

# Universal Design for Learning (UDL) & Career and Technical Education (CTE)

[bit.ly/3t1gHSZ](https://bit.ly/3t1gHSZ)

# Introductions

Who are you?

How do you identify?

Name, role, school, etc.

In one sentence how do you explain what CTE is?



Amanda



Identities are made up of more than just our title, name, etc. What would happen if at your next professional development session or the start of your next class you asked individuals to create a slide about themselves. Then, ask them to “notice” or “reflect” on what they see.

**UDL Move: Don't forget to provide an example and a prompts.**

# Goals

- Identify where we are going: What does UDL look like in a CTE Classroom?
- Introduce the core concepts of UDL
- Connect the Core Concepts of UDL to CTE
- Identify one UDL strategy you can start incorporating tomorrow that will support students with disabilities

# Using UDL in a CTE Classroom

## Background

- Production Manager (Steel Elements Inc.)



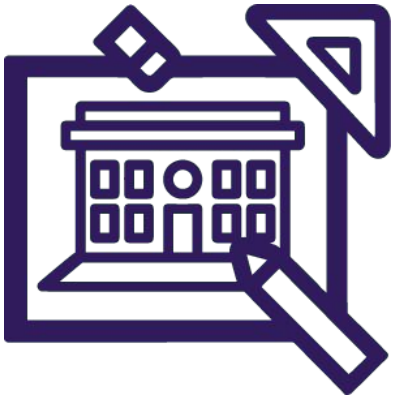
Watch this video together and respond to the following questions.

- What resonates for you in this video?
- Dennis made a significant number of changes to his program and lesson design after learning about UDL. Which changes struck you the most? Why?

# Introduction to the core concepts in UDL

# Architecture

Architecture



Neuroscience



Learning



# Universal Design in Architecture: Ron Mace

*"It's the set of the soul that determines the goal"*

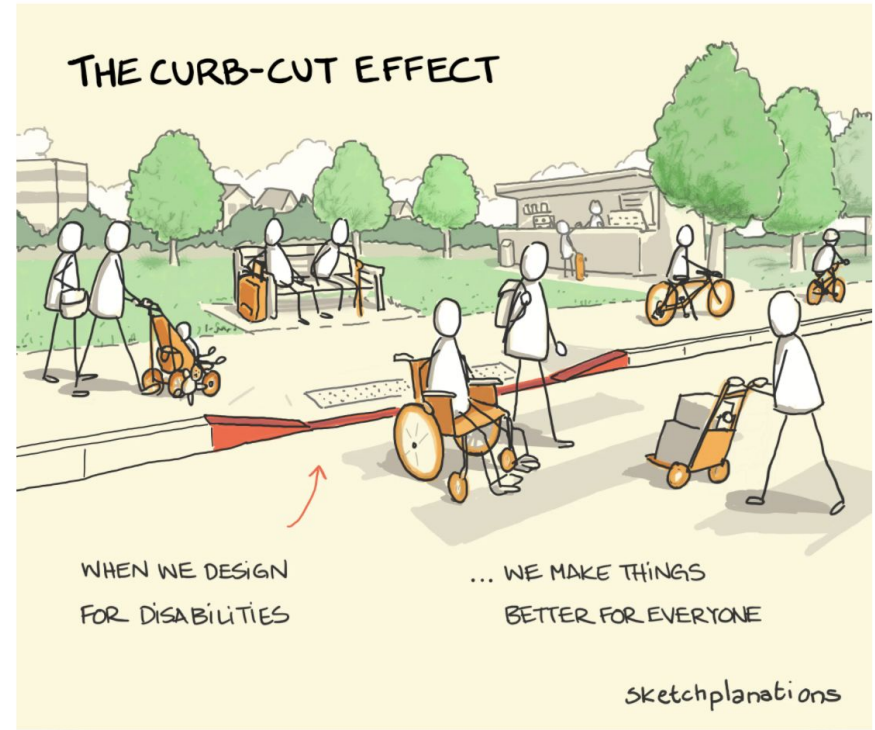




# What happens when we design physical spaces proactively



[99% Invisible Podcast](#)





UDL Core Concepts:

# The Barrier is in the Environment

The barrier is in the environment, not the learner.



# My garden



# UDL vs. Differentiation



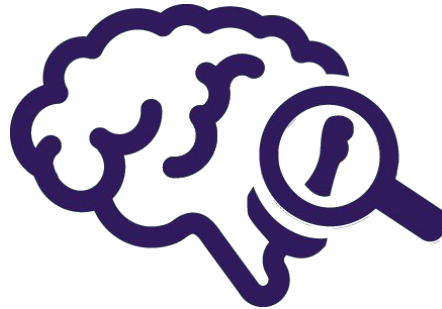
What are the consequences of **Retrofitting**?

