



# The Value of Assessing, Reporting, and Discussing Culture of Inclusion (Experience)

## Denise Driscoll

Dr. Driscoll is an experimental social psychologist with expertise in stereotyping and prejudice; attitude and persuasion; diversity and inclusion; and, managerial and intercultural communication in business. Her experiences as an academic researcher, diversity consultant, and administrator over the last +30 years has helped her integrate broadening participation and inclusion practices across all research, workforce development, and community engagement initiatives. Dr. Driscoll is currently Director of Diversity and Inclusion at CISTAR, an NSF Engineering Research Center.

## Kristin Everett

Dr. Everett is an educational evaluator and researcher and the lead evaluator at Everett Evaluation. She works with a variety of education programs and projects, including STEM, engineering education, teacher professional development, after school programs, and health education.

# The Value of Assessing, Reporting, and Discussing Culture of Inclusion with a Scale Designed for an Engineering Research Center (Experience)

## Abstract

There is a common need across National Science Foundation (NSF) Engineering Research Centers (ERCs) —and likely other similarly large Centers, institutes, and working groups—to have a culture of inclusion that inspires individuals to bring all their energy, creativity, and talent to bear on solving the big societal problem that they were funded to solve. In this paper, we describe a Culture of Inclusion survey instrument that, although in early stages of use, is helping us to better understand what is contributing to, or detracting from, the Center’s culture of inclusion. We also describe an iterative process that helped us to incorporate suggestions from Center members and further improve both the Center’s culture of inclusion and our survey instrument.

## Introduction

There is a long history of assessing inclusion, and reflected in this history is a wealth of inclusion-related scales that differ in their purpose, focus on certain psychological constructs, intended audience, type of entity, and abstractness [1] - [3]. Although there is great appeal to using an existing scale that has been shown to be valid, reliable, and generalizable, there are disadvantages when needing it to be well-suited to a group with unique characteristics, such as we describe exists at a National Science Foundation (NSF) Engineering Research Center (ERC).

*Understanding ERCs.* An NSF ERC is a multi-institutional entity that consists of faculty, staff, postdoctoral scholars, and students (graduate and undergraduate) from several universities and across disciplines who partner with companies and national laboratories to solve a “big societal problem” through breakthroughs in research, while providing engineering workforce development and operating within a diverse, inclusive culture. NSF states that, broadly, “the goal of the ERC program has traditionally been to integrate engineering research and education with technological innovation to transform and improve national prosperity, health, and security” [4]. The universities are often geographically dispersed and with foreign institutions as partners; thus, collaboration takes place both virtually and in-person, even prior to the pandemic. Furthermore, there are different levels of involvement (e.g., amount of time dedicated to the Center) and levels of leadership (directors, thrust leaders) within the ongoing research, industry, workforce development, and diversity and culture of inclusion efforts.

NSF also provides guidance related to broadening representation, with a focus on recruiting individuals from groups historically underrepresented in STEM fields and ensuring they, too, are working in a culture that is inclusive. Further, throughout the life of the Center, NSF wants to see evidence of relationships that are cohesive and collaborative across universities and disciplines, especially as Centers “age” over their 10 years of funding. This means that the survey instrument cannot be one that is particularly time-bound if Centers want to benchmark their culture of inclusion over time. By annually benchmarking culture of inclusion, however, a Center can demonstrate to NSF how they are continually working to improve their culture by

understanding what is working well (and doing more of it) and problem-solving what is not working so well (and addressing any problems).

In short, the rationale from the Diversity and Culture of Inclusion director's perspective is that an ERC needs to be working inclusively so that people from diverse backgrounds are inspired to bring all their energy, creativity, and talent to bear on the work at hand to collaboratively solve the large, complex problem that was the original basis for the Center's funding. Thus, there is a need for a survey instrument to understand the inclusion-related perceptions and experiences of all individuals in the Center. This means that inclusion, however it is measured, has to be considered as a function of a host of demographic variables (race/ethnicity, gender, etc.) to address, as much as Center numbers allow, the intersectional nature of individuals with the end goal of showing that inclusion is a shared, consensual experience, and not just reflective of those in the numerical majority.

