

# GREATER ACCESSIBILITY THROUGH UDL IMPLEMENTATION

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Lisa Beth Carey, M.A.

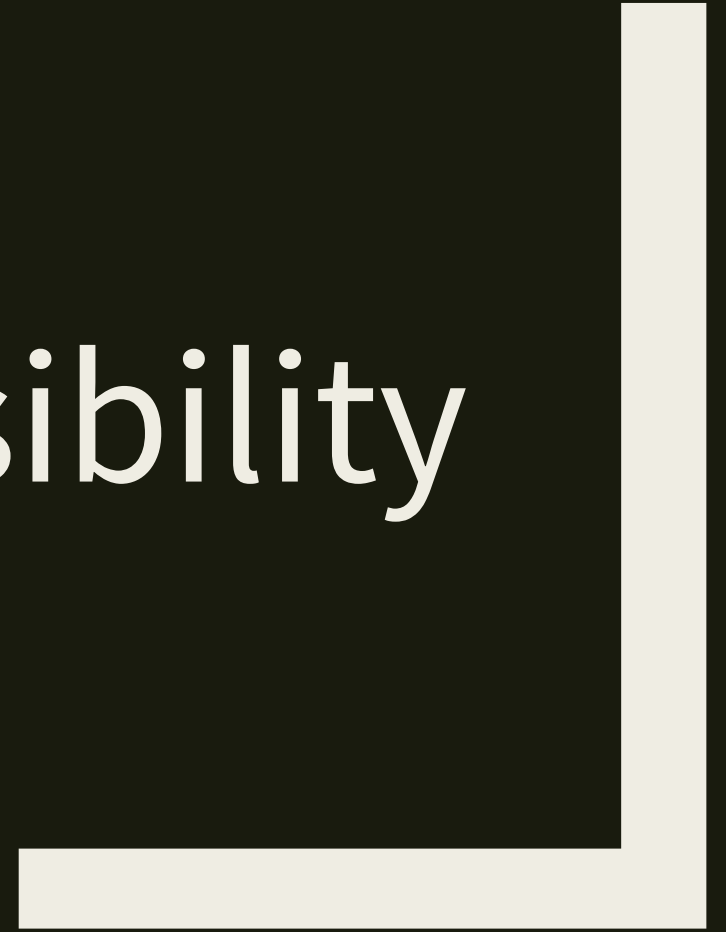
Towson University  
October 19, 2017



# Goals for the workshop

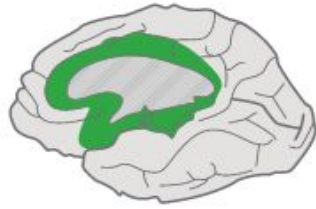
- Explore how “accessibility” is promoted through the framework of Universal Design for Learning (UDL) along with examples in higher education
- Identify UDL with accessible pedagogy to incorporate accessible instructional design elements through student choice
- Ways to improve accessibility and reduce/eliminate barriers
- A question and answer period around UDL implementation

# UDL and Accessibility





# Universal Design for Learning Guidelines



## Provide Multiple Means of Engagement

*Purposeful, motivated learners*

### Provide options for self-regulation

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

### Provide options for sustaining effort and persistence

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

### Provide options for recruiting interest

- + Optimize individual choice and autonomy
- + Optimize relevance, value, and authenticity
- + Minimize threats and distractions



## Provide Multiple Means of Representation

*Resourceful, knowledgeable learners*

### Provide options for comprehension

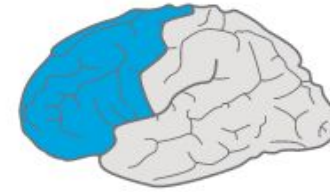
- + Activate or supply background knowledge
- + Highlight patterns, critical features, big ideas, and relationships
- + Guide information processing, visualization, and manipulation
- + Maximize transfer and generalization

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

- + Clarify vocabulary and symbols
- + Clarify syntax and structure
- + Support decoding of text, mathematical notation, and symbols
- + Promote understanding across languages
- + Illustrate through multiple media

### Provide options for perception

- + Offer ways of customizing the display of information
- + Offer alternatives for auditory information
- + Offer alternatives for visual information



