Alexandra Bitton-Bailey 00:06
Hello, my name is Alexandra Bitton-Bailey and welcome to the teaching beyond the podium podcast series. This podcast is hosted by the Center for Teaching Excellence at the University of Florida. Our guests share their best tips, strategies, innovations and stories about teaching. Today we get to chat with one of our teaching superstars, Megan Marco from the Wharton College of Business, who is dedicated to making statistics, and normally challenging topic feel accessible to all students.

Megan Mocko 00:38
My name is Megan Mako. I am a lecturer at the Warrington College of Business. I teach undergraduate and graduate level service courses in statistics.

Alexandra Bitton-Bailey 00:48
Megan always had an interest in math and teaching. But she always saw them as separate entities, until one faculty helped shed light on a new career possibility.

Megan Mocko 00:59
So my entire undergraduate career, I was debating between teaching and going into a career in statistics. That was the debate. And that's an interesting debate. I, I was always a math, I was a math major. And then I added stat, but I was taking education courses on the side. At one point, I had a thesis advisor in education. And then I switched over to a thesis advisor in statistics. And finally the kind of magic moment hit when my advisor said, Well, you know, you could teach statistics. It was like a light bulb went off. And so I went to graduate school in statistics. And in my second year started looking for lecture or positions, I kind of did a practice lecture interview at a small college and Carolina, Coastal Carolina to kind of see how it would work out that and then I applied here at UVA, which turned out to be a perfect spot for me to
be. And I taught for 16 years at the College of Liberal Arts and Sciences was a lecturer, a Senior Lecturer, a master lecturer taught a class that had up to well over 2000 students, lots of students, my favorite part of that class is have had a lab component. And we moved over to the classroom of the future. So it didn't have a teacher podium, it was all tables that had a spot for each student, but then they had to work together as a group to answer some type of problem. And designing that was so much fun. I tested it out the first year was in the classroom with the students to figure out what worked and what didn't work. And then in 2018, I moved over to the College of Business, in the lecture there and teaching now undergraduates in the College of Business and graduate students. And that has been an exciting adventure. And now I'm kind of looking at how do I incorporate virtual exchange and learning about other people, not just the numbers, but the people behind them. I think that's an important thing. It's when I, as an undergrad, I thought that statistics and science would save the world, you know, that would be our solution. It's not going to be our total solution. Because if we don't understand each other, it's not going to solve anything. And so that's why I'm really interested and committed to doing the virtual exchange, even though logistics are hard, is because that opportunity for our students, I just think is so important.

Alexandra Bitton-Bailey 04:01
Megan loves to explore new things, try new adventures, and find better solutions. She's been an explorer and experimenters since childhood, and now applies those methods to her teaching.

Megan Mocko 04:16
I think it's always been my nature to try and always improve things make things better. I think it started in the kitchen with my mom and grandmother. And we have a recipe and it didn't quite work. So we'd write notes to the side and then we'd fix it. And so it just seemed like a natural step. To think about my teaching in that way to how do we get the Statistics has a very bad reputation. To say it mildly. You, you tell people that's what you teach, and they'll go Oh, I hate it my stats class. And I can't tell you how rewarding it is. When I run into a student and they I say that was one of my favorite classes, like, the statistics can be one of those classes. As I guess that's what my goal has been is I want it students to say, you know, that was really one of my favorite classes, it was valuable. We see statistics everywhere. During the pandemic, you couldn't turn on the news without hearing about some form of statistics and its usage.

Alexandra Bitton-Bailey 05:27
She's always seeking new and innovative possibilities to help her students relate better to the content.

Megan Mocko 05:34
In terms of innovation, I'd stay current and the staff at conferences. And I read some of their journals. But now I've gone back to school to get my Edd and curriculum and instruction and Ed Tech, and I'm loving every minute of it. The hard thing is just finding the time as much time as I
want to explore the material. But I think I'm always looking for the things that will be interesting to the student and has to have a real world context. Real data has to be something that I feel students will be interested in and connect with in some way. It can't just be like made up data, it's got to be, it has to be real. And I'm honestly looking for things that will work in a large classroom setup,

Alexandra Bitton-Bailey 06:33
Taking risks in the classroom can create a more authentic and valuable experience for you and your students. But these can be a little scary. A virtual exchange is one of those approaches.

