ABBY ALEPA: Thank you, everyone, for joining us today for the session "How to Tell Whether Universal Design for Learning is Working."

My name is Abby Alepa. And I'm a content marketing associate for 3Play Media. I am a white woman with dark brown hair wearing a green sweater.

And now I'd like to welcome Tom Tobin. Tom is a founding member of the Center for Teaching, Learning, & Mentoring at the University of Wisconsin-Madison, as well as an internationally renowned author and speaker on issues of quality in teaching with technology, including evaluating online teaching, academic integrity, copyright, and accessibility.

Tom holds a PhD in English literature, a second master's degree in information science, a Professional Project Management certification, a Master Online Teaching certification, the Quality Matters Reviewer certification, the Professional and Accessibility Core Competencies certification. And he recently completed the Academic Leadership Academy from Penn State. He tells his nieces and nephews that he's in the 45th grade.

He is also the author of a number of books, including *Evaluating Online Teaching-- Implementing Best Practices; The Copyright Ninja; Going Alt-Ac-- A Guide to Alternative Academic Careers; Reach Everyone, Teach Everyone-- Universal Design for Learning* in *Higher Education;* and *UDL for FET Practitioners-- Implementing Universal Design for Learning in Further Education and Training.* And with that, I'll hand it off to Tom.

TOM TOBIN: Thank you, Abby. And I'm grateful to be here with everybody on the live session. My name is Tom Tobin. I'm a white man with gray hair and a giant black handlebar mustache. I'm wearing a blue and white shirt.

Before we get started, I'd like to welcome everyone who's here on the live session as well as everyone who is going to be watching the recording later on. A few housekeeping items-- one, I want to say thank you to our hosts at 3Play. You've already met Abby Alepa. We have Amanda doing our American Sign Language interpretation. Tony is behind the scenes doing live captioning for us. And Casey is behind the scenes with any technology concerns you might have.

We'll be using the chat feature today, as well as the Reactions-- Raise Hand if you'd like to come on to the live microphone. And we'll give you the power to do that and make brief comments as we go through. We'll use the chat for our stream of the conversation that we're going to have today. And if you can use that Q&A feature if you have a technical issue, if something's not right or the audio or the video isn't playing well.

Also, a little bit of housekeeping. There are a few ways that you can be in our webinar today. If you're watching the recording, have a means of taking notes. And there will be pause points for you to do some thinking and doing, so you can come away with some actions that you can take.

For those of you who are here on the live session, you can just lurk. Keep your thoughts to yourself, and not share them with anybody. You can post them in the chat, and we'll give voice to as many of them as we can. Or you can use that Raise Hand feature. And we'll recognize you when we have pause points. And you can come on the microphone and be part of the conversation that way. And now let's actually get started in earnest.

Now on your screen is a title slide with a background of some gears meshed in a giant machine. There's an image of me in a suit, smiling. And it's the title for today, "How to Tell Whether Universal Design for Learning Is Working." And we're going to talk a little bit about some evidence-based practices in this regard.

So as we start thinking through the ideas, I'd like to just start off with a thought exercise. On the screen is an image of a person's hand flipping through pages in a dictionary along with the text "What is UDL?" So let's start our time together today by creating a shared definition based on your understanding of the concept of universal design for learning. I'll put two minutes of music on just to hold some space for you to think and respond.

Now you can just lurk, keep your thoughts to yourself, post your thoughts in the chat feature in Zoom, or use that Reactions-- Raise Hand feature and you might come on the microphone and share a brief thought. If you'd like to mute the audio during the thinking time, I'll also be posting in the chat feature when the time is nearly finished. So you can unmute the sound when we come back together.

So here now is two minutes for some thinking about the question, what is UDL? Post that in the chat. And we'll get the music playing, too.

[MUSIC PLAYING]

Two minutes goes by fairly quickly when you're thinking and doing. So let's bring in some of the ideas and voices that are here on the live webinar session. The screen now shows a blue background with the same "What is UDL?" question along with a large text entry box where I'm going to do a little copying and pasting from people's responses.

So let's see. Amy [? Widener ?] says, "Learning for all in a format that's accessible for all students." And I'm going to go through here. Kate says, "Universal design for learning means providing learning materials and assessments in a variety of formats so learners can get access to them." Viviana says, "Approach to giving students an equal opportunity to succeed." And Una says, "Supporting different types of learning styles."

I'll also say really quickly something a little controversial. But we have 35 years of data to back it up. Learning styles don't exist, at least not as fixed characteristics. So if I'm a visual learner in one scenario, well, maybe I'm going to use my ears in a different scenario. They're not fixed preferences that follow us through our lives. We have learning preferences in the moment. And that's awesome.

