Reaching All Students Creating Inclusive Content

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SC Technical College System

UNIVERSITY OF SOUTH CAROLINA

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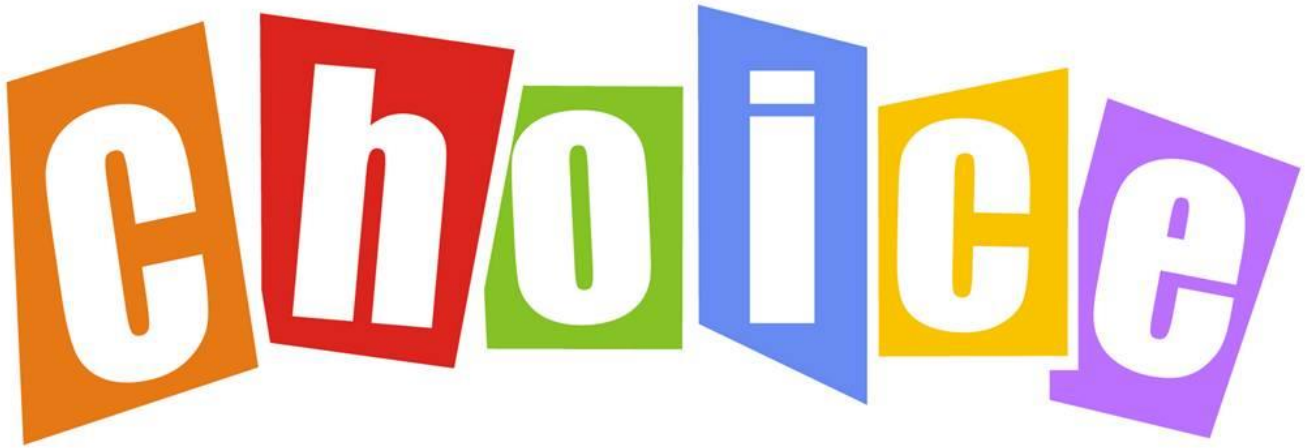
Outcomes

- Identify ways to make documents and videos accessible
- Identify ways to Alt Text images in documents
- Discuss accessibility and virtual simulations
- Discuss online course design for accessibility

Today's Topics

- Practical accessibility tips for Microsoft software
- Video captioning and transcripts
- Online course layout design for accessibility
- Images and Alt Text
- Accessibility in virtual simulations

Inclusive Learning


choice

Accessibility

Universal Design for Learning 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

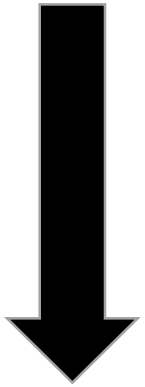
Action & Expression

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

CAST
25
YEARS OF
INNOVATION
1984-2009
Transforming education through Universal Design for Learning — http://www.cast.org
UDL at a glance

UDL: Multiple Means of Representation

UDL Principle: Provide Multiple Means of Representation



Resourceful, knowledgeable learners

Provide options for Perception (guideline1)

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

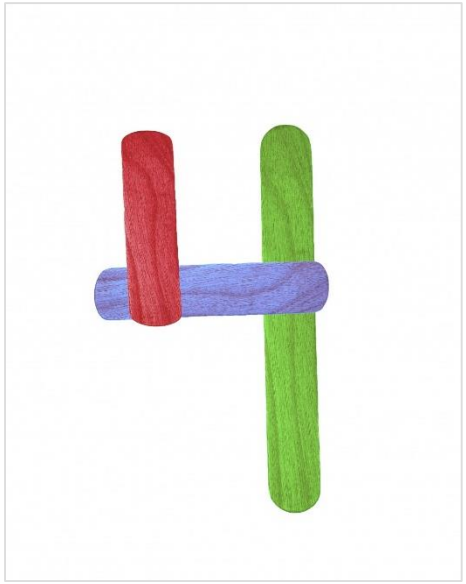
Provide options for Language & Symbols (guideline2)

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

Provide options for Comprehension (guideline3)

- Activate or supply background knowledge (checkpoint 3.1)
- Highlight patterns, critical features, big ideas, and relationships (checkpoint 3.2)
- Guide information processing and visualization (checkpoint 3.3)
- Maximize transfer and generalization (checkpoint 3.4)

Let's chat…



Share…

What alternative formats for your instructional content do you provide your students?

Practical Accessibility Tips for Microsoft Software

Document Accessibility - Word

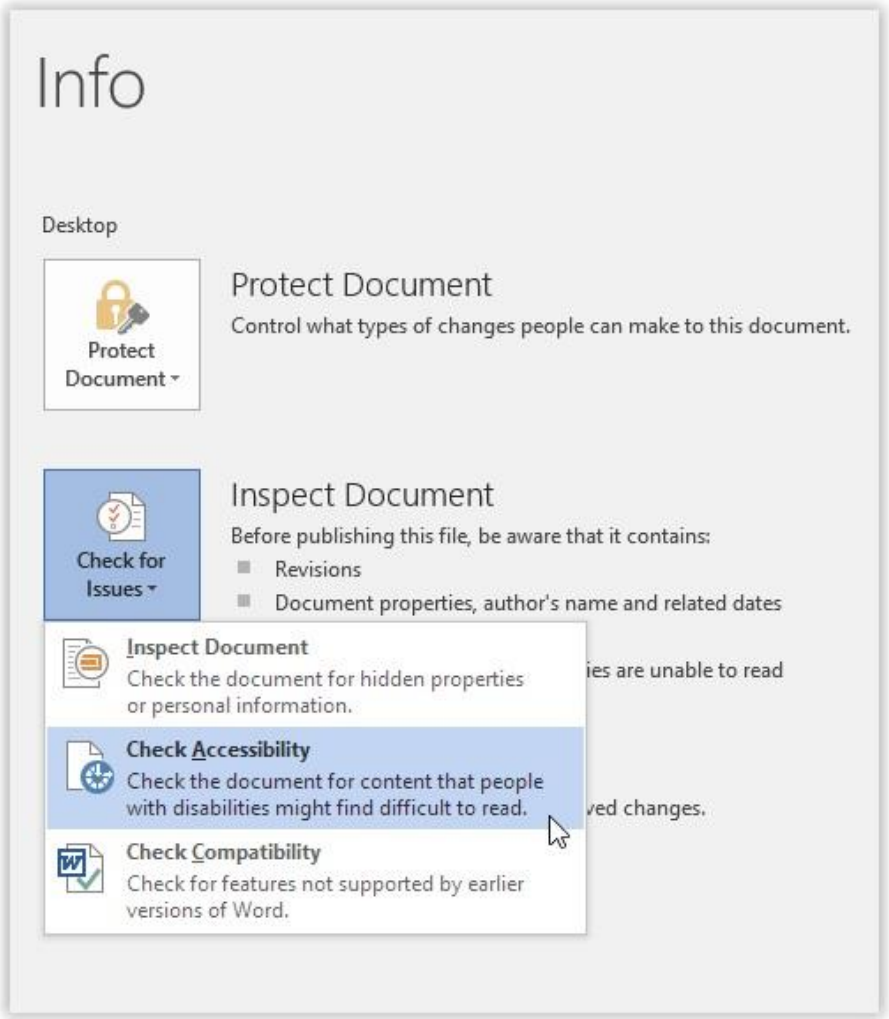
Word

PowerPoint

Images

PDFs

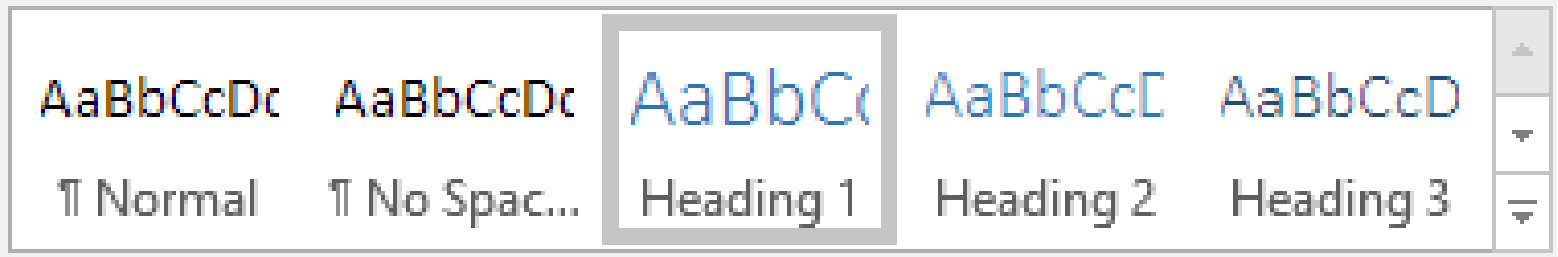
File -> Check for Issues -> Check Accessibility

