

Christopher Richmann: Welcome to Professors Talk Pedagogy, a podcast from the Academy for Teaching and Learning at Baylor University. I'm your host, Christopher Richmann. Professors Talk Pedagogy presents discussions with great professors about pedagogy, curriculum and learning in order to propel the virtuous cycle of teaching. As we frankly and critically investigate our teaching, we open new lines of inquiry. We engage in conversation with colleagues and we attune to students' experiences--all of which not only improves our teaching, but enriches and motivates the ongoing investigation. And so the cycle continues.

Today, our guest is Amy Goodman, Lecturer in Mathematics at Baylor University. An early advocate of online teaching at Baylor Professor Goodman is currently chair of Baylor's Teaching, Learning, and Technology Committee. She is currently finishing her PhD in Learning Technologies at the University of North Texas. She was also a recent recipient of a teaching exploration grant for a project investigating technologies enabling online math students to more easily show their work. We are delighted to have Professor Goodman on to discuss creativity in online teaching.

Amy Goodman, thank you for joining the show.

Amy Goodman: Thank you for having me.

CR: You are completing a doctoral degree in teaching and technology, or something related to that. I wonder if you could tell us about that, what you're researching and what you're learning in the midst of that work.

AG: Well, that's a great question. The degree plan is called Learning Technologies—it's the PhD program at the University of North Texas. It's primarily about how we teach and learn with technology, but within that umbrella, you can kind of take it in many different directions depending upon your field. Some people are in business and they're there to learn about corporate training. Some people are like me in higher ed and we're looking to facilitate our teaching and student learning with technology. And then some people are like instructional designers, and so they may be doing it for a school district or for another university. But, all things happened within, within that umbrella--Obviously, I'm interested in the Higher Ed track on that. And so my degree plan has consisted mainly of learning theories and instructional design and data analytics.

CR: So what has been your main research area of this?

AG: Well, I find myself drifting more and more into data analytics. I'm took a class this semester where we had just had to do a research project and it was big data. So you have to learn how to program in R and do some data analysis. And I've, I've found that really interesting. I'm just that geek who ended up doing 100 pages of coding for my final project. And I was just loving it because every new iteration you're like, "well that's interesting, I hadn't thought about that." So you can, you can kinda get sucked in—in fact I was telling my Professor about it. I was like, "I don't know if you wanted quite so much exploratory data analysis of this project, but I just kept

going.” And he said yeah, there's no end to this type of research. You really have to set limits for yourself because it's easy to just keep going down the rabbit hole.

CR: Right. I imagine it's both exciting and perhaps a bit disoriented to be working on a doctoral degree while you are a faculty and I have been a faculty member for quite some time. So what does that experience been like for you? Professionally and then perhaps personally to well?

AG: I mean, I have enjoyed every single minute. I think the fact that this is my 22nd year at Baylor, though, the fact that I've been teaching for a couple of decades gave me a really strong foundation in what I already know how to do and what I already know how to do well. And that, I mean, after a couple of decades though, I feel like I really reached my frontier. Like I'm, this is as much as I know how to do with what I have. So when I went into this program, I knew a lot about what I was looking to do and I found a lot of things. I didn't even know that I didn't know. I didn't realize until I studied learning theory, you know, what an objectivist I was as a teacher, that, that I was such a cognitivist and behaviorists where, in my heart, I think I lean more toward constructivism as learning theory and helping people make sense together of what they're learning. And that's one of the ways I learn best. But it's not the way that I was taught mathematics. And it's not the way that I had been teaching mathematics. And then, I mean, you know, you kinda have that awakening where you're like, “Well, well why not? Why can't we?” But it's not, it's not something that would have naturally occurred to me if I hadn't been forced to study these things and think, you know, what, how do I relate to this? Do I like it? Do I not like it? Does this fit with my style? Does this fit with my discipline? And so it's helped me bring a lot of new practices into my teaching, which I love the connection between what I am learning and that I can directly implement that into something that's useful in my profession. I think if I had learned these things before I was teaching or by taking a break from teaching to go up and do it, it wouldn't have been as complete of an experience.

CR: I love how you kind of frame it in almost in terms of like congruence. Like, what is, what, what do I actually believe deep down in my soul about teaching and learning versus what, what am I, what am I doing?