*Devising a Culture of Inclusion survey instrument for ERCs.* ERCs can choose, or create, the assessment(s) or survey instrument(s) appropriate to best meet the needs of their Center. Given the unique characteristics of an ERC, as just described, it was difficult to find an appropriate survey instrument already in the literature. Some ERCs have chosen to assess the individuals in their Centers on cultural intelligence or developmental types of measures (e.g., Intercultural Development Inventory, <https://idiinventory.com>) and then draw conclusions using the extrapolated group score. While diversity and culture of inclusion directors are charged with improving the cultural understanding and skills of their Center members, as well, such scales are limited for capturing the culture for inclusion in the Center. Thus, although in early stages of development, we offer a survey instrument to help Centers trying to assess an ERC-type of entity.

Each year, the survey is sent electronically to all members of the Center using Survey Monkey.<sup>1</sup> After opening the survey, participants read an extensive informed consent document. If they do not consent, they are directed to the end of the survey, thanked for their time, and no data is collected. If a Center member consents to the survey, the four sections of the survey are presented. It should be noted that while there are many opportunities to make open-ended comments in each survey section, they are always marked optional to prevent those with less investment in the Center to still complete the major items of interest.

*Section 1: Relationship with the Center.* Items in this section asked individuals about their relationship to the Center: their role, when the individual joined the Center, their institutional affiliation, the estimated percent of their time spent on Center-related activities over the last 12 months, their estimated frequency of interactions with individuals at other institutions in the Center, and satisfaction level with that frequency of interaction. These items helped us make sense of how some groups of interest perceive the Center's culture of inclusion (e.g., faculty versus student, long-time Center participant versus new arrivals, those investing a small proportion of their time in the Center versus a considerable amount of time in the Center).

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<sup>1</sup> The study received Institutional Review Board (IRB) approval.

*Section 2: Culture of Inclusion Items.* This section asked individuals about their perception of the culture of inclusion at the Center with items developed by the authors based on the literature, our Center’s original Inclusion model, and NSF’s emphasis on having an inclusive professional culture. Participants are asked to: “Please rate the extent to which you disagree or agree with the statements on a 1 to 7 point scale” (strongly disagree, disagree, somewhat disagree, neither agree nor disagree, somewhat agree, agree, strongly agree). We proposed two subscales, as described in the next sections. “Name” is used to represent the name of the Center or entity being assessed.

*Subscale 1 - My Inclusion: How individuals see themselves being included in the Center.* This theorized subscale included four inclusion-related concepts that tap into how included one feels (see Figure 1 for concepts and the associated items asked in the survey instrument). The first three concepts—*Identification*, *Commitment*, and *Interconnectedness*—encapsulate decades of research on social cognitive career theory [5], social identity theory [6], self-efficacy theory [7], and need for social connectedness [8]. A fourth concept known to be important for inclusion is *Cultural-Intelligence (CQ)*. CQ enables people to work more effectively with culturally diverse others, a skill critical for developing culturally intelligent, global engineers [9]. Having CQ also allows a person to understand the culture in a workplace, and, if inclusive, allows people from diverse backgrounds to feel that they fit in with the workplace culture. In addition, *Overall Inclusion* (see Figure 1) was asked on a 1-7 strongly disagree to strongly agree scale, as well, to directly gauge the more abstract, overarching concept of inclusion, and to further understanding how closely it is related to the other four concepts. There was then an opportunity to further explain one’s ratings in an open-ended comment box.

