

# Universal Design for

## Representation

### 1: Provide options for perception

- 1.1 Offer ways of customizing the display of information
- 1.2 Offer alternatives for auditory information
- 1.3 Offer alternatives for visual information

### 2: Provide options for language, mathematical expressions, and symbols

- 2.1 Clarify vocabulary and symbols
- 2.2 Clarify syntax and structure
- 2.3 Support decoding of text, mathematical notation, and symbols
- 2.4 Promote understanding across languages
- 2.5 Illustrate through multiple media

### 3: Provide options for comprehension

- 3.1 Activate or supply background knowledge
- 3.2 Highlight patterns, critical features, big ideas, and relationships
- 3.3 Guide information processing, visualization, and manipulation

## Action and Expression

### 4: Provide options for physical action

- 4.1 Vary the methods for response and navigation
- 4.2 Optimize access to tools and assistive technologies

### 5: Provide options for expression and communication

- 5.1 Use multiple media for communication
- 5.2 Use multiple tools for construction and composition
- 5.3 Build fluencies with graduated levels of support for practice and performance

### 6: Provide options for executive functions

- 6.1 Guide appropriate goal-setting
- 6.2 Support planning and strategy development
- 6.3 Facilitate managing information and resources
- 6.4 Enhance capacity for monitoring progress

## Engagement

### 7: Provide options for recruiting interest

- 7.1 Optimize individual choice and autonomy
- 7.2 Optimize relevance, value, and authenticity
- 7.3 Minimize threats and distractions

### 8: Provide options for sustaining effort and persistence

- 8.1 Heighten salience of goals and objectives
- 8.2 Vary demands and resources to optimize challenge
- 8.3 Foster collaboration and community
- 8.4 Increase mastery-oriented feedback

### 9: Provide options for self-regulation

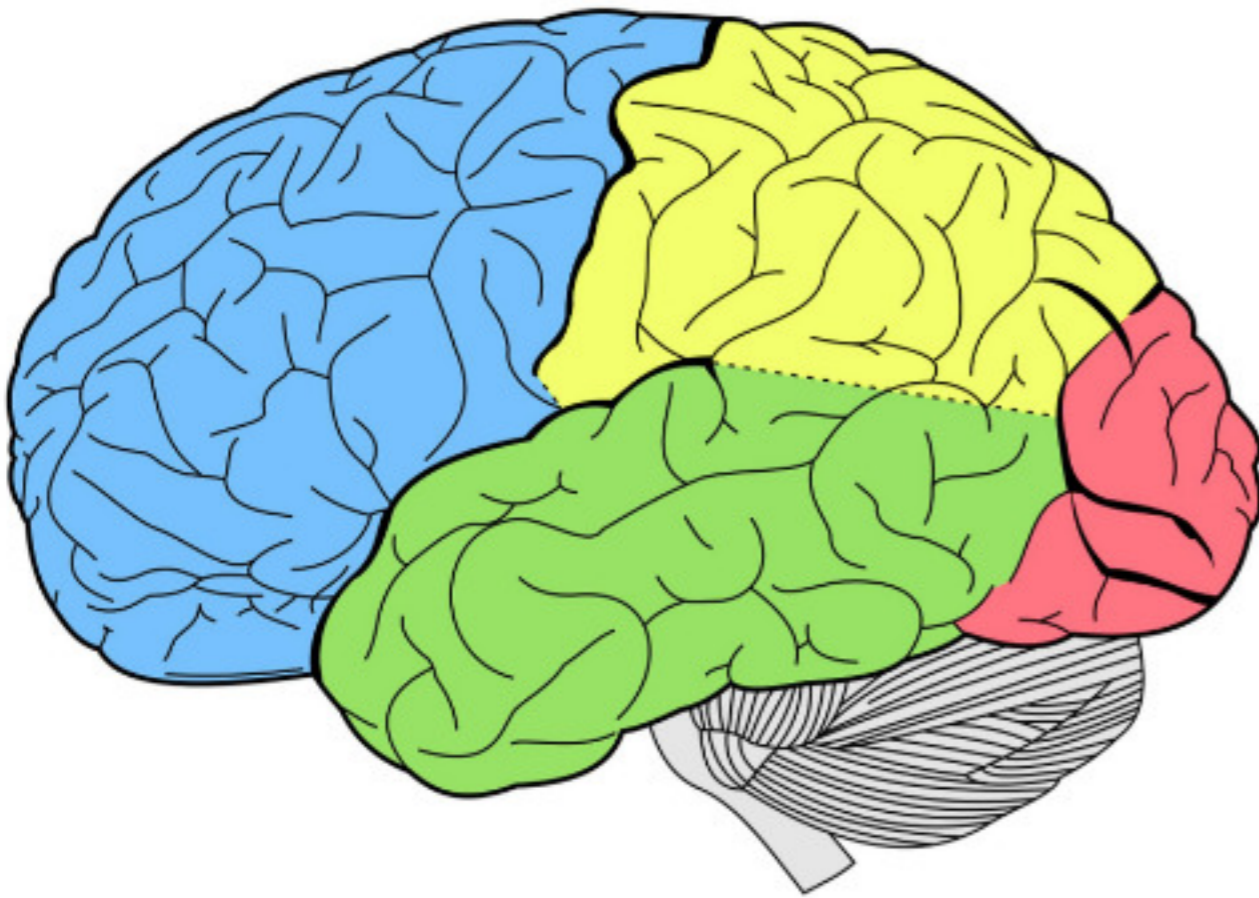
- 9.1 Promote expectations and beliefs that optimize motivation
- 9.2 Facilitate personal coping skills and strategies
- 9.3 Develop self-assessment and reflection

# Expelliarmus! The Magic of UDL to Conquer Barriers to Learning



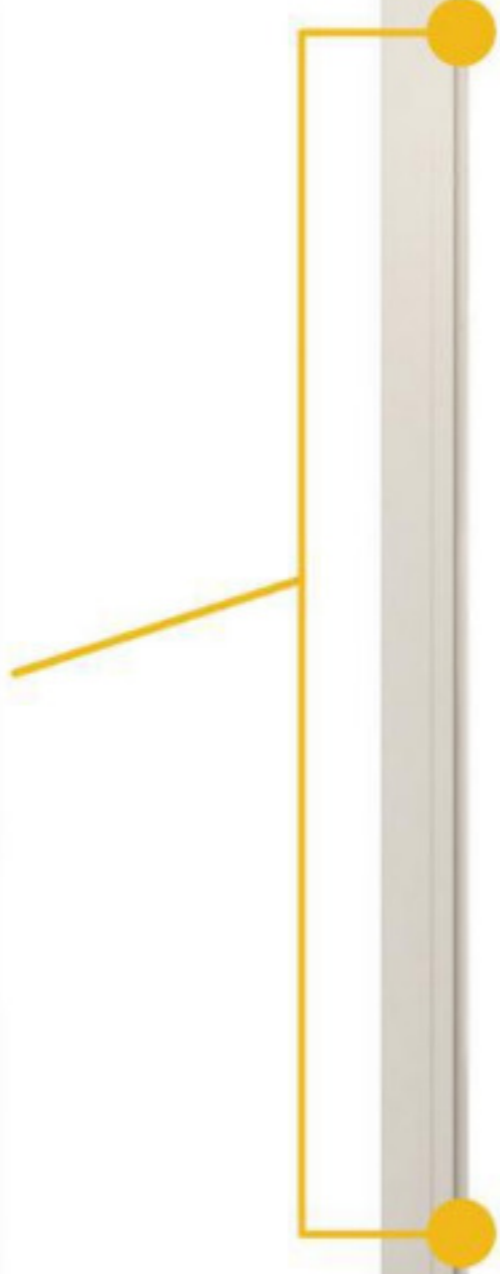
00:00

How is a framework based on neuroscience, learning sciences, & cognitive psychology like magic?





