Dead Ideas in Teaching and Learning Podcast Series

Season 7, Episode 4: What's Needed for Institution-Wide Improvements in Undergraduate Science Teaching? with Marielena DeSanctis and Cassandra Volpe Horii

Center for Teaching and Learning, Columbia University

[00:00:00] **Catherine Ross:** Hello and welcome to Dead Ideas in Teaching and Learning, a higher education podcast from the Center for Teaching and Learning at Columbia. I'm Catherine Ross, the center's executive director. As a quick reminder for our listeners, in this podcast series, we are exploring dead ideas in teaching and learning. In other words, ideas that are widely believed, though not true, and that drive many systems and behaviors in connection to teaching, exercising what Diane Pike called the "tyranny of dead ideas."

[00:00:39] **Catherine Ross:** Welcome, everyone. I'm speaking today with Drs. Cassandra Volpe-Horii from Stanford and Marielena DeSanctis from the Community College of Denver about an article they co-wrote with six other colleagues titled *An Instructional Workforce Framework for Coordinated Change in Undergraduate Education*.

[00:00:58] **Catherine Ross:** This article is a great example of thinking about how to systemically enact change that would be impactful at the institutional level. Dr. Marielena DeSanctis commenced her tenure as president of the Community College of Denver on January 15, 2021, after most recently serving as provost and senior vice provost of academic affairs and student services at Broward College.

[00:01:24] **Catherine Ross:** In the K-12 sector, she has served as a teacher, a high school principal, and assistant superintendent of curriculum and instruction. She also brings with her almost six years of experience as an engineer in private industry. Dr. DeSanctis has served as a member and leader of several professional organizations, and currently serves as a member of the

National Academies of Sciences, Engineering, and Medicine Board on Higher Education and the Workforce.

[00:01:53] **Catherine Ross:** Dr. Cassandra Volpe-Horii joined Stanford University in 2022 as Associate Vice Provost for Education and Director of the Center for Teaching and Learning. With Martin Springborg, Dr. Horii co authored the book *What Teaching Looks Like, Higher Education Through Photographs*, and her scholarship has addressed topics such as the roles of centers for teaching and learning in institutional change and accreditation, the experiences of faculty with disabilities, inclusive and equity minded teaching and mentoring, educational spaces and technologies, and teaching consultation methods. She previously founded and directed Centers for Teaching and Faculty Development at Caltech and Curry College, and served as president of the Professional and Organizational Development Network in Higher Education.

[00:02:47] **Catherine Ross:** Welcome to our Dead Ideas Podcast, Cassandra and Marielena. I am so delighted to be talking with you both today.

[00:02:56] **Cassandra Horii:** Thank you, Catherine. We're so glad to join you for this conversation.

[00:02:59] **Marielena DeSanctis:** Yes. Thank you, Catherine, for having us here today.

[00:03:02] **Catherine Ross:** So as I usually do, I just want to set the stage a tiny bit and then we'll have our guests take over most of the talking. Both Cassandra and Marielena, as well as their co-authors who we have noted in the episode description, are members of the National Academy's Roundtable on Systemic Change in Undergraduate STEM Education.

[00:03:25] **Catherine Ross:** And they were inspired to write the article that we're going to talk about today by the conversations that they've been having with colleagues from all over the country in these roundtable meetings. What I found interesting and unusual about their article is that the change approach they describe spans all types of instructor titles across higher ed, from adjunct to tenured and also spans all institution types.

[00:03:57] **Catherine Ross:** And the way that they do this is by relying on three systems that exist in all of these contexts, and those three systems are governance, professional development, and reward systems. So I'm excited to have them share this inspiring idea for systems change in undergraduate teaching because I think we've all seen, you know, what happens with the more

piecemeal departmental based efforts, or even individual instructor efforts that, you know, often result in really good, um, teaching methods and better experiences for some students, but not for all students. And so I think that's what we really want to focus on here. And that is exactly why they open their article with this quote. "The quality of instruction and other educational practices relates directly to the quality of student learning and to equitable and just outcomes for students." This is a powerful quote, so we're going to, we're going to start and we're going end with it. So let me get to the first question now so our guests can get talking. So first I would ask, I would ask our guests to share sort of how they see this instructional workforce framework idea as a key to these equitable and just outcomes from the quote.

[00:05:30] **Catherine Ross:** And also, before they maybe jump into that, to explain a key acronym that's used throughout this article, and that acronym is VITAL, V I T A L, because it may come up a few times in our conversation, and I want our listeners to be in the know.

