Presentation Transcript

**Plain Text for UDL Workshop**

Note: Some content from the workshop is not present in this document, as it will be participant-generated. Participant-generated content will typically be available in text form during the workshop and shared with participants afterward.

Slide 1: Introduction to Inclusive Teaching: Universal Design for Learning

Welcome to this workshop presented by the Drake Institute for Teaching and Learning!

Slide 2: Facilitators

Your facilitators today are Erin Mercurio ([mercurio.40@osu.edu](mailto:mercurio.40@osu.edu), she/her/hers) and Amy Lea Clemons ([Clemons.32@osu.edu](mailto:Clemons.32@osu.edu), she/her/hers), instructional consultants at the Drake Institute for Teaching and Learning.

You can find a slide deck, this plain text transcript, and many other resources by visiting go.osu.edu/itudl, or using the QR code on the screen.

Slide 3: Outcomes

Our plan for today is for you to reach these three outcomes:

* Define the elements of the UDL framework
* Discuss considerations for creating inclusive learning environments
* Apply UDL strategies to support diverse learners.

We’re going to do that through a lot of interaction and engagement on your part, so you might want to have a pen and paper or a window open on your device to take notes.

Slide 4: Participation Guidelines

1. Interact! Your participation matters! We’ll use anonymous Zoom polls and open discussions to help make this content stick.
2. Respond. Unmute or type in the chat to ask a question or share a teaching practice any time.
3. Use Workshop Alt Texts. A .docx file with the main slide content is available for all participants at <https://go.osu.edu/itudl> Alternative access is provided for activities.
4. Practice Inclusion in the way you interact with others at today’s workshop. Accept and respect different identities and experiences. Listen actively and help others express their ideas fully. Own your impact and practice empathy. Teaching is hard, so let’s support each other. Use the Parking Lot to preserve ideas while also respecting participants’ time during the workshop

Slide 5: Introduction: What is UDL?

We’re going to start off with some definitions and background for those who haven’t been introduced to Universal Design for Learning. In this section, we’ll get you thinking about how disability impacts students’ experience in higher education, the distinction between “accommodations” and access, and how universal design can help create more inclusive classrooms.

Slide 6: Disability in College Students

Engagement matters, so let’s start off with some interaction. Vote for the answer you think is correct using the Zoom poll.

1. Prediction: Nationally, what percentage of students qualify for accommodations of some kind? (Or, what percentage of college students are “disabled” according to the ADA Section 504 [2008 revision])?  See comment for answer
2. What percentage of college students\* receive accommodations? See comment for answer

\*\* “Person-first” language is preferred by some people with disabilities. Recently, though, activists have recommended using “disabled person” to emphasize that disability is an identity for many. We will use both in this presentation.

Slide 7: Discussion

Why might a student with a disability not have accommodations? There are many reasons. Let’s brainstorm some of them as a group.

Slide 8: Beyond Accommodation

Before the Americans with Disabilities Act, post-secondary institutions were not required to address inequalities caused by disability. The revised ADA defines disability as any condition that “impacts/impairs one or more major life activities.”

Section 504 of the ADA requires all post-secondary institutions to provide “Accommodations” to help provide access to disabled students.

“Accommodations” refers to an adjustment to standard policy or procedure provided on a case-by-case basis. A “retrofit” of previously-existing products, services, or structures.

“Accessibility”, sometimes written as ally with two number 1s, is the broader term. This usually refers to the degree to which a product, service, or system can be used by a given population. Today, this tends to refer to ways buildings, technology, and services are designed to ensure as many people as possible can interact with them as intended with as few barriers as possible.

Accessibility is often used as shorthand for all adjustments or design considerations made to a product or service to ensure disabled people are included.

We might consider access-thinking as a step up from accommodations-thinking; we aren’t just tolerating or making room for disabled students, but we’re considering all the ways their access to educational experiences might be impeded. And that, still, is not quite as useful of thinking about how to fully include students beyond granting them access. Instead, we want to aim for universal inclusion for everyone, regardless of physical, cognitive, or mental status.

