

Universal Design for Learning: Strategies and Digital Tools to Support All Learners

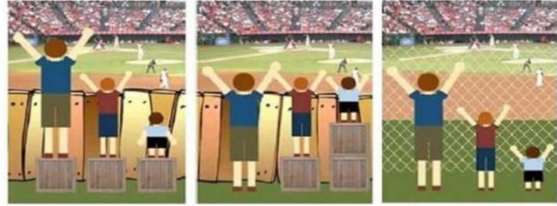
Vienna, Austria

28.7.2025-2.8.2025.

Defining inclusive education, key principles and values

- What is „Diversity”? Nationality, language, religion, ethnicity....
- What is „Inclusion”? Participation of children
- Equity versus Equality (fairness versus sameness)
- KEY PRINCIPLES: never ending process; presence, participation and achievement of all students; identification and removal of barriers, emphasis on those learners who may be at risk of marginalization or underachievement

Dynamic approach of responding positively to pupil diversity and of seeing individual differences not as a problem, but as opportunities for enriching learning



The diagram consists of three panels showing three people of different heights (tall, medium, and short) standing on a grassy field with a baseball diamond in the background. In the first panel, all three are standing on the ground, and only the tallest person can see over the fence. In the second panel, the medium and short people are standing on wooden crates to see over the fence. In the third panel, the crates are removed, and only the tallest person can see over the fence.

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

But, how do we ensure justice??

Accessibility and Universal Design for Learning



The diagram consists of three panels showing the same three people of different heights. In the first panel, all three are standing on the ground, and only the tallest person can see over the fence. In the second panel, the medium and short people are standing on wooden crates to see over the fence. In the third panel, the crates are removed, and only the tallest person can see over the fence.

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.

THE UNIVERSAL DESIGN FOR LEARNING GUIDELINES

- The goal is learner agency that is purposeful and reflective, resourceful and authentic, strategic and action – oriented
- Engagement (the „why” of learning)
- Representation (the „what” of learning)
- Action and expression (the „how” of learning)

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

UDL in New Zealand <https://vimeo.com/220717678>



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)



Stimulate interest and motivation for learning

More ways to provide Multiple Means of Engagement

(WHY)

ACTIVITY



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

Think-Pair-Share

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



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 (6)

- Heighten salience of goals and objectives (6.1)
- Vary demands and resources to optimize challenge (6.2)
- Foster collaboration and community (6.3)
- Increase mastery-oriented feedback (6.4)

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 (3)

- Use multiple media for communication (3.1)
- Use multiple tools for construction and composition (3.2)
- Build fluencies with graduated levels of support for practice and performance (3.3)

Internalize

Provide options for Self Regulation (5)

- Promote expectations and beliefs that optimize motivation (5.1)
- Facilitate personal coping skills and strategies (5.2)
- Develop self-assessment and reflection (5.3)

Provide options for Comprehension (8)

- Activate or supply background knowledge (8.1)
- Highlight patterns, critical features, big ideas, and relationships (8.2)
- Guide information processing and visualization (8.3)
- Maximize transfer and generalization (8.4)

Provide options for Executive Functions (9)

- Guide appropriate goal-setting (9.1)
- Support planning and strategy development (9.2)
- Facilitate managing information and resources (9.3)
- Enhance capacity for monitoring progress (9.4)

Goal

Expert learners who are...

Purposeful & Motivated

Resourceful & Knowledgeable

Strategic & Goal-Directed

Time to visit the Padlet!



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

Digital tools

- Coggle (mind mapping tool to organize ideas and thoughts)
- Chat GPT (a great lesson planning)
- Deepseek (forbidden in some countries)
- Claude AI (detailed and more human)
- Diffit (teachers love it, invent tasks for you)
- Canva (create a design/video)
- Gemini (more sources, big blocks of texts)
- Quillbot (writing)
- Suno (a song generator)