Let's see. We've got Bridget talking about UDL being "a teaching approach that accommodates needs and abilities of all learners and eliminates unnecessary hurdles in the learning process." Fantastic. I love the definitions we've got here. And Marina says, "Providing means for students to get access to materials in a way that works for them and at their pace." Deb is short and sweet right here, "Equality and equity."

Let's see. John says, "Allowing for different ways to engage in learning." And as I'm talking these out, you see these being pasted into that text box on the screen. Tony says, "An approach to teaching and learning that meets students where they are and provides options."

Ooh, and Leslie went right to the website. She's got the official definition, "Multiple ways of students showing they have learned the content, multiple ways of presenting the content to users, and making it accessible to the largest group of students possible"-- so multiple means of engagement, representing information, and action and expression on the part of learners. Fantastic. And Michael didn't give a direct response. But he says, "I want to click like on most of all of these responses." So awesome.

So you've got a really good baseline here. And I think I've accidentally framed our theme for today. In all of these definitions, I'm hearing a few themes. First, it seems like universal design for learning is many things. It is at once a philosophical approach. It's an instructional design framework. It's a set of three principles. And it's also a series of 31 checkpoints that inform our application of those three principles.

Now second, I'm sensing that the very flexibility of UDL makes it hard to pin down if we want to do research comparing outcomes of various kinds of UDL applications. And I also know that UDL itself has undergone an evolution since the early days when David Rose and Anne Meyer were first articulating UDL in the early 1990s.

So in order to answer our big question today, how to tell whether UDL is working, we need to know how to define UDL. Before we do, though, let's ask one more devilish question. Let's ask the opposite of our opening question. The hand flipping through the dictionary here is back on the screen with a new question. And the new question is, "OK, then. What isn't UDL?"

Since UDL can be somewhat amorphous, falling under a sort of "I know it when I see it" rubric, can you think of an accessibility strategy or inclusion technique or design element that we would not consider to be universal design for learning? In other words, if UDL is just another term for accessible design, just written broadly, we're in trouble if we want to assess its effects.

I can think of one to start us out, offering extra time on assessments, tests, and examinations. We do this on request really regularly for learners in our training and classroom spaces, so often that extra time has become a cookie cutter response from disability support offices in education and industry. But extra time is not by itself intended to be universal, part of an intentional design strategy, or even always focused on helping students show their learning better.

Now, I won't put any music on for thinking time. A few of you are posting things in the chat here. Can anybody bring one more quick-fire example of an accessibility practice that doesn't fall under the UDL umbrella? I'll look for ideas in the chat, or if you'd like to raise your hand, we'll recognize you and bring you on the microphone.

So I see a bunch of things coming in the chat. Let me check our participants list here. I don't see any hands up just yet. But I have faith that some folks will want to come on the mic at some point. Let's take a look and see what isn't UDL.

So if I'm thinking about this, let's see.

[VOCALIZING]

There we go. [INAUDIBLE] says, "It's not individual or specialized accommodations." So when you're working with your colleagues in the disability support office, they are used to making one change one time for one person, accommodations. There's often formal paperwork associated with that. So when we're thinking about doing those individual affordances, that's definitely not UDL.

Cheryl presents it using *Lord of the Rings* language. She says, "What isn't UDL? One technique to rule them all, one thing that works for everyone." I'll also push back a tiny bit on some of the things I've heard from folks so far. Some people are saying, "We will make changes that lower barriers for everyone" or "It works for all." I wish that was true. Universal design for learning is not a magic wand that we can wave that makes disability accommodations unnecessary, or even that reaches everyone. Even though the title of my book was *Reach Everyone, Teach Everyone,* I rapidly learned that there will still be people who need individual affordances. And UDL is not meant to be practically universal. So we'll talk about what that means in a moment.

Let's see. Michelle is saying, "memorization and information dumping." [? Sooka ?] says, "Differentiation is not universal design for learning--" so trying to see what the characteristics are of your learners who are in front of you now and then teaching to their strengths and differences and preferences.

Angela Hughes says, "UDL is not retrofitting," although that's what many of us are doing these days, because we didn't design things in an inclusive way in the first place. But I'll agree there that designing right from go in an inclusive way is the best way to go.

And we've got a bunch of comments in here that are just plain "not accessible." So information signaled by color only or not using captions or alternatives. So the conversation is going in two different directions here. So I love the ideas that are here.

