of inclusion for our undergraduates
- To demonstrate and educate faculty on the value of DEI
- campus wide attendance at basic diversity training
- Establish baseline of sense of community in Physics Department by the end of 2017-2018.
- Change department attitude toward DEI efforts
- Increase sense-of belonging
- More students from underserved groups
- Increase enrollment from POC families.
- Improve climate in College of Engineering
- Broad goal: All of our students are learning and feeling welcome.
 - ways to facilitate best practices to increase Culture of Inclusion
 - Improve workplace climate

Start the presentation to see live content. Still no live content? Install the app or get help at PollEV.com/app

Total Results

“Goal” Poll Results (Continued)

- Increase # of minority faculty
- Increase the number of departments using work climate surveys by 10% versus 2017
- Increase URG in summer programs
- Increase the percentage of women (+5%) in the first year undergraduate student body in the next year.
- Understand what makes students of color, women, and first-gen students choose to leave computer science and engineering
- Establish a baseline for the current state of our DEI climate
- Improve climate on campus for faculty and student, expand mentorship opportunities for faculty and students
- Improving the retention & success of women faculty in STEM... there are clearly underlying objectives
- Increase enrollment of URM students
- Meaningful inclusivity
- Breaking barriers between diverse groups
- Change culture towards women engineering faculty
- Increase ethnicity diversity in our undergraduate population within a year from 15 to 25
- Establish baseline of awareness of DEI issues that students and faculty encounter
- foster an environment where all community members are respected and acknowledged
- Increase the number of C and C+ students in the first math course who succeed in the second math course (A, B or C) within the next 2 years
- Promote the discussion of diversity importance
- Improve mentorship for underrepresented students
- Have faculty understand their biases
- To increase the number of our center’s projects that serve diverse populations.
- Increase the first year retention rate of ethnic diverse students from 60% to 70% by 2020
- Increase the % of domestic graduate students by 2019
- My goal is to use integrated STEM curricula to increase empathy and historical preservation.
- Increase the number of postdoc researchers from underrepresented populations
- More feelings of community and belonging
- Improve a sense of belonging within the department among female and URM graduate students
- Identify and remove barriers to black participation in engineering
- Give people the language to identify and address DEI issues in practice

Culture

Easy to observe, measure
Numbers, systems, processes, physical space

Hard to observe, measure, affect
Values, Hidden Assumptions, Norms, Unwritten Rules

Image by P. K. Murthy Y

Types of Outcomes

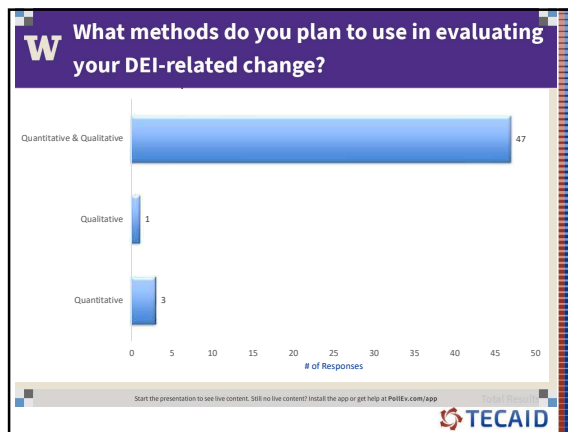
Qualitative and Quantitative

Leading vs. Lagging indicators

Outputs vs. Outcomes

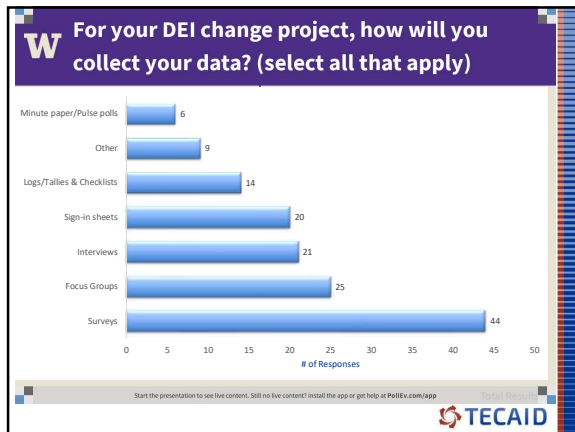
Examples

OUTPUTS	SHORT-TERM OUTCOMES	INTERMEDIATE OUTCOMES	IMPACT
In Fall, 50 female students complete Engr100 course with inclusive pedagogy	80% of Female Engr100 students continue on to take the next course Increases in female self-efficacy	Female Engr100 students retained & graduate in the major at higher rates than in past 80% of faculty use inclusive pedagogy practices after 3 years	Similar model adopted at other universities Adopters make significant gains in female enrollments and graduations in ENGR More women enter ENGR careers



Data Collection Methods

<p>High Cost/Time</p> <ul style="list-style-type: none"> • Interviews • Focus Groups • Surveys 	<p>Low Cost/Time</p> <ul style="list-style-type: none"> • Logs/ Tallies and checklists • Sign-in sheets • Minute paper/ Pulse polls • Surveys
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Tips for Survey Creation

