Designing and Teaching for All Learners

Dr. Anya Evmenova

aevmenov@gmu.edu

Universal Design

Universal Design in Architecture

www.GreatBuildings.com

Universal Design for Learning

- Application of universal design concepts to education so that the curriculum can be accessed without the need for specialized modifications and adaptations for particular students.

UDL Principles

- **Multiple Means of Representation**
  - Content is represented in varied and flexible ways to learners.

- **Multiple Means of Expression**
  - Learners express what they know and can do with the content in varied and flexible ways.

- **Multiple Means of Engagement**
  - Learners engage in learning and practicing the content in varied and flexible ways.

Multiple Means of Representation

What does it mean?

- Provide options for perception

- Provide options for language, mathematical expression, and symbols

- Provide options for comprehension

Recognition Networks
The "what" of learning

How we gather facts and categorize what we see, hear, and read. Identifying letters, words, or an author's style are recognition tasks.

Present information and content in different ways

A man standing in front of a classroom.

Lecture

A woman running towards a monitor.

Video

A black Ipod.

Audio

A Kindle, a digital book.

Digital Materials

A group of women having a discussion.

Readings

From www.ist.hawaii.edu

Introduction to the Module

Learning Module 6 Checklist

Module 6 Overivew

Transcript: Hello everyone. So this module is about UDL in science and social studies subject areas. But please don't worry. Even if you don't teach science and social studies, I hope you will find plenty of useful resources for note taking, creating video-based projects, using flashcards and graphic organizers and many more. Couple unique things about this module: first, I am asking you to watch at least one or more videos about how UDL practices are implemented in the classroom. You can choose the subject area and grade level that suits you the best. As you are watching the video, try to identify which specific UDL guidelines and checkpoints the teachers are using. You do NOT have to formally analyze the video and submit your analysis in this module. But if you want to discuss it with us, please don't hesitate to contact us. You will be doing a similar task for your final project, so if you want to practice on these videos and discuss your analysis with us, you are more than welcome to do it, although it is NOT mandatory. The other unique thing is the Classroom Learning Profile activity. That will actually become a part of your final project, so you can choose to go ahead, identify the classroom, and submit a learning profile now or you can choose to do it later (as late as in Module 10). So this activity has a flexible due date. It's up to you when you want to do it. Please let me know if it is confusing or if you have any additional questions!

Completed	Readings and Assignments (due March 23rd at midnight)
	Read: • Hall, Meyer, & Rose (2012) - Chapters 5 and 7
	Review **Learning Module 6 presentation (17 min.)** (available in the folder in the Table of Content on the left side bar - there are 4 different files. Each of it contains the same content. Please choose the presentation format that suits your learning preference the best!)
	Choose and watch at least ONE of the videos from the list of **Video Examples of UDL Practices in the Classroom**. These videos demonstrate how UDL practices are implemented in various subjects and grade levels. Can you identify specific UDL guidelines and checkpoints used in the video you reviewed? You do NOT need to submit the analysis of the video in this module, but don't hesitate to contact me and Shaia if you want to discuss it. Very soon you will be analyzing a lesson you observe in terms of UDL guidelines and checkpoints for your final project, so if you want to practice and run your review in this module by us, we will be happy to discuss it with you!
	Complete and submit a **UDL in Content Areas activity** under the Discussion Board forum.
	Complete and submit a DRAFT of the **Class Learning Profile** through the assignment link. **NOTE:** For your final project, you will be asked to observe a lesson, analyze it regarding the use of the UDL principles, as well as design a refined lesson plan to suggest additional UDL strategies that could enhance the learning opportunities for all students. As the first step, you should identify the classroom/environment you will be working in and describe the learning profile of that classroom/environment. However, you will be working on the revised lesson plan much later (in Learning Module 10). So, if you prefer to identify the classroom/environment and to describe the learning profile later (closer to Module 10), PLEASE don't hesitate to do that. This is just my effort to break the final assignment into chunks and provide opportunities to work on them throughout the semester. **THIS ACTIVITY HAS A FLEXIBLE DUE DATE!**

Multiple Formats for Video Presentations

Learning Module 6 Presentation

Enabled: Statistics Tracking

This folder contains Learning Module 6 Presentation in various formats:

- Web link to a narrated Learning Module 6 PowerPoint Presentation created in Camtasia
- Regular Learning Module 6 PowerPoint Presentation with transcript in the comments window
- Audio MP3 Learning Module 6 Presentation
- Transcript of Learning Module 6 (in Word)

Each format contains the same content. Choose the format that suits your learning preference the most!

