Giving an effective presentation
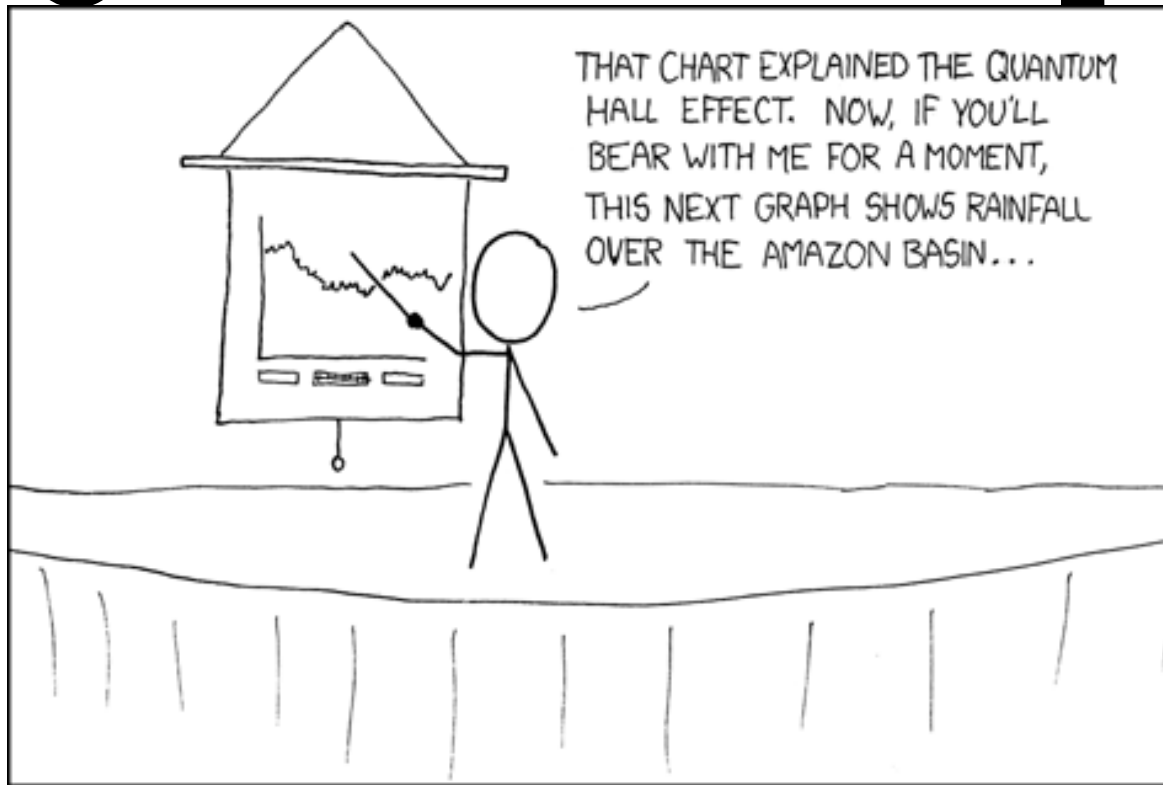
Dr. Emily Rauschert, BGES

Xkcd.com

Think about a terrible presentation you've been to. What did it look like?

Think about a great presentation you've been to. What did it look like?

