

Promoting Flexible Learning Opportunities in Online Courses: A Universal Design for Learning (UDL) Approach

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Session Overview

- Definition: Universal Design for Learning (UDL)
- Rationale of applying UDL
- Strategies for applying UDL principles in online courses
- Resources to assist in the applying UDL principles

History of Universal Design

- Commercial Products & Architecture
- Ronald Mace – defined Universal Design as “the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design”



Universal Design for Learning

The design of the **learning environment** to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.

Higher Education Opportunity Act

- Defined UDL in 2008 as a scientifically valid framework that:
 - 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
 - Reduces barriers in instruction
 - Provides appropriate accommodations, supports, and challenges
 - Maintains high achievement expectations for all students, including students with disabilities and students who are limited English proficient (110th Congress, 2008, sec. 103, p. 122 stat. 3088)

Universal Design for Learning

- Set of principles for curriculum development that give all individuals equal opportunities to learn
- Framework to improve and optimize teaching and learning for all people based on scientific insights into how humans learn (Cast.org)
- Based on cognitive neuroscience



Universal Design for Learning

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.

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.

Affective Networks

The "why" of learning



How learners get engaged and stay motivated. How they are challenged, excited, or interested. These are affective dimensions.

I. Provide Multiple Means of Representation

II. Provide Multiple Means of Action and Expression

III. Provide Multiple Means of Engagement

Source: <http://www.cast.org>

Origins of UDL

“Barriers to learning are not, in fact, inherent in the capacities of learners, but instead arise in learners’ interactions with inflexible goals, materials, methods, and assessment.”

Teaching Every Student in the Digital Age, p. vi

Why Apply UDL?

- Individuals have a wide range of skills, knowledge, preferences, and abilities.
- Recent knowledge about learning and brain networks expand our thinking about learning.
- Technology has increased functionality and opportunities to interact, connect, and instruct.
- Once mandated for some, UDL now provides multiple options to learning and mastering course content for all.



Planning for Universal Design

Goff and Higbee (2008) combined UD with Chickering and Gamson's Principles - Good Practices in Undergraduate Education

- Create welcoming classroom
- Determine essential components and expectations of a course
- Explore use of natural supports for learning
- Design teaching methods that consider diverse learning styles, abilities, ways of knowing, and previous experience and background knowledge
- Create multiple ways for students to demonstrate their knowledge
- Promote interaction between faculty and students (icebreakers)

Let's Get Started: Syllabus

- Provide information about available student support to build and sustain communities of learners
 - Inform students when and how to ask for help
 - Provide course expectations and include communication expectations
 - “Three Before Me” strategy
 - Provide links to technical assistance
- Provide information for all technology requirements for the course
- Include a Disability Statement
- Resource: UDL Syllabus rubric (Additional Resources)

“Consider the needs of the broadest possible range of users from the beginning.”

Ron Mace, co-founder of CAST.org

Icebreakers...Important beginnings

- Initial course icebreakers:
 - begin the establishment of social presence
 - introduce students to the technology of their learning environment (Conrad, 2004).
- A significant benefit is the potential for creating students' willingness to engage in open communication in assignments.
- An icebreaker may help identify any students who may need extra support in order to be successful in your class (Collison, 2010).

Planning Your Content Modules

- Determine goals, standards, objectives.
- Decide on specific content of module, assignments (multiple types), assessments.
- Double check ALL online components with syllabus and other resources for clarity, alignment, specificity.
- Model UDL in content of course and online delivery.

UDL Principles provide:

- Multiple means of **Representation** = Flexibility in the way information is presented = More Ways to **Access**
- Multiple means of **Action and Expression** = Flexibility in the way students demonstrate their understanding = More Ways to **Demonstrate Learning**
- Multiple means of **Engagement** = Flexibility in the way students are engaged in what they are learning = More Ways to **Participate and Interact**

Representation to Access Content

- Offer text to speech, video, audio, other multimedia approaches, integrate various technologies
- Provide background knowledge and vocabulary support
- Highlight main ideas

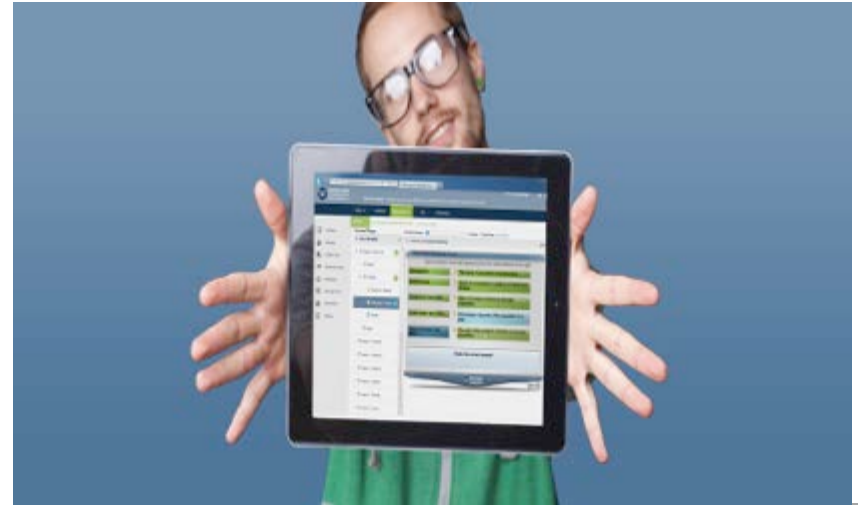


Representation to Access Content

- Present information in a variety of ways
 - Text, images, diagrams, video
- Chunk information
- Use plain language
- Establish a routine for online course (e.g., due dates)
- Course Design
 - Consistency: page structure, modules, color, font
 - Simplify navigation

Action and Expression to Demonstrate Learning

- Create voice recording, oral sharing displays, performances
- Develop graphic organizers and outlines
- Identify and narrate expert performances



Sample of Action and Expression

- **Presentation-** Choose one disability category to research, prepare and disseminate information through a professional development presentation. The content must present the etiology of the disability, the impact it has on speech and language development and use, the impact the disability has on second language acquisition, and strategies and resources (community, district, and state, and national) for the teacher for both oral and written communication instruction/intervention in Tiers 1, 2 and 3.