Screenchomp
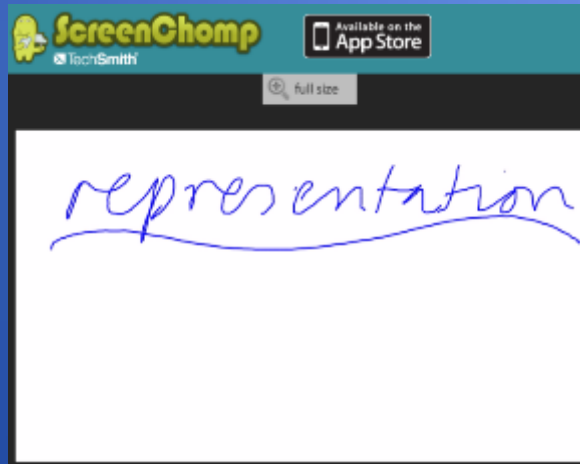
Multiple Means of Action/Expression

What does it mean?

- Provide options for physical action

- Provide options for expression and communication

- Provide options for executive functions

Strategic Networks
The "how" of learning

Planning and performing tasks. How we organize and express our ideas. Writing an essay or solving a math problem are strategic tasks.

Differentiate the ways that students can express what they

Multiple Means of Action and Expression

Movie Maker/ iMovie

Movie Maker on PC; iMovie on Mac.

Voicethread

Voicethread: Collaboration with video recordings
http://voicethread.com/

YouTube Video

YouTube Video: A student can create a video, upload it to YouTube, caption it, then provide the link or post it.

PPT Project

PowerPoint Project: Presentations can be done face-to-face or at a distance either synchronously or asynchronously.
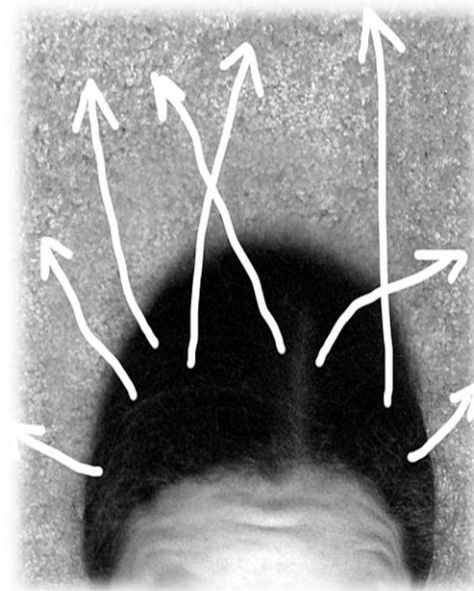
Blogs and Vlogs

Written of video reflections

Oral Presentation

Oral Presentation: Ex. Using Elluminate, Wimba, or other educational software.

Written Presentation

Written Presentation: For those who want a more traditional learning experience.

Discussion Board

As before, after reviewing the Module 6 readings and presentation, please choose **ONE** (or more if you so wish:) program/app/resource listed in the presentation that sounds the most interesting. Follow the web links provided within the presentation to learn more about it. You can also choose any program/tool/resource that is NOT listed in the presentation, but that you are using or have used in the past.

Then, create an advertisement for this program/tool/resource. It can be done in absolutely **ANY** way: in writing, creating an advertisement image(s); making a video of you taking about the tool or the screen capture while using the tool; voki avatar presentation (http://voki.com)a page from a magazine; a Facebook page, a Glogster, etc. The possibilities are endless - I do NOT want to limit you to any of the above formats. As always please make sure to include the following information (as well as any other information) about the tool:

- Name of program/app/resource:
- Website of vendor (if applicable):
- Brief descriptions of software/app/tool:
- What UDL features does it support (please be specific about the UDL guidelines and checkpoints it addresses and how):
- Any other information you might need for the best advertising:)

The sky is the limit here! Have fun with it:)

Glogster

Research to Practice Activity
by Melissa Wall-Smith

Article Citation:
Kennedy, M.J., Thomas, C.N., Meyer, J.P., Alves, K.D., ' Lloyd, J.W. (2014). Using evidence-based multimedia to improve vocabulary

Research Question ' Purpose

Purpose: The purpose of this study was to find out if using content acquisition podcasts (CAPs) increased the amount of vocabulary words student's with and without learning disabilities learned.

