

## Episode 4 - Student Perspectives on the Scholarship of Teaching and Learning (with LUC Undergraduates)

Hi, and welcome to our podcast. Teaching and Learning at LUC. We are your hosts. I'm Bridget Colaccio. And I'm Polina Bain, streaming to you from Loyola University, Chicago. We love teaching, and we're excited to introduce you to our colleagues from Loyola. And from around the world who study their teaching practices through SOTL, the Scholarship of Teaching and Learning. Thanks for joining us for today's conversation.

Polina: Today we have a bit of an unusual podcast episode because we are hosting the future of SOTL, of Scholarship of Teaching and Learning, who are not only are interested in education from the perspective of research, but also are themselves the subject of a research.

And we have today three amazing Loyola students. One of them is Victoria Ehrman, who is majoring in biology and minoring in dance and bioethics. Today we have also Gabby Rand, who is majoring in biology and minoring in classical civilizations. Okay, and today we have Luke Bommel, who will let us know what he is majoring in, because for me it's kind of not easy to even pronounce it.

Luke: I'm majoring in cognitive behavioral neuroscience and psychology.

Bridget: Wow, we really needed Luke to be the one to spit that out. We were sort of stumbling over it for a second, but thanks Paulina and Dr. Pine to our students. We're so glad to have these three students with us for a conversation looking at their side of teaching and learning than we've talked about previously and who are the recipients of this education that we're providing here at Loyola. We would love to maybe hear from each of you just a little bit about what even compelled you to have this conversation. What is it about teaching and learning that is interesting to you? So could you start us off, Luke?

Luke: I grew up in a very like service oriented household. And so I'm the third of five children. And so I very much grew up like being a bit of a third parent for my younger siblings. So teaching was kind of like in my upbringing. And then as I got to high school, I started to take on a few more teaching opportunities. The first that I really think of that relates to kind of what I want to do now is I got to be a counselor at a summer camp for students who are interested in healthcare professions. And so in that I got to give some lectures on suturing and different anatomy, which was a really cool opportunity. And then as I got to college, I got more and more opportunities to teach. The most relevant to what I wanna do now is I got the opportunity to work at Feinberg School of Medicine at Northwestern in their simulation lab. And so I got to work with a lot of physicians that both practice medicine, but also were very big in medical education. And so that's kind of my career aspirations now is to, I'm trying to go to, applying to medical school in a few months and go to medical school with the intent of being in medical education and also practicing medicine.

Bridget: Thanks, Luke. That is fascinating that you've had so many opportunities already to be in the teaching role and that it's captivated you as it has that you will want to continue that. So thanks so much. We'll dig into some more of that teaching about suturing when you're not even

in a trained medical professional yet is kind of amazing. We might have to come back to that. Victoria, can you tell us a bit about yourself and your interests here?

Victoria: Yeah, for sure. So I really became interested in teaching when I decided to add a dance minor at Loyola. I grew up dancing my entire life. And college is always a crossroads for where what you're gonna do with dance, especially because the time commitment, the rigor, all of that just gets more intense in college. But I'm also a pre-med student, I have a job, I have a lot of different commitments, but when the time came to make a decision, I just couldn't close that door yet. And what's really awesome about Loyola is they have I would say a increasingly more inclusive program for dance minors. So I've gotten a lot of opportunities to stage concert dance pieces with my peers and, you know, staging work, which is just a whole new different type of teaching that I had never experienced before. And so last semester, or sorry, last spring semester, I produced a concert piece for the Spring Showcase. And as I sort of reflected on the whole process, as fulfilling as the performance was, I really took the most away from the process, being in rehearsal every week, coaching a cast, becoming closer with the cast, and kind of figuring out how do you push people? How do you show people to embody a feeling rather than just showing them what you want them to do? Cause concert dances is fundamentally concept based. And since then I've just been thinking a lot about, you know, I have so much passion for that, which I think drove the success in that and how that can apply to other parts of my education.

**Bridget:** That is so cool. Yeah. And the process over product is such an amazing idea that I think gets missed a lot in education all over the place, not just in the arts. So we will definitely come back to that too. Thanks for introducing that idea for us. Okay, Gabby, you're up. Tell us about you and your interest in teaching.

**Gabby:** All right. So growing up, I was actually a very shy kid and I never really saw myself being in a teaching position, but I always really loved learning. And so to kind of push myself out of my comfort zone, I started taking on more and more opportunities throughout high school, especially when I got to college in terms of being a leader, being a mentor, being a tutor, teaching my peers. And it wasn't until very recently that I got the opportunity to shadow a physician for, oh my gosh, probably over 100 hours at a teaching hospital. And this really opened my eyes to my own passion for teaching because I had never experienced teaching in this style or teaching in this setting and it was just incredible. The role, the way that you, this position in her role as the attending doctor of the neurosurgical unit had just such a great approach to teaching medical students and her residents and kind of guiding them in vivo, right, because there's still doctors practicing in a hospital. And I think that with my combined experience now in college, I really see myself kind of growing into this role of maybe being involved in medical education in my future as well.

**Polina:** This is really impressive. And Dr. Colacchio, what really sparks me is how Luke and Victoria and Gabby, how they on the first side, the fields are really different, right? So you are guys in sciences, right? Heart sciences. And moreover, you see the application of the sciences in medical profession, but you're three or few, you have also interests in a completely different field, such as dance or classical studies, right? Classical civilizations. And other fields. So I'm

just wondering, my next question is actually, what can be similar and different in, let's say, teaching this, I would say, completely different fields from your perspective?