In a good presentation, we can feel your energy and enthusiasm.
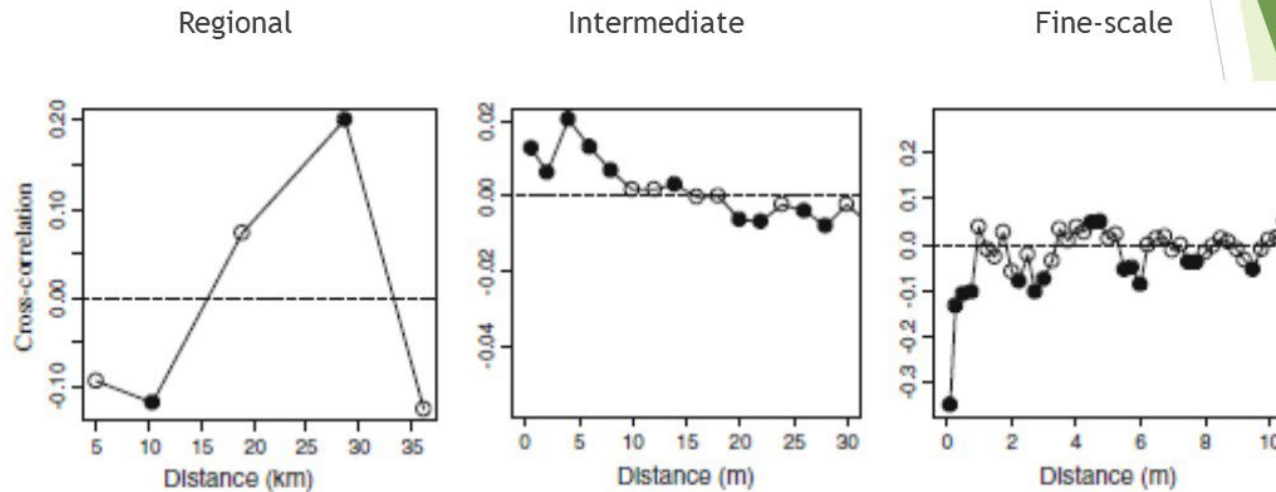
A good presentation is usually based around a central question
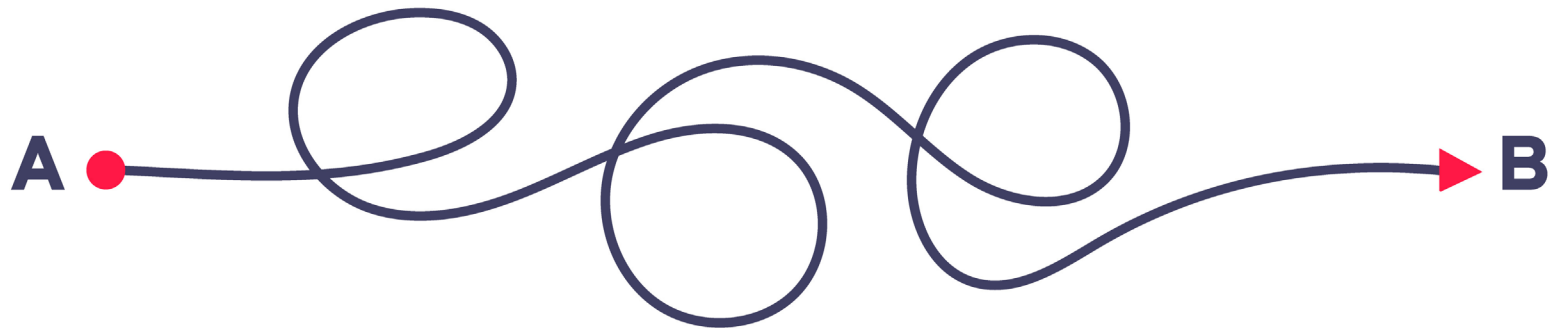
A good presentation is appropriate for the audience

Correlation varies across scales

Rauschert, Shea and Bjornstad 2012

A good presentation takes you on an interesting journey

A good presentation has the right amount of detail

Dispersal and reproductive parameters are needed

- D: dispersal parameter
  - Meaning of D:
    - 65% of seeds land within D
    - 95% of seeds land within 2*D
  - One value estimated for a patch
- R: reproductive ratio
  - Meaning:
    - 1 replacement
    - >1 population growing
    - <1 population shrinking
  - Different value estimated for each patch every year
    - $R_{2003-2004}$, $R_{2004-2005}$, $R_{2005-2006}$

In a good presentation, the journey ends on time…

You can remember something afterwards from a good presentation

We will focus on three aspects today

- Effective slides

- Effective speaking

- Revising/practicing

Effective slides

Many ideas taken from *The Craft of Scientific Presentations*

How to make bad powerpoints

- Use a really busy background
- Use colors that don't stand out
- Or colors that clash
- Include hard to interpret graphs
  - (or leave figures & images out entirely)
- And annoying animations

- Or have too much information appear all at once in really small font that makes everyone squint and then don't give them enough time to read it
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- There are plenty of bad examples and good advice out there on the internet