**48" Universal Jamb Shield®**



**2<sup>3/8</sup> Ultra Door Shields**



**2 Universal Hinge Shields®**



# Before UDL

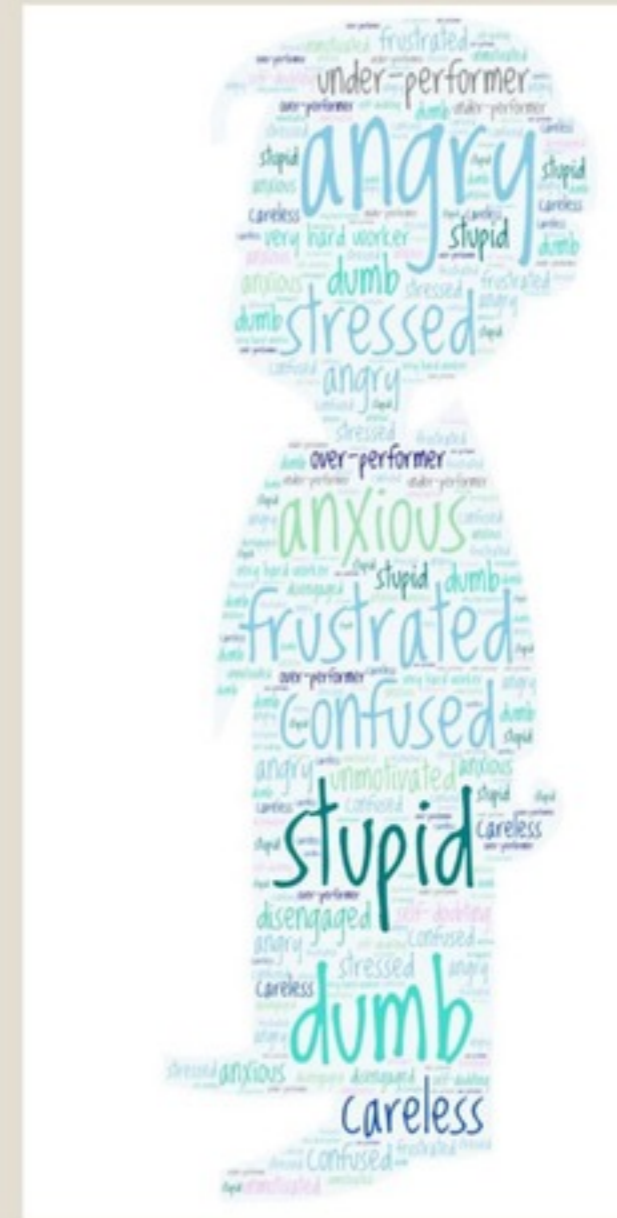


# After UDL



# Student Reaction

From Nancy Weinstein's 2018 UDL Summit presentation "Every Student Needs a Learner Profile." See <https://goo.gl/xmJhTM> and more info @ <https://mindprintlearning.com/>.





# Instructor Reaction



From Nancy Weinstein's 2018 UDL Summit presentation "Every Student Needs a Learner Profile." See <https://goo.gl/xmJhTM> and more info @ <https://mindprintlearning.com/>.

# The Key

Knowing **HOW** you and your students learn is key to making your course materials accessible to all learners.





# Index of Learning Styles Questionnaire



The location of this application has been changed. Please update your bookmark or link.

<https://www.webtools.ncsu.edu/learningstyles/>

**PRIVACY POLICY:**

Your response data and learning style profile are not stored or sent to anyone other than you. They cannot be recovered once you have submitted the completed form and received the results.

**DIRECTIONS:**

Questionnaire Results for Kyle Rogers:

➤ Reflective: 1 ➤ Sensing: 11 ➤ Visual: 3 ➤ Global: 7



Questionnaire Results for Coleen Zigelnik:

➤ Active: 7 ➤ Intuitive: 3 ➤ Visual: 7 ➤ Global: 5



Questionnaire Results for Brady Cusiok:

➤ Active: 9 ➤ Intuitive: 3 ➤ Visual: 5 ➤ Sequential: 3



➤ Active: 5 ➤ Sensing: 11 ➤ Visual: 5 ➤ Sequential: 7



Questionnaire Results for Kay Heck:

> Reflective: 9 > Sensing: 7 > Visual: 9 > Sequential: 7



# Learning Styles



## Sequential and Global Learners

### Sequential learners

- Build understanding in logical sequential steps
- Function with partial understanding of information
- Make steady progress
- Explain easily
- Good at analytical thinking (the trees)

### Global learners

- Absorb information randomly, then synthesize the big picture
- Need the big picture (interrelations, connections to other subjects) in order to function with information
- Large leaps in understanding with little progress between them
- Can't explain easily
- Synthesis, holistic thinking (the forest)





## Active and Reflective Learners

### Active Learners

- Tend to process actively (doing something physical with presented material, then reflecting on it)
- Think out loud
- “Let’s try it and see how it goes”
- Tend to jump in prematurely
- Like group work

