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Label your axes :-)

THEME OF THE DAY:

BE RESPONSIBLE FOR
YOUR AUDIENCE'S UNDERSTANDING

** "But I *said* that!" won't get you what you want.

You are all no doubt well versed in your responsibility for the content of your presentations. We want you to polish your presentations, and to expand your confidence as a presenter.

In addition, we want you to expand your understanding to include being responsible, insofar as you can, for ensuring that your audience understands and takes away what you intend.

Almost no one reads every word: write so that people who skim can't miss what's important.

Informative headings

Graphics with clear labels

Solid paragraphs:

- single topic

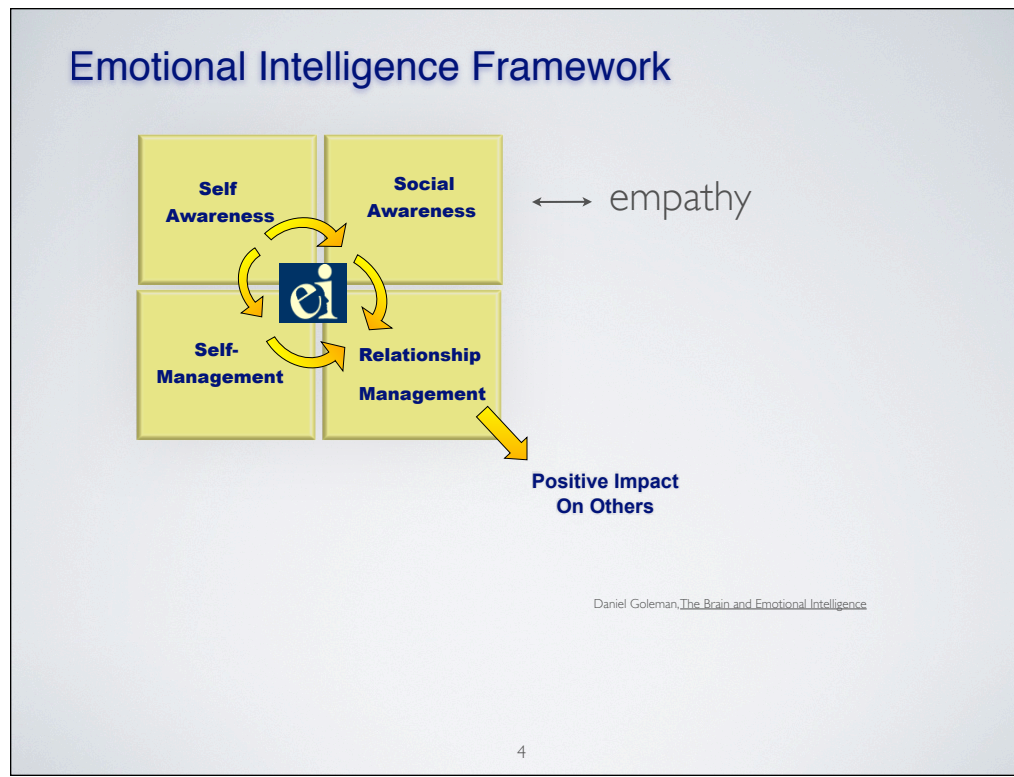
- main point in first sentence*

} CDE

** If a reader reads only this sentence, will they understand you?

One way to help your audience understand you is to remember that your documents (in this case, your CDE) are visual as well as verbal.

Use the visual elements of your document to emphasize (and reiterate) your key points, so that your reader cannot help but understand them.



Remember, too, that your writing and presentation are reflections of your emotional intelligence.

Taking responsibility for your audience's experience, whether in writing or presenting, is a key outcome of managing your relationships with awareness.

SOME OF YOUR GOALS
with regard to PRESENTATION:

- 1- look appropriate
- 2- accept feedback well
- 3- not be concerned about what I look like
- 4- prepare sufficiently
- 5- manage emotional reactions
- 6- come across as confident

Here are some of the presentation goals that appeared most frequently in your self-assessments. Note the emphasis on a combination of self-awareness and social awareness: two very important aspects of presentation that address the key question, “How will my audience receive me?”



Intro to
The Lab Briefings

Your first presentation assignment will be your Lab Briefings. You'll do five of them, starting with Lab 2 and continuing through Lab 6. Dates are posted on the syllabus.