Let's see. Georgiana says, "Before delivering instruction, we're looking at UDL. And while delivering instruction, we're looking at accommodations." It's an interesting split. And Chelsea says, "There's a gray area here. But assistive technologies, which are more part of accommodations, are rather than a UDL approach."

By the way, now all of us have some assistive technologies in our pockets. I'm holding up my mobile phone right now. So the technology has gotten to the point where we can move things ahead without necessarily being terribly intentional about it. And Tony in the chat says, "UDL is not just complying with the Americans with Disabilities Act or the Accessible Canada Act or the accessibility laws in your country." And Cheryl says, "And you're wearing glasses," the original assistive technology. I couldn't get around without these spectacles. That's correct.

So we've got a good sense of what is. We've got a decent sense of what isn't. Let me suggest some ways that we can define a flexible framework. We're kind of stuck between wanting to honor the flexibility that is a part of the UDL framework, and yet needing to define UDL in a way that we can tell what it is and, more importantly, where its boundaries are.

The official principles of UDL from the Center for Applied Special Technology, or CAST, appear on the screen here, too-- provide learners with multiple means of engagement, representing information, ways to take action and express themselves.

Now, the image behind that text is of a person's hands and arms sifting sand from a sand dune. This is a good metaphor for our task when we want to assess the effects that UDL implementations have in our training and education efforts. We can define sand dunes very well. They are hills of sand that shift and move in response to the climate around them. UDL, too, is a set of bounded principles that respond to learning situations by allowing those taking part in them to follow varying paths to success.

Now, on the screen is Mikey Day, the host of the Netflix game show *Is It Cake?,* staring at the camera as he uses a chef's knife to cut through what looks like a designer purse stuffed with cash, but which is actually a cleverly designed chocolate cake with fondant icing. I have replaced the word "cake" in the TV show logo. So now the title of our next activity is, "Is It UDL?"

As we go through our time together today, I'll share some strategies that colleagues around the world have held up as examples of UDL. And your task will be to say whether you think they are strong, uncertain, or poor examples of universal design for learning. Along the way, you'll learn how researchers in our field define, observe, and assess UDL, and how you can do so as well.

And Jacob's putting in the chat, "I love that show. It's so weird. This is like junk television when I just want to turn my brain off." So awesome. I love that some of you have watched this show.

So before we get into the observation and assessment methods for UDL, let's just try out one example right now. On the screen is the "Is It UDL?" logo along with a series of activities from an undergraduate nursing course at a large university in North America. The instructor designed activities across three units so that students get to experience multiple means of action and expression. In one unit, everyone writes a shift report, like nurses do on the floor at actual hospitals. The next unit, students create an audio notes version of a similar report. And then all learners wrap up the sequence with a video version of the shift report.

So here's the question. Is it UDL? And as importantly, why? I'll put one minute of music on to create some space for you to think and respond. As usual, you can answer the question for yourself, post in the chat, or use that Raise Hand feature. You'll find it under Reactions in your Zoom controls. And we'll capture some notes on the next slide.

Again, if you'd like to mute the audio, I'll post in the chat when the series is over. So I'm just going to put example 1-- is it UDL? And even better, why? Here comes one minute of music just to do a little thinking.

[SOFT MUSIC]

That was really mellow music. I hope it was relaxing for you as you were thinking. So in this example, unit 1 was everybody writes an essay. Unit 2, they do this-- or writes a shift report. Unit 2, they do the same thing, but audio notes. And unit 3, they do a video. On the screen is a pile of papers, somebody holding an audio cassette, and a ring light for doing a video here.

So is it UDL? Let's connect to your ideas. The screen now shows that blue background with the "Is It UDL?" logo and a large white text entry box. Let's take a look. Let me check our participants list. So far I don't see anybody with a hand up here.

And let me do a real quick experiment, because we're using the webinar settings in Zoom. Would someone please raise your hand, even if you don't want to come on the mic? Awesome. I see plenty of hands raised. Awesome. You can put them all back down now. Thank you very much. Awesome.

And Lydia [? Hoto ?] still has a hand up. Lydia, would you like to come on the microphone? Cool. We can give folks those opportunities. No worries-- just want to make sure everybody had the opportunity there.

Now, let's see if everybody's thinking about this particular UDL.

ABBY ALEPA: Oh, it looks like DJ Chase has his hand up.

TOM TOBIN: DJ, please come on the microphone. Tell us your idea here.

AUDIENCE: Hi. It does have multiple ways of doing everything that UDL says. But it doesn't provide options. And as you were saying, they're doing it after shift and all that, so it doesn't respond to the learning environment. So I do not believe it is UDL.