**Victoria:** I can jump in if I think this really is very applicable to a lot of what I've been thinking about because you, in dance, like a lot of learning dance is about a mind-body connection, which is sort of happening almost, I mean, it's a very active form of thought, but the goal is always that, you know, by performance time, that mind-body connection is so passive, it's so automatic. It's not, it's, you know, it's no longer something that is gonna require a lot of conscious thought because you just, you have that connection and then the repetition and the practice and all of that sort of sustains that so it doesn't have to be as consciously thought about. And I guess I think about this, I think about why that's a successful method for learning to ultimately perform dance. And the biggest sort of connection between those two things for me is like repetition and consistency. You know, you take two weeks off of a dance class, off of dance classes, and I can already feel technique slipping in little ways. So I think again, you know, if this passion and this consistency and this constant practice are driving success in that world, even though you're talking about a more mind-body connection, you can definitely, and I think it has been successful to apply that consistency and practice and discipline to other subjects because, you know, I think about my hard science is you're most successful when you're practicing a little bit every day and you're not shying away from material for more than maybe a few days at a time. And that drives that similar sort of feeling where it becomes automatic and it becomes more embodied knowledge than just I can see a question, throw out an answer, and then in two weeks it's gone.

**Bridget:** Yeah, that's amazing.

**Polina:** It's also strikes me, you know, because Victoria, you were talking about how it's automatic, right? And many times in teaching, we would say, so repetition is important, right? But we try to develop critical thinking, which is part of the art, right? So this is kind of the, even in sciences, we touch this, I don't know what would be the right here. So right, we open kind of horizons for the person. But dance, you would think, right, it's not an exact science, right? So it's not that you have certain rules, specific rules that you need to follow, right? You need to actually be creative. And it really strikes me that I see the similarity between hard sciences and the dance in the fact that you need to have fundamentals, right? You need to be repetitive in order to succeed with your creativity.

**Victoria:** Yeah, and with that, I think it's interesting because I guess from an outside perspective, I have to remember that we're not all seasoned dancers, but you're not necessarily just repeating movement for the sake of repeating movement, but it is very similar that you are repeating how you wanna think about this movement, how you wanna feel about this movement, repeating these nuanced details. And so it's not just, oh, I'm gonna, you know, repeat this gesture a million times until I don't forget it. And sometimes it does have to be that, but it's, you know, I wanna think about what does my arm feel like when my leg is doing this? And how do I think about this whole process? And that's kind of what I connect to how you're saying, we're trying to repeat critical thinking versus just repeat information and then dump it later.

**Bridget:** How else does this connect for others? The sort of, the discipline to lead to creativity or this, you know, the kind of hard sciences with these other disciplines and that, how do they kind of work together or amplify one another?

**Luke:** Yeah, I was actually gonna discuss this a little bit before. So one of the classes that I have the opportunity to tutor for is called Psychology and Biology of Perception and Sensation which mouthful of a course name right there.

**Bridget:** Lots of mouthfuls over there in that discipline, huh?

**Luke:** Really, neuroscience, it's a very interdisciplinary profession in very interdisciplinary studies. But anyway, so this course is super, super fascinating. It really brings together biology, psychology, and philosophy, which is very challenging for a lot of neuroscience students and just students as a whole. And so, I don't know, I think it's been a really cool opportunity to get to tutor in that. And really, like a lot of the time, my first tutoring sessions with these students is like with this class, you have to change the way that you're viewing it because a lot of them have been only in strictly biology courses, which is very like hard science, like anatomy, physiology, very hardcore. And then the other students are coming from a psychology background where it's a lot more soft thinking. And so it's, I don't know, it's a fascinating thing to see. And one of the approaches that I've had to take is even in applying it from hard sciences as well, or I should say I've been able to apply it into the hard sciences more, has been like concept mapping or like infographics. So this is funny, Dr. Pine and I are doing some work on it right now. But this course is really one of the first courses that I really like started to use that type of approach because it was the easiest way to connect these concepts for students. And now I'm kind of starting to see the implications in the hard sciences. And when I was studying for the MCAT as well, it was really big.

**Bridget:** So this is so awesome. I'm so excited to keep talking about this. Gabby, we want to hear from you.

**Gabby:** Yeah. So I actually had a really hard time deciding my major when I went to college because I was interested in so many different things. I even started out like considering being an English major and kind of taking hard science as a minor. But I knew that I wanted to go into medicine, so I decided to do biology with a minor in the humanities. And for me, I think that teaching and learning don't happen in a vacuum. I think it's impossible to isolate just one discipline and one even subject into itself. I think that everything is really connected. And I think that if you can learn or teach in a way that connects your subject to different subjects like Dr. Pine always does in class with our real world examples, you're going to reach a broader student base that really connects with the material. And as a student who's learning in this style, you get to make connections outside of the discipline, which just helps you understand and cement the material in your own way.

**Polina:** I would say that Gabi mentioned here an amazing connection to what we call at Loyola education called Person Cori Personalis, right? And actually today's discussion is a beautiful

example, right? That our students who major in minor in completely different disciplines, which is truly amazing.

**Bridget:** Absolutely.

Polina: Yeah, Gabby, I know that you are minoring in classical civilizations. So you see, I'm so far away right now in my professional way from what you're minoring. Of course, as a student, I was taking these classes, but at this point, I think you can even teach us more and we, that we can even discuss in a small circle. So could you please tell us how maybe different or similar, your educational experience or maybe your perspective on teaching between the major and minor that you are currently in.