# The UDL Core Concepts: Neuroscience

The barrier is in the environment, not the learner.



## Neuroscience



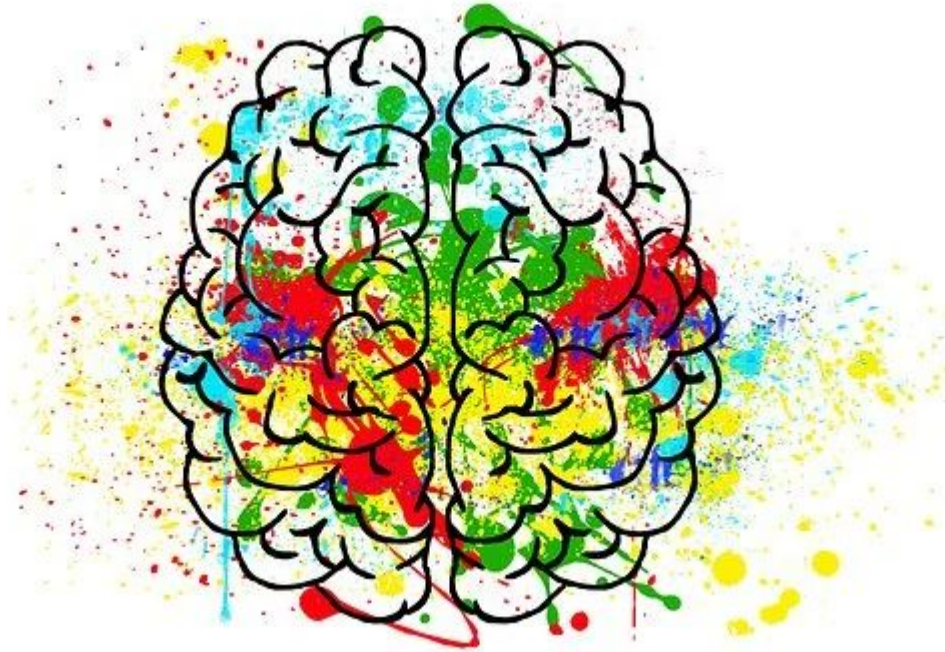
## Learning





“ ‘Variability’ is the term used to describe just how unique and varied our brains are. No two learners activate the same pathways in the brain.”

Posey & Novak, 2020



# “The Myth of Average”

Air Force Analogy (0:23)

Jagged Learning Profiles  
(6:40)

Simple Solutions in a  
School Setting (11:00)

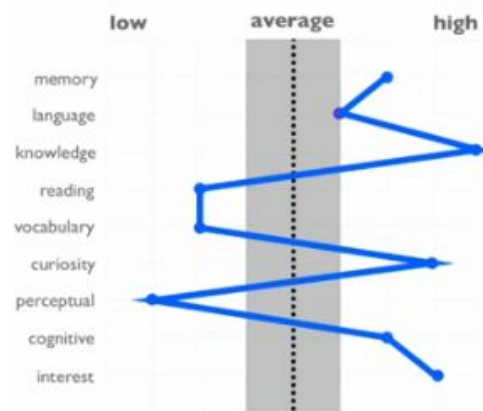
Our Charge Going  
Forward (15:30)



What resonates? Add your comments to the chat...

# Dimensions of Student **Variability**

- Interest
- Perception
- Language
- Physical Navigation
- Executive Function Skills
- Where do **you** see variability in your classroom?





The UDL Core Concepts:

# Variability is the norm

**Variability** is the norm.



# The UDL Core Concepts: Learning

The barrier is in the environment, not the learner.