TOM TOBIN: Thank you, DJ, for your weighing in on this one. Let's see what some of your colleagues are saying here, too. Chelsea says, "It's uncertain. Shouldn't each option be available per unit for good UDL?" Kim says, "It could be UDL if the options were offered in each unit." Una says, "Not UDL." So we've got a voice there.

Let's see. I'm scrolling through everybody's responses here Anna says, "Everyone has to submit in the same format instead of having options of action and representation." Jamie says, "It's not UDL. Students don't have a choice of which method of submitting their assignment." Becky says, "No, it's not UDL, because there's only one option for students to show what they know in each unit." And Jill says, "No-- just one mode of responding per unit. And some of these may not even be accessible."

And let's see. And Marina says, "If these three units are part of the same class, it could be UDL. Multiple means are here overall. So overall success could be measured." And a bunch of other folks are saying, no, not. And there's a few people who are splitting the difference. Kevin says, "If you are continuing the same assignment from unit 1 and then adding the audio and video."

So no matter which way you marked this one, I'm glad to know that you're thinking about applying the three main principles of UDL in your responses. Some of you are also referring to the 31 checkpoints that fall under the three principles, going to a more granular level of analysis.

Now, I can now reveal that this first example with learners creating three different formats for three assignments around a particular nursing activity is definitely not UDL. One of the things that we have to watch out for is serial variety, where we just ask everyone to do different things at different times. Serial variety just makes everyone do the same things. And learners don't really have, as many of you mentioned, agency or choices in how they respond within each assignment.

UDL asks us to design learning interactions so that there are options within each activity. When you're observing the learning interactions that colleagues have created or you're doing a self-assessment, watch out for serial variety. It's one of the most common misapplications of the UDL principles. Plus, as you'll see in a few minutes, UDL isn't only about options and choices. And Tony is putting a bad pun in the chat, "I prefer cereal," C-E-R-E-A-L, "variety." I'm talking about serial, as in "in sequence."

Nicely done with our first example, everybody, except Tony. Cut that stuff out. [CHUCKLES] Let's unpack some good practices for observation and assessment of UDL practices.

So if we go far back enough to the earliest definitions of UDL from David Rose and Anne Meyer, even before they helped to found CAST, we see that the central concern in UDL is providing people with access. Every definition after the one on your screen from 2002 builds out from a "give people access" foundation. Cheryl is asking, "Could we fix the first example? One unit, let students choose which one and have them all evaluate and reflect." Yeah, you can totally fix that.

Now, the sharp-eyed among you will notice that this early definition on your screen includes people's "learning styles--" I'll put air quotes there-- a concept that was in the process of being examined and later discredited in the psychology literature. We don't talk about learning styles in UDL anymore.

So how do we assess UDL projects and collect evidence of its effectiveness in order to avoid UDL going the way of the learning styles theory? And there is actually a good piece from the APA, American Psychological Association, in which somebody says, without more evidence, UDL could be another discredited theory.

So I've got three ways that we can set up and perform assessment of UDL work. And there are bound to be many more than these three ways in addition. But this is my call to do the research.

So back in 2010, Dave Edyburn wrote an article called "Would You Recognize UDL If You Saw It?" In the article, he outlined a set of possible definitions and a call to research. Some of his 10 propositions are summarized on the screen. I'd like to highlight just one of them. "We should measure the primary and secondary impact of UDL." In short, Edyburn argues that if we design a learning experience to help a small population of learners-- say, students with dyslexia or visual challenges-- and our design helps only those learners, then we can't call that UDL. That's assistive technology. On the other hand, if our design has widespread secondary impact, if learners broadly benefit, then we can say that is an example of universal accessibility.

The last part of Edyburn's argument is given in a 2020 update that he published entitled "Universal Usability and Universal Design For Learning." By the way, if you're interested, the links to all of this research are available in the handout for this session. Dave says that, and here I'm quoting, "In schools and classrooms that claim to implement UDL, all students would be introduced to the universal usability features of their technology devices. All students will know how to activate speech-to-text tools, as well as text-to-speech tools, on common devices, even on those devices they do not personally own or use, so that they might assist others. Classroom observation should reveal that ubiquitous tools, like text-to-speech, are used routinely by many students"-- that is, the secondary beneficiaries-- "in addition to those students whose disability requires the use of those tools"-- so the primary beneficiaries.

DJ is asking in the chat, "Where can we get the handout?" It is available on the website where you signed up for this. And when our friends at 3Play email you a link to the recording, there will also be a link to the handout. So no worries on that. We'll get you that information.