**Gabby:** Oh gosh, I think that the difference in teaching styles in both of my fields of study is very different, but I don't think that this difference is bad. For example, Victoria and I actually just got back from a semester abroad in Rome where I was able to take only classes relating to my minor. And the type of learning I experienced there, especially in on-site classes, which instead of taking a class on like Roman art, in a classroom, I actually got to walk around Rome for like three hours and get taught in person, in front of the monuments that we're studying. That was just an experience that I've never had before. In terms of hard sciences, I'm a big fan of lectures and I've loved being taught that way. But I think that in science especially, there's a certain knowledge base and a certain level of basic knowledge that you need to acquire before you can move on to any sort of creative process. Or I think it's actually the opposite in the humanities. I think you start or the knowledge base is very, or at least the knowledge base is much lower, right? You know how to write, you know how to read, you know how to form sentences. And from there, I think I actually learned best in the humanities by exploring my creativity with the subject. Every paper that I write, right, that's a whole creative process that I'm going through. And it's something that I'm using in Vivo. It's not just solving a problem, but it's exploring how I can approach this problem. And I think this difference in learning actually complements itself in both of my disciplines because I can apply more of those strategies when I think about science. And then in the opposite way, I've gotten really good at memorizing the base knowledge that I need, or really applying the base knowledge that I need to write those big papers.

**Bridget:** That's such a great example. Thanks Gabby, of how the focus and exposure to different, not just different fields, but really different fields, sort of on very different ends of the spectrum of the type of knowledge that's available at an education like the one we provide.

How they enrich one another and how there's this sort of crossover effect or like an additive effect that learning over here helps you understand better how to learn over there. And that really is the whole point of this kind of education is, as Dr. Pine said, for it to certainly be filling and fueling you as a whole person, so all of your various dynamics of yourself, elements of who you are and what you're interested in and what you're good at. And then also this sort of broad exposure to the world and to different ways of understanding this place we inhabit and this human experience that we're all having. One of the things that we also are hoping in what we provide for our students through this kind of education is how it sort of affects you as a person

and how it shapes then your ideas and values. And I feel like I could say more, but that would be maybe leading you in a certain way. I really am curious what that means to you before I try and lead you in the kind of values that we're aiming to expose you to, but does that resonate at all? How all of this learning in different directions kind of feeds you and brings you into this understanding? I'd love to hear from anybody about that.

**Luke:** Yeah, Dr. Colaccio, you were you went exactly where I was going to go next. So thank you for the lead in.

**Bridget:** Sure.

**Luke:** I was just going to jump off of what Gabby was talking about and talk about how I'm a member of the Interdisciplinary Honors Program, which that's just kind of my big humanities thing that I do. I don't have a minor in humanities or anything, but I think it's been a great opportunity to kind of dive deeper into some of those humanities things. But one of the things that I've seen especially, and I talk to students that go to other schools about that I don't think that they find, that I do find really deeply at Loyola, is professors' ability to connect what we're learning to the real world and be like, kind of what Gabby was saying earlier of like learning and teaching both don't happen in a vacuum. They happen very much in the real world. And I think that being in Chicago and being just like in a Jesuit Ignatian based institution, Loyola professors really ground their teaching and making sure that we understand how everything is applicable to the real world and not just learning some facts about biochemistry or some facts about medieval civilizations.

**Victoria:** Yeah, I totally agree. And actually, I don't want to speak for Gabby, but we're also both in the interdisciplinary honors program. And I think that a lot of people ask, well, what's the point? What does it do for you? And why are you doing that? And I just think that the really big positive of that is you're still getting this very intensive core curriculum that I love about Loyola. But, you know, instead of taking a philosophy class and a theology class and, you know, a history class, these, all these different disciplines are kind of synthesized into one course, or, you know, and then those multiple courses over the four years. And it's just so interesting because you get to look at things from all these different perspectives which I don't think you necessarily are always doing in you know, tier one philosophy at Loyola. Just because it's just not how the course runs and, you know, we're always trying to jam as much material into one semester as possible. But when you get these sort of innately interdisciplinary approaches that are built into the course, I think it's a more positive takeaway for me. I think it opens up interest just in more different directions than it would have. If it was single disciplinary and again, then when you apply that to courses in your major, you say, okay, you know, it's more ingrained in you to say, I want to think about this in multiple ways from different perspectives. And I don't think that there's any negative to that. I think it helps me learn things, understand things and retain them a lot too.

**Gabby:** Yeah. I'm also a member of the interdisciplinary honors program. And I think that's one of the major reasons why I minored in the humanities at Loyola. I guess I came into college with this preconceived notion that you can either do science or humanities and you couldn't do both.

But I think honors really exposed me to the fact that you can think about these complex issues, right, and these complex topics from a variety of lenses and from a variety of perspectives. I think that the classes that they offer really challenge you in the way, to think in a way. that isn't limited to a single subject, right? Like I had a, actually one of the course I'm taking right now is this professor has a doctorate of education and pedagogy. And she is teaching a course on the history of American education. And I think that she is doing a great job of not only combining this historical lens that we have to take, but exploring it and really exploring the class with a lens of the philosophy of education, which I really appreciate.

**Polina:** Yeah, I'm just wondering, Gabby, what made you take this class?

**Gabby:** Well, I guess it really stems from my interest in education.

**Bridget:** Yeah, so I wonder, now I am going to lead a little bit more. You're all talking about going into medicine, which is a science-based, but also sort of deeply hopeful and connected kind of work that I think is based in care for other people. And I am wondering how that has evolved. Maybe this is something you've been interested in forever, but how the education and maybe even the teaching you've been exposed to has informed how it is that you kind of put those values together and how that has, I imagine, kind of continued to impact your interest in going into the field.

**Luke:** Yeah, I think that's a really fascinating question. I think that that's a question that I'm curious if Gabby and Victoria get a lot, but it's definitely a question I get a lot of like, how do you see like your teaching connecting to you practicing medicine? I mean, for me, it makes a little bit of sense because I wanna do both ideally, but like I think that there even is that opportunity to teach even if you're not directly teaching medical students within medicine. And I think that that stems very much from two of the ways that I've heard medicine described as of recently. I had a doctor recently describe it to me as an extension of the family, which I think is a really beautiful caring way to describe practicing medicine. But then I work with a teaching physician right now and she described it to me the other day just like a teaching in a student, the student being the patient and the doctor being the teacher, and that to really make sure that the patients understand and are very comfortable and confident in their doctor and their care, you very much have to view it in that manner of like, you're teaching the patient about what's going wrong and how you're gonna fix it and making sure that they really understand on a deep level. And I think with that, it allows the physician to show that deep level of compassion, that deep level of care that Loyola is teaching us so well.

