



# TECAID

Transforming Engineering Culture  
To Advance Inclusion And Diversity

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Women in Engineering ProActive Network

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## TECAID Model: Leading Engineering Department Culture Change in Diversity, Equity, and Inclusion

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## About TECAID

In 2013, the **Women in Engineering ProActive Network (WEPAN)** Board of Directors charged WEPAN leadership with the task of engaging the organization in a project to help create an inclusive engineering culture that would support the success of women and other groups underrepresented in engineering. A vision was articulated that would become the basis for the Transforming Engineering Culture to Advance Inclusion and Diversity (TECAID) project. In 2014, WEPAN began a new collaboration with the **American Society of Mechanical Engineers (ASME)**; **Purdue University College of Engineering**; the **Kardia Group**; and the **Center for Evaluation & Research for STEM Equity (CERSE) at the University of Washington**. Together, these groups proposed the Transforming Engineering Culture to Advance Inclusion and Diversity (TECAID) project for **National Science Foundation** funding. TECAID was funded and launched in October 2014. During the following 2 years (2015 and 2016), **five teams\*** of faculty, chairs, and staff from Mechanical Engineering departments across the U.S. worked intensively with each other, the **project leadership team**, and a team of **subject matter experts** to gain the knowledge, skills, strategies, and awareness most relevant to changing their complex academic environment (see **TECAID Project Overview**). Feedback from TECAID participants revealed significant learning about inclusion, equity, and diversity as well as departmental change leadership. The TECAID Model is an outgrowth of this work. For more information about this project and its resources, visit the **TECAID website**.

## Defining our Terms

Below you'll find brief, contextual definitions of key terms used throughout the TECAID Model.

**Underrepresented Minority (URM)** encompasses people with identities that are not dominantly represented in Mechanical Engineering departments—most often women or racial minorities. In addition, this term can include, but is not limited to: people of color; English Language Learners; newcomers or immigrants to the U.S.; LGBTQ people; and people with disabilities. URMs can include people with multiple (or intersecting), non-dominant identities like a woman of color--or people who have both dominant and non-dominant identities, like a white, transgendered man. TECAID primarily focused on racial, ethnic, and gender diversity.

**Diversity** in the TECAID context means the representation of an array of different cultural identities, backgrounds, and experiences. Diversity encompasses a number of gender identities; racial identities; linguistic identities; LGBTQ people; newcomers or immigrants to the U.S.; and people with disabilities.

**Inclusion** is welcoming, recognizing, and valuing the strengths in people's differences. An inclusive academic department builds policy and models practice with an orientation that values and solicits an array of identities and experiences.

**Equity** is the fair treatment of people. Acknowledging that all identity groups are not treated equally in U.S. society, some groups may need more support than others.

The TECAID model refers repeatedly to Diversity, Equity, and Inclusion (DEI) change. Note that the name of this project, "Transforming Engineering Culture to Advance Inclusion and Diversity" (TECAID) does not include "equity" in its title. As the project progressed, the TECAID PI team's awareness and knowledge deepened, and the need to include "equity" became clear.

\*TECAID Participant Teams: Michigan Technological University, Oregon State University, Purdue University, Texas Tech University, University of Oklahoma

# TECAID Model: Leading Engineering Department Culture Change in Diversity, Equity, and Inclusion (DEI)

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# Cultivating a Diverse, Equitable, and Inclusive Culture in Academic Engineering Departments

## The Need for Engineers to Lead Diversity, Equity, and Inclusion (DEI) Change

Excellence in engineering is enhanced by the meaningful inclusion of individuals from diverse backgrounds. Business, government, not-for-profits, and the National Science Foundation have all made calls for a diverse engineering workforce. However, this demand has not yet been met. One reason why the demand has not yet been met is that engineering culture tends to be unwelcoming and ill attuned to the needs of diverse individuals. A starting place for the cultivation of an inclusive engineering culture is higher education.

By preparing and supporting a motivated cadre of academic engineering change-leaders, the *TECAID* project demonstrates that department leaders, faculty, and staff can positively transform department culture. Engineering change-leader efforts can improve engagement, learning, and social experiences for underrepresented (as well as majority group) engineering faculty and students. Ultimately, improving academic engineering department culture directly contributes to the broader societal need for an inclusive, equitable, and diverse engineering workforce.

## Introducing the TECAID Project

The TECAID Project was comprised of two phases, a professional development phase and a scale-up phase, which evolved over the course of four years. The work of the project was informed and completed by the:

- Five faculty-centric, Mechanical Engineering, TECAID Participant university teams (comprised of 5-7 department chairs/heads, faculty and/or staff):
  1. Michigan Technological University
  2. Oregon State University
  3. Purdue University
  4. Texas Tech University
  5. University of Oklahoma
- TECAID Principal Investigator (PI) Team
- University of Washington Center for Evaluation & Research for STEM Equity (CERSE) Evaluators
- Kardia Group, LLC diversity and culture change experts

For more information about the TECAID project, please see the introduction page of this document, the [TECAID Project Overview](#) and the TECAID website: <http://www.wepan.org/mpage/TECAID>.

## Evidence of TECAID Success

For participating Mechanical Engineering faculty and staff, engaging in the TECAID project resulted in significantly improved DEI change-leadership *knowledge, confidence, and actions* taken in support of engineering culture transformation. For more information on TECAID participants' noteworthy outcomes, see: [http://www.wepan.org/mpage/TECAID\\_Outcomes](http://www.wepan.org/mpage/TECAID_Outcomes)

## Preparing for Diversity, Equity, and Inclusion (DEI) Change

The TECAID Model was created to scale up the results of the initial professional development phase of the project. The Model is intended to support the efficient and effective use of your time and energy, and provide resources to help you achieve desired department DEI-focused culture change.

Before you begin work, keep the following in mind:

**Change work is long term.** Making DEI department culture change takes sustained effort and maintenance. Building into your change-plan things like deadlines and accountability for action, as well as multiple venues for recognizing contributions and project successes, will go a long way toward sustaining the work needed for department culture change. Build your intended broad, long term department culture transformation on successful, small, short term change projects.

**Change work is not linear.** You will likely find yourself cycling through some or all of the TECAID Model's Key Actions more than once. As you do so, keep in mind the "Groundwork Actions" identified below—particularly "Cultivate and Sustain a Growth Mindset," and "Use Conflict Constructively." Staying mindful of these actions (both personally and as a team member) can make the difference between work that ends in meaningful change or that which is stymied by indecision or conflict.

**Acting-from-learning and learning-from-acting is an integral part of the TECAID Model.** A common challenge is getting caught in the pitfall of thinking you don't have enough knowledge and expertise to move forward with action. Don't get caught in that trap! You needn't be an "expert" to take action. Although thoughtful reflection on knowledge gained is necessary, a key part of learning is acting, and the outcomes of your actions inform further learning. Action is necessary. The TECAID Model was strategically developed to be action-oriented.

**Collaboration with experts and leaders reduces the angst of change.** Change can be challenging. Supporting your DEI department culture change work with the help of subject matter experts, leaders, and allies will ease anxiety about putting your DEI Change Plan into action. Further, broadening the number and diversity of those involved in your Change Plan increases the likelihood that the "seeds" you plant will not only germinate but be fruitful. Be assured that ultimately, the overall success of your department depends upon building a culture that successfully engages the talents of diverse individuals in an equitable and inclusive system.

## The TECAID Model: Overview

The TECAID Model focuses on helping department leaders, faculty, and staff lead diversity, equity, and inclusion (DEI) culture change within engineering departments. Impetus for such change may be instigated by an array of factors including challenges from students; observation(s) and/or personal experience(s) of inequities; faculty and staff discussions; presidential initiatives; strategic planning; and/or national events.

The TECAID Model provides a blueprint for DEI skill building and change-leadership development, guidance through the change process, and recommended resources.

The TECAID Model builds upon a foundation of:

### *Groundwork Actions for Successful DEI Change-Making*

- Secure Department Leadership Support
- Engage Expert Assistance
- Cultivate and Sustain a Growth Mindset
- Use Conflict Constructively

Core to the TECAID model are:

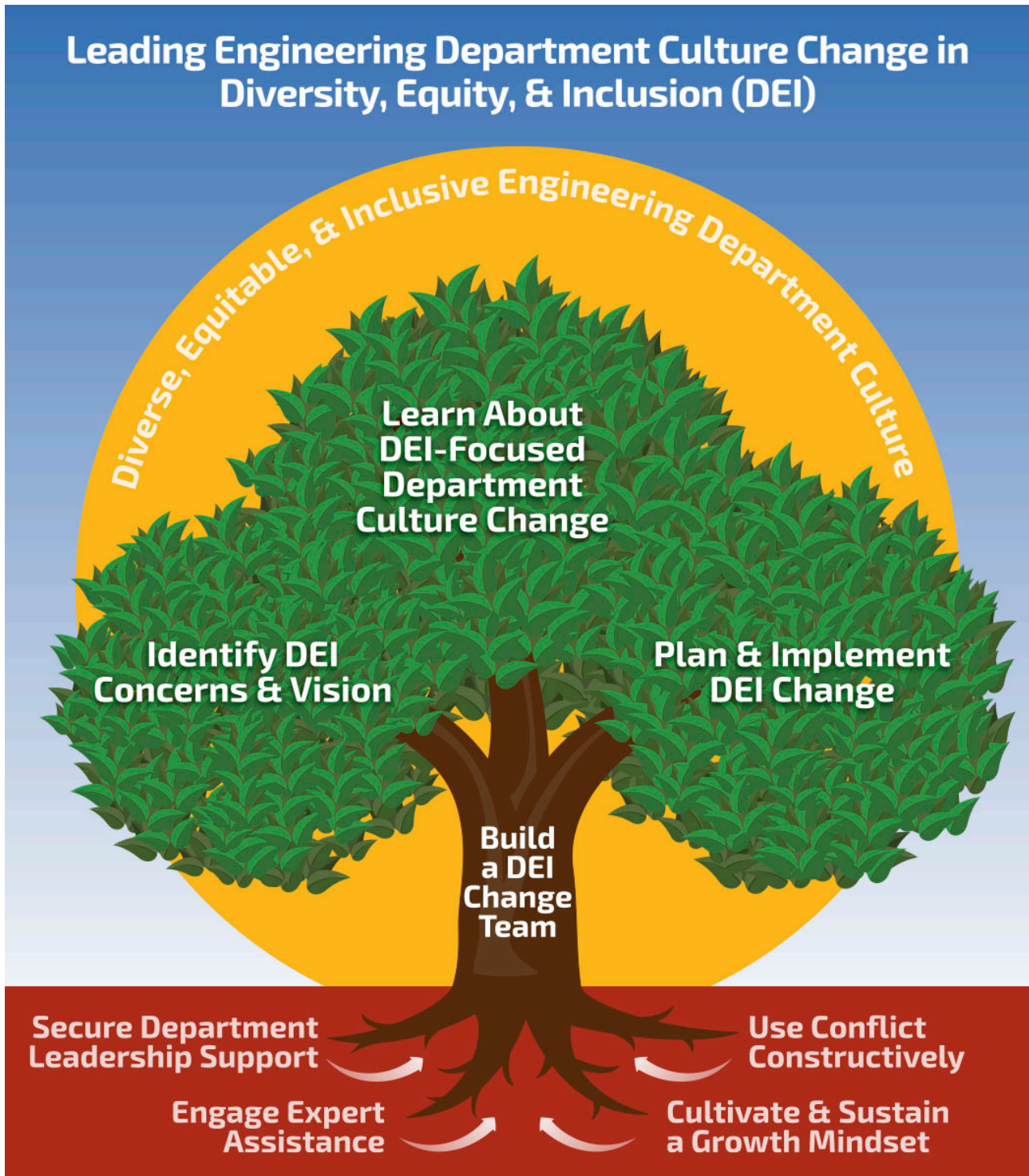
### *Key Actions for Cultivating DEI-Focused Department Culture Change*

- Identify DEI Concerns & Vision
- Build a DEI Change Team
- Learn about DEI-Focused Department Culture Change
- Plan & Implement DEI Change

In the proceeding pages you will be introduced to a graphic (Figure 1) of the TECAID model; a more detailed description of the *Groundwork Actions for Successful DEI Change-Making*; and a table (Table 1) providing a bulleted overview of general aspects of the four Key Actions. The remaining and primary bulk of the document is dedicated to figures and tables with accompanying resources. The tables detail the specific recommended actions within each Key Action area, considerations/recommendations for each specific action, and resources in the form of external links and tools included at the end of this document.



Figure 1: The TECAID Model Graphic



## Groundwork Actions for Successful DEI Change-Making

Engaging in the actions described below will provide the groundwork for your efforts to create meaningful and lasting change. You'll find detailed resources to help you undertake these actions in the pages following this introductory section.

**Secure Department Leadership Support.** Key to making significant DEI change is engagement by individuals who have influence in an organization. Ideally, your department leaders will be aware of, acknowledge, and invest in your DEI change plan. Be sure to recruit leadership personnel who support the specific DEI issue you wish to tackle. These could be formal leaders (i.e. a department chair) or informal leaders (someone who's not in a traditional leadership role, but is well respected within the department). Formal leadership support will strengthen and likely advance your change efforts—providing increased access to resources, motivation to be accountable, and recognition for your efforts.

**Engage Expert Assistance.** Engage subject matter experts, as relevant, to assist with the DEI change process. Experts in fields such as department change, DEI, and program assessment can help ensure that a departmental change effort produces positive results rather than simply recreating and/or reinforcing existing dynamics. The types of skills needed will vary based on the individuals involved, your institutional context, and your change goals. If available, on-campus experts could include: colleagues from department-change fields within your university's education or social science departments; diversity office personnel; counseling faculty; assessment and evaluation personnel, and/or NSF ADVANCE grant leaders. You can also obtain subject-matter content and expertise from consultants external to your university.

**Cultivate and Sustain a Growth Mindset.** An intentional growth orientation is one that welcomes new ideas, vulnerability, and self-reflection. This is necessary for both individuals and teams. This orientation values healthy intellectual and emotional growth. Unless you establish an intentional growth orientation, you and your change team may find yourselves becoming paralyzed, engaging with old, unproductive patterns, or adopting new solutions in reactionary, ineffective ways. As you learn new skills and concepts, you are encouraged to act on them and then learn from the results. For example, your team could work to engage additional department members in your efforts by using newly-gained communication skills or tactics—and in the process, learn what works well (or not so well) to guide you in your next engagement effort. Continued reflection and action can lead to change in departmental relationships and collegial interactions. Over time, this can help you refine your DEI change plan.

**Use Conflict Constructively.** Using conflict constructively can involve both internal and interpersonal conflict. Internally, tension may arise as you juxtapose old beliefs with new information or grapple with differences between organizational values and day-to-day practices. Interpersonal conflict will arise through disagreements, differences in priorities and strategies, and feedback that's related to behavior (and the impact of one's actions on others). Constructive engagement requires a willingness to genuinely experience internal and interpersonal conflict while moving toward change—rather than stopping at denial, defensiveness, or resistance. Supporting and soliciting new ideas, actions, connection, and understanding – even in the face of conflict – is key to successful outcomes.