So Edyburn's call for observable outcomes aligns with the Scholarship of Teaching and Learning, or SoTL, approach to the design of learning interactions. He says that, "If an intervention is used and provides benefit to the majority of students in a classroom, then perhaps there is quantifiable evidence that the intervention has universal design applications." So just to be clear, access and engagement are necessary, but not sufficient, to produce enhanced learning outcomes. And here ends that quote.

So using SoTL concepts, we can define three ways to observe, measure, and assess the effects of UDL efforts, even ones that are radically different across various implementations. On the screen are images of a circular phylogenetic tree diagram showing species linked back to a common evolutionary ancestor. In the middle is an image of a drill bit working its way deeper into a block of metal and a screenshot of the Assignment Calculator website from the University of Minnesota. Each image corresponds to one of the elements of UDL that allow us to assess the quality of the UDL implementation.

The first one is access to information. All learners are introduced to multi-channel access methods, such as how to use text-to-speech functions on mobile devices, their software tools, browsers, apps, everything else. Observation should show that access tools are being used routinely by many learners, not just the subset of learners for whom access tools are necessary.

This one is sometimes missing in many UDL implementations, actually showing everyone how to use the tools and options that we provide. Just because we design multiple means of engagement, representation, action, and expression doesn't mean that learners automatically understand those structures and tools.

And Ray is asking in the chat, "What about UDL for occupational training? So it's not advisable when the occupation or profession requires very specific representations and action and expression." Excellent point. And UDL doesn't require us to make multiple ways if what's being assessed can only happen in one way. I'll take a real quick side note here.

So I teach literature and composition courses-- so how to write an essay. And can I tell if somebody has formatted the essay with the correct margins and the right font size and double spacing, and all of the different formatting that needs to happen if they turn in a video? No. So where the format is what's being assessed, is what's being graded, then it's OK not to give students options there.

But when they're practicing, when they just are writing a paragraph and I want to see, can you create a thesis and use details, evidence, and examples, heck, yes, I give them options for do that out loud or do it in a word processed format. The same thing for occupational training, where you have to see someone demonstrating something. Give them multiple ways to practice, even while knowing the end demonstration has to be done in one way.

Let's go back into the three pieces. The first one was access to information. The second one is expressing depth of knowledge. And this is DoK. Andrew Webb in 2002 created a DoK framework. And it assesses whether learners can express four different levels of understanding. One, they have to be able to say what is the knowledge. They have to be able to say how can the knowledge be used. They have to be able to say why can the knowledge be used. And they have to be able to save how else can the knowledge be used. And when we observe our classes or training, it should show that learners are seeking out information and content at various levels of complexity. We should be able to measure greater learner agency, more learners taking action to decide the just right level of challenge with the materials and the activities.

And this last part is use of embedded supports. UDL-informed learning interactions are more than just offering options. But they include things like just-in-time and just-in-place supports, like the Assessment Calculator from the University of Minnesota. This helps learners break down large assignments into smaller tasks or context-specific help features, such as pop-up definitions of terms and other interactive media approaches. Closed captions are one form of embedded support that learners can turn on or off as they prefer.

So when we observe, we should see learners seeking how-to help from both human agents, like instructors, tutors, peers, as well as broadly using embedded supports that we have designed for them, whether we made them or they're part of the tools that we use, like on our mobile phones.

There's one part. And here comes example number 2. Now that you've heard a bit about the properties of effective UDL implementations, the focus on access, purposeful scaffolding of skills or knowledge, and the use of embedded supports at the point of need, let's consider another "Is It UDL?" example.

Michelle Pacansky-Brock is a leader in online teaching, course design, and faculty development. She is the author of *Best Practices for Teaching with Emerging Technologies.* And she's the innovator behind the liquid syllabus approach.

On the screen is a liquid syllabus for Michelle's History of Still Photography course. Dr. Pacansky-Brock's website shares that the liquid syllabus is, and I quote, "a humanizing element that ensures students start a course feeling supported by their instructor. It intentionally provides students with what they need to succeed in week 1 of a course, rather than a PDF or a page locked inside an LMS. It is a public, accessible, mobile-friendly website that opens instantly and renders beautifully on a phone. Students are greeted with a brief, imperfect welcome video at the top, a learning compact that articulates what students can expect from their instructor and what will be expected of them, and a list of week 1 due dates and tips for success."

So that's the liquid syllabus. The screen shows some of those elements. There's a course title with a collage of photos lying on a table. There's a captioned YouTube-based video of Michelle welcoming her students. There's a short set of instructions for what to do first, a list of "how this course works" items, and even a QR code that takes mobile device learners directly to this page to bookmark for later.

