



1 Designing an Effective Presentation

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NOAA
FISHERIES
SERVICE

Acknowledgments



Michael Alley

THE CRAFT OF SCIENTIFIC PRESENTATIONS

CRITICAL STEPS TO SUCCEED AND
CRITICAL ERRORS TO AVOID



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A New, Revised Edition
of the National Bestseller

16
NEW
CHAPTERS

“I Can See You Naked”



“America’s best book
on making presentations
strikes again.” Dan E. Schultz, Northeastern University

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FOREWORD BY GUY KAWASAKI

presentationzen

Simple Ideas on Presentation Design and Delivery
second edition



Garr Reynolds

New
Riders

VOICES THAT MATTER™

*What is the scope of this presentation?

Approach:

- **Speak from points***
- **Memorize**
- **Read**
- **Speak off the cuff**

Occasion:

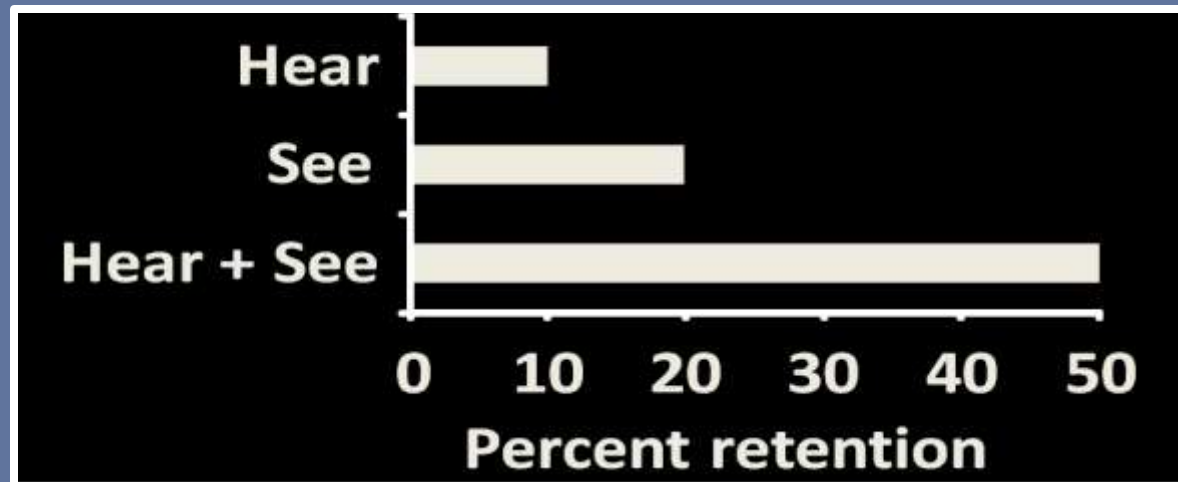
- **Formal symposium***
- **Workshop**
- **Informal meeting**
- **After-dinner speech**
- **Press conference**



Thesis

According to
Alley (2003)

- You increase how much the audience remembers when you coordinate your speech with your visual presentation



Alley (2003) advocates an assertion-evidence approach
Here, the headline is a sentence, no more than two lines