## Key Actions for Growth

Table 1: Overview of Key Actions for DEI Change-Making	
Key Actions	General Overview
<b>Identify DEI Concerns &amp; Vision: Explore Causes and Resources</b>	<ul style="list-style-type: none"> <li>Recognize and reflect on a diversity, equity, and inclusion (DEI) issue that needs attention and/or improvement.</li> <li>Identify facts, thoughts, feelings associated with the DEI issue.</li> <li>Clarify the DEI issue—gather data/information, and analyze related symptoms and underlying problems.</li> <li>Consider local and national contexts.</li> <li>Create an initial vision for change.</li> <li>Identify resources.</li> </ul>
<b>Build a DEI Change Team: Invite Members and Cultivate Capacity to Work Together</b>	<ul style="list-style-type: none"> <li>Assemble a diverse team – bring in people with new ideas, resources, energy, identities/roles.</li> <li>Develop and practice skills for working together (e.g., ground rules for addressing disagreement, effective/fair work practices especially as they reflect DEI issues).</li> <li>Manage team attrition.</li> <li>Find and foster allies and community.</li> </ul>
<b>Learn about DEI-Focused Organizational Change: Build Knowledge, Awareness, and Experience</b>	<ul style="list-style-type: none"> <li>Reflect on and assess individual strengths, biases, knowledge, and power.</li> <li>Engage with a growth-oriented mindset; be courageous in your practice and ongoing use of new information and skills.</li> <li>Develop knowledge and awareness about DEI concepts, such as bias, micro-inequities, identities, etc.</li> <li>Learn about and understand your department context.</li> <li>Develop knowledge and skills and/or engage experts for help with managing change, teamwork, leadership, group facilitation, working with conflict, and dealing with resistance.</li> </ul>
<b>Plan &amp; Implement DEI Change: Assess and Refine as Needed</b>	<ul style="list-style-type: none"> <li>Create and refine your DEI Change Plan.</li> <li>Implement your plan, network with others, and build on your existing resources.</li> <li>Collect information about the impact of your DEI Change Plan. Use this evaluation data to adjust your goals, plans, and actions.</li> <li>Communicate the results of your work, and celebrate your incremental and big achievements!</li> <li>Remember that change work is not linear. You may have to re-assess the strength of your “Groundwork” or “Key Actions” and revisit them accordingly as you gather more information.</li> </ul>

## Identify DEI Concerns & Vision: Explore Causes and Resources

Figure 2: Specific Actions for Identifying DEI Concerns & Vision



**Table 2****Identify DEI Concerns & Vision: Specific Actions, Recommendations, & Resources**

Change work is not linear. You will likely find yourself cycling through some or all of the Key Actions more than once. Come back to this at any time when you need to re-establish clarity of focus and purpose. Remember that you may encounter dissonance or conflict as you plan and create a vision. For example, different team members may see different priorities of DEI focus, or two people may see themselves in the same, redundant role on the team. Embrace that conflict, and explore these areas thoroughly, as this exploration will assist you in thinking more thoroughly through your change plan, strategies, and goals.

Specific Actions	Considerations and Recommendations	Linked Resources
<b>2.1 Identify reason(s) for engaging</b>	Consider: <ul style="list-style-type: none"> <li>● <i>Why do you want to create departmental change in diversity, equity, and inclusion (DEI)?</i></li> <li>● <i>What might need to change?</i></li> </ul> Begin with a big picture reason for engaging. As you move through the key actions, you will refine your vision for change.  As you build your DEI Change Team, make sure individuals share their reasons for engaging in DEI-focused change. The differences in people's reasons for engaging could be a source of critical disagreement and an opportunity to use conflict constructively to focus your team.	<b>TECAID Self-Assessment of Potential Risks/Resources for Working on Department Culture Change in Diversity, Equity &amp; Inclusion</b>
<b>2.2 Identify the facts of the situation</b>	Determine what you (or the team) know(s). <ul style="list-style-type: none"> <li>● <i>What brought the situation (perceived problem) about?</i></li> <li>● <i>Who and what is involved?</i></li> <li>● <i>What is truly known (as opposed to suspected, thought, or imagined)?</i></li> </ul>	<b>TECAID Tip Sheet: Assessing Departmental Climate</b>
<b>2.3 Identify thoughts about the situation</b>	People construct narratives around a perceived problem. <ul style="list-style-type: none"> <li>● <i>What are your (the team's) thoughts about the situation?</i></li> <li>● <i>Do others share thoughts similar to yours?</i></li> <li>● <i>Is there divergence in thinking about the issues?</i></li> <li>● <i>Are there other thoughts about which you (or the team) should be aware?</i></li> <li>● <i>Who supports change here? Who is opposed?</i></li> </ul> Seek out diverse perspectives; consider rank, role, racial identity, gender identity, socioeconomic class, religious affiliation, etc.	

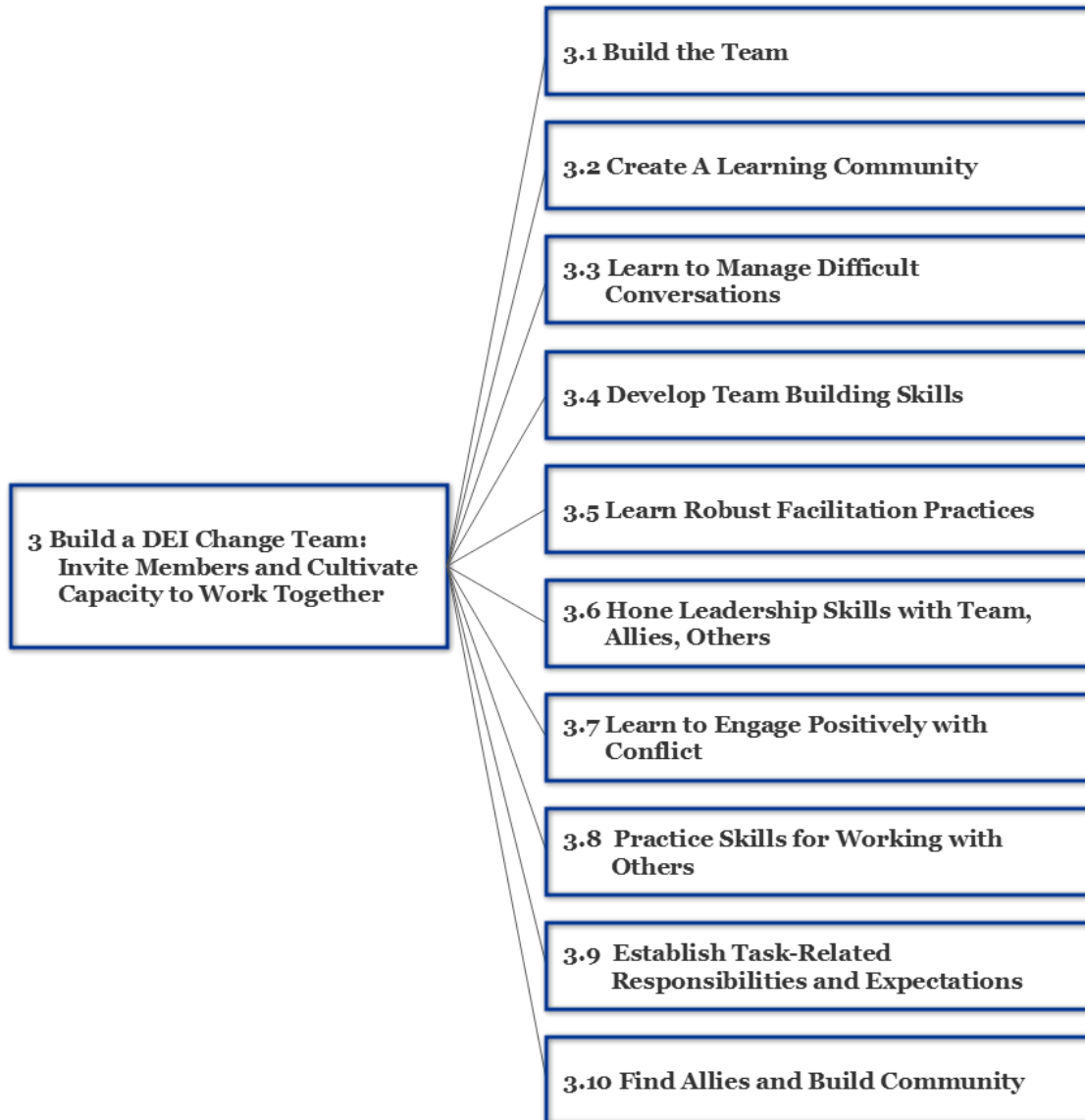
<p><b>2.4 Identify feelings about the situation</b></p>	<ul style="list-style-type: none"> <li>• <i>How are these issues emotionally charged in your department?</i></li> <li>• <i>What are your own feelings related to the problem?</i></li> <li>• <i>How are those who are motivated for change feeling?</i></li> <li>• <i>How about those who are resistant to this kind of change?</i></li> <li>• <i>How might feelings influence the capacity to effect change?</i></li> </ul> <p>Seek out diverse perspectives; consider rank, role, racial identity, gender identity, socioeconomic class, religious affiliation, etc.</p>	
<p><b>2.5 Clarify the problem by considering symptoms and problems</b></p>	<p>Sometimes what appears to be a problem is actually a symptom of a much broader issue.</p> <ul style="list-style-type: none"> <li>• <i>Consider the difference between a symptom and a problem.</i></li> <li>• <i>Is what you identified as a problem a symptom of a broader issue?</i></li> </ul> <p>For example, an initial “problem” might be that a professor is singling out URM students in ways that call attention to their differences. Upon considering the root causes of this behavior, it’s discovered that this professor lacks DEI awareness and knowledge. This behavior may be a symptom of a larger DEI problem in the department that needs to be addressed.</p>	<p>Problem-Symptom resources:</p> <ul style="list-style-type: none"> <li>• <b>Root Cause Problem Solving</b></li> <li>• <b>Fishbone (Ishikawa) Diagram</b></li> <li>• <b>Root Cause Analysis</b></li> <li>• <b>Are You Solving the Right Problem?</b></li> </ul>
<p><b>2.6 Consider the local context</b></p>	<p>Problems typically emerge as a function of a specific context (i.e., your department, classroom, meetings). Understanding the key elements of your situation can increase the likelihood of effective resolution.</p> <ul style="list-style-type: none"> <li>• <i>How might the problems and symptoms you are identifying be influenced by context?</i></li> </ul>	
<p><b>2.7 Consider the national context</b></p>	<p>Keep in mind the paucity of URMs in engineering. Using the resources provided, look at the extent to which URMs are included nationally and at your own institution. This knowledge will help inform your DEI change plan.</p> <ul style="list-style-type: none"> <li>• <i>What is the makeup of your own department: Faculty, staff, students?</i></li> </ul>	<p>On the <b>gender gap Statistics on disparities in STEM overall S&amp;E Indicators 2016</b></p>

<p><b>2.8 Create your preliminary vision</b></p>	<p>It is important to envision desired outcomes for the DEI issue identified. Without a clear sense of what is desired, it can be difficult to outline steps for positive change. Articulate what your department would look like if your issues were resolved:</p> <ul style="list-style-type: none"> <li>• <i>I want my department to be....</i></li> </ul> <p>In envisioning your departmental DEI change, you could ask yourself the following:</p> <ul style="list-style-type: none"> <li>• <i>Who is represented in positions of leadership?</i></li> <li>• <i>Who engages in meetings, and how?</i></li> <li>• <i>Who is represented in external department communication, and how?</i></li> <li>• <i>Are anonymous channels for feedback available and reviewed often?</i></li> </ul> <p>As you plan your vision, you should consider:</p> <ul style="list-style-type: none"> <li>• <i>Who will benefit from this change?</i></li> <li>• <i>Who might lose something because of this change?</i></li> </ul> <p>The more you articulate your DEI vision, the stronger your talking points for engaging others and the more prepared you will be for the change process.</p>	
<p><b>2.9 Explore and identify available resources</b></p>	<p>Take this opportunity to explore the variety of potentially helpful resources available within your campus community and beyond.</p> <ul style="list-style-type: none"> <li>• <i>Consider people who might be key allies.</i></li> <li>• <i>Are there others who might have similar or different needs/experiences who might want to help?</i></li> <li>• <i>What types of expertise are needed? What types of knowledge are critical?</i></li> <li>• <i>Where might these types of expertise or information be found?</i></li> </ul> <p>Understanding why people are motivated to engage in change work helps those involved to be conscious of the myriad of personal motivations behind the work. Having a conversation about this can build trust within your team. This is a place where dissonance can be invited and resolved.</p> <p>In addition, consider:</p> <ul style="list-style-type: none"> <li>• <i>What financial resources are available, or could be pursued?</i></li> <li>• <i>How much time is available to you and your team?</i></li> </ul> <p>These parameters will inform how you refine your vision moving forward.</p>	<p>Example resources:</p> <ul style="list-style-type: none"> <li>• Workshops/seminars</li> <li>• Facilitated discussions</li> <li>• Coursework</li> <li>• Affinity groups, university offices or administrators</li> <li>• Policies (e.g., hiring)</li> <li>• Professional societies</li> </ul> <p><b>TECAID Self-Assessment of Potential Risks/Resources for Working on Department Culture Change in Diversity, Equity &amp; Inclusion</b></p>



## Build a DEI Change Team: Invite Members and Cultivate Capacity to Work Together

Figure 3: Specific Actions for Building a DEI Change Team



### Table 3

## Build a DEI Change Team: Specific Actions, Recommendations, & Resources

Concepts and skills described in this Key Action are highly interrelated with those detailed in the Key Action “Learn about DEI-Focused Department Change” that follows. Use your change team as a place to practice and discuss the DEI knowledge and skills you are acquiring. Remember the importance of building and working with a team that reflects a diversity of identities and positions in your department. Heterogeneous groups can often experience more conflict. When embraced, this conflict can inspire innovation, momentum, and creativity to support your DEI change plan.