## Provide Multiple Means of Action & Expression

*Strategic, goal-directed learners*

### Provide options for executive functions

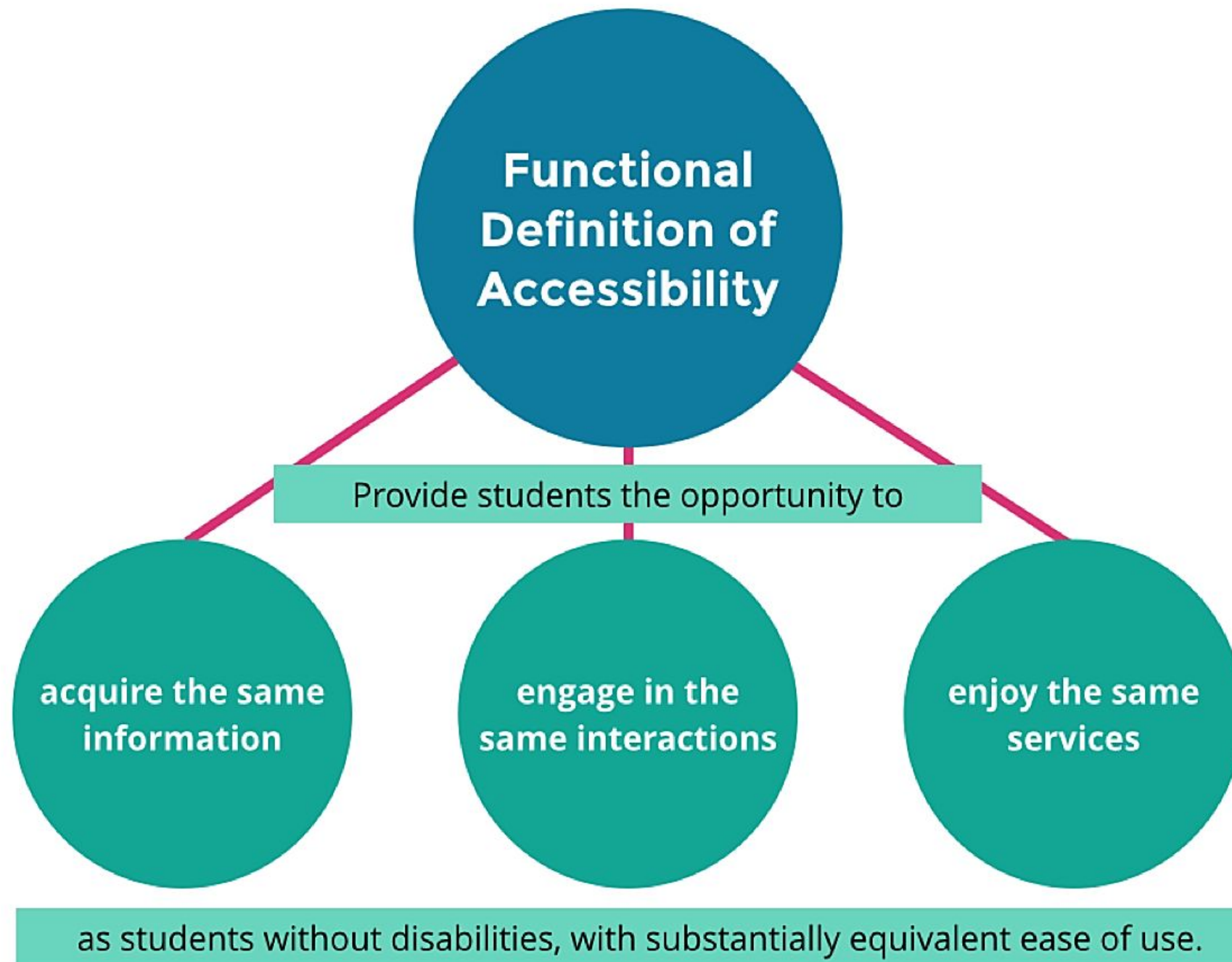
- + Guide appropriate goal-setting
- + Support planning and strategy development
- + Enhance capacity for monitoring progress

### Provide options for expression and communication

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

### Provide options for physical action

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





# Defining “Accessibility”

“Accessible” means a person with a disability is afforded the opportunity to independently

acquire the same information,

engage in the same interactions, and

enjoy the same services

as a person without a disability in an equally effective and equally integrated manner, with substantially equivalent ease of use.

# Why Accessibility Matters

“Social justice is the equitable distribution of resources and opportunities, in which outside factors that categorize people are irrelevant.”



