TOPcast Episode #86: When Can We Trust Our Students' Perceptions of Their Own Learning?

Narrator: What will your future look like? The job you do today could be different than the jobs of tomorrow. Some see this as a challenge. At UCF, we see opportunity, a chance for you to grow your knowledge, and strengthen your skills from anywhere life might take you. With in-demand degree programs and resources for your success, UCF Online can help you prepare for the future and all the possibilities that come with it.

(musical transition)

Tom Cavanagh: From the University of Central Florida's Center for Distributed Learning, I'm Tom Cavanagh.

Kelvin Thompson: And I am Kelvin Thompson.

Tom: And you are listening to TOPcast: the Teaching Online Podcast. Greetings.

Kelvin: Woohoo! Yay! That was not a mystery.

Tom: No, we have the benefit of seeing on video, so I actually witnessed your woo. I knew it was coming there.

Kelvin: Could be our producer of the day Christine might have been a ventriloquist.

Tom: Yeah, I don't think she would do that. Christine's a fine, upstanding person. She's not some crazy random wooer.

Kelvin: *(laughing)* That's right. They do appear now and again.

Tom: Now and again. Playing the role of crazy wooer today is Kelvin Thompson.

Kelvin: That's right! Yeah. Wouldn't be the first time I played that role.

Tom: I appreciate your enthusiasm, nonetheless. I mean, what is a podcast if not an opportunity to have some high energy, and here it is on a Friday afternoon when we are recording this.

Kelvin: And caffeine.

Tom: And caffeine! Yes! So I am—for those on video—I'm holding up my cup. My mug—

Kelvin: Me too.

Tom: — filled by Kelvin Thompson just moments ago. What is in your thermos, Kelvin?

Kelvin: And here is for the video viewing audience: there is the thermos. Well, today's coffee comes with a story, Tom, and more on that in a moment. But the coffee itself comes to us from TOPcast listener and former TOPcast guest Russ Poulin of WCET. Russ sent us this single origin Sumatra from his neck of the woods in Boulder, Colorado. The coffee has a picture of a tiger on the packaging associated with Sumatra, of course, and I was reminded of an idiom I heard recently that you can't ride a tiger. I'm going to try to figure out ways of sticking that idiom in wherever I can over the next couple months. This particular roasting company is called The Unseen Bean, and that's where the story comes in. The master coffee roaster behind this coffee is blind. In fact, he is purportedly the only blind professional coffee roaster known in the industry. Typically coffee roasters rely heavily on visual cues as they perfect the roasting of their coffees. However, this master roaster Gerry Leary had to teach himself how roasting could be perceived reliably through his other senses. In addition to smell, he's able to hear a difference in the sound of the beans at different stages of the roasting process, which I think is utterly fascinating. And we'll stick a link in the show notes to like a video and stuff about all this. It's pretty cool. So how's the coffee? And can you find the connection of some sort to today's topic?

Tom: Well, the coffee is good. Thank you, Russ. Appreciate it. When he did send that, I did go watch the video about Gerry Leary the roaster, and it is fascinating. In fact, he trains his staff—even if they are sighted—to do it the way he does it, which is amazing.

Kelvin: That's cool.

Tom: Yeah, it is really cool. And it's good! So thank you. Thank you, Russ. Thank you, Gerry and Kelvin. Now, the connection.

Kelvin: Connection. *(laughing)*

Tom: Yeah, so I mean, I am a thick headed dunder muffin. What is it from *Elf*? A ninny muggins? A dunderheaded ninny muggins or something? I feel like that sometimes with your connections.

Kelvin: It could just be that they're obtuse.

Tom: Could be! So, I'm struggling a little to make the connection so maybe you can walk me through it a little.

Kelvin: Well, you know, I have two that I'll mention, because I try to think of like two things because I try to have fallbacks, you know, in case the one… So, for me, the core of today's topic is a snarly, third rail kind of issue.

Tom: Okay.

Kelvin: And so I thought about that: "can't ride a tiger."

Tom: Got it. Alright. I see that.

Kelvin: And today's topic, really, if you think about it, is all about perceptions, what those perceptions mean, and whether those perceptions can be trusted. So I thought maybe you know, Gerry Leary's kind of having to train his perceptive senses and being able to, you know, show that he can come up with a darn good coffee roast without his sight just as well as traditional sighted roasters. I thought maybe there's a connection there.

Tom: Alright. I see it. I see them both now, because we're going to be talking about end of course evaluation data, which is the subject of some angst among certain quarters, so I get it, and then the tiger, I should have been paying attention to that particular call out, I guess. But alright, I get it. Thank you. Thank you for taking me by the hand like a small child, walking me up to the connection, and pointing it out and saying, "Look, Tom, see that connection? Isn't that pretty?"

