

Instructional Strategies to Address the
Diverse Needs of All Students

Universal Design For Learning (UDL) Principles and Guidelines

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EQUALITY=SAMENESS

Giving everyone the same MEANS

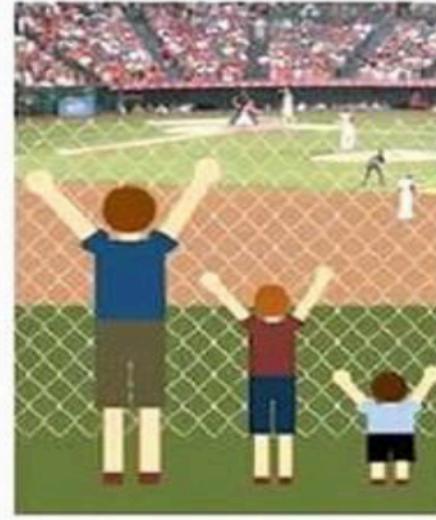
It only works if everyone starts from the same starting point



EQUITY=FAIRNESS

Giving everyone ACCESS to the same opportunities.

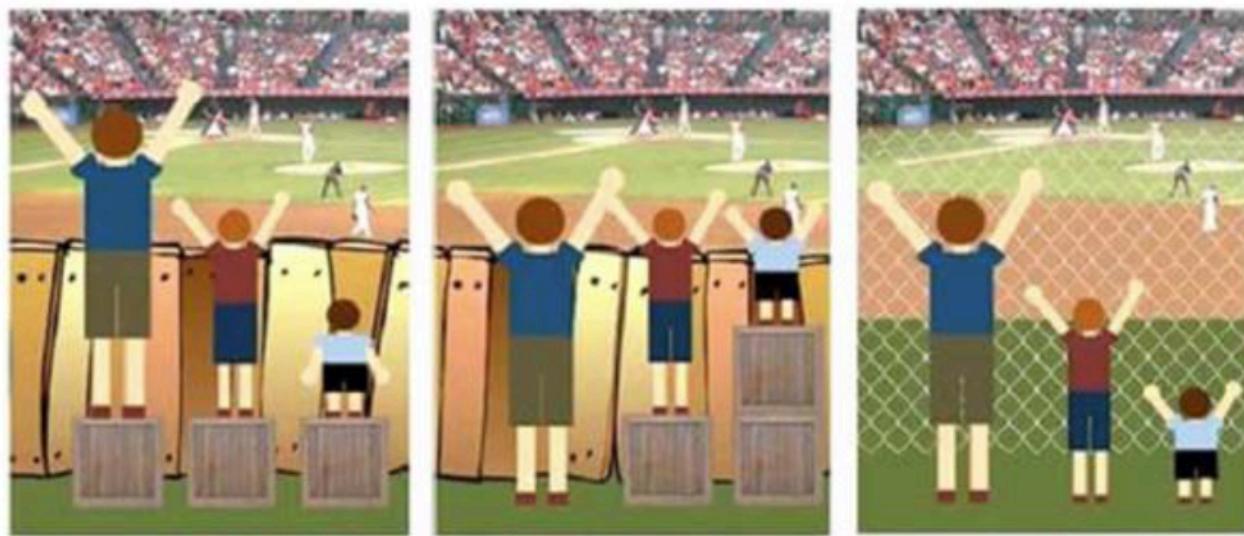
We must first ensure equity before we can enjoy equality



JUSTICE
The systemic barrier (environmental, institutional, economic, attitudinal) have been removed



Accessibility and Universal Design for Learning



Equal, static instruction.
(c.f. "Traditional Instruction")