# Indicators of Accessibility

## **Seek out and purchase materials that:**

- Can run on a variety of devices
- Are developed in device-agnostic file formats (e.g., accessible HTML, Microsoft Word, PDF, ePUB3)
- Have content represented in multiple ways (e.g., video captions, alt text, text and image descriptions that can be voiced, digital braille)
- Are compatible with other technologies (e.g., assistive technology, screen readers, refreshable braille, text-to-speech, and human-voice reading)

# Indicators of Accessibility

## **Seek out and purchase materials that:**

- Have rich navigation alternatives (e.g., keyboard shortcuts/mapping or screen gestures)
- Have mathematical, scientific, and music symbols, formulas, and notations represented in multiple ways (e.g., explained with text alternatives, MathML)
- If writing is required, keyboard entry is supported by alternatives (e.g., word prediction, on-screen keyboards, voice input)

Reference: AEM Center, Joy Zabala, 2015

# Is it Accessible? It Depends...

- Accessibility is not one thing or set of things
- Accessibility is a moving target
- Accessible to whom?
- Accessible where?
- Accessible for what?



# Audio Description example



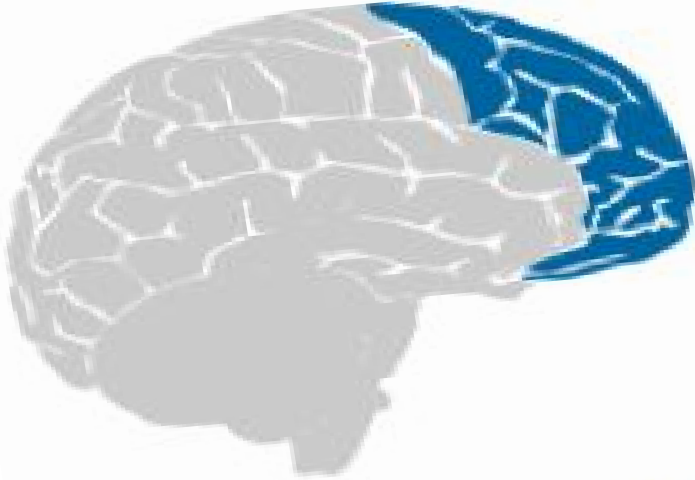
<https://www.youtube.com/watch?v=SL7YSqEd8k>

# Accessibility through Instructional Design - Student Choice



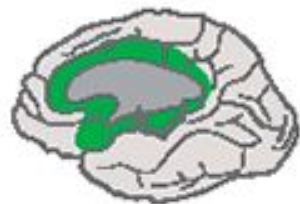
## Strategic Networks

The "how" of learning



Show Me What You Know: Options for Action &  
Expression In Higher Education

# Universal Design for Learning Guidelines



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# Assessing Student Learning

```
graph TD; A[Assessing Student Learning] --> B[Skill-Based Knowledge]; A --> C[Content-Based Knowledge];
```

Skill-Based  
Knowledge

Content-Based  
Knowledge

# Assessing Student Learning

```
graph TD; A[Assessing Student Learning] --> B[Skill-Based Knowledge]; A --> C[Content-Based Knowledge]; B --> D[Writing a lesson plan.]; B --> E[Completing a lab procedure.]; C --> F[Systems of Government.]; C --> G[Principles of Behavior Change.]; C --> H[Theories of Learning.];
```

Writing a research paper.

Completing a lab procedure.

Writing a lesson plan.

## Skill-Based Knowledge


Systems of Government.

Principles of Behavior Change.

Theories of Learning.

## Content-Based Knowledge

# How Can I Add Student Choice to Skill-Based Knowledge Assessment?



Writing a research paper.

- What is **my** goal for this assignment?
- What are my **students'** goals for this assignment?
- Is the assignment flexible enough to allow for student choice of topic and multiple perspectives?
- Is the assignment flexible enough to accommodate different styles of writing and/ or citation?
- Have I provided models of my expectations?
- Have I provided models of methods?
- Do my students know where resources and supports are located/ how to locate them?
- Is the method for turning in/getting feedback accessible to all of my students?
- Is the learning done when this assignment is turned in?