Supporting photograph, drawing, diagram, film,
or graph—no bulleted lists

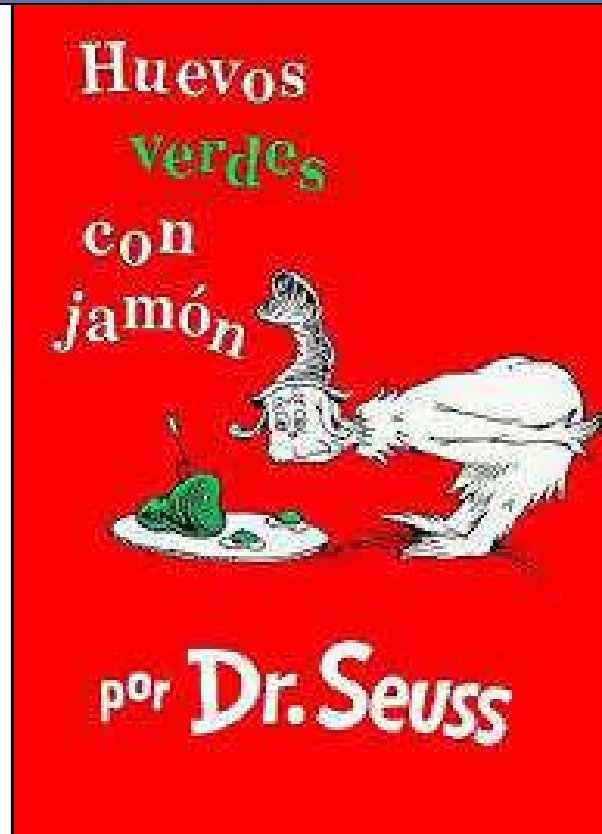
A microsoft default slide

- ◉ Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet.
- ◉ Investigatam diutissime quaestionem, quantum nostrae mentis igniculum lux diuina dignata est, litterisque mandatam offerendam uobis communicandamque curauit tam uestri cupidus inuenire.
- ◉ Epsum factorial non deposit quid pro quo hic escorol. Olypian quarrels et gorilla congolium sic ad nauseum. Souvlaki ignitus carborundum e pluribus unum. Defacto lingo est igpay atinlay. Marquee selectus non provisio incongruous feline nolo contendere.
- ◉ Embarcaronse por fin a 5 de Diciembre de 1745, y el lunes 6 a las diez horas de dia, habiendo disparado la pieza de leva, se hicieron a la vela en nombre de Dios, con viento fresco, y salieron a ponerse en franquia en el amarradero, que dista tres leguas de Buenos Aires.
- ◉ Stet clita kasd gubergren, no sea takimata sanctus est quantum nostrae mentis igniculum lux diuina dignata est, formatam rationibus litterisque mandatam offerendam uobis communicandamque curauit tam sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut a aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum.



*"The Kiss of death"
Barcelona, Spain*

How few words really matter?

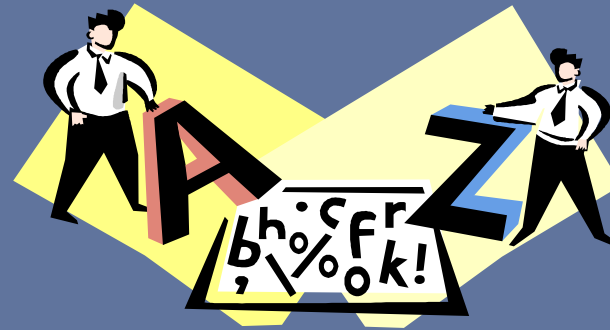


Plan major parts and transitions

The beginning and the end

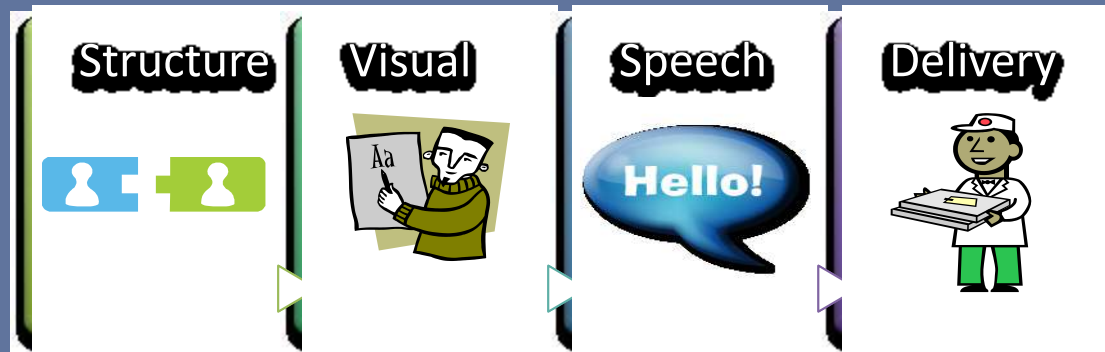
Introduction

Conclusions



The middle (2-4 sections)

Map this out



A generic outline slide

Assert a process exists and why it is important

Demonstrate new evidence about it

Estimate the magnitude of its effect

Apply the results to a local or global problem



Show them early on that you mean business

What is the subject?
Why is it important?