D.J. Cotter et al. / Journal of Clinical Epidemiology 57 (2004) 1086–1095
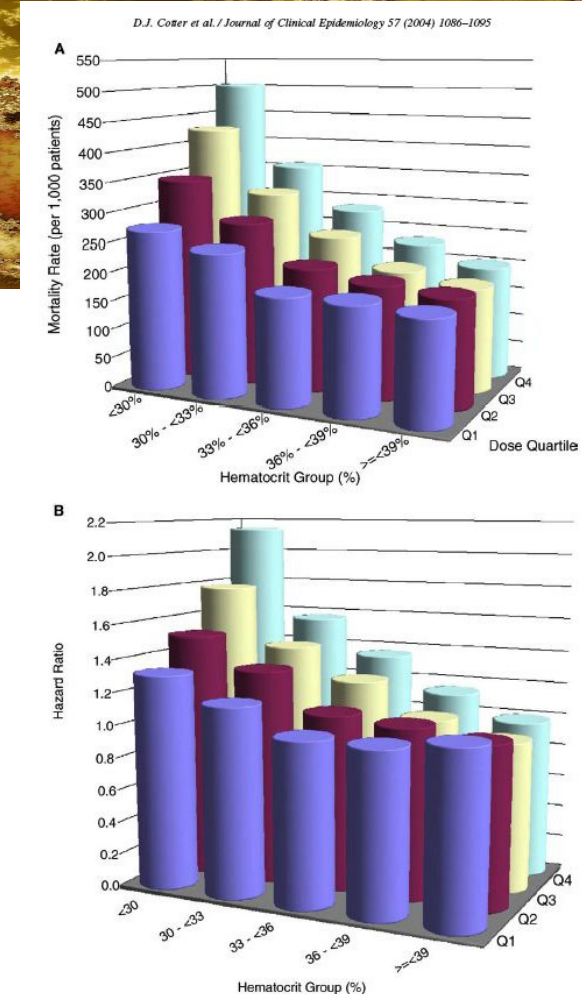
The defaults of PowerPoint are not based on research in communication or cognitive psychology
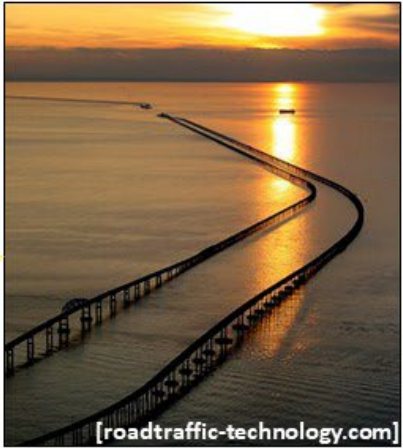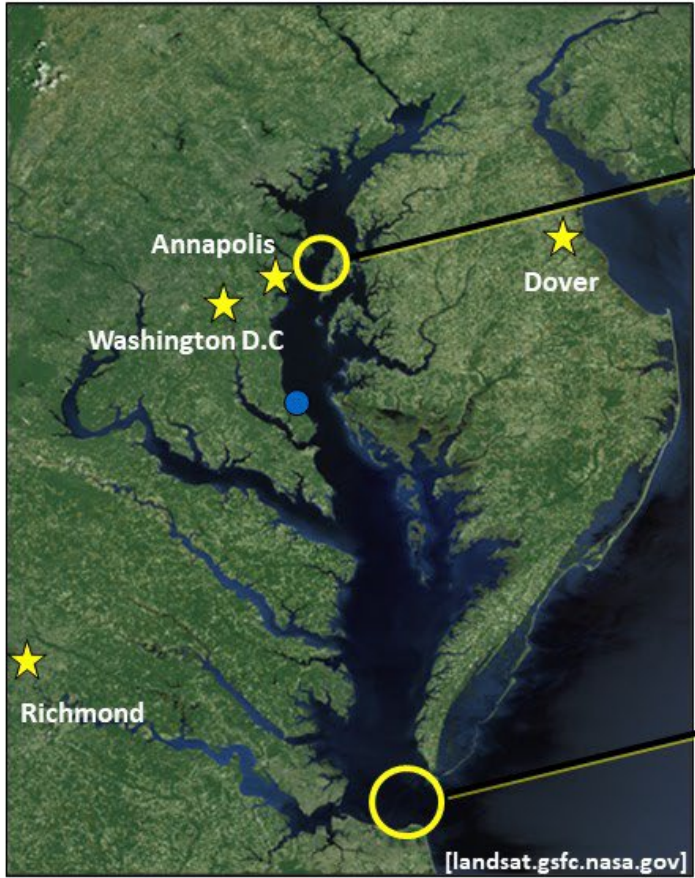
Keep text to a minimum

