Presentation Transcript – Part 1

Slide 1: Universal design for learning (UDL) in the classroom: Enhancing student success

Welcome to this online presentation to review the framework of universal design for learning (UDL) in the classroom and ways to enhance student success. My name is Dr. Frances Smith and I will be your narrator and online trainer today. My focus for today's training is to familiarize you with some basic principles of UDL and how this can apply to a classroom or training situation.

I'm also going to use this presentation for some teachable moments and ways to highlight accessibility features that can be considered when developing presentations – especially those that are online.

Slide 2: Part 1 – Using the UDL Lens for Designing Instruction and Training

Slide 3: The higher education opportunity act of 2008

The importance of UDL in the classroom – especially the college classroom – was underscored in 2008 in Higher Education Opportunity Act of 2008 (HEOA, 2008). This public law built upon the noted importance of offering resources to strengthen access for all that was written into the Higher Education Act of 1965. You'll note in the HEOA of 2008, the official definition we use today defines both the 3 principles of UDL and the importance of removing barriers so that students are provided opportunities for success.

- As stated, Section 103(24) UNIVERSAL DESIGN FOR LEARNING.-- The term `universal design for learning' means a scientifically valid framework for guiding educational practice that—
  - ``(A) provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged; and
  - ``(B) reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, and maintains high achievement expectations for all students, including students with disabilities and students who are limited English proficient.''

Slide 4: The 3 UDL principles

The 3 UDL principles are based on research from the neurosciences that confirms how information is understood and processed in each of our brains. Researchers at CAST have defined these across 3 core learning networks of the brain as:

(1) the affective networks that pertain to the why of learning. These networks are involved in how individuals become initially engaged in classes and

how they sharpen these skills to become purposeful and motivated learners.

(2) The recognition networks that pertain to the what of learning. These networks are involved in the what of learning and how information is represented. Offering information in various representation assures that students understand the content and can become more resourceful and knowledgeable learners.

(3) The strategic networks pertain to the how of learning. These networks are involved in how individuals make meaning of information, act upon and express their knowledge. Supporting strategic networks assures that students can become more strategic, goal-directed learners.

Slide 5: Universal design for learning (UDL)

As you can see in this slide, the UDL framework includes 3 core principles that address engagement, representation, and action and expression. These are color-coded to align with the brain networks they represent thus, engagement is green, representation is purple, and action/expression is blue. Under each of these principles are 3 guidelines and suggested checkpoints. In its entirety, the UDL framework then becomes a lens to guide best practice on how educators and trainers design their curriculum to include clear and measurable goals, flexible methods, flexible options across materials, and multiple and formative assessments.

Slide 6: Novice vs expert learners

In 2000, researchers published this text on decades of research on how people learn. In particular, they noted the differences between what novice vs expert learners bring to learning situations. They note,

> ”Research shows that is not simply general abilities such as memory or intelligence, nor the use of general strategies that differentiate experts from novices. Instead, experts have acquired extensive knowledge that affects what they notice and how they organize, represent, and interpret information in their environment. This, in turn, affects their abilities to remember, reason, and solve problems”

Slide 7: UDL and expert teachers

In 2014, the authors of the seminal text, “UDL theory and practice: universal design for learning” also commented on the importance of building expertise in teachers (or trainers if you will). As noted,

> “Teachers (educators) need to be expert learners themselves, continuously growing and changing. They need to be able to model and mentor the process

of learning, with all its hills and valleys, exposing their own learning and making it explicit both in action and in personal reflection."

Slide 8: Becoming expert learners

Thus, it is important to keep in mind that the goal of UDL is to build expert learners (or learner expertise). As you can see in this slide, when learners become experts across the 3 UDL principles, they are aware of what promotes their success in learning. As such, let's review this slide:

- In engagement, expert learners are purposeful and motivated. They are,
    - Eager for new learning and motivated by the mastery of learning itself,
    - Goal directed in their learning,
    - Know how to set challenging learning goals for themselves,
    - Know how to sustain the effort and resilience that reaching those goals will require,
    - Monitor and regulate emotional reactions that would be impediments or distractions to successful learning.
- In representation, expert learners are resourceful and knowledgeable. They,
    - Consider prior knowledge when learning and make connections to prior learning experiences,
    - Activate that prior knowledge to identify, organize, prioritize, and assimilated new information,
    - Recognize the tools and resources that would help find structure and remember new information,
    - Know how to transform new information into meaningful and usable knowledge.
- Finally, across action and expression, expert learners are strategic and goal-directed learners. They,
    - Formulate plans for learning,
    - Devise effective strategies and tactics to optimize learning,
    - Organize resources and tools to facilitate learning,
    - Monitor their progress,
    - Recognize their strengths and weaknesses,
    - Abandon plans and strategies that are ineffective.