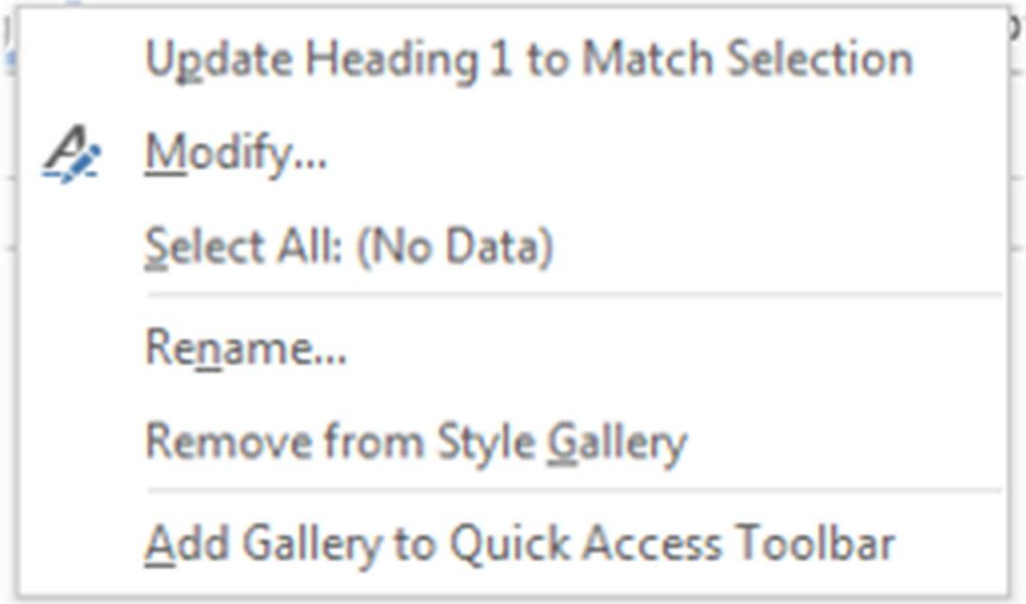


Inspection Results

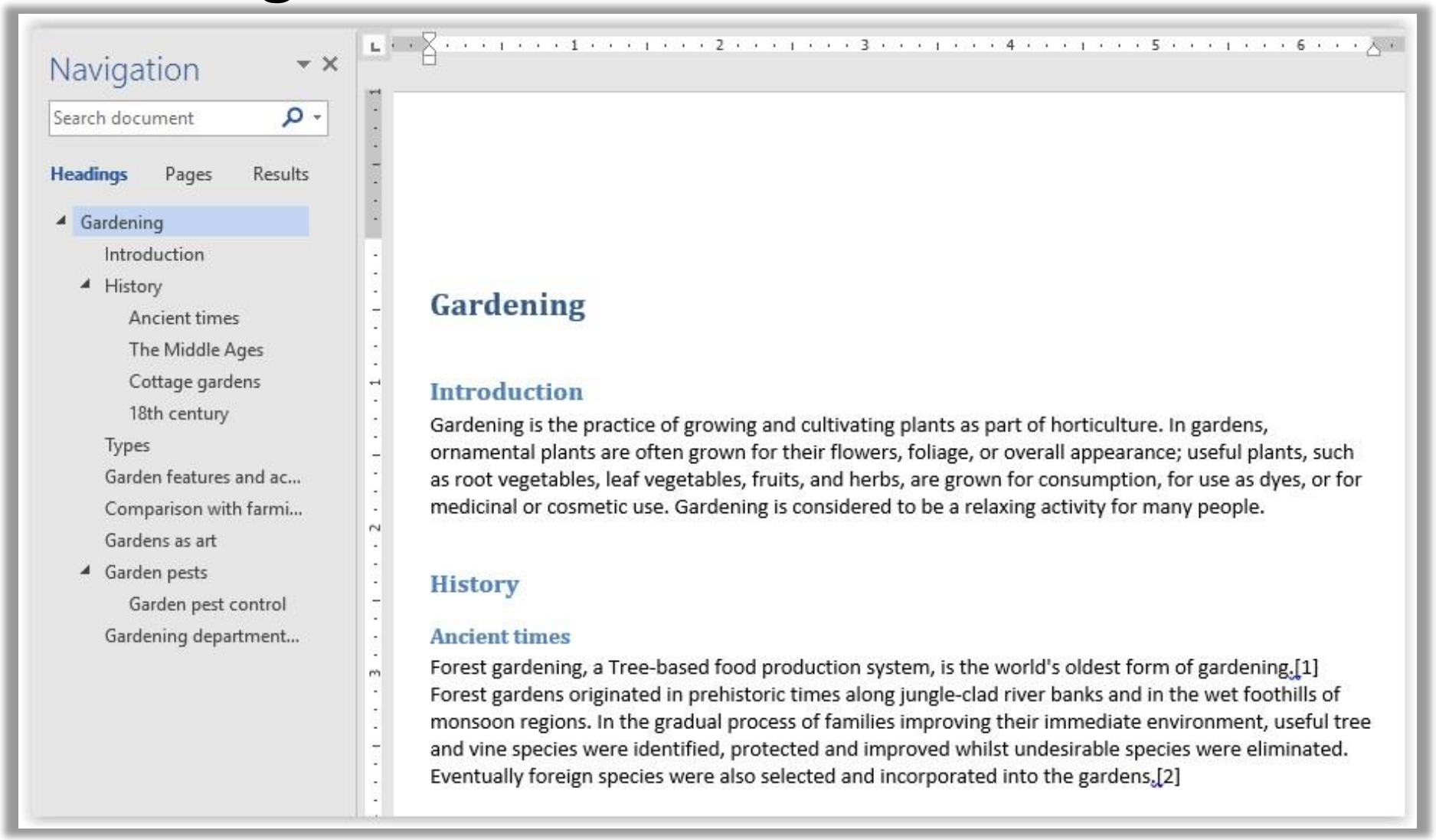
- Inspection Results
  - Errors
  - Warnings
  - Tips
- Additional Information
  - Why Fix
  - How to Fix