Megan Mocko 06:47
One example I can think of as the one of the first virtual exchanges that I did, was working with my partner in Ecuador, and I just completely didn't anticipate some of the challenges that my students had. I had sent them some videos on how to prepare them. And they said they had watched them, I fully believe them. But when they got to the new context to the problem, it was just overwhelming. It was too too big of a hurdle. And they panicked. It was also a time it was like an hour and a half, and they're supposed to be finished. And that just really, really, really scared them. And so my partner and I were go with zahlen zoom. So we were bouncing in between the breakout rooms trying to help them and I ended up having to reassure them, and it was their three problems. I said just try one, and just tried to get one in and I had to extend the time. And so it was very unsuccessful in the terms of the problem solving. They did meet some of the members in Ecuador, but it wasn't a good working relationship. So my partner and I went back to the drawing board, it was like that did not we had the students were using a form of technology that they weren't aware, they hadn't used. They had seen the videos, but they hadn't used it. And that was a flaw. And then the Ecuadorian students weren't quite used to the language that we were using. And so they worked on the language, and I, and we took out the technology. And we changed it over to where we were talking about data ethics. So there was no technology involved. But it was a very interesting context. It was talking, it was actually an example that was written out by a stat ed faculty member, and about OKCupid, which is a dating website and data related to that that had been released. And was that ethical or not ethical? And there were several different scenarios that they had to debate. That worked really well. So I think part of it is just being I think of improv, not that I do improv, but when I get into the situation, it's go, in improv I've heard you just always have to keep going with the story. You go, okay, and then and so when I get in those scenarios, okay, and then I'm going to do this.

Alexandra Bitton-Bailey 09:14
Meghan's approach is to treat what some would consider failures, as opportunities, opportunities to be vulnerable and transparent with students opportunities to overcome and opportunities to involve students as CO creators in our courses.

Megan Mocko 09:31
By being flexible, letting the students know that you realize that it is not going the way that you
By being flexible, letting the students know that you realize that it is not going the way that you intended. And I communicated that to the students that this was harder than I thought it was going to be. And it was their grade wasn't going to be hurt by it. We were going to learn from it the best we could. And we were going to move on. And I think communicating that to the students. Let them go. Okay. This is going to be all right. It was a little hiccup, but we're gonna keep moving. And it's gonna be alright. I think that's important. I think if we ignore or don't communicate with the students when things are a little bumpy, then they think that we don't care. But I think that they're willing to give us a little bit of slack if we're trying something new. And it doesn't work out, as long as we acknowledge that, and are, can be a little flexible in it.

Alexandra Bitton-Bailey 10:25
These initial challenges, inspired Megan to take virtual exchange one step further, and design both a synchronous and asynchronous version of the experience.

Megan Mocko 10:36
I have two versions of it now. But probably the one I'm most excited about is actually the asynchronous version of it now, because now not only am I doing it with Ecuador, but I'm also doing it with the UK. And that allows for students to communicate who didn't hear each other's viewpoints, when the time zones don't match up, like at all. Ecuador, we're one hour off sometimes during the year, but the UK or five or six, depending upon the time of year. And so the students do their sample of reading, and then they go in and post their opinion, and then they can go in and comment on it. So in that format, we can still have the virtual exchange, we can still see other people's viewpoints. But we don't have the challenge of that time pressure, so everyone can have an opportunity. But the synchronous version of it now works. In the Data ethics scenario, where we go in for an hour and a half, and they make a Google slide with, they have to come up with a letter to the editor of one of the articles about whether or not they should retract, keep or keep it the same. Which the article I the dataset in the activity isn't mine. It's it was written by a stat Ed, faculty member and published in a journal but having someone else kind of test proof that helped me to know okay, well the activity is sound. Now I'm going to apply it to this other context.

Alexandra Bitton-Bailey 12:16
Megan wanted to take the classroom outside of the computer and classroom. To do so she developed virtual field trips, had it worked.

Megan Mocko 12:27
Previously, in 2023, in the online courses, I really wanted to bring the outside world into the online class. And so I created virtual field trips, the first of which was at Looby, back conservancy outside of town. And so we try, I drove out there, I remember thinking driving down the road, What on earth am I doing? But I interviewed the director out there, we had the bats in the background so that the students could see the bats. And we talked about an experiment where we looked to see if the bats could follow a point, do they know what a point meant. And so they had food. And if they the zookeeper would point to the food, did the bats
learn that a point would mean that that would be their food. So it was we could tie it to statistics and learning. But it was a really interesting context. And it was a small sample size, which was important for the topic that we were talking about. But admittedly going out there, I wasn't exactly sure how I was going to exactly tie it in. And it was a part of the risk. And I find that when I want to try and do that I just have to listen to people talk. Tell me what they do, where they deal with data. And then I have to think about my class and how can I make the two of them go together? Because they can't often articulate to me how it's going to apply to my class. And so that's what I ended up doing with lubi is just kind of listening to the director. And that's when this example of pointing worked out.

**Alexandra Bitton-Bailey  14:19**

Creating the V opportunities or virtual exchange opportunities for students opened the door for many students to think more broadly about the possibilities of learning experiences they can create for themselves. It broadens the opportunities and inspires them to be lifelong learners.