Question: "...Whether and to what extent adolescents with and without LD (learning disabilities) improve vocabulary performance in social studies following instruction using CAPs...compared to when CAPs are not used?" (p. 75,77)
Critique: The purpose of this study was very clear. They

Participants

- Mr. Awesome's 5 sections of 10th grade world history
- 141 urban high school students
- 32 students with disabilities (84% LD specific)
- 109 general education

Critique: The participants were clearly described in this research article and the group chosen is appropriate for the purpose of the study.

Variables
Independent

The experiemental group used an intervention program called CAPs (Content Acquisition Podcasts) to provide vocabulary instruction to students with and without learning disabilities. As mentioned in the research study, CAPs is consistent with UDL guidelines in providing multiple means of representation and engagement. (p. 73)
Critique: I don't know how much information in regards to UDL guidelines needs to be mentioned in a research study, so I can't say whether they provided enough information. They

Variables
Dependent

For this study, the researchers used the following measures:
- Pre/Posttest: Common assessments created by a committee of world history teachers, used by all history teachers in the district.
- Curriculum Based Measure: The CBM was created specifically for this study by researchers
Critique: The measures for this study were explicitly explained. The components of each test were given and

Procedures

The research procedures for this study focused on two world history units, in 5 sections of world history. Students in each class were taught two different units - Renaissance and Revolutions (RR) ' Explorations and Expansion (EE). The researchers randomized the order in which students in each section received instruction the standard way or with CAPs. So, for example section 1 had the RR unit taught using standard practice and then the EE unit was taught using CAPs (p. 78). Student's completed a pre-test for each unit prior to beginning the unit. Mr. Awesome used his overhead LCD projector ' classroom speakers to play

Results
What happened ' Why?

Overall, the study found that the students who were taught vocabulary words using the CAPs system showed "significantly higher" scores than those students who were taught vocabulary in the BAU method. This result is the same for students with learning disabilities and students without learning disabilities.
Critique: The results of the study were

BOOM!

BEWARE!

Practical Implications

The practical implications of this study include that CAPs is a type of instruction that differs from usual secondary instruction and is a way to motivate students learning. They also found that coupling the needs of SWD and UDL practices can be beneficial to all students, however, SWD still need to have EBP to provide individualized instruction to SWD.
Critique: I think this study was very interesting, as it is similar to the research I conducted in my 3rd grade classroom last semester for our Practicum course at UCONN. For my project I

Popplet OR Read & Write Fact Mapper
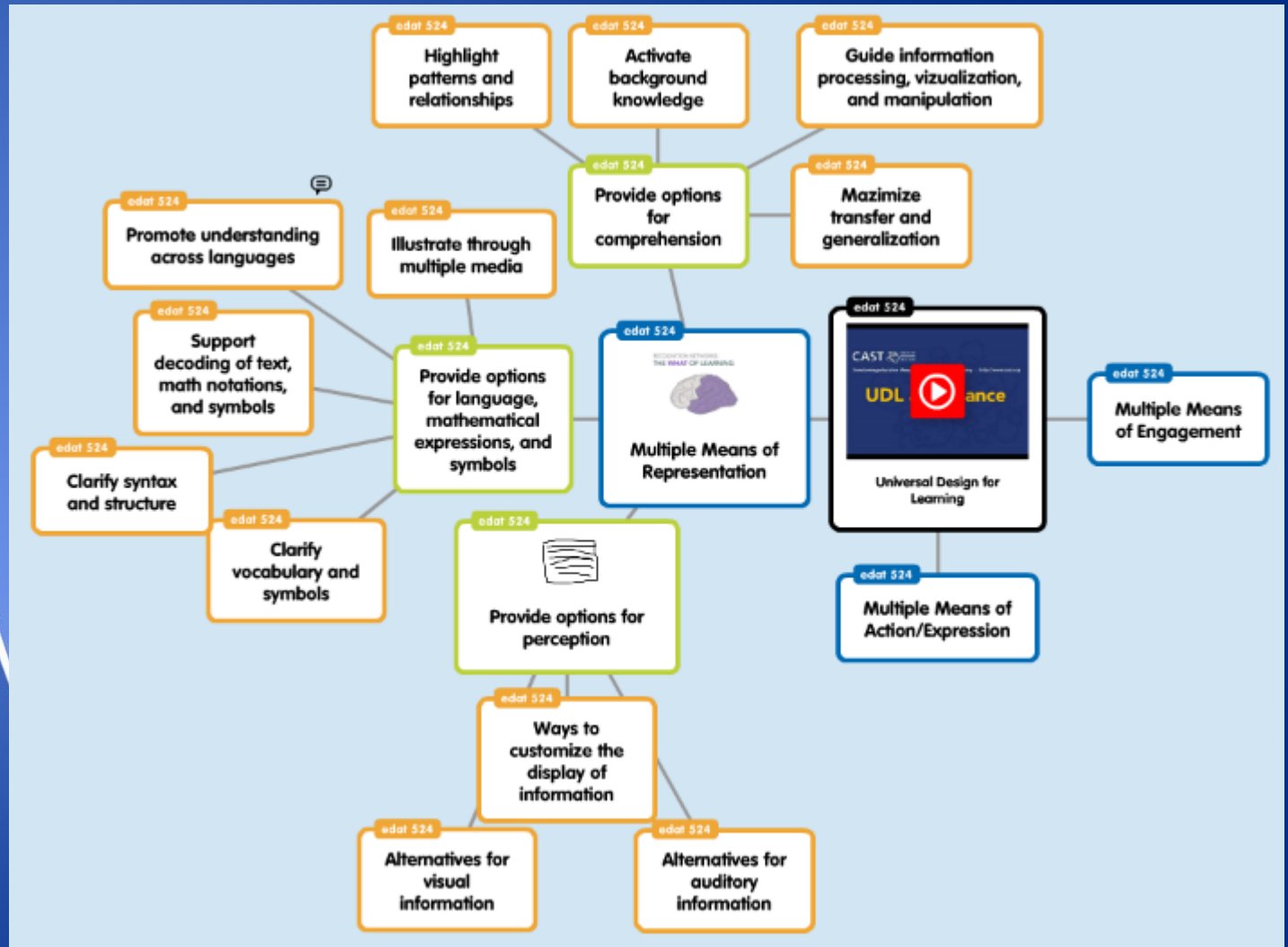
Multiple Means of Engagement