Word: Heading Level Styles

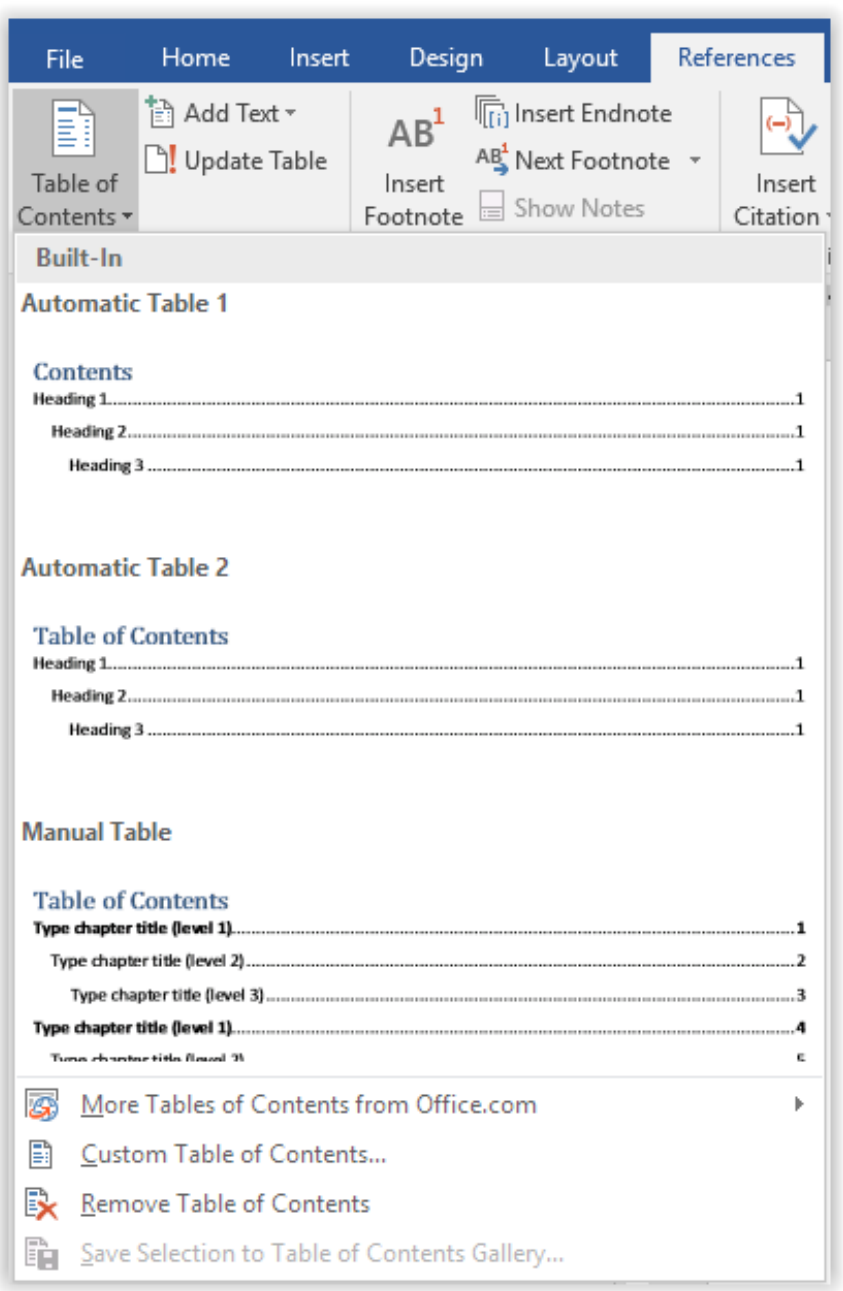




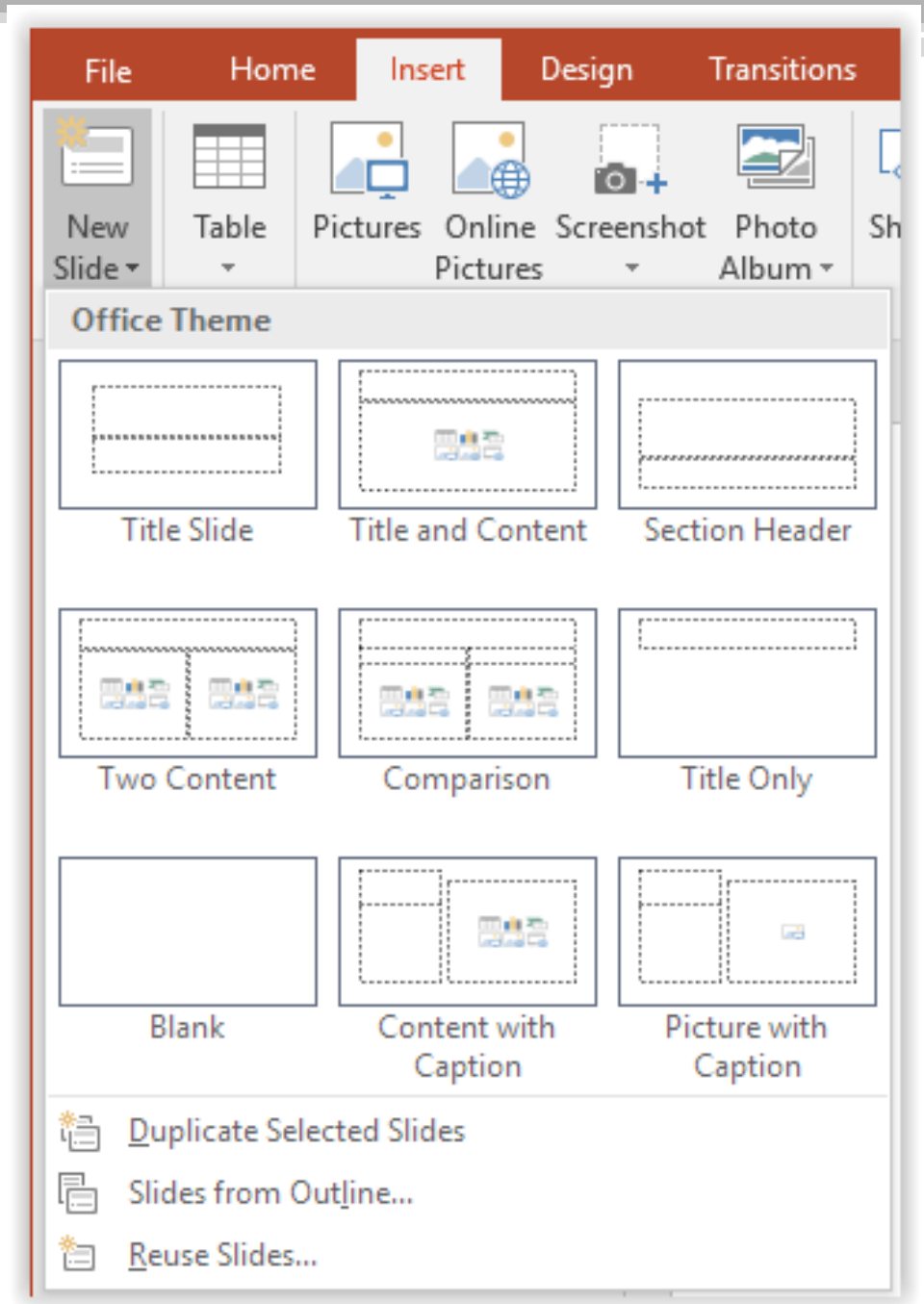
Bonus 1: Navigation Pane



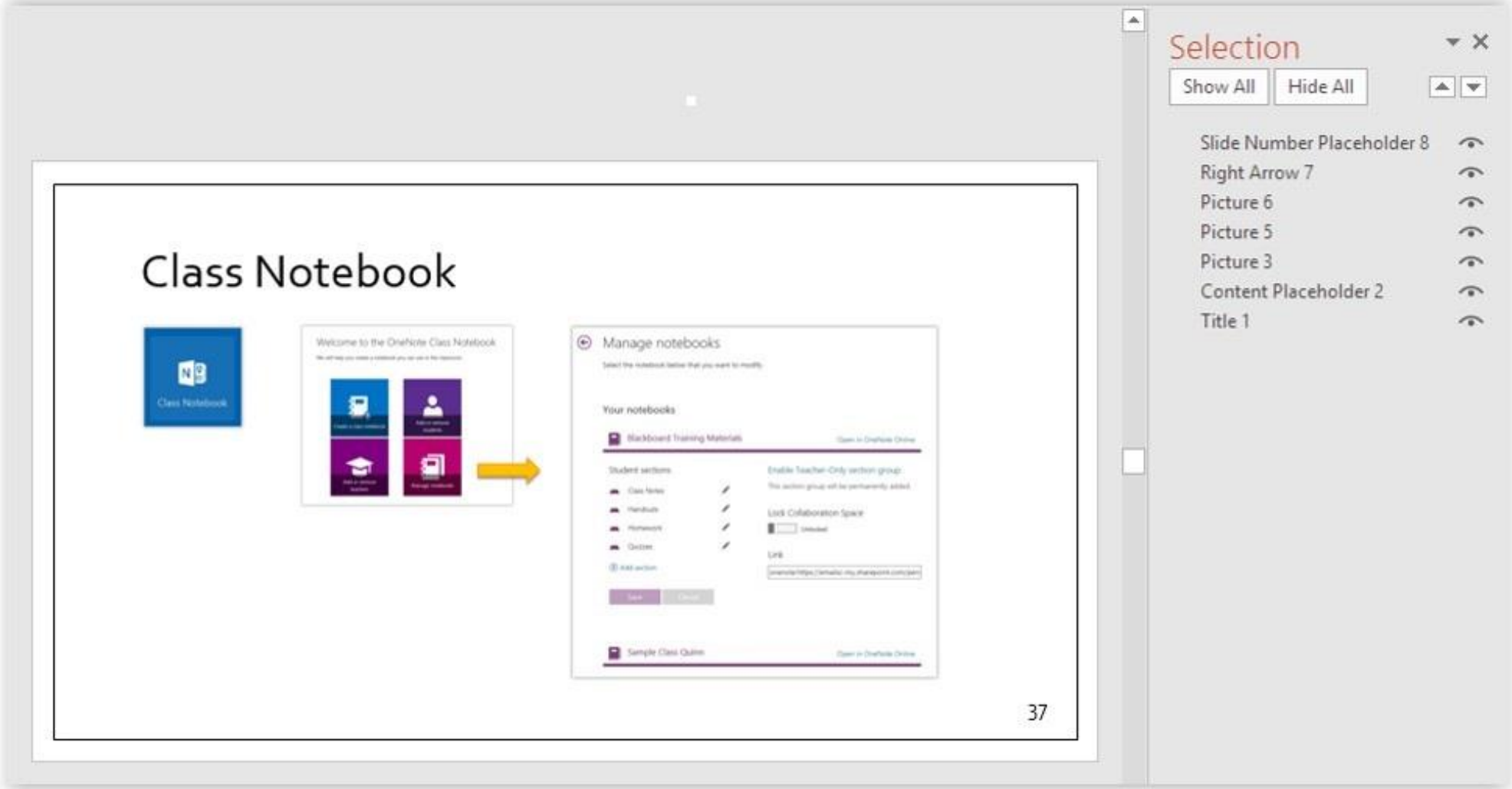
Bonus 2: Table of Contents



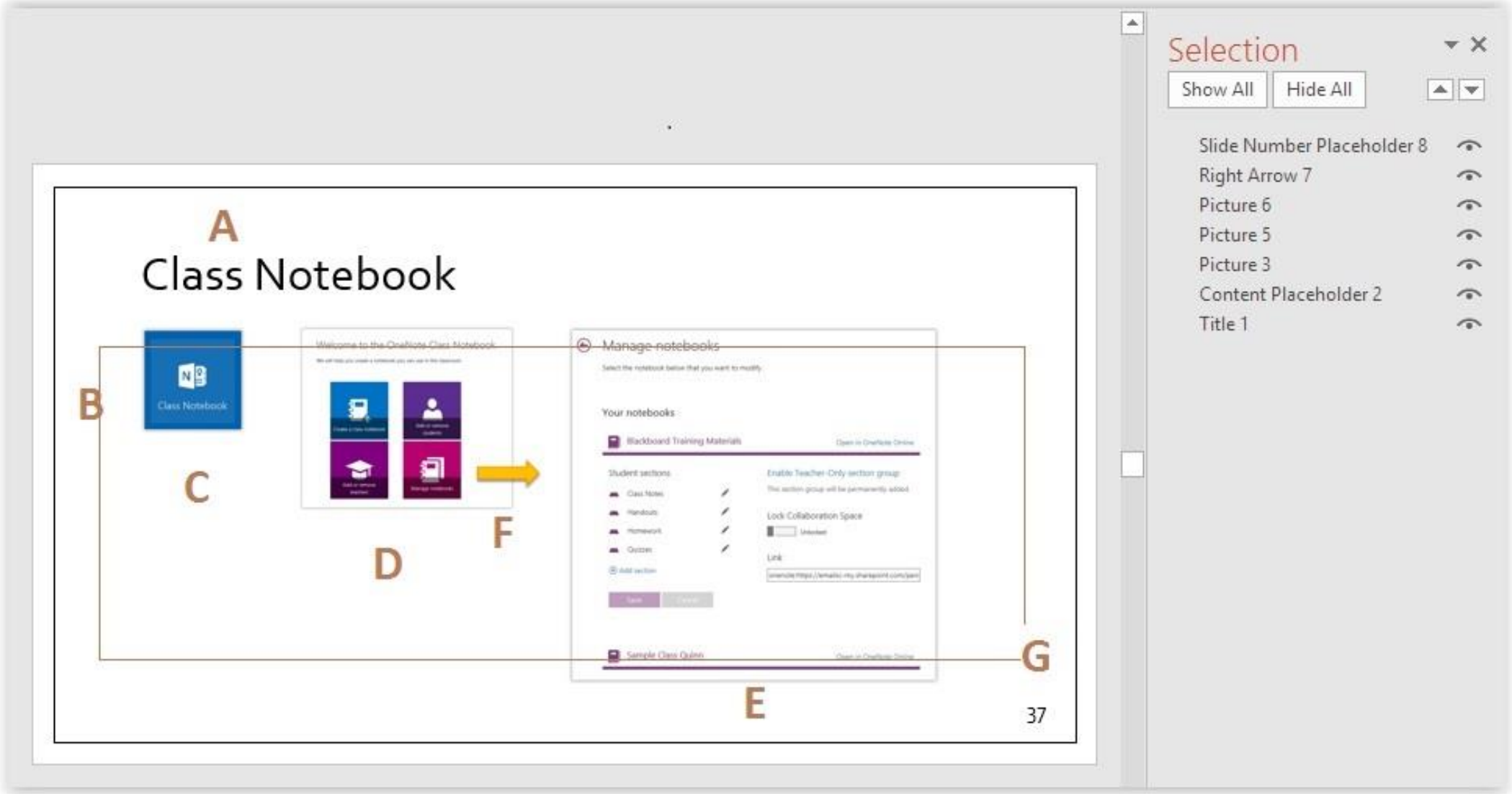
PPT Slide Titles



Reading Order

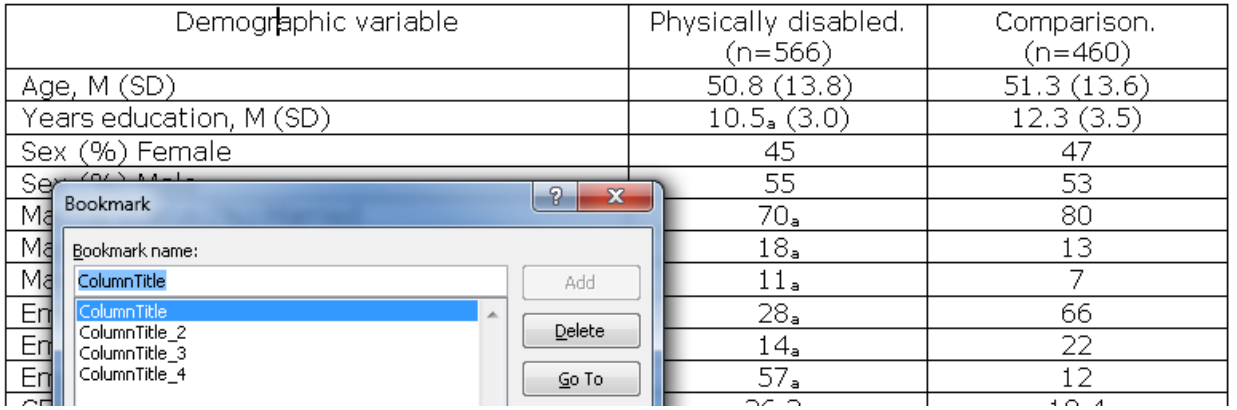


Reading Order (close up)