Basics

- delivery shared by team
- 8 minutes to present (timed)
- 4 minutes for Q&A and feedback
- slides
- informal, not sloppy

Basic rules of the road:

Roughly equal participation among team members. Work this out any way you want to: we won't time each of you. But make sure everyone is contributing.

Timing will be enforced.

Informal but not sloppy: for example, no bellybuttons :-)

Challenge yourselves to be at least a little more professional than you have been.

Support each other.

A lab briefing can have elements of:

Summary of work

Progress report

Justification of funding

Explanation of decisions

Request for input

Proposal

Lab briefings in industry serve many purposes.

These lab briefings will be primarily:

Summary of work

Progress report

Explanation of decisions

Briefing should cover:

- Project statement
- Lab goal and objective
- Technical approach
- Results
- Lessons learned

Here is a summary of the content we expect in your briefings. Not every team will cover every point. And you may want to cover things not mentioned here. Use this as a guide.

Briefing should cover:

- Project statement
- Lab goal and objective
- Technical approach
- Results
- Lessons learned

for example:

- What was the problem we were addressing?
- What did we achieve?
- What did we do as a team? Individually?

Briefing should cover:

- Project statement
- Lab goals
- Technical approach
- Results
- Lessons learned

for example:

- What were the goals of the lab?
- Did we meet them?
- If not, why not?
- What did we accomplish beyond the required tasks?

Briefing should cover:

- Project statement
- Lab goal and objective
- Technical approach
- Results
- Lessons learned

for example:

- How did we conduct our investigation?
- What decisions did we make?
- What was our process?

Briefing should cover:

- Project statement
- Lab goal and objective
- Technical approach
- Results
- Lessons learned

for example:

- What images or video should we show?
- What plots should we show?
- What do our plots say?

Briefing should cover:

- Project statement
 - Lab goal and objective
 - Technical approach
 - Results
 - Lessons learned
- about graphics:
- necessary
 - sufficient
 - titled
 - easily readable**
 - labeled

**Tasty reward for teams with 100% readable slides!!

To repeat: **Tasty reward for teams with 100% readable slides!
Master this!

Briefing should cover:

- Project statement
- Lab goal and objective
- Technical approach
- Results
- Lessons learned

for example:

- Technical or team?
- What did we discover?
- What was surprising?
- What will we do differently?

When presenting:

- Breathe
 - Practice out loud
 - Coordinate as a team
- Plan intro and ending
 - Plan and manage time
 - Plan transitions
 - Answer Qs as a team

Note how important planning is to successful communication.

Let's practice :)

Details to note:

You will need to practice your talks out loud to do well.

Train yourself to speak with your hands and arms relaxed at your sides. After this course is over, you can do with them as you will, but for this term, practice with them relaxed at your sides.

Whenever they need to gesture, let them gesture. Then let them return, relaxed, to your sides.

You will learn to eliminate filler words and sounds from your speaking: “Uh,” “um,” “basically,” “so,” “like”: these words can be squelched with practice. We will practice in your briefings. You will also practice with each other.

Some of you who speak fast will learn to speak so slowly you'll feel ... uncomfortable :-> But your audience will be grateful.

You will be video recorded.

You will get a *lot* of feedback.

We are available for advice and practice, with a day or so notice.

Questions that guide your communication:

- Audience(s): to whom are you communicating?
- Purpose(s): why are you communicating?
- Takeaways: how will you know that you've been successful?

As you decide what to include in your presentations (and your documents, and every other communication event), you want to consider these three questions.

They will guide your choices about what to include and what to leave out, how to organize, what to emphasize....

Without considering these three questions explicitly, you are likely to be shooting in the dark.

Audience(s)

- Professor, TA, LAs
- CI instructor
- Teammates
- Classmates
- Yourself

Purpose(s)

Most communication events have multiple audiences...

Audience(s)

- Professor, TA, LAs
- CI instructor
- Teammates
- Classmates
- Yourself

Purpose(s)

- Demonstrate learning
- Get useful feedback
- Build team
- Convey credibility

...and multiple purposes.

Takeaways

(how will you judge your success?)

