Seminars in Clinical Medicine: VCS TEDTalks?

VetClin 582
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Two speaker goals: Improve speaking results and comfort

Chapman University
Fear Survey of College Students

Class goals: Reduce A A, Maximize AE

A. A. A. E.

“Audience Abuse”
“Audience Annoyance”

“Audience Ease”
“Audience Education”

A quick way is to mimic 20 minute TEDTalks

TED Ideas worth spreading

Riveting talks by remarkable people, free to the world
TED: Technology, Entertainment, Design

The best are selected for on-line
Well worth watching as presentation models!

http://www.ted.com/

Quick Tip: Counting verbal fillers is the quickest way to evaluate a speaker’s ability

Count “ah’s”, “um’s”, “you know’s”, . . . in
US Congressional floor speeches on C-SPAN

In-session extemporaneous floor speeches are just 1 to 5 minutes

http://www.c-span.org/

Final goal: Diagnose and Prevent “PowerPoint Poisoning”

Dilbert August 16, 2000
http://dilbert.com/strips/comic/2000-08-16/
What annoys audiences? (Dave Paradi 9/27/11 http://pptideas.blogspot.com/)

- Speaker reads the slides to us (74%)
- Full sentences instead of bullet points (52%)
- Text point size too small (48%)
- Poor color contrast (34%)
- Overly complex diagrams and charts (26%)
- Moving graphics or text
- Too many fonts
- Text and graphics imbalance
- Annoying sounds
- Irrelevant graphic images

Annual Annoying PowerPoint Survey: http://www.thinkoutsidetheslide.com/

Dave Pardi’s GPS Design Approach

1. What do you want your audience to understand?
2. Where are they now?
3. What content in what order will move them to that destination?

Plan your presentation in reverse

Start with the end in mind:
1. Destination - What “take home” message do you want your audience to know / understand / agree to / approve?
2. Starting Point - What do they know / understand / believe now?
3. The Content – What don’t they know that they need to know to reach the destination?
4. The Route – What order will best move them to the destination with ease?

Tell as much story as you can

Because humans are natural storytellers, stories stick better than rational reasoning and facts

Classic story structure:

http://www.duarte.com/perspective/#talks
https://en.wikipedia.org/wiki/Plot_(narrative)

KISSS is the primary design principle

Keep it:
- Simple
- Short
- Sharp

Everything should be made as simple as possible, but not simpler
Albert Einstein
http://quoteinvestigator.com/2011/05/13/einstein-simple/

Many PowerPoint “thumb rules” have emerged

Guy Kawasaki’s 10/20/30 Rule:
http://blog.guykawasaki.com/2005/12/the_102030_rule.html
- Use 10 slides or less, 20 minutes or less and 30 point or greater font
6 x 6 Rule:
- 6 or less lines per slide
- 6 or less words per line

What is behind the KISSS principle and these “thumb rules”?
Most Important: Working memory holds and processes only 4 to 7 unfamiliar items at once

We naturally “chunk”:
- Phone numbers into 3 blocks
- Social security numbers into 3 blocks
- Concept labels (memes) – diseases, procedures, . . .

Why recognizing and recalling:
onp, rph, dcb, sfb, fow, aso, src, aus, aat, 

is harder than

op, np, phd, cbs, fbi, twa, sos, rca, usa, att

Familiarity increases “chunk” size

The result: Your audience has much smaller “chunk-ability” than you!

Cognitive overload occurs when you force too much into listener’s working memory
- Processing “chunks” requires delay time
- Input occurs orally and visually

- In overload “chunks” simply vanish without a trace
- Humans cannot multi-task and don’t recognize they can’t!

Important: Visual text competes with audio recognition


The mind needs space to select, organize & integrate what’s important

From: Five ways to reduce PowerPoint overload by Cliff Atkinson and Richard E. Mayer

The basis of KISSS and the thumb rules

Simple text is better than a poor chart

“Chartjunk” (chart features with no meaning) reduces comprehension

Chartjunk:
- Colors with no meaning
- Texturing
- Most Pie-charts
- Most 3-D charts
- Wrong chart for the data

If you aren’t going to discuss it, remove it

Which makes the critical point best?

