Universal Design for Learning
CCSU Faculty Day

April 28, 2017

LCG Members:

Jan Bishop (Physical Education & Human Performance)
John Foshay (Department of Special Education & Interventions)
Susan Gilmore (English)
Helen Koulidobrova (English)
Marie Kulesza (Business)
Joan Nicoll-Senft (Special Education & Interventions)
Student Access Survey
Brewer, E. & Koulidobrova, H., 2015

CCSU Undergraduate Students (N=510)

- First year: 19%
- Sophomore: 18%
- Junior: 27%
- Senior: 36%
Students reporting difficulty in accessing instruction (N=189)

- Yes, I have had difficulty accessing instruction. (39%)
- No, I have not had difficulty accessing instruction. (61%)

No, I have not had difficulty accessing instruction.
Yes, I have had difficulty accessing instruction.
Student preference for modified delivery of course content (N= 510)

- In almost none of the classes I have taken at CCSU: 34%
- In a few of the classes I have taken at CCSU: 8%
- In about half of the classes I have taken at CCSU: 35%
- In the majority of classes I have taken at CCSU: 19%
- In almost all of the classes I have taken at CCSU: 4%
So, what do we know?

- The number of students with disabilities is likely **higher than reported**.

- Faculty must either create a wide variety of accommodations for individual students, **OR plan with the expectation that they will teach a diverse set of students with varying skills and abilities**.
Universal Design for Learning Guidelines

Provision of Multiple Means of Engagement: Purposeful, motivated learners

Provision of Multiple Means of Representation: Resourceful, knowledgeable learners

Provision of Multiple Means of Action & Expression: Strategic, goal-directed learners
UDL: An evidence-based curriculum framework

stage one
Identified the range and sources of variance in human learning from modern research in the learning sciences.

stage two
Identified important categories addressed in an adequate pedagogy of individual differences.

stage three
Extensive review of research to identify specific practices that are most effective in reducing barriers to instruction.

National Center on UDL
LCG activities...

*Shared readings: UDL in Higher Education
*Monthly meetings
*Visit to NEAT Center
*Introduction to AudioNoteTaker (ANT) software

*Collaboration with Sonocent
*Research design development: ANT as UDL
*HSC approval

*Research implementation
*Monthly meetings

Fall 2015 & Spring, 2016 | Summer 2016 & Fall 2016 | Spring 2017
What is AudioNoteTaker?

The Audio Notetaker Workspace

1. Audio is visualized phrase-by-phrase as editable colored chunks.
2. Students can type summaries alongside the audio.
3. Students can add lecture slides and images.

With Audio Notetaker, your students can focus on what they are hearing, highlight what's important, then come back to their recording and annotations to create their notes. They can also import slides and images right alongside their audio to create multi-media study resources which can be used for revision and essay composition.
Research study: Assessing the impact of ANT on student learning

• **Course selection criteria:**
  • Two sections offered during the Spring 2017 semester
  • Rigorous content
  • Representation across schools

• **Courses identified:**
  • AC 212 (Introduction to Managerial Accounting)
  • EXS 113 (Foundations of Exercise Science)
  • ENG 211 (Survey of American Literature)
Study design

• Purpose: to assess the effects of ANT on the test performance of CCSU undergraduate students
• Quasi-experimental design
• Made ANT available to students in one section of each of the three courses; the second section served as our control group
• Student feedback survey completed at end of semester
Results

• N = 43 (all reported that English was their native language; 3 identified as having a disability)

• 2 students reported using ANT

• 29 students reported that they thought their grades could have improved with the use of ANT. Reasons stated:
  • to recall class information
  • I would be able to learn stuff I didn’t hear
  • I would be able to review class materials which I could not have copied down
  • It would help me remember key information
  • Having the recordings to refer to when doing homework or preparing for an exam

• 16 students reported that they would recommend ANT to a friend or classmate
Results (continued)

• Barriers to ANT:
  • Never put the time into downloading it
  • Didn’t want to use the battery life on my phone
  • Downloading it was a process for me and that kind of turned me away
  • Takes more time than just jotting it down
  • Didn’t know how to use it

• Easiest part of using ANT:
  • Recording was easy to do
  • Its easy
  • Organizing notes with color codes
  • The setup
Results (continued)

• Student suggestions for future studies:
  • May be useful for students taking a course that’s relevant to their major
  • Use for a more difficult class
  • Go over all features so we don’t have to figure it out on our own
  • Provide more information to set up
  • Making the process for obtaining the software easier
  • Have students download it in class
  • I just wasn’t required to actually get the program so I was very unmotivated
So, **now** what do we know?

- Importance of course selection (in major, 300 level or higher)
- Students need assistance in downloading ANT
- Students need instruction on how to use ANT for studying
Next steps...

- Faculty commitment to continue

Next steps:
  - Back to the drawing board, informed by change management research base
  - Revise study & identify courses
  - Implementation in Fall 2017
  - Explore funding to support larger scale study
UDL on Campus [http://udloncampus.cast.org](http://udloncampus.cast.org)

UDL On Campus is a collection of resources developed by CAST geared towards multiple stakeholders within postsecondary institutions, including instructional designers, faculty, policy makers, and administrators. The purpose of the site is to offer an understanding of Universal Design for Learning (UDL) in higher education and contains four sections: 1) UDL in Higher Education, 2) Course Design, 3) Media and Materials, and 4) Accessibility and Policy. National Center on UDL.

National Center on UDL [http://www.udlcenter.org](http://www.udlcenter.org)

The National UDL Center supports the effective implementation of UDL by connecting stakeholders in the field and providing resources and information on UDL implementation and research.

DO-IT [http://www.washington.edu/doit](http://www.washington.edu/doit)

The DO-IT (Disabilities, Opportunities, Internetworking, and Technology) Center is dedicated to empowering people with disabilities through technology and education. It promotes awareness and accessibility—in both the classroom and the workplace—to maximize the potential of individuals with disabilities and make our communities more vibrant, diverse, and inclusive.
Learning is the only way to turn failure into success.

Museum of Failure, Helsingborg, Sweden
Questions?

Joan Nicoll-Senft
Department of Special Education & Interventions
Joan.Nicoll-Senft@ccsu.edu or 832-2403