

# UDL 101

## Beginning Implementation-Day 2



State Personnel Development Grant  
(Grant No. H323AO50005)



# AGENDA- DAY 2

## UDL BASICS

- 8:00-8:30 Registration
- 8:30-9:00 Welcome and Reflection Activity
- 9:00-10:30 Curricula Disability/ Principle I and Affective Network
- 10:30-10:45 Break
- 10:45-12:00 Principles II & III-Recognition and Strategic Networks
- 12.00-1:00 Lunch
- 1:00-1:45 UDL Guidelines
- 1:45-2:30 Devising solutions to Barriers
- 2:30-2:45 Break
- 2:45-3:30 Creating a quarterly Action Plan
- 3:30-4:00 Reflection/Q&A

# OBJECTIVES

- 1. Participants will comprehend the science behind UDL Principle I, II, & III.**
- 2. Participants will have the capacity to recognize and evaluate a UDL lesson which demonstrates levels of accessibility in all three Principles as outlined in the UDL guidelines.**
- 3. Participants will redesign a short UDL lesson removing any barriers to accessibility.**
- 4. Participants will create an Action Plan for the first quarter utilizing the UDL accessibility tier across all three Principles.**

# The Whip Around

Find other people with your color and form a circle!

- Think of one word or a phrase that best describes something memorable or questionable from yesterday.
- Now explain why you chose that word or phrase and how it is relevant to yesterday's training.

# From Yesterday...

- Myth of Average

QUESTION:

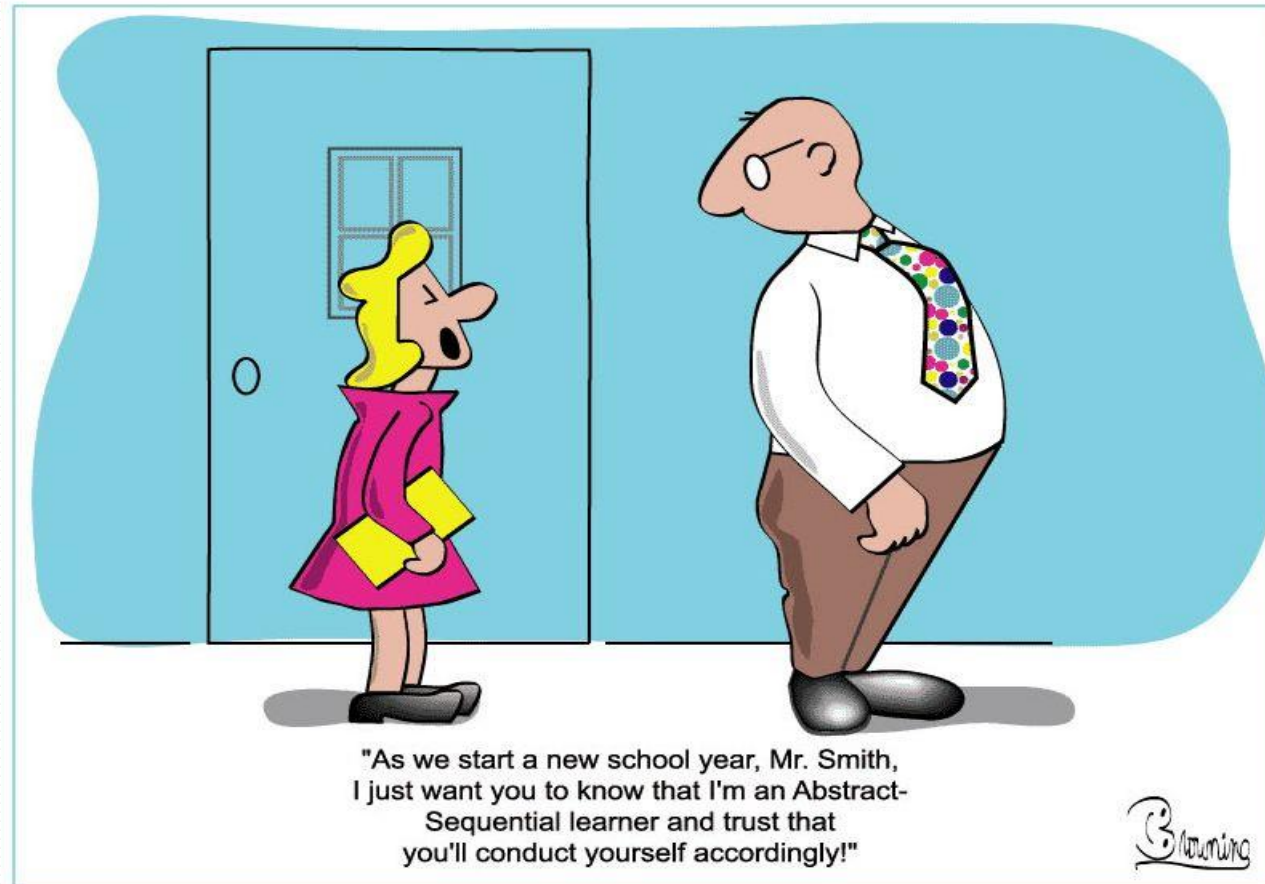
How important is it for a teacher to know the learning styles of all students?