So is the liquid syllabus UDL? And why do you answer the way you do? And Roberta is asking a question that we won't answer yet. She says, "Are students are provided with the tech that they need to take her course?" Most of her students already have that tech in their pockets. And if you've got a smartphone, you're good to go.

So let me put one minute on here. And as usual, you can just lurk, take notes for yourself, post in the chat, or use the Raise Hand feature and we'll bring you on to the microphone here. So example 2-- liquid syllabus. I'll spell "liquid" correctly. You can tell I'm typing live and not copying over here. Is it UDL? And here comes one minute of music for thinking.

[JAZZ MUSIC]

That's the one minute of the music done. Let me check our participants list. I don't see anybody with a hand up quite yet. But if you do want to put that hand up and come on the microphone, we're glad to have your voice as part of our conversation.

Let's shift over here. The screen now shows the screen with the blue background, the "Is It UDL?" logo, and the text entry box. Let's think about that liquid syllabus from Dr. Pacansky-Brock. Excuse me.

Let's see. Leslie says, "This is not UDL, although it is outstanding instructional design. As before, users are not given flexible ways of experiencing the content or satisfying the learning objectives." DJ says, "I feel like a liquid syllabus could be UDL if it also had a transcript for the video and maybe some interactive elements."

Ana says the opposite. She says, "Yes, this is UDL. It offers various ways for learners to get access to the information." Allison says, "UDL might also provide the static option. So PDF or printable access to technology could be an issue. But internet speeds-- can you support video, images, and so on?"

Michelle says, "Yeah, there are multiple ways students can engage." And she says, "I hope there's also the traditional version for non-techie students who don't consider themselves savvy or digital learners." Lydia says, "I think this one is. It hits most people and allows them to make varying choices. Nice lurking music, by the way." Oh, yeah. That was "Fast Talkin." And that's from Kevin Macleod. All of the music clips I'm using are Creative Commons licensed so that when this goes up to YouTube, it won't get flagged.

Let's see now. And Roberta says, "Since we're looking at an image of the website, I cannot say definitively yes." Excellent research there, by the way. We're going to use some examples here that aren't perfect. "For example, I would want to test the video for closed captioning." Michael says, "In my humble opinion, it has certain elements of UDL and might help students."

And let's see. We've got a couple of more yeses. Talking about the YouTube video, "I wish it were also in the LMS, not just outside of it." Actually, part of the point of the liquid syllabus is that it's not behind a username and a password, that anyone can get to it at any time. So thank you, Angela, for those comments.

I'm really glad that you are all starting to cross-reference the three principles of UDL. I see people talking about engagement, representation, action and expression. And you're cross-referencing those with the measurable criterias of providing access, adding depth of knowledge, and using embedded supports.

Now the liquid syllabus, as expressed by Michelle Pacansky-Brock, contains a lot of strong UDL elements. It purposely lowers access barriers by providing mobile device options and being posted on a public website rather than behind a username and password in the learning management system. It offers week 1 information in multiple ways. It creates a sense of engagement and belonging, whether learners watch the welcome video or read the text on the site.

Now, there are parts of this liquid syllabus that could be more multi-format-- the text-heavy list of "do first" items, for example. But overall, we can find a good bit of UDL that is concretely defined and measurable here. The idea to take away from this example is that a 100% UDL implementation isn't the goal when we are observing our own or colleagues' designs for learning interactions. There will always be opportunities to expand access and lower barriers.

Now rather, is there intentional effort to broaden access and make the process of engaging with materials and people smoother or easier, all while keeping the complexity and rigor of the subject matter at an appropriate level of challenge? So you are all now co-creating a splendid research and assessment approach here. So keep it up. We're going to look at our final piece of the "is it working" puzzle.

And we've got some comments coming in here. "Usability testing," says Roberta, "is so critical. We don't always have time or collegial assistance to do that." And Lyle says, "It starts with procurement and requests for proposal process for onboarding a good learning management system." That is totally a different webinar. And we do have that somewhere in the 3Play archive. So come back and go grab that recording on that one.

And Ellen says, "Faculty often don't have time to do something so robust until they are tenure or full-time." Absolutely true. But you can do UDL on a bare-bones budget, as well. And we might be looking at an example of that next.

So the last piece of the puzzle is to share what we find and adopt a standard way of talking about the observation and assessment process. In higher education and in industry, we're just starting to see large-scale research studies on the effects of UDL practices. We now have a set of UDL reporting criteria-- there's a link in the handout-- thanks to the team of Kavita Rao, Sean Smith, Dave Edyburn, Christine Grima-Farrell, George Van Horn, and Shira Yalon-Chamovitz.