What does it mean?

- Provide options for recruiting interest

- Provide options for sustaining effort and persistence

- Provide options for self-regulation

Affective Networks
The "why" of learning

How learners get engaged and stay motivated. How they are challenged, excited, or interested. These are affective dimensions.
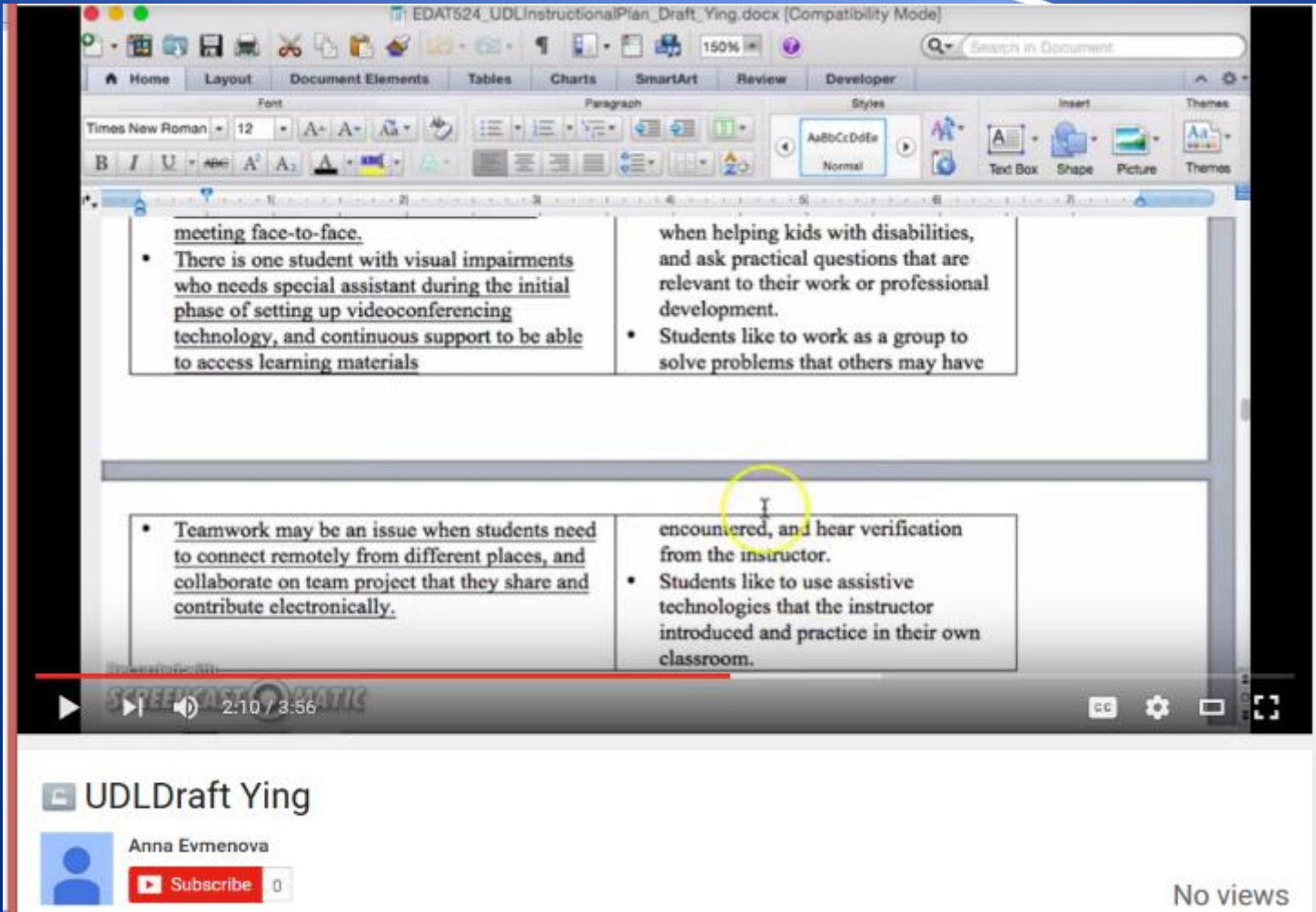
☑ Stimulate interest and motivation for learning