Kelvin: Hey, thanks for acknowledging that there could be one. *(laughing)*

Tom: *(laughing)* Cool.

Kelvin: It's debatable.

Tom: Well, before we dig into the details of the connection and the interview that you conducted related to this connection, it's probably worth saying that, you know, we are recording this in March of, you know, Anno Domini 2021, and that, we're still dealing with the effects of the COVID-19 pandemic. So, that has not changed too much. Although, it feels to me like we're turning a bit of a corner. We're starting to make plans for fall that are potentially a little more normal and back to business as usual. And maybe the rest of you across the country are starting to feel that shift as well.

Kelvin: Vaccines are rolling out.

Tom: Right.

Kelvin: Yeah, I think that's true. I think this—if I remember right. I should have looked at this—this episode, when it releases, will be darn close to almost exactly one year when we certainly went to remote work and emergency ad hoc remote instruction, and, you know, everybody was—in the US anyway—within a couple of weeks. You know, it's gonna be right at that one year anniversary as this episode releases, I think.

Tom: That's amazing. A year. A whole year of this nonsense, Kelvin.

Kelvin: I know! I see you through the little Romper Room telecommuting window here.

Tom: I know. I know. Well, hopefully. But just to kind of put that on the table…let people orient them where we are in the recording of this, and if you're listening to this at some point in the distant future, yes. It's still happening. But hopefully, hopefully, there's some light we can see at the end of this tunnel.

Kelvin: Yes.

Tom: So, back to the business of the day.

Kelvin: Yes.

Tom: And that is end of course evaluations. Kelvin, let me take you back in time.

Kelvin: *(time sound effects)*

Tom: Let me take you back to OLC Accelerate 2019.

Kelvin: I remember it.

Tom: See if you remember this: you interviewed Dr. Barbara Zorn. At the time of the interview, Dr. Zorn was Associate Dean of the College of Liberal Arts at Ashford University, which is now the University of Arizona Global Campus. During OLC Accelerate 2019, she was recognized with the Best in Track Award for her research-based session entitled "Mining for Achievement Using Student Performance and End-of Course Data: A Multicovariant Analysis of 60,000 Online Courses."

Kelvin: Say that five times fast.

Tom: Sounds like some serious scholarship right there.

Kelvin: Yeah, no doubt. Yeah, absolutely. I do remember that.

Tom: I'm glad! All is not lost. You do remember that.

Kelvin: Yes. Yeah, it was a good interview, and I'm happy to share it, and as we said to our listeners before, you know, hey, we're getting there. We've got maybe another one or two longer ago interviews in the can that we've been kind of releasing interspersed with more recently recorded interviews, but we're getting to the end of them. I mean, the shelf life is…you know, we're not past the expiration date yet. But this is still a very relevant topic, I think.

Tom: Oh, absolutely. Yeah, I mean, we're still doing end of course evaluations, aren't we?

Kelvin: Yeah.

Tom: So, any anything you want to comment on prior to the interview playing?

Kelvin: No, I think let it stand on its own and maybe we'll just make some comments on the backside of it.

Tom: Sounds good. Now through the magic of podcast time travel, here's your interview with Dr. Zorn.

(musical transition)

Kelvin: Barb, thanks so much for joining us on TOPcast today.

Barbara Zorn: Thank you. It's great to be here.

Kelvin: That's awesome. I was, as I said, right before I hit record, I was really excited to hear about the research that you've brought to here at OLC Accelerate 2019. Best in Track. Congratulations! That's pretty awesome.

Barbara: It was. It was really amazing to have received that award and such an honor because there's so many fantastic presentations in that category and in every category, so it's really great. Thank you.

Kelvin: But I was fascinated, you know, a large scale study, and I know that like end of term evaluations literature has been kind of controversial through the years, but I was fascinated, if I grasp this correctly, that you've looked for connection between those end of term evaluations and student performance through grades and other faculty characteristics and so forth. I just thought that was just intriguing. How'd you end up getting into this line of research?