Sample of Action and Expression

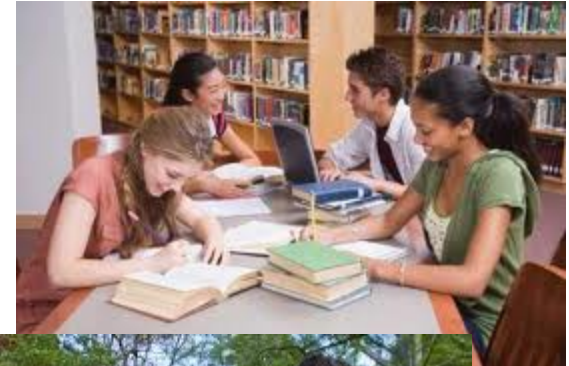
- Each individual student will decide on dissemination method
 - **As a member of a group (2-3) students OR as an individual student**, prepare a PowerPoint Presentation of 5-6 slides. If students select to prepare a presentation, each will then deliver the presentation during live virtual meeting on Monday night, Nov. 9, from 7:00-8:00;
- OR**
- **As an individual student** prepare a one-page Informational Brochure, Pamphlet, You Tube video, etc. by Nov. 9.
 - Same Points and same rubric!

Action and Expression to Demonstrate Learning: Assessment

- Provide multiple ways for students to demonstrate their knowledge
 - Authentic assessments
 - Group projects
 - Self-assessment and reflection
 - Provide learner choice – multiple options for a project
- Clear expectations, rubrics
- Use scaffolding for long term projects
- Provide opportunities for practice, review, and feedback

Engagement

- Vary level of challenge and support to provide multiple options
- Encourage authentic opportunities to apply and engage with learning
- Give choices
- Teach self-reflection and assessment



Engagement and Interaction

- Provide a variety of interaction
 - Instructor - student
 - Student - student
 - Student - content
- Use accessible communication methods
 - LMS considerations – video, audio
 - Synchronous vs. asynchronous
- Provide flexibility with communication tools
 - Allow individuals and groups to choose

Considerations and Summary

- Modeling and encouraging “multiple pathways” within online courses:
 - Provides flexibility related to course standards
 - Models UDL for multiple representations, engagements, and action and expressions
 - Encourages student exploration of various technology tools
 - Provides a source of learning to enhance the professional community for all!

HOW DO WE GET STARTED?

UDOIT (You Do IT)

- Universal Design Online content Inspection Tool
- HTML Content
- Canvas Only
- Open Source
- <http://online.ucf.edu/udoit/>



What does UDOIT Check?

- It will check for the appropriate use of the following:
 - Use of headings in page structure
 - Alternative text for images
 - Table headers
 - Color contrast
 - Descriptive link text
 - Video captions

What Does It Do?

- Faculty Centric Tool
 - Allows faculty to scan their own course
 - Identifies accessibility issues
 - Ability to fix issues
 - Educational
 - Proactive

UDOIT and Webcourses@UCF

The screenshot shows the UDOIT interface within a webcourses@UCF environment. The top navigation bar includes 'Techrangers Training > Techrangers Training' and the 'webcourses@UCF' logo. A left sidebar contains navigation icons for Home, Account, Admin, Dashboard, Courses, Calendar, Inbox, Commons, and Help. The main content area features the UDOIT logo and the text 'UNIVERSAL DESIGN ONLINE CONTENT INSPECTION TOOL'. Below the logo are two tabs: 'Scan Course' (active) and 'View Old Reports'. The 'Scan Course' tab contains a 'Welcome to UDOIT!' message, a brief description of the tool, a 'Please Note' section, a search input field, a 'Select content:' section with a list of content types (All, Announcements, Assignments, Discussions, Files, Pages, Syllabus, Module URLs), and a large green 'Run scanner' button.

Techrangers Training > Techrangers Training

webcourses@UCF

UDOIT

UNIVERSAL DESIGN ONLINE CONTENT INSPECTION TOOL

Scan Course | View Old Reports

Welcome to UDOIT!

The Universal Design Online content Inspection Tool (UDOIT) was created by the Center for Distributed Learning at the University of Central Florida. UDOIT will scan your course content, generate a report and provide instructions on how to correct accessibility issues. Funding for UDOIT was provided by a Carvas Grant awarded in 2014.

Please Note: This tool is meant to be used as a guide, not a certification. It only checks for common accessibility issues, and is not comprehensive; a clean report in UDOIT does not necessarily mean that your course is fully accessible. Likewise, the tool may indicate a possible accessibility issue where one does not exist.

What does UDOIT look for?

Select content: All

- Announcements
- Assignments
- Discussions
- Files
- Pages
- Syllabus
- Module URLs

Run scanner

Final Thought....

“There is nothing more unequal than the equal treatment of unequal people.”

Thomas Jefferson

Contact Info

Thank you for attending!

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