Slide 9: Universal Design for Learning

* Universal Design for Learning is a 3-principle framework focused on providing additional flexibility for students, while still maintaining learning goals.
* Universal Design originated in architecture, as a way to provide access to physical spaces for individuals with physical disabilities. It is the reason that many sidewalks have curb cutouts and many buildings have elevators. These changes in design have started to make physical environments more accessible for people with physical disabilities but also many others. (For example, roller bladers, people pushing carts or strollers, like the person pictured here, or people carrying heavy packages.) Universal Design for Learning aims to expand this concept to our classrooms. It considers how we can make our learning goals accessible for students with all kinds of disabilities, both mental and physical.
* Once more spaces begin to employ Universal Design and Universal Design for Learning, it might cause us to reconceptualize our idea of disability. Instead of thinking of a medical model of disability, where disabilities are attributed to the function of individuals and their bodies, we might start thinking of disability as resulting from a design failure in the environment. This social model of disability is common among those who practice UDL.
* The 3 principles, and many sub-principles, that make up UDL are based on research in neuroscience, learning sciences, and cognitive psychology.
* Due to UDL’s background and supporting research, the principles focus on achieving access and equity for students with disabilities, the principles often benefit other students as well (e.g., racial and ethnic minorities, first generation students, etc.) The new version of UDL (3.0) has been updated to reflect this.
* The current version of UDL was developed by CAST (the Center for Applied Special Technology), a nonprofit that trains instructors in UDL. In addition to being more focused on multiple aspects of identity, it is also focused on the needs of instructors, who also bring identities and disabilities with them into their teaching.

Slide 10: Three Principles of UDL

The three principles of UDL are as follows:

Principle 1: Multiple means of engagement

* Also called “the why” of learning, this principle provides multiple avenues for students to become motivated to learn, or to invest time and effort in a course.

Principle 2: Multiple means of representation

* You can think of this as “the what” of learning—the content that students are learning. This principle aims to provide course content that all students can understand. This often means providing content in multiple modalities, but it can also address other barriers students face in accessing and making sense of course content.

Principle 3: Multiple means of action and expression

* You may have heard of active learning. Interacting with course content by doing assignments and activities is crucial for student learning. The third UDL principle addresses how students learn by providing multiple ways for students to interact with that course content.

Slide 11: Principle 1: Multiple Means of Engagement

We’ll dive deeper into each principle in turn, starting with Principle 1: Multiple Means of Engagement.

Slide 12: Design for Engagement

Quote: [important] “learners differ markedly in the ways in which they can be engaged or motivated to learn” (CAST).

This quotation from CAST captures the many differences in motivation you may have observed in the classroom – for example, that majors may be more intrinsically interested in learning goals than nonmajors. Some of these are inherently tied to social inequalities or to ways students differ cognitively. Low income or first-generation students may benefit from seeing how course material is relevant beyond the classroom—to success to in college or a future career. While many students are motivated by social interactions, this may introduce barriers for students with social anxiety.

UDL divides engagement into three subprinciples:

* Welcoming interests describes how we can help students see the many ways that course content has value. Welcoming multiple identities describes how the content and methods we choose as teachers send powerful messages about who does or doesn’t belong in the course and who can succeed.
* Sustaining effort and persistence helps students avoid the lack of motivation that results when they feel they can’t succeed. It can mean providing additional support for obstacles students encounter, or actionable and hopeful feedback.
* Helping students expand their emotional capacity means helping students develop a growth mindset, manage emotions like frustration, cultivate empathy, and learn how to work with others in the face of disagreement.

Slide 13: Case Study: Stats 101

The following case study is about a lack of engagement. Let’s work together to brainstorm ways that the assignment could be made more engaging for students.

Three times during the semester, the instructor Mx. X has students work in new randomly selected groups to collect and analyze data.

For example, for one project, students have to analyze the number of bananas at several grocery stores in their region to estimate banana consumption in different neighborhoods. Students are given a brief prompt for each project and asked to coordinate with their group to complete it.

In end of term feedback, the students complain about the amount of group work and say they are not “learning a lot from this instructor.”

Slide 14: Evaluating Engagement

Activity: For each question, type your answer in the anonymous Zoom poll. Then we’ll look at everyone’s responses together.

Questions:

1. Why are students in this class not engaged in group work/learning in this class?
2. How could Mx. X better utilize group work to engage students?
3. What alternative assignments, methods, or motivations could they offer to increase engagement, to meet the needs of all students?

Slide 15: Multiple Means of Representation

Engagement was the first principle, and for me, it’s one of the harder ones to explain. Most of the time, when people ask for help creating more inclusive classrooms, they’re thinking of this second principle, creating multiple means of representation—which actually has a few different interpretations.

Slide 16: Design for Representation

Quote: [important] “Learning, and transfer of learning, occurs when multiple representations are used, because they allow students to make connections within, as well as between, concepts.” (CAST)

In the first sense of representation, we’re talking about three things: First, and the one people usually associate with accessibility is Perception, or the way the student is able to sense the learning materials. Sight and sound are the easy ones to consider—are you providing multiple ways to acquire the content for those who might not have access to one or more of their main senses?   
  