[00:05:49] **Marielena DeSanctis:** Well, thank you, Catherine. This is Marielena. I will start. You know, it was a great deal of camaraderie and collegiateness that brought us to this article, lots of conversation. And one of the really important conversations was recognizing that we do have different types of people that make up our instructional workforce. And more and more, both at the community college and university level, we're finding that there are less full-time faculty, tenured track faculty, and many more positions that all have different names, um, and we were really actually pretty excited to come across, um, the acronym VITAL because this workhorse is vital to teaching and learning for our students and just an equitable outcome for our students. So quite simply VITAL came from us trying to define what were all of the different terms that are used.

[00:06:51] **Marielena DeSanctis:** So the V is for visiting faculty, the I for instructor, the T for teaching assistant, um, or teaching professor, and then the A for adjunct faculty and the L for lecturer. So all different terms that we use at the community college and universities to talk about workforce that is not tenured track full time faculty, but incredibly VITAL to the outcomes that we desire for our students.

[00:07:20] **Cassandra Horii:** And I just want to add my thanks, too, to Lillian Nave, who's at Appalachian State University, who introduced me to this great acronym. One of Lillian's roles at the Center for Academic Excellence at Appalachian State is VITAL Faculty Coordinator. So that's an institution that's

really recognized the importance of this, this wonderful, diverse, amazing group of educators.

[00:07:42] **Cassandra Horii:** And Lillian also helped us track down a reference from the Mathematical Association of America to this term that had been used for a few years now.

[00:07:51] **Catherine Ross:** Great. Thank you. That was a great explanation, and I love the origin story. How do you see this framework connecting to these equitable and just outcomes? Maybe just very briefly, because we'll go deeper into this as we progress.

[00:08:12] **Marielena DeSanctis:** Well, Catherine, this is Marielena again. I think. You know, the VITAL workforce is such a large part of our personnel that it is tasked with teaching our students and, and really ensuring that they have mastery of those course learning outcomes and program outcomes, and you can't, you can't separate those two. We cannot turn a blind eye to the fact that, unfortunately, we have students that aren't having the same type of success as other students. It's not the student's fault. This framework really talks about how it is that we apply the levers of professional development, of governance systems of evaluation and reward to really ensure that all of the educators, be they full time tenured faculty or otherwise, are able to be supported in equitable outcomes for students have the tools with which to make that happen, um, and that we actually make that a reality in every single one of our colleges and universities.

[00:09:25] **Cassandra Horii:** So just to add on to Marielena's comment about really the big idea of this article is the logic that so much has developed in the research and the literature on what it means to teach effectively to a diverse student body. What it means to teach equitably and the methods that help students really achieve outcomes on parity, graduating at similar rates across demographics and backgrounds and succeeding in their post college occupations. So we know so much more about that now, but I think what we're saying is the piece that we haven't addressed is how do we make it possible for everyone who teaches at the higher education level to actually implement those methods that we now know so much more about. So it's that middle piece, if you think about the logic of it, that we're trying to get at and really emphasize more so that we can do what we're promising for students.

[00:10:26] **Catherine Ross:** Yeah. I love that. I still recall a previous podcast with some students from here at Columbia, some undergrads, and I still remember one of them saying, We were talking about assessment and one of

them saying, you know, I had this experience in a class with an instructor who did this really radically different kind of assessment and it was just so life changing for me and just, I was just really amazed and, but what I feel bad about is that, you know, I was lucky because I had that instructor. But really, that should be available for all students. So that's to your point right there, a little anecdotal, even a, you know, student observation of that. So if we go a little deeper into the framework, the three levers, the governance, professional development and evaluation slash reward systems. Can you walk us through how each one of these supports what you describe as coordinated change?

[00:11:32] **Cassandra Horii:** Yes, Catherine. So this is Cassandra again. And in reference to your podcast title, one of our main points is that acting on isolated parts of an educational system is itself kind of a dead idea, right? In organizational change that we can't just look at one piece anymore. And in working on this article, we drew upon the literature on workforce development, uh, models to really clarify what makes a supportive environment for any workforce, and then identified the instructional workforce in this holistic way to really think about then what from the literature on educational change points us toward really what makes a difference in that system, right? So that's where the three pieces came from. And yeah, the most overlooked of those is governance. We found very little that's really addressed the role of governance and change. Governance itself is simply decision making at the department or institutional level. So think about all of the policies that impact teaching. And who's making those decisions? Who is allocating time and resources for instructors? How are those decisions being communicated? How are teaching roles themselves even set up? A real challenge here is that VITAL faculty tend to represent a much more diverse set of identities and backgrounds than tenured and tenure track faculty. And that is a fact of higher education today. As we would like it to be otherwise and are hopefully moving in that direction. Yet, VITAL faculty participate less in governance. So you start to get a sense of those perspectives being less represented in the decisions that then support instructors to implement effective and equitable practices.