Specific Actions	Considerations and Recommendations	Linked Resources
<p><b>3.1 Build the team</b></p>	<p>In the TECAID approach to DEI change, building your team is a key component of the process. A team provides allies, support, and a means for sharing the workload. Teams should:</p> <ul style="list-style-type: none"> <li>● Reflect multiple perspectives in rank, role, and social identity.</li> <li>● Establish DEI as a priority and identify relevant resources.</li> <li>● Discuss shared goals and values.</li> <li>● Provide opportunities to practice new learnings and skills while receiving and delivering honest feedback. This is where a Growth Mindset is valuable. Learning from acting, and acting from learning is key (see Table 4).</li> <li>● Discuss the meaning and use of DEI concepts. (See Table 4.)</li> <li>● Model collectively envisioned changes within the team. For instance, if the team is attempting to change the climate for women in the department, the team should pay attention to the way that inequities may be present within the team.</li> </ul> <p>You and your teammates might ask:</p> <ul style="list-style-type: none"> <li>● <i>To what extent does your team represent diverse perspectives?</i></li> <li>● <i>What kinds of DEI resources are available to you?</i></li> </ul>	<p><b>TECAID Tip Sheet:</b>  <a href="#">Bringing New Members Onto Your Team</a></p> <p><b>TECAID Case Studies:</b>                      #1: Working as a Team on DEI Issues: The Challenges and Benefits                      #2: Gathering Strategic Information for Planning DEI Change                      #3: Navigating Conflict while Engaging in DEI Change Efforts</p> <p><b>TECAID Tip Sheet for Presenting and Representing Your Change Plan</b></p> <p><b>TECAID Tip Sheet:</b>  <a href="#">Engaging Experts and Other Resources</a></p>

<p><b>3.1 Build the team (continued)</b></p>	<ul style="list-style-type: none"> <li>• <i>How might you identify/establish shared goals/values?</i></li> <li>• <i>In what ways can you model the changes in your team that you hope to see in your department?</i></li> </ul> <p>Identifying team membership is only the first step in building a team. Change-team success depends upon ongoing attention to the health and functionality of your team’s dynamics, including:</p> <ul style="list-style-type: none"> <li>• how new members are brought on to the team</li> <li>• periodically addressing how the team is working together (not just what tasks need to be done next)</li> <li>• understanding the strengths and vulnerabilities of who is on the team</li> <li>• celebrating success, and supporting each other through challenges and disappointments</li> </ul>	<p>TECAID Sustaining Department Change—Worksheet</p>
<p><b>3.2 Create a learning community</b></p>	<p>As part of your growth orientation, ideally your team will evolve into a learning community. In this community, members are supported to expand their thinking and actions while learning from each other. This is a place for vulnerable and authentic conversation which can generate change.</p> <ul style="list-style-type: none"> <li>• <i>In what ways might you build trust and rapport among your team members?</i></li> <li>• <i>How do you cultivate the capacity of your team to disagree, be different, and struggle with each other?</i></li> </ul> <p>These qualities are essential underpinnings in your capacity to learn from and with each other.</p>	<p>“Communities of Transformation and Their Work Scaling STEM Reform” (Kezar &amp; Gehrke, 2017)</p>
<p><b>3.3 Learn to manage difficult conversations</b></p>	<p>Learning to invite resistance, navigate/honor your emotions, and build relationships during difficult conversations are key skills to help you move your change effort forward.</p> <ul style="list-style-type: none"> <li>• <i>How can you tactfully engage colleagues when they have divergent perspectives?</i></li> <li>• <i>Who in your environment is particularly effective at bridging differences and facilitating difficult conversations?</i></li> </ul>	<p>TECAID Giving and Receiving Feedback TECAID Perspectives on Resistance “Crucial Conversations” (Grenny et al., 2017) “Taking the Stress out of Stressful Conversations” (Weeks, 2001 )</p>

<p><b>3.3 Learn to manage difficult conversations (continued)</b></p>		<p>“Difficult Conversations” (Seppala, 2017 )                  “In a Difficult Conversation, Listen more than you Talk” (Seppala &amp; Stevenson, 2017)                  “Crucial Conversations: Tools for Talking when the Stakes are High” (Patterson, et al., 2002)                  “Crucial Accountability: Tools ...” (Patterson et al., 2013)                  “Difficult Conversations: How to Discuss what Matters Most” (Stone, et al., 2010)                  “Turn the Tide: Rise Above Toxic, Difficult Situations in the Workplace” (Obear 2016)</p>
<p><b>3.4 Develop team building skills</b></p>	<p>DEI work requires you to collaborate on and exchange ideas while welcoming contributions representing a range of perspectives, voices, and identities. You may need to build your skill set to successfully work within a diverse group of people, honor everyone’s contributions, and come to consensus that reflects the views of all parties.</p> <ul style="list-style-type: none"> <li>• <i>What kinds of activities can your team practice to hone skills and coalesce as an effective group?</i></li> </ul>	<p>“What Google Learned From Its Quest to Build the Perfect Team” (Duhigg, 2016)                  “10 Quick and Easy Team-Building Activities” (Deluca-Smith, 2016)                  “60 Team Building Activities” (Venture Team Building, 2017)</p>

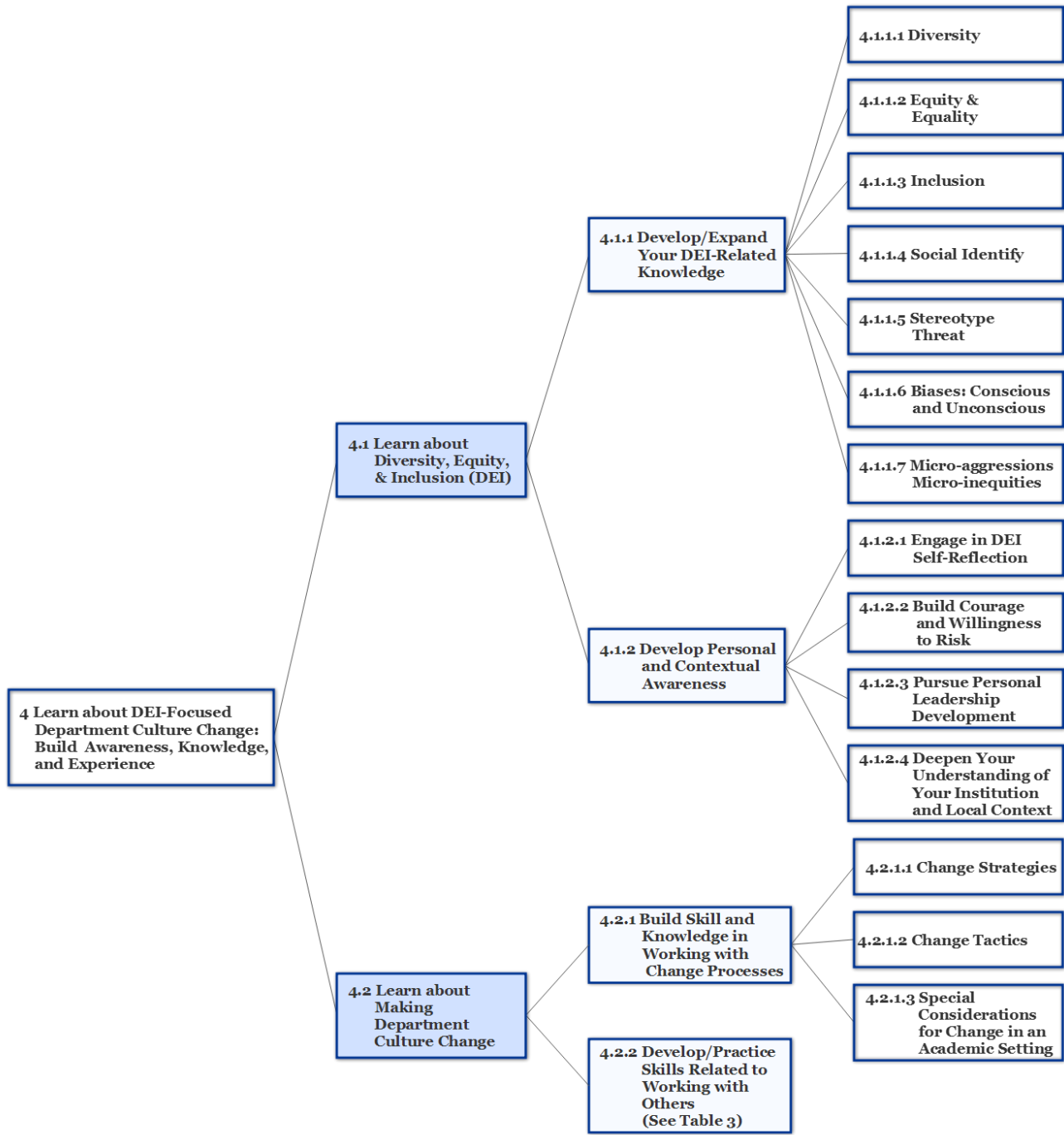
<p><b>3.5 Learn robust facilitation practices</b></p>	<p>You can learn useful facilitation skills that help keep conversations going and prevent them from getting de-railed.</p> <ul style="list-style-type: none"> <li>• <i>In what circumstances might you choose to seek outside expertise to enhance your facilitation skills and tactics?</i></li> </ul>	
<p><b>3.6 Hone leadership skills with team, allies, and others.</b></p>	<p>To develop and exercise leadership skills, do practice with your team and allies. Leadership can take many forms. For example, leadership may look like spearheading tasks, standing up for your beliefs, or giving direct feedback to someone.</p> <ul style="list-style-type: none"> <li>• <i>What new leadership roles can you take on that you haven't tried before?</i></li> </ul>	
<p><b>3.7 Learn to engage positively with conflict</b></p>	<p><b>Make conflict productive.</b> Disagreement is inherent in the process of changing people's behaviors and an organization's practices. Through the disagreement process you can get to know your colleagues' differing opinions, as well as their conflict styles. Disagreement has value.</p> <p><b>Expand your ability to work with different conflict modes.</b> Knowing your conflict style tendencies and those of each team member can improve your team's functioning.</p> <p><b>Learn to identify hidden conflict.</b> Sometimes people bury conflict without addressing it.</p> <p><b>See the underlying messages of conflict.</b> Your ability to see beyond the tip of the conflict into its roots brings the possibility of deeper understanding for all, and new ways to work with situations.</p> <p>It is important to practice and gain confidence in your conflict facilitation skills.</p> <ul style="list-style-type: none"> <li>• <i>What opportunities can you take to do so, both with individuals and groups?</i></li> </ul>	<p><b>TECAID Case Studies:</b> #3: Navigating Conflict while Engaging in DEI Change Efforts</p> <p><b>"How to Preempt Team Conflict"</b> (Toegel &amp; Barsoux, 2016)</p> <p><b>"How Management Teams can Have a Good Fight"</b> (Eisenhardt, Kahwajy, and Bourgeois III, 1997)</p> <p><b>"Thomas-Kilmann Instrument (TKI) Profile and Interpretive Report"</b> (Thomas &amp; Kilmann, 2010)</p>



<p><b>3.8 Practice skills for working with others</b></p>	<p>Team members should practice the following skills:</p> <ul style="list-style-type: none"> <li>● Engaging effectively with conflict.</li> <li>● Working amongst differences.</li> <li>● Developing leadership capacities in individuals.</li> <li>● <i>What kinds of activities could be useful for practicing these skills?</i></li> </ul>	<p>Myers-Briggs or Thomas-Killmann Conflict Instrument (TKI) to help people learn about different work styles and personal strengths/weaknesses.</p>
<p><b>3.9 Establish task-related responsibilities and expectations</b></p>	<p>Your DEI change team should:</p> <ul style="list-style-type: none"> <li>● Plan regular and effective communication.</li> <li>● Divide the work amongst the team, being mindful of potential risks and resources.</li> <li>● Agree on ways to stay accountable to one another and the team.</li> </ul> <p>Once task-related functions have been established, it will be easier to engage in your change process, as described in “Key Action: Plan and Implement DEI Change”.</p> <ul style="list-style-type: none"> <li>● <i>What strengths do you have to offer the team?</i></li> <li>● <i>What new competencies are you interested in developing?</i></li> <li>● <i>In what ways is everyone on your team able to bring their strengths and learning goals to the process?</i></li> </ul>	<p><b>TECAID Self-Assessment of Potential Risks/Resources for Working on Department Culture Change in Diversity, Equity &amp; Inclusion</b></p>
<p><b>3.10 Find allies and build community</b></p>	<p>Allies outside of the team, and perhaps even outside the department or institution, can provide highly valuable perspectives on a wide range of matters including departmental dynamics, DEI or change knowledge, and referrals to other resources.</p> <p>The ability to engage allies can be supported by leaders. Ensure support from leadership for community-building alliances.</p> <ul style="list-style-type: none"> <li>● <i>How can you identify, recruit, and engage allies both inside and outside of your department?</i></li> </ul>	

## Learn about DEI-Focused Department Culture Change: Build Knowledge, Awareness, and Experience

Figure 4: Specific Actions for Learning about DEI-focused Change



## Table 4

### Learn About DEI-Focused Department Culture Change: Specific Actions, Recommendations, & Resources

There is a lot to learn about DEI-focused department culture change leadership. Don't let the magnitude of the content bog you down. You should not feel solely responsible for spearheading DEI knowledge, awareness, and skill development—or for implementing organizational change processes. Recognize the limits of your learning and leadership capacity. With your team's commitment to the process, individuals can rotate in and out of leader and learner roles. Each individual can focus on taking leadership for activities and actions they are equipped to lead. That said, know when and how to call in outside experts. Experts outside of your team can help speed up or un-stick critical challenges in your learning or change processes. Perhaps there are experts either within or external to your institution who can help. Ask colleagues for suggestions or use your web-search powers. (See [Tip Sheet: Engaging Expert and Other Resources](#)).

#### 4.1 Learn about Diversity, Equity, and Inclusion (DEI)

Specific Actions	Considerations and Recommendations	Linked Resources
<b>4.1.1 Develop and Expand your DEI knowledge</b>	It is important that you learn about and understand DEI concepts as a foundation for your culture change work. The definitions below are a starting place for understanding.	
<b>4.1.1.1 Diversity</b>	Diversity is fundamental to an equitable workplace. Diversity encompasses a plurality of gender identities, racial identities, linguistic identities, LGBTQ people, newcomers or immigrants to the U.S., and people with disabilities. Often when people think of diversity, they are referring to representation of diverse populations alone. <ul style="list-style-type: none"> <li>● <i>In what ways is your workplace diverse?</i></li> <li>● <i>Conversely, what kinds of diverse identities are not represented?</i></li> </ul>	

<p><b>4.1.1.2 Equity and Equality</b></p>	<p>It is vital to understand the difference between equity (fairness) and equality (sameness).          Equality means everyone gets the same treatment or resources regardless of needs or circumstance. DEI work emphasizes the importance of equity rather than equality.          Equity means different people get different treatment or different resources based on their needs.</p> <ul style="list-style-type: none"> <li>• <i>What kinds of examples can you think of to illustrate equality in your departmental context?</i></li> <li>• <i>What kinds of examples can you think of to illustrate equity in your departmental context?</i></li> <li>• <i>For what issues might you advocate for equity rather than equality?</i></li> </ul>	<p>“Ten Commitments of a Multicultural Educator”</p> <p>“Equity Literacy Introduction” (Gorski, 2010)</p> <p>“The Danger of a Single Story” (Ngozi Adichie, 2009)</p> <p>“Cultural Humility” (Chavez, 2012)</p>
<p><b>4.1.1.3 Inclusion</b></p>	<p>An inclusive workplace environment recognizes and values the strengths in people's differences and imbues all policy and practice with an inclusion orientation. In order to foster an inclusive workplace environment, it is essential to welcome and engage a diversity of talents and knowledge, recognizing that inclusion of diverse people and perspectives can improve the caliber of work under the right circumstances.</p> <ul style="list-style-type: none"> <li>• Different ways of doing things can produce disagreement. However, if you are willing to work through the dissonance that sometimes comes with including diverse perspectives, your outcomes will be better.</li> <li>• <i>How can you as an individual make your workplace more inclusive?</i></li> <li>• <i>How can your workplace alter its practices and policies to be more inclusive?</i></li> </ul>	<p>Diversity Research (Page)</p>
<p><b>4.1.1.4 Social Identity</b></p>	<p>Every person has intersecting layers of social identities (intersectionality) such as gender, race, socioeconomic status, sexual orientation, and ethnicity. These layers all have different relationships to power and privilege.</p> <ul style="list-style-type: none"> <li>• <i>How do your own social identities impact your interactions?</i></li> <li>• <i>How do you think other people’s social identities impact how you relate to them?</i></li> </ul>	<p>“The Urgency of Intersectionality” (Crenshaw, 2016)</p> <p>AAUW Social Identify Resources</p>