- Too many words on a slide means people stop listening.
- Instead of listening to what I am say, most of you are now trying to read the bullet points and listen to me at the same time. Most of you are no longer actually listening to my words.
- This is an unnecessary cognitive overload.
- Research has shown that it's better to find a graph, diagram or image that relates to the point you are trying to make. Put fewer words on the slide so people listen to your explanation. It's a presentation, not a book.
- This can help people remember this better.
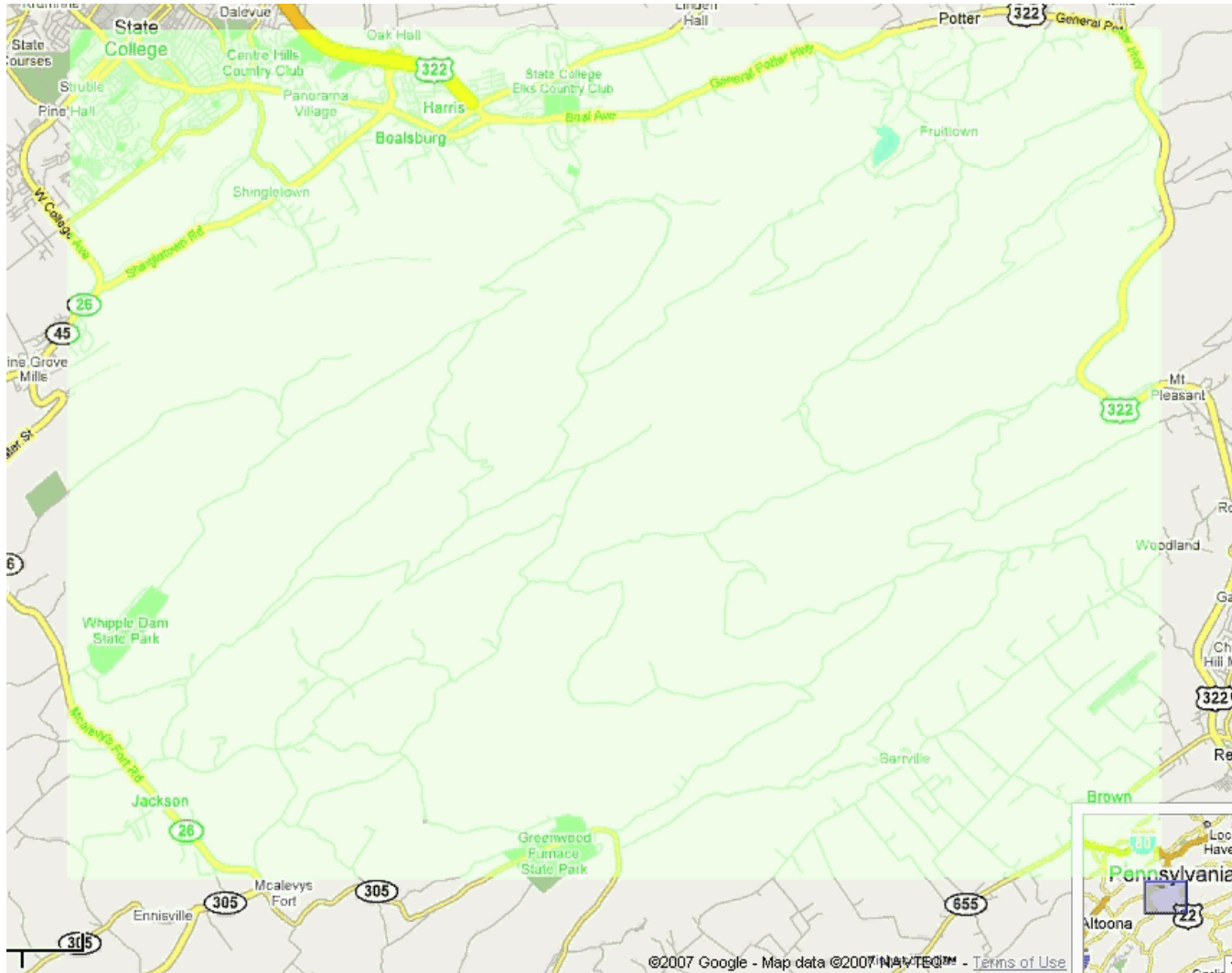
Always use informative titles