**Bridget:** Yeah, and that is so exemplative, exemplary. I'm not sure what word to use there. That is a great example of the sort of example and legacy of Jesuit education. That there was this idea of between a spiritual director and somebody going on a retreat. That was St. Ignatius's idea 500 years ago, is that that's it's a relationship, it's a collaboration, that we are sort of a team leaning and leading, learning and growing together. And that that informs the kind of education that we're trying to provide, where it's collaborative, it's relational. We, I'm changing and so are you. Me as the instructor and you as the student, it's kind of goes both ways. So to see that then applied even to a place like medicine that a care provider and a patient, same thing. We're on

the same team. I know some things, but so do you. We need to share. We're both learning here. We both have expertise to lend to what's happening here. That's so amazing. Go ahead, Victoria.

**Victoria:** Yeah, I just I love that you said, you know, patient education, directed care. And I think that that was really something that was an eye-opening experience about two years ago. I got really deathly sick and thankfully, you know, everything was okay, but I was in the hospital for a really long time, you know, about two months and it was, I was perfectly healthy before, it came really out of left field, I had to have an emergency surgery and what have you, but I was getting a lot of in the hospital, you know, a lot of you're so young, a lot of, well, you just turned 19, like what do your parents think? And a lot of this, I felt like, sort of being not heard and not advocated for. And I think that experience synthesized with my bioethics minor and my overall experience at Loyola said, when I practice, I want to never make it feel like that. And I want to then go on to teach, how do we listen to a patient, to other physicians, and how do we put themselves in their shoes? And a lot of people after that experience were very surprised that I wasn't like totally turned off from medicine as a whole. And I said, you know, no, because I wish that I had a doctor who had gone through what I went through, you know, and I want to then take that experience and combine it with the things that I've learned about healthcare ethics and the philosophy of medicine, as well as the things that we're learning about in biochemistry and re-enhanced chemistry and all those courses and say, you know, how can this make me a better doctor? Because I think a lot of it, when you go into it, you're thinking, okay, I gotta be really good, I have to have my really great science GPA, and I'm gonna make an excellent doctor one day, when I think that it is just so far from that, and it's so much more than that.

**Polina:** Yeah, Victoria, thank you so much for bringing it up. And as a person who really teaches future doctors and future medical, related professionals. Students always would come, and especially in the earlier age of their academic career, thinking that GPA is so important, it's so important to be, it is important, right? It is important to be a good student, but we should think, so what kind of doctor do we want to have our side, right? But by what bedside? Do we want to have a doctor who is amazing in sciences but is not compassionate, right? So we and being compassionate, sometimes it's natural, right? But sometimes it's really educated. And here at Loyola, one of our major goals is to give us not give you not only an example of how to be a good scientist or a good dancer or a good painter, right, or a good psychologist, but also trying to be, to show you that being a good human is a huge part of the profession. And not only to show to the students, but showing to the students is actually making us a better human. Right? So it's a win-win situation. It's a reciprocal process. And thank you for bringing it up, Victoria. I totally agree with you that when we're rich, especially in the college as students, we're rich junior or senior year, we more and more understand how it's important to be a good human being. And that's the hardest process, right? Right.

**Gabby:** Yeah, so my first language is actually Polish, and I volunteer as a medical interpreter for a free clinic in Chicago that serves a lot of Polish speaking patients. And it really resonated with me what Victoria and Luke said about physicians as teachers, but in educating their patients. Because when I interpret, I have to interpret word for word what is being said between the doctor and the patient. And oftentimes, I find that there is such a disconnect between what

the physician wants the patient to understand and what the patient actually understands about their condition. And I think that this disconnect and this failure to really connect with the patient and help them understand their diagnosis, it just impairs the empowerment of the patient to make decisions about their healthcare and about their condition, which is quite sad to see. And in my role as an interpreter, there's not a lot that I can do about that. But it gives me a lot to think about as someone who wants to be a doctor one day, how we must be interdisciplinary. And I think that one of the things that draws me the most to medicine is that I think it's the ultimate interdisciplinary field. I think that you need to be culturally sensitive and culturally educated and have a broad knowledge across really everything. You need to know a little bit about everything and not just medicine, but things about the world and how people think and how people feel, because I think you need to be able to connect with your patient no matter what background your patient comes from. And I think the key to that is that interdisciplinary education.

**Polina:** May I switch a little bit the topic because I wanted to maybe dive a little bit more to technicalities of education. Right? Such as, for example, you were talking about real world examples. Right? And so sometimes it's not only in education, right? But even in sports. Right? So for example, if I want to grow muscle in the gym, right? So I go to the gym. I have to work out, I have to work hard, right? So I have to take myself out of the comfort zone. Maybe instead of going to the gym, I would prefer to lay on a couch and binge watch my favorite Netflix show or whatever show I watch, right? But I make myself to go to the gym and work hard. I'm taking myself out of the comfort zone. So I'm looking at the education and this is how my education works. So when I was a student, I don't say that it was right, but this is my experience as a student. I was taken many times out of my comfort zone, especially since I was majoring in biochemistry. Biochemistry is a medicine-related field, and not only it's just life-related field, I was taken so many times out of my comfort zone, but I actually enjoyed it. However, so Victoria and Gabby, you're now in my biochemistry class. Luke took my biochemistry class. You can see that I'm taking my students out of comfort zone. So what do you think about this approach?