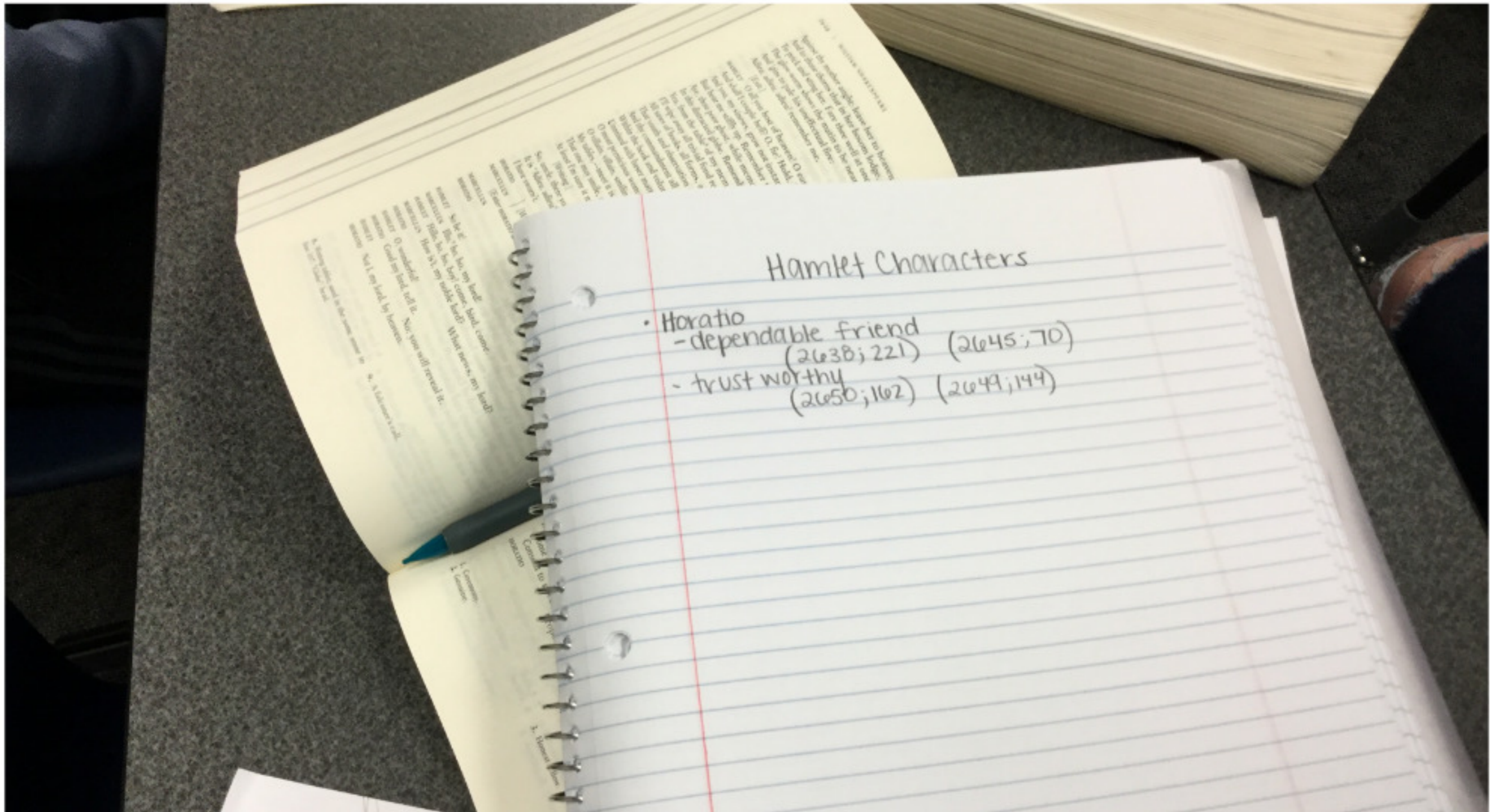
### Reflective Learners

- Tend to process reflectively (thinking about presented material, then doing something with it)
- Work introspectively
- “Let’s think it through and then try it”
- Tend to delay starting
- Like solo or paired work

Materials adapted from the National Effective Teaching Institute, with permission (Richard Felder, Rebecca Brent and James Stice)



# Before UDL

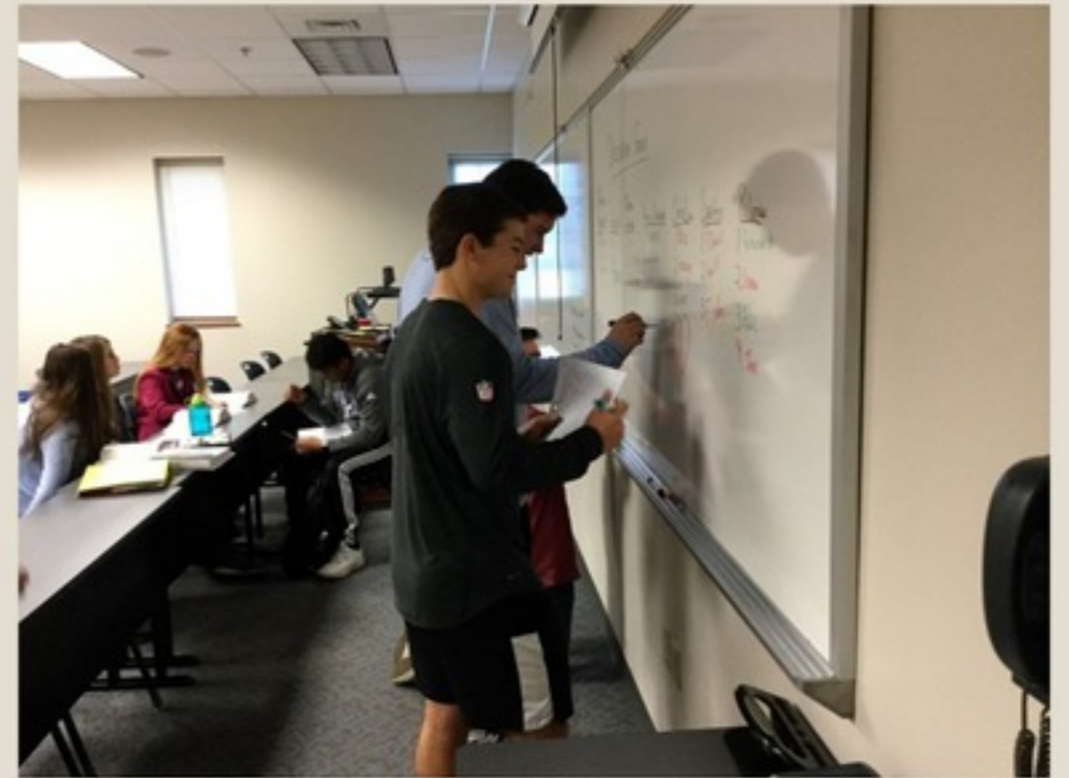






+ ONE

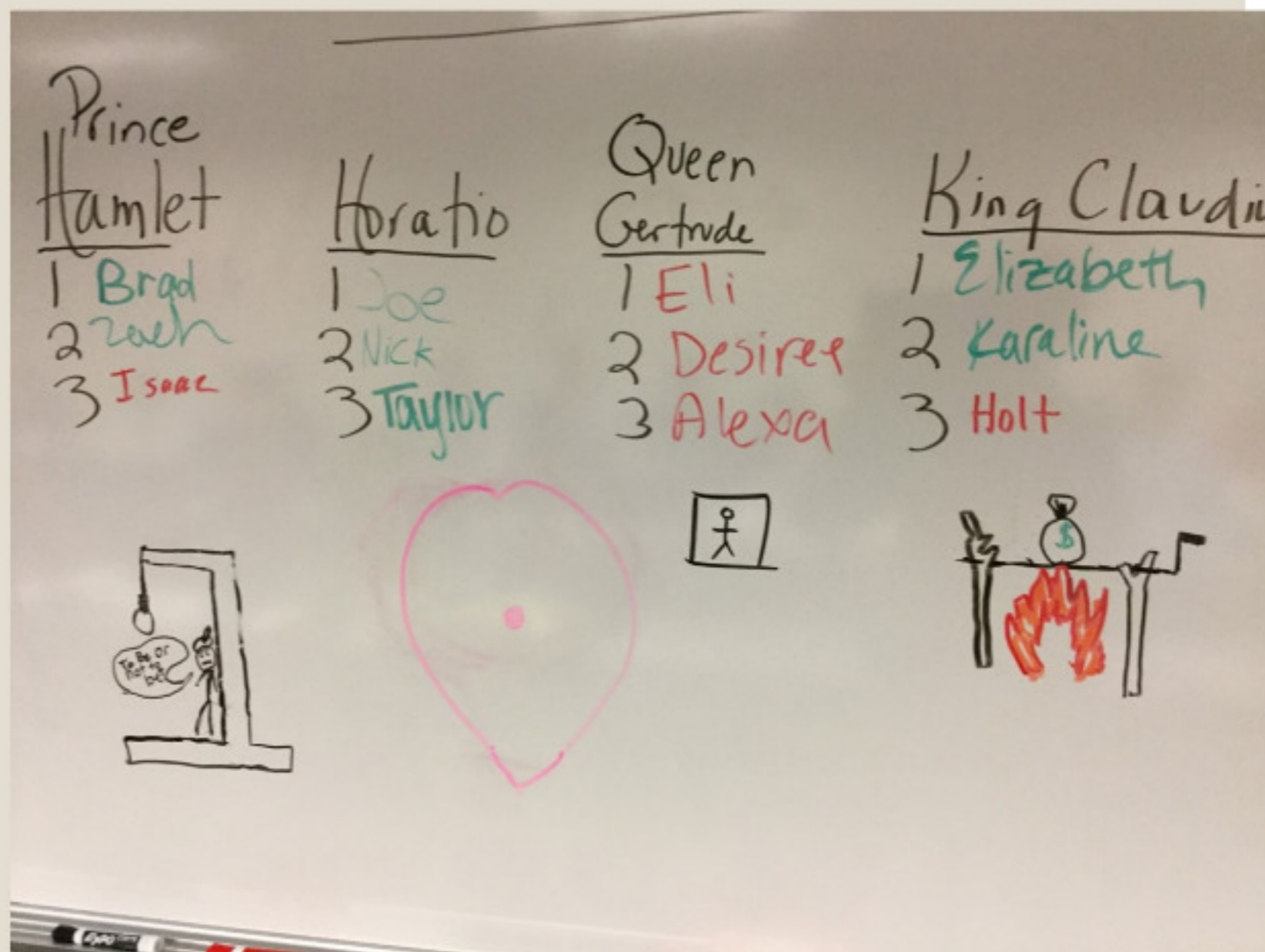
- For the reflection process, I usually have them break into groups and discuss traits of a character, decide major traits, find passages that prove major traits, and determine a take-away message. Each person is asked to take notes to consult later when he or she does a discussion board post.
- My **+1** was to ask groups to decide on an **image** that represented the character and have a group member **draw** it on the board. This allowed active learners to engage with something besides words and to become more physically active in the learning process.