The Chesapeake Bay has only two places for traffic to cross

Annapolis
Dover
Washington D.C
Richmond

sha.state.md.us

[landsat.gsfc.nasa.gov]

[roadtraffic-technology.com]

Pavelko 2009

Overview / Outline / Introduction /Background / Conclusion

- Kind of a waste of space…

A picture/graph/graphic is worth a thousand words.

Less is more – make graphs as big as you can.
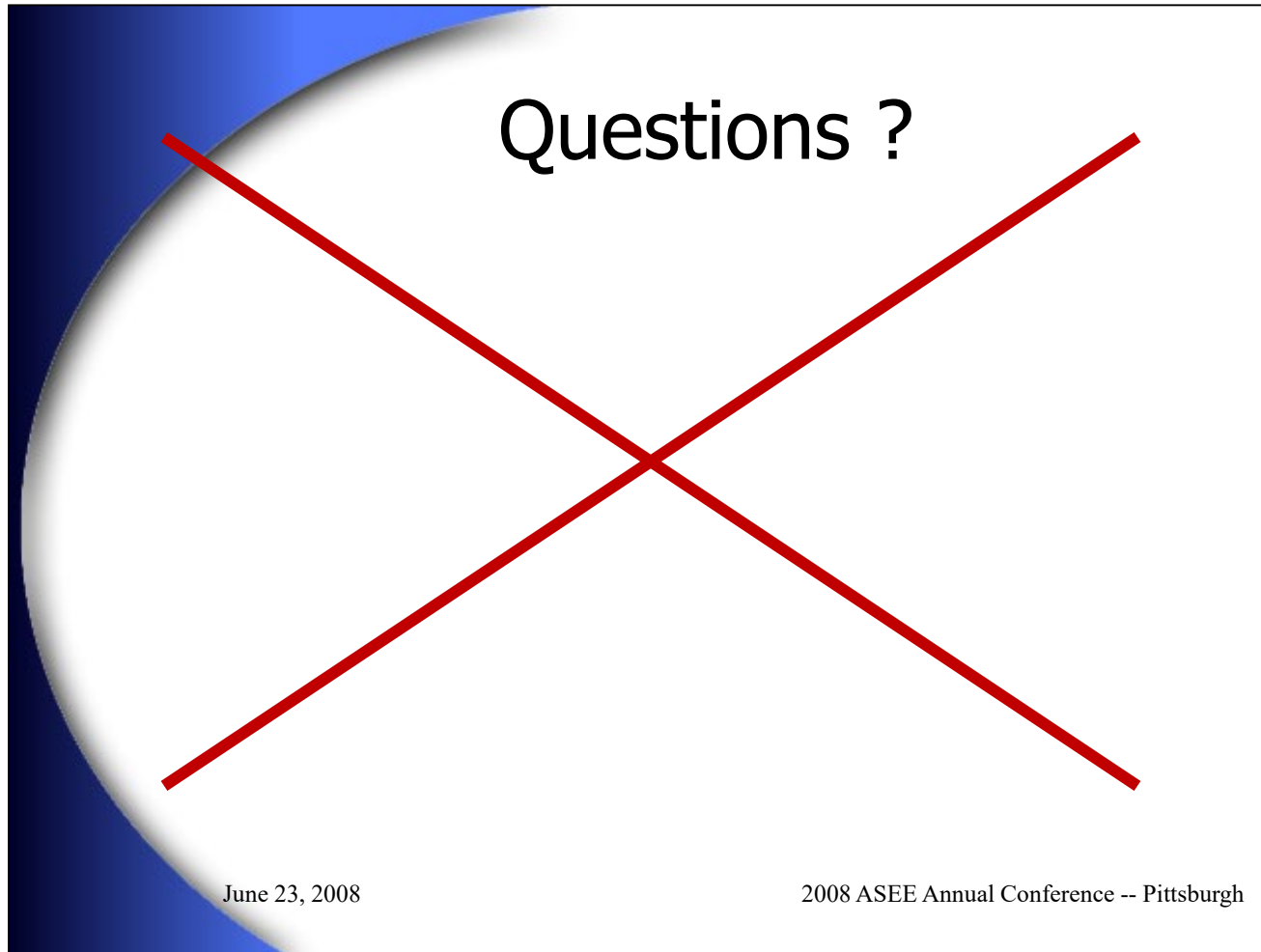
Don't forget to give credit for graphics or ideas