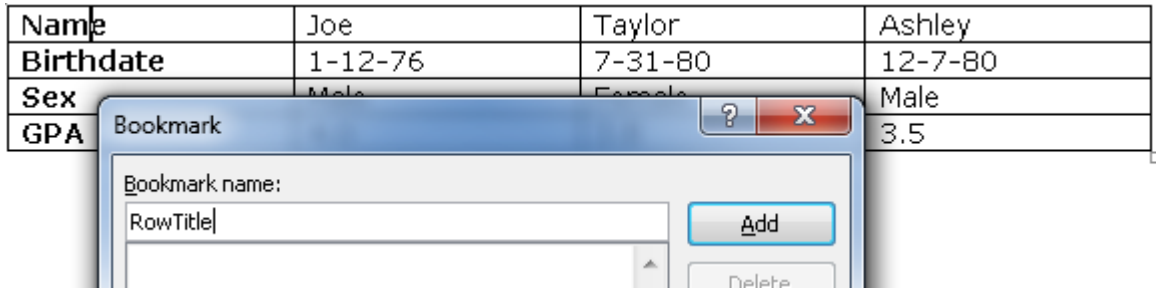


Accessibility Microsoft Word – Tables (1)

- If only **column headings**
  - Put cursor in column heading ce
  - **Insert → Bookmark**
  - Type “ColumnTitle”
  - Press [Enter]



- If only **row headings**
  - Put cursor in row heading cell
  - **Insert → Bookmark**
  - Type “RowTitle”
  - Press [Enter]



Bonus: Outline View (with titles)