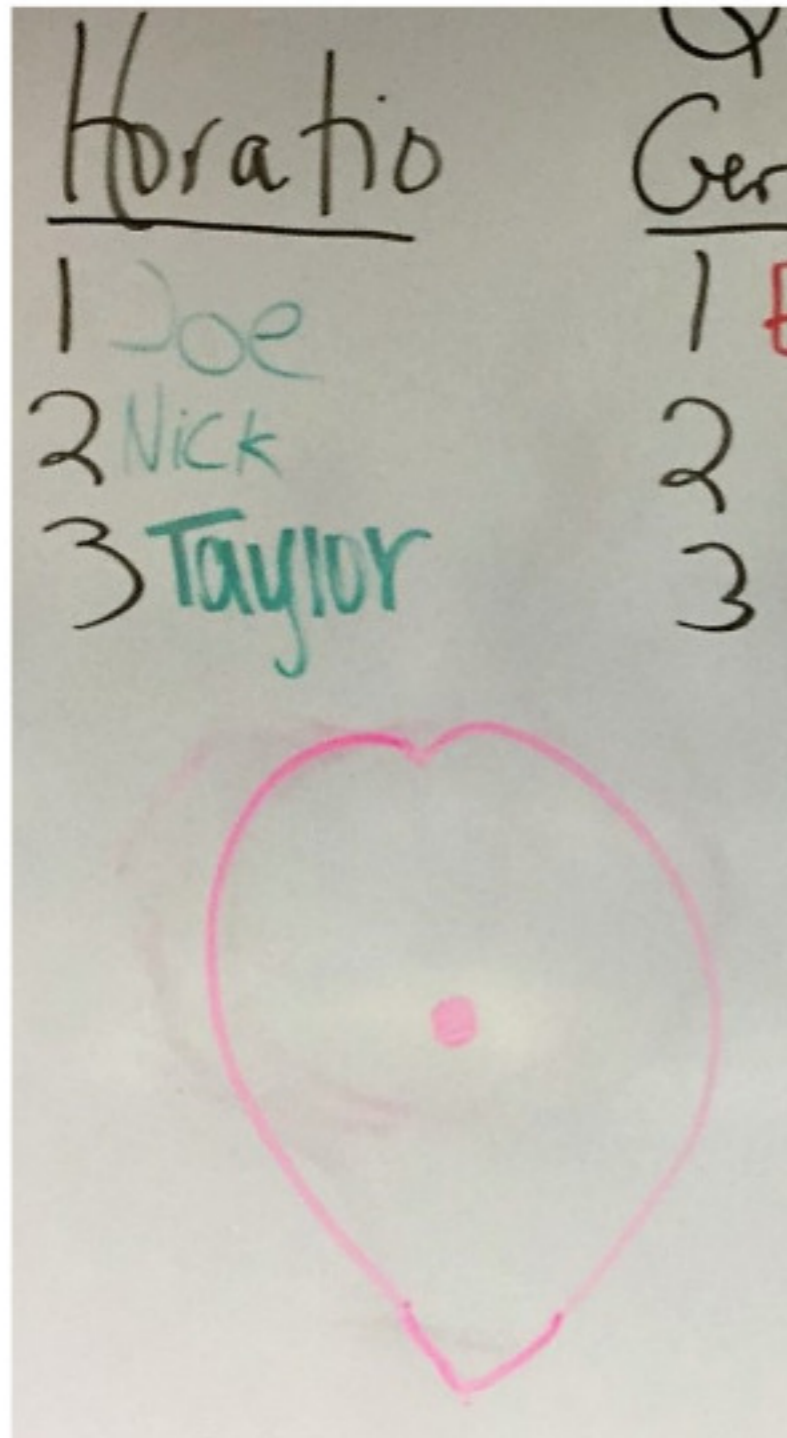
Then, they came up as groups and marked a tally mark on the image they thought was best drawn and explained.

The winners came up to collect their prize (a sweet treat).

Students who had been marginally participating became more active, and their individual discussion board posts showed more depth and insights.



