Addressing Diversity through Universal Design for Learning

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WHY UNIVERSAL DESIGN FOR LEARNING?

Classrooms are filled with students who:

- have different needs
- come from different educational backgrounds
- have different attention spans and interests
- have different language abilities
- have different cultural backgrounds
What is Universal Design?

- Universal Design is design for all.

- School of Design North Carolina State University
  [www.design.ncsu.edu/cud/](http://www.design.ncsu.edu/cud/)
Universal Design Definition

• "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 1988
Custom Mirror Heights
Angled Mirror Installation

Widen Doorways to 36”

Grab Bar Blocking behind Walls for Future Needs

Custom Closet Configurations

Comfort Height Toilets

Roll-under Sinks

Grab Bars by Toilets, Bath Tubs, and Showers

Roll-in Shower Pans

Custom Seating Areas

Adjusted Counter Heights
UCC

The Entrance to the President’s Office
Entrance from the Quadrangle to the Stone Corridor and the Visitors’ Centre
Aras na MacLeinn

Universal Design at UCC
CAST and the Work of Anne Meyer and David Rose

- Centre for Applied Special Technology (CAST) have drawn up 3 principles of Universal Design for Learning and these reflect the basic neurology of the learning brain

- [www.cast.org](http://www.cast.org)
Brain Networks

3 primary brain networks come into play:
• Recognition networks.
• Strategic networks.
• Affective networks.
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.

- Present information and content in different ways

**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 know

**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

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**Principle #1:**
Provide Multiple Means of Representation

**Principle #2:**
Provide Multiple Means of Action and Expression

**Principle #3:**
Provide Multiple Means of Engagement
Universal Design for Learning

Multiple Means of Representation

Choices

Multiple Means of Expression

Multiple Means of Engagement
Instructional materials: The media and tools used for teaching content.

Learning goals: A description of what students are expected to learn.

Assessments: The method used for measuring student learning.

Instructional methods: The manner in which the content is taught.
Multiple forms of Representation

• Provide options for:
• perception.
• language, mathematical expressions and symbols.
• comprehension.
Multiple forms of Expression

• Provide options For:
• physical action.
• expression and communication.
• executive functions.
Multiple forms of Engagement

• Provide options for:
• 7. recruiting interest
• 8. sustaining effort and consistence.
• 9. self regulation.
IMPORTANCE OF TECHNOLOGY TO UDL

Course web site can be vital for providing variety in instruction and materials:

• Syllabus of course or program of study
• Assignments
• Discussion groups
• Class projects
• Class notes
IMPORTANCE OF TECHNOLOGY TO UDL

- Video material
- Podcasts
- PowerPoint slides for lectures
- Reading material
- Links to other websites can also help provide additional representations of a topic
Useful Web Addresses

• The Association for Higher Education, Access and Disability (AHEAD) http://www.ahead.ie
• Centre for Applied Special Technology (CAST) http://www.cast.org
• National Center for Universal Design for Learning http://www.udlcenter.org
• Center for Excellence in Universal Design www.universaldesign.ie
• World wide web consortium www.w3.org