

Let's UDL This!

An Application of Universal Design for Learning



EAST TENNESSEE STATE
UNIVERSITY

Presentation Goals

- Introduce the UDL guidelines
- Share resources and take-away strategies on UDL to:
 - Increase teaching effectiveness
 - Improve student outcomes
 - Meet the needs of diverse learners
- Examine how UDL can be successfully applied in your own courses
- See UDL as a verb!



Universal Design

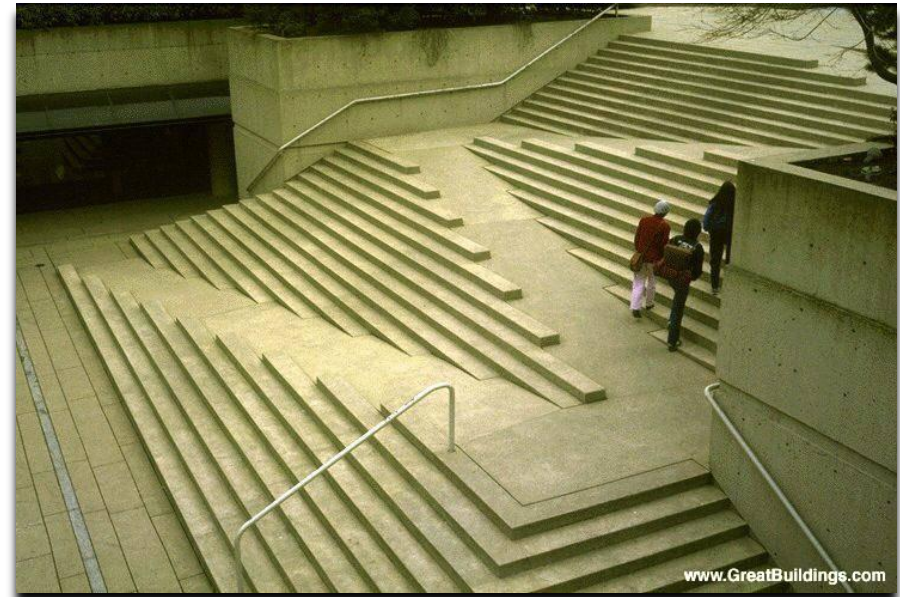
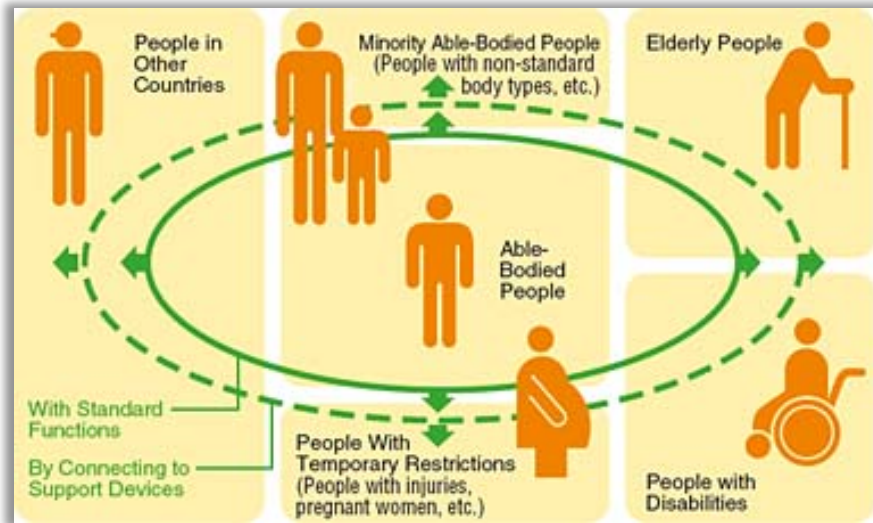
Is our physical environment welcoming?



- Architectural term coined by R. Mace
- Physical environment design for access
- Stairs as access feature/barrier
 - Physical Disabilities
 - Elderly
 - Children
 - Strollers/Carts
- Retrofitting for physical access remains a design afterthought



Universal Design Solutions



- Intentional approach to design
- Anticipates a variety of needs
- Broadens usability to public
- More economical
- Respects human diversity

What kind of Universal Design solutions are located on our campus or facility?



INSPIRED BY A PUBLIC SCHOOL STUDENT WITH DISABILITIES



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CLEARING A PATH
FOR PEOPLE WITH SPECIAL NEEDS
CLEARS THE PATH FOR EVERYONE!



EAST TENNESSEE STATE
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Universal Design for Learning

Is our pedagogical environment welcoming?



*UDL is the **proactive design** of our courses to ensure they are educationally accessible regardless of learning style, physical or sensory abilities.*

Just as physical barriers exist in our physical environment, curricular barriers exist in our instructional environment.