When you are observing any UDL implementation, look for and ask for these core elements so that we can build a research corpus of consistent and comparable descriptors for the work that we're doing. The big three pieces of any UDL research should be, A, describing the participants and the learning setting; B, intentional focus on lowering access barriers through design for variability via the UDL guidelines and checkpoints; and C, results that relate directly to the UDL guidelines and checkpoints for specific and general participant groups.

Here on the screen are those hands shifting the sand, again, as a background image. The text that you see on the screen is a simplification of the UDL reporting criteria. Now, I encourage you to take a look at the site for the criteria, where you can see the research validation and history of the instrument itself, as well as the full reporting criteria document itself. The handout for our session has links to all these resources that we've been discussing so far. So hang on to that.

Now before we examine one last example, we need to consider an important caveat. So please don't take away from our time today that we should somehow be the UDL police. On the screen is a line of police in helmets and holding riot shields. And I put the words "UDL Reporting Criteria" on some of their shields and then a big red circle with a slash through it to create a visual about what we should try to avoid.

The flexibility of our model is part of its very definition. What makes it hard to pin down also makes UDL a potent framework and set of guiding ideas. So wherever you see people making the effort to lower access barriers in an intentional way, help them to consider the UDL reporting criteria and the categories from Dave Edyburn's "would you recognize it" list as they develop, report on, and assess their own work. There are, indeed, boundaries to UDL. And we can use the criteria that we've been talking about in order to say what is out of scope.

But the field is also evolving. As we've seen, even the definitions that CAST started out with have undergone changes in substance and emphasis since the late 1980s. So our task collectively is help one another to bring observation and assessment into the field in a way that is consistent, repeatable, and scholarly.

How about one last example to consider? Our final example is from a large university in the Midwestern United States. In 2013, the university entered into an agreement with the Office of Civil Rights to settle a complaint from students about inaccessible content on the university's website, library systems, and in the learning management system. Part of the complaint was about inaccessible scanned images on websites, mostly photocopies from books, like the image on the screen of a hand turning a page in a book.

The university's disability support office and information technology staff created a project to identify all PDF format resources being hosted. And they engaged in a manual review of thousands of documents, replacing photocopy-origin files with born-digital replacements wherever it was possible.

So for the last time, let's ask, is it UDL? As before, I'll put one minute of music on. You know your options. And if you'd like to mute the audio, I'll note it in the chat. So for this, is replacing old PDFs. Is it UDL? And I'll post that in the chat real quick here. And here comes one minute of music for some thinking and responding.

Oh, no. I've turned off my music player. One moment, please. Here we go.

[BOSSA NOVA MUSIC]

That was one minute here. And we've got a bunch of responses here on "Is it UDL?" So this last one was kind of tricky. Here is the screen with the blue background, the "Is it UDL?" logo, and the text entry box. So let's think about the university that resolved a complaint from students with disabilities related to its web-hosted resources.

Cheryl says, "No, I don't think it's UDL. This is ADA," or Americans with Disabilities Act, "compliance." And DJ says, "It's not UDL. Accessibility does not always equal UDL." Let's get that copy rolling here. Jill says, "No-- pretty sure this is just accessibility." Susan says it very plainly-- "I'd say no."

Let's see. Chelsea says, "This is remediation rather than proactive design." So just going back to fix something-- hmm, let's see. Michelle says, "No. It's an aspect of UDL. But it's just accessibility." Margaret says, "If the accessibility feature allows more access to more individuals, it seems like UDL." So here's a yes vote.

Michael W. says, "I think I was working at that same university with you, Tom. We needed to do a lot of work." Strangely enough, Michael, this is not the university where we worked together. (WHISPERING) This is a different one.

Leslie Harris says, "This is base-level UDL. It makes the reading more available to every learner. It allows for screen reading, word search, and can enhance learning. It's closer to accommodations." And Alan says, "This is one of the most common practices I see as a digital accessibility barrier problem for faculty. I think it leans into UDL in the sense of multiple ways students can access information. Though the poor-quality scan was one way, we should be providing high-quality, accessible formats and more centered in digital accessibility issues."

And there's a bunch of other responses here that seem to go to both of these poles. One is, this could be UDL because now we can do more things with the newer versions of these PDFs. And there's another pole here that says, nuh-uh, where this is just-- we're fixing something that was broken. But it doesn't really rise to UDL.

So you're all thinking well about whether the accessibility efforts to resolve the student complaint fall under the umbrella of UDL. While replacing inaccessible materials with more accessible ones is a laudable practice, this last example is definitely not UDL. Note what's missing. There's no reference to UDL guidelines, principles, or checkpoints; no multiple means of, well, anything; no proactive or intentional design of learning interactions; no outcomes to assess at all.