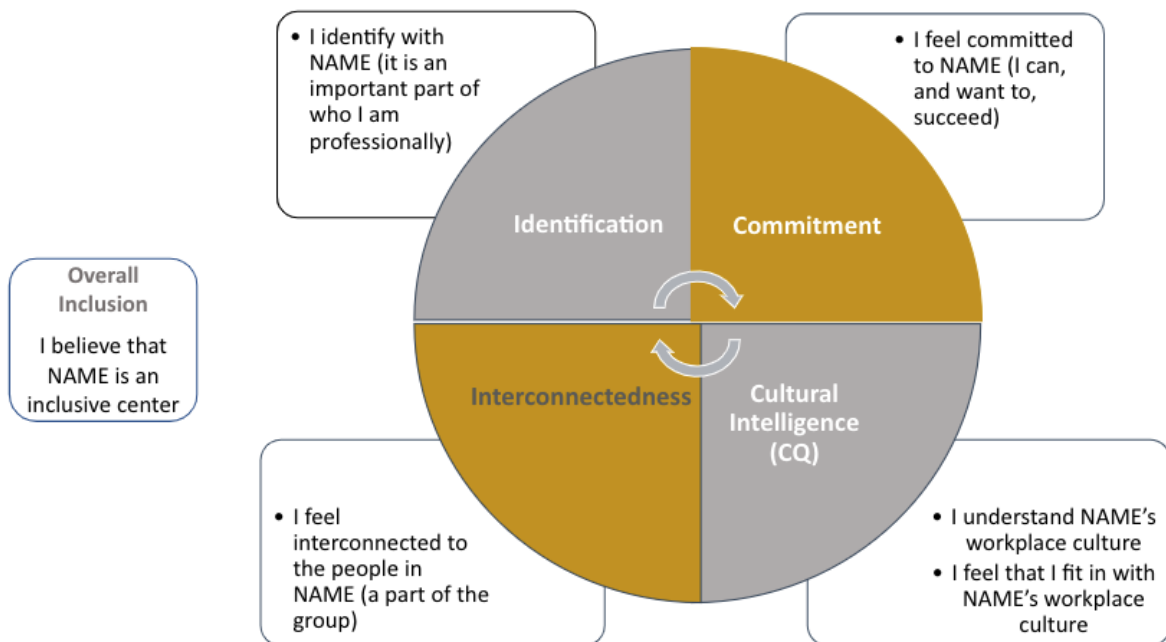


Figure 1. My Inclusion - Concepts and Survey Items

All of these proposed concepts are useful for creating and maintaining a culture of inclusion. For example, if one of the concepts (e.g., interconnectedness) is quite low, or low for one group in the Center (e.g., staff; underrepresented racial minorities), then the Center can problem-solve and work to improve that aspect of their culture. The open-ended comments after the ratings can also give clues as to why ratings might be lower on that concept, and corrective measures can be put in place to try to remedy the situation.

*Subscale 2 - Inclusive Professional Behaviors: Impact Others Have on Inclusion.* This theorized subscale included four inclusion-related concepts that capture perception of how others in the Center are behaving (see Figure 2). Consistent with NSF’s recommendations for ERCs, items were added to the survey instrument that represent the kind of concepts expected to be exhibited by others in an inclusive culture, e.g., Center members treating individuals in a *Fair*, *Respectful*, and *Open* (accepting of different ideas/perspectives) manner;<sup>2</sup> and where being *Collaborative* is encouraged. The last item, *Professional Growth* (see Figure 2) captures what occurs when the other inclusive professional behaviors are in place and members are behaving in a fair, respectful, open and collaborative way. In such a culture, one’s professional growth is facilitated because every member will be able to fully contribute and achieve their professional potential. Thus, it was conceptualized as not directly a part of the four-part conceptual model, but still related. Again, there was then an opportunity for participants to further explain their ratings in an open-ended comment box.