UDL Analogy for Higher Education

UD	UDL
Physical Environment	Instructional Environment
Physical barriers may exist in our architectural environment	Learning barriers may exist in our curricular environment
Proactive design of physical space	Proactive design of curriculum and instruction
Physical retrofitting can be costly and is often inelegant	Instructional accommodations can be time consuming and difficult to implement


Reflect

- Take a moment and recall an activity you offered in one of your classes where you noted that several students struggled.
- Identify one “teaching” and one “student” variable that may have impacted student success?

Reflect


- Make a list of what it takes for a student to be successful?
- How many items are purely academic?

Provide multiple means of **Engagement**




Affective Networks
The "WHY" of Learning

Provide multiple means of **Representation**



Recognition Networks
The "WHAT" of Learning

Provide multiple means of **Action & Expression**



Strategic Networks
The "HOW" of Learning

Access

Provide options for **Recruiting Interest** (7)

- Optimize individual choice and autonomy (7.1)
- Optimize relevance, value, and authenticity (7.2)
- Minimize threats and distractions (7.3)

Provide options for **Perception** (1)

- Offer ways of customizing the display of information (1.1)
- Offer alternatives for auditory information (1.2)
- Offer alternatives for visual information (1.3)

Provide options for **Physical Action** (4)

- Vary the methods for response and navigation (4.1)
- Optimize access to tools and assistive technologies (4.2)

Build

Provide options for **Sustaining Effort & Persistence** (8)

- Heighten salience of goals and objectives (8.1)
- Vary demands and resources to optimize challenge (8.2)
- Foster collaboration and community (8.3)
- Increase mastery-oriented feedback (8.4)

Provide options for **Language & Symbols** (2)

- Clarify vocabulary and symbols (2.1)
- Clarify syntax and structure (2.2)
- Support decoding of text, mathematical notation, and symbols (2.3)
- Promote understanding across languages (2.4)
- Illustrate through multiple media (2.5)

Provide options for **Expression & Communication** (5)

- Use multiple media for communication (5.1)
- Use multiple tools for construction and composition (5.2)
- Build fluencies with graduated levels of support for practice and performance (5.3)

Internalize

Provide options for **Self Regulation** (9)

- Promote expectations and beliefs that optimize motivation (9.1)
- Facilitate personal coping skills and strategies (9.2)
- Develop self-assessment and reflection (9.3)

Provide options for **Comprehension** (3)

- Activate or supply background knowledge (3.1)
- Highlight patterns, critical features, big ideas, and relationships (3.2)
- Guide information processing and visualization (3.3)
- Maximize transfer and generalization (3.4)

Provide options for **Executive Functions** (6)

- Guide appropriate goal-setting (6.1)
- Support planning and strategy development (6.2)
- Facilitate managing information and resources (6.3)
- Enhance capacity for monitoring progress (6.4)

Goal

Expert learners who are...

- Purposeful & Motivated**
- Resourceful & Knowledgeable**
- Strategic & Goal-Directed**

Engagement: *The Why*

“...learners differ markedly in the ways in which they can be engaged or motivated to learn”

*“Information that is not attended to, that does not engage learners’ cognition, is in fact **inaccessible.**”*



Engagement Strategies

“How do I involve my students in the learning process?”

- Icebreakers and hooks
- Co-create class ground rules
 - Or even the [entire syllabus](#)
- Personal Relevance
- Collaborative learning
- The Pause
- Feedback



Representation: *The “What”*

“Learners differ in the ways that they perceive and comprehend information that is presented to them.”



Representation Strategies

“How do I present essential course content to my students?”