# When Students Ask for Choice...

**Assignment:** Select a Founding Father and Present his Views of the Articles of Confederation.



**Me:** Does the individual need to be a man?

**Professor:** Not if you can find a women with enough documented opinions on the topic.

**Me:** Abigail Adams.

**Professor:** That works. I look forward to it.

# Adding Choice for Knowledge- Based Learning

## **Assessment Goals:**

- Demonstrate knowledge of critical aspects of special education practice & law.
- Increase chances of student retention of knowledge.

## **Student Options:**

- Traditional term paper
- Guide for new teachers
- Portfolio
- Creative or performing arts piece
- Traditional exam
- Student – created option

# Focus on Student Growth:

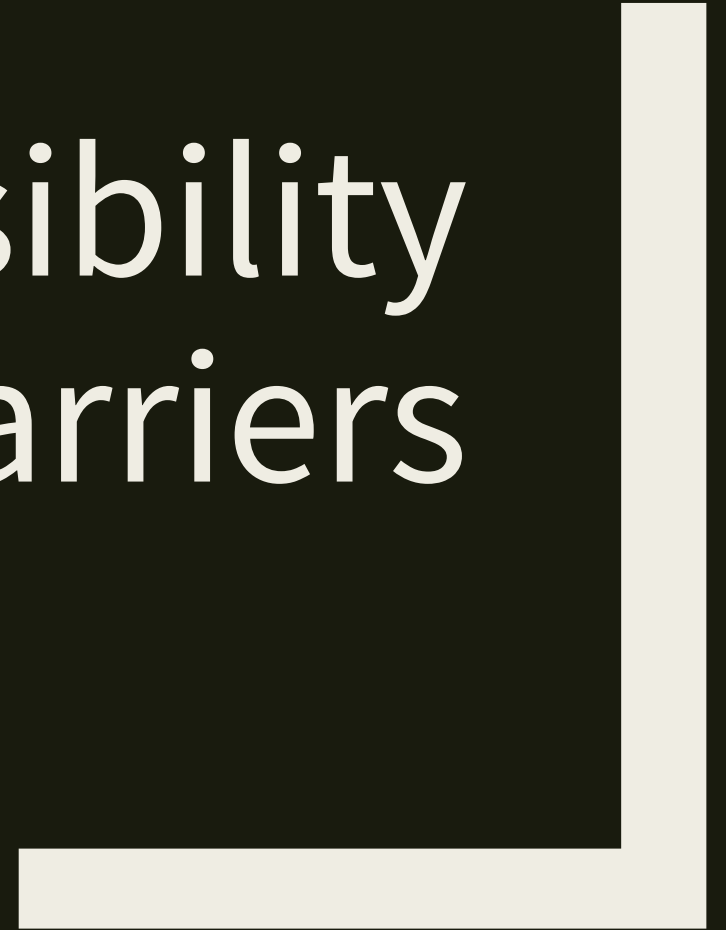
- Partner with students to set goals for learning.
- Determine what types of assessments and activities will enable individual students to focus on their growth.

## Examples of growth activities:

- Teach someone else.
- Create a case library of resources related to the course content.
- Create a community-based project tied to the course content.
- Engage in authentic activities with a mentor from the field.



# Improving Accessibility & Reducing Barriers





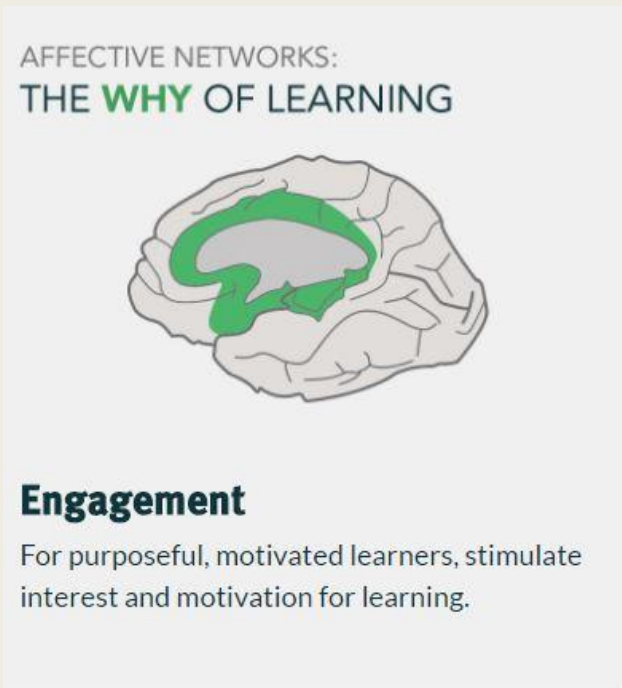
# College Star – East Carolina University

