TECAID (Part 2) Team Representatives: Post-Panel Presentation Q & A

This is a transcript of a Q & A session with audience members following the TECAID (Part 2) panel session by representatives from the original TECAID Teams at the 2017 Women in Engineering ProActive Network (WEPAN) Change Leader Forum. [Note: The Panel Presentation (Part 2) and separate Part 2: Q & A video/transcript, follows the workshop, TECAID Overview and Outcomes (Part 1), in a separate video/transcript.]

[00:00:07]
Gretal Leibnitz: Okay, for this part of our process here, we're inviting conversation and dialogue. So to help with that, we want you to stand up to ask your question and I'm gonna just tell this to everybody: the mic works best when it comes directly from your mouth. Not when it's down here, not when it's out here. So, please, just pretend it's a lollipop or an ice cream and just stick it right there. Your favorite ice cream ... And then, please, who's gonna start us off because I'm interested ... A lot of questions came from that table and I know there's some from others. Great. Thank you. We'll come back to you.

[00:00:46]
Mary Anderson Roland (Arizona State University): I would just like to know when you formed your teams, did you ask for volunteers? Because, not that necessarily you would need to put every volunteer on the team, there could be an agitator that would volunteer, but I just wondered if it was open to the faculty so that there weren't people that really would have been good on that team that were possibly left off.

[00:01:12]
Rob Stone: So, I guess I'll start with that and hopefully I don't blow up your ears. So I didn't put out a call for volunteers. I went after folks who I thought can contribute because I did wanna seed that team with the folks who were committed and interested in the topic and not open this up for a chance for agitators, as you say.
Nancy Barr: Yeah, I was one of people recruited. A call did not go out for volunteers. And everyone, most of the people who were recruited definitely had an existing interest in this. I was recruited for it based on my curriculum development experience with our ME practice curriculum. It was a new curriculum that we were implementing, so that was where I was being brought in, which is where we were gonna make change.

[00:02:06] Rob Stone: Recruited is a better word. Right.

[00:02:09] Zahed Siddique: It was done pretty much the same way at the OU also. It was more of a recruitment, not a volunteer kind of thing. So the call didn't go out. We just selected faculty members who would be able to make the change and other faculty members who would listen too. So we picked them based on that. And we're of course, open to the idea.

[00:02:38] Klod Kokini: I believe at Purdue, they were given the right of refusal, but not ... It wasn't an open call. I can add a little bit. I think it's a good idea to actually pick individuals who actually care about the topic. This is a topic that requires special attention.

[00:03:01] Tom Perry: If I might, show in a small follow up question. In that initial assembly of this group that was more carefully selected and so on, do you envision, as you scale larger to another step, that there's more of a role for outreach to volunteers and so on because you've got your core established? Or am I answering my own question?

[00:03:27] Nancy Barr: Well, I would love it if people would volunteer, but that hasn't been my experience. The one person who really is interested in this work is already taking on too much as it is. So I would love it if people did.

[00:03:44] Rob Stone: Yeah, and as we started to disseminate to our faculty what we were doing, sort of in special meetings or in faculty meetings, we began to see folks who would come up and say, "Hey, I'd like to take a part," or "I'd like to be involved." And so, sort of having it out there and after you're going, sort of opening it up, I think is a great approach.
Zahed Siddique: Same with OU, after a year when other faculty members saw what was going on, people who come and started volunteering and actually became the extended group. So the core group was recruited, but then after that, it became more of volunteers coming in and trying to participate and help.

Sarah Appelhans (University of Albany): One of the main tenets of institutional change is support from leadership. So, in industry, we would say you would need support from the C-suite. I would suppose in academia you're talking about dean level or above. I'm wondering what good leadership involvement looks like. So, I'm wondering if some of you have specific examples of high-level leadership supporting some of the actions that you're taking.

Nancy Barr: Well, I can say that our dean from the College of Engineering serves on several committees related to diversity and inclusion efforts on campus. I serve on a couple of those committees with him. So he's visible. That's a big thing. He's very visible. That's key and he was definitely supportive of our application to become part of TECAID and wrote a letter of support for us.

Rob Stone: Yeah, at Oregon State, I would say like president, provost level, there's a clear commitment to diversity, equity, and inclusion on campus. In between sort of unit and that level, we had support from the dean in terms of writing the letter, but I think, and I may regret this, being recorded, later, but I think that was, it wasn't authentic support. It was like, "This is a good thing to do, but I'm not gonna put any skin in the game." So, we were fine with that because we knew we had skin in the game and some resources to throw at it at the school level.