Discussion Boards

- *Provide options for recruiting interest*
  - Written, audio, video responses
  - Discussions topics applicable to students (e.g., video introductions)
- *Provide options for sustaining effort and persistence*
  - Clear goals and directions in multiple formats
  - Multiple options to respond to
  - Limit discussions to just a few a semester
- *Provide options for self-regulation*
  - Providing rubric
  - Troubleshooting

Video Feedback

Self-Regulation

Completed	Readings and Assignments (due February 9th at midnight)
	Read: • Hall, Meyer, & Rose (2012) - Chapter 2 • Nelson (2014) - Chapters 1 (pp. 7-15) and 2 (32-35) Note: UDL Guidelines discussed in readings and my presentation are posted below as a separate PDF file.
	Review **Learning Module 2 presentation (11 min)** (available in the folder in the Table of Content on the left side bar - there are 4 different files. Each of it contains the same content. Please choose the presentation format that suits your learning style the best!)
	Watch the **video** reviewing the UDL Guidelines (6:20 min)
	Review a **portion of the CAST UDL Online Module** to learn about how UDL Guidelines can be used to revise the lesson.
	Complete and submit the **Research to Practice** activity under the Assignment link.
	Identify the **learning environment** for the UDL Instructional Plan Project assignment under the Discussion Board.

- **Transcript**: Self-regulation is very important, especially in online courses. You can help students organize their tasks for the week. I usually post (a) a table outlining all readings and activities, (b) avatar that briefly highlights the most important parts in the module, as well as (c) Are you on track? checklist, that students can download and check off what they have already done.

UDL All Around

Learning Module 4

Enabled: Statistics Tracking

Weeks 5 and 6

Multiple Means of Action and Expression: Enhancing Writing Process for Individuals with Disabilities

In this module you will learn about how the technology can support guidelines and checkpoints for multiple means of action and representation UDL principle in the classroom. As part of the module, you will get a chance to explore some of the tools in more depth and link them to the specific students' needs.

During this module the following **learning objectives** will be addressed:

- Explore low- and high-techology tools that support all phases of the writing process
- Review assistive technology solutions for students who cannot use a standard keyboard and a mouse
- Discuss guidelines and checkpoints for the multiple means of action and expression UDL principle

- Multiple means of representation
  - Provide options for comprehension (e.g., highlight critical features, big ideas)
- Multiple means of action/expression
  - Provide options for executive functions (e.g., guide goal setting)
- Multiple means of engagement
  - Provide options for recruiting interest (e.g., optimize relevance, value, and authenticity

1. Class Climate
2. Interaction
3. Physical environments and products
4. Delivery methods
5. Information resources and technology
6. Feedback
7. Assessment
8. Accommodation

Universal Design of Instruction (UDI)