- Course: Instructional Leadership for Teaching and Learning
- Dr. Marjorie Ringler, Professor
- Identified challenges in the classroom:
  - *Unable to understand how theory translates to practice*
  - *Lack of opportunities to practice leadership skills needed to be an effective principal*
  - *Lack of student engagement in lecture style classroom*



<http://www.ecu.edu/cs-acad/collegestar/>

# UDL Strategies to Address the Challenges



Provide **Multiple Means of Engagement**: To heighten interest and support progress monitoring, Dr. Ringler used service learning projects and group work. She asked students to provide feedback every class and had them complete weekly personal reflections about their learning.

# Physical space

*“The research found that the space affected the behavior of both students and the instructor. The professor surprised everyone, including himself, by being unable to keep his teaching style consistent.”*

*“When he moved from a traditional room to one with round tables, he lectured less and walked among the tables more. Space, in other words, was not neutral.”*

<http://innospire.org/can-udl-be-implemented-in-a-lecture-hall/>



# UDL Strategies to Address the Challenges

RECOGNITION NETWORKS:  
THE **WHAT** OF LEARNING



## **Representation**

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

Provide **Multiple Means of Representation**:  
To support the processing of information, Dr.  
Ringler used multiple forms of media,  
including videos and simulations.

# Accessibility according to persons with disabilities... top accessibility concerns

- Lack of captions on videos (open, closed and audio descriptions)
- Motion, animation and cluttered pages
- Walls of text
- Small font size
- Zooming problems (layout of materials)
- Low color contrast and images of text (pictures of text, rather than text itself)
- Small targets

blog post on June 4, 2017

# Resource -

<http://udloncampus.cast.org/>  
or <http://udloncampus.cast.o>

## VIDEO

[Home](#) » [Media & Materials](#) » Video

Video

Audio

Image

Text

Web Conferencing

Creating Accessible OERs

EPUB: Supporting Learner  
Variability in EPUB Creation

## WHAT

*What is this resource*  
*video* as part of ins  
fully accessible. Th  
an educational set  
and how to suppor

## WHY

*Why is this importa*  
instructors have ac  
including face-to-f  
online courses.

## UDL CO



**Provid**

use of

sustain interest for a particular topic and lead to more  
meaningful participation in the classroom

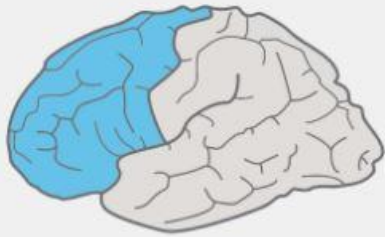


Caption How-To:



# UDL Strategies to Address the Challenges

STRATEGIC NETWORKS:  
THE **HOW** OF LEARNING



## **Action & Expression**

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

Provide **Multiple Means of Action and Expression:**

To support student planning and composition, Dr. Ringler shared weekly learning objectives, guided notes and graphic organizers to practice listening, speaking, reading and writing language of leadership.



## Provide multiple means of action and expression:

Use the syllabus to communicate regular routines to establish expectations, outline the timing and format of assessments, and offer resources for the management of information.

Consider...

- Engage students by making this first introduction personal. Include a photo and a video to introduce yourself, the course, and your expectations
- If teaching online, add a video “tour” of critical features in the course including supports, communication, and progress monitoring.
- Add several options for communication, including social media that you may use professionally.

### SYLLABUS COMPONENTS AND EXAMPLES

#### INSTRUCTOR INTRODUCTION

##### UDL Considerations

Engage students by making this first introduction personal. Include a photo and a video to introduce yourself, the course, and your expectations (see video below).

If teaching online, add a video “tour” of critical features in the course including supports, communication, and progress monitoring.

Add several options for communication, including social media that you may use professionally.

##### Example



Instructor: Michelle Benson-Young  
Email: mbensonyoung@college.edu  
Phone: (555) 381-2281  
Twitter: @math114  
Skype name: MBenson-Young



[https://www.youtube.com/watch?v=\\_HHvRzemuHA](https://www.youtube.com/watch?v=_HHvRzemuHA)

# Questions and Answers