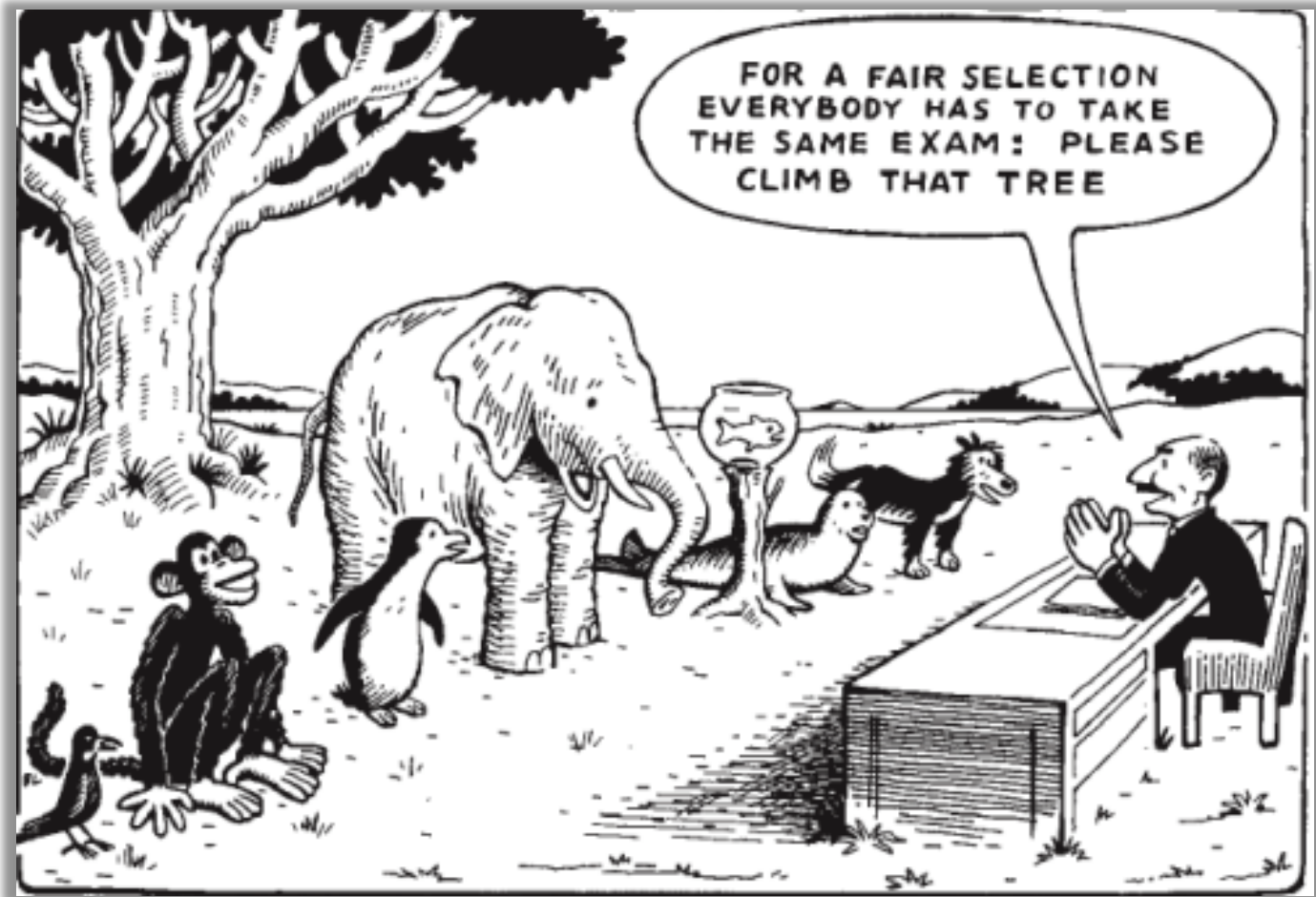
- Dual coding
 - Graphic Organizers/Mind-maps
 - Infographics
- Captioning
- Chunking
- Check for jargon, unnecessarily technical language
- Activate background knowledge for transfer

Action & Expression: *The “How”*

“Learners differ in the ways that they can navigate a learning environment and express what they know.”



Educationally, Does One Size Fit All?



Action & Expression Strategies

“How do I ask my students to show what they know?”

- Consider Construct Relevance
- Choose your own assessment
- Vary response types on assessments
- Drafts, peer-review, feedback
- Rubrics