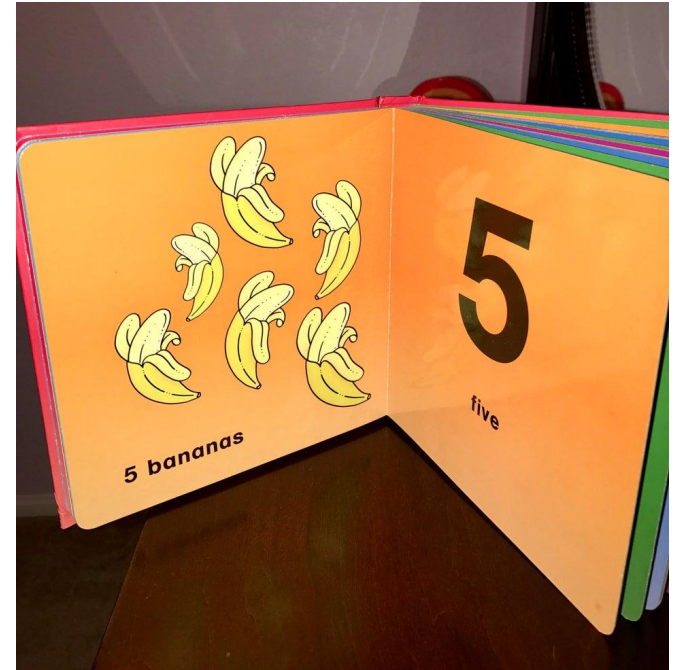
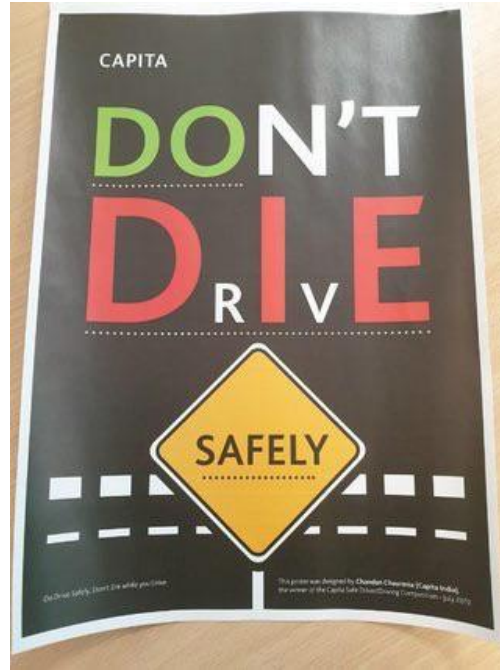
Variability is the norm.



## Learning



# What happens when we don't design proactively?



The UDL Core Concepts:

# We can design for variability

**Variability is predictable**  
in learning and **can** be  
designed for.



# You are a learning designer...

A **design** is a plan for:

- How do you construct a learning environment for all learners?
- What problems do you need to **solve**?

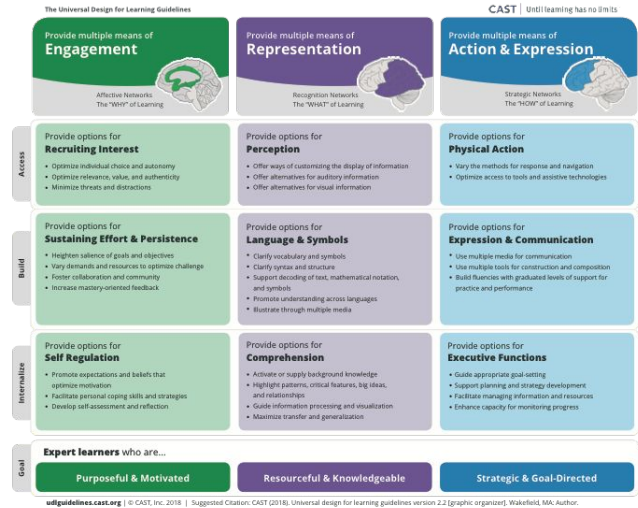
**Designers**

- Rely on data
- Just focus on how “it works”
- Solicit feedback and don’t blame the user (student)



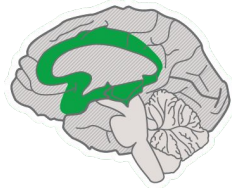
# Universal Design for Learning

UDL is a **flexible** framework (based on science and research) that educators can use to **proactively design** learning (curriculum, environments, materials) to increase success for **all** students.

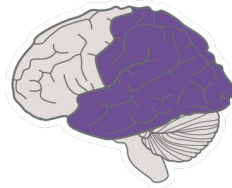


# Provide Options & Choice

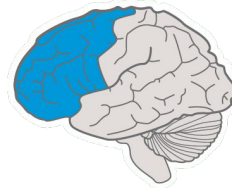
Learners differ in the ways they engage with, perceive, and express learning. Providing options and choice is essential.