AG: Am I actually doing right? Yeah, how is that aligning? It kinda helped to hold a mirror up and say, this is how it's always been for you, but is that the way that it needs to always be? And when confronted with the question like that, the answer is no, it doesn't have to be that way. And in fact, if I got to just design it exactly the way I would want it, that's not what I would do.

CR: Right. Well, so what in what you're learning in your doctoral program has, has perhaps directly affected your teaching? Have you tried any new things? Have you re-designed any major assignments, anything like that?

AG: Well, oh, absolutely. I mean, some of it came directly out of my teaching. I mean, my my teaching was directly, directly like day 1 affected by the classes that I've taken in my research. I mean, from the learning theories that I already mentioned, to just instructional design. I mean, there's the theory of instructional design and there's actually implementing it. So it helped me be, I mean, almost immediately, much more deliberate about how I structure my classes, particularly in Canvas. And then I've, I've been teaching online since 2017. So thinking very

deliberately about how I'm crafting the way I'm inviting students to interact with my content and my class, about the way I'm structuring it. And then, I mean, even in the learning analytics, but more kind of at the end of an instructional design cycle, thinking about how I'm evaluating what I've done and not just my own personal evaluation, but the way that I invite feedback from my students, the way I implement the feedback from my students. In the past I feel like I have always read every single course evaluation that my students have ever filled out, but I've used that to help inform me about how can I do what I'm doing better and more effectively. And I hadn't really ever gone the next step to say, Well how could it inform me about doing something else? Not doing what I'm doing, but breaking away from that and, and trying something new. So yes, it has definitely helped me generate new ideas, tackle new avenues. And of course, COVID just pushes all that even further down the road. So there have been many new things that as a result of COVID, I have had to implement in my face-to-face, hybrid, online classes that I have never done in teaching before. But I would say that absolutely, since I've been in this program since 2018, I had so many more resources to think about how I would make that transition or how I would implement or try new things as I'm having to work more in an online environment.

CR: I think it's so interesting that in higher education we have, generally speaking, this, this great thing that we call academic freedom, and it applies not only to our research but to our teaching as well. And yet so often we remain in those self-imposed boxes. This is how this discipline, the subject matter, is always taught and, and you never think about going beyond it.

AG: It just doesn't occur to you--I was never taught that way. I've never had any anything modeled for me in my discipline like that before. And yet when I reflect on it, you know, just lecturing and taking notes and then going home and consuming it did not always worked for me as a student. That was—in fact when I was in my master's program the way I learned to best was in a study group with three other people standing in front of a dry erase board and just saying, “where do we go from here?” and brainstorming. And that's not the experience we were getting in a classroom. But, you know, why, why could it not be the experience that we have in the classroom? It requires structuring class time differently, and it requires structuring content delivery differently. But I mean, it's very doable.

CR: One of the things that we often tell faculty when we're working with them is that when you try new things in your class, you have to be prepared and willing for students not to love the new things, the students sometimes resist the new things. So do you have any stories of that?

AG: To have students resist the new thing...I have not had that experience, I mean, on any real scale. I mean, you can never please all the people all the time. So there's no matter what you're doing, it's going to really delight some people and it's going to not delight others. And I tend to really troubleshoot things. I try to before I implement them so that I can anticipate as many questions, as many hiccups as possible and then help prepare my students when you come to this moment, if this happens to you, here's what you do so that they don't experience that much frustration with it. I guess last spring when we had to switch to remote instruction very suddenly, when we didn't come back from spring break, all of my calculus students had to go from turning in handwritten homework every week, to submitting homework in an online platform every single week. That transition was initially rough because that program is very

notation specific. If they did all of the calculus, right but they didn't close the parenthesis or they didn't separate their answers by a comma, or they didn't use the union symbol between sets in interval notation, it would count it wrong, which was very frustrating for them and frustrating for me as a professor to troubleshoot like this is feedback I could have given you directly if we were right here in the moment, but doing it virtually from email to email or discussion board post the discussion board posts, it's taking longer, it's becoming more frustrating.