[00:13:15] **Cassandra Horii:** And some departments have started to leverage governance decisions to cluster VITAL hiring. Into more full time and continuing roles whenever possible, which makes it more possible to participate in governance and really have a life at the institution. So then your listeners are probably a lot more familiar with professional development.

[00:13:35] **Cassandra Horii:** And I think that's been more of a topic in support of teaching that a lot of work is being done in. And the key here is, can all members of the instructional workforce actually access professional

development? So, are they encouraged and supported to do so? Are graduate students getting the message and the support to do teaching related professional developments?

[00:13:56] **Cassandra Horii:** You might start to see how decisions by governance are feeding into whether professional development is available, it's flexible, is it accessible on campus, and whether members of that instructional workforce actually have incentives to participate. So, that gets us over to evaluation and reward systems.

[00:14:15] **Cassandra Horii:** Which basically articulate what members of the instructional workforce are supposed to be aiming toward in terms of criteria for what it means to do effective and equitable teaching at a particular institution. And then what happens if their teaching demonstrably contributes to that effort, such as promotions and reappointments.

[00:14:35] **Cassandra Horii:** So these pieces all feed into each other and create a very interlinked system.

[00:14:41] **Catherine Ross:** I think it also speaks to another dead idea you sort of jogged my thinking here. About how CTLs can participate in this and, you know, there is a kind of dead idea that CTLs just do workshops for faculty and consultations and, you know, they don't, they often aren't seen as, uh, organizational change agents.

[00:15:09] **Catherine Ross:** So I really also like this approach because of that, because it shows that CTLs are in this space. And thinking in very systemic ways and it, you know, sort of, I hope, puts to rest that dead idea that, A, that all CTLs are very much the same and just do the same kind of stuff for, you know, individual, mostly for individual faculty.

[00:15:34] **Catherine Ross:** So thank you for that. I would also just add that I've heard over the years. Many times from VITAL faculty about how it feels when you're not invited to department meetings because you're not allowed to be part of the decision making and yet you're doing a good amount of the teaching, particularly in those like freshmen, sophomore years. And it's, you know, it's not just a procedural issue, it's, it's actually very, what's the word, morale busting when you are not viewed and it's very clear that you're not viewed as part of this conversation. So I think that's really critical. And I love that your article shines a big bright light on that aspect of it. Just to maybe make things a little bit more concrete, can you give us an example of how governance can impact participation in professional development?

[00:16:34] **Marielena DeSanctis:** Sure, Catherine. This is Marielena. I'll start. You know, first and foremost, I would highlight the way that we defined governance, which was quite a topic of conversation as we were writing this article.

[00:16:47] **Marielena DeSanctis:** So we define governance as decision-making structures and mechanisms related to departmental and institutional priority setting processes. Policy development and resource allocation to advance educational mission. So when you think about that definition, really goes back to what Cassandra was just talking about with professional development.

[00:17:12] **Marielena DeSanctis:** Your governance bodies really Our priority setting in what is going to be offered in professional development, there are, there's no lack of topics that can be covered in a year by your center for teaching and learning or any other body that is, um, putting together professional development. And yet there were only 24 hours in a day, 7 days a week, so many days in an academic year.

[00:17:40] **Marielena DeSanctis:** So that priority setting is incredibly important, and you really have to rely on your governance bodies to inform where you're going to place the resources, how it is that you're going to structure your professional development, when it's going to be offered, how it's going to be offered. Beyond that, your governance bodies then become very important in that communication of these priorities and why your faculty your VITAL faculty should, could, needs to really authentically participate in the professional development activities. So, you know, knowing that your, your departments and programs are typically setting the amount of agency that's available as you just, you know, discussed, a lot of times the VITAL faculty get left out of those conversations. And yet, they're teaching the majority of the courses, particularly for the most fragile students in those freshman and sophomore years, you know, as we think about students that come to us as freshmen and who is walking across the stage, you know, two years or four years later, we're losing a lot of students in that first year.