Slide 9: The UDL guidelines

Again, when we look at the UDL guidelines in their completeness, the goal is to build expert learners (or learning expertise). As we look at this diagram, we can see the 3 UDL principles, the 9 UDL guidelines and the 31 suggested instructional checkpoints. This collection is intended to be a lens for guiding best practice in instruction and training. Note that at the bottom of this diagram are again the

characteristics of an expert learner; one who is purposeful and motivated, resourceful and knowledgeable, and strategic and goal directed.

Slide 10: Evolving trends in technology

In a 2015 article, researchers noted the changes that would be upcoming in technology. This is important to note since they predicted that many of the popular learning management systems (such as Blackboard) that are used in colleges to deliver online instruction would include more accessibility functions. These have become more noticeable since 2015 and provide many educators, trainers and users embedded tools that help them create with accessibility in mind.

Slide 11: Multiple Options for Engagement - First steps

As I move forward in this presentation, I'm going to share some of the ways I consider UDL when I design my own instruction at the graduate level. I teach an online graduate course in UDL for GW University. We'll begin with some options for supporting engagement. This statement was shared by a former student and, I think it captures the importance of this area. That is, "You've got to have a big enough why".

In my class I focus on several things to recruit interest and engagement in my class.

- First, I send out a brief questionnaire through an online survey to find out about interests, preferences and needs.
- Second, I follow along the first week with a brief online meeting using Zoom videoconferencing to have a face-to-face discussion with students.
- Third, within my syllabus and in my opening materials, I emphasize the importance of offering student multiple ways that they can demonstrate their knowledge.

Slide 12: Multiple means for engagement

Supporting engagement is all about offering choice, options and relevance. I often use online tools such as Blackboard Collaborate, WordPress, Zoom, VoiceThread, and Wordle which allow me to have more flexibility in the way I represent information and how students show me what they know. Many colleges use these tools as allows the opportunity for live video, online journaling, web posting, and audio recording of responses.

Slide 13: Multiple options for representation – First Steps

To support representation, I focus on several things,

- I begin by building an accessible foundation. Even when I've taught my class in a face-to-face manner, I always had a space in the Blackboard learning management system where I could post things online.
- I highlight the use of digital materials and as a result of being in a digital presence, encourage the use of these by others. (Options for physical action)
- I select closed-captioned videos from YouTube or other sources, add transcripts, or use tools that provide live captioning.
- I develop my course with consistent designs that facilitate comprehension for students. Let's take a look at this.

Slide 14: Multiple Means of Representation

On this slide you'll first see a color-coded diagram that has been designed using the Smart Art tool in Microsoft Word. This allows me to represent core content that is being reviewed in the course in a digital and colorful representation. The second example is a one-page "snapshot" tool that I develop also in Microsoft Word to provide the key points for the week ahead. Notice how this is offered with clear and consistent headings, bulleted key points, and some hyperlinks that allow the user to dig deeper into the information. There is also ample white space on the pages and between bulleted points to offer a clean presentation.

Slide 15: Multiple Options for Action/ Expression

Finally, offering multiple ways students can act upon and express their knowledge is paramount in any learning situation.

In my class, I approach this in several ways,

- First, I emphasize in my syllabus the opportunity for students to share their knowledge in varied ways. They can write an expansive paper, create a YouTube video, design a web site, or develop an infographic. All still have to showcase the depth of the material they are reading/ reviewing but they have options in how that is shared.
- Second, I provide models for them to review so that they can have an idea of what I'm looking for in the project.
- I use ongoing checkpoints to clarify understanding and send out frequent emails, visual examples, and reviews.
- Finally, I design rubrics for all of my assignments so that students have a benchmark to know what is expected.

Slide 16: Additional resources

As you continue your own journey in UDL and Designing Accessible Media, consider exploring some of the following resources:

- CAST, http://www.cast.org
- AEM Center, http://aem.cast.org/
  - An invaluable free 5 course module on "Making Everyday Curriculum Materials Accessible for All Learners", http://aem.cast.org/about/new-educator-training.html
- MS Office 365 Accessibility, https://www.microsoft.com/en-us/Accessibility/
- Google Accessibility, https://www.google.com/accessibility/