# Magic Moment

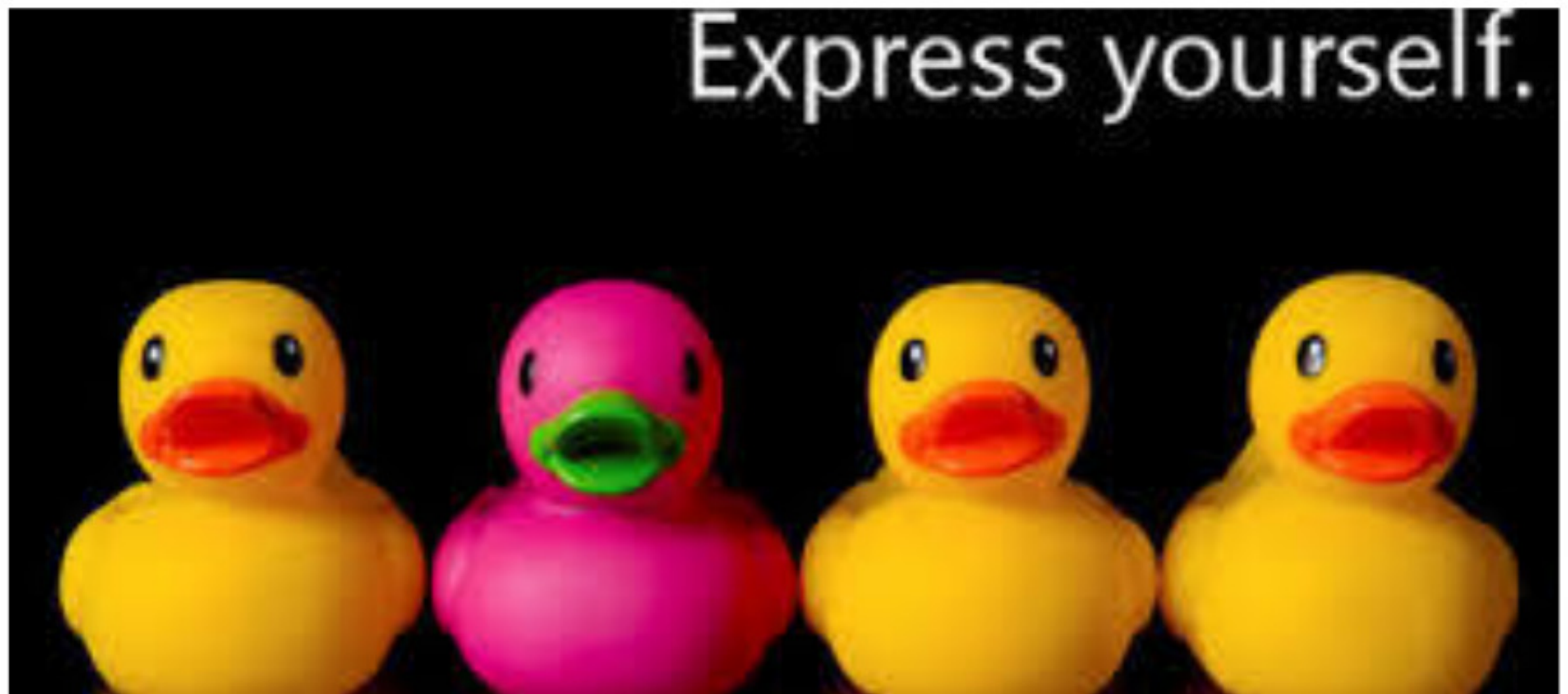


GIVE ME THAT MAN  
THAT IS NOT PASSION'S SLAVE, AND I WILL  
WEAR HIM  
IN MY HEART'S CORE, AY, IN MY HEART OF  
HEART,  
AS I DO THEE.

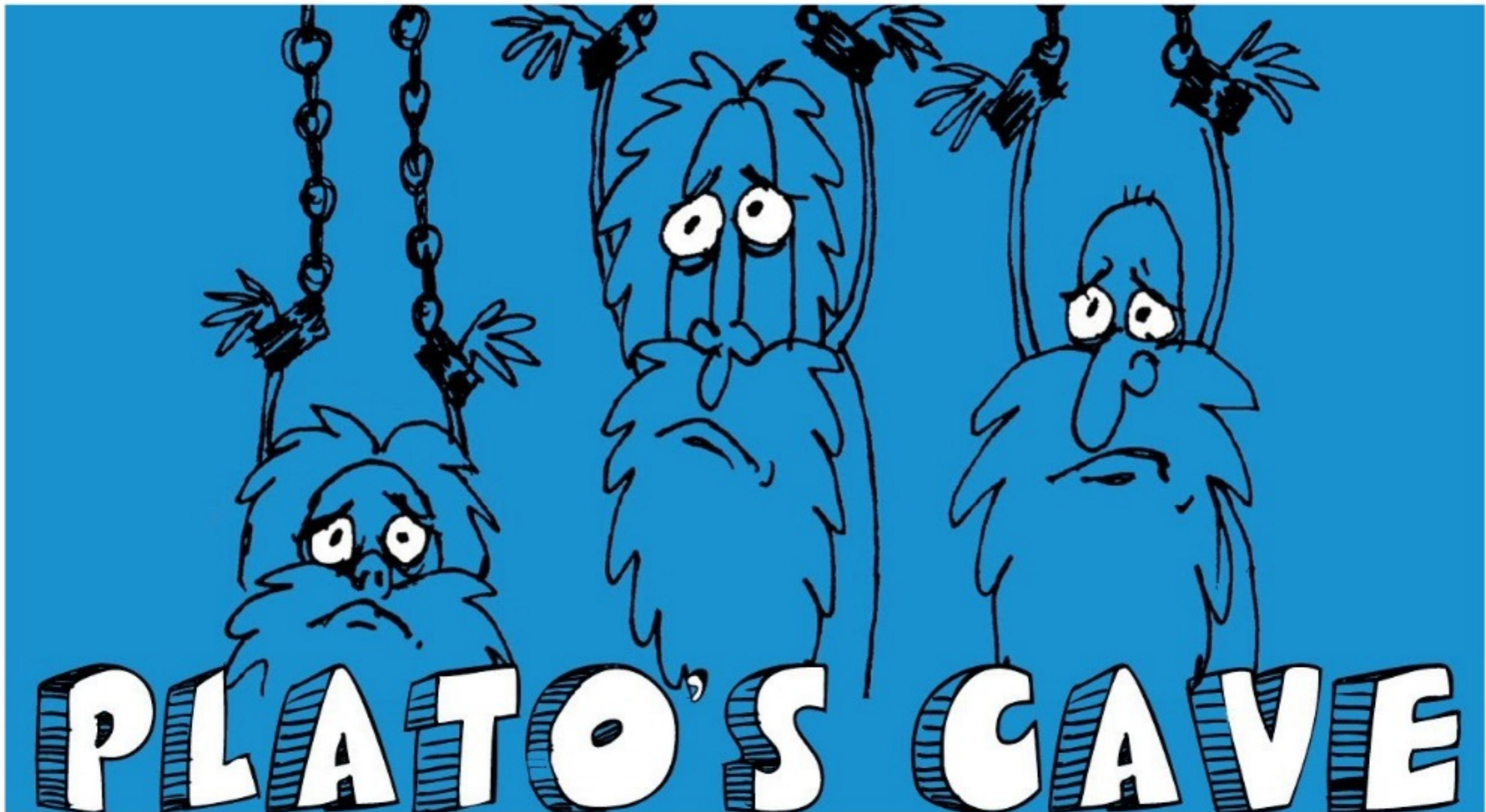
- WILLIAM SHAKESPEARE -

LIBQUOTES.COM

UDL = Options for students to  
show understanding



Sample activity I had  
already been doing as prep for major graded  
assignment



# Before UDL

- Small groups read Plato's "Allegory of Cave"
- List how released prisoner reacts
- Share verbally with class citing supporting text passages