Water from the jet engine's exhaust creates contrails that float in the atmosphere

**[Encyclopedia of Global Environmental Change, 2002]**

Hamaker 2009

A common error in the endings of scientific talks is to waste the last slide

Questions ?

June 23, 2008

2008 ASEE Annual Conference -- Pittsburgh

[Alley, 2013]

In summary, high concentrations of acetic acid help protect steel from corrosion

Adsorbed HOAc allows the growth of siderite

A thick siderite layer protects the steel from corrosion

$FeCO_3$

$Fe_{3+x}O_{4-y}$

Steel

Questions?

PENN STATE
1855
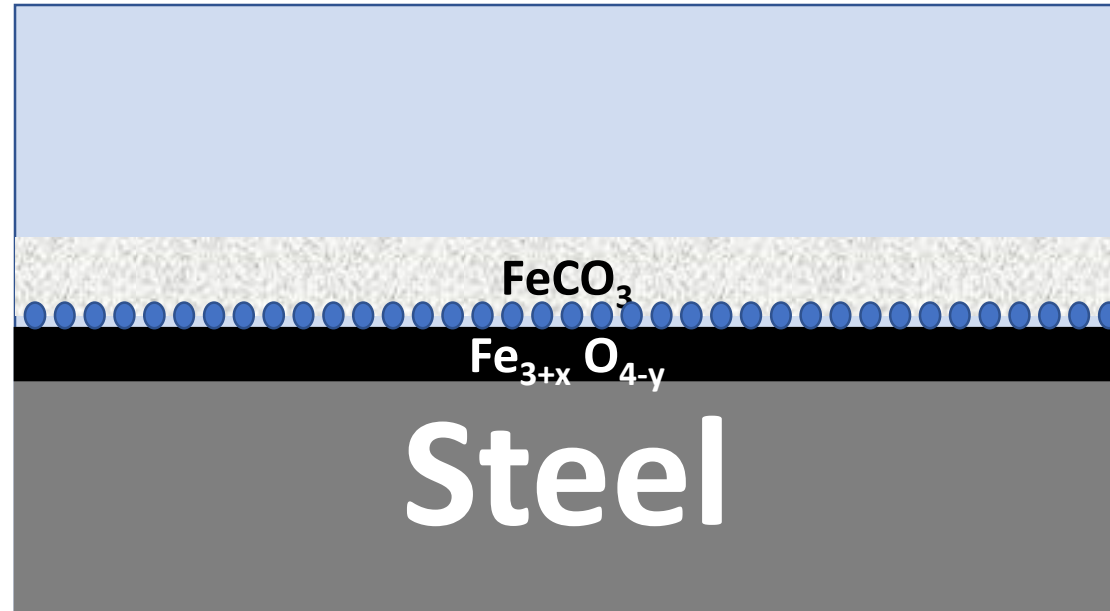
The structure generally follows the structure of a paper

- Research Question/Hypotheses plus minimal background
- Methods
- Results / Evidence
- Conclusions
- Future directions
- Acknowledgements

You need about 1 minute per slide.

You can use presenter tools, but you need to keep notes short

Effective speaking

Take a deep breath before you start.

Take a Deep Breath

Smell the flower | Blow the pinwheel

Focus on your message not your performance.

Most likely you will need to slow down.

Fake it till you make it is not such a bad idea.

Don't apologize during a presentation (usually).

Maintain eye contact – even online

Use a water bottle strategically for a break.

5 **Take a Sip of Water**

No one in the audience can hold your thirst against you, and while you're sipping you can take a moment to remember where you were.

Revising your talk

Responding to feedback is key part of being a scholar.

You should go over your slides for Errors

- Insert picture of mistake here.

Practice for someone else.

Time yourself.

Finally, don't forget to have fun!