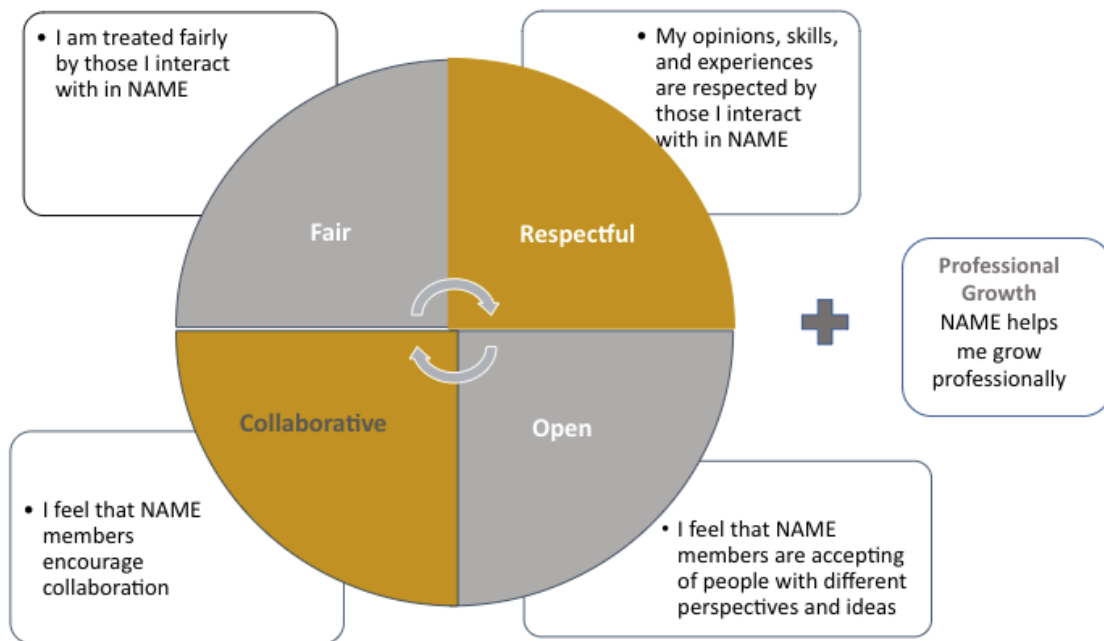


Figure 2. Inclusive Professional Behaviors - Concepts and Survey Items

<sup>2</sup> This concept is consistent with the longstanding research on psychological openness best known for it being a part of the Big 5 factor model of personality and represents how accepting one is of different ideas and perspectives [10]

*Section 3: Engagement with Diversity and Inclusion-related Activities.* As an exploratory part of developing a measure of culture of inclusion, we thought to assess behaviors associated with supporting it. Specifically, we were interested in the extent to which faculty, staff, and students were already engaging in inclusion-related activities. We began our exploration by focusing on two common ways that Center members support a culture of inclusion: through engaging in recruitment and mentoring of individuals from backgrounds underrepresented in engineering. Research has shown that when workplaces are not diverse (e.g., low percentages of women), there is less inclusion and more stereotyping [11] – [12]. Thus, recruiting diverse students, staff, and faculty is central to having a more inclusive culture. Further, when there is less diversity, particularly at the higher levels of an organization, there can be fewer opportunities for individuals from underrepresented groups to be mentored. Thus, quantifying the prevalence of mentoring of individuals from groups underrepresented in engineering was another way we sought to measure inclusivity.

In this section of the survey, we reminded participants of our Center’s goal to broaden participation of individuals from groups underrepresented in engineering with respect to race, ethnicity, gender, disability, socio-economic status, veteran status, and first-generation students. Then we asked them to rate four groups separately on the item: “In the last year, to what extent have you participated in any *recruiting efforts* on behalf of the Center to broaden participation for underrepresented: 1. undergraduate students, 2. graduate students, 3. postdoctoral scholars, staff, and 4. faculty.” Response options on a 1-5 scale were: no opportunity to do so, not at all, a little, a moderate amount, and a great deal. An optional comment box allowed them to then explain their involvement in recruiting on behalf of the Center over the last year. Next, survey participants were asked: “In the last year, to what extent have you engaged in mentoring activities that would help the Center create an inclusive culture for the <same groups and response options as above>.” Again, we presented an open-ended opportunity for them to explain their involvement in mentoring for the Center over the past year.