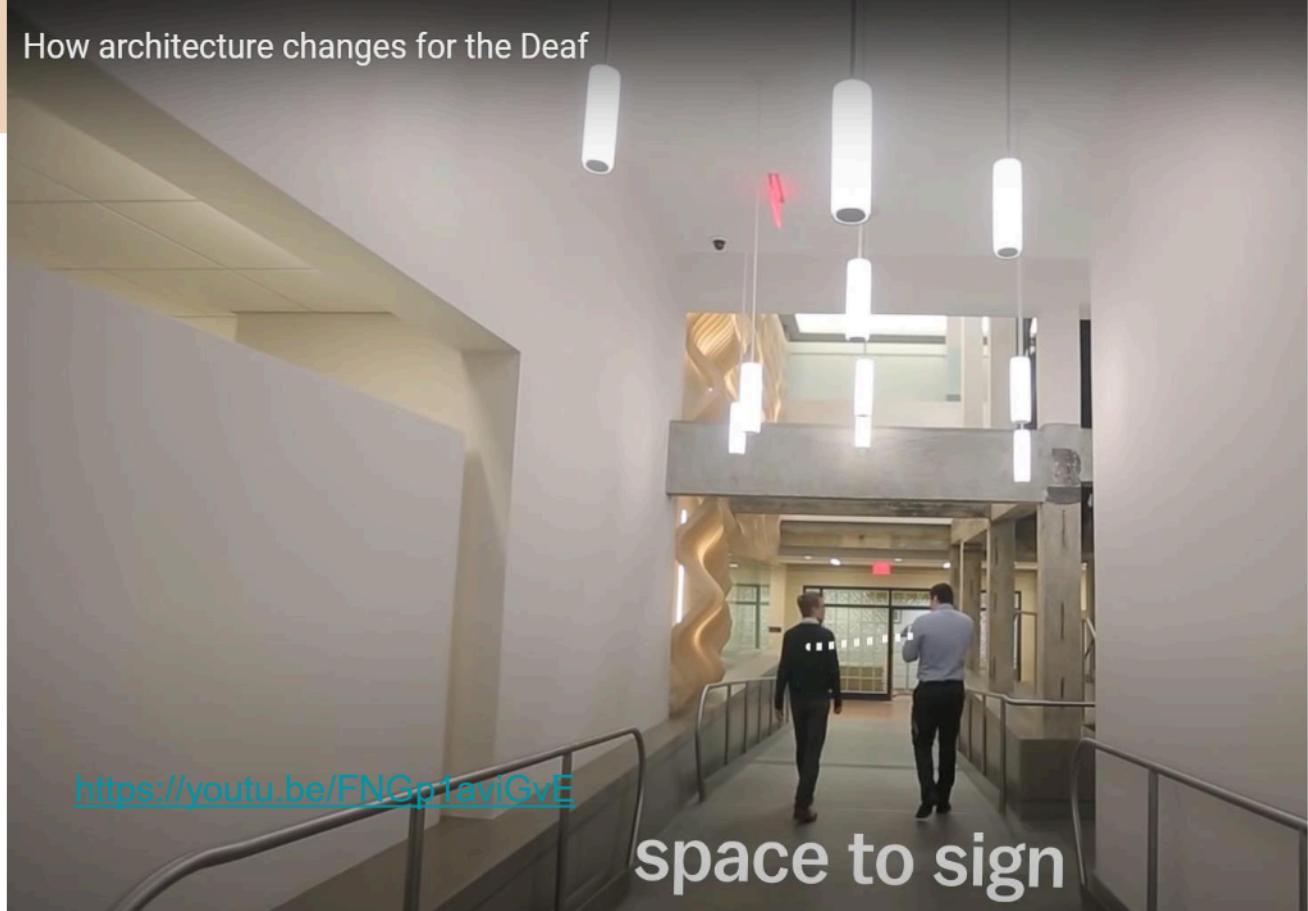
Equitable, support based on student need.
(c.f. "accommodations and modifications")

Flexible learning experiences, such that variable learners have access. (c.f. UDL)

- 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.

Universal Design in Architecture

How architecture changes for the Deaf



<https://youtu.be/FNGp1aviGvE>

space to sign

The Principles of Universal Design



1 Equitable Use

The design is useful and marketable to people with diverse abilities.

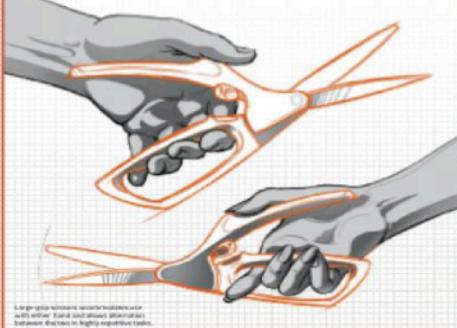


5 Tolerance for Error

The design minimizes hazards and the adverse consequences of accidental or unintended actions.

2 Flexibility in Use

The design accommodates a wide range of individual preferences and abilities.



6 Low Physical Effort

The design can be used efficiently and comfortably and with a minimum of fatigue.

3 Simple and Intuitive Use

Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or education level.