[00:19:01] **Marielena DeSanctis:** I don't care what institution you are, and they're being taught by that VITAL faculty. So giving them the agency through governance bodies to say, this is the professional development that we want, that we need. Um, and how it is that we want to consume it is incredibly important to, uh, developing this workforce and, uh, really getting the student outcomes that are equitable and just for all students.

[00:19:28] **Catherine Ross:** And I, I think it even goes, I mean, policy is hugely important, but also culture change, right? Just. If we could get, you know, departments to not disincentivize engagement, like not, don't tell your graduate students not to participate in teaching development. And that's, you know, it's a pretty low bar. It'd certainly be even better if we could just say, incentivize. How are we going to go to the reward system? How are we going to reward our grad students who also, among their other, the other things they're learning and doing are making an effort to get professional development.

[00:20:11] **Marielena DeSanctis:** Yeah, and Catherine, it is, you know, I view professional development as a sign of appreciation for my faculty, full time and VITAL faculty. It's an investment that you're making in them. Ensuring that they are as ready and equipped and able to innovate and able to support students, um, without having to figure it out on their own. Um, so it is culture setting. It is telling your people that I care about you and I care about your success and therefore you're going to care about your student's success.

[00:20:46] **Catherine Ross:** Right, and I, I think it also approaches another, if I might insert another idea, and that is that teaching is an individual endeavor. And it happens behind closed doors, and we don't talk about it as a community. So your professional development focus really addresses that sort of dead idea that, and what you just said, that you're signaling value to your teams of instructors by investing in their professional development in this way, and you're saying it's not just something you have to go off and do by yourself and figure it out.

[00:21:23] **Cassandra Horii:** And if I can add an example, Catherine, to that point about the incentive structures and these decisions that feed into participation. In our context, we just finished up a three-day Curriculum Transformation Institute. And the body that made the decisions, which we could call a governance group, the steering committee around this curriculum transformation effort involved tenured faculty from the schools that educate undergraduates at our institution, and that group made a really conscious decision about the roles of the teams who would participate in this effort to define projects and change in their programs at the introductory level and articulated pretty clearly, what is the role of the tenured faculty in the department for that longevity and investment of leadership at the department or program level. And also encouraged participation from other instructional team members, including VITAL faculty. So most of our teams had lecturers and graduate teaching assistants and some staff who support instruction in the departments as well. These teams came together to refine and make more specific their project plans for the next several years based on evidence and it,

you know, was a professional development experience itself, but really bringing those parties together on equitable footing to do this work together, we think has the potential to make a real difference.

[00:22:52] **Catherine Ross:** A real difference in culture change, I would add. Yeah, that's a huge cultural shift. So kudos to, to you for that work. So since we've been talking a little bit about reward systems, I'd like to maybe just take a moment for a pet topic of mine, which is the evaluation of teaching. There's, that's... In my experience over many years, the evaluation of teaching can often stymie these very types of change efforts, because you can create these wonderful opportunities for systemic change in teaching, but if you don't change the evaluation of that teaching, the ways in which it has been traditionally carried out at universities, it can, um, really either slow it or, you know, make it not even a choice for some faculty, particularly VITAL faculty who can, who, for whom like the student piece of that evaluation system carries many times, um, inappropriate weight. So I'd just love to hear your thoughts on that. Yeah.

[00:24:08] **Cassandra Horii:** Catherine, this is Cassandra again. So this is another area where more work has been done in the quite recent past. The last, you know, say five years or so we've started to see more work that, you know, again, is like re demonstrating the ineffectiveness of over reliance on a single data source like student surveys on instruction, but also pointing to some new and better approaches.

[00:24:32] **Cassandra Horii:** Some of this work has proceeded in pretty large multi-institution networks and projects, so the TEval project is one, T E V A L, that's involved multiple institutions in really road testing some new approaches. The AAU has also had a focus on engaging with research universities at refining and revising these kinds of methods, among other projects that are going on. So I would say student surveys can be valuable sources of feedback, and as you're alluding to, they can also be both biased and incomplete pictures of what's happening in a teaching environment. And I think what we're learning is that you need a multifaceted system. You need to take into account several kinds of evidence that can include student input and it really needs to include instructor's own goal setting, connection with departmental goals or institutional goals for teaching, reflections on the work that one is doing to improve teaching or to meet those goals.

