Module 1:
What is Universal Design for Learning and How Does it Relate
to Technology Use for all Students?

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Overview

- Universal Design for Learning—or UDL—has been conceptualized by the Center for Applied Special Technology—or CAST.
  - A not-for-profit educational research organization focused on increasing opportunities for all students, particularly those with disabilities
- UDL is intended to minimize the barriers to access in curriculum and classroom instruction to ensure all students have an equal opportunity to succeed
- Teaching Every Student in the Digital Age explores in detail how UDL can and does work in the classroom

History

- UDL is based on the principle of Universal Design from architecture
  - "Universal design is 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." Ron Mace (architect, founder of the Center for Universal Design at North Carolina State University)
- Universal Design modifications seek to remove physical barriers—by providing accommodations such as curb cutting and captioning
  - These accommodations are included in the original design of the environment in an effort to avoid retrofit adaptations later.

Applied to Education

- UDL takes the idea of removing barriers and applies it to the context of education
  - What kind of barriers—other than physical—might exist in the classroom for a student with disabilities?
- UDL takes access beyond the issue of access to information and to the next step—access to learning
  - How can educators teach all students so that all learn?
Importance of Brain Research

- Brain research plays a critical role in the UDL theory
  - There is no such thing as a "normal" brain--each individual brain functions differently with an endless variety of strengths and weaknesses

UDL Is Another Piece

- UDL is not intended as a replacement for Universal Design in building structures such as curb cuts, ramps, wider doorways, lower tables, etc.
- UDL is not intended as a replacement for assistive technologies such as switches, alternative keyboards, voice controlled systems, captioning, etc.
- UDL is another piece in a complicated puzzle of removing as many learning barriers as possible for individuals with disabilities.
- During this professional development we will be focusing on one small aspect of accessible education--UDL--which advocates the removal of barriers within CURRICULUM.

Resources


CAST website: http://www.cast.org


The Center for Universal Design website: http://www.design.ncsu.edu/cud/
Objectives:

A. Participants will become familiar with the tenets and basic principles of the Universal Design for Learning (UDL) theory through the use of various print, online, and digital resources
B. Participants will practice effective web search strategies
C. Participants will practice outlining with a word processor or using the flow chart template in Inspiration
D. Participants will practice using PowerPoint. *(Optional)*

Activities

A. In groups of 2-3, participants will complete 3 activities at their own pace:
B. Participants will review materials produced by DLRP (Plugged In Factsheets and Toolbox resources)
   1. DLRP "Plugged In" Factsheets, and Tool Box Resources
   2. Participants will also review CAST online resources (see: http://www.cast.org/research/udl/index.html and http://www.cast.org/teachingeverystudent/)
   3. Station 1: Internet Scavenger Hunt (Handout 1)
      a. Participants will find answers to questions and definitions for terms related to UDL in terms of physical surroundings and curriculum
      b. Participants will be provided with a list of helpful links as well as search tips
i. The Center for Universal Design:
   http://www.design.ncsu.edu/cud/

ii. Web Accessibility and Universal Design:
    http://template.bsd.uchicago.edu/accessibility.html

iii. Adaptive Environments:

iv. Universal Design Education Online:
    http://www.ueducation.org/

v. WiggleWorks:
    http://teacher.scholastic.com/readingprograms/wiggleworks/

vi. ERIC/OSEP Topical Brief, Fall 1998:
    http://www.cec.sped.org/osep/ud-sec1.html

vii. Barrier Free Education: http://barrier-free.arch.gatech.edu

viii. WC3 Web Content Guidelines (WAI):
    http://www.w3.org/TR/WAI-WEBCONTENT/wai-pageauth.html

4. Station 2: Application in Schools: Should be completed last by all groups—can take place at their group tables
   a. Participants will consider what they learned during the review of Web-based materials, print materials
   b. Participants will create an outline or flow chart using Inspiration for a plan to evaluate their school on how accessible it is for all students in terms of the building, the curriculum, and the technology used

C. Debrief—back in the larger group, participants will share what they learned through each activity. Each group will share at least one insight gained from each of the three stations without duplicating contributions from other groups.
   1. Optional: each group will contribute one PowerPoint slide for each of the three stations highlighting the insight they shared with the group. The slides will then be compiled into a PowerPoint presentation that will be given to each participant.
Internet Scavenger Hunt Questions

(Module 1 - Handout)

1. What role does brain research play in UDL?
2. What are learning networks? Identify and briefly define the three learning networks identified through brain research. Give an example of how each learning network plays out in the classroom.
3. What is the difference between UDL and the use of assistive technology?
4. What is traditional fixed media vs. digital flexible media? Identify at least 2 examples of each listing the advantages and disadvantages of each example. How can each example be used effectively in the classroom by applying the principles of UDL?
5. List 2 of the 7 principles for Universal Design (not Universal Design for Learning). How might these principles be applicable to you and your students?
6. What are some ways in which web developers can make websites more accessible to more people?
7. What are the three principles of UDL? How do they relate to the three brain networks? Give a concrete example of each principle as it might be demonstrated in the classroom.
8. What is WiggleWorks? Why is it different from other programs attempting to teach the same content?
9. Find and summarize at least one student success story related to the use of UDL and/or universal design.
10. What roles do goal setting, individualized instruction, and assessment of progress play in the application of UDL in the classroom?
11. How could UDL benefit all students and not just students with disabilities?
For Facilitators

(Module 1)

Estimated Time to Complete: 1-2 hours

Guidelines and Tips:

- Facilitators should stress that UDL does not replace assistive technologies and/or universal design in building structures.
- Facilitators should assess participants prior knowledge of Internet navigation and provide tip sheets as needed.
- Facilitators should encourage participants to list additional comments/thoughts on additions or examples.
- During the scavenger hunt activity, facilitators should encourage participants to find answers through their own searching as well as through exploring the links provided.