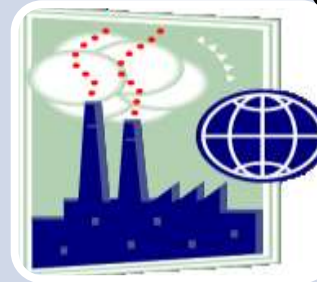
Money



Safety



Health



Environ-
ment



Curiosity

Alley, 2003



You probably have multiple audiences

Be nontechnical in the introduction

Move from nontechnical to specialist with each topic

End by stating the conclusion in a nontechnical way



Cicero's 5 cannons of rhetoric

Develop key points

Compelling argument

Creative narrative

Practice delivery

Adapt to audience



Consider your outline as a fairy tale

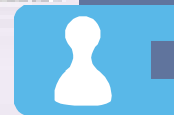
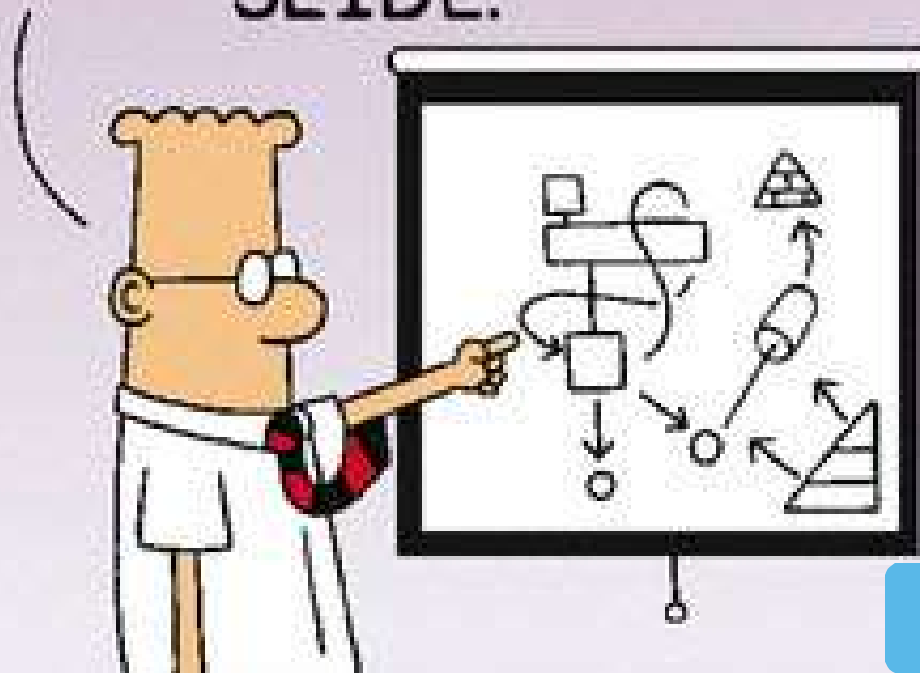
Once upon a time...

And every day ...
And every day ...
And then one day ...
And because of that ...
And because of that ...
And ever since then ...