Please log onto the website using your smartphone or tablet:

<https://quizizz.com/join/> Learner Variability Enter Code:

# Learner Variability

<https://youtu.be/2tHyQWZ-EQI>



# DISABLED CURRICULA

**Curricula are disabled in **WHO** they can teach.**

Most curricula are devised for the fictional “average” learner.

Curricula do not account for learner variability and often marginalize gifted and struggling learners.

# DISABLED CURRICULA

Curricula are disabled in **WHAT** they can teach.

Curricula often provide for very limited instructional options and are typically ill-equipped to differentiate instruction for differing learners, or even learners who are at different levels of understanding.

# Three Brain Networks

## Universal Design for Learning Guidelines

GO TO THE UDL GUIDELINES



AFFECTIVE NETWORKS:  
THE **WHY** OF LEARNING



### Engagement

For purposeful, motivated learners, stimulate interest and motivation for learning.

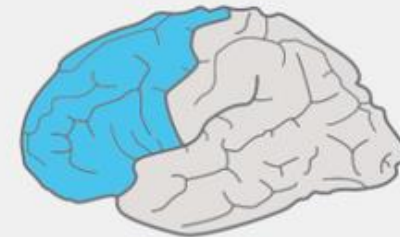
RECOGNITION NETWORKS:  
THE **WHAT** OF LEARNING



### Representation

For resourceful, knowledgeable learners, present information and content in different ways.

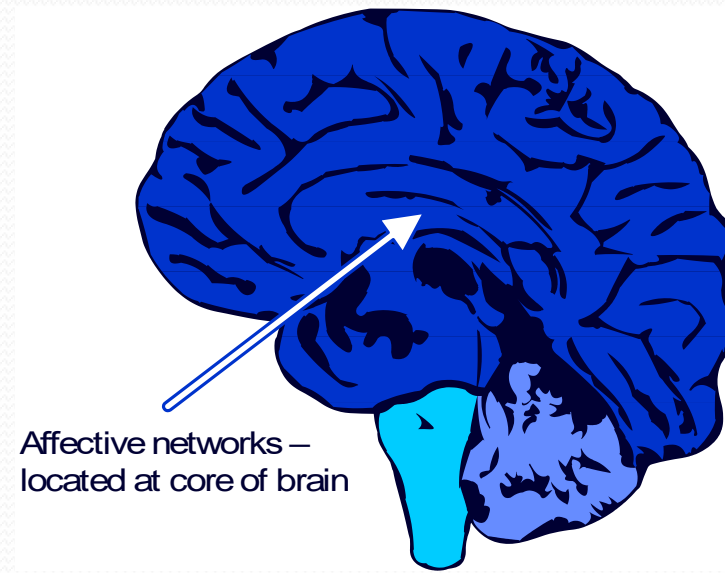
STRATEGIC NETWORKS:  
THE **HOW** OF LEARNING



### Action & Expression

For strategic, goal-directed learners, differentiate the ways that students can express what they know.