7 **What we see: Office 365**

8 **365 OneDrive**

9 **Waffle Menu / All Apps**

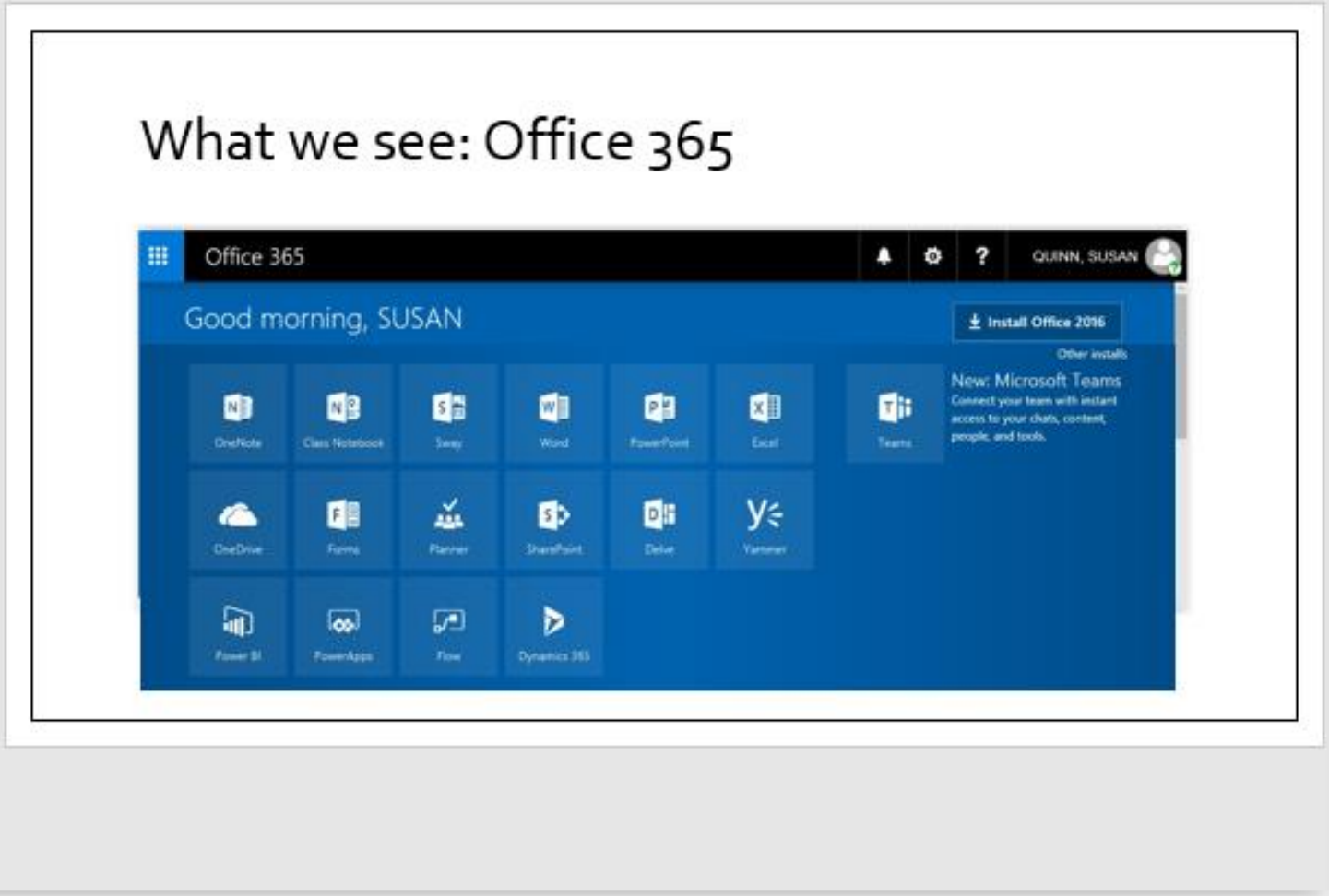
10 **Plan**

- Summary of Tools
- OneDrive
- Other "Big Picture" Tools
  - One Note
  - Class Notebook
  - Teams
- Word / PowerPoint / Excel
  - Desktop v Cloud-based
  - Share / Collaborate

11 **SUMMARY OF TOOLS**

12 **You have probably used these...**

- Word
- PowerPoint
- Excel



Bonus: Outline View (without titles)

1

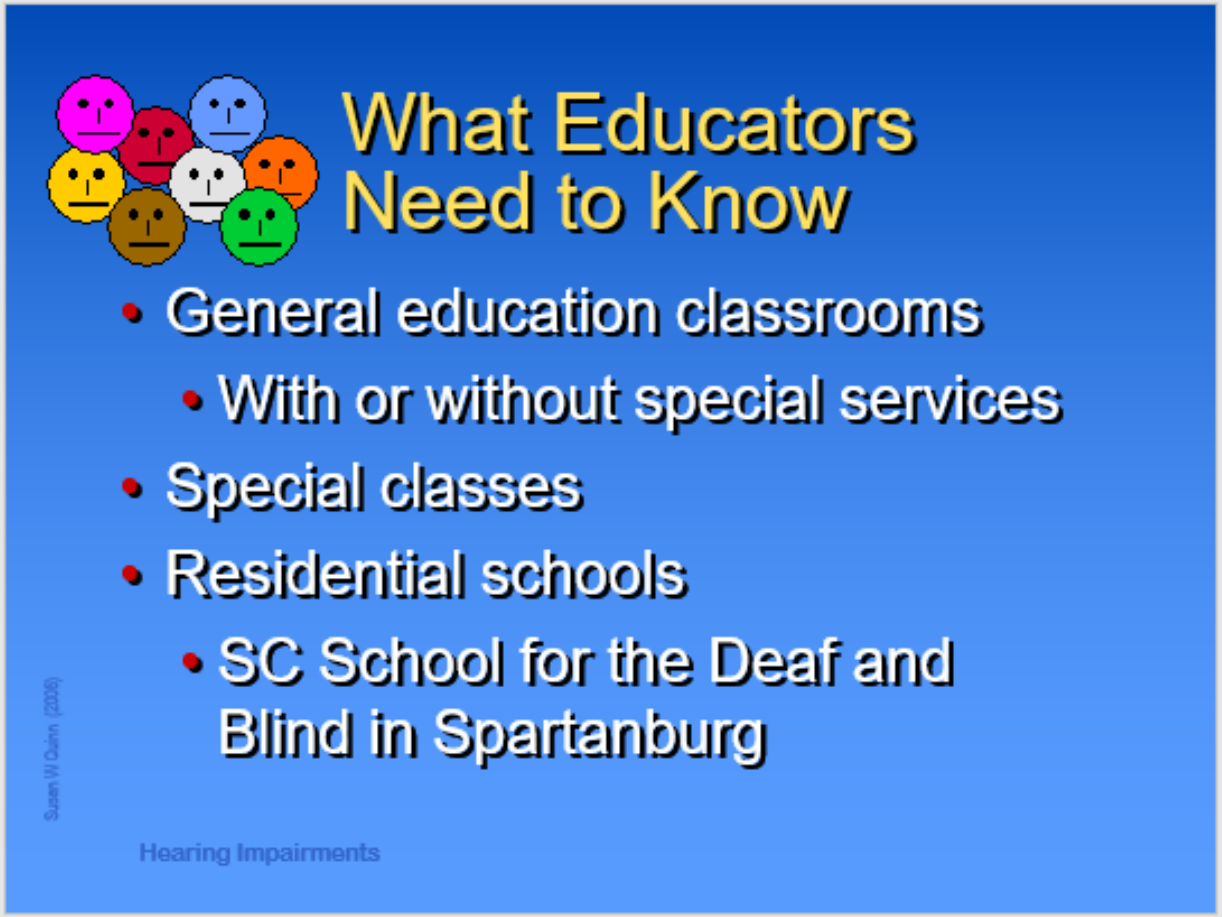
2 **What Educators Need to Know**

- General education classrooms
  - With or without special services
- Special classes
- Residential schools
  - SC School for the Deaf and Blind in Spartanburg

3

4

- General ideas
  - Face the student
  - Speak directly to the student, not the interpreter, if an interpreter is used
  - Try to avoid talking as you write on the board with your back to the student