Barbara: I think having been a teacher for so many years, and having seen those end of course evaluations, not only as a professor, but also as a program chair and associate dean evaluating other faculty, and you are absolutely correct. The literature is in turmoil because there are so many different opinions and viewpoints, and there's this ongoing controversy of whether or not we should use these end of course surveys as faculty evaluations. And in many places, they're weighted towards tenure. So, this can create a lot of anxiety for faculty. And, you know, the faculty perception has always been, well, students favor lenient graders, so they're going to rank those professors more favorably. And as my dean and I were looking at faculty evaluations, we said to ourselves, "You know what? Let's just settle this. Let's settle this once and for all. We have a lot of data. We're going to look at it. We are going to determine whether or not this is in fact the case, and if there is a bias, we are going to adjust for that bias so we can get to the heart of the matter, the absolute truth as best as we can find it." And what was interesting for us is, throughout this process, it was really quite a journey. And one of the, I think, big aha moments was that this is not a faculty evaluation. This is a student-centered evaluation, and the students are pointing us in the right direction. So, we need to look at where they're pointing so we can see what we can do in the classroom, we can see how we can improve our own performance in the classroom, our curriculum, our assessments, everything, all of our student support and really get in there and do the best job that we can for our students. So, shift the focus from us on to what matters: our students.

Kelvin: That's fascinating. And what a commitment to say, "Hey, let's settle this once and for all." Just to jump ahead a little bit, has that at this point given you pause to implement in some of the ways that you just mentioned actually think about changing the way that you provide student-facing services and ensure student success? As you say, taking the focus off of the faculty anonymous. Have you already made changes?

Barbara: Yes, we have. We started making changes I would say late in 2018, early 2019. So, there are a few things that were implemented that were a direct spin off from this research. So, one of those things was a new role called faculty of practice, and the idea here was to take the traditional faculty role, which is typically teaching, research and service, and focus entirely on teaching, and we had wonderful results on it. So, those faculty that are just focused on teaching, those students had a higher record of success. Other things that we did was collaborated with our Center for Excellence of Teaching and Learning, and they began developing different kinds of professional development. They already had professional development, you know, ongoing for faculty. But the shift of the focus mirrored what we found in our research. So, we found, for example, that students really value written feedback. You know, that meaningful feedback that helps them improve their work. They value high expectations in the classroom from the faculty, and they also value faculty expertise and engagement. So, these factors that emerged are now reflected in our faculty training, both at the program level, at the college level, and at the institutional level. So, many of our programs have engaged in improving their faculty expertise, not just in teaching and learning, but also in their disciplines. And there have been additional professional development opportunities for faculty to increase their positivity in the classroom, to increase their engagement in the discussions, and to provide quality feedback that is not overly time consuming, right? And I think that's a big thing to look at, because one aspect of the research focused on the difference between part-time faculty and full-time faculty, and the big difference there is time. So, we have amazing part-time faculty, and the differences that we found in terms of how students rank both groups, really, I think, has to do with the amount of time that part-time faculty can commit to grading, to being in the classroom. So, one of the other important initiatives that we have taken is to create pilot classrooms, where we have streamlined the curriculum, streamlined the delivery of content, so that the burden is off of the faculty, and then in this regard, the faculty can then devote their time to that quality feedback that the students are so craving for.

Kelvin: That's great. I mean, it's wonderful to hear that you're already taking such concrete actions. I wonder how have your faculty—full-time and part-time—responded to those changes? Has that been welcomed? Or have you gotten pushback? I assume it’s all about how you frame it, I would imagine, but what what kind of reactions have you gotten?

Barbara: Well, I think the actual results were well received. When we first proposed the research, we had quite a bit of kickback. It raised so much anxiety by our faculty, because there are lots of problems with end of course surveys, and as you said, the literature is in turmoil. So our faculty gave us excellent feedback. They pointed out all the flaws in end of course surveys. And, you know, my collaborator and I, we sat down. We noted every single flaw, and we tackled each one step by step in order to address them statistically as best as we could. So, we have control for bias. We use statistical measures that are highly tolerant of uneven data sets. That's a big problem, right? Our data, we didn't need to transform it because our data were normally distributed, but we did all the checks. We did all the data diagnostics. We went step by step, and I think the most important aspect of this research is that it was fully grounded in ethics. We were very respectful of our faculty’s privacy, of their need to feel secure and not being evaluated. This is absolutely not a witch hunt. The focus was on improving

our students learning condition. So, the results were actually quite well received, and people were, you know, really happy to see that. Our Center for Excellence in Teaching and Learning was, you know, incredibly supportive, as were our university deans in helping implement and using this knowledge to really get their faculty to be more engaged and train their people. So it's been really exciting.

Kelvin: I mean, the phrase that comes to my mind is due diligence. It seems like you've really done your due diligence in terms of, as you said, being respectful of faculty and showing care for their concerns and addressing those concerns transparently. That's admirable, I think.

Barbara: Well, thank you very much. Yeah, that was really, really important to us. And of course, end of course surveys are anonymous. And we were very careful to keep all of our data secure. We did not look at faculty names. Everybody was assigned a unique number, and then the faculty names just went away. So, we just dealt with numbers.