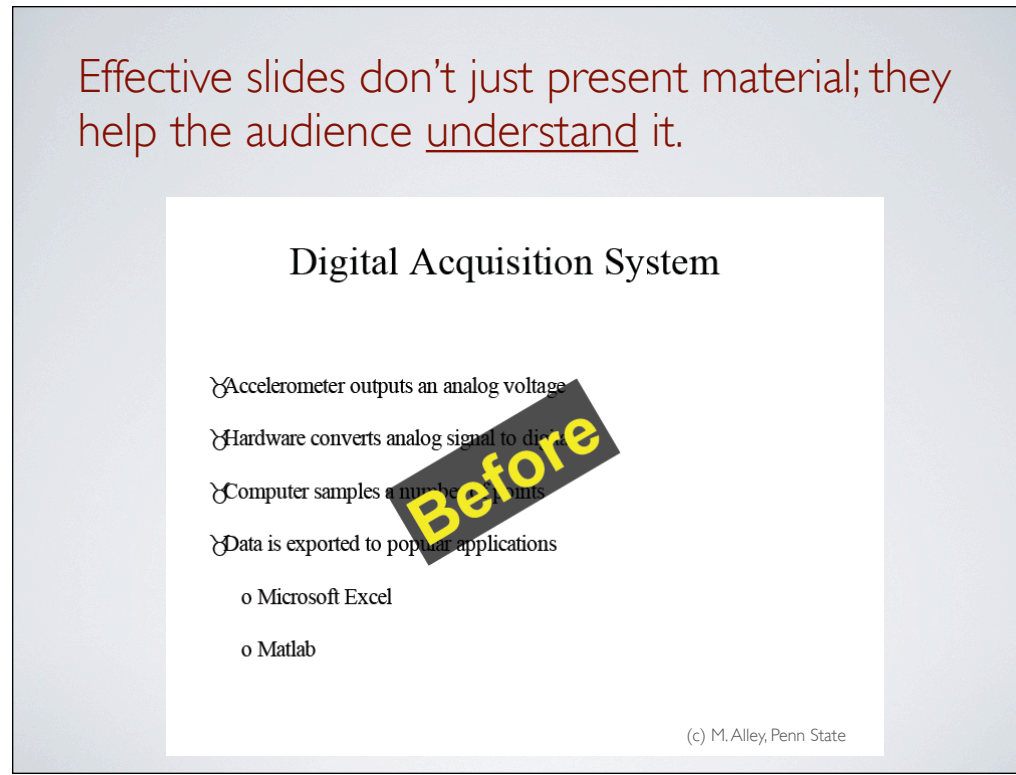
- Good grade :)
- Feel satisfied w/ work
- Learned about lab
- Team solved problems
- Learned about briefings

Purpose(s)

- Demonstrate learning
- Get useful feedback
- Build team
- Convey credibility

Once you identify what you want to walk away with, you will have a much better sense of what you want to include.

Effective slides don't just present material; they help the audience understand it.



Digital Acquisition System

- ∩ Accelerometer outputs an analog voltage
- ∩ Hardware converts analog signal to digital
- ∩ Computer samples a number of points
- ∩ Data is exported to popular applications
 - o Microsoft Excel
 - o Matlab

(c) M. Alley, Penn State

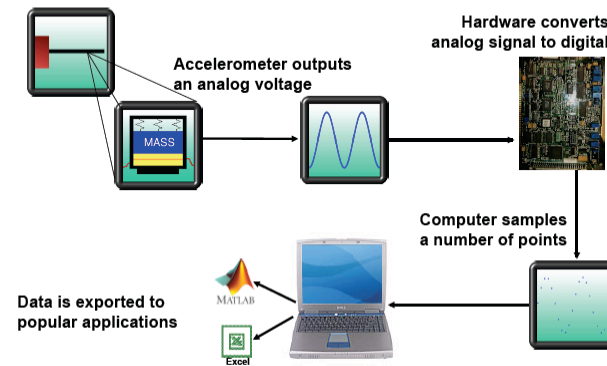
We will look at slide design several times during the term.

The design of your slides has a major effect on how readily your audience can follow your talk.

Here are two version of some slides: (1) ordinary “title-and-bullets” format, and (2) “assertion-evidence” format developed by Prof. Michael Alley at Penn State. (You can google his work for more detail, but these examples will give you an idea of the advantages of that format.)

Effective slides help the audience understand the material.

Converting an analog signal to a digital signal requires a sampling of the signal



(c) M. Alley, Penn State

Note how a title that states your key point in a complete sentence, rather than a “label,” gives your audience the point clearly and simply, so that they can then relax and listen to the detail you present.