# Affective Networks



“the why of learning”

motivation to learn,  
evaluate and set priorities

enable us to engage with  
tasks and learning and  
the world around us



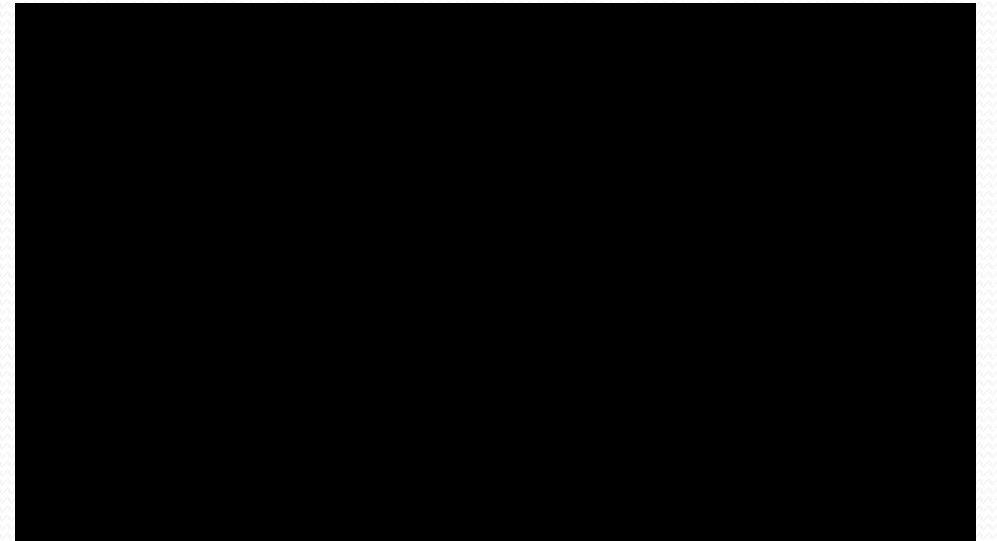
# Inside the Affective Networks

<https://youtu.be/vJG6g8U2Mvo>

Affective networks are specialized to **evaluate patterns** and assign them **emotional significance**.

They enable us to **engage with tasks and learning** and with the world around us.

How much can emotional significance affect learning?  
Let's see...



# Inside Affective Networks

Take two minutes  
and discuss what  
was seen or not  
seen and how it  
may apply to the  
classroom.



# Individual learning differences and the Affective Networks

- Research indicates middle school students with learning disabilities often view academic situations as threatening.
- They may exhibit physiological stress responses upon entering a room where they will be asked to read.

<http://udltheorypractice.cast.org/video?1&chapter=4&id=09>

# Affective Networks

## Implications for the Classroom

### Secure Students

When faced with difficulty, students who are enthusiastic and confident in a classroom setting are more likely to:

**ENGAGE**

**FOCUS**

**PERSIST**

### Insecure Students

Contrarily, students who are uncomfortable or insecure in the classroom setting, have **LESS CAPACITY TO LEARN** because they are pre-occupied with their emotional concerns

# MULTIPLE MEANS OF ENGAGEMENT

## *In the Classroom*

The UDL principle of Engagement is comprised of three guidelines:

1. Provide options for recruiting interest
2. Provide options for sustaining effort and persistence
3. Provide options for self-regulation



## BREAK TIME

Never  
discourage anyone  
who continually  
makes progress,  
no matter how slow.

-Plato



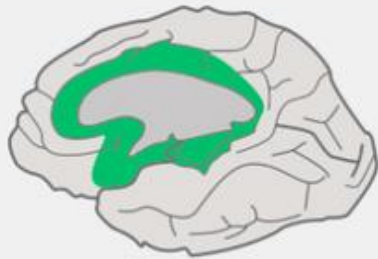
# Three Brain Networks

<http://udltp.cast.org/reading?24&loc=chapter3.xml> l16

## Universal Design for Learning Guidelines

GO TO THE UDL GUIDELINES 

AFFECTIVE NETWORKS:  
THE **WHY** OF LEARNING



### Engagement

For purposeful, motivated learners, stimulate interest and motivation for learning.