*Section 4: Demographics.* In the final section, we reminded participants: “Answering these questions will help our Center meet our NSF responsibility to routinely assess the inclusivity of our Center for people from all backgrounds. Again, your responses will be kept confidential by external evaluators and only group data and non-identifiable comments will be reported to the Center.”

Further, we make it clear by having a header “Response Options” that our goal is: “To balance brevity with being responsive to how you’d like to identify, we include for each demographic a “prefer to self-describe” response option.” The specific demographic groups chosen were those from historically underrepresented in engineering/STEM fields and in keeping with our NSF mandate for broadening representation in ERCs. Survey participants were asked “How do you identify” on questions of gender, race, disability status, veteran status, and first-generation college status.

In addition, survey participants were asked if they were a citizen or permanent resident or not. As a final question, participants were invited in the optional comment box to “Describe any other identifiers (socioeconomic background, age, etc.) that you feel are important to your feelings of inclusion in the Center.”

*Final Question: Impact on Culture of Inclusion.* A final question was included at the end of the survey only in 2021 asking: “To what extent has COVID impacted your ability to help the Center become more diverse and inclusive?” on a 5 point scale including: none at all, a little, a moderate amount, a lot, and a great deal. There was an optional final comment box to explain.

In future, we plan to include a question assessing if any factors (e.g., COVID-19, impactful societal or personal life events) influenced their ability to engage in diversity and inclusion-related activities. The survey ended with one last optional opportunity to provide “other comments.”

## **Results**

The Culture of Inclusion survey instrument was deployed in April of 2020 and again in April of 2021. In 2021, the survey was sent to 126 people; 91 people completed the survey, a return rate of 72%. Before the survey was sent by the external evaluator, the Center director sent all faculty, staff, and other members of the Center an email explaining the purpose of the survey. This direct communication from the director helped to improve the survey return rate.

There is now a rich set of data that has helped us to develop a plan of action well-suited to the specific concerns and goals of our Center. To demonstrate the usefulness of this instrument, results will focus on the Culture of Inclusion Items and the Engagement with Inclusion-related Activities.

*Factor Analysis of Culture of Inclusion Items.* Following the second administration of the survey, using the data from the 91 respondents, an exploratory factor analysis was used to determine the factor structure of the 11 Culture of Inclusion items. To determine first the number of factors to extract, a scree test using a principal factor analysis was used within the SAS 9.4 software. The scree test suggested a two- or three-factor solution. The data was then exported into MPlus.

An exploratory factor analysis was conducted using 1 to 4 factor solutions. The 4-factor solution was first explored and removed as none of the 11 items had a significant loading on the fourth factor using a 0.45 threshold. The 3-factor solution was then explored. This solution was also removed as only three items had a significant loading using a 0.45 threshold.

The 1-factor and 2-factor solutions were further explored. Within the 2-factor solution, seven items significantly loaded onto Factor 1 and five items significantly loaded onto Factor 2 using the threshold of 0.45. The only item not fitting our prediction “The <name of Center> helps me grow professionally” had a significant cross loading on Factor 1 and Factor 2. When thinking about this item, it may be that one’s professional growth depends upon both your behavior (i.e., feeling included, so able to fully participate in professional opportunities) as well as other’s behavior (i.e., being offered professional development opportunities) (see Table 1).

Within the 1-factor solution, all 11 items significantly loaded onto Factor 1 using a threshold of 0.45. Both 1-factor and 2-factor solutions indicated high reliability. The 1-factor solution had a coefficient alpha of 0.955. Within the 2-factor solution, the coefficient alpha for Factor 1 was 0.937 and Factor 2 was 0.929.