But going through something like that once because you *had* to, helps you when you later on *choose* to implement that. Think about how you're going to communicate about, about that in advance to your students. They understand what to expect going in and ways that they can moderate that for themselves without having to have all the frustration.

CR: You mentioned discussion board posts, and that's something here at Baylor, we use Canvas as our learning management system. I wonder what do, what do you, what are your thoughts about the technology tools that go beyond the LMS? Do you have much experience with these kinds of add on things or?

AG: I mean, there are, I'm, I'm, I'm going to say infinite. And then that's a bad use of a Math person's language. But there are many different applications that are add-ons beyond Canvas. And all of them have a place in a certain class or a certain discipline. For myself in terms of technologies beyond Canvas, many of them are just normal technology tools that a person can use in any other base that I was thinking about. Technologies that have really made a difference in my online teaching. And going back to even 2012 and I was just doing like online office hours or something that wasn't necessarily class, but I got, I got a mouse pad with a stylus so that I can actually write. And now there's a learning curve of this because you don't see what you're writing on and you just see it on the screen, but your hand is riding on the mouse. But I mean, that's a simple technology that, I mean, really, this was able to facilitate communicating about mathematics and a virtual environment, of course. Now I've got a touchscreen with a stylus that I'm able to use and pack up and take with me everywhere I go. So those types of tools are not necessarily LMS related, but dramatically help what you're doing online. But there are some things like also, I mean, being at Baylor, we have technologies that integrate with Canvas, but I mean, one of the, not, not even the newest ones, but one of the most helpful ones is Kaltura. Just being able to do all your own video capturing and things. I mean, before you had that ability and other schools use Camtasia and there are many platforms. Remember, where we had that ability to capture our own lectures and videos and things we were reliant on. Trying to cobble things together from outside resources online to embed them and then implement them. And then direct students outside of your class or outside of your box to go look for other resources that were related to what you were teaching and learning in your class. And now you're able to just create that content for yourself. I think there's a lot--many of the apps out there give educators more control over what they're doing in their class instead of being independent on what has been made by others, other places. So I think all of that is good and helping uniquely craft your own experience for your students.

CR: One of the things that sort of boggles my mind about teaching with technology in an intentional way and online teaching is that it's still so new and the landscape is changing so, so rapidly all the time. So I don't even know how you begin to sort of like study such a thing that is

in motion in the way that online instruction is right now, like we're, we're talking over Zoom. And how many people even knew what Zoom was a year ago? But now everyone's just kinda--It's just integrate into our lives. So it's kind of a philosophical question, how do you, how do you get your arms around something that, that changes so quickly?

AG: Well, online teaching is new to, I mean, most people at Baylor teaching in higher ed, but its not really that new to the rest of the world. Although within, within any discipline, the way people are doing that is different from place to place. But I mean, online teaching has been happening since the late nineties. So there has been research out there. There are best practices that have evolved over the past couple of decades. So there is a body of research and information out there to tap into to get an idea. I mean, but as with any practical application, you can only read about how to ride a bike so long before you actually have to sit on a bike and move the pedals or someone can only explain to you how to, how to swim for so long before you finally just have to get in the pool. So it's kind of that way with online teaching, you can read about best practices and that's super helpful. I mean, to help you structure even your first experience, but at some point you just have to dive in and give it a shot. And I think the first time you do anything, It's never going to be exactly the way you always hoped it would be. And I think for instructors that just requires a tremendous amount of humility and flexibility to say to your students, "you know, we're all trying to do something new or for the first time and so give me your feedback. Try to not be frustrated. I'm here to help you. Let's just hold each other's hands and do the best we can in conversation with each other about this." And so my experience has been that students are excited to get to be part of the process and you can just admit it from the beginning. This may not be ideal, but we're going to try it out. Tell me what your thoughts are— if that, that's not such so rigidly tied to their grade and going to affect the rest of their lives, then I mean, they're, they're very willing to participate.

CR: Flower Darby in her book, *Small Teaching Online*--I don't know if you, if you know that. But it's kind of become a handbook, especially in the, in the COVID era of people trying to switch to remote teaching, which is not exactly the same in all cases as fully and truly online teaching. But she, she suggests in there that online--if you believe that online teaching is going to be a part of your, of your teaching career going forward, that you really need to take an online course. You need to be a student in the online sphere so that you can have that perspective of what students are going through.