**Victoria:** I also really like being taken out of my comfort zone. I think there is definitely a right way to push students outside their comfort zone and a wrong way. And I think that not all students will always be receptive to being pushed out of their comfort zone. But in my opinion, I don't think you can learn in your comfort zone. I don't think you can grow as a human being if you always stay complacent with the kind of person and let's say the kind of student that you are. I think that being challenged is a good thing. I think that challenging your own beliefs and your own styles of learning and teaching just promotes growth in the fact that you have to question what you're doing and decide maybe if there's a better way to do it.

**Polina:** Yeah, it's just interesting. I agree with it because even thinking about, let's say earlier classes, right? Pre-requisites for the higher classes. When we come to college many times, right? So we think we know how to study. And then all of a sudden we figure out we need to get a new teaching approach, right? So, a learning approach. Right. So, and this already what takes it out of the comfort zone.

**Luke:** Yeah, I agree. I think that something that I face a lot in my tutoring of students are very much like I always study this way so I'm kind of confusing why it is not working, so that's one of the things I'm always challenging myself to do, and challenging them to do, trying new methods go outside of their comfort zone. And with that comes also consistent reflection, for themselves but also for me as an educator, of is this working? If it is not is it because I'm doing it wrong? Or is it because it's just not fit for my learning style? And then for me as the educator, getting consistent feedback and reflection of, am I teaching them in a way that is facilitating that pushing them outside of their comfort zone and these new methodologies? And the feedback from them of, yeah, this is working great for me, let's push this further or no, I don't really think that this best fits my learning style and me then being challenged in getting pushed outside of my comfort zone and saying, okay, I need to now come up with new methods and change the way that I'm doing things.

**Bridget:** Yeah. And there needs to be this sort of balance of the comfort zone that you're coming out of has to actually be safe and secure and connected and not fear-based and all of these things, right? So even the idea of leaving your comfort zone to sort of challenge yourself and try something new and grow, that's how we grow, that's how we push our horizons, whatever ideas you want to use to understand that. But that really requires that where you're starting from feels safe enough to venture out. And we know that there's, it's kind of like, if you can picture, this is a helpful metaphor, I think, you know, a toddler who wants to go off and explore the world and every once in a while runs back to like grab onto their parents' leg and like, okay, I'm still safe over here? Okay, now I can go off and then I'll come back and check back every once in a while. But a young person, a toddler or any of us who don't have that safe, loving, secure leg to run back to, the venturing out gets really hard. We know that in the brain, we learn better when we feel at ease. And so a lot of teaching practices, a lot of pedagogy now, and what we are trying to help our colleagues around the university learn is that establishing relationship, establishing sort of whatever it is, a ritual in the classroom, just sort of an environment in the classroom that feels like it's comfortable, that it's safe, that it's you can let your guard down a little bit. You're not scared and anxious all the time. That makes learning easier and that makes learning deeper. So you learn more, you hold on to it longer, all of these things. So does any of that with your experiences? yeah, Gabby, then Victoria.

**Gabby:** Yeah, so I'm a supplemental instructor for genetics. And being a peer tutor puts you in a very interesting position because students don't have a guard most of the time, right, when you're first starting to teach them and help them with the material. So it's kind of nice because I, of course, have to build a relationship with the students. But it's not like they're scared of me or that there's some sort of like that there's some sort of idea that, oh, I'm going to be grading them or anything like that. So a lot of the approaches that I use in kind of cementing the genetics material for students involves practice problems. And I think it's a really wonderful way to teach because I myself kind of serve as that like safety net. I always encourage my students to try the problem amongst themselves, right? So they get a little bit out of their comfort zone. They get to see what they think about the problem, how they would approach the problem. But I'm always there to correct any mistakes, obviously, and to kind of guide them along the right way if things are going wrong. And I feel like that's one of the main reasons why I really love being in a SIE. It's because you get to make this connection with students that I don't think exists on the level of just student and professor.

**Victoria:** Yeah, and I think that especially in these peer-to-peer teaching positions, you know, when you have that level of comfort, and I'm thinking again, reflecting back the experience I had with this concert dance piece that I produced last spring, you know, I had a cast of six wonderful girls who were all very, very good friends of mine. You know, the Loyola Dance Program is very small, so we are a tight-knit group. I live with all of them also, so it was nice. But you know, when you have that comfort, I also got the sense when I could push them a little bit harder and when I needed to give them room to digest things on their own. And I think that, you know, from that perspective, you can then appreciate in your other classes, like, oh, you know, if my professor is creating this comfortable environment, that they're feeling it too, and that my comfort in the class is being read off of theirs and vice versa. When I've been most successful and liked classes the most. And it's been like that, a comfortable environment where you have that push and pull. I think that that makes a huge difference as well in engagement and enjoyment and success.

**Polina:** I just wanted to add really briefly that what Victoria was talking about, it actually brings me to the idea of peer-to-peer teaching right in how the educational process is important not only who is teaching you, but in which environment you are found, right? So whether the environment, yeah, you gotta be pushed out of the comfort zone, just like Gabby and Dr. Colacchio at all, right? But you gotta be in the comforting environment. So the boundaries should be still there, right? So you understand that, yes, you have the freedom to go out of your comfort zone, but there is someone we're gonna give you a hand and whether it's a professor or your peer, that's what is an educational process. That's how I see it.

**Bridget:** Yeah, and there's this, we spoke with our last guest, actually Dr. Gu about this, the idea of creating an environment where people feel like they can make mistakes and knowing that that is a crucial part of learning and growing. It's not a straight line up. That there has to be the ability to make mistakes without judgment, without fear, and with encouragement to try again and to have hope that you will get it, that you don't understand it yet, but you will. And all of that kind of mindset to support someone who's doing something new, who's trying something different and aiming to grow and develop and learn, there has to be some element of support, we know that people can learn under circumstances of fear, that if I don't learn this that something bad is going to happen. If I don't do this thing that I'm going to be in trouble. But it's not, it certainly isn't as enjoyable of an experience. But then also research shows that it's not as impactful in terms of how the brain learns.