Click to add notes

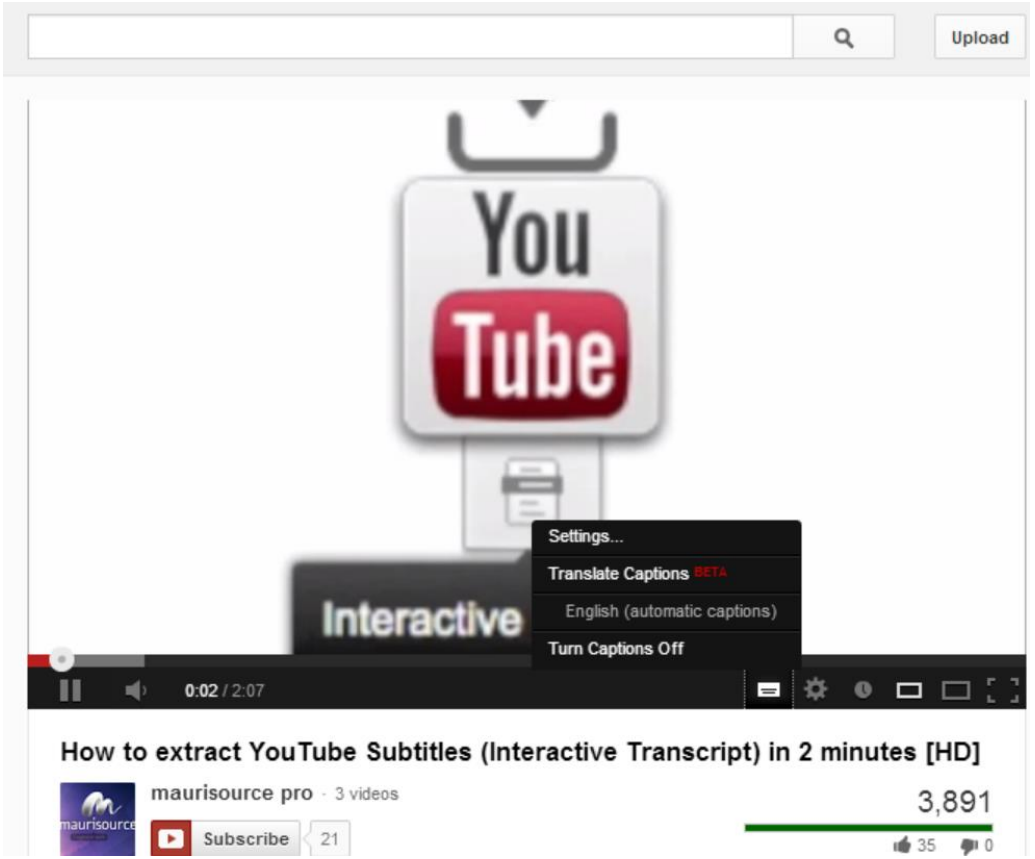
Video Captioning and Transcripts

Captions

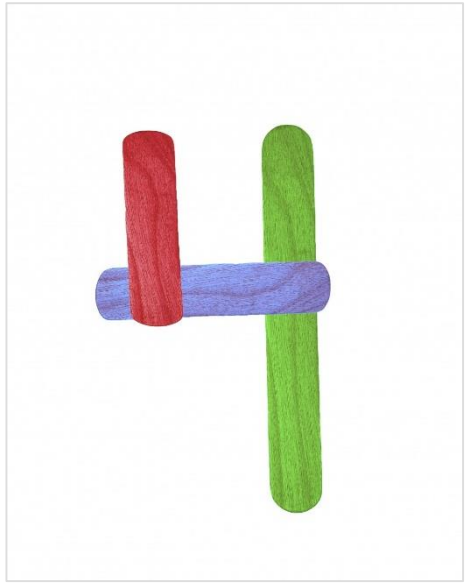
- **Goal is to provide equivalent experience**
- Audio only files = provide transcript
- Videos with audio = provide captions
- Transcripts provide searchable text
- Do not autostart media files; let user control the media
- **Best Practice**: write out your script in advance!

YouTube

1. Go to your Video Manager by clicking your account in the top right > Creator Studio > Video Manager > Videos.
2. Next to the video you want to add captions or subtitles to, click the drop-down menu next to the Edit button.
3. Select Subtitles/CC.
4. Click the Add new subtitles or CC button.
5. Choose how you want to add or edit subtitles or closed captions to your video



Let’s chat…



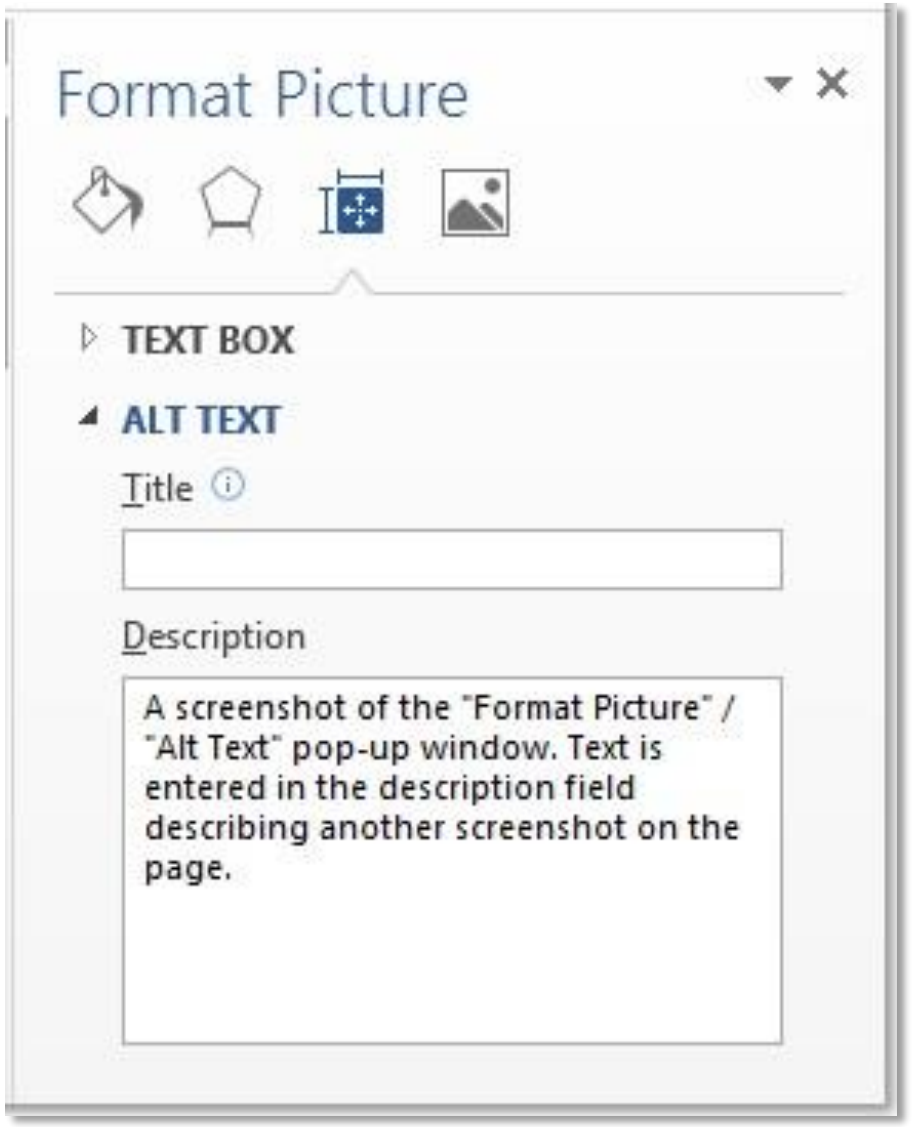
Share…

How do you use videos in your classes? Tell us about your captioning experiences.

