

## **Limed: Teaching with a Twist**

### Episode 10 – Refresh: Place-Based Learning Along the Duwamish

Matt Wittstein (00:09):

You are listening to Limed: Teaching with a Twist, a podcast that plays with pedagogy. This summer, Limed: Teaching with a Twist is reaching back out to a couple of our guests from season one. This month we chat with Ben Machado from episode three, Place-Based Learning along the Duwamish, where he was looking to take his introductory biology students at South Seattle College outside to engage them with their local environment. Enjoy the show.

We are back with Ben Machado from South Seattle College. When we last talked to Ben, he was preparing to do some Place-Based Learning with introductory biology topics on the Duwamish River. So Ben, I asked the panelists this, and I just want to start this off with giving you the same question, is what sets Place-Based Learning apart from other engaged learning techniques?

Ben Machado (01:12):

That's a great question, Matt, and one I definitely thought a lot about as I was designing my module for my students. And then once they got into it, I saw firsthand that it was an incredibly useful way to get students to think about where they live and the issues and approaches of learning the science and biology that we're teaching in an intro bio class and applying it to stuff around them. And I really found it to be a fun way of getting students to actually think and engage more with the lessons they were learning. So it was a way of really getting up to the top of Bloom's taxonomy of application and asking them to really think about things that they're learning in the course to apply them to issues and such that they see around the Duwamish River that is really close by to a lot of them.

(02:20):

But I also expanded it a bit because it was harder for me to get them down to the river necessarily, but we also spent some time just in areas around campus and used our local environments to also think about ecology and ways that environments will sort of impact the different types of organisms you see, et cetera. And so getting them out of the classroom and getting them to really think about the areas they live in was just a really awesome way to help them apply what they were learning more fully, and obviously engage with it on a level that you just can't do when you're just sitting in a classroom. But there was a lot of integration. Sorry, I'm getting ahead of myself.

Matt Wittstein (03:13):

Oh, it's all good. I am most excited really just to hear how it went. So how did it go? This is sort of your first foray into Place-Based Learning. Did you get your students down to the river or you mentioned that you did a little bit more closer to campus? How did they engage with it? Did they get excited about it? Was it a mixed, I'm just excited to hear back from you, Ben.

Ben Machado (03:34):

Yeah, I'd say it went quite well for what we could do. The physical component that I was working really hard on trying to figure out, we couldn't get them down to the river. In the course time, we had about two hour blocks of lab time, but the great thing was that there is a kind of wild area on campus that we were able to go to for one of those two-hour sessions. And I gave them some context prior to this, both online and some of the lessons, and so they took that and then they had a lab that really focused on them going to this wild area of campus. And basically I had them sit for about 20 minutes and observe

what was going on around them. Actually, a lot of them really liked that. They had never really just been asked to sit and watch and listen and try to see all the plants and animals that came by, and insects, listening for birds.

(04:54):

So that was really cool. I think some of them didn't seem to really care, engage much, but some of them did. So I think it was just a nice way of bringing a lot of the ecology information to actually look at an area that is nearby to them, and hopefully they got some level of awareness of just any area that they're nearby, they can see a lot of this life. And then what we kind of did after that was more of the online and in-lab component. And so we actually took pond samples that day and then we looked at them under the microscopes so they could see a lot of the microorganisms that were living in the ponds in that area. And so that was cool. It was a way to kind of integrate the in-lab aspect with what's outside.

(05:55):

And then there was an online component that got more into the Duwamish River and how environmental factors of there, the abiotic factors of things like pH, temperature, also kind of human pollution, all could impact organisms that live there. And we focused on salmon because it's a very charismatic megafauna that everyone here in the northwest knows about and eats. It's like if these salmon keep having a hard time going back to their spawning grounds, it could really mean that there's a large collapse in the population and that could mean a lot for the forests of the northwest as well as a lot of the indigenous communities that rely on salmon fishing. So it was just a nice way to tie the external components they're learning with some close to home aspects.

Matt Wittstein (07:00):

I know when we talked before, you had some aspirations of doing some big collaborative pieces that involve some partners at South Seattle College, but also you were really hopeful that you might be able to connect with not just the Duwamish River as a place, but the people that were indigenous to that place as well. And I would love to know what steps you made towards that if you didn't have the fulfillment that you anticipated, but what steps you're making towards that and how that might lead to next steps for you and your group?

Ben Machado (07:36):

Yeah, so the multidisciplinary component unfortunately didn't materialize to the level that we were hoping it would. One thing we realized is difficult at a community college is that a lot of our students are really busy outside of the time they're taking the classes. And so trying to require them to do things that's outside of the set lab time was a little bit tricky. We did have a kind of end of quarter sharing and a few students showed up to the art class, I think I had one student come to my biology class, but it was not on the level that we really wanted to get students to meet and mingle and discuss these different facets of the Duwamish River that they studied.