<p><b>4.1.1.5 Stereotype Threat</b></p>	<p>Stereotype threat occurs when you, as an individual, behave differently than you would otherwise, when you are reminded of the stereotype of your identity group(s). Your behavior then confirms stereotypes about your identity group(s).</p> <p>For example, women are stereotyped to be bad at math. When required to identify their gender at the beginning of a math test, they are more likely to underperform on the test, compared to those who do not identify their gender before testing.</p> <p>In K-12 outreach, reminding students that there are few URMs in engineering can confirm the status quo, and may dissuade URM students from pursuing the field.</p> <ul style="list-style-type: none"> <li>• In an interview, pointing out that a person is a URM in their field can highlight their anxieties and induce stereotype threat. This can alienate or discourage URM interviewees.</li> <li>• Remember, asking demographic questions at the beginning of a survey or test invites stereotype threat. If you need this information, place such questions at the end instead.</li> </ul> <p>Consider:</p> <ul style="list-style-type: none"> <li>• <i>How might your behaviors be contributing to stereotype threat?</i></li> <li>• <i>What can you do in your workplace to mitigate it?</i></li> </ul>	<p>“Thin Ice: Stereotype Threat and Black College Students” (Steele, 1999)</p> <p>“Countering Stereotype Threat” (Cohn-Vargas, 2015)</p>
<p><b>4.1.1.6 Biases: Conscious (Explicit) and Unconscious (Implicit)</b></p>	<p>Bias is valuing some things over others. Biases are culturally learned.</p> <p>Conscious, or explicit biases are the attitudes or beliefs we hold on a conscious level. Unconscious biases are unconscious beliefs that come from the brain’s need to categorize our social world.</p> <p>Everyone has biases. You may not be conscious of some or many of your biases. Unconscious biases can be prejudicial. For example, the U.S. has a dominant, but sometimes unspoken, narrative that whiteness and heterosexuality are normal and masculinity is powerful.</p> <p>The result of these narratives is that some people are more valued while others are marginalized. We often hold these types of beliefs without knowing them consciously (even when they work against us), and act in inequitable ways as a result. Recognizing our own unconscious biases is one of the first steps towards leading DEI change.</p>	<p>What are Unintended Biases (Goodwin,2016; Engineering Inclusive Teaching: Faculty Professional Development Project)</p> <p>Project Implicit—Implicit Association Test</p> <p>“Unconscious Bias” (Navarro)</p>



<p><b>4.1.1.6 Biases: Conscious (Explicit) and Unconscious (Implicit) (continued)</b></p>	<ul style="list-style-type: none"> <li>• <i>What are some of your conscious (explicit) biases?</i></li> <li>• <i>How can you learn about your unconscious (implicit) biases?</i></li> <li>• <i>How might your unconscious (implicit) biases manifest in your behaviors in the workplace or in your personal life?</i></li> <li>• <i>How can you reduce and interrupt potentially prejudicial or exclusionary biases?</i></li> </ul>	<p><b>“The Impact of Unconscious Bias on Leadership Decision Making”</b> (Brainard, 2017)</p>
<p><b>4.1.1.7 Micro-aggressions/ Micro-inequities</b></p>	<p>Micro-aggressions or micro-inequities are subtle, often unintended slights (verbal or behavioral), from a member of a dominant group that devalue or threaten a member of a non-dominant group. They are most often unintended and unconscious but can accumulate over time with great psychological impact on the recipient.</p> <p>For example, a teacher may call out a student of color as disrespectful in a class lecture if they talk to their neighbor occasionally during the lecture. However, the student may be processing learning in a way that is meaningful to them. This reinforces the dynamic that white students are more successful than students of color, and that their learning style(s) are more appropriate.</p> <p>Another example could be a male faculty member talking over or interrupting a female colleague during a meeting. This reinforces the notion that male faculty members have more meaningful contributions to offer than women.</p> <ul style="list-style-type: none"> <li>• <i>Can you recall a time when you unintentionally slighted a member of a non-dominant group?</i></li> <li>• <i>Can you recall a time when you were the target of a micro-aggression?</i></li> <li>• <i>An equitable workplace culture would be one in which the existence of micro-aggressions could be openly discussed and explored.</i></li> </ul>	<p><b>“Racial Micro-aggressions in Everyday Life: Implications for Clinical Practice”</b> (Sue et al., 2007)</p> <p><b>“21 Racial Micro-aggressions You Hear on a Daily Basis”</b> (Nigatu, 2013)</p>

<p><b>4.1.2 Develop DEI Personal and Contextual Awareness</b></p>	<p>Working to learn about DEI-focused department change often produces a deep challenge to one’s self-perceptions. You may find yourself uncomfortable not knowing “the” answer, and unsure how to respond to various situations that arise as you and your team work together. Discomfort is a good sign – it means you are entering new territory.</p>	
<p><b>4.1.2.1 Engage in DEI Self-Reflection</b></p>	<p>While engaging in self-reflection, consider the following:</p> <ul style="list-style-type: none"> <li>● <i>What DEI skills do I have?</i></li> <li>● <i>What DEI knowledge do I have?</i></li> <li>● <i>What DEI information do I need to learn?</i></li> <li>● <i>What information could I obtain that would help me feel more comfortable talking to colleagues about DEI issues?</i></li> </ul>	<p><b>TECAID BACKPACS Framework &amp; Assessment</b></p>
<p><b>4.1.2.2 Build Courage and Willingness to Risk</b></p>	<p>Frequently, just acknowledging that you have something to learn can require courage, especially in front of peers or colleagues. Modeling the following actions for your colleagues can demonstrate courageous leadership:</p> <ul style="list-style-type: none"> <li>● Be open and willing to acknowledge your DEI deficiencies.</li> <li>● Take risks and be willing to make mistakes as you learn new things.</li> <li>● When mistakes are made, do not yield to defensiveness but instead embrace a learning mindset.</li> </ul> <p>Consider:</p> <ul style="list-style-type: none"> <li>● <i>What about DEI change work is most daunting to you? How can you lean into that fear in order to build and strengthen your leadership skills?</i></li> </ul>	<p><b>“Why Psychological Safety Matters and What to do About It”</b> (Edmondson &amp; Polzer, 2016)</p>
<p><b>4.1.2.3 Pursue Personal Leadership Development</b></p>	<p>Effective leadership skills will not only promote DEI change, but if applied well, will help you catalyze sustained departmental transformation. In order to make a significant impact on the department and beyond, all team members must hone and refine their leadership skills, not just your designated team leaders or chairs.</p> <ul style="list-style-type: none"> <li>● <i>If you are not already in a leadership role, what opportunities exist that you can pursue?</i></li> <li>● <i>In what ways is everyone on your team engaging and expanding their leadership capacities?</i></li> </ul>	<p><b>“What Does it Mean to be White? Developing White Racial Literacy”</b> (DiAngelo, 2012)</p> <p><b>“White Privilege: Unpacking the Invisible Knapsack”</b> (McIntosh, 1988)</p>

<p><b>4.1.2.3 Pursue Personal Leadership Development (continued)</b></p>		<p>“Strengths Finder” (Rath, 2007)</p> <p>“Theory U: Leading from the Future as it Emerges” (Scharmer, 2007)</p> <p>“Courageous Conversations about Race” (Singleton, 1992)</p> <p>TECAID Emerging Expertise: DEI-focused Department Culture Change</p>
<p><b>4.1.2.4 Deepen your Understanding of Your Institution and Local context</b></p>	<p>Understanding your department and organizational context in advance of developing a DEI Change Plan helps you to anticipate and plan for resources, resistance, and possible disruptions. Generic change plans tend not to work very well.</p> <ul style="list-style-type: none"> <li>● <i>What is the history of prior efforts of this kind?</i></li> <li>● <i>What is the position of top leaders and institutional policy related to your concerns?</i></li> <li>● <i>What statistics or other institutional data inform your efforts?</i></li> <li>● <i>Are other departments or units engaging in related efforts?</i></li> </ul>	<p>TECAID Force Field Analysis</p> <p>TECAID Case Studies: #2: Gathering Strategic Information for Planning DEI Change</p> <p>TECAID Tip Sheet: Assessing the Departmental Climate</p>

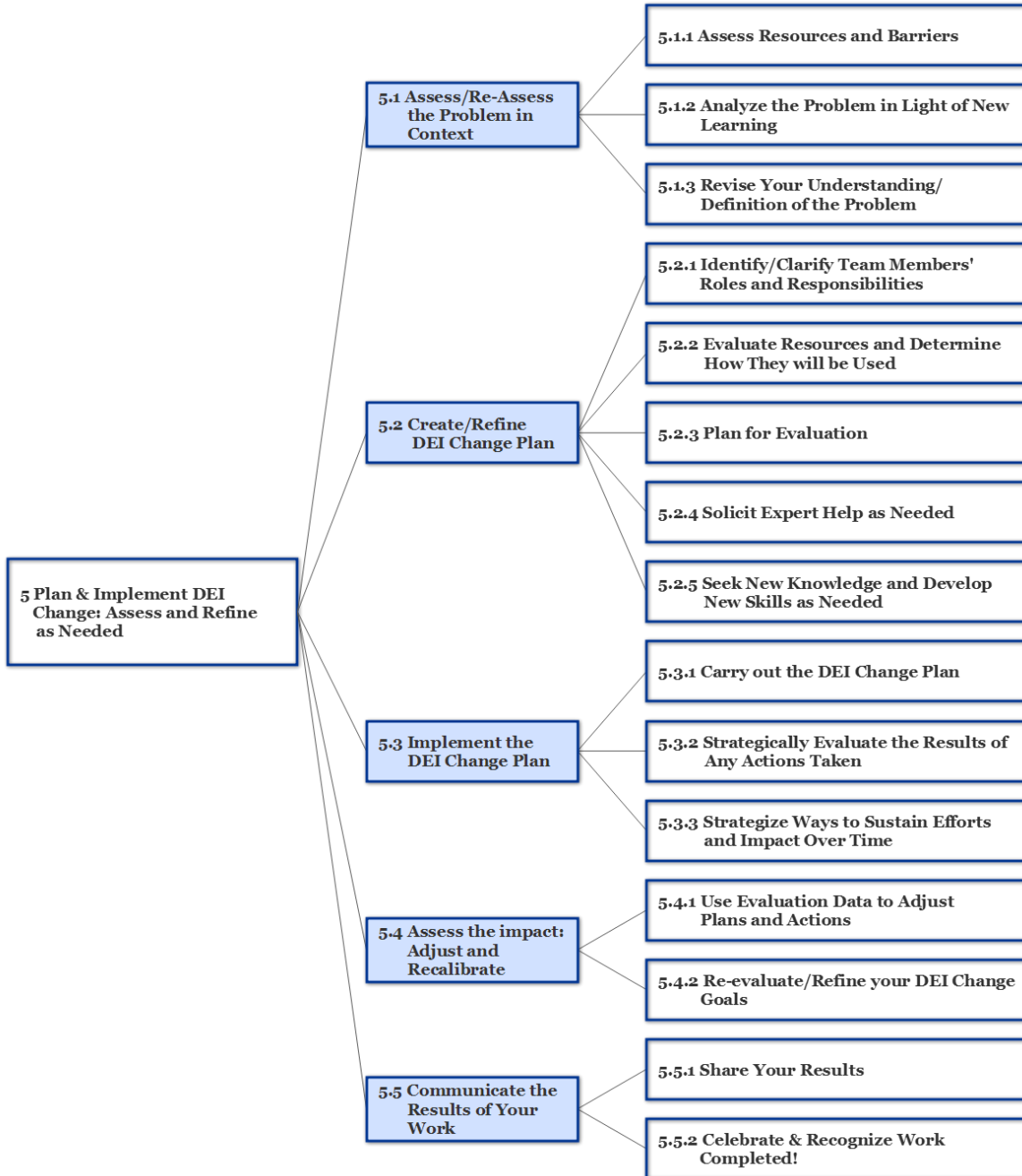
4.2 Learn about Making Department Culture Change		
<b>4.2.1 Build Skill and Knowledge in Working with Change Processes</b>	While we don't have mathematical equations that precisely define or predict the behavior of organizations and groups, much is known about the dynamics, pressures, and levers associated with making change. Thoughtful consideration of the current state of the system you seek to change will greatly increase your ability to direct that system to a new steady state.	
<b>4.2.1.1 Change Strategies</b>	Change strategies are built on a robust assessment of current conditions followed by deliberate and thoughtful efforts to shift those conditions in a desired direction. This involves seeing anew what is currently taken for granted, paying attention to timing and resources, and considering "what if...?" scenarios that might predict the success of intended outcomes while providing insight into unintended outcomes. Typically strategies such as <b>education, persuasion, incentives, and pressure</b> can be applied to effect the change desired.	<p><b>TECAID Strategies for Change: EPIP Model</b></p> <p><b>TECAID Force Field Analysis</b></p> <p><b>TECAID Case Studies: #2: Gathering Strategic Information for Planning DEI Change</b></p> <p><b>"Understanding and Facilitating Change in the 21<sup>st</sup> Century" (Kezar, 2001)</b></p>

<p><b>4.2.1.2 Change Tactics</b></p>	<p>Consider picking S.M.A.R.T. goals for your Change Plans. This means goals that are:</p> <ul style="list-style-type: none"> <li>● Specific</li> <li>● Measurable (incorporating observable feedback as well as data)</li> <li>● Achievable</li> <li>● Results-focused</li> <li>● Time-bound</li> </ul> <p>Take into consideration your change-team’s organizational context, what kind of impact you hope to make, how much time you have, and how public you hope your effort will be. Using the five dimensions below will help you think critically and strategically about making change. Considering each of these dimensions and planning accordingly will help you to act more quickly and effectively.</p> <ul style="list-style-type: none"> <li>● Formality: Informal to Formal.</li> <li>● Size of Impact: Small to Large.</li> <li>● Privacy: Covert to Overt.</li> <li>● Visibility: Low-Profile to High-Profile.</li> <li>● Duration: Short-Range to Long-Range.</li> </ul>	<p><b>Example SMART Goal Worksheet</b> (Esposito, 2015)</p>
<p><b>4.2.1.3 Special Considerations for Change in an Academic Setting</b></p>	<p>Making change in academia calls for attention to particularized circumstances including:</p> <ul style="list-style-type: none"> <li>● Working effectively across the differences between faculty and staff cultures.</li> <li>● Grappling with low accountability within a highly decentralized system that relies on faculty self-governance.</li> <li>● Navigating power differentials within a tenure-based faculty advancement system.</li> </ul>	<p><b>“Synthesis of Scholarship on Change in Higher Education”</b> (Kezar, 2009—Section 2. “Higher Education as a Unique Change Context”).</p>
<p><b>4.2.2 Develop and Practice DEI Skills Related to Working with Others</b></p>	<p>Because DEI is fostered through relationships, DEI problems can be indications that something is awry within relationships. Improving your skills related to working with others is key to making DEI change. Refer to Table 3 for specifics.</p>	



## Plan & Implement DEI Change: Assess and Refine as Needed

Figure 5: Specific Actions for Planning and Implementing DEI Change



## Table 5

### Plan & Implement DEI Change: Specific Actions, Recommendations, & Resources

The actions for consideration described below are cyclic. Each action begins with an activity, followed by reflection and learning. You may need to repeat these activities more than once on your path to creating effective change. Also, as you implement your DEI change plan, you may see that things are not going as well as planned. For example, a course session you taught on DEI concepts may receive negative feedback from students. Embrace and use the students' feedback to make changes. Analyze and assess the work that you do, and make changes accordingly. DEI change requires risk-taking and trial and error. You are not striving for perfection, but rather to make meaningful change—and this can be messy.