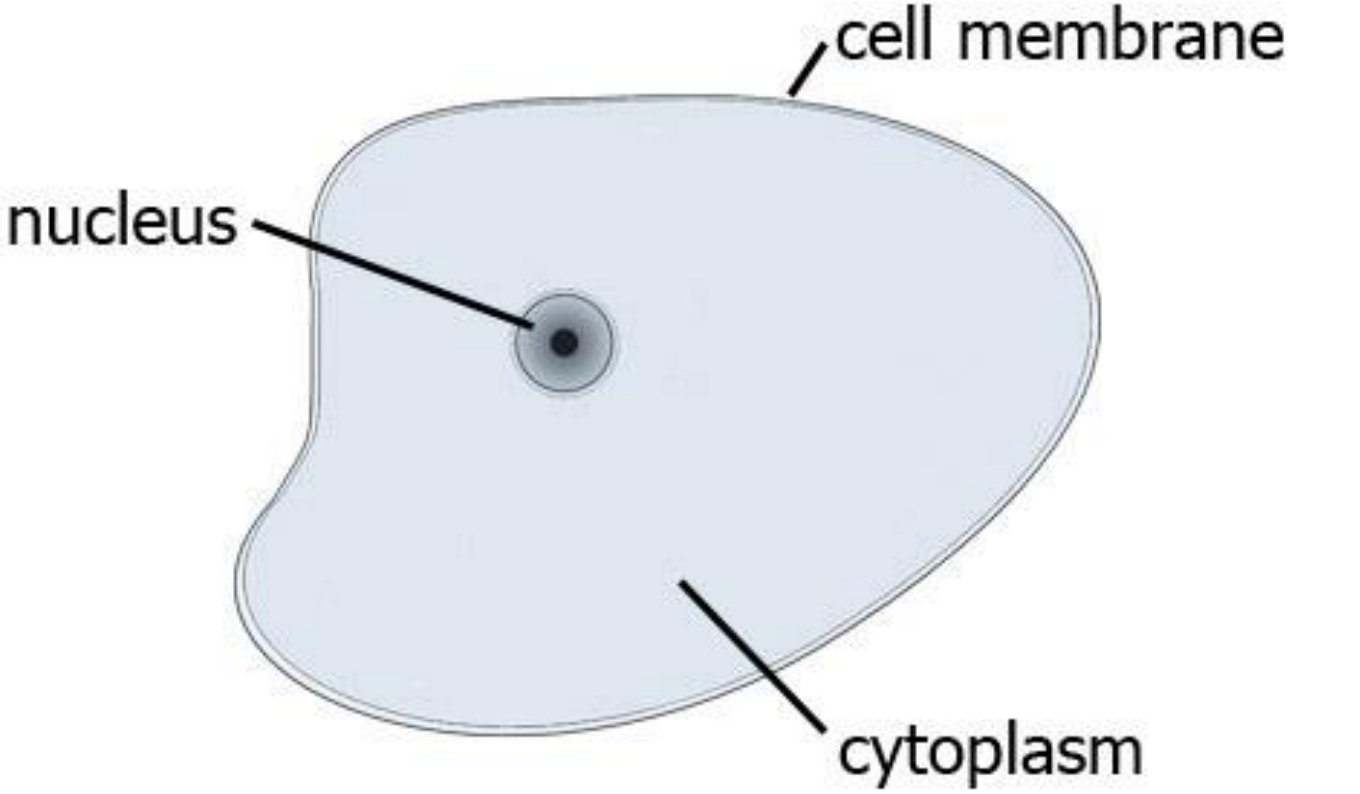
Images and Alt Text

Alternative text

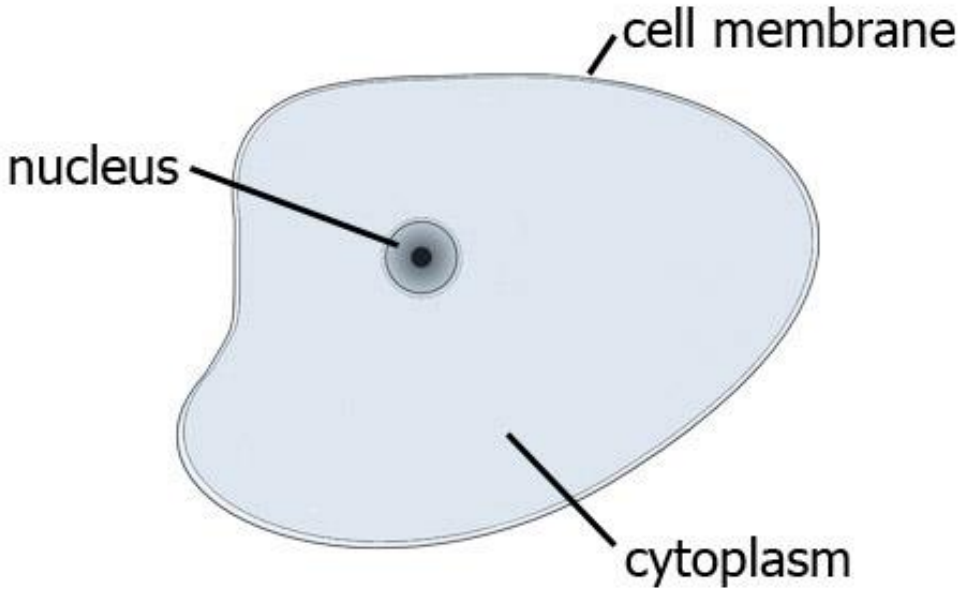
- Right-click the graphic
- Choose “Format Picture”
- Select “Alt Text” and add details in the Description textbox



Example 1: Image

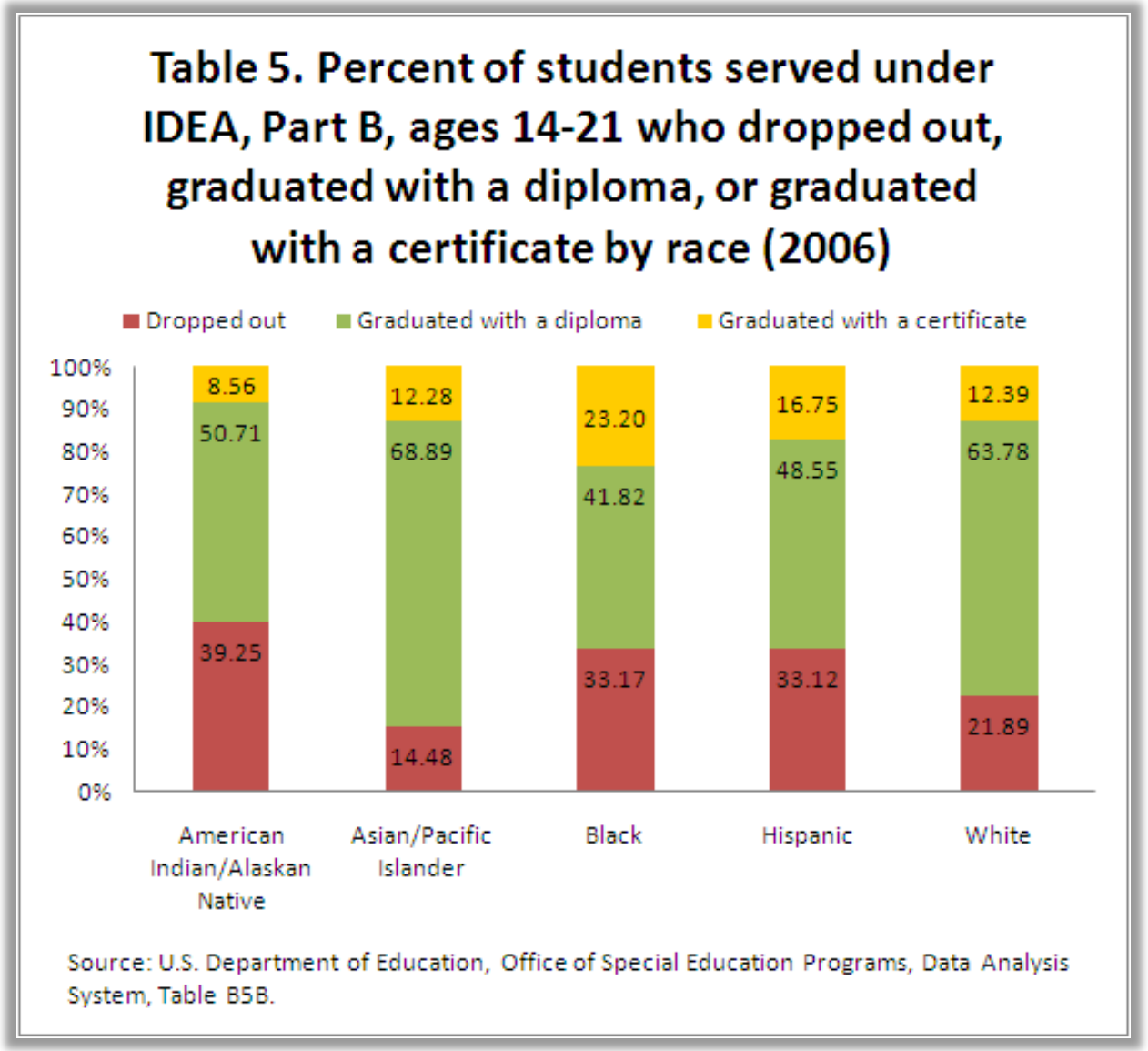


Example 1: Alt Text

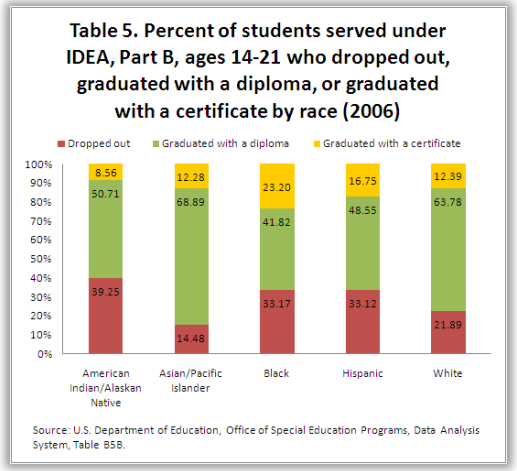


“Animal cell diagram displaying its cell membrane, the nucleus, and cytoplasm.”