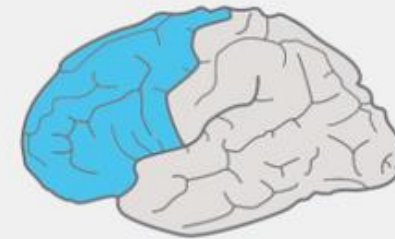
RECOGNITION NETWORKS:  
THE **WHAT** OF LEARNING



### Representation

For resourceful, knowledgeable learners, present information and content in different ways.

STRATEGIC NETWORKS:  
THE **HOW** OF LEARNING



### Action & Expression

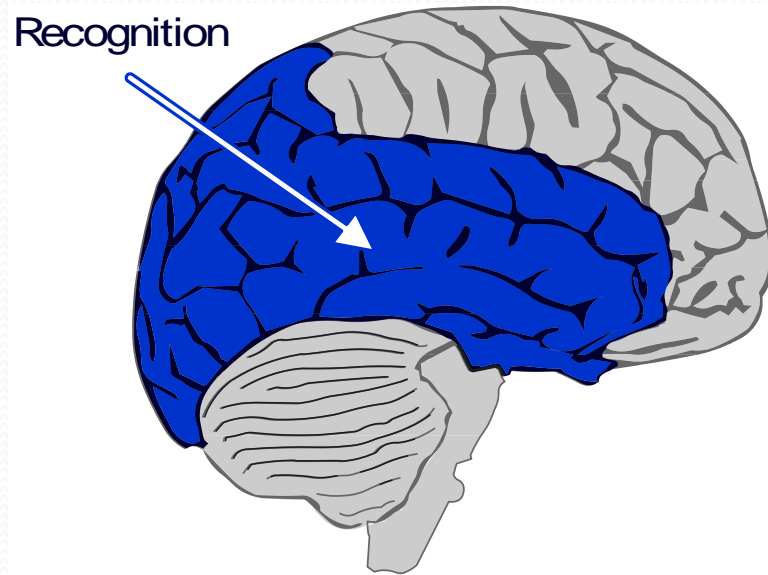
For strategic, goal-directed learners, differentiate the ways that students can express what they know.

# Multiple Means of Representation

## Why it is needed...

- Student variability exists in every classroom.
- Students exhibit a range of disabilities and conditions that may challenge their ability to identify and interpret information through traditional means.

# Recognition Networks



“the what of learning”

Used to identify and interpret patterns of sound, light, taste, smell, and touch.

These networks enable us to recognize voices, faces, letters, and words, as well as more complex patterns, such as an author’s style and nuance, and abstract concepts like justice.



# MULTIPLE MEANS OF REPRESENTATION

## *In the Classroom*

The UDL principle of Representation is comprised of three guidelines:

1. Perception—same information different ways; format allows for users to adjust
2. Language, mathematical expressions and symbols—provides alternative representations for clarity and comprehensibility
3. Comprehension—helps learners develop ways to transform information into useable knowledge

# Multiple Means of Representation

## THE EXPERIENCE...

WHAT IF YOU STRUGGLED WITH ONE OR MORE OF THE FOLLOWING:

Visual Impairment: <http://www.pbs.org/wgbh/misunderstoodminds/experiences/attexp1a.html>

Auditory/Attention Deficit:

<http://www.pbs.org/wgbh/misunderstoodminds/experiences/attexp2b.html>

Dyslexia:

<http://www.pbs.org/wgbh/misunderstoodminds/experiences/readexp1a.html>

Comprehension Disability:

<http://www.pbs.org/wgbh/misunderstoodminds/experiences/writingexp2b.html>



## Group Discussion: What does this mean for students?

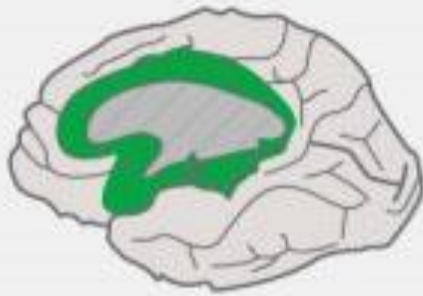
What tasks or activities are influenced by this network daily?

What barriers might exist for some students in accomplishing these tasks?

What are your solutions?

# ACTION AND EXPRESSION: The How of Learning

AFFECTIVE NETWORKS:  
THE **WHY** OF LEARNING



## Engagement

For purposeful, motivated learners,  
stimulate interest and motivation for learning.