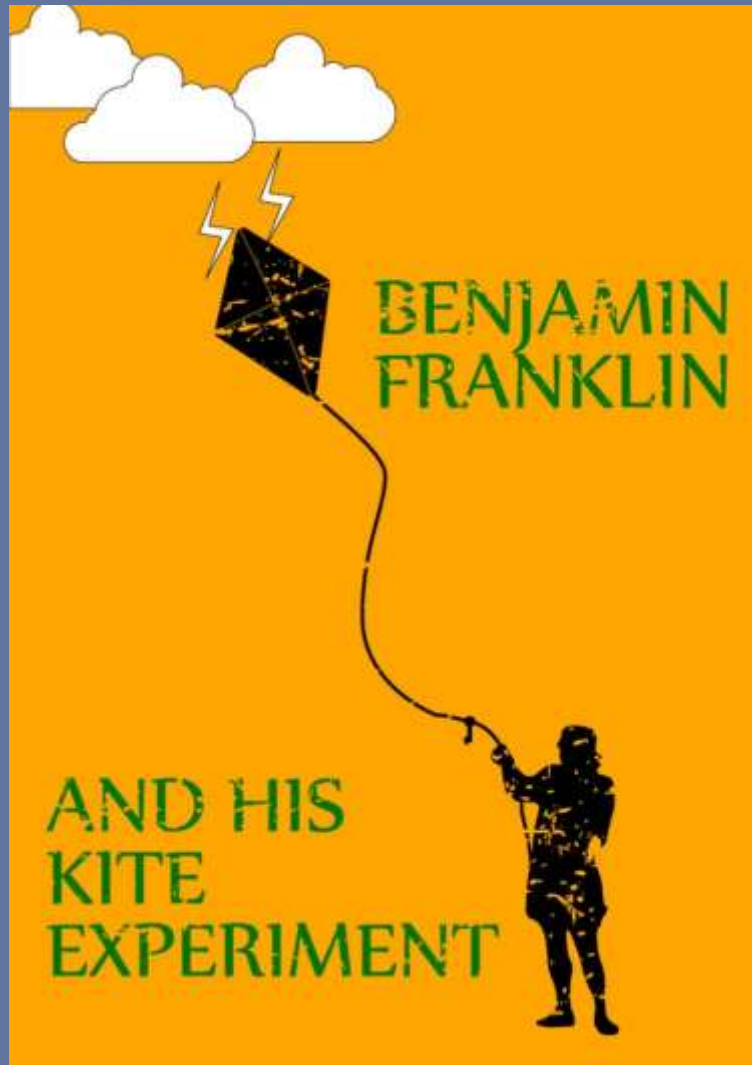


Don't duplicate your technical report

YOU WON'T READ MY
TECHNICAL REPORT SO
I SUMMARIZED IT IN
THIS COMPLICATED
SLIDE.



Do keep it simple and engaging

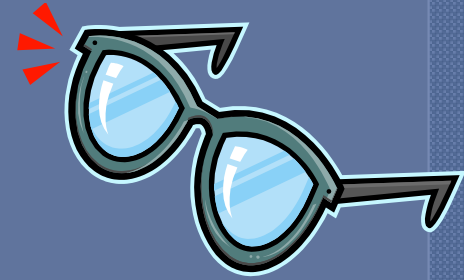


“Tell me and I forget,
Teach me and I remember,
Involve me and I learn”

-Benjamin Franklin



Create visually appealing slides



Include an image in every one

Limit the line numbers (≤ 7)

Be generous with 'white space'

Use:

Photos

Drawings

Diagrams

Graphs

Videos

Equations



“No more than six words on a slide.”
(www.sethgodin.com)



Encourage the audience to return to you, the speaker

Typeface:
18+ point,
bold,
sans serif

Avoid
**CAPITAL
LETTERS**

Use
contrasting
text and
background

Short text,
Speak details



Examples of 18 point, bold sans serif typeface

The quick brown fox jumped over the lazy dog,
1234567890 (Arial, often recommended)

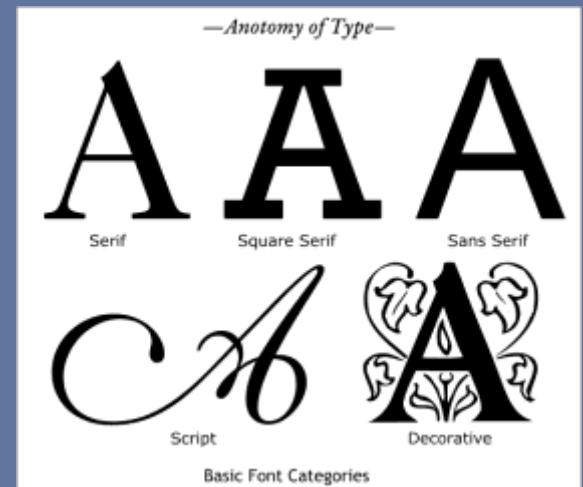
The quick brown fox jumped over the lazy dog,
1234567890 (Helvetica)

The quick brown fox jumped over the lazy dog,
1234567890 (Calibri)