Specific Actions	Considerations and Recommendations	Linked Resources
<b>5.1 Assess/re-assess the problem in context</b>	Look at the problem, considering the context. Make use of everything you have learned, including new DEI knowledge and experiences. Assess or re-assess resources and barriers to achieving your vision.	
<b>5.1.1 Assess resources and barriers</b>	<p>Consider the resources available:</p> <ul style="list-style-type: none"> <li>• <i>What resources are going to be most useful to you in meeting your DEI change plan goal(s)?</i></li> </ul> <p>Consider what barriers exist:</p> <ul style="list-style-type: none"> <li>• <i>Might you be able to strategically shift any perceived barriers into resources?</i></li> </ul> <p>As your process is underway, ask yourself:</p> <ul style="list-style-type: none"> <li>• <i>Has your understanding of any of your resources changed?</i></li> <li>• <i>Have any resources become barriers?</i></li> <li>• <i>Have any barriers become resources?</i></li> </ul> <p>For more information about resources and barriers, see “Table 2: Identify DEI Concerns.”</p>	<p><b>TECAID Self-Assessment of Potential Risks/Resources for Working on Department Culture Change in Diversity, Equity &amp; Inclusion</b></p> <p><b>TECAID Case Studies:</b> #2: Gathering Strategic Information for Planning DEI Change.</p> <p><b>TECAID Tip Sheet: Assessing Departmental Climate</b></p> <p><b>TECAID Force Field Analysis</b></p>

<p><b>5.1.2 Analyze problem in light of new learnings</b></p>	<p>Consider how you have learned from your actions throughout this experience. Use the information you have learned to assess whether you are on the right path to effective change or whether you need to make adjustments. Solicit feedback from different stakeholders, both within and outside of your team.</p> <ul style="list-style-type: none"> <li>• <i>In addition to your personal and team analysis, who else can you seek feedback from that is critical to the success of the DEI change plan?</i></li> <li>• <i>With that feedback in mind, in what ways does your DEI change plan need to be revised or re-examined in order to be more effective?</i></li> </ul>	
<p><b>5.1.3 Revise your understanding/definition of the problem</b></p>	<p>Based on the feedback you sought, you may need to adjust or redefine the problem or your DEI change plan.</p> <ul style="list-style-type: none"> <li>• <i>Is redefining the problem helpful or necessary in your situation? If so, what adjustments will help foster the success of your DEI change plan?</i></li> </ul> <p>If needed, revise your problem description.</p>	
<p><b>5.2 Create/Refine DEI Change Plan</b></p> <p>Make a DEI-focused department change plan. There may be many ways to address the problem you have identified. Choose your first actions based on relative ease of accomplishment. Feeling successful early-on builds confidence for tackling later challenges.</p>		
<p><b>5.2.1 Identify/Clarify team members' roles and responsibilities</b></p>	<p>No one can do it all. Effective teams share responsibilities. When you think about taking on tasks, consider your strengths and opportunities for growth.</p> <p>Given the nature of your DEI change plan, determine:</p> <ul style="list-style-type: none"> <li>• <i>What roles can people and organizations play? (Consider both team members and allies.)</i></li> <li>• <i>How can you best delegate actions given team members' time constraints?</i></li> <li>• <i>What existing skills could you use to make a meaningful contribution?</i></li> <li>• <i>What new skills might you be interested in learning that this change work can help you build?</i></li> </ul>	

<p><b>5.2.2 Evaluate resources and determine how they will be used</b></p>	<p>It is useful to consider all resources that may be beneficial to your DEI change plan, both internal to your department and external. Examples of resources could be: finances, people’s time, skills, availability, outside groups or organizations, local media outlets, or national publications.</p> <p>Given the nature of your DEI change plan:</p> <ul style="list-style-type: none"> <li>• <i>What kinds of resources can be put to use, and how?</i></li> </ul>	
<p><b>5.2.3 Plan for evaluation</b></p>	<p>Determine the best method(s) of evaluation based on your DEI change plan. These could include surveys, interviews, focus groups, or other types of information gathering.</p> <ul style="list-style-type: none"> <li>• <i>What question(s) are you trying to answer? What do you want to know about your DEI change work’s impact?</i></li> <li>• <i>What types of evaluation can best capture what you want to know about your DEI change work’s impact?</i></li> <li>• <i>Who in your community might be able to offer support in deciding and refining the best methods of evaluation for your DEI change plan?</i></li> </ul>	<p>2010 NSF User-friendly Evaluation Handbook</p> <p>1982 Practical Evaluation: Chapter 7 Principles of Evaluation</p> <p>TECAID Measuring Change: Considerations for Creating Better Change Metrics</p>
<p><b>5.2.4 Solicit expert help as needed</b></p>	<p>Given the complexity of DEI-focused department change work, soliciting expert assistance can be critical to the success of your DEI change plan. Invite internal or external consultants to help.</p> <ul style="list-style-type: none"> <li>• <i>In what areas do you need additional help?</i></li> <li>• <i>Internal to your university, who can help?</i></li> <li>• <i>Who can you ask for recommendations about external expertise?</i></li> </ul>	
<p><b>5.2.5 Seek new knowledge and develop new skills as needed</b></p>	<p>Identify areas where additional knowledge or skills would advance the DEI change plan. Gather resources and seek training to build specific change capacities.</p> <ul style="list-style-type: none"> <li>• <i>What types of networking and idea-sharing might bring forth additional internal and external resources?</i></li> <li>• <i>What kinds of trainings could help your team initiate further growth and accelerate progress?</i></li> <li>• <i>What additional knowledge could increase your DEI change plan’s impact?</i></li> </ul>	

<p><b>5.3 Implement the DEI change plan</b></p>	<p>Take action by consciously implementing your DEI change plan. In doing so, make sure to evaluate successes and barriers while factoring in sustainability.</p>	
<p><b>5.3.1 Carry out the DEI change plan</b></p>	<p>Enact your plan, and remember that making mistakes is part of the process. You will learn as you go. Consider the following:</p> <ul style="list-style-type: none"> <li>● <i>What types of activities are you undertaking?</i></li> <li>● <i>What are your short-term activities?</i></li> <li>● <i>What are your long-term activities?</i></li> <li>● <i>Who is doing what, and for how long?</i></li> <li>● <i>How are you getting the word out about your DEI change plan?</i></li> <li>● <i>How are you generating buy-in from potential allies?</i></li> <li>● <i>What kinds of measures are in place to assure your team's accountability for implementing the DEI change plan?</i></li> </ul>	
<p><b>5.3.2 Strategically evaluate the results of any actions taken</b></p>	<p>Evaluate your change efforts. This can be done through surveys, interviews, and subsequent analysis. Formally noting and analyzing incremental successes and barriers as they arise will help you refine your plan.</p> <ul style="list-style-type: none"> <li>● <i>What is going well?</i></li> <li>● <i>What needs to change?</i></li> <li>● <i>What new information garnered through evaluation can support further plan refinement?</i></li> </ul>	
<p><b>5.3.3 Strategize ways to sustain efforts and impact over time.</b></p>	<p>It is imperative to take sustainability into consideration now so that your hard work has momentum and continuity.</p> <ul style="list-style-type: none"> <li>● <i>What measures can you take to ensure the sustainability of your DEI change plan?</i></li> <li>● <i>How can you institutionalize policies and practices?</i></li> <li>● <i>What succession planning is in place so that your goals live on?</i></li> </ul>	

<p><b>5.4 Assess the Impact: Adjust and Recalibrate</b></p>	<p>You may need to adjust your plans and actions based on what you learn from informal and formal data gathering. This is a key part of the “Act from Learning” and “Learn from Acting” process.</p>	
<p><b>5.4.1 Use evaluation data to adjust plans and actions</b></p>	<p>Adjust plans and actions based on what you’ve learned from your strategic evaluation of the DEI change plan.</p> <ul style="list-style-type: none"> <li>● <i>What kinds of changes need to be made to your DEI change plan?</i></li> <li>● <i>How can you develop and carry out recommendations for change?</i></li> <li>● <i>How can you leverage successes?</i></li> <li>● <i>What new questions arise when you evaluate your change plan?</i></li> </ul>	
<p><b>5.4.2 Re-evaluate and refine your DEI change goals</b></p>	<p>In light of new understandings gathered about the DEI change plan:</p> <ul style="list-style-type: none"> <li>● <i>Is your original change plan goal still appropriate?</i></li> <li>● <i>Do you need to re-align the change plan?</i></li> <li>● <i>Was the original goal too big (unrealistic)/too small (low impact)?</i></li> <li>● <i>How can you refine change plan goals in light of new information?</i></li> </ul>	
<p><b>5.5 Communicate the Results of your Work</b></p>	<p>It is important to communicate the results of your work with your community, both as you go, and at the completion of your DEI change plan.</p>	
<p><b>5.5.1 Share your results</b></p>	<p>Keep your department, allies, and stakeholders informed of the progress and outcomes of your work. This could be done through meetings, press releases, institutional announcements, presentations, emails on listservs, informal conversations, and more.</p> <ul style="list-style-type: none"> <li>● <i>What channels are available to you for sharing progress?</i></li> <li>● <i>Who would you wish to inform, within/outside your department?</i></li> <li>● <i>How broadly do you want to disseminate your information?</i></li> </ul>	<p><b>TECAID Tip Sheet for Presenting and Representing Your Change Plan</b></p> <p><b>TECAID Giving and Receiving Feedback</b></p> <p><b>TECAID Perspectives on Resistance</b></p>
<p><b>5.5.2 Celebrate and recognize work completed!</b></p>	<p>It is important to overtly acknowledge one another’s efforts and growth throughout the DEI change-making process.</p> <ul style="list-style-type: none"> <li>● <i>What good work was done by whom?</i></li> <li>● <i>How can you acknowledge/honor your colleagues’ contributions?</i></li> </ul>	

## Concluding Remarks

The TECAID Model is the culmination of nearly 4 years of work. The professional development phase of the project involved two years of interactive engagement and data collection. In the subsequent 18 months, the TECAID Model was conceived, developed, and refined. Resources were revised and added.

The final Model represents the collaborative expertise of people from academic and professional organizations across the U.S. in their roles as consultants, faculty, staff, and graduate students, within engineering, social science, and evaluation disciplines. The diversity of identity, thought, and professional experience represented among the co-authors afforded opportunity to integrate a variety of perspectives in the Model's iterative development, strengthening the resulting Model.

Ultimately, this model is intended to be an organizing framework, informed by your context. As you work with the model, consider the following:

- *What can you discover as you work on your change effort that is missing in the Model?*
- *What could be added to the Model to further your own growth and change?*

Every change process is different and will reflect a unique context.

We encourage you to take advantage of the resources shared below as well as information found on the [TECAID Website](#), such as: [Case Studies](#); [Learning Modules](#) (including live and recorded webinars); and [other resources](#) (e.g., presentation materials).

## TECAID Resources

<a href="#">BACKPACS Framework &amp; Assessment</a> .....	1-1
<a href="#">Emerging DEI-Change Expertise</a> .....	2-1
<a href="#">Force Field Analysis: A Tool for Achieving a More Diverse and Inclusive Department</a> .....	3-1
<a href="#">Giving and Receiving Feedback</a> .....	4-1
<a href="#">Measuring Change: Considerations for Creating Better Change Metrics</a> .....	5-1
<a href="#">Perspectives on Resistance</a> .....	6-1
<a href="#">Self-Assessment of Potential Risks and Resources in Working on Diversity Issues</a> .....	7-1
<a href="#">Strategies for Change: The Education, Persuasion, Incentives, &amp; Pressure (EPIP) Model</a> .....	8-1
<a href="#">Sustaining Department Change Worksheet</a> .....	10-1
<a href="#">TECAID Case Studies</a> .....	11-1
<a href="#">TECAID Project Overview</a> .....	12-1
<a href="#">Tip Sheet: Engaging Experts and Other Resources</a> .....	13-1
<a href="#">Tip Sheet: Presenting and Representing Your Change Project to Others</a> .....	14-1
<a href="#">Tip Sheet: Assessing the Departmental Climate</a> .....	15-1
<a href="#">Tip Sheet: Bringing New Members into Your Team</a> .....	16-1





## Necessary Components for Leading Department Culture Change in Diversity, Equity, and Inclusion Efforts—“BACKPACS” Framework & Assessment

### **BACKPACS Overview**

BACKPACS\* is a framework that identifies the necessary components for success in leading diversity and inclusion efforts. Successful change efforts can begin with an emphasis in a subset of these eight arenas – but long term sustainable change (and the resilience of those who lead change) is dependent on your ability to “fill your backpack” with all the necessary ingredients.

The related self-assessment is designed to cultivate change agent resilience and change project sustainability by assessing current strengths and identifying arenas and strategies for development where needed. This assessment worksheet can also be used as a means to assess growth over time by completing the inventory at the beginning of the change process and at the end of the change project.

- B** • Behavior
- A** • Awareness
- C** • Confidence
- K** • Knowledge
- P** • Passion
- A** • Alliances
- C** • Courage
- S** • Skills

**BACKPACS Assessment Worksheet**

**Directions:** Under each resource below, think about where you stand at this point in time and check the box on the right that best relates.

	<b>I do not have this resource</b>	<b>I have some resources but need more</b>	<b>I feel comfortable with this and can be a resource to others</b>
<b>(B) BEHAVIOR</b>			
Ability to translate thought into action.			
Ability to coordinate small steps into coordinated action.			
Ability to set priorities and act accordingly.			
Ability to understand and act on understand one’s own authority, responsibility, and accountability.			
Ability to assess impact and adjust as needed.			
<b>(A) AWARENESS</b>			
Aware of the experience of others			
Conscious of the impact of my personal style on others			
Attuned to the impact of my social identity group memberships on myself			
Observant of the impact of my social identity group memberships on others			
Aware of my triggers			

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	<b>I do not have this resource</b>	<b>I have some resources but need more</b>	<b>I feel comfortable with this and can be a resource to others</b>
<b>(C) CONFIDENCE</b>			
Ability to accurately assess reality.			
Ability to accurately assess oneself.			
Ability to recognize and make use of existing resources.			
Sense that this project makes good sense/is good for the department			
Optimism about eventual success			
<b>(K) KNOWLEDGE</b>			
Knowledge of my own and other groups(s) culture/history			
Can recognize isms, micro-inequities, etc.			
Knowledge of group process issues			
Knowledge of theories and terminology which inform and guide multicultural work			
Knowledge of strategies for working with change processes			
Knowledge about dealing with resistance			

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	<b>I do not have this resource</b>	<b>I have some resources but need more</b>	<b>I feel comfortable with this and can be a resource to others</b>
<b>(P) PASSION</b>			
Energy for this work			
Can lead with my heart			
Deep personal reason for doing this work			
Commitment on personal/professional levels			
Can demonstrate compassion			
Ability to share feelings with others			
<b>(A) ALLIANCES</b>			
Good relationships with faculty.			
Good relationships with students.			
Good relationships with staff.			
Good relationships with people who share many of my social identities.			
Good relationships with people who don't share many of my social identities.			
Good institutional connections.			
Good relationships with people working D&I in other departments.			

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	<b>I do not have this resource</b>	<b>I have some resources but need more</b>	<b>I feel comfortable with this and can be a resource to others</b>
<b>(C) COURAGE</b>			
Willingness to serve as a role model for others.			
Ability to advocate/lobby for new or unpopular ideas.			
Ability to deal with one's own fear/anxiety.			
Ability to act without permission or approval from others.			
Ability to take risks			
<b>(S) SKILLS</b>			
Ability to work with people from different groups			
Ability to challenge others effectively			
Ability to lead and participate in effective discussions			
Ability to accept other's leadership			
Ability to utilize other's support			
Ability to give and receive feedback			
Ability to demonstrate leadership			
Ability to listen well			



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## Emerging Expertise: DEI-focused Department Culture Change

### Kinds of Knowledge within Expertise

- **Content knowledge** - about diversity, micro-aggressions, implicit prejudice and related concepts, equity, inclusion, faculty, students, engineering, academia, change processes, humanity, etc.
- **Local knowledge** - how things are in your discipline, your institution, your department, among your faculty, among people who think like you, etc.
- **Process knowledge** - issues related to team-building, alliancing, timing, balancing priorities, sequencing actions, etc.
- **Perspectives on knowledge** - the ability to assess the boundaries of one's own knowledge, to recognize and utilize the knowledge of others, to identify what you need to know, to learn/access new knowledge in the ways that work best for you, to teach others how to learn/access new knowledge, etc.

### Implications of Expertise

- Our individual expertise is often **visible** to others - and others will expect us to act and interact based on this expertise.
- Expertise comes with **responsibility** to bring your expertise to the table, to act in accordance with what you know, and to advance the knowing of others (and of the field itself).
- We are more likely to make an **assessment** of what we do and don't know, compared to those without expertise.

