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.

“Audience Abuse”

“Audience Annoyance”

A. E.

“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”

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

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

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?

Tell as much story as you can
Because humans are natural storytellers, stories stick better than rational reasoning and facts
Classic story structure:

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 KISSLs 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, itw, aso, src, aus, aat, t
  is harder than
  o npr, phd, cbs, fbi, twa, sos, rca, usa, att

Familiarity increases “chunk” size

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

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Important: Visual text competes with audio recognition


Remove anything that isn’t key to the audience’s understanding!

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Simple text is better than a poor chart

http://www.cushings-help.com/intro.htm

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“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

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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!
Elements with no or wrong meaning cause poor charts

Colors have no meaning and the wrong chart for the data

Line graph of same data made with ggplot2 in R

Don’t use PowerPoint defaults!

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

Goal is “Simple Design, Intense Content”!

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 0 R, 0 G, 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

Bad Good So Good So Good Good Good Good Bad Bad
Worst Worst Good Good Good Good

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

Color Contrast Calculator
http://www.thinkoutsidetheslide.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

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

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”

http://pptideas.blogspot.com/2013/04/presentation-tip-reduce-words-in-each.html
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>Heat</th>
<th>Month</th>
<th>Min SCC</th>
<th>Month</th>
<th>Max SCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARAA</td>
<td>Oct</td>
<td>130K</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

Use the Assertion-Evidence format to maximize retention

Include major supporting point (no more than two lines)
Add several other supporting points (if needed)

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

59% recall 77% recall p < 0.001

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

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

54% recall 86% recall p < 0.001

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Use highly recommended presentation design books, such as Presentation Zen or slide:ology

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 KISSS:
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
The Example: Short TEDTalk by MIT engineering PhD graduate student

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

http://www.ted.com/talks/nikolai_begg_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/3964_1_fall2013/Week_10-12/PresentationTipsinPowerPoint.pdf
- Susan McConnell, Stanford “Designing Effective Scientific Presentations”
- Presentation Skills
  http://p_inside.ucsc.edu/presentations/
  http://www.presentationopen.com/
  http://www.flurite.com/blog/
  http://pitrades.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!