AG: I totally agree. I mean, just having I mean, I taught online before I had enrolled in my degree program, which by the way is 100% online. We have one meeting yearly that we are required to attend to fulfill, I think some state accreditation residential requirement, but other--but all of my classes are 100% online all the time. So I was teaching online before I had ever taken an online class. And definitely having to consume information from the other end is extremely informing about how you're delivering it as the instructor. And I mean, all of my, I've had nothing but great instructors and great experiences of my degree program. But inevitably along the way, you're going to find something that is the way you really want it to never have to be for your students. So you learn a lot about things that you know about what not to do for yourself. I mean, I had one student-- I mean one professor that just really heavily tied to files in Canvas. And happily they have the same platform at UNT that we have a valid, they also use Canvas, but to just continue to put things in files that are not necessarily organized by week or by

even alphabet can be frustrating for students that are having to scroll through and find what the resource is for this week. And so it works, but it's not, it's not the way you wish it were. So learning, learning how, how other people are structuring things that you can take the good and learn what not to do, so kinda take that out as you go forward is only helpful for yourself and your own instructional design.

Richmann: A couple of years ago, the ATL did a short essay series, Called to Teach, in sort of recognition of our tenth anniversary here at the ATL. And Greg Garrett from the English Department wrote a fantastic essay about seeing the learning process from the students' perspectives. And he said that when he was in seminary, and he went to seminary later in his life, that he had a preaching professor say that one of the things that he does is he goes and sits in the pews before he prepares his sermon. So to just, you know, just even a kind of a metaphorical way of thinking about "how is this person who I know we sits right here in this corner, right here, how are they going to hear the words I'm going to say?" So like so many things it comes down to empathy, doesn't it?

Goodman: 100% empathy. And that has been, never been more important than in a pandemic that we're able to empathize, empathize with our students. I would say in my own teaching I intended over the last 20 years to generally be pretty rigid about due dates and I mean, I have always published the entire semester on the first day. So you can see every due date that's coming, you know what's due, when it's due, and you can always work ahead, but I don't accept late work. And there are times when there just are exceptional circumstances and just human to human, you have to accommodate that. I mean, so there is a certain amount of accountability that's required, there's a certain amount of rigidity that's appropriate. And then there's a certain amount of empathy that just has to be part of the experience. I mean, that particularly when you're 100-percent online and everything is dependent on the technology working for you to be able to participate completely. I mean, hiccups happen, so we just have to give each other some grace.

Richmann: Yeah. So what do you think are our students' main challenges when they are learning online?

Goodman: Well, when you're not in a pandemic and well, and even within, but I think just generally as when students find themselves enrolled in an online class or even in an entirely online schedule. I think it's a pretty from my own experience, but I think that it's a pretty obvious answer, is that time management, it can be a challenge for them, particularly if they're earlier in their college career. Just transitioning from high school to college is a big adjustment for any student going from the rigid eightish to threeish school day where bells are ringing and sending you on your path and you're not allowed to leave the campus. And you just go through that structure every single day. To transition to a regular college campus where bells are not ringing and nobody is directing you from class to class to class--you could actually choose not to go.

And of course, we all hope students don't make those choices, but there's, there's more freedom. And that first semester freshman experience and they'd ever had academically up to that point. And then if you put them in a and a completely online environment, now there's even less structure. So I think learning to manage their time, imposing the self-discipline upon themselves to stay focused, to have a schedule to work ahead, to stay on the path, It just requires a practice. They have to make themselves do the things that maybe they are not in the mood to do right then, but need to get done anyway. And then in addition to just the self-discipline of creating a schedule, I think an online student can by and large feel much more isolated than an a student in a face-to-face class. And even when professors have said "these are the resources for when you have questions," it requires initiative on their part to seek out those resources, to make that post on the discussion board, to initiate an e-mail.