### What Emerges from Developing Expertise

- the skills and courage to **give and receive feedback**, to individuals, other teams, the faculty, staff, and students in your departments, etc.
- the ability/skill and confidence to **contribute** as both leader and full participant
- the knowledge and skills to **lead** colleagues and/or students/staff through exercises that promote awareness.
- the awareness to **assess** your own skills, risks, limits
- increasing competence in **BACKPACS** (i.e., Behavior, Awareness, Confidence, Knowledge, Passion, Alliances, Courage--see TECAID resource, "*Necessary Components for Leading Department Culture Change in Diversity Equity and Inclusion Efforts--"BACKPACS*")



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## **Force Field Analysis: A Tool for Achieving a More Diverse and Inclusive Department**

Creating and Sustaining Inclusive and Diverse Environments in  
ME/MET Departments and Programs

American Society of Mechanical Engineers Department Head Summit

March 18, 2016

by Diana Kardia, Mark Chesler, Karen Williams  
Kardia Group LLC

The Force Field Analysis is a tool adapted from work originated by Kurt Lewin designed to diagnose a current point of stasis in order to plan change. The Force Field Analysis identifies forces working toward change (resources) and forces working against change (barriers) on the premise that stasis represents an equilibrium between resources and barriers and change is enabled by strategically disrupting this equilibrium.

Once the current equilibrium is understood, the balance of forces can be changed in five ways:

1. strengthen the valence/power of existing Resources
2. weaken the valence/power of existing Barriers
3. add new Resources
4. eliminate Barriers
5. transform/flip Barriers into Resources

This tool examines resources and barriers associated with diversity and inclusion at four levels: individuals, a change team, the department, and the broader environment.



## **The Individual Level**

Specific individuals may be a resource for creating a more diverse or inclusive department through:

- Their formal fields of knowledge/expertise
- Their role or connections inside the institution
- Their role or prestige in the discipline
- Their social identity or life experience
- Specific skills and abilities (e.g., leadership skills, mentoring skills, diplomacy skills)
- Their stated commitment to diversity and inclusion
- Their teaching/pedagogical expertise
- A highly diverse lab group

Individuals may be a barrier to creating a more diverse and inclusive department through:

- Ineffective classroom or teaching behaviors
- Disrespectful or uncivil interactions with staff
- Territoriality or the creation of cliques among faculty and/or students
- Assertions that diversity is associated with lowered standards
- Being a non-participant in the life of the department
- Rude or belittling behavior with peers, external visitors, or search candidates

## **The Team Level**

Resources and barriers associated with a given change team include:

- The diversity of the team – how well does this team represent the various stakeholders involved?
- The credibility of the team – how well is this team able to speak to these issues? Who will listen to them? (include considerations of rank, prestige, reputation, length of time in the department)
- The balance of skill sets represented on the team
- The functionality of the team (includes interpersonal interactions, organization and planning, continuity of membership, etc.)
- The ability of the team to weather setbacks and conflict

## **The Departmental Level**

Resources and barriers at the department level related to being a more diverse and inclusive department can come from any aspect of department life and can related specific to diversity and inclusion or more generally to the capacity of a department to work together or to go through change.

Consider the following:

- how diverse are the current demographics of faculty, students, staff?
- what is the balance of faculty rank?
- how collegial, collaborative, and/or interdisciplinary is the department?
- are faculty meetings attended and effective? or dominated by sub-groups or predictably devolve into gripe sessions?
- do staff generally feel respected and integrated into the department?
- how resilient is the department – are faculty and staff stretched too thin already? fatigued by other recent large change?
- are there long-standing conflicts or divisions in the department?
- have there been recent triggers that raise the awareness of the need to become more diverse and inclusive? how has the department responded to these?
- how empowered do people in your department feel to speak up, make change, or lead new initiatives?
- what resources do you have to develop awareness or to develop the capacity to make change?

### **The Larger Environment**

The larger environment includes the college, other departments, the disciplinary community, funding agencies, national/international professional associations, etc.

Examples of external resources include:

- institution-wide initiatives
- ASME initiatives, funding opportunities
- offices, policies, or institutional roles already committed to diversity and inclusion
- particularly productive alliances or affinities between your department and these activities and offices
- external staffing or other infrastructure that could support your change goals

Examples of external barriers include:

- the absence of an activity or office
- a university resource that *does* exist but is somehow ineffective or under-resourced
- when your department's needs or goals differ from other institutionally supported investments in diversity and inclusion (i.e., your need is different than what is currently getting funded)

### Force Field Analysis Worksheet for Planning Change

<b>Forces Pushing for Change</b> <i>Resources (+)</i>		<b>Forces Pushing Against Change</b> <i>Barriers (-)</i>
	<b>Individual</b>	
	<b>Team</b>	
	<b>Department</b>	
	<b>Larger Environment</b>	



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## Giving and Receiving Feedback

As you progress on your change projects, there will be opportunities for you to share your work and that of your team. Sharing progress and receiving collegial commentary can be an excellent learning opportunity for everyone.

The feedback skill set, which includes the different but related skills of giving feedback and receiving feedback, is a key skill set for change leaders and catalysts. It sits inside the intersection of other key skills, including observation, communication, community building, presence, willingness to be open/honest, ability to see from different points of view, and ability to incorporate new information (and to change direction).

This feedback process is designed to be mutual. Your team will get a chance to share your experience with colleagues, and to respond to colleagues' sharing. **Engage - you will get as good as you give!**

Here are some things to consider and think about as you engage in commentary and feedback. These things include both a "what" component (e.g., what to include) and a "how" component (i.e., how to approach both the inner and outer challenge of feedback).

### Seeking/receiving feedback

The ability to receive feedback depends on your openness and flexibility, and your ability to be seen as "in process" rather than presenting yourself and your work as a finished product.

To request accurate and helpful feedback:

- Clearly and briefly state your project's goals, activities
- Take pride in and report your successes and accomplishments
- Openly and honestly report the difficulties you are facing
  - with the nature of the project itself
  - with departmental colleagues, leadership, or priorities
  - within your change team (time, energy, skill, trust, etc.)
  - from outside your department
- Clarify what feedback you desire - your clarity about any wisdom or help you wish to receive will inspire the insights provided by those giving feedback

As you listen to the feedback:

- let go of preconceptions about the feedback and your project, and hear from a fresh perspective
- ask questions; clarify; be curious
- resist any tendencies to boast, justify, or be defensive

## **Giving feedback**

The ability to be provide helpful feedback to others depends upon:

1. making sure you understand what others are doing and experiencing
2. making sure others are open to being helped on particular matters
3. being honest and direct (but not judgmental)
4. not going beyond your own experience and expertise in making suggestions to others
5. not distracting the discussion into your own problems, experiences, or stories
6. understanding that you are responsible for being helpful, not for solving others' problems

As you consider input from others:

- Listen - carefully, for music as well as words, without preconceptions
- Consider both the content and the process of the team's change effort
  - What is it they are trying to achieve and how they feel about this goals
  - How are they going about it (e.g., what EPIP—Education, Persuasion, Incentive, Pressure--tactics, for instance; see TECAID resource, "*Strategies for Change: The Education, Persuasion, Incentive & Pressure (EPIP) Model.*")
- Sympathetically understand problems/challenges
- Take brief notes, so you can remember later what was talked about earlier

As you give feedback:

- Respond directly to the areas where feedback has been requested
- Be tentative with other kinds of feedback - check to see if other kinds of feedback are welcome and can be heard
- Appreciate and congratulate your colleagues for the progress they have made
- Be direct and specific with your feedback, with details and examples
- Be creative and open-ended with your suggestions - point to new possibilities rather than trying to steer their work in particular direction
- Ask questions, clarify, be curious



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## Measuring Change: Considerations for Creating Better Change Metrics

How do we know if change has happened? It's a valid question, but not an easy one to answer. The pressures of accountability too often lead to simplistic or misleading metrics instead of ones that inform practice and policy and build our capacity to design ever more effective change efforts. Keep the following in mind as your change team works collaboratively to develop change metrics that truly make a difference.

### Know What You're Doing

**Don't let the tail wag the dog:** know what you want to measure before looking at metrics. Otherwise, easily available metrics will lead you off course at best or, at worst, subvert your intended change effort.

Every metric has a defined context (how it's defined, how it's collected, what it's intended for). **If you don't know or understand the context, the metric is meaningless.** Institutional Research offices are an important resource here; their job is to give extensive thought to the context of existing institutional data.

Remember that **the process of measurement affects what is seen.** For example, differently worded questions can elicit different responses. Furthermore, we know from the Heisenberg Uncertainty Principle that there's a limit to the precision with which *position* and *momentum* can be known simultaneously. Be clear on what you are seeing and what you need to see. Sometimes a disappointing position is associated with important positive momentum.

### Do What Is Needed

Measure from multiple angles. Even a simple box needs 3 metrics to understand its size. **A single metric will seldom tell you what you want to know.**

But – don't go overboard. **Too much data is as bad as too little** - or maybe worse, since too much data looks better and can lull into a false sense of accomplishment. Too much data confuses the issues and dulls the senses. Relatedly, know what data is already available. Collecting data is a significant commitment of resources that could be directed instead to making good use of available data.

Quantitative measures and qualitative measures are equally valuable, and equally dangerous. Both can be manipulated and misleading, both can provide significant value. It's how you use them and whether they are the best measure that matters. At a very simple level, **qualitative measures help discover new patterns; quantitative measures illuminate known patterns and test hypotheses.**

Understand the difference between formative evaluation and summative. **Formative evaluation specifically chooses metrics and analyzes them with success and improvement in mind. Summative evaluation is used to make decisions.** Both are necessary, but they cannot be mixed and they often use quite different metrics.

**Beware lagging indicators** - metrics that show change only after much time has passed and after you have any chance to make corrections. They're attractive (and used a lot) because they can be used to motivate change. They are less helpful for informing a change process in progress. An indicator of a smart change effort is its ability to identify and measure leading indicators: signs that change has begun and is heading in a desired direction.

**Learn to measure subtle change.** Some of the most effective long-term change starts by harnessing existing efforts. This utilizes existing infrastructure and personnel and integrates new efforts into familiar processes. All of this can be very effective, but it is seldom dramatic.

### **The Intellectual is Political**

Measuring change is inherently both social and political. **Metrics assign or infer value about human endeavors and have implications for the assignment of financial resources, institutional priorities, and individual time and energy.**

This has significant implications for the choice and use of any given change metric. To be effective, change metrics must be valid and focus attention in appropriate ways. The interpretation of data must take into account sources of bias. The import or implications of a given metric must not be overstated, dismissed, or misapplied.

Additionally, working with the data produced by the use of a given change metric is also a political and social process. Reports of change metric data must be properly contextualized and explained. Equally important, discussions of change metric data must incorporate the needs of the audience for education in order to properly understand results, and the potential differential impact of those results on those involved in the discussion.

Finally, measurement design and processes, data interpretation, and application of findings all involve human beings. Differences in language, time and attention, skills, and even personal styles can have a significant impact on what is seen, understood, or put to use. Education, training, internal schema, social pressures, stereotypes and assumptions will affect how individuals engage with each step of this process and how they interact with others. Social norms, structural barriers, distribution of power and resources, and patterns of privilege and inequities all impact the ability of these varied individuals to come together and work collectively toward a goal.

The relevance of human difference and diversity is highlighted further by the complexity of our institutions, educational processes, and change efforts. Just as no one metric will tell us enough, no single perspective, opinion, or experience is enough to understand how to measure change, evaluate whether change has happened, and put that evaluative information to good use. Human beings must work collaboratively to move forward in an intentional direction. Conscious attention to the political nature of even the most logical and fact-based aspects of measuring change creates the best conditions for change efforts to be measured, understood, improved, and successfully enacted.





## Perspectives on Resistance

### Forms of Resistance (what resistance looks and sounds like)

- Silence, passive withdrawal
- Active objections
- Presentation of competing solutions
- Argument or over-analysis about details
- Reasonableness, justification, intellectualism
- Covert whispering campaigns/sabotage
- Over-personalization of the issues
- Distractions (i.e., irrelevant history, issues, arguments)
- Attack on leadership (process, motives)
- “Lawyer up”/compliance mode
- “Pretend” enthusiasm and agreement
- Micro-aggressions
- Excuses and complaints
- “We have no resources to do that”

### Unproductive Responses to Resistance

- Give up
- Blame and attack back
- Cull the resisters from the herd
- Take it out on your allies
- Ignore what you can learn from it
- Ignore/minimize the impact on you

### Some Causes of Resistance

- **Protection** of something considered valuable (e.g., resources, reputation, power, vulnerability)
- Lack of **readiness** (e.g., lack of information; under-skilled; discomfort and awkwardness; fear)
- Lack of **resources** (e.g., lack of time, energy, money, attention; competing priorities)
- Policies and **norms** (e.g., what’s accepted, expected, valued, and what’s not; ideas about who should be doing what)
- **Ideological**/principled disagreements
- Racism, sexism, intent to do **harm**

### How Might Resistance Be Useful?

- Provides **information** about stakeholders
- Clarifies the **scope** of unresolved need
- Makes new **ideas** or solutions available
- Gives **feedback** about your ideas
- Gives feedback about your **communication**
- Reveals conflicts and other **barriers**
- Can be channeled into **collaborative** problem-solving and buy-in

## **Possible Responses to Resistance**

Consider the “*Education, Persuasion, Incentive, & Pressure (EPIP) Model*” developed by Mark Chesler and Diana Kardia, with these principles in mind:

1. the best response is the one that is well-matched to the circumstances
2. an effective match occurs by first listening to and learning from the resistance
3. in general, each step of this model assumes the prior step has already been used and is insufficient

### **Education** (the power of information)

- Explain the benefits, process, or resources associated with your perspective
- Assess where information or data is lacking, and provide it
- Identify and clarify hidden assumptions or fears

### **Persuasion** (the power of relationship & interaction)

- Take them out for coffee
- Provide your personal motivation
- Speak up for others as an advocate and ally: give voice to the way this problem and solution affects a particular population (e.g., students, assist professors, the chair)
- Acknowledge the legitimacy of different perspectives, needs, and experiences and find common ground
- Engage in cooperative problem-solving

### **Incentive** (the power of resources & rewards)

- Provide new or additional resources or opportunities
- Demonstrate how your solution will positively impact commonly held core values (i.e., “we can get better at what we’re all here to do!”)
- Link your solution to other important or popular goals (i.e., rising tide lifts all boats)
- Frame your solution as something that also addresses other important problems

### **Pressure** (the power of power)

- Wait it out (time pressure)
- Ride over it with a mandate
- Bring in a higher authority



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## Self-Assessment of Potential Risks and Resources for Working on Department Culture Change in Diversity, Equity, and Inclusion

Resistance to change comes in multiple forms. Change leaders are likely aware that they will face resistance from others, but what about internal resistance that is triggered as a result of unanticipated risks? Identifying potential risks is important. Further, the ability to productively deal with internal resistance depends on the resources an individual (and teammates) bring to the table.