# After UDL

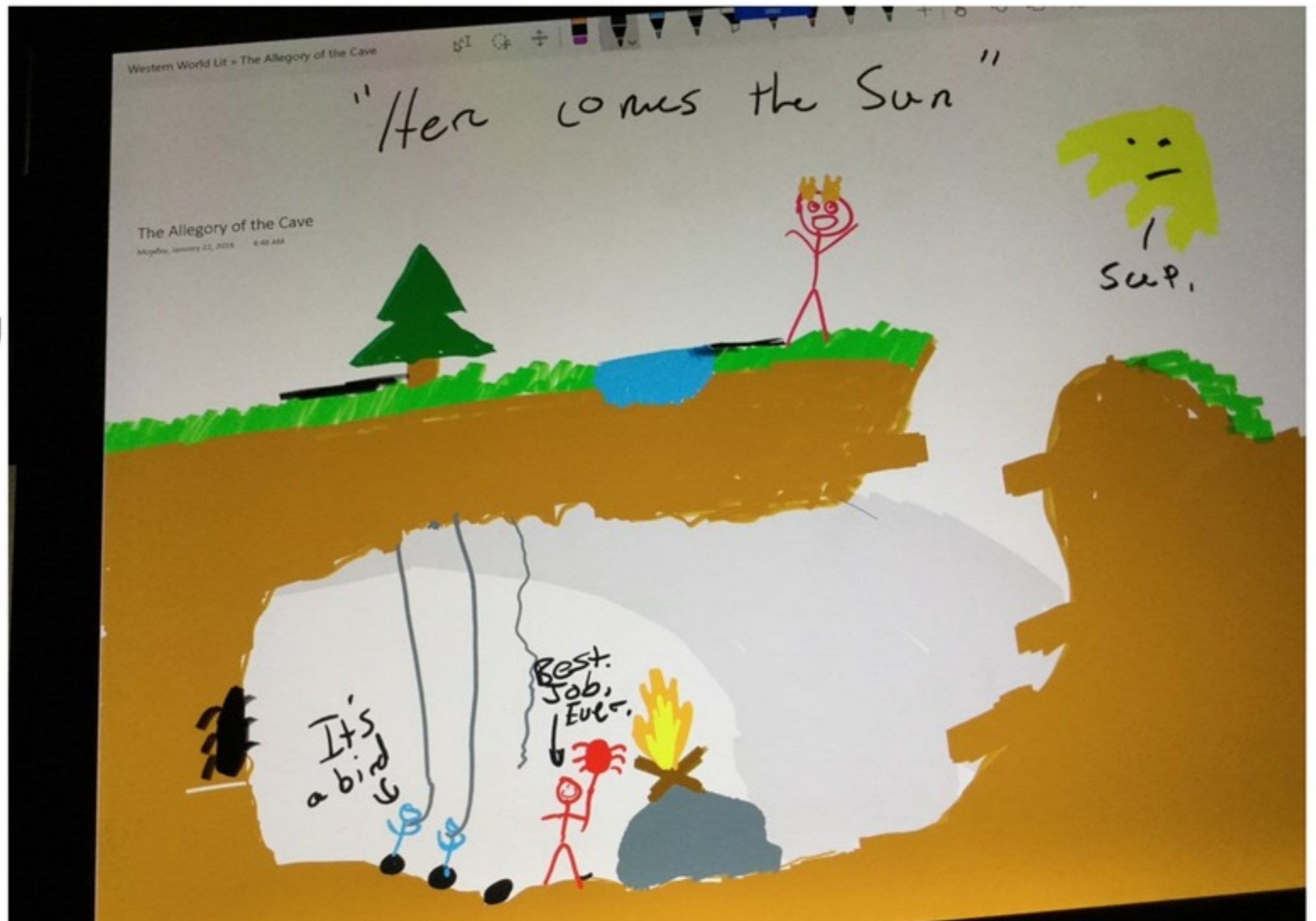
- Choose partner **or** small group
- **Choose artist** to illustrate group's interpretation of work
- **Choose medium** for illustration
- Choose text passages and **guide artist**
- **Choose creative title** to represent what group decides is major theme
- Choose group member to **explain group's theme, visual interpretation**, and passages