RECOGNITION NETWORKS:  
THE **WHAT** OF LEARNING



## Representation

For resourceful, knowledgeable learners,  
present information and content in different  
ways.

STRATEGIC NETWORKS:  
THE **HOW** OF LEARNING



## Action & Expression

For strategic, goal-directed learners,  
differentiate the ways that students can  
express what they know.

# STRATEGIC NETWORKS

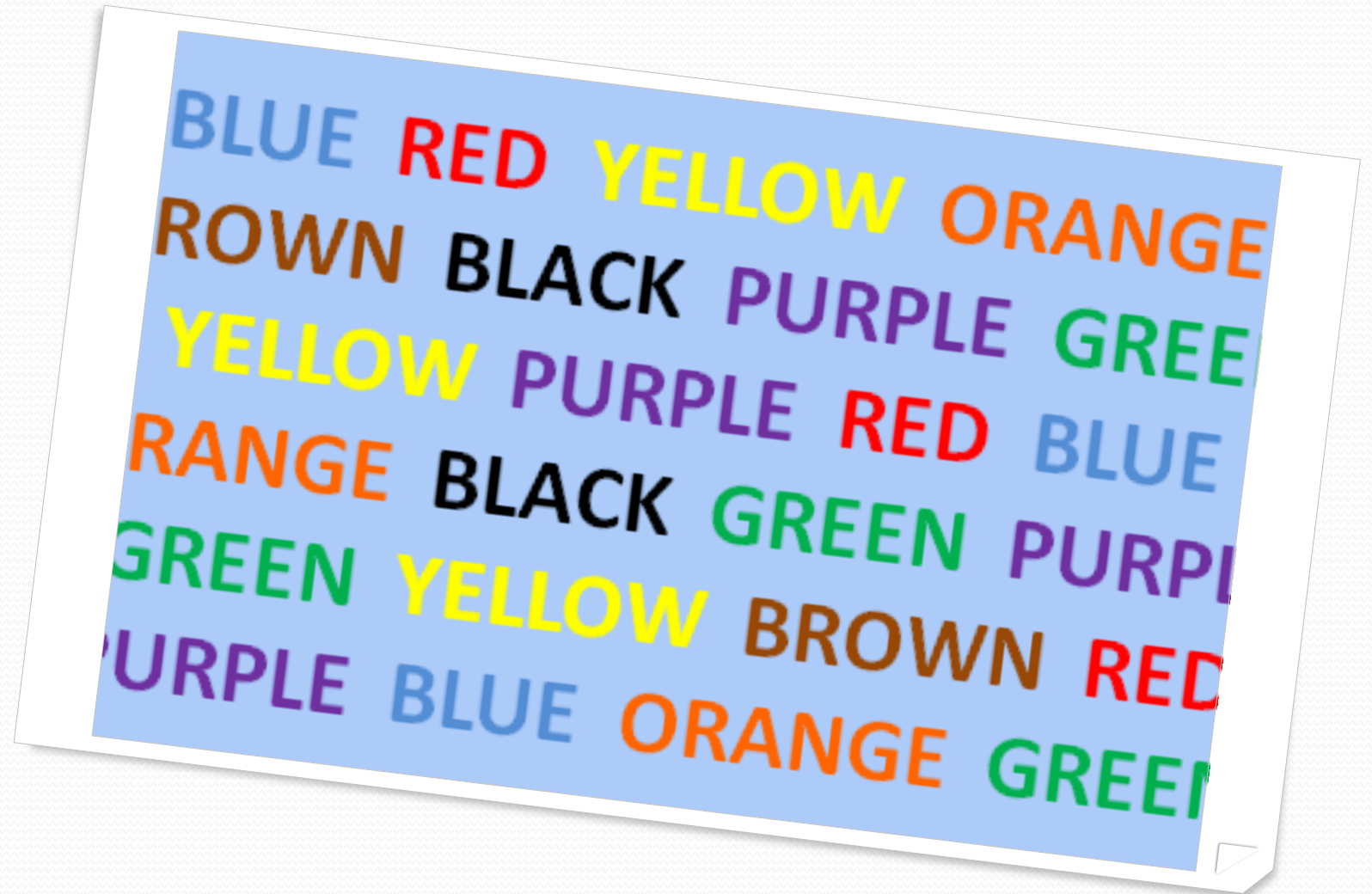
Under this principle, our strategic network oversees the development of expertise in executive functions such as:

- Goal Setting
- Monitoring progress and adjusting approaches
- Strategy Development
- Managing Information and Resources.