Kelvin: So you were just dealing in the aggregate and looking for patterns.

Barbara: Exactly.

Kelvin: It’s not going to come back to haunt anybody individually.

Barbara: Exactly.

Kelvin: Yeah. Yeah, that's great. Zooming out for a second, I want to make sure I don't get this wrong or mistake this. So, I'm going to just assume that the words that are about to come out of my mouth are wrong, so just tell me how wrong they are. How about that? So, is it fair to say that a lot of what you've done in your study is to look for the relationship between faculty characteristics and behaviors and student performance? And so, A) is that the case, and B) what have you found? You can correct anything that's wrong here.

Barbara: I think one of the important or one of the more interesting aspects of the research is that we didn't just look at the end of course survey. You know, I'm very conservative when it comes to statistics. And I think that secondary measures are important to have, you know, to kind of support and corroborate what has been found. So, we used end of course surveys, but we also used our annual instructional quality reviews of our faculty to correlate those or rather to test whether there's a correlation between those and student success measures. And those student success measures included grades, percentage of students that passed the class, as well as the percentage of students that progressed on to the next course. And what we found over the three year study quite consistently is that students grades—positive grades, good grades—are strongly and highly correlated to written feedback and to critical thinking. Whether or not that faculty member promotes critical thinking in the classroom, and whether or not that person provides feedback that is meaningful, instructive, and helps the students correct and do better on future assignments. So, those are really the big issues. What we also found is that when faculty were not fully engaged in the classroom,

and when faculty had a low presence and they did not share their expertise, those factors were highly correlated with the percentage of students that failed a class or dropped the class. So, when students come in and they are with someone that perhaps is not quite as engaged as they should be, then it has a negative effect. It's very powerful to see that and to kind of confirm it, and what's interesting is sometimes there's this perception that students do prefer leniency. But in our case, they do not. Our students have high expectations of themselves, and they expect the faculty to match it. They want to be challenged, but they don't want to be overwhelmed. Challenged and supported to do better.

Kelvin: That's fascinating. And so just so I'm clear and our listeners are clear: it's not just that you looked at—if I understood correctly—it's not just that you looked at what the student said in their end of term surveys about faculty behaviors. That was coordinated with the actual annual faculty evaluations, and you're looking for consistency, for instance, whether an instructor has provided written feedback as a matter of practice. Is that correct?

Barbara: Yes, that is correct. So, we have data from different sources, and we made sure that the answers we received, the results that we received, kind of match up from different sources of measurement because that's important. So, the students' feedback, the way they rated those criteria—by critical thinking and participation, etc—matched our peer reviews of our faculty in terms of student performance. So, we have two different sources of data telling us that, "Yeah, you know, this is important to the students. It's important to the faculty." And it also lets us know that we can trust our students' perception of their own learning.

Kelvin: That's huge, right?

Barbara: It is really big. That is a big, I think, that's a huge mind shift, because for a long time, we kind of thought are students really even qualified to evaluate faculty, to evaluate their own learning? And as it turns out, our data, our very big 60,000 plus data set says yes, they are qualified.

Kelvin: That's huge. And to be clear, you've used the word classroom a number of times, but this is not limited in any way to just face to face classroom environment. I mean, you're looking at the online environment here, where feedback and the human element is so crucial to student engagement and performance, right?

Barbara: Yeah, I think that's really an excellent point. The context here is that our university every course is 100% online. Our courses are five weeks in length. Our students are typically 25 years and older, 25% of our students are military, two thirds receive Pell Grants, and more than 70% of our students are female. So that's our demography, and everything is online. So in five weeks, it's a tall order to not only absorb the content but also to develop a relationship with students.

Kelvin: That's huge. So, as we get ready to wrap up, you've talked about some of the implications that you've implemented already in your institution in terms of faculty preparation, faculty behaviors. Our audience is generally made up of instructional designers, online teaching faculty, online administrators. If you were going to offer, like, one takeaway in general, or one for each of those

groups…You know, I know this is maybe a reductionist and overly simplistic here, but like, I've heard the word feedback a lot. Like if you're gonna do one thing, is it, say, do more written feedback? What kind of written feedback? What kind of advice on the ground? I knew it! I see the pain look on your face. You're like, “No, don’t pin me down to one thing!” But if there was any takeaway like that—real practical—what would it be?

Barbara: Well, I think the practical takeaway is to really focus on feedback and ensure that faculty are able to give that quality feedback to students. Balanced feedback on the students ideas, not just on their writing or APA formatting or any of that. But you're really on their ideas. Help them develop their ideas. It's important to them. And I'm reminded of something my colleague said: “Whenever we go into the classroom, we should treat every single student as if they are our family members.”