**Table 1**  
**Two-Factor Solution Fits the Inclusion Model**

<i>Items</i>	<i>Factor 1</i>	<i>Factor 2</i>
I04 - I understand the Center's workplace culture	<b>0.986*</b>	-0.008
I03 - I feel interconnected to the people in the Center (a part of the group)	<b>0.926*</b>	-0.116
I05 - I feel that I fit in with the Center's workplace culture	<b>0.840*</b>	0.146*
I02 - I feel committed to the Center (I can, and want to, succeed)	<b>0.774*</b>	0.034
I01 - I identify with the Center (it is an important part of who I am professionally)	<b>0.678*</b>	0.227
I06 - I believe that the Center is an inclusive Center	<b>0.585*</b>	0.381*
P03 – The Center helps me grow professionally	<b>0.452*</b>	<b>0.468*</b>
P02 - I feel that the Center members encourage collaboration	0.301*	<b>0.598*</b>
P01 - My opinions, skills, and experiences are respected by those I interact with in the Center	0.270*	<b>0.656*</b>
P05 - I feel that the Center members are accepting of people with different perspectives and ideas	0.219	<b>0.774*</b>
P04 - I am treated fairly by those I interact with in the Center	-0.013	<b>0.986*</b>

*Note. Bold items denote significant loading using a 0.45 threshold.*

In conclusion, the two-factor model best represented the constructs measured in the survey. Factor 1 was named *My Inclusion* (items related to how individuals see themselves being included in the Center) and Factor 2: *Inclusive Professional Behaviors* (items related to the impact others have on inclusion). Thus, all the items together are a strong measure of inclusion. Theoretically, and consistent with how we developed the measure, there is also evidence that the two-factor solution works well.

As already mentioned, there are several advantages to using this Culture of Inclusion survey instrument. Two advantages that are worth emphasizing are as follows:

1. A single percentage can be used to talk about the Center's inclusion (i.e., 90% of respondents believe that <Center's name> is an inclusive Center) or any of the associated items. Of course, this can be deceptive if there are significant interactions across demographic groups that would qualify one's conclusion about inclusion, in general, or a given item. Also, one needs to acknowledge when there may not be enough of an N in a demographic group to have the power to identify a significant difference.
2. If any of the items are rated as higher or lower than the rest of the items, they can be further explored—by looking at associated comments and/or by analyzing the data as a function of demographic variables—to make sense of a lower or higher rating. More refined actions can be taken to remedy lower ratings, while high ratings can be emphasized Center-wide and commended. It is encouraging to celebrate what is working well, and not only point out problems. Lower rated items or a consensual concern expressed in the open ended comments can be tracked and compared from year to year



(benchmarking the culture) to see if activities/action plans designed to address findings of concern actually help to resolve the problem.

There are three limitations to the findings that we'd like to point out. First, in deploying the survey, we did not randomly present the Culture of Inclusion items. In 2022, we will be doing so and confirming the findings from the factor analyses.

Second, we did not try to identify non-responders to the survey by their associated demographics. It could be that those who felt the least included in the Center did not respond to the survey. Response rates were quite respectable, however, and we didn't think it appropriate to report out at this level as it could potentially make some individuals feel uncomfortable about their decision to not respond.

Third, there seemed to be some confused as to what was a recruiting event and what was a mentoring event; upon looking at responses, it seemed to be the case that some events (e.g., meeting to mentor a student about their college application) were both when helping the student apply to one's university. In future, we will assess the two types of activities together.






*Engagement with Inclusion-related Activities.* We have learned a lot from looking at the percentage of faculty, staff, and graduate and undergraduate students who are engaged in recruiting and/or mentoring of individuals from groups underrepresented in engineering. It is empowering to be able to assess percentages of Center members who are involved "a great deal" or "a moderate amount" and constructive to then look at their written descriptions of the kinds of activities they have engaged in over the past year. From these results, too, we can better understand what incentives might be needed, opportunities created, or advertising beneficial, to get more engagement across the Center. Further, we can look at the impact of the added incentives or opportunities over time to see if they have had an effect on what activities are then reported the following year.

