

In the Classroom 8

What Is Universal Design for Learning?

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Stan Skrabut: Thanks a lot for taking the time to listen to my podcast. It certainly means a lot because you could be with anyone else but you are spending your time with me. I really appreciate it. In this lesson or in this episode, we're going to be exploring Universal Design for Learning. I am pretty much in love with this framework because it focuses on the learner and setting up the right environment for the learner.

Specifically in this episode, we're going to discuss how UDL developed, how it's organized, and why you should consider learning it or consider using it. Two, this is going to end up being three episodes because I'm going to follow-up in episode number 9 and 10 with focusing on two of the UDL principles. One is multiple means of representation and the other is multiple means of action and expression. Really we're going to look at these, how multi-media development as an Instructional technologist pulls this all together.

There is also a third principle out there and that third principle is multiple means of engagement. I'll probably touch on that sometime in the future but not right now.

Let's get started. One of the most impactful presentations I have seen is Todd Rose's The Myth of the Average. If you have not seen this, I recommend that you go check it out. Matter of fact I'll put it into the show notes because I think it's that important.

In this presentation, he talks about the average and how we design learning around the average but it doesn't really work because there is no average. How he explains this is he talks about building fighter jets. The Air Force went through lots of great pain to see if it can find the average pilot, so they could design a cockpit around the average pilot. What they rapidly found out is there is no average. Instead, the manufacturers had to redesign the aircraft so that it could accommodate people of different statures and build.

Now, in our cars we have seats that move electronically, we have steering wheels that adjust and this all comes from not building for the average but instead building to the margins. Learning is the same thing that we need to adjust our learning to fit the margins. This is where Universal Design for Learning comes in.

The two elements that I think are absolutely critical in Universal Design for Learning is being able to provide additional supports for the learner but also providing them with additional choice where they can be able to express themselves in different ways or be able to have different ways that they can see content. Multi-media development is absolutely essential into creating of this content. They go hand-in-hand. Universal Design for Learning and Multimedia Development, especially the accessibility piece of it, they go hand-in-hand.

What is Universal Design for Learning? Universal Design for Learning is an outreach from Universal Design. Universal design came about because we were just, basically, building things in one way but not taking into account the limitations of other people. For example, one of the famous examples is the curb cuts that we now use.

These ramp cuts that are put the curbs. That wasn't how it always was. This was a problem for individuals who were disabled, that they were in a wheelchair, and people coming back from the war. We had a lot more handicapped individuals and this was an impediment that people couldn't get into buildings that they needed to get into because there was no access. I have a brother right now who is wheelchair-bound. He got into a terrible accident and so now he's in a wheelchair.

I'm very familiar with the town that I grew up in and it's very hard for him to get into a number of stores on our main street because they were not built and designed where we took in consideration these curb cuts. This retrofitting, going in and putting curb cuts in, is tremendously expensive but it's a lot cheaper if we take it into consideration when we're initially building the curb.

The same ideas apply to Universal Design for Learning that if we take time upfront to consider creating the material correctly we can accommodate a lot more people that all the learners benefit. The curb cut,s initially designed to help people that had disabilities we seem to find out that moms with strollers love curb cuts, that people that are bringing in cases of beer love curb cuts because it just makes it a lot easier. All of us have benefited from these design decisions that just made it a little easier on us after the fact.

Universal Design for Learning does the same thing that we can benefit from these additional supports and choices that we weave into instruction.

Universal design as I come to know it has been developed by the Center for Applied Special Technology better known as CAST. They define Universal Design for Learning as a framework to improve and optimize teaching and learning for all people based on scientific insights how humans learn.

In previous episodes, I hinted at this that we have made tremendous advances in how the brain works and how the brain learns but also educational strategies and methods that help to facilitate learning. What we need to do is start using them. This framework puts you on the path of how to choose better strategies that will help the learner. That's why I'm a huge fan of it. In this framework, there are three major principles.

The first one is effective networks. These are the why of learning. Why do I need to learn this? How can I tap into that motivation? They have multiple means of engagement. This is not one of them I'm going to talk about in the next couple of episode but it is out there and I will definitely get to it. The two that we are going to talk about the first one is recognition networks or the what of learning. This really focuses a lot on the content that we are providing learners and the multiple means of representation.

We're going to be looking at this in the next episode, number nine. It really focuses on this idea of representation. The content we create, is it perceivable by others? Can they understand it? If they can't understand it then we're wasting our time. The next network or major principle is the strategic network or the how of learning. This is focused on action and expression. Multiple means of action and expression.

This gets into assessment, how they demonstrate, how they know something or ways that they can practice this or activities that you create. That's what that focuses on. I really believe that representation and action and expression, Multimedia Development is central to this. In the show notes, I'm going to provide links to these UDL guidelines. These Universal Design for Learning guidelines. They'll be in the show notes. Make sure that you check those out and have that as a path for you.

As I was preparing for this particular episode, one of the things that jumped out at me was that the goal of this framework is really to redesign the environment. That if you can set the environment correctly then you can get the behavior that you wanted. That it's really more about the environment that if you set that up properly. I honestly believe this because I just finished a book called Atomic Habits by James Clear, and he said the exact same thing.