**Luke:** Yeah, I would really, I really resonate with that. One of the students that I was tutoring in biochemistry last semester, that was kind of her final comment, final feedback to me as after our final tutoring session together, she said something along the lines of, I appreciated the way that you didn't just come here to teach me biochemistry. You came here to get to know me and get to know how you can teach me biochemistry because you could have just come here and every person that's tutored me previously, every professional tutor I've ever had has just been like, okay, these are the concepts, let's do it. And that's kind of unintentionally I didn't really approach it that way just because we are peer to peer. I very much was like, oh, how's your day going? How are your other classes? Just checking in outside of our tutoring as well and making sure

that she was doing good on a personal basis. I find it very hard to learn at least if I'm not, one, in a comfortable setting like we've been discussing, but two, if the person that's teaching me, I don't feel like they know me well and they're just looking at me as another like dollar sign or like another just another like number or just another random student in their class. So I think that that's yeah I think that's really important.

**Polina:** I just want to again comment on how unintentionally all our conversation is going around the Jesuit education because what Luke mentioned right about how the student was thankful for looks approach to teach, to first know the student, right? And that's one of the five paradigms of Ignatian pedagogy, which is the context. Yes, that's where we start from.

**Bridget:** Yeah. And what strikes me too, we talk about this when we talk to our colleagues, our faculty colleagues, and encourage them to have or embrace a posture of curiosity about their students. Right? So if I come in and I think I know everything, it's it's humility and curiosity. If I come in and I think I know everything and this is the this is the right way to deliver this information, take it or leave it. Some that will be hard for some, but to have this, this posture of humility, first of all, but then curiosity, as you were explaining that Luke that to say, you know, okay, that way doesn't make sense. Okay, let's figure out a different way. How might this be easier to comprehend? Is it with a drawing? Is it with a speaking it out? Is it one more example, but with different parameters that having this passion, I would say, to connect with someone else and not deliver the stuff and leave it and whoever can get it, then that's fine. And if you don't, then too bad. I think that that's a really powerful way to be as a human, to be within your relationships. Think about how great that is when you're curious about your friends, curious about your family members, and you don't assume that you know what they're going to say. A beautiful way to be with people.

**Gabby:** That really resonated with me in the teaching hospital where I got to shadow. I think that having a curiosity about your students and a humility doesn't mean that you don't have authority over them. Right, like a healthy authority that I think that an educator needs to have. Because they are the information authority. I think that this position that I was shadowing. I think that she stood out to me so much because I'm just an undergraduate on her unit. She has no, absolutely no stake in being nice to me or caring about me, but yet she went out of her way to include me in all of the discussions between the med students and the residents. And I think that she did the same for the med students and the residents in terms of making them feel involved and included. And I think that her teaching, even though it was in a little bit of a different environment resonated so much with her students. And I think that their respect for her only grew because she was able to actually care about them as people.

**Victoria:** Totally. I just really liked what you said about passion. And what I had said kind of earlier is I believe that in dance but in other things, I've noticed the most success when passion was driving that success passion in a room of collaboration when everybody's passionate and everybody cares about what we're doing just made such a positive impact on the experience and on the process and you know we could leave and say wow you know I really pushed and there were times where I needed to go and say like no we're gonna do it again we're gonna do it again we're gonna do it again and being on the receiving end of that wasn't easy but there

wasn't hard feelings because those people had the same passion. They had the same level of understanding that, you know, this is feeding a greater process that will ultimately drive success. And I just, you know, think about how, how impactful that was for me and how I can say, well, when I really invest in material, not in dance, um, and invest in material that sometimes I don't care about as much, you know, there are classes and topics that are not as interesting, but when you throw yourself deep as if it is, you will be more successful in my experience.

**Polina:** You know what, that inspires me to ask you next question. So since you are interested in education, not just from the perspective to, I don't know, to get a degree and to go into medical school, because it seems to me that you're really interested in the process. So are there any questions that you're specifically pedagogy perspective. So is, so let's say if you imagine yourself doing the research in education, right? So what are the questions that you would like to investigate?

**Bridget:** This is the heart of the scholarship of teaching and learning is sort of figuring out what do we want to know more about this process that's happening. And we start with questions, which could turn into research questions then that we could explore.

**Gabby:** I guess for me, I talked about this a little bit, that when I was doing this process, it was already with a group of people that I was so comfortable with. And that sort of preliminary get to know you, establish that comfort was for better or for worse kind of bypass because it was already existing. So I guess what my question would then be is when, and this is what professors are faced with every semester, when that doesn't exist, what are some methods for creating that? And kind of creating that with like a quick enough turnaround that you can start implementing all of those things quickly, because material is gonna start right away and things like that.

**Bridget:** Yeah, that's critical. And it is something that faculty and teachers, instructors, think about and finding those high, I'm making this up so I don't have a phrase in mind, but sort of, I guess high impact, but sort of high reward ways of connecting that it can happen authentically in a real way, but sort of quickly so that people can settle in.

**Polina:** Makes me feel, makes me appreciate my profession again, because, uh, especially hearing this from the student who is my classroom, it means that, uh, the students who are in my class, they're also, uh, have this high level of empathy at which usually you don't expect too much from the students because you are the one who is taking care. And when you go and you teach, it's like parents, right? So it's similar to parenting. You don't expect anything from your kids when you're parenting, right? And when you hear this as a professor from the student perspective, it inspires to be even better educator, to try new things, to make students to more inclusive and comfortable environment.

**Luke:** One of the questions that I've just been seeing coming up a lot more in education? at Loyola, and also I saw it coming up at Northwestern and the medical school as well, was a teaching style called mastery learning. And so I'm like somewhat familiar with that. I had it my

freshman year in my chemistry class, and I found it to be very helpful, but I know it challenged a lot of students. And so they're really, really, really big on it at Northwestern Medical School.