And, finally, we can track any interrupters of these activities (i.e., COVID-19) and make sure that we are doing what we can to maximize participation in recruiting or mentoring opportunities (i.e., convey *virtual* opportunities across the Center, some of which may remain options even past the time of the pandemic-related restrictions).

### The Importance of An Iterative Process

Assessment is an iterative process. The step-by-step process we used for assessing culture of inclusion that includes feedback from Center participants can be seen in Table 2 (Steps 1-5).

**Table 2**  
**An Interactive Culture of Inclusion Assessment Process**

<b>Step 1. Heads Up and Reminder</b>	
Let participants know the COI survey is coming soon and how they can recognize its legitimacy; remind them of its purpose (e.g., that having a diverse, inclusive Center is everyone's responsibility and that the Center is charged by NSF with creating and maintaining a culture of inclusion). Assessment can remind them of the Center's expectations and make expected (inclusive) behaviors more normative.	
<b>Step 2. Deploy Survey with Confidentiality Assurances</b>	
Be sure participants know that only external evaluators have access to individual responses. Reassure that reports on the COI will only include aggregated responses and non-identifiable comments. Assurance and trust have to be there or participants, especially those who feel identifiable, will not respond or will put "prefer not to answer" on the demographic variables of interest. Surveys have to follow ethical guidelines.	
<b>Step 3. Top-down Support</b>	
Have the Center director send a Center-wide email about the importance of completing the survey prior to deploying it, and then a reminder to complete the survey closer to the deadline. Make it clear in the latter email that the director does not have access to who completes the survey or to the individual level data.	
<b>Step 4. Communicate Findings Center-wide and Get Feedback</b>	
Present the findings and get synchronous feedback; have break-out sessions so participants can talk/brainstorm and make recommendations about improving the COI in the Center; post-session, have participants complete a survey about the session and improving the COI. For more details, see the Step 4 (continued) section.	
<b>Step 5: Responsiveness to the Process</b>	
Learn from the whole of the process. Include recommendations in next year's COI Action Plan and then take commensurate actions to improve the COI of the Center in keeping with what was learned. For more details, see the Step 5 (continued) section.	

*Step 4 (continued): Communicate Findings Center-wide and Get Feedback*

We followed a methodology intended to increase participant involvement in the process of making the Center diverse and inclusive that included presenting the findings to Center members. We also made sure to invite them via polls and breakout sessions to engage in problem-solving based on the findings and discussing/learning from one another so that the Center could thereby improve its culture.<sup>3</sup>

To engage participants, they were invited to a virtual working session called: *Key Findings of the Center Culture of Inclusion Survey and How to Improve*. To make the session more interactive, and to invite Center participants to engage and 'weigh in on' the findings, we invited

<sup>3</sup> Having just discussed the Center's culture of inclusion, it made for a good transition to talk about inclusion and mental health and wellness. This was especially true given that in the spring of 2020, the pandemic was still adding to the already high-stress engineering environment, with more anxiety and depression being reported for students across the U.S. and, in particular, for students from underrepresented backgrounds (e.g., first generation college students; students of color [13] – [14]).

everyone to log on to *Poll Everywhere* so responses to questions could be shown immediately on the slides as they were presented. For example, one of the poll questions took the time to celebrate some of the more positive findings. To take note before doing the hard work on addressing some issues and problem-solving, participants were asked: How do you feel after hearing these results? The subsequent responses to the poll appeared immediately and were varied (from “encouraged” and “hopeful” to “interesting” and “surprising”), with more frequent responses being larger in the resulting word cloud.