That you can try to motivate somebody to do something but if the environment is not set up correctly they're not going to do it. They're not going to be able to change that habit. An example from his book is if you are trying to eat more fruits during your day but you hide them at the bottom of your refrigerator in the crisper then you're probably not going to eat a lot more fruit but if you take those fruits and put them in a bowl on your table odds are that you're going to pick up a piece fruit and you're going to start eating more fruit.

The same thing applies for Universal Design for Learning that having these different choices and support mechanisms more readily available that are attending to individuals or learners on a spectrum where you have some that are absolute novices but you have others that are really, really good and almost experts that we provide supports and choices for each of them. That will improve the opportunities for them.

That's what we're doing because we don't know what a student typically knows that for one topic somebody may be a novice on another topic they may be an expert but then you get to this next topic and it switches and every learner is different. How do you prepare? You prepare by trying to work to the margins and supporting everyone in those different ways.

One of the important pieces of this is that we don't have to change everything in a course at once. This is exhausting. I don't recommend it. I don't recommend major overhauls on a course unless it's an absolute horrible course. Instead, to incrementally just keep building and adding supports and choice throughout the course. over a couple of years, you have really a new course. This fits into the idea of trying to find a framework that really focuses on the learner. This is a really good framework because those incremental changes will make a huge difference to the learners over time. These UDL guidelines and that's all they are is really guidelines. They are offering effective practices. Things that you should consider when you're building your course.

Things that you should consider as you're teaching your course that are more student-centered, more learner-centered.

These UDL guidelines is focusing on three major principles. I told you about those principles. The effective networks, the strategic networks, and the recognition networks. Under each principle, there are three guidelines. For the multiple means for representation, there's three guidelines that are part of that. Each guideline then has multiple checkpoints. Action items that you want to think about. That's as you're looking at it vertically. From the top-down under each one, you're going to have three of these guidelines.

What I've come to recently become aware of is that also horizontally it's organized as well. The first row is called the access row and this is ways to increase access to that learning goal that you are putting together. The second one is the build row and this suggests ways to develop effort and persistence, language and symbols and expression and communications. Ways to build that.

Then finally the internalized row provides guidelines that suggest ways to empower learners through self-regulation, comprehension and executive function. It's pretty robust framework and it has a lot of detail to it. Like I said, I'm going to put that into the show notes. You're going to have that available to you that you can print out, have as a reference but I would actually have it available more electronically because it allows you to dig in and you can click on items and get more information.

A lot of the meat is really in that information. For higher ed CAST also built a set of webpages that are dedicated to the use of UDL in higher ed that you really should check out if, if you're in that higher ed area. I also put a link to that in the show notes that you can go to that, overall the UDL is really about reducing barriers in the classroom.

It is a proactive approach to course design. I'm a fan of trying to get it right the first time when you're building the course as opposed to going in and having to retrofit it.

That takes much more time, much more energy. It's much more of a hassle to do it. Think about these things as you're putting your course together upfront. Also, UDL is really focused on outcomes and goals. When you're putting together your student learning outcomes and your learning goals, that UDL should be very much upfront when you're considering this.

As an example, that when you're looking at learning outcomes or the objectives and ways to measure that, that rather than come in with a preconceived idea on how you expect it to be turned in so that you've always required somebody to turn in an essay. Is it possible that you can redo the learning rubric in such a way that instead of just an essay, they could turn in a video, or they could turn in a podcast episode, or some other way to demonstrate that they know and understand the information. That's something that you want to consider.

Technology is also central to Universal Design for Learning because, with technology, this allows you to increase the amount of support and choice that you provide to

learners, that you can provide, create videos or audio tracks, or imagery as ways to help better explain different concepts. That's one of the things that you can use technology to do. Also, technology allows learners to consume information differently.

That if you have somebody that is visually impaired that maybe they take a document that you have, that you've created digitally and then they can blow up the text where they could see it or they can run the text through a text to speech program so they can listen to it. That's a lot harder if you're using say, printed materials. Providing a choice like digital. That makes it a lot easier for the student. Your choices of multimedia will also affect your classroom.

That you can tap into better engagement because of the content that you have chosen. That you provide them with alternative examples of different concepts. If you're looking at mathematical functions, for example, a quadratic equation that always pops into mind. I don't know why but you are certainly going to explain it in your classroom. This is how you do the quadratic equation.

That's certainly one way but simply because somebody else may use different phrasing may help the learner. You just never know. But it's always worth a shot. In the end, Universal Design for Learning is just going to make your classroom stronger. It does not matter if it's a face to face classroom, a hybrid classroom, or if it's strictly online. That using the principles of Universal Design for Learning, you are going to be able to make better connections with your learners.

The first places I would start is look at your content in terms of where there's weak areas in your classroom, where students struggle. That is a great place to start looking for areas to start making improvements, to add support and to add choice. That's a quick overview of this idea of Universal Design for Learning. We're going to dive in a little deeper and a little harder, but before I go I just want to do a quick plug for my book. I'm a little proud of it.