# STROOP EFFECT

EXECUTIVE  
FUNCTIONING  
WITHIN THE  
STRATEGIC  
NETWORK

<http://faculty.washington.edu/chudler/java/ready.html>





- Students vary in their ability to learn and express learning
- Providing a variety of options for learners to act and express themselves is key to ensuring greater success.

Action and Expression

# Providing Multiple Means of Action and Expression

## Educators can achieve this by:

- Providing options for physical action
- Providing options for expression and communication
- Providing options for executive functions

[http://udltp.cast.org/reading;jsessionid=3A5CD0E68541E94294DF6ED3A14AAC7A?0&loc=chapter3.xml\\_120](http://udltp.cast.org/reading;jsessionid=3A5CD0E68541E94294DF6ED3A14AAC7A?0&loc=chapter3.xml_120)

- Information from CAST (2011). Universal Design for Learning Guidelines version 2.0. Wakefield, MA: Author.

# LUNCH TIME

**PLEASE RETURN PROMPTLY AT 1PM**



**WHAT DO YOU SAY?  
Let's DO LUNCH!!**

# UDL GUIDELINES 2.2

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



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

## Deriving UDL Solutions Model Template

**Grade:** 3      **Teacher:** Mrs. G.      **Subject:** Science      **Standard:** 6.23—Plants lifecycle

**Goal:** *Research and present information on a flower.*

Materials & Methods	Potential Barriers/ Missed Opportunities	UDL Solutions
Printed textbook	<i>Kevin</i> —Difficulty seeing small text <i>Bill</i> —Doesn't tap his graphics skills <i>Brian</i> —Difficulty decoding/understanding word meaning	Electronic text with text-to-speech to read aloud CD-ROM or online encyclopedia; Web page with collections of images Spanish CD-ROM on flowers; link to Spanish Web site
Lecture/whole class presentation	<i>Jose</i> —Difficulty comprehending meaning <i>Helen</i> —Distracted, may miss info <i>Kiwa</i> —Distracted, may miss info	Provide Spanish/English key terms translations with text-to-speech Provide Inspiration concept map of key ideas; eText outline with text to speech that students can access
Library research	<i>Brian</i> —May have trouble keeping track. <i>Kiwa</i> —May not be able to abstract the project's important content.	Partially filled-in outlines; Web page with attached resources; collection of online resources, online or CD-ROM encyclopedia, linked to Inspiration outline of key project parts
Create written report	<i>Sarita</i> —Mechanics-based difficulty expressing her ideas <i>Jake</i> —Format doesn't tap artistic talent	Word processor with spell check; talking word processor  Graphics program—Kid Pix
Flower drawing	<i>Phillip</i> —Drawing will be physically difficulty.	Word processing; selection of graphics to use in report
Oral report on flower	<i>Jorge</i> —Format doesn't tap musical talent <i>Brian</i> —May be intimidated	Provide option of live or recorded music as part of demonstration Pair Brian with James, who can support him while working
Independent project	<i>James</i> —Context won't draw on his leadership and collaboration skills. <i>Helen</i> —Could have difficulty working alone. <i>Elizabeth</i> —Deep knowledge of plants	Encourage James to support other students as they work  Be sure to find aspect of project of particular interest to Helen and check in frequently. Support presentation with notes Pair Elizabeth with Jose to share her knowledge and enthusiasm

# UDL SOLUTIONS ACTIVITY

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

1. LOCATE THE UDL SOLUTIONS ACTIVITY IN YOUR PACKET.
2. WORK WITH A PARTNER TO DETERMINE APPROPRIATE SOLUTIONS FOR EACH BARRIER PRESENTED.
3. CREATE YOU OWN EXAMPLE OF A PROBLEM AND UDL SOLUTION FROM YOUR PRIOR EXPERIENCE