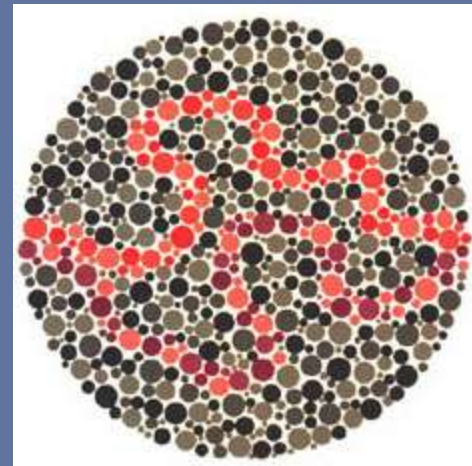
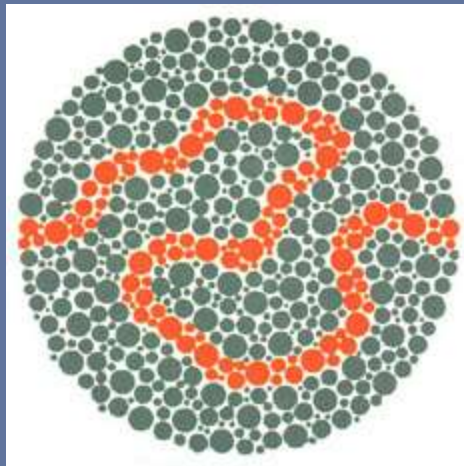
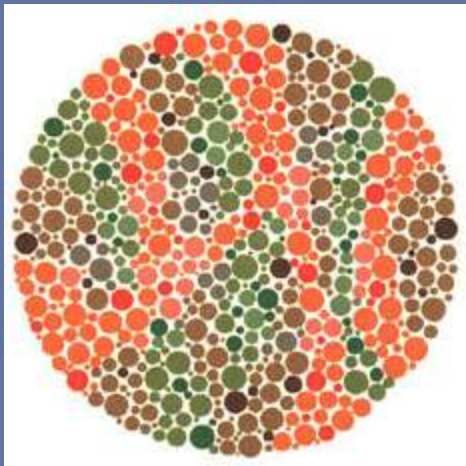
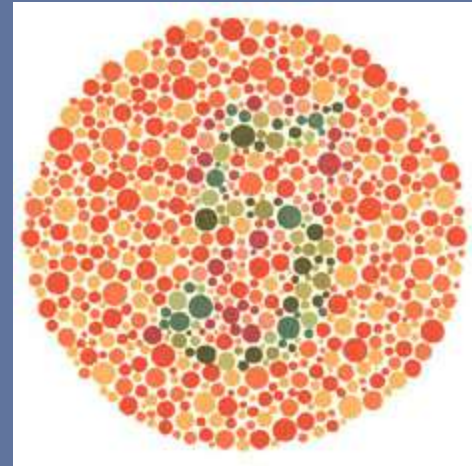
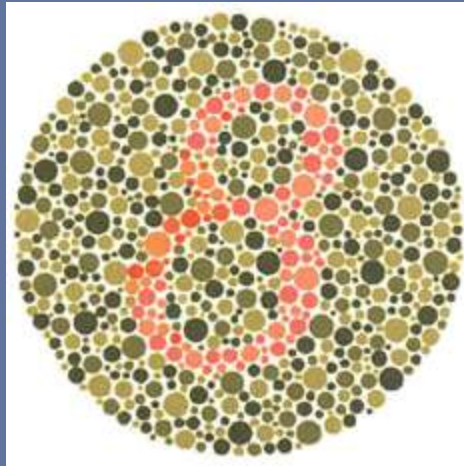
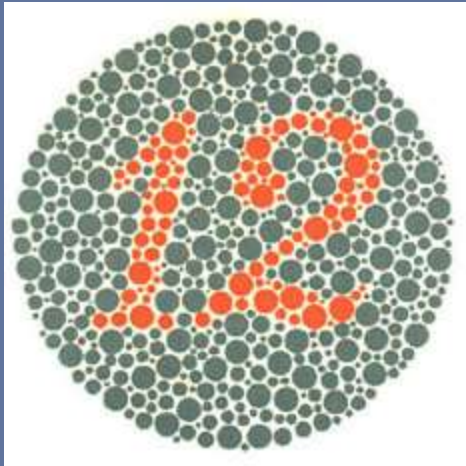
The quick brown fox jumped over the lazy dog,
1234567890 (Comic Sans MS, informal)

The quick brown fox jumped over the lazy dog,
1234567890 (Lucida Sans, very clean)

The quick brown fox jumped over the lazy dog,
1234567890 (Verdana, the largest of the bunch)



