



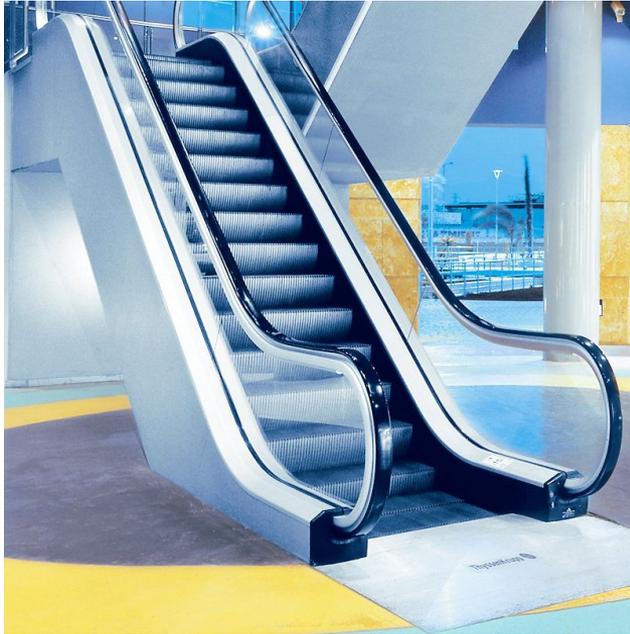
Universal Design for Learning

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Universal Design for Learning (UDL)

UD = Necessary for some, beneficial to all





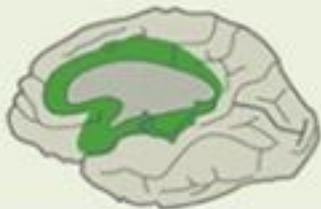
What is UDL?

- “Universal design for learning (UDL) is a framework to improve and optimize teaching and learning for all people based on scientific insights into how humans learn”
- “...the goal of UDL is to support learners to become “expert learners” who are, each in their own way, purposeful and motivated, resourceful and knowledgeable, and strategic and goal driven. UDL aims to change the design of the environment rather than to change the learner. When environments are intentionally designed to reduce barriers, all learners can engage in rigorous, meaningful learning.” [\(CAST.org\)](https://www.cast.org/)

What is UDL?

Multiple Means of Engagement

Stimulate motivation and sustained enthusiasm for learning by promoting various ways of engaging with material.



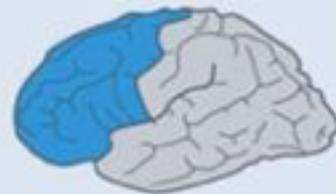
Multiple Means of Representation

Present information and content in a variety of ways to support understanding by students with different learning styles/abilities.



Multiple Means of Action/Expression

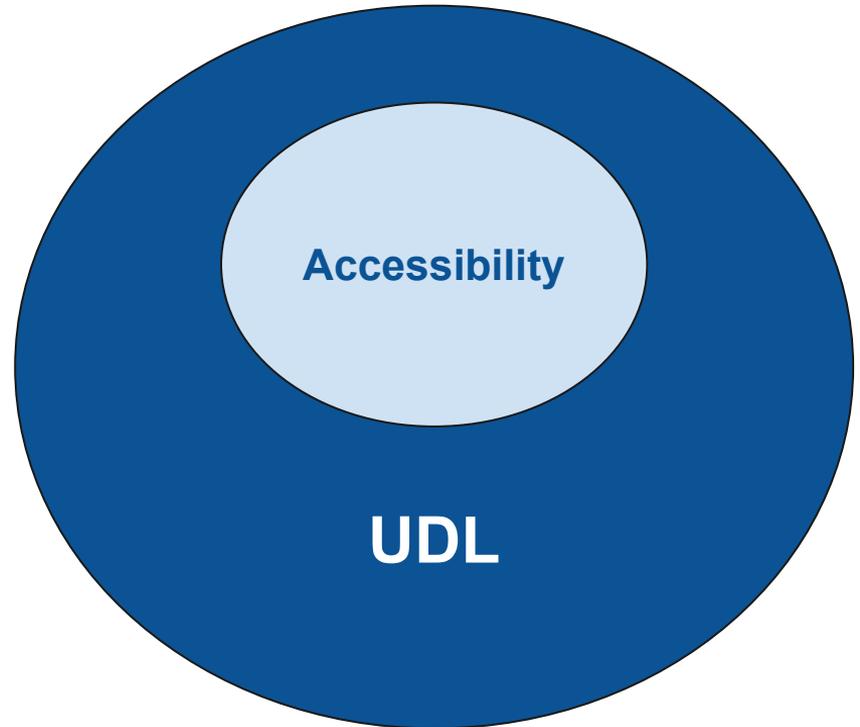
Offer options for students to demonstrate their learning in various ways (e.g. allow choice of assessment type).