<b>Potential Risks for Working on Diversity, Equity, &amp; Inclusion Issues</b>			
	<b>I have considered this to be a risk</b>	<b>I had not thought of this to be a risk until now</b>	<b>I do not consider this to be a risk</b>
Takes too much time			
Energy drain			
Doesn't count in the Tenure & Promotion process			
Loss of colleagues' respect			
Colleagues' lack of interest			
Being seen as "soft"			
Student discomfort / disrespect of me			
Being seen as arrogant / self-righteous or a "rabble rouser"			
Promotion / career retaliation			
Exposing my ignorance or mistakes on race/gender/diversity issues			
Exposing my own unconscious bias			
Not having available "metrics" to detail the current situation or any changes			
Takes time away from doing and teaching "science"			
Other:			

<b>Potential Resources for Working on Diversity, Equity, &amp; Inclusion Issues</b>			
	<b>I have considered this as a resource</b>	<b>I had not thought of this as a resource until now</b>	<b>I do not consider this as a resource</b>
Clarity about my own values / priorities for diversity and inclusion			
Support from colleagues			
Support from family / friends			
Energy / passion for this really important work			
Security about my academic status / prestige			
Knowledge / skills in how to dialogue with others about diversity issues			
Ability to work with people of other cultures, classes, genders etc.			
Ability to involve others as needed			
Certainty about my chair's support / protection			
In good touch with students who are women / minorities			
Knowledge of how prejudice and discrimination work			
Able to recognize signs of unintentional discrimination in the classroom and at faculty meetings			
Certainty this work will count at Tenure & Promotion time			
Familiarity with my colleagues' and department's commitment to diversity			
Familiarity with other diversity resources at my university			
Other:			



## Strategies for Change: The Education, Persuasion, Incentive, & Pressure (EPIP) Model

Change strategies are built on a robust assessment of current conditions followed by deliberate and thoughtful efforts to shift those conditions in a desired direction. This “shifting” involves seeing anew what is currently taken for granted, paying attention to timing and resources, and considering “what if...?” scenarios that might predict the success of intended outcomes as well as provide insight into unintended outcomes. Typically, strategies such as education, persuasion, incentives, and pressure (EPIP) can be applied to effect change desired. EPIP provides a framework of possible strategies to engage your colleagues in change-making. All of the EPIP change strategies below can be used, when context-appropriate, to advance your change initiative.

### **Education (E): The Power of Knowledge**

Emphasize the impact of information as a change strategy. Explain the benefits, process, or resources associated with your perspective. Assess where information or data is lacking, and provide it. Identify and clarify hidden assumptions or fears. Examples of education tactics include:

- Evidence-based promising practice dissemination
- Skill development/training workshops
- Resource sharing (e.g., exchanging syllabi)
- Feedback collection (e.g., focus groups)
- Recommended readings (e.g., scientific studies and associated commentaries)
- Survey development, data collection & analysis

### **Persuasion (P): The Power of Relationship & Interaction**

Emphasize how relationships and interactions can help motivate others to change. Examples of persuasion tactics include:

- Personal story-telling and sharing of experiences
- Discussion of your personal motivation for change
- Advocacy for underrepresented others or serving as an ally (e.g., giving voice to the way a problem and solution affects a particular population, such as women of color, students, underrepresented minority faculty, international colleagues)
- Productive debate
- Acknowledgement of the legitimacy of different perspectives, needs, and experiences and seeking to find common ground
- Capitalizing on rapport to get buy-in on change (e.g., cooperative problem-solving, while giving voice to underrepresented perspectives )

### **Incentives (I): The Power of Relationship & Interaction**

Emphasize the impact of resources and rewards on driving change. If your DEI Change plan works to enhance the organization's mission, improve the institution's systems, or positively impact people's personal lives, then these can be considered incentives that might motivate others to participate and make changes in their behaviors. Examples of incentive tactics include:

- Positive impact on commonly held core values, mission, and/or goals (e.g., better scholar, better department)
- Alleviation of existing concerns
- Creation of a "better" system (i.e., more efficient, more fun, creation of more resources)
- Support for a win-win solution
- Increased quality of life (e.g., increased income, better health-less stress, greater work/life balance)
- Avoidance of threats to stability/survival (e.g., enhancing diversity of department expertise increases department success and sustainability)

### **Pressure (P): The Power of Consequences**

Emphasize the impact of power and consequences as a means of producing change. Examples of pressure tactics include:

- External media attention
- Constructive confrontation with peers or formal authority members
- Personal, cultural, or legal sanctions
- Peer pressure (e.g., directly naming a micro-aggression)



## Sustaining Department Change—Worksheet

Other than the change team, who in your department or college is involved in making the proposed change happen—or is actively supporting the proposed work?

	<i>Current Example</i>	<i>New Ideas</i>
<b>Faculty/Research</b> <ul style="list-style-type: none"> <li>• Senior/tenured faculty</li> <li>• Junior tenure track faculty</li> <li>• Lecturers/Teaching faculty</li> <li>• Research faculty</li> <li>• New chair</li> <li>• Faculty from other depts.</li> <li>•</li> </ul>		
<b>Staff/Department Setting</b> <ul style="list-style-type: none"> <li>• Student advisors</li> <li>• Administrative staff</li> <li>• Lab staff</li> <li>• Central staffing</li> <li>• Hallway displays</li> <li>•</li> </ul>		
<b>Students/Education</b> <ul style="list-style-type: none"> <li>• Curricular change</li> <li>• Pedagogical change</li> <li>• Document student experience</li> <li>• Students as change leaders</li> <li>•</li> </ul>		
<b>Diversity &amp; Inclusion Offices, Programs and Associations</b> <ul style="list-style-type: none"> <li>• University Diversity Offices</li> <li>• ADVANCE grant</li> <li>• Other D&amp;I grants and pilot projects</li> <li>• Student-led groups</li> <li>• Ombuds</li> <li>•</li> </ul>		



	<i>Current Example</i>	<i>New Ideas</i>
<b>Departmental/Collegiate Administrators</b> <ul style="list-style-type: none"> <li>• Other department heads in Engineering</li> <li>• Engineering College Dean</li> <li>• Provost or higher level</li> <li>• Department heads/leaders in other schools/colleges</li> <li>•</li> </ul>		
<b>Policy-level change</b> <ul style="list-style-type: none"> <li>• Align with/strengthen existing policies</li> <li>• Critique or change existing policies</li> <li>• Extend or operationalize policy</li> <li>• Develop new policy</li> <li>•</li> </ul>		
<b>External networks</b> (outside the university or profession) <ul style="list-style-type: none"> <li>• Disciplinary Societies</li> <li>• Corporate Board of Advisors</li> <li>• Alums</li> <li>• Corporate/Business Allies</li> <li>• Politicians and Lawyers</li> <li>• Non-profits/Special Interest Groups</li> <li>•</li> </ul>		
<b>Other</b>		



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## TECAID Project Overview

*Transforming Engineering Culture to Advance Inclusion and Diversity* (TECAID) was created to support the development of engineering departmental leaders to take responsibility for transforming culture to be more inclusive in their departments. The project took place over two years, from team applications through completion of four workshops. To support continuity between workshops, the TECAID process included a virtual learning community (VLC) meeting approximately monthly, periodic Data Feedback, and two Clinic-ing sessions per team.

Each workshop (see below for specific information) included a combination of headwork (e.g., new learnings, analysis), heart-work (e.g., personal awareness, relationship building), and handwork (e.g., applications to projects). Activities for each workshop were designed to include: a combination of individual, team, cross-team, and whole-group work; introduction of new information and/or development of new skills; the use of projects to apply new learnings, gain experience with making change, and build relationships; the layering of activities to surface and integrate awareness; deliberate engagement of the dissonance/dissonance resolution cycle; and a mixture of cognitive and emotional work. Each workshop built on and added to knowledge, awareness, and skills from previous workshop(s) and/or between-workshop activities.

Almost all workshop activities required active participation and engagement in the learning/discovery process. Through active engagement, participants increased their “ownership” of the subject matter, contributed to collective learning, and also built stronger relationships within the group. Participants thus developed a “brave/learning space” in the group, found and cultivated allies, and moved toward becoming eSMEs (emerging subject matter experts). Through all activities, to the best of their ability in the moment, SMEs modeled inclusive pedagogies, willingness to risk, teaming, and other relevant approaches.

Workshops provided the key knowledge and tools, team development, and intensive cross-team learning experiences. Between-workshop activities (VLC, data feedback, clinic-ing) were designed to maintain connection and movement between workshops, to foster teamwork and leadership, and to provide additional feedback to teams. The VLC gave teams the opportunity to network and to have access to subject matter expertise on particular topics. The Data Feedback process provided individuals an opportunity to reflect on goals and progress. Clinic-ing with individual teams provided customized feedback and served as a bridge between the workshops, the data feedback process, and the VLC conversations.

What follows is a sequential overview and description of the Workshops, Data Feedback process, and Clinic-ing with reference to related documents in the Annotated Curriculum.

## TECAID Program Components: Sequential Overview

### Workshop 1: April 16-18, 2015

Workshop 1 was the first opportunity participants had to meet each other and gain a real understanding of the resources, opportunities and challenges that TECAID provided.

The focus of Workshop 1 was **awareness-building for ME departments—theory, research, experience**. This served as a foundation for participants to explore, analyze, and begin planning a departmental DEI change project. Topics included:

- Social identity
- The educational value of inclusion and diversity
- Stereotypes and biases
- Change strategies
- Leadership models

Workshop 1 design principles included:

- establish relationships – within teams, between teams, between participants and SME/PIs, between SMEs and PIs
- provide personal, interpersonal, and team experiences around DEI
- introduce critical concepts around DEI and change
- begin the cycle of dissonance/dissonance resolution by creating the conditions for participants to engage dissonance productively

### Data Feedback 1: May-August 2015

The first Data Feedback cycle helped participants apply and integrate the learning, ideas, and experiences from Workshop 1 and supported on-going reflection on the TECAID experience throughout the summer. It also built the conversation between the participants and the SMEs so that the teams arrived at Workshop 2 more able to engage with the topics and activities of that workshop.

The Data Feedback 1 survey was designed to support participant reflection on project goals, departmental conditions, and team dynamics. Feedback was provided to teams about the qualities and challenges of their team, convergence and divergence on project clarity, and the resources and barriers associated with each team's specific department and change project.

Based on participant responses to the Data Feedback 1 survey, all teams were also presented with customized tipsheets on topics of particular relevance to this cohort:

- presenting and representing the change project to others
- bringing new members onto a change team
- engaging expert and other resources
- assessing the department climate

## **Workshop 2: October 1-3, 2015**

Workshop 2 focused on **hands-on prioritizing of change goals and change-planning for ME departments**. This workshop addressed the nature, theory, and practice of change--especially in academic environments. Through teamwork and project planning activities, participants identified and developed the skills that support change through the following topics:

- Assessing resources and barriers to making change
- Potential risks in working on diversity issues
- Strategies for dealing with resistance
- Conflict resolution
- Examining and changing the balance of resources and barriers

The design for Workshop 2 served the following functions and purposes within the overall TECAID trajectory:

- continue building relationships – within teams, between teams, between participants and SME/PIs, between SMEs and PIs, and whole group
- develop an understanding of change principles and strategies, especially the Force Field Analysis
- provide tools and strategies to promote better understanding of conflict and resistance
- provide project-specific input to teams and introduce the practice of Clinic-ing
- resolve some aspects of dissonance from Workshop 1 by providing tools to plan and take action

## **Clinic-ing 1: January-February 2016**

After Workshop 2, Clinic-ing sessions with each team provided customized project-related feedback from the Subject Matter Experts. This format provided teams with the opportunity to ask project-specific questions and discuss specific goals and dilemmas in their change process. Teams discussed short-term goals and plans, their overall planning process, and successes and struggles to date. Clinic-ing sessions also helped teams calibrate their expectations and pace their change efforts, especially amidst early implementation of change project activities.

*See also: Supplementary Training Components*

## **Workshop 3: February 25-27, 2016**

Workshop 3 focused on shifting participants from seeing themselves as students of change leadership to being change leaders with the theme of **strategies and tactics for testing and implementing change**. Topics included:

- Defining expertise
- Qualities of change leaders
- Giving and receiving feedback
- Difficult conversation skills
- Facilitation skills
- The relevance of faculty/staff status and roles

Workshop 3 was designed to:

- Continue building relationships – within teams, between teams, between participants and SME/PIs, between SMEs and PIs, and whole group
- Cultivate participants’ ability to assess their own skills, resources, strengths and weaknesses
- Support participants’ self-conception to move toward leadership in this arena as an “emerging subject matter expert” (eSME)
- Take DEI awareness to a deeper level through personal risk-taking
- Exercise skills specific to change leadership (difficult conversations, facilitation)
- Facilitate the dissonance associated with shifting from being someone in a learning process to becoming a leader, with the intent that participants would stay more engaged and be more resilient post-TECAID
- Retrieve from participants, through a retrieval conference format, the wisdom they gained about practical aspects of the departmental change process through their own attempts to apply TECAID workshop concepts and skills back home. The purpose of this activity was partly to gather their practical wisdom, partly to provide a venue for educating one another, and partly to empower them via the recognition and celebration of things they now knew and could accomplish and share with others.

### **Data Feedback 2: May 2016**

The second data feedback survey was designed to support participants in extending their change leadership and projects beyond Workshop 4. This mechanism helped participants think about what had been accomplished, what worked and what did not, potential allies, and what might come next. Data from this Data Feedback cycle informed clinic-ing discussions and the design of Workshop 4 activities, including:

- themes related to successful change efforts
- themes related to challenges encountered in making change
- strategies for sustaining change projects beyond their initial implementation phase

### **Clinic-ing 2: June-July 2016**

Workshop 3 and Data Feedback 2 set the stage for the second round of clinic-ing. These conversations were highly tailored to the situational needs and concerns of specific teams and helped them prepare for project presentations at Workshop 4.

### **Workshop 4: August 1-2, 2016**

Workshop 4 focused on **learning, review and the future** by helping participants transition from the formal TECAID structure to self-initiated, collaborative diversity and inclusion leadership work as both individuals and teams. Topics included:

- Formal ME department team project presentations
- Strategies for “going public” with change projects
- Difficult conversations skills
- Sustaining change projects beyond TECAID
- Sustaining individual efforts and passion beyond TECAID
- Working with allies

Workshop 4 was designed to:

- Create pathways for ongoing relationships – within teams, between teams, between participants and SME/PIs, between SMEs and PIs, and whole group
- Review individual development and needs
- Synthesize team understanding of their accomplishments and future plans
- Within the dissonance/integration cycle, promote integration through identifying successes, gains, and accomplishments



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## Tip Sheet: Assessing the Departmental (or Unit) Climate

“Climate” usually means the ways in which departmental members think about and behave with one another and the organization, resulting in significant impact on outcomes, community, and individual and collective success. It often refers to the “social atmosphere” of a department, whether it feels “warm” or “cold”, inviting or alienating, inclusive or exclusive. Often enough, the departmental climate is seen and experienced differently by different groups of faculty, staff and students.

Climate assessments are useful in identifying patterns or concerns, and realistic and effective change projects often require information about these matters. Climate studies are designed to open a system to reveal its internal working parts, to look at what is working or not in the ways that people, policies, and practices affect the participation, satisfaction, and productivity of members of that system. Such information can be used to sensitize people to issues, spark conversation, measure change over time (in which case pre- and post- measurement is appropriate), and evaluate satisfaction/benefit-loss.

At their best, climate studies provide an opportunity for the members of a department to deepen, test, refine, and expand the department's self-understanding as a basis for subsequent self-definition and change. As such, climate studies serve as *formative* evaluation, contributing to the development and success of a department rather than serving as a form of judgment, resource allocation, or other summary conclusion.

A discussion of climate is based on the assumption that departments, universities, and faculty themselves are best served by a good climate. A "good climate" is not simply one in which most or all of the climate-related survey questions receive a mean response score at or above mid-point (or “neutral”). In a good climate, they come in at the top of their scale. Any indicator that something is off is worth a second look. For example, in a professional environment it's reasonable to expect that all participants report that they are treated with respect. When some people do not, or some report this less enthusiastically than others, it's relevant to inquire why.

Effective climate studies engage the department in a productive inquiry of this sort. Such discussion may identify specific changes, but they may also result in a clearer understanding of the goals and processes of the department, and of the different experiences and needs of sub-groups within the department. Typically, any of these outcomes is better than an amorphous sense of tension that can arise when climate is neglected and climate discussions do not happen.