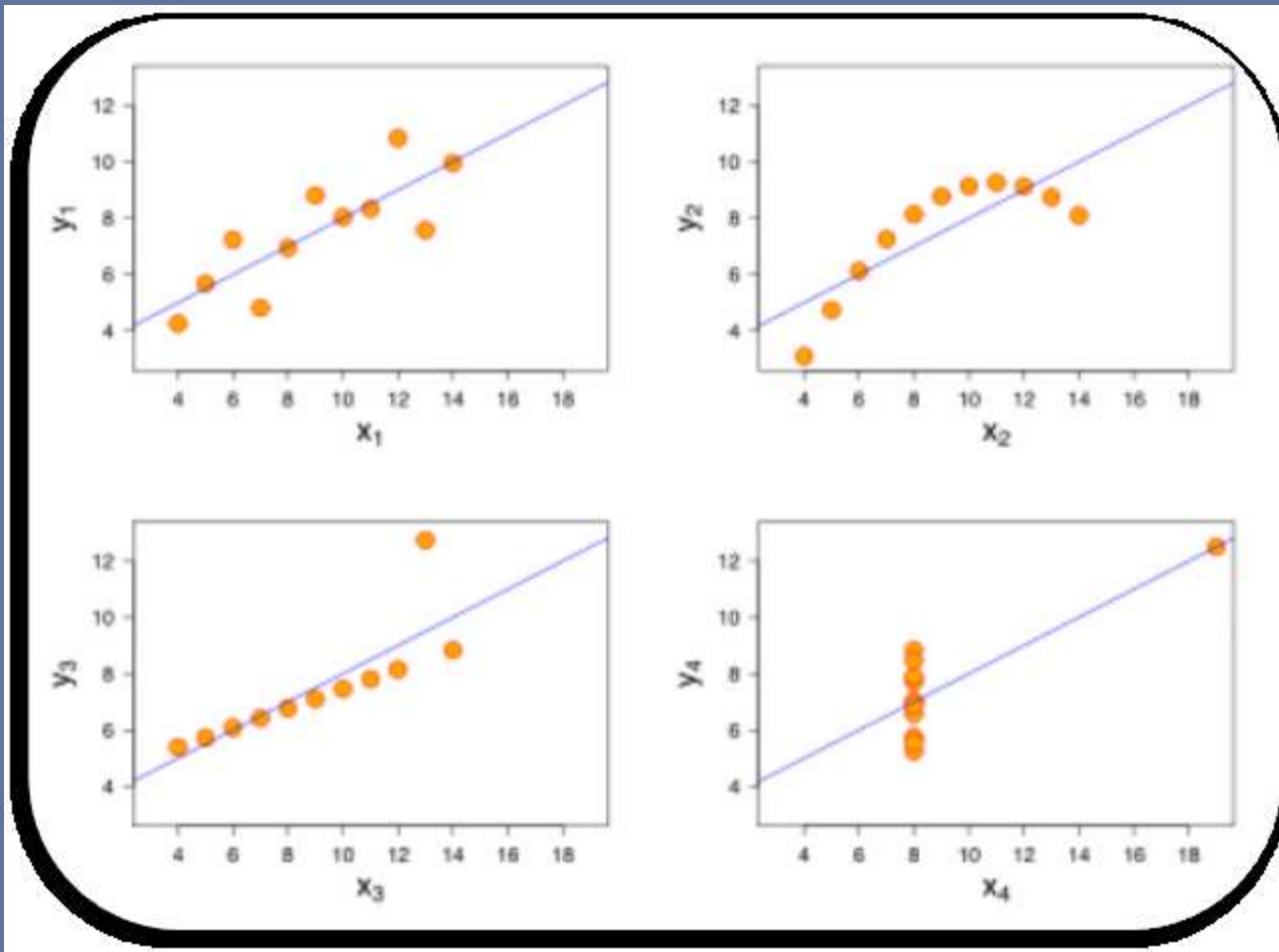
Ishihara Test Plates (to test for color blindness)



<http://www.color-blindness.com>



A picture is worth 1000 words, or even 1000 descriptive statistics



Mean_x = 9.00
Variance_x = 11.00

Mean_y = 7.50
Variance_y = 4.12

$R^2 = 0.816$

$y_i = 3.00 + 0.500x_i$

Anscombe's quartet



Public speaking is a magnified conversation



Be sincere, animated, interactive, and above all, yourself

Modulate your voice (speak to the back of the room)

Use hand gestures (but don't fidget)

Walk towards audience to make a point
(don't pace back and forth)

Sustain eye contact or use humor (cultural?)