How is UDL related to Accessibility?

“Although accessibility and UDL are not synonymous, they do support one another. UDL provides a framework for designing courses with a diverse group of learners in mind, and accessibility is ensuring that all materials, activities, and technology used in the class are accessible for all students”

[\(University of Cincinnati IT\)](#)





Disability in the College Classroom

Disabilities can be **temporary** (such as a broken arm), **relapsing and remitting**, or **long-term**.

Types of disabilities may include:

- Hearing loss
- Low vision or blindness
- Learning disabilities, such as ADD/ADHD, dyslexia, or dyscalculia
- Mobility disabilities
- Chronic health disorders, such as epilepsy, Crohn's disease, arthritis, cancer, diabetes, migraine headaches, or multiple sclerosis
- Psychological or psychiatric disabilities, ie. mood, anxiety and depressive disorders, or Post-Traumatic Stress Disorder (PTSD)
- Autism spectrum disorders
- Traumatic Brain Injury



Diverse Learners, Diverse Learning

Universal Design for Learning is being used in higher education as a means to address an increasingly diverse population of students.

- Students with disabilities (**diagnosed and undiagnosed**)
- First generation students
- English Language Learners
- International students
- Academically underprepared students
- Students who are primary caregivers (to children or other family members)
- Full-time workers
- Digitally savvy students
- Technology-phobic students
- Students with specific learning styles



UDL Spotlight: Captions

98.6% of students find captions helpful

75% of students who use captions said they use them as a learning aid

71% of students without hearing difficulties use captions at least some of the time

66% of ESL students find captions “very” or “extremely” helpful

<https://3playmedia-wpengine.netdna-ssl.com/wp-content/uploads/student-use-of-captions-research-study-infographic-1.pdf>

UDL & Active Learning

What is Active Learning?

- Using your phone, make a 1-minute “selfie video” of yourself explaining what active learning means.



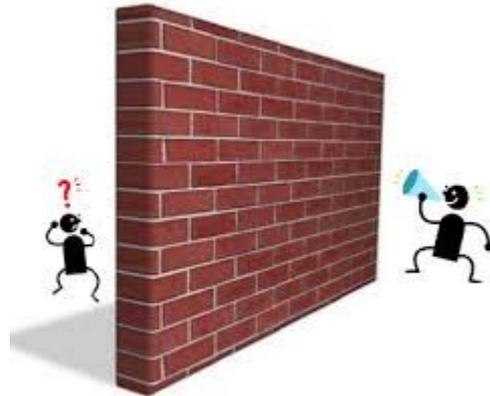
1:00

Stop

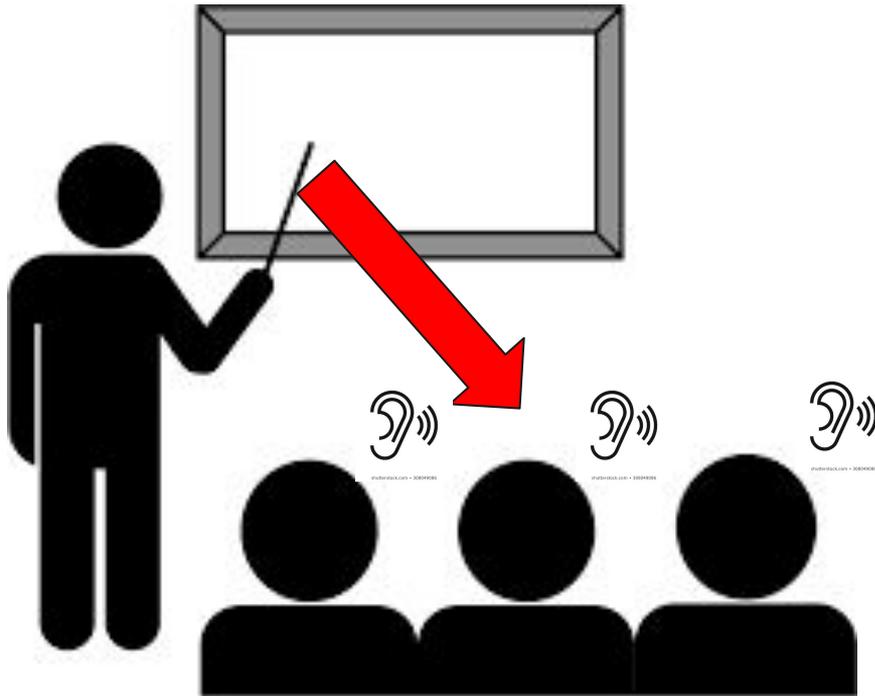
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Reducing Barriers

UDL can be thought of as a strategy to address barriers to learning. To know how to address those barriers, you first need to identify them.