**Bridget:** Can you describe?

**Luke:** Yes.

**Polina:** How you understand. We can chime in, but how do you understand what that is? What is mastering grading? What is master system? Could you explain?

**Luke:** Yeah. So the way that I had at Loyola was we had mastery objectives and each key concept was divided into, or I should say each, like everything was divided into key concepts and then we had to master as many concepts as possible before like moving on and that was kind of how we were graded in the class. The way that I saw it implemented at Northwestern in the medical school, so the way that they would do things, they had like a pre-teaching session where they had no lecture yet, they just jumped into, like rapid response was one that I saw. They would just be thrown into a rapid response situation simulation and just see how they did just based on instinct. And then they would go to a lecture and say, okay, this is what you guys did. This was great, this maybe could have done better. And then you do consistent, consistent, consistent practice until you reach that level where you've mastered the skill, and then you have a post-test. And so what I think is so fascinating about it is it holds everyone to the same standard, but gives everyone the time that they need to get there. So it's a really, it's a cool approach. And yeah, I would say I'm really interested in learning more about it just because I've seen it in both of these, what's it called? Both of these environments. And so clearly like there's something behind it and obviously I have a little bit of a baseline knowledge of it, but I'm curious to dive deeper into it.

**Polina:** I actually think that both Victoria and Gabby also went through their mastery system. So what was your opinion about this?

**Gabby:** I guess this kind of relates to my question because my question would be what drives student receptivity? To different approaches to challenge students or different teaching styles. And I, for one, think that we kind of dived into the mastery system. I took it for both general chemistry and organic chemistry. And I honestly think it made me a better student for it because it was challenging. And what I found interesting was that so many students didn't like to be challenged by it. I know that I was resistant to it at first. But eventually, I don't know what exactly clicked for me. Maybe it was when I started seeing the benefits or that I really understood the material. I really loved the Mastery system and I really kind of accepted it for what it was and did my best and got great results. So I'm just wondering whether pushing students just kind of into the deep end is the strategy that works or what exactly drives this kind of receptivity of people in general towards being challenged.

**Victoria:** I unfortunately want to go a different way. I didn't love the mastery system during my freshman year. Now in retrospect, I think as a more seasoned student, I would do better with it now. But I thought it kind of did the opposite effect of like process over product because I thought when you're grading on this mastery, like all or nothing type scale, I didn't think it gave

me a platform to demonstrate, I know 95% of this and this 5% that I don't is what's actually giving me this product of, oh, okay, so that means you know none of it. You know, I just, I didn't love it. And I think that it did make me a better student. I totally see the importance of it for higher level courses, especially. But in intro chemistry class, I was just very, like it really did. Frustrate me a lot because I was like, Oh, you know, I'm going to leave the units off or I'm going to put a calculator error for something that I definitely know how to do, but typed a number in wrong. So now that somehow nets to, oh, you didn't master it, so you must not know it. And I didn't know, I didn't like that, which I think maybe speaks more to, there's a way that you should do mastery versus you shouldn't do it. But the way that it was implemented for me was not something that I loved. And I didn't think ultimately how I did in the class was actually at all reflective of what I knew about the material.

**Bridget:** That's interesting. Yeah, and I think that what you're suggesting, and I feel like this came up a little bit earlier, is the multiple routes to the product need to be available. The thing that I just thought of was learning to tie shoes. And so if I can tie my shoes in under 30 seconds to get out the door. If that is the skill that needs to be mastered, not only is it, there needs to be different time allotted to be able to get to that place, there have to be different pathways. So you don't have to tie it the same way. If the objective is stated, you don't have to do it the same way. So that might be part of what you experienced, Victoria, is that if, and I don't know enough about it, but maybe there are ways that the knowledge that you do have can be demonstrated in a way that doesn't require just one number at the end as an example.

**Luke:** Go ahead, Luke. I think that's really interesting when it's implemented correctly. And I'm not saying it was implemented incorrectly here. I think that whether it's implemented correctly or not depends on the student. And I think that it takes a lot of time and a lot of practice to implement it in a way that works best for all or most students. And I would say that's the one, like, I think it's relatively new here. And the way that I did see it at Northwestern was a lot more of what you're saying, Dr. Colacchio, of where it allows students to get to the same level of mastery via multiple different paths. So like, for example, the grading that I would often see for context, I probably shouldn't mention this earlier. I worked at the simulation lab. And so the like I was what was called a simulation tech. And then we had standardized patients and then also nurses in the room. And so all three of us were great students and we all were grading them on different things. And to pass they didn't have to get all of like perfect grades on all of the things that we're grading that's on. They had to get, I think it was like, if there was 15 things that they were getting graded on, they had to get perfect on 10 of the 15. And so then other things that they didn't necessarily get, I think that they had to debrief with the educators about. So I don't know, I think that mastery is really interesting. I think that it's something that I'm sure will continue to be researched into.

**Polina:** I also want to just add that I think it's a master grading. It's still discipline dependent, meaning that maybe in medical school, the master grading can be graded maybe softer, I would say, because it's the case studies that you're working on. So there are some certain rubrics that you can be graded on.

**Luke:** Yeah, I totally agree. I think it does very much depend upon the level of education and also, like, yeah, obviously it's going to be different in graduate education than undergraduate education. But yeah, it's very path dependent. I think that it has to be implemented.

**Polina:** And just like Dr. Colacchio just said that when you learn how to tie your shoes, right? So is it important to tie your shoes perfectly and nice at this particular moment when you just don't even go outside and play soccer, for example, right? Or you just go to take the garbage outside.