Zahed Siddique: So, for us, we were very fortunate. The call was actually seen by the dean's office and they wanted us to apply. So, they were in from the get-go. So, after that, when we started the training, and like I mentioned, we hired somebody from the outside, we had financial support and everything from the dean's office to start it for the first year and then later on, we actually put it in the course fees. So we can keep on doing it and it's not a onetime thing. So separate from the leadership was crucial to have things in a successful way.
Klod Kokini: So, because I was a PI on the thing, I encouraged the team to apply but then when it came to selection, I had to recuse myself because I was part of Purdue. And so, all of my other colleagues, when they reviewed all the applicants, had to decide that Purdue should be included, so I couldn't be involved in that process. However, I know that after they got involved in TECAID, the provost had a call for proposal for what they call Diversity Transformation Award and the Purdue Mechanical Engineering Team applied. Many of initiative based on the TECAID project and actually got one of those and so I had to be, in some ways silently, in some ways not so silently impact. ... So, I'm an associative dean, so I represent the college as well. And, the university provided other resources for this kind of activity so there's definitely a support system for this kind of work.

Zhengxiai (Purdue University): Hi, my name is Jinsha [ph]. I'm from Purdue University and I have a question so, Dr. Kokini, you talk about when you select the team of faculty member, you looked at the records of accomplishment and their past interaction with students and stuff. So I really wonder, what do faculty member bring in to this project and what do they take away from this project because my experience is if you talk to a younger faculty member, because this does not fall into the tenure track evaluation criteria, they don't necessarily want to spend too much time on it, but if you talk to a full professor who truly care about this issue, but they will be willing to, if you provide them some tools, they'll be willing to be like, "Sure. I'll do this." Those faculty members you selected to be on this project. Do they also bring in something from their past experience? Just wondering how.

Klod Kokini: Yeah, absolutely. When I use the word "accomplishment," I didn't mean their research record, et cetera. It was more their past engagement and diversity related activities. Every single one of the faculty involved in the project had a serious track record in being engaged, whether with students, other faculty, outreach, all kinds of different involvement in diversity and inclusion related work. So they all had a solid track record in that area. You're absolutely right about junior faculty. We intentionally made sure that no assistant professor was part of this project. For the exact reason you mentioned, it's very difficult to make, we want assistant professors to focus on their research and the work that they do to be able to be promoted.
Klod Kokini: I can tell you that one of the faculty was indeed an associate professor and very successful research record, who was involved in this project. I'm very pleased to report that just this past year, she was promoted to full professor. So even though she was engaged in this, she still managed to do all the work necessary to get promoted to full professor. You're right. So many of the other ones are senior faculty, and their passion and their leadership is what plays a major role. It really remains up to the department heads. Having department heads involved in the process is useful from that perspective in evaluating this kind of work in their performance evaluation. In a typical review, a faculty will say, "Well, how many papers did you publish? How many grants did you get? What is your contribution to things," like that. Diversity and inclusion work is not part of the main stream of evaluation. You need the leadership that includes and appreciates that kind of contribution.

Gretal Leibnitz: We're gonna take one more question and I very much appreciate your passion and attention-- that it's already past time and you're still here. Awesome. Let's take one more question and know that the team of panelists will remain up there after our presentation. You're welcome to engage them personally.

Shauna Fletcher (Texas A&M University): I actually have two questions and I'll make it quick. My first question is, what are the thoughts of sustainability for this project? Some of you mentioned that you were embedding it into classroom curricula. Is there any formal embedding into the daily practice moving forward? Are you gonna use it for new faculty training? Are you gonna require your departments to go through some sort of a training for everybody? I'm just curious to know what's the sustainability for this project and how does it move forward? My second question is for ASME. What's the importance of the role of ASME as a professional organization in supporting these efforts, and what have you seen from the departments wanting to be involved in this because ASME was a project partner?

Nancy Barr: Do you want to answer that first and then ...

Tom Perry: I'll do the ASME first. This work on inclusion and diversity is a significant part of a five part strategy. Advocacy strategy in ASME Engineering
Education has been going on very deliberately and very officially for the past eight years. It was going on unofficially and yet, in many cases, as deliberately before that, but it is now particularly efficient and has been. It manifests itself through our work at a better creditation. It manifests itself, very significantly, in one of our chief resources, and that's the network of mechanical engineering and related department heads. That we convene in leadership summits that we have on Listserv. That we and they are constantly in communication with one another. The role of that is projects and results like these that come through are part of the ongoing conversation and has been part of the ongoing conversation. That got accelerated very appreciatively and very significantly by WEPAN in the discussion of approaching NSF.

Tom Perry: So it moved to a new level from what was happening just internally in the ASME Mechanical Engineering Education community, to a new level that brings outside expertise, that brings the corporate, what I will say, corporate knowledge of WEPAN, in this arena. That's not going away. That's continuing. It continues to be a part of what mechanical engineering at ASME needs to do. In the particular case of 13% women in undergraduate mechanical engineering, when the national norm is close to the 20%-25%, we have a way to go. The good news is, that the largest number of women that graduated in mechanical engineering come from mechanical engineering. Unless you have the ratio proportion at the table, proportion in the discussion, throughout the undergraduate program, on the faculty, and in engineering practice is really what counts. Proportion counts.