And whereas if you were in a classroom, some of those conversations happen much more organically, where you can just catch the professor before class or after class and it seems very informal, very conversational, or students come to class early and while you're sitting around waiting somebody says, "Hey did anyone get number 35?" And then that's just a very organic conversation in the room. Whereas now you've gotta make a point of exposing your ignorance of number 35 to the entire community of people, which can be intimidating for some students and-- I had been very successful in my discussion boards, in my opinion. I think my students use them very regularly and fluently. And and I force them in the first week to do an assignment where they have to post so that least they can get the rhythm of it--but I think overcoming all of that can be challenging for students in an online environment. Those are challenges they wouldn't necessarily have to be faced with in a face-to-face class.

Richmann: You went exactly where I was going to go with that because you were talking about structure and then I was thinking, I need to officially coin this term that's been batting around in my head, which is "para-structure." So you've got you've got your class times and all that. That is, is you're walking across campus, you enter the building. And that's the structure of the students' face-to-face learning experience. But then you have all of those things that kind of come along with that structure like the five minutes before class, you just turn, turn to a neighbor and say, "I didn't get number 35," like you just say. Or, or that kind of sense that a lot of classes developed like when they just know that "there's enough of my colleagues who don't know when that next assignments due," then, then it just comes up naturally and the professor addresses it. But in that isolation of online learning, you don't know if you're the only one who just is confused about something.

Goodman: Right? And that's as a, as a professor, it's important to be aware of that from the very beginning and help students feel not anxious about participating as a community. And I really encourage my students--the discussion board is not just unidirectional. It's not you post and then wait to receive an answer, but answer each other. Work in community and make it a giant study group. Now, so far I've been pretty successful in cultivating that environment in my classes. Of

course, not every student is going to participate all the time, but there are enough students having enough conversation that it's a healthy chatter. It's that hum that you enjoy hearing when you walk into a normal face-to-face classroom, but instead in an online environment. And really there are some freedoms and advantages that come with that, that's apart from a face-to-face class, which is that happens 24 hours a day, seven days a week, that people have that as an accent, have access to that information, to that network of each other. Whereas you might have that question about number 35, Monday, Wednesday, Friday at 9:05, but any other time, then those people are not available to you--that conversation is not there-- whereas the people online are always there, everybody gets an update, a ping on their phone when somebody post on the discussion board. So it's a, there is an element of being even more connected. It's just a different way about thinking about being connected. And it's a way that most students in a traditional high school experience have not had in their learning background. So helping them find ways to be connected is really important.

Richmann: So you mentioned doing a, an assignment early where they have to dive into that discussion board. Are there other ways that you have found to be really helpful even if it's just sort of rhetorically how you're setting up what the discussion board is for?

Goodman: Oh sure. And it's not just my discussion boards, It's really any way that I ask them to interact with the environment. The whole first, if it's a summer school, it's the first couple of days, if it's a 15 week semester then it is within the first week. I had a series of, of many different online adventures for them to go on and in the very first window of time, whether it's going through the cycle of posting on a discussion board, going through the cycle of accessing online resources like a homework center or quizzes. Or even I have if I put a fake exam on there at first and they learn how to set up their lockdown browser. They learn what the rhythm and the routine of that is. I use the same directions on every exam. So here, this is what you're going to see when you log in. This is what it's going to say. This is the order of the steps that they're going to happen. So insofar as it is possible to pre arm students with this information, it is, makes it less disarming for them later if they, when they get to that, it's not unfamiliar, it's not unexpected. There's lot less anxiety. Particularly you find that around exam time when students are not only worried about the information, but just, you know, "I don't want to be accused of online cheating, so I need to make sure that everything is done correctly" or "What if I didn't do everything correctly? I super didn't cheat. But did that come through the video, was it communicated? I don't want to get kicked out of school." So there's enough anxiety just built up in everything being new that I try to take the sting of that away as early as possible. So let's just work through the way everything is going to be so that when the time comes, you're not surprised. And I have to say that paid off for me this fall. Yesterday I gave an exam in my calculus class, and it was the first time that everything that had to be online. So for a hybrid class where we had been meeting Monday, Wednesday, Friday, and for our exams and the three exams previous at that, we'd gone through the process of submitting online of how we would do that when it was all virtual so that when we came to the end of the semester and they had to do it all



online that there wouldn't be a super shock. And I was nervous for them and I sat with my Outlook open and waited for trouble shooting to have to occur. And I had, I had one student that had one technical glitch and everybody else did beautifully and in fact I was nervous. I thought "But they're they're just submitting their exams like it's just happening. Are they okay? I haven't really heard from anybody." And they'd had a fake exam they'd had to practice on, and you give them a couple of bonus points on an assignment for having done that so that you try to incentivize they're doing things as early as possible so that when the time comes, it's easy and so far that seems like it's working out. So I'm happy for them that that is an easy transition from a hybrid to solely online. I'm happy that they are having a good experience with that.