Lecture v. UDL



- **Engagement:** Listening only
- **Representation:** Speaking only
- **Action & Expression:** None

Barriers in Active Learning



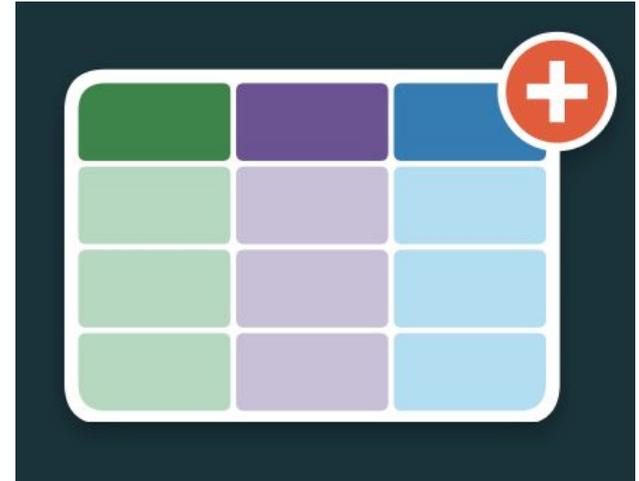
Professor B. decides that he wants all his students to participate in class, rather than just listening to him lecture. He also wants to make sure that he is doing good formative assessment, and checking in regularly to see what his students have learned from his lecture.

He decides he's going to start chunking his lectures into 20 minute chunks, and after each one, he'll randomly call on 5 students to answer questions about that lecture chunk. Since the students know they could be the one called on, they'll stay engaged and pay attention so they're prepared to answer his questions, and he'll get a sense of how students are learning.

- **What possible barriers to learning might Professor B. inadvertently be creating through this activity?**

The CAST Guidelines

- <http://udlguidelines.cast.org/>
- **3 Core Principles**
 - Multiple means of Engagement
 - Multiple means of Representation
 - Multiple means of Action & Expression
- **3 Levels**
 - Access
 - Build
 - Internalize





Discussion:

- Do you already do any of these things in your classroom?
Which ones?
- Which strategies can you see yourself applying?

UDL Strategies in Practice

Try it:

1. Identify the barrier(s).
2. Identify appropriate checkpoints.
3. Collaborate to find a solution.



Your Turn: Identifying the Barriers



Professor H. wants to bring history alive for his students. He decides that rather than just reading about the issues, he'll have students debate the topics in class with each other. He assigns each student a case from the textbook to read about before class, and on the day of the debate, sets a timer for 2 minutes per student to keep things moving quickly. However, the debate seems to fall flat. Students responses are minimal, surface level, and most don't even fill 2 minutes. Most students seem to just want to "get it over with".

- **What do you think the barriers were?**
- **What checkpoint(s) and solution could be applied?**

Your Turn: Identifying the Barriers



Professor S. wants to replace her multiple choice exam with something more authentic and realistic. She decides that her class will develop a proposal to help a local business increase their environmental sustainability. They will work on this over the course of the semester in groups, and at the end, will present their proposal to the class.

However, as the semester goes on, the students don't seem that engaged at all, and they don't seem to communicate well with their group members. Furthermore the final product seems rushed, despite the amount of time the students have had to work on it, and doesn't really seem to be aligned with what she expected them to do.

- **What do you think the barriers were?**
- **What checkpoint(s) and solution could be applied?**



Your turn: Identifying the barriers

Think of an example **from your own classroom**. What was a time when things didn't go the way you planned or expected? What went wrong?

- What do you think the barriers were?
- What checkpoint(s) and solution could be applied?
- How might you revise your activity to include multiple means of engagement/representation/action & expression?

Questions?



Additional Resources

- [Using Universal Design in the University Classroom](#) - Ryerson University
- [UDL On Campus](#) - cast.org
- [WebAIM](#) - Web Accessibility In Mind
- [Creating Accessible Learning Environments](#) - Vanderbilt University

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