4 Perceptible Information

The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.



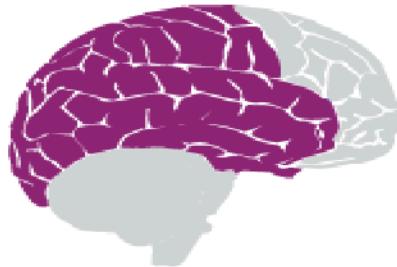
7 Size and Space for Approach and Use

Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.

Universal Design for Learning (CAST, 2018)

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.

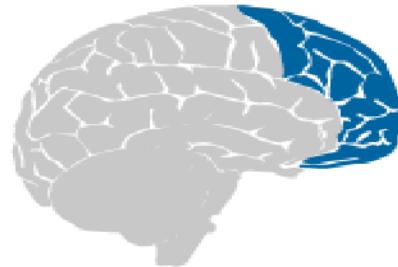


Present information and content in different ways

More ways to provide Multiple Means of Representation

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.

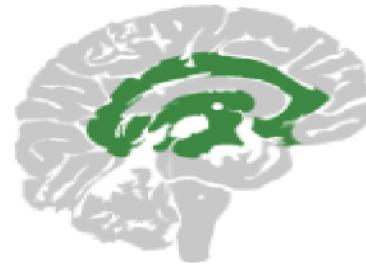


Differentiate the ways that students can express what they know

More ways to provide Multiple Means of Action and Expression

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

More ways to provide Multiple Means of Engagement

Present information and content in different ways

More ways to provide
Multiple Means of Representation

(WHAT)

Differentiate the ways that students can express what they know

More ways to provide
Multiple Means of Action and Expression

(HOW)

How do you perceive the three principles?
Provide an example for each one.

Think-Pair-Share

Stimulate interest and motivation for learning

More ways to provide
Multiple Means of Engagement

(WHY)

UDL Guidelines

The Universal Design for Learning Guidelines

CAST | Until learning has no limits

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

Provide options for Recruiting Interest (1)

- 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)

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)

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)

Expert learners who are...

Purposeful & Motivated

Resourceful & Knowledgeable

Strategic & Goal-Directed

<http://udlguidelines.cast.org/>

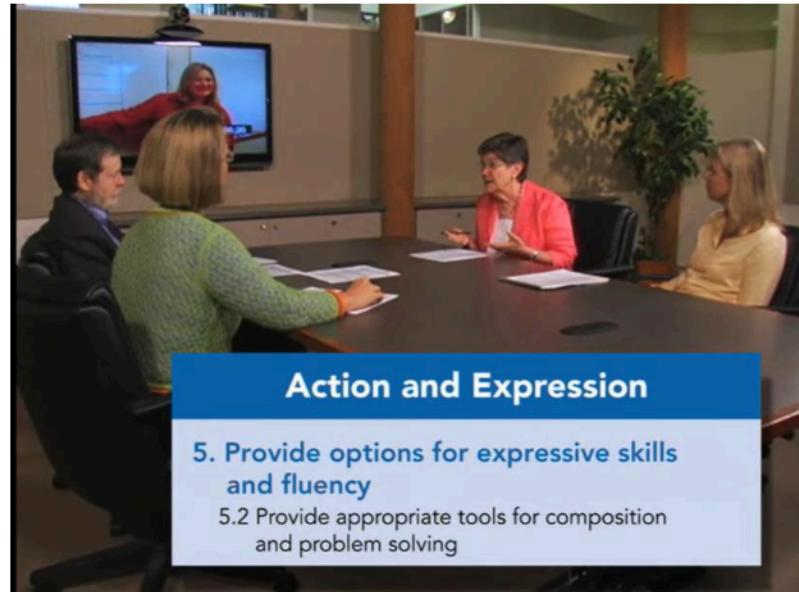
Time to visit the Padlet!



Universal Design for Learning (UDL) in Practice



UDL Guidelines in Practice: Grade 1 Maths
<https://youtu.be/KuTJJQWnMaQ>



UDL Guidelines in Practice: Grade 6 Science
<https://youtu.be/dTxFYf50I-4>

Universal Design for Learning (UDL) in Practice



UDL Guidelines in Practice: Grade 5 Language Arts
<https://youtu.be/zE8N8bnllgs>

UDL principles and the four main curricular components



How do I apply
the principles
to each
component?