Students  
guiding  
“artist” of  
group  
as they  
review  
text

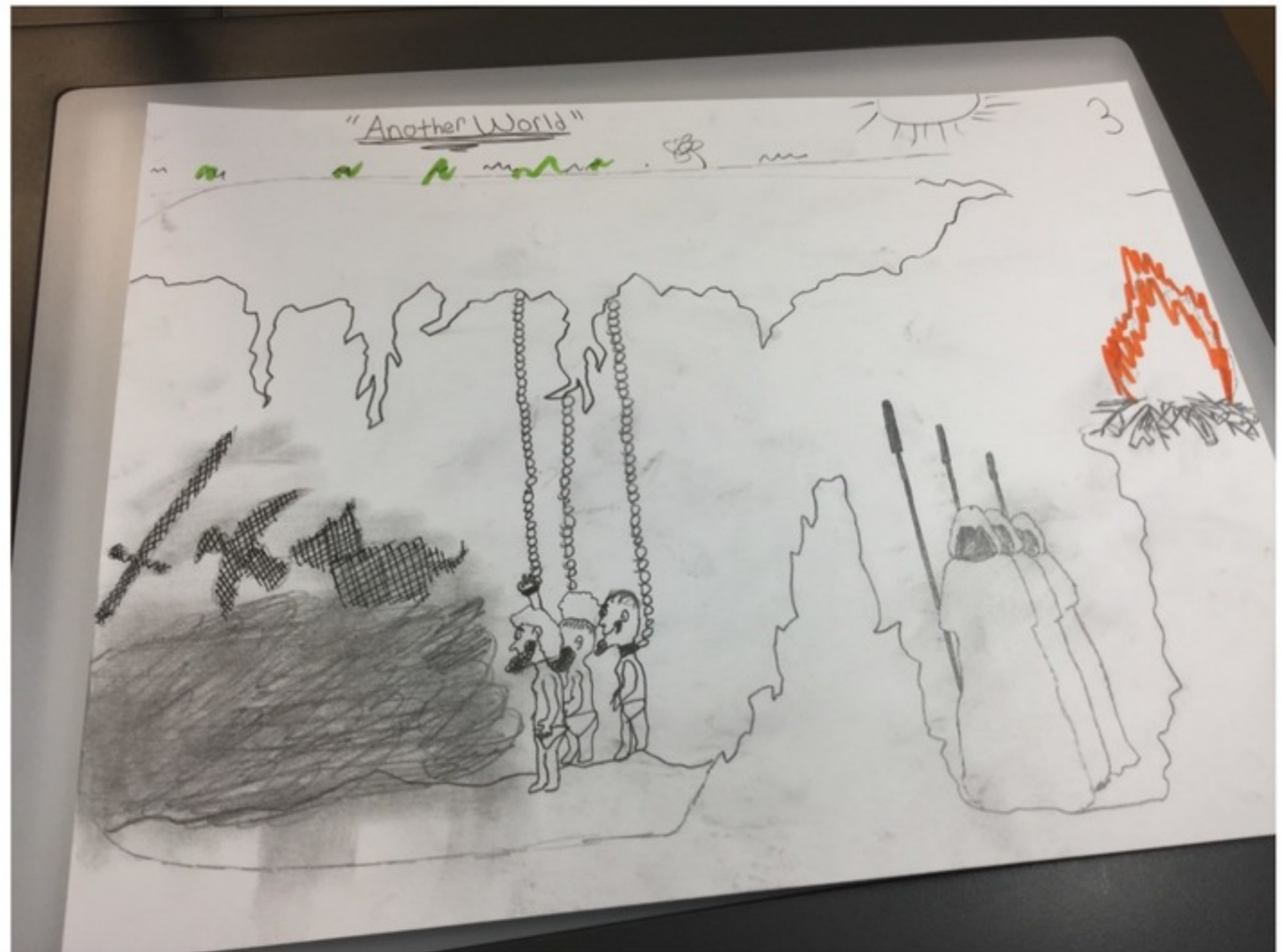




Group drawing and creative title



Group voted  
best  
Illustration  
and  
explanation

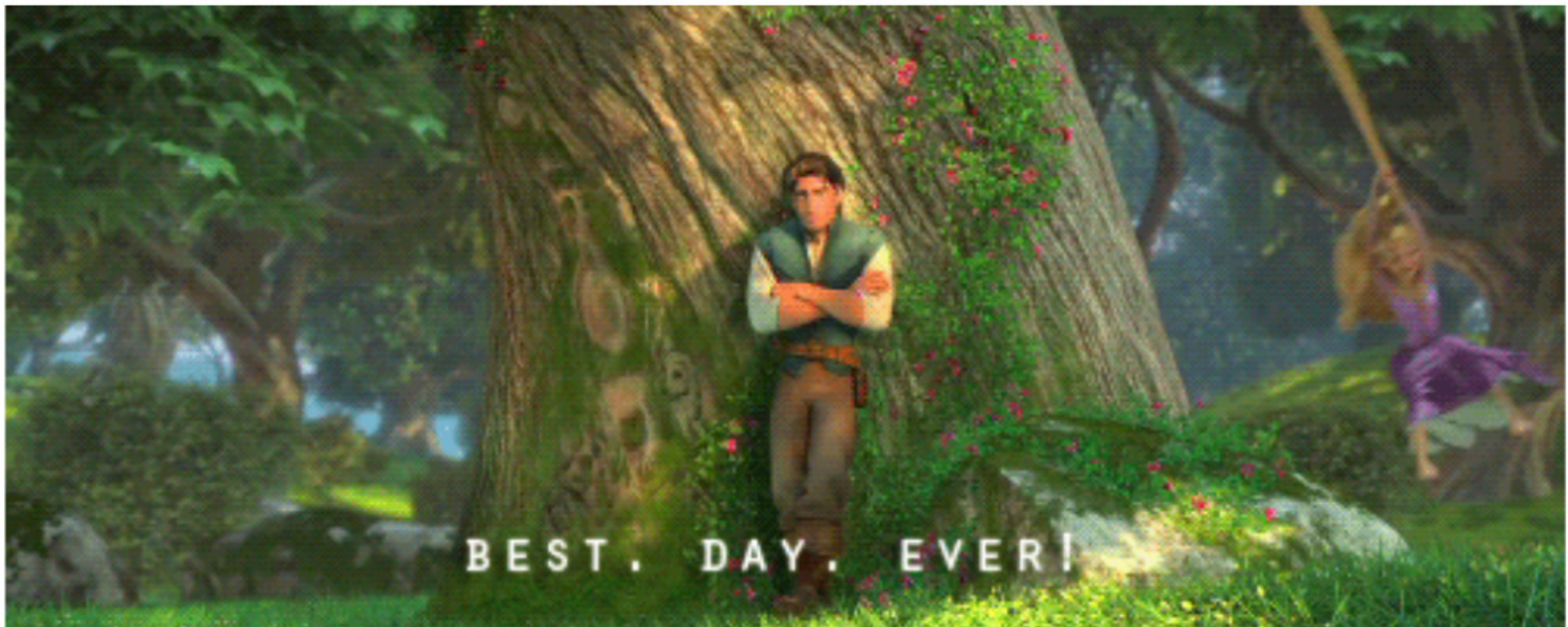


# Magic Moments

- **ALL** students participated.
- **ALL** students mastered allegory.
- **BEST** individual discussion board posts on topic ever!
- **Improved** exam scores



# After UDL



# UDL + Department = HIP

got grit?



Do you think of the movie True Grit?



Or do you think of the reality show American Grit?

Have you ever watched a sporting event where the players showed grit? The image below is from the summer 2016 FIFA World Cup soccer tournament in Russia when the best teams in the world showed incredible grit like the team from England.



Maybe you even think of this when you hear the word "grit"?

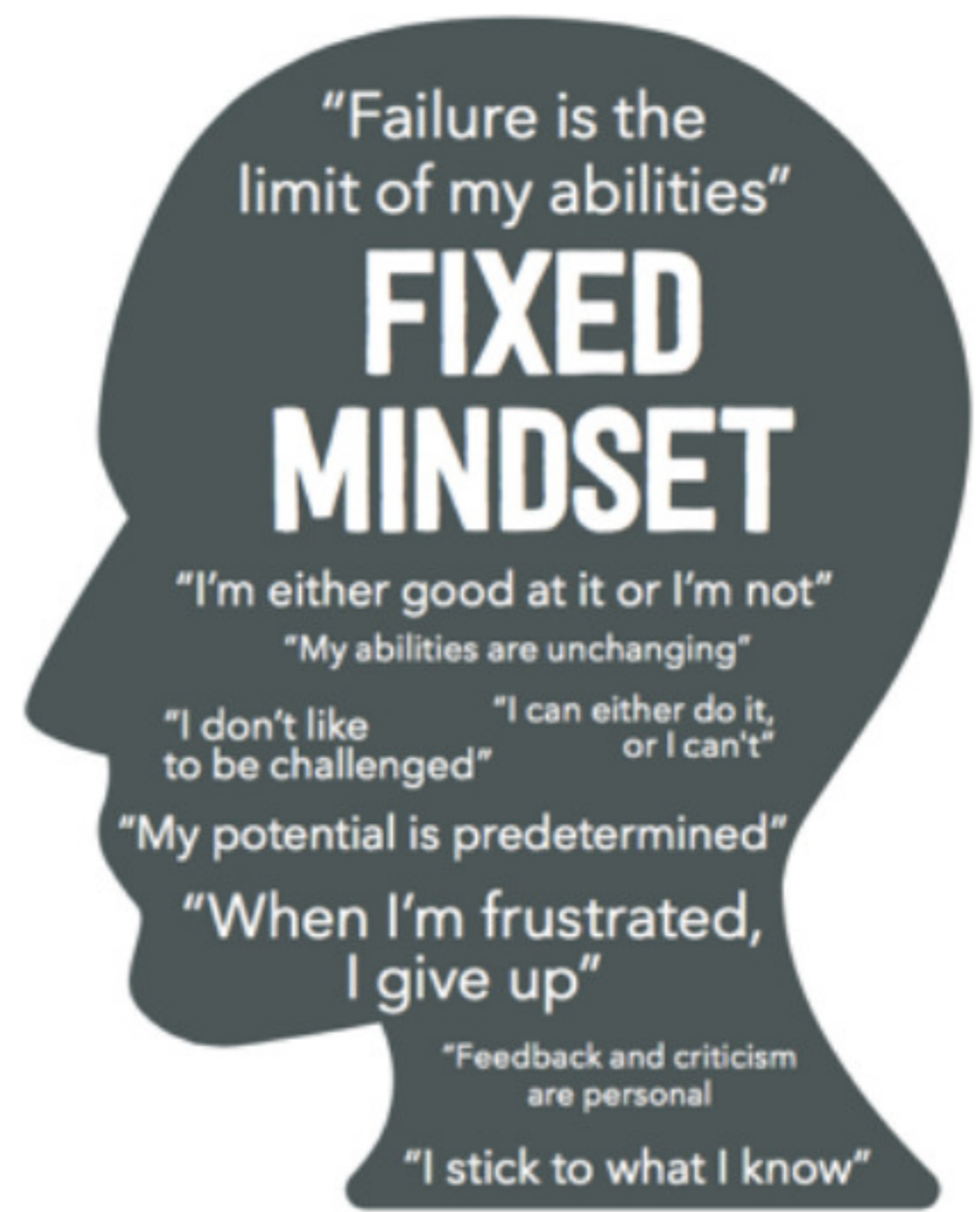


#### Definition of Grit

Grit is defined by Merriam-Webster's as "firmness of mind or spirit" or "unyielding courage in the face of hardship or danger."