### **Designing an assessment with the end in mind**

When considering a climate assessment, think carefully about the actual needs of the department, then about the goals, timing, and approach of the assessment process. Too many climate assessments are designed as if the goal is to prove or diagnose something when the much more critical need is to educate a community and inform a discussion. (You cannot prove something to a community that does not yet have a capacity to understand the issues at hand. Experience shows that trying to do so devolves into bickering about the validity of the data or analysis, or accusations about the intent of those collecting

the data.) There *are* times when diagnosis or proving the existence of a climate problem is relevant – but those are far less common and more formal (or even legalistic) than you typically want. Most change projects will want climate assessments that foster interaction, awareness, and understanding and that build interventions from this foundation.

Some climate assessment processes may culminate in a faculty retreat where specific concerns may be clarified and laid to rest. For other departments, more informal small group discussions over time are more effective. It is also possible that no cohesive discussion or document emerges, and yet key changes are made in procedures, structures, communication, and interactions among faculty. The best outcome depends on the nature of the climate strengths and weaknesses of that department, the discussion skills in the department, as well as its specific goals and circumstances.

### **Considerations in the assessment design**

Information about departmental or classroom climates that is intended to support a local change process does not necessarily have to be gathered by a formal, large, time-consuming process; it can just as well be gathered in informal and small-scale ways. Developing an extensive and scientifically rigorous process will take significant amounts of time and energy, and will probably pull time, energy and focus off the main project and its goals. Make sure any information gathering effort is appropriately and strategically timed before you start.

Several critical choices await anyone designing a climate assessment, whether of a formal or informal character. Here are some examples (but not a full list) of choices.

1. What do you want information about? What will be the focus of an assessment?
  - a. Relationships between faculty members, and among faculty, staff and students.
  - b. Student (or faculty) reactions to course curricula and pedagogies
  - c. Views of unit leadership
  - d. Feelings of respect and inclusion/exclusion
2. What climate measures are most appropriate to your needs?
  - a. Individuals rate the department on climate-related factors
    - i. positive climate factors (e.g., how collegial, respectful)
    - ii. negative climate factors (e.g., how much sexism, homophobia)
    - iii. key organizational factors (e.g., supportive policies, leadership)
  - b. Individuals report their own experience with the climate
    - i. experiences of bias, harassment, intolerant remarks, etc.
    - ii. sources of stress, reasons an individual would consider leaving
  - c. Comparisons of experience across social identity groups
    - i. on general factors (e.g., how confident do you feel in your field expertise?)
    - ii. on climate-specific factors (e.g., how often do you feel excluded from departmental activities?)
3. From whom or what will the data come? What/who are the sources of information?
  - a. Faculty
  - b. Students - or certain groups of students
  - c. Staff
  - d. Several constituencies at once, permitting comparisons
  - e. Department documents (e.g., course syllabi; minutes of departmental meetings or events)
  - f. Departmental demographics (e.g., gender of seminar speakers; student demographics)
4. How will the information be gathered?



- a. Questionnaires or surveys - paper and pencil or via the web
  - b. Individual interviews
  - c. Interviews with small groups of like individuals
  - d. Observations of meetings, town hall sessions
  - e. Documents and records of department demographics, histories
5. For whom is the information intended, and how will it be reported/disseminated?

Once such decisions are made the department or unit will need to be prepared for data collection - to understand its purpose (why is such information being sought), eventual use (by whom), levels of confidentiality (who will see my responses, are they anonymous), and the like.

In addition, gathered data must be organized and analyzed, and this can be a time-consuming process. Many departments employ students to assist the conduct of an analysis. Indeed, this may be an opportunity for students to get a working glimpse and experience working with social data. However, the confidentiality of responses and the sanctity of the department's discussion must be protected.

Decisions will have to be made about how to report the results of the assessment - to the department's leadership cadre (perhaps first) and/or to all faculty or people surveyed - in writing or in oral presentations. Since the assessment is not simply an exercise in information gathering, but can influence the design, implementation or evaluation of the change project, discussions can ensue about what the data means, additional assessment that might be needed, and actions that the data suggest. Given the work we are doing together, this is the critical payoff for investing time and energy in an assessment of any sort.

The decisions about what, from whom, and where, as well as how to report back results, requires choices about which way to go. It also requires balancing the time/energy required to make it work and the potential payoff. How much expertise, time and energy will be required for various choices, and is the need for information great enough? Several good and practical resources exist for guiding diversity-related departmental climate assessments. Consider bringing in expert assistance when designing an assessment for your unit, to support appropriate use of this powerful tool.



## Tip Sheet: Bringing New Members into Your Team

Whether your department change team has been working together for a while or is just beginning, it is important to know that over the duration of your project, it is likely that some members may leave the team and/or new members may join. How can you best recruit and bring new members into your team? How can you best work with them to maintain a well-integrated working relationship? Developing the ability to bring new members onto your team, as full participants in your change process, will serve you well throughout the process.

Here are some potential actions you can take to integrate new team members:

The effective recruitment of new members is likely to beget other new supporters, some as full team members, others as active allies and still others as more passive supporters - all essential resources in the change process.

### Recruiting

- Reach out, carefully and selectively – to potential allies, to colleagues who you think/know are interested in and supportive of the project – and determine whether they have the time and energy to commit to team meetings.
- As you choose who to bring into the team, consider the individual's:
  - Diversity in rank, role, sub-discipline and demographic characteristics
  - Knowledge about local issues
  - Skill in working with others
  - Commitment to the change effort (this is not the time/place to include any opposition, but it is the time/place for diverse views about how to proceed)
  - Reputation and respect with colleagues
    - ...as fair-minded and smart
    - ...as not working from narrow self-interest or personal grudges
    - ...as having access to and influence with varied groups of colleagues
  - Linkage to local centers of power and influence
  - Available time and energy
  - Tradeoffs that may have to be made among these multiple criteria

## **Bringing a new person on board**

- Up-date the person on the development of the project so far...where your team is, as well as how you got there.
- Solicit their ideas and reactions. This is not a “one-way-sell.” New members must see that you are open to their ideas, and that their contributions will make a difference.
- Share data and discussions your team has had about this data.
- Encourage one-on-one conversations with each existing member of the team to get a full sense of the range of perspectives and resources on your team.
- Come to an agreement with new members about which current and future tasks they are prepared to undertake, and the time and energy associated with them.

## **Continue overall team development – this is a work in progress!**

- Discuss what might be possible and share your excitement about these goals
- Generate and gain an ongoing sense of commitment to a shared vision and project
- Encourage open exchange about the personal and organizational resources each member brings to the effort
- Encourage open exchange about the personal and career risks and vulnerabilities that work on the change effort may create for each member
- Establish and discuss guidelines about the confidentiality of team discussions as well as transparency with colleagues
- Be clear on who will do what tasks and with what forms of accountability
- Establish timelines for completion of varied tasks
- Attend to how members relate and work with one another (“group dynamics”)
- Watch for signs of overload and exhaustion
- Take time to play and have fun/relaxed time with one another

Your team will likely have additional team members and/or allies who are not core participants in the change process, yet these individuals have significant impact on the success of the project. The suggestions here can be applied to integrating these occasional participants more successfully into the change process as well.



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## Tip Sheet: Engaging Experts and Other Resources

Throughout the course of your change project there may be times when you want to contact and make use of people with special expertise or knowledge who can assist in your team planning, project implementation, or evaluation. Don't be hesitant about reaching out for help or connecting your project with other related efforts and resources. What kinds of expertise might you wish to use? What are the best ways of using them? Who outside your department might be good collaborators or allies in your change process?

Many possible collaborators exist within your institution including other departments, university offices, student groups, administrative resources, etc. External consultants or those with specific kinds of expertise can also bring additional benefits. Be aware of what resources already exist in your environment and discuss as a team what benefits these resources would bring, and when and why you might make use of them.

### General benefits of engaging experts and other collaborations:

- additional skills, perspectives, and experience
- additional data, information, and resources
- legitimation of issues, or a way to increase interest in the discussion
- may influence faculty to be on better behavior
- interruption of departmental habits and norms to help create new possibilities

### Steps to finding other resources

1. **Decide what kind of information or help you need.** Do you need an expert in diversity issues, someone with a deep knowledge of your department's or college's history of change efforts, an expert in multicultural pedagogies (perhaps especially in the context of engineering students and faculty), a researcher in the area of student development processes, information about similar innovations/changes made elsewhere, a staff member who knows the HR rules, a leadership guru, other?
2. **Find out who has the relevant expertise or where it can be located.** Who knows about the things you need? Where are relevant literatures or archives located?
3. **Explore what costs (time and money) might be associated with securing the expertise or information you desire.** Are there financial costs for the resource itself? What other costs might be incurred (space, services, communication, other personnel, etc.)? Who will coordinate communication, data collection, activities?

4. **Clarify the specific goals of your project with any expert or outside collaborator.** Be sure that the collaboration you have in mind will effectively serve your project and not be obscured by other agendas. A typical dilemma in using external and expert resources involves gaining assistance without giving up control of your project to someone else's ideas or becoming distracted by overreliance on experts. Watch out for this. No one but your team can decide on your project's direction and do your team's work.
5. **Make use of the full benefits of the collaboration**
  - a. Other departments/faculty
    - i. highlight similarities and differences between departments and build on synergies
    - ii. promote other kinds of academic collaborations (research, classes, etc.)
  - b. Administrators/administrative offices
    - i. provide access to institutional resources and realistic information/perspective about constraints
    - ii. provide institutional authority (including validating and motivating change, and can more easily be the bearer of bad news)
  - c. External consultant/facilitator
    - i. provide information on planning models, retreat structures, best practices, etc.
    - ii. organize perspectives and concerns about complex issues
    - iii. facilitate discussions to keep them focused, interactive, effective, and energized
    - iv. free up all members of the department to participate fully in discussions
    - v. support and inform change over time



**TECAID**  
Transforming Engineering Culture  
To Advance Inclusion And Diversity

**WEPAN**  
Women in Engineering ProActive Network

**ASME**  
SETTING THE STANDARD

**PURDUE**  
ENGINEERING



## Tip Sheet: Presenting and Representing Proposed Change to Others

There often is a narrow line here between desire to press forward with the change plan and generating resistance or apathetic response from departmental members. You/the change team have invested considerable resources into planning, but this plan typically requires input and support from others if it is to be successful. The challenge is to create a skillful collaboration between you/your change team and the department as a whole. You do not want to slip into typical academic processes of delay, discussions that go nowhere, or myths that a complete consensus of agreement is essential before any action can be taken.

What communication tactics and procedures can you employ to make your representation of the change proposed as successful as possible, as attractive as possible to colleagues, and as something your colleagues will want to support and/or be involved in? What approaches should you avoid?

Here are some suggestions for successful presentations:

### Preparation

- Treat the presentation of your project as a strategic step in and of itself. Think ahead of time about your goals and objectives for a specific presentation, as well as sources of support and resistance (people, ideas) – and plan strategically how to make use of and deal with them.
- Practice your presentation with one another, and perhaps with allies, before presenting to the entire department, especially if you anticipate some resistance.
- Be aware of any and all policies, procedures, by-laws, etc. that apply to your change goals – don't get surprised by these constraints and requirements in the middle of a meeting.
- Think about how opportunities for informal “elevator or hallway conversations,” those more spontaneous (or spontaneously planned) settings where ideas and concerns are passed back and forth, can support the project and your attempts to communicate about the project more broadly. Think about where good opportunities already exist, and about how to create them.

### What to address...

- Place your project in context. Every change project has a set of local priorities and shared experiences that help the project make sense for this place and time.
- Explain how your project helps accomplish central and well-understood missions of the department. Remind colleagues of those mission statements, agreements or guidelines.
- Articulate clearly how the department or key departmental units/constituencies (the entire department, colleagues, students, staff) will benefit from the project.
- Address clearly the time and energy required by this change project. Given the benefits assumed above, suggest the positive trade-offs of this investment (including gained time as a result of goals being met or problems addressed).

- Review background and timelines, even ones that are already broadly known. This repetition helps orient people, promoting a common reality and robust understanding of the process.
- Proactively name points of possible resistance or concern. By demonstrating that you are giving due consideration to the wide range of relevant perspectives, others will be less likely to challenge or argue with you.

## Cautions

- Name your project in a way that the department as a whole can identify.
- Choose which details of the change proposal are important to share, and know your intent for sharing them. Transparency does not mean sharing everything all the time, especially when too many details create confusion or undeveloped ideas create pushback or distractions.
- Have a mechanism for addressing and acknowledging topics and concerns that are off track or not relevant to the current stage of the discussion. ("We'll come back to that when we know X," "The curriculum committee will have to take up that concern," "I don't know that answer – I'll get back to you.")
- Be cautious about putting things to a vote, and even more cautious about straw polls. Voting of any sort tends to end a process. Be sure that you're at the end before you invoke this stage.
- DO NOT go into a presentation opportunity or a meeting cold, with the attitude that of course your project is good, right, and obviously of benefit to all.
- DO NOT try to "sell" your colleagues a fully developed package that only asks them to vote it up or down, to approve or not. Instead, involve them in the decision-making process at an appropriate level. Their contributions and their buy-in are important.
- DO NOT assume people will remember past meetings, or that they will still feel the same as they did then, or that they will have read materials for this meeting.
- Be open to faculty, staff and student suggestions about how the project, or how to achieve it, might be improved. But DO NOT leave the entire project up for grabs, as in anything goes.
- You and your teammates will likely have developed a common language, reference points and assumptions not shared by the department as a whole. DO NOT talk in "code."

No faculty - or staff - likes to have a pre-set design for anything pushed at them. But an open discussion cannot mean endless discussions or unnecessary delays.

While these tips are provided from the perspective of planning for a formal presentation at a faculty meeting, many of them apply just as well to an informal conversation with colleague in the hall.

## Presentation Planning Checklist

How knowledgeable are faculty on this topic?

- Do they understand the problem your project attempts to address?
- Do they know/understand the facts?
- Do they appreciate the nuances and complexities?
- Do they realize the interconnections between this topic and other areas of department life?
- Does a small group have more clarity on this topic than the faculty as a whole?
- Does the leadership have more information on this topic than the rest of the department?
- Will this presentation provide significant new information about this topic?

What is the current faculty sentiment?

- Have there been other whole group discussions of this topic?
- Are there strong divergent views based on the facts?
- Are conflicts on this topic based on knowledge or opinions?
- Is there a significant event that increases the salience of this discussion?
- Does this topic represent a loss of resources?
- Is this topic seen as being in conflict with other important departmental priorities?

Where are you in the decision process?

- no decisions need to be made yet (still considering and exploring options)
- a decision is needed now
- a decision has recently been made but we're exploring the implications
- a decision has been made; now we need to build consensus/reduce resistance
- a decision made previously may need to be reviewed/re-negotiated

Does this topic have a differential impact on the faculty?

- by rank
- by discipline
- by social identity
- by other faculty standing (such as funding levels)
- on a single individual

What next needs to be accomplished?

- What is the timeline for this topic?
- What goals are appropriate to this meeting: this moment and setting?
- What is necessary to create momentum beyond this meeting for progress on these goals?
- Who will follow up on the outcomes of this presentation?
- How will progress on this topic be communicated after this presentation?

### **Advice from TECAID Change Teams**

Five (+1) Things to Keep in Mind When Going Public

1. Focus on one or two key points
2. Be aware that what works for one program might not work elsewhere
3. Qualitative and quantitative data both have value
4. Be clear about terms (jargon, especially workshop jargon)
5. Be honest about what you learned and felt as you went through the project/program
6. Use frames that break down stereotypes about how diversity and inclusion benefits lab, classroom and workplace interactions