

NEXTcast Season 1 Episode 15: Christine McCaw on the Impact of Teaching Spaces

We talk to professor Christine McCaw, the program coordinator for The Business School's marketing diploma, about research she has done into the impact of different teaching spaces on students.

Nathan Whitlock: Welcome to NEXTcast. My name is Nathan Whitlock, an editor at Humber Press. NEXTcast is a podcast about teaching and learning at Humber College. Every episode, we talk to some of the faculty and staff who are leading innovation both inside and outside the classroom. This episode, we talk to Christine McCaw, the program coordinator for the marketing diploma in Humber's Business School. We'll be talking to Christine about research she's done into how students engage with different learning spaces.

Nathan Whitlock: Welcome to NEXTcast, Christine.

Christine McCaw: Thank you. I'm so excited to be here, Nathan.

Nathan Whitlock: Well, thank you for coming. You've been doing some research into how your students respond to different kinds of learning spaces. What made you want to start that and look into that kind of thing?

Christine McCaw: Well, when I was looking at doing this, the HIVE classrooms, the collaborative classrooms in the F Building, had just come to Humber, and I was really interested to see if teaching in those spaces was going to result in different levels of student engagement. My background is in adult learning, so I just wanted to know, "Hey, does it really matter if we put them in table groups versus chairs and desks with rows, and does technology make a difference?"

Nathan Whitlock: Most people who would be listening to this have seen the HIVES, but maybe some haven't. Can you describe what those HIVE classrooms look like?

Christine McCaw: Yeah, sure. They put students into table groups, and each table group has a 50-inch large screen where it's device agnostic. Students can plug in using whatever they bring to class with them, a laptop, a cell phone, a tablet, and they can put their material up on the screen so that table groups can share with each other. The teacher can share something at the front. We can put something at one table group on every screen in the classroom. It really allows students to showcase the work that they're doing, and it enriches the discussion in the classroom.

Nathan Whitlock: Mm-hmm (affirmative). In terms of the layout, it's different from a traditional classroom in the sense that it's not oriented all towards the front.

Christine McCaw: That's right.

Nathan Whitlock: It's kind of multidirectional.

Christine McCaw: The professor does not stand behind a podium in a HIVES classroom. You're kind of in the centre of the room, and what ends up happening is naturally you gravitate to each table group, so students actually get more one-on-one time with the professor this way. Because students aren't in desks and rows oriented just towards the front of the classroom, they're facing each other. They're engaging with each other.

Christine McCaw: The biggest thing I experienced both teaching and in this research proposal that I worked on was that there's a lot more peer-to-peer learning. Especially when we have such diverse students here at Humber, that really enriches the experience.

Nathan Whitlock: It almost turns every classroom into a kind of workshop, whether they're formally designated as a workshop or not.

Christine McCaw: Yes, and I like to say that we're co-creating the learning today.

Nathan Whitlock: Nice. This research project you did, how did that get started? What was the process behind it?

Christine McCaw: Well, Humber offered this Teaching Innovation Fund Program through the Centre for Teaching and Learning. Nathan, it was so easy. I came and said, "Listen, I think I want to try out the difference between a traditional classroom and a hive and see if there's a difference," and they helped with everything. They helped with putting the application together. They helped give research articles to make sure that the process was backed with research and literature. They helped complete the ethics forms that we needed to complete. They came and did classroom observations. They helped with data collection. They helped with data analysis.

Christine McCaw: At the end of the research, we had some pretty interesting statistics, so they helped me put my research into a presentation style, and I actually presented it at the STLHE Conference in San Francisco in-

Nathan Whitlock: Oh, amazing.

Christine McCaw: Yeah, in March of 2017. Got to do that and see some whales, so that was kind of fun.

Nathan Whitlock: But that's not standard for every research project, that the whales come in at the end.

Christine McCaw: Not always, no. But in this case, it was a nice bonus.

Nathan Whitlock: But just going back to where you started, you mentioned you sort of came with that question, and they helped build it into a proposal.

Christine McCaw: Mm-hmm (affirmative).

Nathan Whitlock: You didn't come with a formal proposal all ready to go, with footnotes and end notes and a bibliography.

Christine McCaw: It was just, "Hi, listen, I would love to do it." The great thing about Humber is because I really wanted to focus in on, "Is it the classroom environment," my associate dean at the Business School helped me set up my classroom so that I would teach at the same time slot of the day, because sometimes we know time of day has an impact, 8:00 a.m. versus 4:00 p.m., affects attendance. I had both of my classes, one's on a Tuesday, one's on a Thursday, middle of the week, 10:45, so that we could really try to take away any extraneous factors and really focus in on what is it about this classroom or this environment that affects student learning.

Nathan Whitlock: Right. You've taught in a number of different situations. We were talking before we started recording that in your old job you did some teaching and training as well.

Christine McCaw: Yeah, and I had experience in my corporate life seeing engagement levels with different room layouts, and so I kind of had an inkling that it was going to have an effect, but I need to be honest, Nathan. I was surprised. The biggest thing that surprised me was as a professor, when you go in at the beginning of a semester to your classes, you kind of get a vibe. Is this kind of a turned-on class? Is this kind of a, "I'm going to have to work a little harder?"