Example 2: Image



Example 2: Alt Text



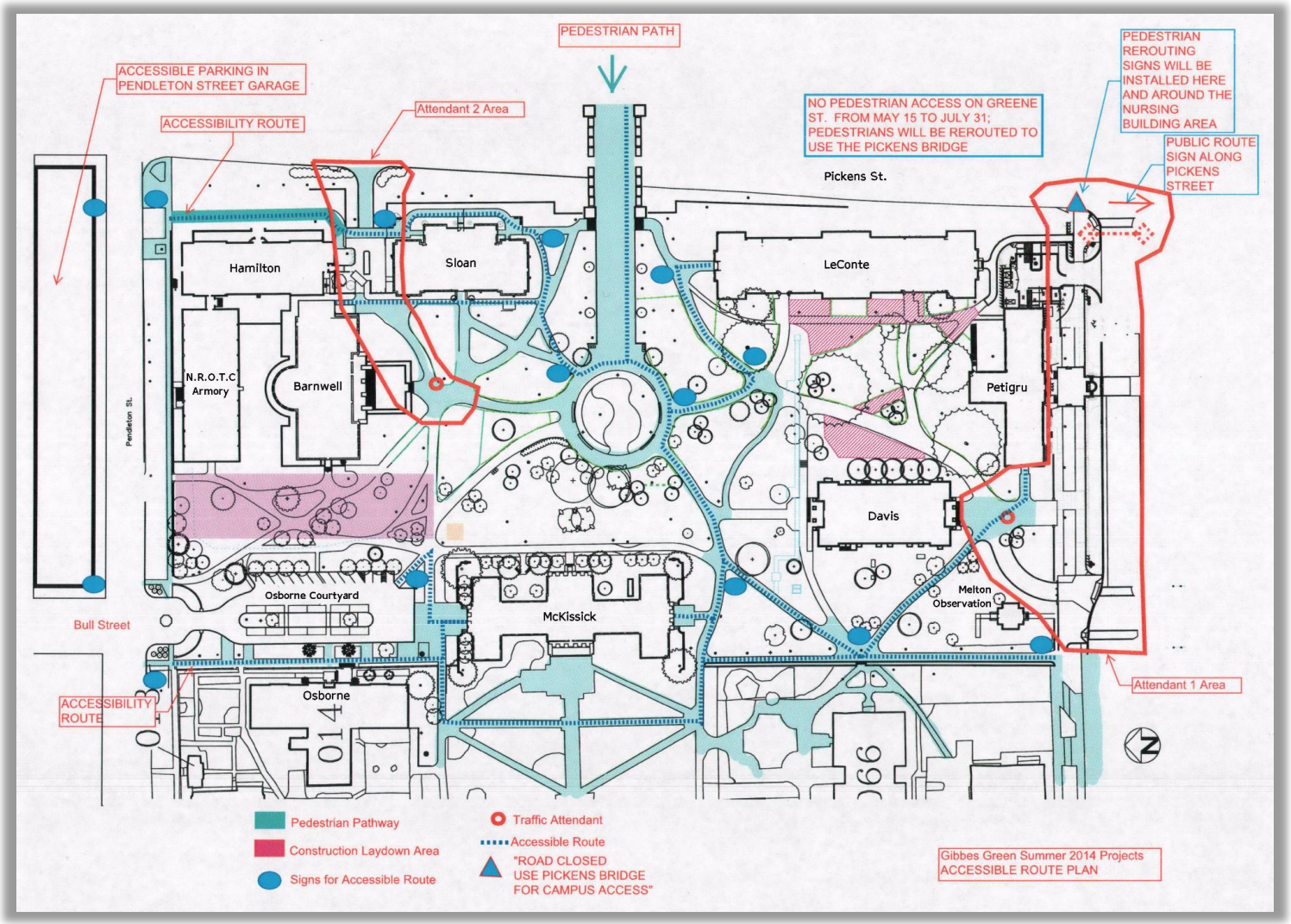
Another Option: Create an accessible table with this data

"Table 5. Percent of students served under IDEA, Part B, ages 14-21 who dropped out, graduated with a diploma, or graduated with a certificate by race (2006).

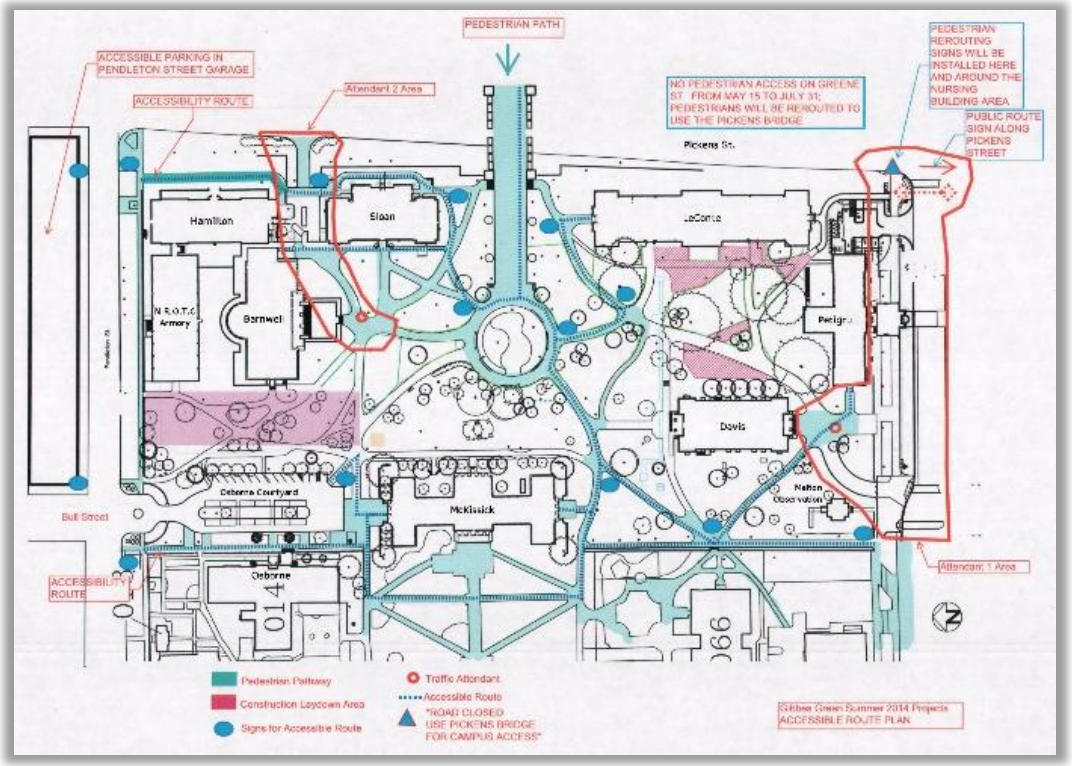
- American Indian/Alaskan Native, 39.25% dropped out, 50.71% graduated with diploma, 8.56% graduated with certificate.
- Asian/Pacific Islander, 14.48% dropped out, 68.89% graduated with diploma, 12.28 graduated with certificate.
- Black, 33.17% dropped out, 41.82% graduated with diploma, 23.20% graduated with certificate.
- Hispanic, 33.12% dropped out, 48.55% graduated with diploma, 16.75% graduated with certificate.
- White, 21.89% dropped out, 63.78% graduated with a diploma, 12.39% graduated with a certificate.

Source: U.S. Department of Education, Office of Special Education Programs, Data Analysis System, Table B5B."

Example 3: Image



Example 3: Alt Text



"Blueprint of eastside of campus showing accessible routes and construction.

Construction 1: Starting at Pickens/Greene Streets intersection extending along Greene Street in front of Petrigru College and stops at Greene/Bull Streets intersection.

Construction 2: Starts within the walkway from Pendleton/Pickens Streets between Hamilton and Sloan Colleges and ends in front of Barnwell College.

Accessibility in Virtual Simulations

Types of Virtual Technology

- 360 Video
- Augmented Reality
- Virtual Reality

Creating and Using Virtual Content

- Applications in healthcare, engineering, retail, public health, art, humanities, history….
- Challenges in academia
  - Programs that say they “won’t have disabled students”
  - Cost ($$ and time) to purchase and/or create (both faculty and students)
  - Alternative assignments for students with disabilities
- c

To help those with Disabilities (and those without)

- Virtual Reality, Disability and Rehabilitation
- Autism, PTSD, etc.
- Simulate disabilities for the non-disabled
- “Second Life”
- Teach empathy, cultural competencies, life skills, etc.

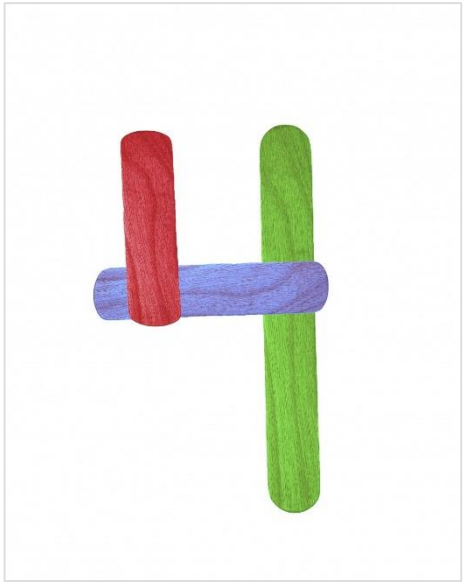
VR Simulation

vSim for Nursing Fundamentals

Academic Classes & Training Examples

- Physics PHET (https://phet.colorado.edu/en/simulations/category/physics)
- Double Spring (https://www.myphysicslab.com/springs/double-spring-en.html)
- Dental training and simulation (https://polhemus.com/blog/entry/virtual-reality-in-dental-training-and-simulation)
- Edutopia - Schools use games for learning and assessment (https://www.edutopia.org/video/schools-use-games-learning-and-assessment)

Let's chat…



Q&A

Contact Us

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Susan Quinn
Division of Information Technology
susanq@mailbox.sc.edu

Resources

- CAST (http://www.cast.org/)
- DO-IT (Disabilities, Opportunities, Internetworking, and Technology) (https://www.washington.edu/doit/)
- USC's Student Disability Resource Center (https://sc.edu/about/offices_and_divisions/student_disability_resource_center/)

Resources

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- USC Student Disability Resource Center
- Cast Universal Design for Learning: Multiple Means of Representation