Further, as we presented the findings, we had virtual breakout rooms so participants could discuss questions such as the following:

- “What are we doing right? Are there certain practices or procedures in place that encourage inclusivity? If so, share with your group.” Resulting discussions can give others in that breakout room ideas for what they should do. Having faculty describe what they are doing, furthermore, can have a huge impact on students, making it a normative concern rather than an isolated practice presented by someone outside of one’s field.
- “What ACTIONS can we take to do better?” At this point, it is appropriate to first raise any consensual criticisms or problems that the survey highlighted. For example, given the nature of large, multi-institutional, multi-discipline research Centers—and especially in ‘times of COVID-19’ when in-person meetings weren’t allowed—communicating well across different institutions and disciplines becomes more challenging. A good breakout question if a Center has such an issue might then be: “How can you improve respect across the different disciplines (or institutions) in our Center?”

In addition to what we learned from the feedback sessions, we learned much, too, from individuals reporting back on a post-session survey. This is detailed further in Step 5.

*Step 5 (continued): Responsiveness to the Process.* After reviewing the data and gathering feedback, the next step is to revise the survey and incorporate all that was learned into the next year’s action plan to help guide diversity and culture of inclusion activities. There should also be a plan to share a proposed action plan with those Center members who are interested in being more involved. For example, we hope to insert a new way to make it easier to report on mentoring and recruiting activities. It would be helpful to have input from a few faculty and graduate students to make the response options were clear. Finally, although this process is iterative, each Center, depending on their unique circumstances, should determine the frequency with which they need to do this in-depth assessment of their Center’s culture of inclusion, as well as how frequency they need to engage with participants in Steps 4 and 5.

## **Conclusions**

To conclude, there are several advantages of the present COI survey instrument to highlight:

- *It is Efficient.* The average amount of time it takes to complete the COI survey is 7-9 minutes. Most Center participants are now familiar with the strategic plan, Inclusion Model, and associated items; many are also taking the survey for the second time (with

minor revisions in Year 2). Further, we tried to streamline reporting of demographics and have all open-ended responses marked optional so they can be ignored unless clarification or elaboration is felt to be needed.

- *It is Data-rich.* Even though it is efficient time-wise to take the survey, there is a lot to be learned from the inclusion items, interaction patterns, and inclusion-related activities. For one, we have been pleasantly surprised at the number of helpful comments explaining why those completing the survey made a particular response, or the extent to which they elaborate on their recruiting and mentoring activities. Our goal in future iterations of the survey is to try to improve the efficiency of such reporting of comments with more quantitative measures that make sense and require less time than writing individual activities.
- *It is Easy to Communicate.* The type of data collected is easy to communicate and seems to resonate with what people value in their study/work places. We have observed in some scales of inclusion and related concepts that items mix the personal (e.g., others in the group care about me; I feel close to others in the group) with the professional, which may lead to some reactivity among survey participants.
- *It is Actionable.* Given that we can look at the percent agreeing or disagreeing with the different scale items, it makes it easy to note a problem and delve deeper in the data (any interactions with demographic groups; relationship with the Center) and/or associated comments to figure out more information so one can make an actionable plan to address it. Likewise, it is easy to highlight what the Center is doing well, and continue with such efforts.
- *It is Amenable to an Iterative Process.* Although the survey responses offer a snapshot view of the Center's culture of inclusion once a year, it becomes more meaningful as part of an iterative process and when deployed on an annual basis. It is very easy for participants to understand the data, respond with their recommendations based on their own Center experiences, and thereby enrich the process.

Finally, over the years, the COI survey will allow us to benchmark and say with confidence how our members are perceiving the Center's culture for inclusion and how they are supporting it with their actions. Deploying the survey annually clearly communicates the value that is placed on creating a diverse, inclusive Center, and makes the shared accountability nature of inclusion clear (it is "Everyone's" responsibility). However, it is including all of these steps, along with having an iterative process, that is maximally beneficial because it invites—as it should—everyone to be a part of the creation and maintenance of the Center's culture of inclusion, leading to a better use of talent, more innovation, increased levels of productivity, and higher workplace satisfaction [15] – [17].

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