Richmann: Well, you touch, that's a very specific example, but you touch on, I think, a larger issue for, from the teacher's perspective in online teaching. And it depends on how, what the balance of synchronous and asynchronous is. But I think one of the things that teaching online teachers have to get used to is maybe not being able to see their students sort of working in the moment on something. They can't look over their shoulder in the same kind of way that they, that they would in a face-to-face class. And the assignments just sort of show up and the exam just sort of gets submitted. It's, it's just sort of this mystical thing that happens on the other end of the computer.

Goodman: Well, you're right about that. I mean, particularly for somebody who's used to being in the classroom for decades and looking at and just reading the room, just seeing their faces, their body language, seeing their level of engagement. That is hugely informative for you in the moment when you're in the middle of teaching class. Like if they're not getting it then, we're going to need to just have a minute to say, I am looking at your faces and I feel like this is not working for you. Where did we get off the bus? Like where have I lost you in this process? And you can have that like gut check moment there. And they can say, "Yeah, I'm so glad you asked like, why did you do step three?" And you go like, Great. And then you have that conversation right then, whereas in an online moment if it's crickets, you don't, you don't know if it's because everything is so seamless and beautiful that they're all having the most Zen online experience ever or because everybody is completely lost, that they just don't, they don't even know what they don't know and they don't know how to ask. And so that, that requires some initiative as the instructor to go to your own discussion board and post and say, I have "this assignment's due tomorrow and no one's asked the question. Are you all is are you just skating through this or are you lost to give me some feedback? Where are you?" And you'd be surprised or maybe you wouldn't. I was surprised at first--when you throw something like that out there, the avalanche of response that you get, because it's either, you know, "I was nervous about it, but you did example 3 on the 5.1 notes and that really helped clear up everything I had a question about the homework, thanks for providing that extra resource." Or they say, "Yeah, we don't know, we don't know what's going on. How do you do something like number seven, we can't even get past that to get further on into the assignment." And so just as the instructor initiating those conversations and soliciting feedback. So I mean, it's another example of you having to assert

yourself whether you're on one end of the online class or the other, we all have to go out of our way to check in and, and be part of the community together.

Richmann: It won't surprise you that one of the constant refrains that we have at the ATL is feedback. Student feedback, get student feedback and then act on that student feedback. Don't just rely on the end of the course, the semester course evaluations--that doesn't do any good for those students in that, in that class. It might help, if you're intentional, it might help for the next class, but it doesn't, doesn't do anything for them in that, in that moment. And so of course, we have different ways of saying, "Okay, well, maybe, maybe integrate a mid-semester feedback form or after or with every unit exam or something like that." But what you're talking about really I think goes to the next level, which is to integrate a conversation that is that is also feedback in the moment too.

Goodman: Yeah. I mean, I need, as the instructor, I need to know where they are, right? And you're exactly right about not waiting for those end of course evaluations because whatever feedback you get from that is not helping the students that you've been talking to for the last 15 weeks. You may find out what they wish they'd had help on or what they wish they had known. But you can't go back in time and give them those resources then. So it will help you moving forward, but it doesn't help the last 15 weeks' worth of, batch of students. So not only do I go to the discussion board sometimes and kind of give them a nudge if I feel like we just have not been talking lately, but I mean, through my PhD classes, I learned how to create my own instruments and at Baylor I learned how to use Qualtrics, and so I create my own surveys. And I send them out there. If they can give me a 90 percent or better response rate, then I'll give them to a 2 bonus on an exam. So I initiate my own feedback loop, like I can't wait until the end of the semester to find out how this is working for you, please tell me now and I'll pay you two points on your next exam if you'll just give me feedback right now.