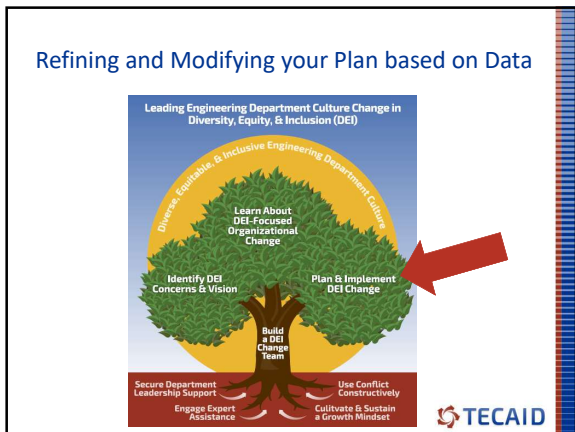
- Use single concept questions (not double-barreled)
- Use mutually exclusive categories
- Use recent time-referents
- Use both sides of the scale in the question stem
- Use equal # of positive and negative categories in scales
- Avoid vague quantifiers

See Survey Creation Tip Sheet

Tips for Qualitative Data Collection

Qualitative data is scientific and methodical
Anecdotes aren't scientific or methodical, but can still be useful
Surveys can be qualitative too!

- Use an observation or interview protocol
- Focus questions on the key areas of interest
- Allot time to analyze qualitative data (team meaning-making)



How Do I Use the Data?

- Develop or modify an action plan
- Share your results! (internally and externally)
 - Celebrate and recognize/legitimize work completed
 - Accreditation outcomes (ABET, etc.)
 - Current or future funders
 - Build and reinforce partnerships
 - Strategic planning
- Supports a systemic rather than individual perspective
 - Other?

W In what other ways might you use your data?

- challenge the traditional culture
- To make changes to non-discrimination laws? Now male faculty became so conny that along with female faculty who can make a change, they hire another female faculty who they have under their thumb. So the female faculty that is truly discriminated against cannot really file a discrimination charge.
- Love convincing skeptical faculty
- targeted interventions
- Use the data to develop appropriate interventions
- Project iteration
- Figure out why URM students are leaving
- To create trainings
- Showing change in order to inspire continued work in DEI, which often feels very slow and unproductive
- inform decision makers
- Gain community support for program
- Change the high sense of inadequacy amongst female engineering tech students
- increase awareness
- To gather feedback about inclusive pedagogy

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“Data Use” Poll Results (Continued)

- Advocate for additional resources
- Faculty recruitment
- Encourage everyone to commit to diversity and inclusion
- Inform educators about their classroom climate.
- developing and improving student support programming
- develop new questions fro further study
- Use the data to figure out appropriate interventions
- To enhance DEI efforts in academia generally (even beyond STEM)
- Targeted interventions regarding specific issues
- developing and improving policy
- Adjust activities to improve results. If intervention is successful show aggregate data to next population that could use the next year’s intervention
- convincing skeptical faculty of value of DEI efforts
- To modify programs and curriculum
- To attract diverse students and faculty who are seeking a welcoming environment.
- Recruitment
- Outreach
- To help folks feel welcome and their perspectives are welcome
- Support grant proposals
- Figure out next steps in research
- To help people understand the process
- to build additional programs

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“Data Use” Poll Results (Continued)

- Develop new questions for further research
- consciousness raising
- Advertising/marketing?
- For resource allocation
- Improving female faculty climate
- Facilitated discussions
- To provide students feedback
- To encourage enrollment in graduate programs
- course development
- Sharing with other institutions who can learn from our work
- accreditation
- Measure change in Empathy with educators and K-12 students.
- Secure a diverse working environment
- inform additional evaluation and research questions

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Key Take-Aways

Guiding Questions	Take-Aways
How do I get started?	Start with the end in mind. Use SMART goals.
What kinds of questions should I ask?	Formative or summative or both? Outputs, outcomes, impact.
What methods should I use?	Recognize benefits of qual. and quant. Consider user and focus.
How do I use the data?	Help clarify the problem. Modify and refine action plan. Funders, partnerships, and visibility. Celebrate success.

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W What questions do you have? [Don't leave yet, we have 2 more slides after this!]

- What are your thoughts on increasing the diversity that includes groups that are not traditionally "counted"
- Most universities are concern about increasing the number of minorities, but in a minority institution there is also the issue that people tend to think we are already diverse, but some of us think is not the case. Any comments on this?
- Can you give a successful example: data collection, intervention/action, improved shown in next data cycle?
- I think all these studies end up hurting the minorities. The male faculty is smart enough, along with the women who can make a change, they hire women whom they have under their thumb. So a discrimination change is very difficult to be brought about. What do you think?
- Do you have suggestions of a resource on best practices for inclusive pedagogies?
- Do you happen to have a list of tips to help us avoid creating a positive or negative bias on surveys?

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“Final Questions” Poll Results (Continued)

- Is there a repository of examples of surveys or focus groups questions for DEI?
- outcomes vs outputs, seemed like first examples of outcomes were numbers based so confused with outputs being numbers
- If you have a small school how do you measure success statistically?
- Explain the iterative process again, about how many times / years departments do this process- and how far they come...so we know what to expect...

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TECAID Resources

Website: www.wepan.org/mpage/TECAID

- [TECAID Model & Graphic](#)
- [Toolkit & Worksheet](#)
- [Case Studies](#)
 1. Working as a Team
 2. Gathering Strategic Information
 3. Effectively Navigating Conflict



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