[00:25:38] **Cassandra Horii:** And then peer or protocol-based observations of what's actually happening in the environment. And I think you also need a system that makes it worth the time and effort of all instructional workforce

members, so tenure track, tenured, and VITAL, um, to set goals and improve, right, to attend to the quality of teaching.

[00:25:59] **Cassandra Horii:** So, just like in teaching, I think, you know, maybe the ideal is that all students are intrinsically motivated to do a great job and continuously learn and improve. But as educators, we know that we need to signal what's important through the assignments and the feedback that we give to students. And just so, you know, institutions have the opportunity to signal what's important to their instructors through what they ask for in terms of the artifacts and elaboration on the quality and change in teaching and how it impacts students. So we'd already know a lot about this, but really getting it into practice is our next challenge.

[00:26:42] **Catherine Ross:** Yes, it is. That's a great overview. And you're right, these last couple years we've seen some really interesting changes happening. I really hope that becomes more widespread. So, I want to circle back to the issue of social justice because what I see in our conversation, but also in the article, is this framework that supports diversity and inclusion. It's using it both as a lever to make change. But it's also the desired outcome of the change. So, I just thought we'd close and have you say a few words about linking back to that wonderful quote that we opened with.

[00:27:27] **Marielena DeSanctis:** Sure, Catherine. This is Marielena and I'll start. You're right. It is both a lever of change and the desired outcome. So, you know, really simply stepping through the levers of change that we propose in this article. You know, professional development experiences are an incredibly important way to encourage and support members of the instructional workforce to use evidence based and culturally relevant instructional practices that enhance equity, belonging, accessibility. So really recognizing how important professional development is, not only as a lever of change, but in order to get that desired outcome of social justice both in terms of thinking of your diverse workforce and ensuring that The entire workforce is able to authentically and holistically engage in those professional development experiences and then what you're hoping to accomplish through those for diversity and inclusion and equity of student outcomes is incredibly important.

[00:28:33] **Marielena DeSanctis:** Again, as you think about VITAL faculty, they tend to be, and probably not in all cases, but in many cases tend to be more diverse than your full time tenure track faculty. They're more representative of people of color, more representative of women, um, in these positions. So it's really important to authentically engage them in the governance bodies and make sure that their voices are heard, both for their own sense of inclusion and

belongingness with the entire workforce, as we've already talked about, um, but really being able to engage them in priority setting and resource allocation and their perspective is incredibly important to all kinds of policy conversations and procedural conversations. We had some really robust conversations as we were writing this article about things like extenuating circumstance committees, and how those policies and practices can uplift diversity and inclusion and equitable student outcomes or squash them and having those governance bodies that are setting those policies have the voices of a diverse workforce that are thinking about the unique needs of a diverse student body are incredibly important.

[00:29:59] **Marielena DeSanctis:** And then I think, you know, really when you think about evaluation and reward systems, they have to be aligned to what it is that the institution says that they care about. So if we say as an institution that we care about diversity and inclusion and equitable student outcomes, your evaluation or reward system should reflect that.

[00:30:19] **Marielena DeSanctis:** It needs to reward people for living those ideals and, and exemplifying that, and then it also needs to provide an opportunity for coaching and even, you know, progressive corrective action if a person within the workforce is not living those ideals. And I think, you know, oftentimes, our evaluation systems are very pedestrian and don't go far enough to make sure that we are rewarding, um, those faculty and VITAL faculty that are bringing a sense of belongingness to their classrooms, finding ways to have equitable student outcomes.

[00:31:04] **Catherine Ross:** Thank you for that, Marielena, and thank you, Cassandra, for this wonderful conversation. I'm so grateful that you were willing to chat with us for our seventh season of Dead Ideas.

[00:31:17] **Cassandra Horii:** Congratulations on your seventh season, and I'm so happy to have joined you for this conversation.

[00:31:24] **Marielena DeSanctis:** Likewise, congratulations. This is an amazing podcast. Wishing you seven plus more years of this podcast and really appreciate the opportunity to be with you and to share our story.

[00:31:41] **Catherine Ross:** If you've enjoyed this podcast, please visit our website where you can find any resources mentioned in the episode, ctl.columbia.edu/podcast. Please like us, rate us and review us on Apple podcasts or wherever you get your podcasts. Dead Ideas is produced by Stephanie Ogden, Laura Nicholas, John Hanford, and Michael Brown. Our theme music is *In the Lab* by Immersive Music.