Preparing your first talk, we’ve all been there.

Today’s topics
- The three “laws” of communication
- The basics – above all else, get this part right
- Story telling
- Creating your slides
- Tips to improve your presentation
- Summing it up

Effective communication guides others to see things as you see them.

Three laws of communication

- **First Law**
  - Adapt to the audience

- **Second Law**
  - Maximize signal/noise ratio

- **Third Law**
  - Use effective redundancy

Tips to calm your nerves:
- Preparation
- Focus on your purpose
- Visualize success
- Breathe
- Some food, not too much
- Find a friend in the audience

The three “laws” of communication

- **Me** to **Audience**

  - **First Law**
    - Adapt to the audience

  - **Second Law**
    - Maximize signal/noise ratio

  - **Third Law**
    - Use effective redundancy

Jean-luc Doumont, 2009
The Art of Presentation
Elliott H. Berger, Consultant in Acoustics

Know your purpose – Why give a talk?

The basics – above all else, get this part right
- Less is more
- Creation – commit the time you need
- Practice
  - Vocalize your words
  - Memorize the opening segments
- Prepare - show up early and inhabit your space

Less is more

Creation – commit the time you need

Practice
- Vocalize your words
- Memorize the opening segments

Prepare - show up early and inhabit your space

Overstuffed means under explained
Allow ~ 1 - 2 min/slide

Chekhov’s gun

How do you practice for an important presentation?

- I don’t
- I look over my slides
- I run thru the slides in my head
- I speak aloud to myself
- I record and replay my talk in empty room
- I practice with a live audience

practice, practice, practice
Creating your slides

- Slides should complement not compete
- Typography – limit words, select your fonts
- Color choices
- Avoid wide-screen overload
- Photos should be bold, clear and sharp, with impact
- Create charts that communicate rather than obfuscate

Bad slides are worse than no slides at all

Font Check – can you see me?

With a Times New Roman serif font, even 24-pt text may be less readable

A poor color choice can make readability difficult even with a 24-pt font

Quick test – print slides, six per page, and hold at arms length

Selecting a background

- White background is versatile
- Looks good on any display
- Room lighting not as critical
- Stock photos are easier to use
- Less ink when printing

Bad Form

Don’t do this.

The Art of Presentation

Elliott H. Berger, Consultant in Acoustics

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NHCA Workshop, Dallas, TX, February 7, 2019
What colors shall I use?

- Warm beige, with black or dark blue text
- Beige has good emotional impact of brown and white, without their negatives
- Gradients or patterns add visual appeal, but can distract

- Dark blue or purple, with yellow or white text
- Blue is peaceful and confident, and white gives sharp contrast

Colors to avoid — red on blue, orange on blue, green on red

www.Thinkoutsidetheslide.com
Evidence: Human

Foundry worker, 3 years, Age 62
Pipeline worker, 15 years, Age 59

Black bars = missing hair cells and missing neurons

McKnight and Sorenthell, 1979

Evidence: Human

Charts should not be eye tests

Key Elements
- Title
- Line width
- Line color/symbols
- Axis labels
- Chart grid
- Callouts vs legend
- Citation

Presentation Tip
Describe axes and other key elements

Active noise reduction works best for low frequencies

ANSI S12.6 Uncertainty Estimates, and Application to Significance Testing

Expanded uncertainty in dB ($U_{12}$)

<table>
<thead>
<tr>
<th></th>
<th>1/3-Octave Bands (1 kHz)</th>
<th>Single Number Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 Hz - 2 kHz</td>
<td>2.4 dB</td>
</tr>
<tr>
<td>EARPLUGS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within-lab</td>
<td>2.2</td>
<td>1.8 dB</td>
</tr>
<tr>
<td>Between labs</td>
<td>3.8</td>
<td>4.8 dB</td>
</tr>
<tr>
<td>EARMUFFS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within-lab</td>
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<td>4.8 dB</td>
</tr>
</tbody>
</table>

For statistical significance, difference must be $\geq 2 \times U_{12}/\sqrt{2}$

Example: within-lab testing of earplugs
Difference must equal or exceed 3.4 dB
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Tips to improve your presentation
- Fill the slide and fill the screen
- Proper use of an optical pointer
- Significant figures – how many digits to report
- PowerPoint presenter view
- Kinetic learning
- Polling software
- Wireless remote-advance
- Copyright and fair use

If you are not going to mention it, do not put it on your slide

Accounting for Bone-Conduction (BC) Limits with ATF Measurements

Extra title and needless logos 20% Wasted Space

66% Wasted Space
Optical pointers are for pointing, not painting.

Which is more meaningful, useful, or conveys more information? 94 dB or 94.32 dB?

Another case of less is more – significant figures.

“Presenter view” main screen.

“Presenter view” thumbnails.

Polling software
- Many options available – search “polling software”
- Response methods and bandwidth
  - Phone/SMS text messages
  - Web page via tablet, PC, or Google Drive
  - Application specific hardware – response pads/clickers
- Audience engagement
- Responses can be anonymous
- Can administer as live test
- Use as a demonstration tool
Wireless remote-advance

- Ergonomic
- Intuitive controls
- Plug-and-play
- Green laser pointer
- Long battery life
- Search for "best presentation remote" or "best PPT remote advance"

Tips regarding images

- Use your own
- Get permission
- Search "copyright and fair use"
- Creative commons
- Purchase

Summing it up

- Know your purpose
- Less is more
- Plan, practice, prepare
- Tell a story
- Enjoy your talk

References and Acknowledgements

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