In fact, this is a good example of bringing content back to a minimum of accessibility, what we sometimes call "mere access." By providing born-digital PDFs, now this university has the content that can be used in UDL efforts. And a few of you mentioned that. But mere access by itself is a necessary but not sufficient condition for further inclusive design efforts, like UDL.

So as we're closing out our session, let's take a moment to think about how we should share our observation and assessment data with organizational leaders. We've collectively identified a number of common accommodations, things like extra time on tests, alternative format materials, interpreters in the classroom, note takers, things that lower barriers effectively for people who experience the most common barriers in our learning environments.

Now let's flip this around. Why are our disability service colleagues so busy these days? The majority of the accommodations they determine with the students whom they serve are for things that we could address in a systemic way. Need more time for tests and exams? Offer everyone untimed assessments. Need content in more than one format? Provide multiple formats for everyone. Need help taking notes and studying? Create a collective set of notes and study guides with the class.

Universal design for learning asks us to identify the places where we see patterns of barriers-- lots of students requesting similar disability accommodations, everyone in the class getting a concept wrong on a test, getting the same question by email over and over about an activity's instructions. Once we know where the barriers are in our learning interactions, we can take purposeful steps to lower or eliminate those barriers. And Michelle just posted in the chat, "Mic drop." Yes, that's what we're doing now.

If we do this at scale, though, not just here and there, nearly all of our students will benefit. And our disability support colleagues will be able to focus more of their energy to working with learners who need more intensive and customized, one-to-one affordances. On the screen is a pyramid with "UDL" at the bottom to provide choices to the majority of learners, then special service based on large groups of learners, and a smaller segment for individual accommodations. And at the top of the pyramid is personal assistance.

While we will never get rid of the need to make one change one time for one person, we can dramatically lower the need for what we might call everyday accommodations through the use of intentionally inclusive design models like UDL. We can collect data when we observe and assess whether our UDL efforts are working as intended. And that supports our arguments to our leadership about where we focus our efforts to lower common barriers that affect not just our learners with disabilities, but, as our CAST colleague said way back in 2002, quote, "make it accessible and appropriate for individuals with different backgrounds, abilities, and disabilities in widely varied learning contexts."

So let's wrap it up. Even though most people in higher education have now heard of UDL, most are implementing it at the level of individual interactions or they might even think it's just another facet of general accessibility. Our opportunity is to build on that foundational knowledge to create expert-level UDL systems at our institution. So observation and assessment of UDL creates a foundation from which we can build.

On the screen is a table laden with food. There's tortilla chips, guacamole, various salsas, elotes, the roasted street corn, tortillas, black beans, a liter of margarita in a jar. This is takeaway food that I hope puts you in mind of what you will take away from our session.

Now that you've been part of our conversation, what's one thing that you will take away and try out, whether it's an idea or a practice? We won't play any music. But what's your one big takeaway? We'll do this as a lightning round thing in the chat. Just post it in the chat. We'll give voice to as many as we can as we wrap up for today. What's your one big takeaway? I accidentally typed 2. What's your one big takeaway from our session today?

Sasha says, "UDL is not what it seems." "Remediation isn't UDL." Thank you, Marina. "Systemic application of UDL opportunities," says Cheryl. Fantastic. "Using commonly asked questions." UDL is provocative, it's intentional, it should enhance learner performance, we need to measure the effects of UDL, and a bunch of other things coming in here-- the power of the liquids syllabus, good reminders to describe the photos, how do we assess, we need to be flexible and press faculty to consider alternative formats-- awesome takeaways, everybody.

And as we wrap up, I hope that you found value in our time together and that you'll take a moment to share your rating of our session. And our colleagues from 3Play have been putting that ratings link into the chat. They'll do so again here.

If you'd like to continue our conversation, I'd love to hear from you. I speak and consult on issues of quality in education and training, where we use technology to support or host learning interactions. You can find me on Twitter @ThomasJTobin. My website is thomasjtobin.com-- picture of me and a bunch of my books on the screen here.

And let's actually just wrap it up. We're right here at the end. I want to turn it over to our hosts at 3Play. Thank you, everybody, for being part of this conversation. Abby?

ABBY ALEPA: Hi. Thank you so much, Tom, for presenting with us today. And thank you, as well, to our ASL interpreter and to our very own 3Play captioner for making this session accessible. And thank you to all of you for joining us and asking great questions throughout the session. Thank you. And I hope everyone has a great rest of their day.

TOM TOBIN: Cheers, everybody. We'll see you soon. Bye now.