Visual Aids

Marie-Christine Brunet
This class will discuss strategies for how to be successful in three critical areas of your presentations:

- Content
- Visual Aids
- Delivery
Take notes and reflect on how you will use the material presented today to include in your second presentation

https://a2ua.com/journal.html
The goal of the assertion-evidence technique is to convey a message in each slide by first avoiding meaningless titles.
When an object in space re-enters Earth, friction from the atmosphere causes the object to heat to 3000°F.
Research shows that there are fonts and font sizes that will increase audience comprehension. 

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RESEARCH SHOWS THAT THERE ARE FONTS AND FONT SIZES THAT WILL INCREASE AUDIENCE COMPREHENSION.
Choosing the right assertion is essential for effective messaging

Assertion?  ➔  Newton’s third law is a fundamental principle

For every action, there is an equal and opposite reaction.

• The statement means that in every interaction, there is a pair of forces acting on the two interacting objects.

• The size of the forces on the first object equals the size of the force on the second object.

[www.grc.nasa.gov]
Exercise: how effective is the title in the following slide?

**Assertion!**

Trabeculae reduce a bone’s weight while giving it maximum strength against multiple forces.

Trabeculae
The second step is to find or create visual evidence that supports the sentence headline.

When an object in space re-enters Earth, friction from the atmosphere causes the object to heat to 3000°F.

Supporting visual evidence
The second step is to find or create visual evidence that supports the sentence headline.

Shuttles are designed to re-enter Earth with their blunt side facing down.

Supporting visual evidence.
Choosing the right assertion and the right visual evidence is essential for effective messaging.

Newton’s third law is a fundamental principle:

- For every action, there is an equal and opposite reaction.
- The statement means that in every interaction, there is a pair of forces acting on the two interacting objects.
- The size of the forces on the first object equals the size of the force on the second object.

Newton’s Third Law describes the fundamental principle behind how rocket engines work.
Exercise: it is now your turn to practice and write a sentence headline with an effective assertion—you have 4 minutes

1. Write a sentence headline with an effective assertion to explain “inertia” (be creative)
2. If time, describe a visual evidence you would include on your slide, that would help and support the assertion you made

The *traditional* slide would look like this:

*The principle of Inertia* is Newton’s first law of motion

- **Inertia** is the resistance of any physical object to any change in its state of motion including changes to its speed and direction or the state of rest.
- An object not subject to any net external forces moves at a constant velocity.
- On Earth, inertia is masked by the effects of friction, air resistance and gravity. [www.wikipedia.org](http://www.wikipedia.org)
Research shows comprehension and retention is much higher with assertion-evidence slides
Trabeculae reduce a bone’s weight while giving it maximum strength against multiple forces

Gustav Eiffel, 1889
Materials used to reconstruct damaged bones must have similar structural characteristics as healthy bone.
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http://writing.engr.psu.edu/models.html

https://07-lvl3-pdl.vimeocdn.com/01/3910/4/119551633/336213024.mp4?Expires=1445012455&token=0a19e53bbf6aa05edbada
Dr. Amos’ lectures have dramatically improved and led to better understanding from her students.

Imaging and Sensing

- Imaging is a relatively new field, even Ultrasounds weren’t common for patients.
- Imaging has advanced to allow for high resolution images of organs (bmi)
- Sensing allows researchers to use point of care testing (pulse oximeters, insulin pumps, etc)
- Combined, they present an image of the future for a better understanding of the human body.

The future of imaging and sensing are low cost, point of care, and public health devices.

Point of Care Diagnostics

[www.grandchallenges.org](http://www.grandchallenges.org)

[YouTube: Man sees with bionic eye](http://www.youtube.com/watch?v=_2qPWc3Z158)
Dr. Brunet’s lectures have dramatically improved and led to better understanding from her students.

**Today - Syllabus**

- **Class info**
  - Mondays 4-4:50p
- **Grading**
  - Attendance: 70% (5% each lecture)
  - Quizzes: 30%
  
  
  • 2 quizzes, after 2nd lecture

**Course Objective**

After completion of this course, students will:

- be aware of all programs of study related to, the College of Engineering.
- have a list of programs that are available as transfer options.
- will also be aware of career opportunities related to those programs and the requirements to transfer to each.

**In ENG 101 you will learn about careers, dual degrees, minors, and transfer requirements**

**Each lecture**: one speaker from one engineering major
Reflected on how you will use the material presented today

Check courses.engr.illinois.edu/eng198eb

Presentation 2 (preparation for Wednesday evening)
1. Topic MUST be science or engineering based
2. Bring a draft of your slides
   • Content and Organization
   • A few slides with assertion-evidence
3. Exchange DISC results with your teammate (optional)
References: Week9-1

7. Alley, Michael (2003). Rethinking the design of presentation slides: The assertion-evidence structure. [http://writing.engr.psu.edu/slides.html](http://writing.engr.psu.edu/slides.html).
11. [http://writing.engr.psu.edu/models.html](http://writing.engr.psu.edu/models.html) Nicole Gallegor (EA at PSU)’s presentation.
12. ENG 101 slides (Dr. Amos “Bioengineering” and Dr. Brunet “Engineering at Illinois”).