Christine McCaw: I remember when I started this research study, I went back to Heidi at the CTL, and I said, "Heidi, oh, geez, my really turned-on class is in the traditional classroom. I'm really kind of nervous how these results are going to shake out." It was unbelievable as the person in the research study to see the change in the two classes over the semester.

Nathan Whitlock: Wow.

Christine McCaw: Yeah.

Nathan Whitlock: They definitely made that shift in engagement?

Christine McCaw: Yeah. We measured lots of things in the study. We measured attendance levels. We measured students' feeling about being engaged with their peers, did they have a better relationship with their professor. We measured this at the beginning of the semester and at the end of the semester. We asked questions like, "Did you contribute an idea in class?" "Did you ask a question of your peers?"

Christine McCaw: What we found was ... I was really surprised. What we found was that it was definitely in the HIVES there was more peer-to-peer learning, stronger feeling of connection with the professor, more contributions and ideas in class, more percentage of time students were on task, and at the very end of the class we also looked at the overall class average, and it was 7% higher in the HIVE.

Nathan Whitlock: Really? It wasn't just sort of their impressions or their subjective feelings. It always actually-

Christine McCaw: The classes were small. It was 18 and 21 students, so we couldn't get a statistically significant result. What I'm giving you are the trends, but certainly there's enough there that it would merit, I would say, a larger study to maybe verify the findings. But I was really surprised at the end, the difference, because it was the same ... I bring my best face, my best energy, and my best excitement. Because it was a research study, I was even more conscious to do that in my classes. They got the same professor every week. It was really, "What is different about this classroom?"

Nathan Whitlock: You've taught in a lot of different situations. You've taught in a lot of different rooms. What's the kind of space you like to teach in? Of the places you've taught, what are the kind of factors that you think improve-

Christine McCaw: Learning?

Nathan Whitlock: Yeah.

Christine McCaw: This may sound really silly, but the ease with which the room configuration can be changed. What I mean by that is tables on wheels, chairs that easily move, sound considerations, soundproofing so that

you're not hearing videos from the next class, so that you really feel like your space is your own, that you can laugh and be loud and you're not disturbing others. Natural light.

Christine McCaw: When I taught in my research study, both rooms had windows, but I just find access to natural light just boosts people's mood, and it keeps people from kind of falling asleep in the afternoon. I would say also the encouragement of use of technology, particularly mobile. You cannot tell students to put their phones at the ... It's 2018. We need to find ways to have students on their phone but engaged on task.

Christine McCaw: I mean, I just attended a CTL session yesterday on how to add gamification, and I'm looking at adding that in for the fall, because I want to ... We might as well learn how to surf. We're going to ride this wave. All students are going to be using technology more and more as we continue forward.

Nathan Whitlock: Right. I won't mention the name of the building or the course, but I did teach a course recently where it felt like we were about 10 floors underground. There were no windows.

Christine McCaw: I know the building. I've taught there.

Nathan Whitlock: Okay. Yeah, I called it the bunker.

Christine McCaw: That's a good name.

Nathan Whitlock: I really do feel like the students responded in kind. It was a real struggle to wake them up, literally to wake them up, because I was feeling it, too. There was no fresh air. There was no real light. I think you're right. I think those kind of factors make a big difference.

Nathan Whitlock: If someone came to you and said, "We have an unlimited budget. Sky's the limit," if there's a couple of things we want to build into a classroom for you, and you can even throw in things that don't exist yet or haven't been invented yet, what would be your ideal spot for teaching? What are a couple things you would love to have?

Christine McCaw: I think whiteboard surfaces, as many as possible, on the walls, on the desks, with the encouragement for people to pick up their pen and pencil and draw, or write, or share ideas. I've already talked about technology, access to video screens. The ability for people to plug in, or even Bluetooth, just I'm going to go to Screen B, and I can Bluetooth myself to

that screen, and bang, I can show it, because what happens, I find, too, my teaching has changed as a result of being in the HIVES.

Christine McCaw: Students will ask a question, and rather than me running to the front and trying to get on the internet, I throw it out to the class, and I say, "Who can look that answer up for us quickly?" If I had a classroom where someone could look it up and say, "I've got it here," and I could say, "Throw it to Screen B," and we could throw it right there, we could answer that question immediately, and it puts more of the onus on the full group to both ask and answer and deepen their learning.

Christine McCaw: I think classroom design that takes away that podium at the front that is the teacher's stage area and encourages, through design, that everyone is responsible for contributing the content and discussing the content, would be my dream. And I would love to have big windows in every classroom. I know it's not possible, but-

Nathan Whitlock: We will make a note of that and hopefully neither of us teach in the bunker again.

Christine McCaw: That's right.

Nathan Whitlock: Well, thanks so much for this, Christine. This was great.

Christine McCaw: Thank you so much, Nathan, for having me. I really had a great time.

Nathan Whitlock: NEXTcast is produced by Humber Press and the creative productions team at The Centre for Teaching and Learning at Humber College.

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Nathan Whitlock: To suggest stories for future episodes of NEXTcast or to let us know what you think, email HumberPress, all one word, at Humber.ca. That's HumberPress@Humber.ca.

Nathan Whitlock: To learn more about the workshops, teaching certificates, and other support offered through The Centre for Teaching and Learning, and to read issues of NEXT magazine, go to Humber.ca/CentreforTeachingandLearning. Thanks for listening. See you next time. That's not a pun.