Matt Wittstein (08:33):

I mean, you have to start somewhere and you did get some students to interact with students from a different class and content from another class.

Ben Machado (08:42):

Yeah. And it-

Matt Wittstein (08:43):

So I'm curious, what's the next step? How do you build on how this went this year?

Ben Machado (08:49):

Well, the other piece you asked about was collaborating with the Duwamish tribe themselves, and that has been tricky as well. I did give extra credit for students that went down to their Longhouse and Cultural Center and wrote up a bit about it. And they're spending a lot of their time and energy on other things that aren't really related to what we're doing right now it seems, and so we're kind of trying to develop this relationship with the college as a whole. And so we have a equity, diversity, inclusion couple of employees that are actually trying to develop that relationship more fully. It was just too much for me and I didn't really know how to go about it in the right way. And so hopefully that continues to grow and develop because I think what our eventual goal would be is that the courses that have this Duwamish focus could basically have an end of year, end of quarter meeting at the Duwamish Longhouse that the tribe runs.

(10:06):

And they actually rent it out, and we could pay for that and basically get everybody there and students could share there. I think that would be kind of a ideal situation and we'll see if it's something that could happen next fall. But again, it's just kind of hard to collaborate and ask students to be involved when a lot of them are just come and taking the class they need and leaving. And so I think it may end up being where that collaborative component and multidisciplinary component is a little more like extra credit for students that want to engage with that, which is fine because that way at least you get the ones that are interested and want to learn more at the end of the day.

Matt Wittstein (10:59):

It sounds like you learned a lot through this experience, and I'm wondering if you have any advice for someone in our audience that might be thinking about trying Place-Based Learning or trying some of the collaborative pieces with other departments and other disciplines, especially considering a more broad, it may not be a community college setting and just a general here's my big lessons learned.

Ben Machado (11:28):

Yeah, definitely. I mean, I learned a lot about just how important having students engage with where they live in the area around them is for helping them understand what you're trying to teach them. And I think a lot of what I learned is that you don't necessarily have to go to the place you're learning about. So I think even if you can't necessarily go somewhere with your students to the physical space, trying to implement this nearby communities and nearby physical spaces into the curriculum is really beneficial. And if you can do it in a way that kind of ask students to apply your stuff that you're learning in the course curriculum, I think it's a really good way to hit a lot of your learning outcomes too. And so I think that's one benefit, definitely, of doing this. And again, it can seem daunting and difficult, but I definitely think students respond well to it.

(12:42):

You're always going to probably have some that just don't seem to care whatever you do, but don't worry about them. Worry about the ones who actually really enjoy being asked to go outside for their courses. It's kind of cool, and I think those students actually might enjoy it. So there's definitely approaches that I think can really benefit from doing Place-Based Learning. And then the collaborative part, if you're in a place that you have students who are a little more flexible, I think, with their timing, I

think that's a good way to collaborate is probably have an end of quarter, end of semester collaboration day, is sort of what we were envisioning, but never really came to fruition. But I think it's a cool way of asking your students to go to the other instructor's course maybe when those students are presenting on what they did.

(13:40):

And you can try to schedule it in a way that you have different courses doing it at different times, and then people are all learning about different aspects of the river, like the art component, the history component. So hopefully it happens sometime here, but again, it's just a little more tricky when you have kind of commuter students and things like that. But yeah, I highly recommend trying Place-Based Learning. It definitely engaged my students in this. And yeah, I am just going to continue to try and refine it and bring some climate justice into it too, which we'll see how that goes.

Matt Wittstein (14:23):

And it sounds like it engaged you in a different way as well, which is really cool to see from my perspective. So Ben, it was really great catching up with you and hearing how the course went. Thank you again so much for being a guest online and joining us one more time to share out with how things went this year.

Ben Machado (14:42):

Yeah, definitely happy. Being able to talk with y'all really helped me just process a lot of it, so I really appreciated your group's work and the committee's ability to give me some feedback on it. So thank you.

Matt Wittstein (15:05):

Limed: Teaching with a Twist was created and developed by Matt Wittstein, Associate Professor of Exercise Science. Dhvani Toprani is an Instructional Technologist and serves as a producer for the show. Music for the show was composed and recorded by Kai Mitchell, a class of 2024 Music Production and Recording Arts student at Elon University. Limed: Teaching with a Twist is published by and produced in collaboration with the Center for Engaged Learning at Elon University. For more information, including show notes and additional engaged learning resources, visit [www.centerforengagedlearning.org](http://www.centerforengagedlearning.org). Thank you for listening and please subscribe, rate, review, and share our show to help us keep it zesty.