# RESOURCES AND TECHNOLOGY

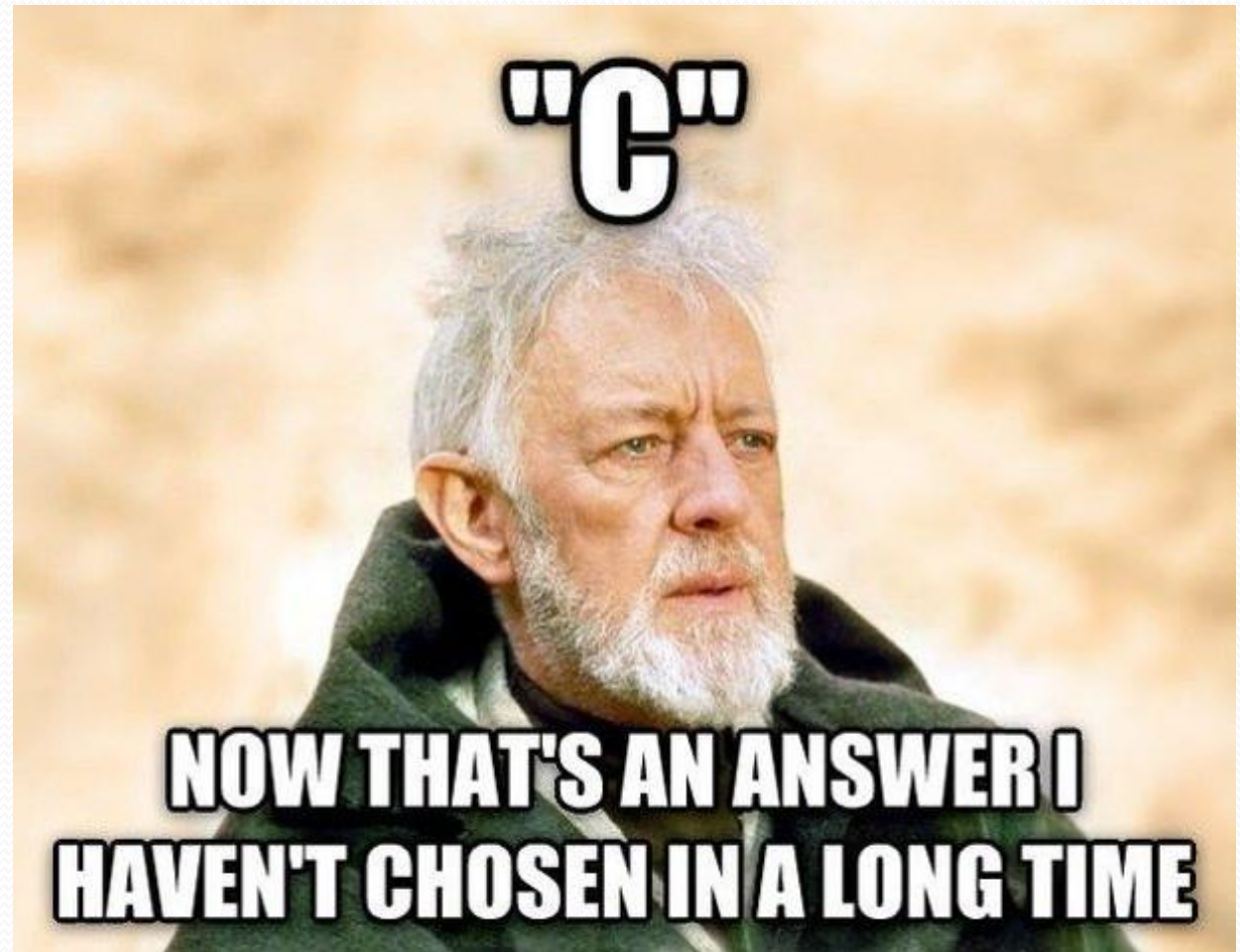
<https://udl-irn.org/home/udl-resources/>

<https://speedchange.blogspot.com/2010/05/ten-free-udl-tools-you-may-not-be-using.html>

[http://mast.ecu.edu/modules/udl\\_intro/concept/](http://mast.ecu.edu/modules/udl_intro/concept/)



UDL 101  
Day 2 Post Test



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