Kelvin: That's huge.

Barbara: And that helps us see people with compassion, and treat people with care and compassion and support.

Kelvin: Well, that's a wonderful what I'll consider final word. That's a great place to leave it. Thank you so much for sharing your research at a broad level and the implications. We'll certainly link to some supporting resources so that our listeners can delve in more. But thank you for joining us and sharing.

Barbara: Thank you so much. It's been a pleasure to be here.

(musical transition)

Tom: So, Kelvin, that was your interview with Dr. Barbara Zorn. Thank you for doing that back in 2019.

Kelvin: Yeah, I'm glad to finally be able to offer this one up to the community. I think it's an interesting topic, you know, as I said, in the interview, and, you know, I think everybody's probably in touch with us to some extent or another. End of term evaluations can be a little a little contentious, and, I mean, you know, Dr. Zorn said the literature was in turmoil. You know, I mean, there's some drama that can come around when people start talking about end of term evaluations, right?

Tom: Yeah, well, it can be high stakes, right? The promotion, tenure, annual evaluations are—depending upon the kind of institution you are and the kind of discipline you're in—it can hold a lot of sway over how you are evaluated.

Kelvin: Yeah, and I just love the fact that, you know, there's so much going on in this research project that she presented on at Accelerate 2019 and got this Best in Track award for, but I think the whole idea of there's some validation of student perceptions in there a little bit and just the whole notion of trying to connect the student perceptions and end of term evaluation with student performance. That whole notion of, “Well, students, like faculty who are lenient,” and then it's like,

"Well, no, actually. You know, let's look at the data." And that's not exactly the case.

Tom: Yeah. I'm not surprised to hear that, you know, based on my own anecdotal experience, and that of talking to other faculty. It isn't just being easy on students. Even if you just go to something as crazy as Rate My Professor, you know, but students will say—and I understand the controversy around that particular website—but students will often say, "They're hard but fair. They're hard, but I learned a lot" and give high rake rankings on that. It's not just "Oh, it's an easy A."

Kelvin: Yeah, I agree. I think we'll be able to pull out some of the relevant literature historically and stick it in the show notes. Like, our colleagues here at UCF, Dr. Chuck Dziuban and Dr. Patsy Moskal have done data-mining of their own around end of term evaluations, but it's sort of a very different approach and a different structure. But it's interesting in and of itself. Like, in their case, they were doing decision tree analysis that came up with decision goals, you know, like kind of to what extent did certain decision making rules explain the, you know, final ratings. That's a different kind of approach than Dr. Zorn and her colleague were doing here, but it's still interesting to look at. We'll put that there. But that work from Chuck and Patsy, they refer to as Dr. Fox Rocks, and that is a historical allusion to a bit of the end of term evaluation literature called the Doctor Fox literature—the Doctor Fox effect—the original paper in 1973. That reference in medical education was called the Doctor Fox lecture, somebody who's really smooth and a good presenter but has nothing of value to say at all. How do students perceive that person? And so there's this whole subset of literature that's about that. So, Chuck and Patsy make an omage in their data-mining paper, but we'll put some of this kind of literature in there. But the reason I bring up that Doctor Fox paper is I went back and looked at that recently. 1973. Here's a line for you, because this is exactly the opposite of what Barb Zorn and her colleagues found in this research. In the Doctor Fox lecture paper, the authors say, "Student satisfaction with learning may represent little more than the illusion of having learned." And I think Dr. Zorn's research is like, "Yeah, not so much."

Tom: Well, you know, pedagogical practice and student expectations and a lot has changed since 1973. So yeah, we may have evolved since then.

Kelvin: That's right. One can hope.

Tom: Yeah.

Kelvin: One can hope. There's so much more we could talk about. But, you know, I don't know about you, but I was really taken with how she ended the interview about her colleague's admonition to see students as if they were one of your family members. And that's just a good word any day.

Tom: Yeah. Those are words to live by.

Kelvin: Yeah.

Tom: Cool. So, do you want to see if you can give us sort of the bottom line?

Kelvin: Sure. I'll try to put a button on this episode and send us on our way. End of term student evaluations remain a contentious issue—at least in some of our institutions—but understanding how they can be used effectively to improve student learning is important. So, continued research in this area, especially in the context of online courses, lights our way forward. How's that?

Tom: Amen, brother. So, thank you. Thank you to Barbara Zorn, thank you to Russ Poulin for the coffee, and thank you for the interview. So until next time, for TOPcast, I'm Tom.

Kelvin: I'm Kelvin.

Tom: See ya.