Validation and Verification

Validation:

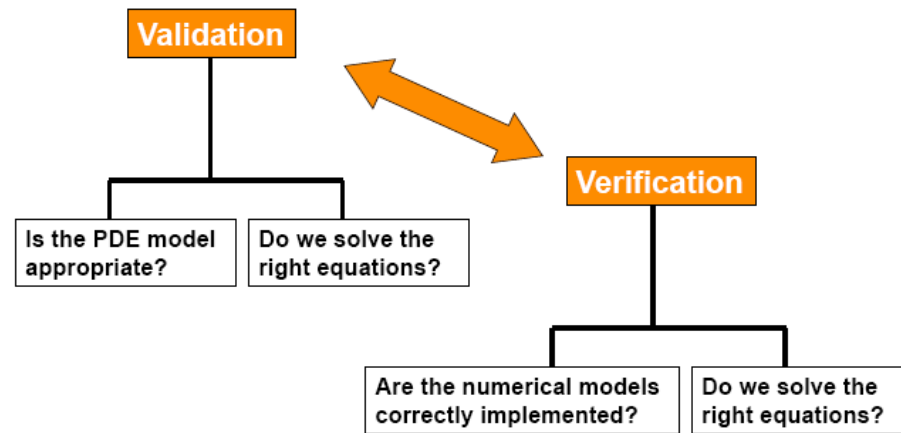
- Is the PDE model appropriate?
- Or: Do we solve the right equations?
- Core interest among scientists and engineers

Verification:

- Are the numerical methods correctly implemented?
- Or: Do we solve the equations right?
- Attracts much less interest than validation
- Validation requires successful verification

Before

Although researchers give validation more attention, validation requires successful verification



(c) M. Alley, Penn State

simula research laboratory

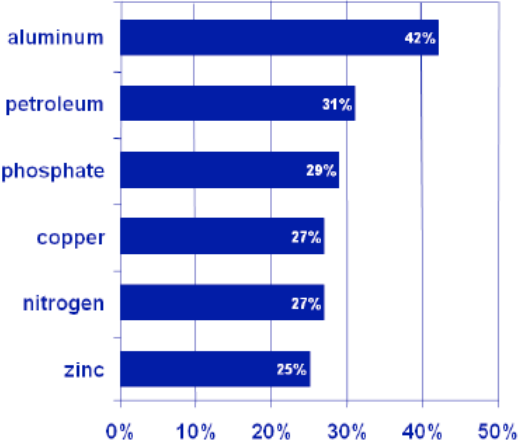
Use visual elements in your slides to show relationships, describe elements, give shape to data, among other things.

Use text minimally, so that your audience doesn't have to decide whether to listen or read: most people can't do both simultaneously.

U.S. Resource Use

- The United States uses:
 - 42% of all the aluminum produced worldwide
 - 31% of all the petroleum
 - 29% of all the phosphate
 - 27% of all the copper
 - 27% of the nitrogen
 - 25% of the zinc
- Approximately 30% of all resources worldwide

Although the U.S. has 5% of the world's population, we use an average of 30% of all resources

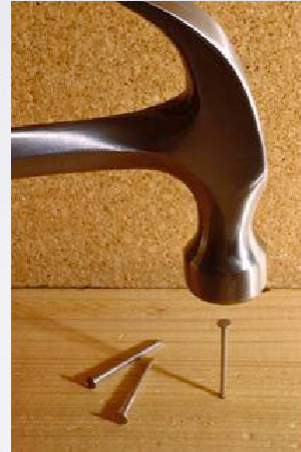


**United States use of specific resources
(percentage of worldwide use)**

(c) M. Alley, Penn State

Assertion-Evidence slides put their main point in full-sentence headings, helping the audience grasp and retain it.

visuals hammer the
point home



(c) The Survivor Woman

You are not required to use assertion–evidence slides, nor will they be the best choice for every slide.

But experiment with them. Used well, they are very effective in helping your audience understand your talk.

Let your preparation be guided by your Purposes and Takeaways.

Takeaways

- Good grade :)
- Feel satisfied w/ work
- Learned about lab
- Team solved problems
- Learned about briefings

Purpose(s)

- Demonstrate learning
- Get useful feedback
- Build team
- Convey credibility

Ask if you have any questions.
We're here to help you win.