So I mean, as instructors, we have a lot of ways that we can solicit feedback from our students. And it, it is, in my opinion, always most helpful right then in the moment. Like what can we do right now that's going to be beneficial. And sometimes the answer may be nothing, like everything is going great. But usually there's something that we can do that we can tweak, that we can refine, a resource that we can add that can help students right then that is the reason why you have not heard from them lately.

Richmann: So final question I'd like to ask you: is there something that you'd like to try with online teaching that you just haven't done yet?

Goodman: Well, if you'd asked me this a year ago, I probably would have had a list. With COVID, I've had to try so many new things with online I've never tried before. But I was

thinking about, about this type of question. And one of the things that I've done this semester that I think I would like to take even further is I teach two classes that are about—that are math education. It is helping Baylor students who are one day going to teach elementary school and middle school. And many of them may teach elementary and middle school math. And the class is about how to break down math concepts and explain them to somebody who's never heard this before, who doesn't already know how to do all of these things. And up until this semester, the assessments I've always had for those classes had been written exam--just the way I always had them myself. When I was thinking about how that would translate to a hybrid class, to an online class. I thought, you know, I, I don't feel that it really translates that well to online. So what could an alternate assessment path be for me. And so for those two classes this fall, I let them do group projects. And I have to say that it has been such a good experience. Rather than giving a written exam where they parrot back to me the methods and techniques and the strategies that we've discussed over the semester, actually having them take that next evaluative step to analyze what they've learned and think about how they would implement it, I think has not just been affirming for me, but it's been such a good thought exercise for them. "Like how would I actually do this in a classroom?" And to watch their evolution in that process over the course of the semester. I just finished grading their third round of projects. I mean, when they, when they first started off, so many good ideas but obviously very raw--just thinking about how to communicate those, the mathematical ideas, was awkward, was not familiar to them. And then now by the end of the semester, they're so much more fluent. Their thinking is so much more structured about how they would get into a lesson, how they would break it down, and how they would tie that into the point. Like the mathematical concept we were just discussing, like how they bring the whole lesson together from beginning to end. The types of examples they would want to discuss with their class, then the strategies they would use to break that down and help communicate it. I have really enjoyed that experience as an educator, this fall, watching them have to think about how they would actually use what we've done in this class.

And what I would like to, if I could, to take it even further, is give them even more freedom of expression with that. So instead of having to sit in a room and write an exam for me, I'm still asking them to essentially write a report. Now it's a report about a lesson that they are designing. And so there's some freedom of thought in that, on their own part, to create their own learning experience for their students, their imagined students. But if I could broaden that to them so that they were able to express those ideas in a video or an audio format, even an animation, just any way that they would choose to express that idea, I would like to open that to them. Although as I think about doing that, I'm like that that could be such a creative opportunity for some of these students. But as, as the instructor of the class, I'm not sure how I could communicate to them, you know, how much freedom they have and what they would do with it. Sometimes students like, "if you could just give me the lines that I could paint between those, you know, just anywhere in there." So if you give them unlimited freedom, it can be difficult to help them understand exactly what the assignment is. So I'm not sure how I will structure that for the spring semester, but it is something I would like to broaden and give them more opportunities for.

Richmann: That's great. Yeah. It is hard to find. I don't know if it's if it's looking for a sweet spot or if it's just looking for the right amount of flexibility for students because you're right, some, some really flourish when they have the options. And we know from motivation research that if they have some sense of autonomy that's going to help. But then you can cross that line where it's like “the menu is too big. And I don't and I don't want to order at the Cheesecake Factory anymore because the menu is too big.” All right. Well, we are we are just hitting our time here. So Amy Goodman, I want to thank you for joining us for this conversation today. Thank you for being champion for online learning here at Baylor and for just great teaching at Baylor.

Goodman: Well thank you Christopher, thank you for having me. This has been a fun conversation.

Richmann: Our thanks again to Amy Goodman for speaking with us today. In our show notes, you'll see Greg Garrett's essay on thinking about the lives of our students, as well as a link to Flower Darby, Small Teaching Online which Baylor instructors have free E-access to. We have also posted several videos of pointers for online teaching that Professor Goodman has produced for Baylor instructors. That's our show, join us next time for Professors Talk Pedagogy.