But language and symbol use are also part of this; just because someone is sighted doesn’t mean they read in the same way you do. Take this thumbs up icon—to social media users, it means “I like!”. In general, it means “good” or “good job.’ But to an ASL speaker, this means the number 10. Are you providing multiple representations of the idea to make sure it’s getting to the students accurately?

Finally, comprehension. Even those who can see and hear might not easily understand your represented content. Auditory processing issues are common in ADHD and other neurodivergencies. Students with dyslexia might struggle with pure text.

Slide 17: Other Meanings of UDL Representation

On one reading of “representation” representation is primarily about course content and how it is represented. On another reading, representation is about who is represented in our course content.

When students can see themselves reflected in a discipline, it helps them develop a sense of belonging in that discipline. Seeing a path forward in the discipline can then motivate them to invest their time and effort in the course.

For example, many classrooms in the sciences teach students primarily about the work of white men that are pictured in their classrooms or mentioned in their classes (for example, in Physics, this includes Isaac Newton, Einstein, Max Planck, and Schroedinger). This can inadvertently send women and racial minorities the message they don’t belong. Providing multiple means of representation in such classes could mean providing images of scientists from a diverse range of backgrounds and identities, discussing their work with students, or incorporating them into word problems students solve. It could also mean discussing how scientific hypotheses and methods appear in other cultures around the world.

The pictures on this slide are from an online database called I Am A Scientist. These images show that black and Islamic women can also be scientists. In addition to images, the database provides summaries of their research topic, reflections on their career growth and the challenges they’ve faced, and their personal hobbies and lives outside of the classroom or lab. Having students explore and discuss such a database can help them develop a more complex and accurate idea of who scientists are and what scientific research really looks like.

In many disciplines, instructors can go even further by making an effort to teach multiple perspectives or even multiple ways of knowing!

Slide 18: Demonstration: Representation

What we want to do here is often called an empathy exercise; we’ll do another later. Following directions or learning a new procedure can be a struggle for students with disabilities. To help you better think through the barriers, we’re going to temporarily disable you—well, most of you, probably.

This slide shows the Japanese kanji “ei,” meaning eternity. We’re going to ask you to practice writing “ei,” by following along with the video we’re about to play that provides step by step instructions. But we’re not going to switch over to YouTube—we’re just going to play the audio. So, pull out a pen and piece of scrap paper or if you’re fancy and have a stylus and tablet, use that.

[Youtube video transcript:

Okay so here we have an exemplar of the kanji of a we pronounce a which again means eternity or forever so the stroke order is one is the DOT two this one is three movements so it's a horizontal stroke going up then a vertical stroke and then a hook or honey so three movements one stroke. Stroke number three is two movements horizontal line going up connecting, stroke to a sweeping stroke to the left or

hidari harai. stroke number four is a small sweeping stroke towards the center line in stroke number five is a sweeping stroke to the right or…so this is the center line of the kanji which is important. Okay, and then these two points connect, and these two points connect here, then there's the spacing in here that's important-- there's a spacing in here that's important, and then there's a connection line between these as well. Okay, those are some of the pointers for compositions so that we can write their

character, so that it feels well balanced.]

Slide 19: Discussion: Representing Content

Questions for large group discussion:

* What made this difficult? Where did you get lost and why?
* By relying on audio only for a lecture or video, who is excluded (due to disability or otherwise)? Who might have an advantage?
* How might this be analogous to a traditional college course?
* How can we do better in our classrooms? What resources could we provide to supplement speaking?

Some possible visual representations for the Japanese character kanji are shown here, including the full character as well as a series of images that provide a step-by-step breakdown of each stage of the drawing process. A red dot is used to highlight where each stroke begins.

Slide 20: Principle 3: Multiple means of Action and Expression

We’ll transition now to the third principle of UDL, providing multiple means of action and expression.

Slide 21: Design for Action and Expression

Quote: [important] “Learners differ in the ways that they can navigate a learning environment and express what they know.” (CAST)

Action and expression is about how students are able to practice learning objectives in assignments and classroom activities. Research on active learning demonstrates that this is essential for their learning.

Assignments and classroom activities require various skills from students. Physical and learning disabilities may present barriers to students’ practice in any of these ways:

1. Interaction – Captures all the ways we ask students to engage in physical movement. For example, the ability to move around the classroom or campus, manipulate tools or other objects.
2. Expression and communication – The ability to speak at a volume and clarity that can be understood, hear a response, the confidence and skills to engage with others or work in a team.
3. Strategy Development – The ability to plan, divide projects or actions into a series of steps, make and monitor progress toward an end goal.

Slide 22: Demonstration: Action and Expression

We’re going to read you an excerpt from Paolo Freire about the banking model of education.

Using just one hand to type or using your non-dominant hand to write on paper, attempt to take “traditional” college-level notes on the material presented below.