November Donations $100.00 - Monthly Expenses $117.29

Shortfall $17.29

http://www.cushings-help.com/intro.htm
Elements with no or wrong meaning cause poor charts

Color schemes have no meaning and the wrong chart for the data

Don’t use PowerPoint defaults!

Edward Tufte: Poor bullet points are at the root of the shuttle Colombia entry disaster

The “buried” key information:
The foam impacting the wing was 640 times larger than the test chunks

The past few years, this common practice of PowerPoint has received harsh criticism

Select a clean background

Nice photo, poor slide background

A solid light color is recommended
This background is 221 R, 221 G, 221 B
Select a typeface easily read on screen, such as Calibri

Sans (“without”) serif fonts are easier to read than serif (“slight projection”) fonts

This is Calibri, a sans serif font in 24 point bold that is easy to read quickly on a slide

This is Times New Roman, a serif font in 24 point bold that is not as easy to read quickly on a slide

Calligraphy in 24 point bold Old English is beautiful, but not for reading quickly on a slide

Information Hierarchy: Use a few font point sizes, colors, style and location consistently across slides

Suggested point sizes and color scheme:

- Title sentence – 32 to 36 point and initial color
- Initial Body Text – 28 point, contrast color – Most important info
  - Subheadings – 24 point & initial color (this blue is R 0, G 0, 255 B)
  - Sub-subheading – 24 point & contrasting color – Least important info
- Chart labels – No smaller than ~20 point
- Reference footnotes and URLs – 14 point

To maximize audience ease, identify relative importance of information consistently across slides

Establish sufficient contrast between text and background

Choose Colors Carefully

<table>
<thead>
<tr>
<th>Good</th>
<th>Good</th>
<th>Good</th>
</tr>
</thead>
<tbody>
<tr>
<td>So</td>
<td>So</td>
<td>Bad</td>
</tr>
<tr>
<td>Bad</td>
<td>Bad</td>
<td>Worst</td>
</tr>
</tbody>
</table>

Remember that 1 in 10 of your male audience cannot read this

Color Contrast Calculator
http://www.thinkoutsidethe.slides.com/color-contrast-calculator

To maximize message retention remove visual clutter

Convert:
- Sentences to short phrases
- Frequent words to abbreviations or symbols
- Passive verbs to active
- Decimal % to whole %
  - 29.7% to 30% (easier to recall)
- Numbers to fewest significant digits that maintain message
  - 335,492 to 340,000 or 340K

Remove:
- Extra words (most adverbs, adjectives)
- Most prepositional phrases (reword to remove)
- Most punctuation, especially periods
  - if needed, clue to shorten phrase

Dave’s 3 R’s: Rank, Reduce, Rephrase

1. Rank phrases by importance to audience
2. Reduce phrases down to important words
3. Rephrase to make sense

Result:
- Audience easily identifies and understands key points
- You have flexibility to expand extemporaneously

For reduction and rephrasing help, see “The Paramedic Method”

Use presentation strategies to maximize viewer retention

To reduce audience overload, limit to key information & reveal step-by-step
- Bullet points emerge
- Images emerge
- Draw unfamiliar plots at hand drawing speed
- Progressively reveal table data

http://pptideas.blogspot.com/2013/04/presentation-tip-reduce-words-in-each.html

http://www.beyondbulletpoints.com/blog/

http://www.beyondbulletpoints.com/blog/
To maximize message retention progressively reveal complex information

Progressively Reveal:
- Tables row-by-row or column-by-column
  - Use background color rectangles to hide subsequent rows
  - Use simple "click to remove" animation to reveal
- Bullet points, subheadings
  Otherwise listeners become readers, disconnecting from speaker

<table>
<thead>
<tr>
<th>Herd</th>
<th>Month</th>
<th>Min SCC</th>
<th>Month</th>
<th>Max SCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR3A</td>
<td>Oct</td>
<td>530K</td>
<td>Mar</td>
<td>660K</td>
</tr>
</tbody>
</table>