**Megan Mocko  14:38**

The students have really liked the opportunity to talk with other students from another country, they find that very valuable. They have to write a reflection on it and sometimes they'll say things like, you know, this just reminded me that one of my goals was to do study abroad and here I am on I was done with my sophomore year, and I haven't even gone to the office or looked any information online. And I'll go, I'll send them an email. So now's the time to go. Look, it's it was an opportunity I didn't take advantage of as an undergrad, and I wish I had. So if the students at least look into it, maybe they decide that for financial reasons, or whatever, that it's not going to work, that's fine, but they should at least look at it. Or, you know, are there short term things that might work for them. Others have said, I was thinking about taking, you know, I already speak Spanish fluently. But after this, I'm going to take up another language, or I'm going to go back, I take in Spanish that I haven't taken in a couple of semesters, and I was just gonna let it drop. But now I can see how important it is. And I'm going to go back and start taking classes, so that I can because I can see how important communicating with others is. And for someone who doesn't speak another language, I see. Like, it'd be so valuable to have to be able to speak in someone to someone in their own language. And they appreciate the risk. Because they know they're all business students. And they know that businesses are not just in Gainesville, they're not just in the US, many businesses are international. And if they want to be a part of that, that unit, you know, that system that the international world, then they need to have these types of experiences and low risk scenarios.

**Alexandra Bitton-Bailey  16:43**

Megan understands the importance of connection and community. being intentional about creating community, especially in a virtual exchange, can help reduce anxiety, find common ground, and establish a sense of belonging.

**Megan Mocko  16:59**
So that's something I definitely have some room to grow in. But right now, the first meeting is a good to know each other type of activity. Well, several activities, the first one we all do in zoom and the main breakout room. And my Colombia partner has a slide and it says, you know, there are two types of people. And it has a picture of innocent English and Spanish, it has like french fries with the ketchup on the side. And french fries with the ketchup on top of them talk about which one do they prefer. And then I'll say, Oh, my mom doesn't even like catch up. And then others will go, well, actually, I like pink sauce, or I don't like french fries. And so we just get a little bit of a conversation going on some pretty ordinary conversation topics. And so that helps a little bit, break the ice. And then they go into their breakout rooms with a group that they're going to be with. And they're supposed to bring with them five images that represent them in some way. So it can have a picture of them or not, I'm not that's totally up to them. It can be like their favorite things, their favorite area. So a lot of them, once again in the room and they have all these pictures, they'll start to realize that they all have, they all have pets, or they all love sports, or they all love soccer or football or whatever. And so you end up with these slides of actually usually one theme, because they've all kind of accidentally have an item that they all have in common. And then we have them share. And that has been really fun for them to kind of build this slide have to introduce themselves to the group.

**Alexandra Bitton-Bailey** 18:59
These carefully curated experiences have lasting impacts on students.

**Megan Mocko** 19:05
A student track me down. He had just finished his internship over the summer. And he recites Thank you, thank you so much for teaching me jump, which is our statistical software package. I was like, Well, okay, great. And he said, I was actually able to solve a problem at my internship and using the software to show I don't even know what the problem was. I never privy to that, but to make some graphs and maybe do an analysis to explore a problem that they were having at the company, and he got offered a full time position. And he was just super excited about that opportunity. So it really worked out really well for him.

**Alexandra Bitton-Bailey** 19:51
Megan's insights and love of teaching are inspiring. Having the courage to try something new is at the heart of a love of teaching and love. Learning.

**Megan Mocko** 20:01
I guess one of my favorite quotes from President John F. Kennedy, when he talks about going to the moon, we do these things, not because they are easy, but because they are hard. And I think that that has always challenged me to do things that may not appear easy initially. But because it's still worthwhile. And that challenge of making it work, keeps me excited about teaching, engaging with the students. And that makes it that's why I do it is. So I would encourage people to ever, you don't have to go to the moon to make an impact. But try a new method. Try using a new technical tool to see if you can engage students. And if and the key is,
if it doesn't work the first time. That doesn't mean it doesn't work at all. It just probably means it needs to be tweaked and changed. And you know, why didn't it work? Talk with the students and see if you can make it more work more smoothly. I would. And I would allow students a little bit more opportunity to communicate with you about what worked and what didn't work really listening to them. It's by the time you get to the teaching evaluations, it's too late. Yeah, it has to happen before then. And it really from day one, if you can explain how important their learning is to you. And how you think about that process. And then having them in a talk to you a couple of weeks in about how that's working is it working for them like you think it's supposed to be and tweaking at that point, makes a humongous difference in getting them to come on the ride with you.

Alexandra Bitton-Bailey 22:11
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