So, take a moment and pull up Word or grab a pen and something to scribble on.

[Quoted text begins]

In the banking concept of education, knowledge is a gift bestowed by those who consider themselves knowledgeable upon those whom they consider to know nothing. Projecting an absolute ignorance onto others, a characteristic of the ideology of oppression, negates education and knowledge as processes of inquiry. The teacher presents himself to his students as their necessary opposite; by considering their ignorance absolute, he justifies his own existence. The students, alienated like the slave in the Hegelian dialectic, accept their ignorance as justifying the teacher’s existence—but, unlike the slave, they never discover that they educate the teacher.

The [lang: fr] *raison d être* of libertarian education, on the other hand, lies in its drive towards reconciliation. Education must begin with the solution of the teacher-student contradiction, by reconciling the poles of the contradiction so that both are simultaneously teachers *and* students.

This solution is not (nor can it be) found in the banking concept. On the contrary, banking education maintains and even stimulates the contradiction through the following attitudes and practices, which mirror oppressive society as a whole:

1. The teacher teaches and the students are taught;
2. The teacher knows everything and the students know nothing;
3. The teacher thinks and the students are thought about;
4. The teacher talks and the students listen—meekly;
5. The teacher disciplines and the students are disciplined;
6. The teacher chooses and enforces his choice, and the students comply;
7. The teacher acts and the students have the illusion of acting through the action of the teacher;
8. The teacher chooses the program content, and the students (who were not consulted) adapt to it;
9. The teacher confuses the authority of knowledge with his or her own professional authority, which she and he sets in opposition to the freedom of the students;
10. The teacher is the Subject of the learning process, while the pupils are mere objects.

Slide 23: Mentimeter Discussion

Now that you’ve experienced fine motor control disability for a moment, consider how this might impact your learning as a student. Unmute or tell us in the chat: What common tasks in a class would be difficult for you if you had reduced fine or even gross motor control?

What alternatives to these activities named above can we offer?

Slide 24: Considering Content

We’ve used the word “Content” several times now. For many reasons, how we treat “content” and its delivery is a major factor in inclusive teaching and universal design. Content-heavy classes can exclude all kinds of people in several ways. In addition to students with learning disabilities or perception difficulties, classes that have a lot of content—new terms, ideas, methods, procedures, and facts—exclude others from fully participating: first generation college students, minorities, international students, and ESL learners.

It's important to know that just because we say something does not mean that it’s been heard or understood by our students. “Covering” content does not mean that content has been learned.

Slide 25: Case Study: Intro to Physics

**Our last activity showed how multiple means of action and expression can be important in class. Let’s see how this shows up outside the classroom with a case study about an assignment.**

A take-home exam asks students to measure elastic potential energy by building a rubber-band-powered race car.

Students must create two different designs using two different materials for the car’s body (corrugated cardboard and balsa wood), then calculate the acceleration of each car.

1. Who would be excluded? What inequalities does this assignment reveal?
2. How could this assignment be revised to be more inclusive without also being stigmatizing?

Slide 26: UDL in Action

**Now that we’ve explored each principle of UDL, we want to give folks some time to share their ideas about how it can be applied to their own teaching.**

Slide 27: Application

Throughout the presentation, we’ve shared examples of each UDL principle. Share 1-2 ways you can add flexibility to your teaching for each principle—either things you are already doing or could start doing soon. We’ll prompt you to share an example for each principle in the anonymous Zoom poll.

Slide 28: Implementing Changes to Teaching – Our Advice

Coming up with new practices to try in our teaching is a good first step! The next step that can also be difficult is actually implementing these. These tips may be help support your planning as you move forward.

Consider Timing

1. Go slow. Try one new strategy at a time
2. When? Don’t make big changes mid-semester
3. Don’t give up. Refine your strategy before deciding it doesn’t work.

Support Students

1. Technologies. Teach students to use new supportive tech
2. Guidance. Balance Flexibility with guidance and support
3. Transparency. Be clear about expectations and learning goals

Use Feedback

1. Ongoing Feedback. Check in with students to identify and adapt to their specific needs
2. Midterm feedback: Use a survey or request a SGID from the Drake
3. Consultation. Ask a consultant or colleague for support

Slide 29: Resources and References

Workshop Website:

Including PowerPoint slides, workshop transcript, and other UDL resources to make a more accessible classroom

<https://go.osu.edu/itudl>

Explore UDL further with CAST:

<https://udlguidelines.cast.org>

Reach out to the Drake for consultation on any teaching topic at: [drakeinstitute@osu.edu](mailto:drakeinstitute@osu.edu)

Slide 30: Questions?

Thank you again!

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