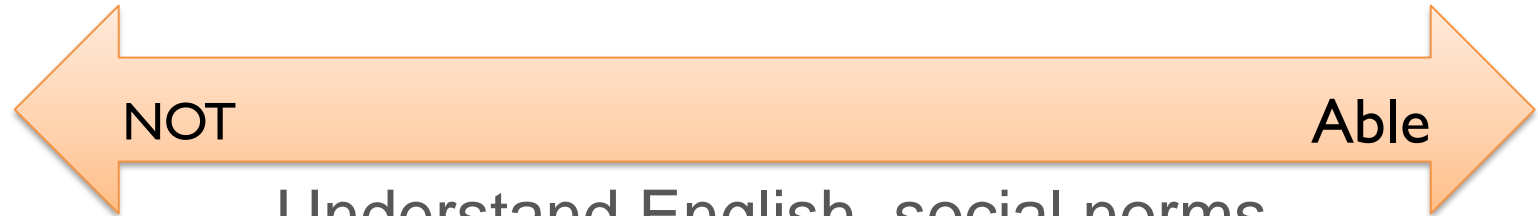


From Disability to Variability

Group Brainstorm: List important dimensions of difference in student populations



DIS-ABILITY



Understand English, social norms

See

Hear

Read print

Write with pen

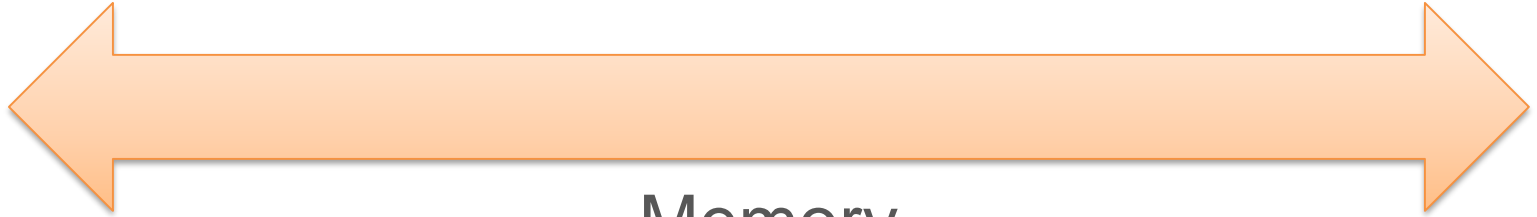
Communicate verbally

Tune out distraction

Learn

Manage physical/mental health

VARI-ABILITY



Memory
Language
Knowledge
Reading
Vocabulary
Curiosity
Perceptual
Cognitive
Interest

“The greater the diversity of students, the more skilled the teacher must be.”

Stephen Chew



Nobody We Know

A Math faculty dives right into lecture. He already has a train of thought going before getting to class and he starts there. Students can see he has a brilliant mind but cannot always follow his intuitive leaps and changing topics.



UDL IT

A math/statistics faculty dives right into lecture. He already has a train of thought going before getting to class and he starts there.

Improve lectures by:

- Providing handouts of slides
- reviewing where he left off last time
- outlining the topics for today
- replacing general terms like "this" or "that" with more specific descriptions
- pausing where appropriate
- making eye contact with students



UDLed Lecture

General teaching strategies beneficial for all students include:

- outlines and other scaffolding tools
- large, bold fonts on uncluttered overhead displays
- speaking aloud all visual content presented
- course materials available in accessible electronic formats
- repeating student questions before answering them
- minimizing distractions

High Stakes

The grade in a psychology class depends entirely on two exams and a final. Each exam is timed in-class. The two exams are entirely multiple choice. The final is cumulative and also includes two essay questions.



UDL it

The grade in a psychology class depends entirely on two exams and a final. Each exam is timed in-class. The two exams are entirely multiple choice. The final is cumulative and also includes two essay questions.

The psychology professor could:

- Spread out the grade over more tests
- Do reviews and give practice quizzes
- Add research papers, posters, or presentations to diversify how students can earn grades
- Allow students the choice of writing the final exam as a take-home or a 3-hour in-class final



UDLed Assessment

General strategies for accommodating students with disabilities in testing activities include:

- alternative, quiet testing locations and distraction-free rooms
- alternate formats (e.g., oral presentations, projects, essay instead of multiple choice; written paper instead of oral presentation)
- well-organized tests with concise instructions
- alternative test formats
- extended test-taking time
- providing reading or scribe services
- use of a computer to complete tests



Everybody Talking?

A biology professor teaching a high enrollment class likes to introduce new topics by asking all students discussion questions in class.



UDL It

A biology professor teaching a high enrollment class likes to introduce new topics by asking all students discussion questions in class.

The biology professor could:

- Have all students write a short essay on the topic, in class before discussion
- Use polling
- Organize small group discussion



UDLed Discussions

General teaching strategies that benefit all students include:

- Establish clear ground rules for discussion.
- Provide electronic supplementary course/discussion materials.
- Give clear descriptions of visual materials.
- Paraphrase questions and answers and highlight key points throughout discussions.
- Create options for electronic discussions.

Source: DO-IT: <https://www.washington.edu/doiit/group-workdiscussions>



Reflect: You are already doing this

- Consider a class activity that goes well.
- Why does it go well? Can you map it to UDL Guidelines?



UDL is not...

- **Specialized privileges for a few students**
 - It is not about special accommodations
- **Watering down your academic expectations**
 - It is not about making courses easier – school is supposed to be challenging if learning occurs
- **A “magic bullet” or “fix” for all students**
 - It is not going to solve all your curricular or pedagogical problems
- **A prescriptive formula**
 - No checklist will offer the “UDL solution”
- **All or nothing**
 - Small changes, incremental improvement = Teaching Excellence

Benefits of UDL Practices



- Enables you to *reach a diverse student population* without necessarily modifying your course requirements or academic expectations.
- Provides you the *tools to consider what and how you teach* in a structured and systematic manner.
- Increases student participation, achievement, and satisfaction.



Sources and Resources

- CAST UDL Guidelines (handout)
- UDL Universe at <http://udluniverse.com/>
- UDL on Campus: <http://udloncampus.cast.org>
- DO-IT: Disabilities, Opportunities, Internetworking, and Technology: <https://www.washington.edu/doit/>
- College Star UDL Modules and Case-Studies: <https://www.collegestar.org/modules>
- [The Myth of Average: Todd Rose at TEDx](#)