**Engage**



**Perceive**



**Express**



Option & Choice on what you noticed/took away from Dennis' story (how to make it relevant to you)

Option & Choice for how you consume information (captions, listen, watch)

Option and choice for how you want to respond (homebase, chat, turn on microphone)

	Engagement	Representation	Action & Expression
Access	<b>Provide options for Recruiting Interest</b> <ul style="list-style-type: none"><li>Optimize individual choice and autonomy</li><li>Optimize relevance, value and authenticity</li><li>Minimize threats and distractions</li></ul>	<b>Provide options for Perception</b> <ul style="list-style-type: none"><li>Offer ways of customizing the display of information</li><li>Offer alternatives for auditory information</li><li>Offer alternatives for visual information</li></ul>	<b>Provide options for Physical Action</b> <ul style="list-style-type: none"><li>Use the methods for response and navigation</li><li>Optimize access to tools and assistive technologies</li></ul>
Build	<b>Provide options for Sustaining Effort &amp; Persistence</b> <ul style="list-style-type: none"><li>Heighten salience of goals and objectives</li><li>Vary demands and resources to optimize challenge</li><li>Foster collaboration and community</li><li>Increase mastery-oriented feedback</li></ul>	<b>Provide options for Language &amp; Symbols</b> <ul style="list-style-type: none"><li>Clarify vocabulary and symbols</li><li>Clarify syntax and structure</li><li>Support decoding of text, mathematical notation, and symbols</li><li>Promote understanding across languages</li><li>Illustrate through multiple media</li></ul>	<b>Provide options for Expression &amp; Communication</b> <ul style="list-style-type: none"><li>Use multiple media for communication</li><li>Use multiple tools for construction and composition</li><li>Build fluencies with graduated levels of support for practice and performance</li></ul>
Internalize	<b>Provide options for Self Regulation</b> <ul style="list-style-type: none"><li>Promote expectations and beliefs that optimize motivation</li><li>Facilitate personal coping skills and strategies</li><li>Develop self-assessment and reflection</li></ul>	<b>Provide options for Comprehension</b> <ul style="list-style-type: none"><li>Activate or supply background knowledge</li><li>Highlight patterns, critical features, big ideas, and relationships</li><li>Guide information processing and visualization</li><li>Maximize transfer and generalization</li></ul>	<b>Provide options for Executive Functions</b> <ul style="list-style-type: none"><li>Guide appropriate goal-setting</li><li>Support planning and strategy development</li><li>Facilitate managing information and resources</li><li>Enhance capacity for monitoring progress</li></ul>
Goal	<b>Expert learners who are... Purposeful &amp; Motivated</b>	<b>Resourceful &amp; Knowledgeable</b>	<b>Strategic &amp; Goal-Directed</b>

udlguidelines.cast.org | © CAST, Inc. 2018 | Suggested Citation: CAST (2018). Universal design for learning guidelines version 2.2 [graphic organizer]. Wakefield, MA: Author.

# Connecting UDL & CTE

# CTE Teachers Naturally use UDL

- Educators are industry leaders
- Contexts rich in collaboration and autonomy
- Learning relates directly to career
- Teacher have experience in the field
- Contextualized, relevant, project-based learning



# UDL Provides CTE Teachers Language



- Allowed me to reflect on how I was teaching
- Increasing engagement (nontraditional students)
- Frees me to focus on learning not just content
- Empowers the students to own the learning
- Creates a common language for discussing “good teaching”

# Reflect on UDL

## Perkins V 2018

UDL as an allowable use of state and local funds for training for CTE instructors working with English Learners (ELs) and individuals with disabilities.

## Know, Want to Know, Learned (KWL)

What did I already know about UDL?

What do I want to know more about UDL?

Something I learned about UDL today?

# Feedback: A Tangible Strategy for Using UDL

# How you Give Feedback *Really* Matters

## Mastery-Oriented Feedback

- encourages perseverance
- focuses on the development of efficacy and self-awareness,
- encourages the use of specific supports and strategies in the face of challenge
- emphasizes effort and improvement
- is frequent, timely, and specific
- is informative rather than comparative or competitive



# Wise Feedback

## Control group:

I'm giving you these comments so you have feedback on your essay.

## “Wise feedback” group:

I'm giving you these comments on your essay because I have high standards and I know that you have the skills to do well.

# Components of wise feedback

***Feedback description.*** The teacher describes the nature of the feedback being offered.

***High standards.*** The teacher emphasizes and explains the high standards used to evaluate the student work and generate the instructional feedback.

***Assurance of student ability.*** The teacher states explicitly that the student has the skills necessary to successfully meet those standards.

Cohen, Steele, & Ross, 1999; Yeager et al., 2013.

# Next Steps



1. Biggest takeaway: Based on the training today I will...
2. [Feedback Survey](#)

# Resources

# Universal Design for Learning (UDL)

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

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



@CAST\_UDL | #AEM4All

# UDL: Theory & Practice

Meyer, Rose & Gordon (2014)



FREE digital book:

<http://udltp.cast.org>