Tom Perry: Where we are headed is those higher proportions and are not gonna stop until there is a significant enough impact that we can say that mechanical engineering is, at least, on a par with what's going on in engineering nationally. In terms of proportion and beyond that.

Tom Perry: The final thing I'll throw in there is our engineering education work [ASME] is about preparation for practice. It is our position that it is impossible to do engineering by yourself. It's a collaborative enterprise. You can't do it alone. When you start engineering practicing, globally diverse companies with different markets and these sorts of things and working up and down inside the organization. The skills of inclusion, the skills that require you to learn about and know about making the best use of a design team, making the best
use of a project team and so on, and getting the most out of it is part in parcel of what it takes to do authentic and effective engineering practice.

[00:17:07]
Gretal Leibnitz: Fabulous answer. We're looking for the answer, as succinctly as possible, to the question about sustainability. How are you sustaining your efforts? If we can go ahead and start with Nancy.

[00:17:22]
Nancy Barr: Sure. Just real quickly, we have three components in place right now. One is GTA training. That's already in place. We've got a five session training that we do for our GTA's to teach our ME practice courses. We've got one module on inclusive classroom practices and a little bit of discussion about microaggression and things like that. Second component has to do with the undergraduate program. We have teaming instruction embedded into one of our ME practice courses, but also senior design. Things like doing team charters, how to handle team conflict. There's instruction along those lines. That's already in place. Then the next component that we're working on is faculty and staff development, so developing some training that can help build a more inclusive atmosphere in the office so that when international students, first time on campus, walk into the office, they feel welcome, they feel like they belong there right from the get-go. Helping faculty understand what it means to teach inclusively, to have an inclusive research lab, and inclusive office hours. What does it mean to just have an inclusive attitude. Yeah. Those three components.

[00:18:41]
Rob Stone: Yeah, at Oregon State, so our humanities or, I'm sorry, Humanitarian Engineering Studies sort of minors are in place. Those are going well. We've actually hired a faculty with research expertise in that area. They're being, actually, quite successful in introducing that this is a slightly different form of scholarship in teaching from the norm in mechanical engineering. Those are pretty well-seated, and then we'll continue to do our diversity and inclusion modules in the freshman intro class, and then this upcoming year, our plan is to get that in front of our new hires as they come in and work them through that.

[00:19:24]
Zahed Siddique: For us, we have it in place for our senior design. We have done it for two years already, so this fall, it will be the third year. When we are doing that for
the senior students, it is open to faculty and staff. New faculty members are highly encouraged to attend it. We have more than half of the faculty, not just the new faculty, all of them has gone through it. Pretty much all the staff has gone through it. All the senior students have gone through it and it is part of the curriculum, so we'll keep on doing it that way. We also tried doing it in a sophomore level. We actually have talked with the dean of education for engineering, and we might actually try something like that for the whole engineering. That conversation is going on. Now, this is part of the training. We also changed the physical environment. Mechanical engineering, we usually have machines sitting and whatever the students build. So we changed some of the displays that we have. Instead of being it product-focused, it's people-focused now. We keep on changing it and that way, we can highlight diversity in our student population, faculty, alumni, you know, the successful. That keeps on going because the display is up. It's just changing the content. We also are going to appoint somebody who will oversee all the activities that we have and who will get service credit for doing it so that nothing gets dropped as faculty members change and things like that.

[00:21:20]
Klod Kokini: Also, at Purdue we have been doing diversity education for a long time. In fact, to some extent some of the TECAID project had some of those ideas and past activities built into it. But, our mechanical engineering department is specifically pursuing, very aggressively, the project of increasing African-American students. As I mentioned earlier, we have now resources to initiate a project campus-wide. This is something that we think nobody has really done before. Not just engineering, not just STEM, but have a campus-wide initiative on education, dialogues, et cetera, bringing all sides of the spectrum of individuals. We hope to talk about campus culture, not just engineering culture.

[00:22:30]
Tom Perry: Thanks, Klod, and everyone. I want to give a great bit of appreciation to the audience here who has collaborated with this discussion. Thanks for the questions. Particularly, thanks to our panelists, our group. We very much appreciate their dedication over the last few years. It's because of that dedication that we have a change model, that we have case studies, webinars, other resources for deeper dives for institutions that want to go further. It's a process. Without their largely volunteer effort, well, completely volunteer efforts, we wouldn't be where we are. So thank you and help me to express our appreciation. Thank you all. Have at them!