Show, don't tell

Use:

analogies

examples

stories



*“Don't tell me the moon is shining;
show me the glint of light on broken glass.”*

— Anton Chekhov



Teaching is a performance art



“In the classroom paradigm, the teacher has the responsibility to communicate, as well as entertain and engage.”
-Amy Farrah Fowler, Ph.D.

Target your audience



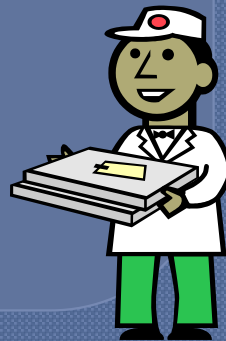
Tell them what you will tell them, tell them,
and then tell them what you told them

State the question up front but not the results

Use an evidence-assertion approach

If you have an unexplained result – feature it

Recognize other experts in the audience
before you explain a topic they specialize in



Stick to the big picture.



“We know this stuff in excruciating detail,” she says.

“You want to drive a metal stake through your head listening to our lab meetings.”

— **Bonnie Bassler, Princeton University**



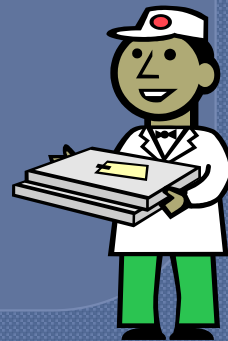
But don't be too broad either

Watch the time

Know the audience's expectation

Give each slide full attention

Usually a minimum of one minute



According to Aristotle:

Logic

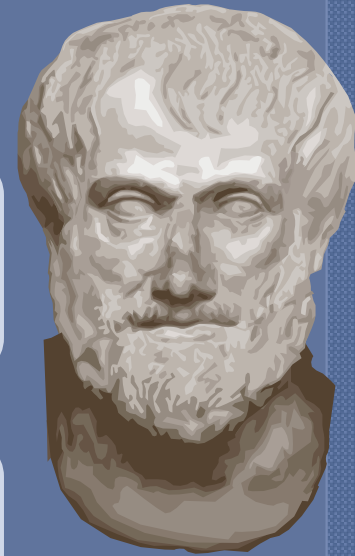
- Effective with a technical audience

Emotion

- Effective with a nontechnical audience

Reputation

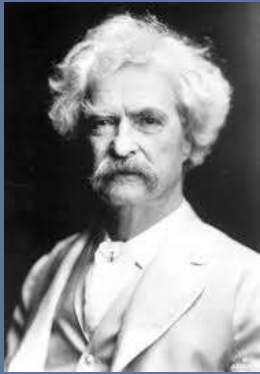
- Use your own and your institution's reputation



“People want to use both parts of their brains.”
(www.sethgodin.com)



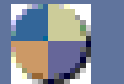
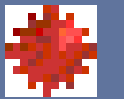
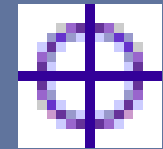
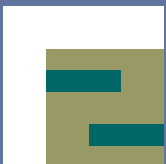
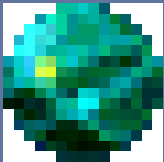
Expect to be nervous; it is natural



“Don’t worry – they don’t expect much”

-Mark Twain





Be prepared

Plan

- For the audience, the occasion, and their questions

Rehearse, rehearse, rehearse

- With and without an audience

Arrive early

- Check equipment

Have a back-up plan



Conclusions

Understand and target your audience & the occasion

Establish the subject, and its importance, early on

Coordinate the different elements

Don't design a document to read

Structure



Visual



Speech



Delivery



○ Questions?

Selected websites

By Michael Alley

<http://www.writing.engr.psu.edu/slides.html>

American Fisheries Society

<http://fishculture.fisheries.org/professional-development/tips-on-giving-presentations/>

Forbes

<http://www.forbes.com/2010/02/24/effective-presentation-skills-leadership-careers-rosenthal.html>

TED (Technology, Entertainment and Design) talks

<https://www.ted.com/talks>

NOAA template & powerpoint tips:

http://home.nmfs.noaa.gov/communications/outreach_templates.html