Psychologist Angela Duckworth has extensively studied grit in her best-selling book Grit: The Power of Passion and Perseverance. This is how she defines grit:

# UDL = Growth & Self-advocacy



## Grit Scale

Here are a number of statements that may or may not apply to you. There are no right or wrong answers, so just answer honestly, considering how you compare to most people. At the end, you'll get a score that reflects how passionate and persevering you see yourself to be.

1. New ideas and projects sometimes distract me from previous ones.

- Very much like me
- Mostly like me
- Somewhat like me
- Not much like me
- Not like me at all



2. Setbacks don't discourage me. I don't give up easily.

- Very much like me
- Mostly like me
- Somewhat like me

<https://angeladuckworth.com/grit-scale/>

3. I often set a goal but later choose to pursue a different one.

- Very much like me
- Mostly like me
- Somewhat like me

# UDL = Student Reflection

## Narrative Descriptive Sample Paper

- In the bestselling book titled *Grit: The Power of Passion and Perseverance*, Angela Duckworth argues that people can be successful if they have enough desire and determination.
- Is this a valid statement?
- In an essay, argue why or why not.
- Give very descriptive examples to prove your point. Choose words that strongly appeal to the readers' senses such as sight, sound, touch, smell, and taste.
- Use personal examples (yourself, family or people you know) or hypothetical examples (situations readers can relate to) rather than famous individuals.



Not Exactly Your Mother's Grits  
Grandma's Homegrown Grit(s)  
Beauty, Grace, and Grit  
Man of Steel or Man of Grit?  
The Strength of a Knight  
Marriage Made by Grit

# Magic in Intros

Like the unbroken warriors of history, many people in life have to grow courage to endure their own plights in order to achieve their dreams.

# Magic at the End

Watching my grandmother fight for her life, I have learned that you have to push through the challenges you face in your life; even if the odds are not in your favor, you can still succeed.

# UDL = making your course accessible to all students

## THE LEARNING **BRAIN**



### The **WHAT** of Learning

Provide multiple means of representation



### The **HOW** of Learning

Provide multiple means of expression



### The **WHY** of Learning

Provide multiple means of engagement

UDL = Opening door for  
all learners



# UDL = Student Success + Teacher Joy





# Get Up, and Get Out!


## Easy UDL Activities

The background features a stylized landscape with rolling hills in shades of green and blue. In the foreground, there are two flowers: one with purple and pink petals on a dark stem, and another with orange and brown petals on a lighter stem. The sky is composed of wavy, layered bands of blue and white.

# Haiku Activity

1. With a partner, locate an interesting subject to photograph.
2. Write a haiku inspired by the photograph.
3. Post your picture and poem to the discussion board.





# Descriptive Writing Activity


1. Gather into groups of three.
2. Choose a “sense” card (smell, sound, sight, or touch).
3. Find a subject on campus about which to write your description.
4. Choose a spokesperson from your group to read your paragraph to the class.

# Sound

“Throughout the gym there [is] a cacophony of sounds. The fans in the stands passionately cheering. The thunder of a basketball rhythmically producing a beat like a kick drum. A referee’s commands reverberating through the gym like a drill sergeant with his soldiers.”

# Touch

“Like a piece of almost melted chocolate, a wrinkly charcoal eraser gives the feeling of playing with Play-Doh that has been played with before. It leaves an indentation where pressure was applied like memory foam that holds its form.”



# Literature Pictures Activity

1. Gather into groups of three.
2. Choose a card containing a title of a poem.
3. Create a picture (or pictures) expressing the key idea of the poem.
4. Present your artwork to the class.

# Bringing UDL to YOUR Campus

Candace Justice





**Get ideas from others!**



## The Plan



1. Create a Week Long UDL Training
2. Attendees create one UDL module/chapter/unit to pilot in one class during that week.
3. In fall, attendees pilot those modules
4. Look at data after the semester
5. Name UDL mentors based on attendees
6. UDL mentors host division trainings
7. Repeat



# Technology

Component	Tool
Recording	<ul style="list-style-type: none"><li>• Screencastomatic</li><li>• Camtasia (not free)</li></ul>
Animation	<ul style="list-style-type: none"><li>• Powtoons</li></ul>
Graphics	<ul style="list-style-type: none"><li>• Popplet.com</li><li>• Padlet.com</li></ul>
Gaming	<ul style="list-style-type: none"><li>• Kahoot!</li><li>• Quizlet</li><li>• Plickers</li></ul>
Closed-Captioning	<ul style="list-style-type: none"><li>• Cielo 24</li><li>• Automatic Sync</li></ul>





<http://popplet.com/app/#/home>

Mrs. Justice + 15 • 2m

# UDL Content Page

Please add something you know about UDL.

**Jay**

Multiple modes of representing the content is important such as text, audio, video

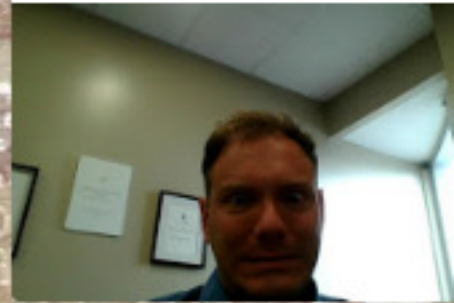


**Brad**

UDL promotes alternate modes of delivery, such as animations, videos, and

**Joel**

Crowdsource Content



**Cherylynn**

A way to ed utilizing me a broad way the various way learn.



**Gail**

UDL is design that makes content accessible to all students in different design methods.

**Melinda**

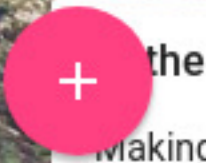
I love the image door and the ide instructors cont design of the do to us to make it

[https://padlet.com/Ms\\_Justice/slhwpe0333ft](https://padlet.com/Ms_Justice/slhwpe0333ft)

main content. It just presents it in an additional manner.

I've learned that there is a far broader spectrum of learning

content should reach all learning styles as best as possible.



# Instructor Feedback

UDL has transformed my teaching! Even in my dual enrollment classes where the technology is seriously limited, I find myself drawing on it ALL the time.

UDL provides a useful framework for lesson planning. It provides structure by allowing one to move through the three key areas.

The UDL initiative has provided a renewed excitement in my classes, for me and my students. I have truly enjoyed opening up some of the exercises to alternative formats. I have had students submit voice recordings of rough drafts and pre-writing exercises, some have developed visual artifacts to explain their understanding of materials, and others have experimented with their writing styles.



**Collaborate!**

**Questions?**



**Collaborate!**

**What are ways you can incorporate UDL into your classes?**

# UDL Resources for Teaching



00:00