**Bridget:** Hmm. Yeah. Right. Context. Context is different. Yeah, and somehow we've been chatting. I think we could go on and on, but it is definitely time to wrap up. So it would be wonderful to hear from you, just maybe a reflection on this conversation. We can pause for a moment and I'm not sure what you expected when you said yes to this, so we're grateful that you said yes. But wondering how this might just inform you as you continue, as you wrap up your time as a student here, and obviously imagining that you'll continue to be a student for a while, but then also doing these roles as educators now and in the future, and wondering if there's anything that's kind of sticking out to you, anything here that might leave a little bit of a lasting impression for you.

**Gabby:** I think it's definitely nice to know that, you know, in our roles as educators, for our peers, you know, and to sort of say, my professors are having similar experiences and they're trying to cultivate the environments that peer-to-peer teaching has been you know, how I've been implementing peer-to-peer teaching and, and, you know, the sort of successful points of that. Um, it's, it's a good thing to, and it's a, it's a really good thing to know that that is trying to be cultivated by professors and that you both are trying to do that for other professors at Loyola because, you know, obviously this has reaching implications all over the College of Arts and Sciences and even probably Loyola's Medical School and all the other graduate schools and just saying, you know, that people are working to cultivate a positive teaching environment and people see the value in that beyond the students.

**Luke:** Yeah, I would agree. I think that one, this is really, this conversation has really reinforced my passion for teaching. I think one, it's been cool to see that there's other students that are like me interested in this, interested in going to medical school and being a physician, but also very passionate about education. I think the other thing that has really stuck out to me is I'm really jumping out of my comfort zone this upcoming summer, and I'm going to do a teaching fellowship in Denver with a program called Generation Teach. And it's like a two month fellowship where I'm teaching, I think it's fifth through eighth graders and I'm teaching engineering and team sports, which very fascinating, very exciting.

**Bridget:** Very cool. Very cool.

**Luke:** So I think that I've been very scared about that. I think it's one I've never, I don't have much experience teaching that young of students. Most of my teaching experience has been like peer tutoring or like high school students. And so middle school students is going to be a new challenge for me. But I think that one thing that I've taken from this is that compassion. I think that approaching it, especially at the start of trying to get to know these students and getting to know how I can teach them best and what works best for them through that

compassion, through having that relationship with them, I think will be really important. So that's given me some confidence going into that.

**Bridget:** That's excellent.

**Victoria:** Yeah, I know we kind of have to wrap up, but some. Maybe some positive encouragement. When I was in Rome last semester, I was volunteering and that wasn't teaching-based, it was just service-based, but throwing yourself out of your comfort zone, throwing yourself out of that comfort zone with a language barrier, because I do not speak Italian, was scary, but overall such a great experience. So I hope that you can have a similar one.

**Luke:** Yeah, thank you.

**Polina:** And on this note, I just want to again to thank Luke, Victoria, and Gabi for coming and talking to us. And one of the things that I, as an educator, really feel connected to my profession is actually having such amazing students in my classrooms. You are my inspiration. And you are the ones who make me come energized and try new teaching methods to the classroom. So thank you so much for being who you are. Thank you. You. Yeah. Yeah.

**Bridget:** It really is a joy to speak with you, but for you and your classmates, your university mates, this is why we do what we do is to be able to be a part of the education and development of our students and to see the fruits of that is really just so heartwarming and special. So we're just so grateful for your time and sharing of yourselves and knowing that you will go on into your lives and into your communities and do the great work that you have a vision for is just really so wonderful.

Really exciting to even just get a glimpse into that. So we're so grateful. Thank you. Yeah, thank you so much again for having me. Thank you. We're gonna wrap up here and maybe we'll share a couple of resources about mastery teaching and specifications grading if people are interested in looking into it and some of the neuroscience of relationships that help to promote deep learning. So thank you again for being with us. Thank you.

**Bridget:** Wow, what an interesting conversation. Stick around for a few more minutes while we reflect on the episode.

**Polina:** Wow. Yeah, that was an amazing conversation. And it really sparks me, you know, how many like amazing students we have in our classrooms and how little time we have really to converse with them about topics that are not related to our teaching.

**Bridget:** Right, to the content that you're getting at. And yeah, I just feel like this is the actualized potential that we want to help develop and draw out in all of our students, right? They were sort of these shiny examples of what investment in this kind of education, the time and the care and the relationships, they are sort of the point, that's the point, is for students to kind of find themselves and to just shine their goodness and their light. And I just was feeling so as you said, inspired and makes me want to think about how we can keep doing that kind of education

and reach everyone. These are clearly some pretty spectacular examples of students for whom this it's really clicked, right? And yeah, just wondering how we can reach everyone so that they can get to this place.

**Polina:** I know, I kind of feel that in my classes, because I teach already like 300 level classes majority of my students are there. So I do feel, I do feel, and sometimes I would even call them colleagues, right? Because I do feel that we're very close to this level already. And that's a reciprocal process. They teach me, I teach them. And when Gabby was talking about being an SI, which is the supplemental instructor at Loyola, so I, it brought me to, I wanted to ask questions such as how different is the teaching when you are the supplemental instructor because you don't know how many students are going to come. You don't know what questions they're going to ask. You don't know what the levels of the students and especially since it's changing every time that you have a session so it's a completely... you should implement completely different teaching approaches each and every time.

**Bridget:** Yeah, that's amazing that students are doing that kind of work. That's phenomenal. And it seems that it's having quite an impact on them, that to have these opportunities to be a peer educator of some kind is really fulfilling for them too. And so that's a good reminder about the power of those kinds of programs and dynamics to get the students working with each other like that.

**Polina:** And I really liked today's episode because it kind of gives us a spark of hope. And excitement, right? Looking at this young professionals, future professionals. Yeah. So sometimes we're doing something right. Still, I'm talking about myself, of course, right?

**Bridget:** I know these are your students, Polina. These are your students. I know this was so excellent. It gives us a lot to think about and to talk about on future episodes. So thanks again for joining us, those of you who are here. And we will talk to you next time. Yeah, see you.