Appropriate graphics inform faster than text

Q: Where is the restroom?
From front door:
- Walk into the dining room
- Turn and walk ~15 ft towards the kitchen
- At the tall palm tree turn right and walk down the hall
- The first door to the right is the Women’s restroom
- The second door to the right is the Men’s restroom


Assemble and explain graph at speed the audience can draw it out in their notes, starting with axes and legends

Presentation Time (minutes)

<table>
<thead>
<tr>
<th>Audience Attention Level</th>
<th>Change up</th>
<th>End</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Idea credit – Dan Roam [http://www.thebackofthenapkin.com/]

Use the Assertion-Evidence format to maximize retention

Include major supporting point (no more than two lines)

Add several other supporting points (if needed)

Aside: Source of handy page numbering macro

[http://www.writing.engr.psu.edu/teaching_slide_design.html]

Students learning from assertion-evidence formatted slides scored higher on tests than those learning from title slides

Q: How abundant is iron in the earth’s crust?

Iron makes up 5.6% of the earth’s crust and accounts for 5% of the metallic earth

<table>
<thead>
<tr>
<th>Iron Ore Distribution</th>
<th>Iron Ore Distribution</th>
</tr>
</thead>
</table>

Kabik, 1999

59% recall 77% recall p < 0.001

[Alley et al., 2006]

Students learning from a opening assertion scored higher than those from an opening question

Q: What is the heat source for movement of lithospheric plates?

Why do the plates move?

- Convection
- Heat is from nuclear fission
- Uranium, Thorium, and large "unstable" atoms which break down to produce, smaller atoms, heat, and radioactivity

Uranium and Thorium are large "unstable" atoms which break down to produce, smaller atoms, heat, and radioactivity

Plates move because of convection caused by heat from decay of radioactive elements in the mantle

54% recall 86% recall p < 0.001

[Alley et al., 2006]
Use highly recommended presentation design books, such as Presentation Zen or slide:ology

http://www.presentationzen.com/
http://blog.duarte.com/

Use Alltop to follow developments in presentation improvement and delivery

Alltop aggregates active blogs by subject area

- An “online magazine rack” of popular topics
- Updated hourly
- Pick a topic 24 x 7 by searching, news category, or name
All the topics, all the time - http://alltop.com/

Avoid the temptation of special effects

Special effects impede readability; skip the “Word Art”

Use simple “Entrance on click” and “Remove on click” for animation; nothing that moves, spins or makes sounds

ALL CAPITALS ARE HARDER TO READ THAN
Title Case, Which is Easier to Read

Even italics reduce readability, use sparingly for emphasis

Remember that your audience’s “chunk size” is likely much smaller than yours

Practice KISS:
Keep it Simple, Short, & Sharp

Guide the Audience:
Identify importance with a consistent information framework (location, font size, color and style)

Practice the 3 R’s:
Rank, Reduce, Rephrase

Final Tip: When you make a mistake, don’t apologize, keep going! Don’t call attention to it and your audience likely won’t notice

Selecting “Speaking” brings up the 5 most recent postings on 80 blogs

http://speaking.alltop.com/
The Example: Short TEDTalk by MIT engineering PhD graduate student

A tool to fix one of the most dangerous moments in surgery


Other advice examples:

- Tips for Preparing and Giving an Effective Scientific Presentation using PowerPoint
  [http://courses.biology.utah.edu/gradprog/7964.1_fall2013/Week_10-12/PresentationTipsinPowerPoint.pdf](http://courses.biology.utah.edu/gradprog/7964.1_fall2013/Week_10-12/PresentationTipsinPowerPoint.pdf)
- Susan McConnell, Stanford "Designing Effective Scientific Presentations"
- Presentation Skills
  [http://aggenetics.ucdavis.edu/presentations/](http://aggenetics.ucdavis.edu/presentations/)
  [http://pptideas.blogspot.com/](http://pptideas.blogspot.com/)

Do not project reference lists such as this. They are for a handout pdf and are otherwise of no use to your audience!