Best Practices for a Successful Research Presentation

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Pre-Presentation Video

- Video:
- "Life After Death by PowerPoint 2010"
- http://www.youtube.com/watch?v=KbSPPFYxx3o
- [note to reviewers of presentation draft: the above video is something that Kashif and Liz were thinking about possibly showing at the beginning of the workshop]

Overview

- Preparing the Presentation
 - Purpose of a research talk
 - Know your audience
- General Research Presentation Outlines
 - Quantitative research
 - Qualitative research
 - Mixed methods research
- Preparing to Present
- Presentation Aesthetics
 - Slide organization, fonts, colors, backgrounds, charts and graphs

Preparing the Presentation

The purpose of a research talk...

...is not to:

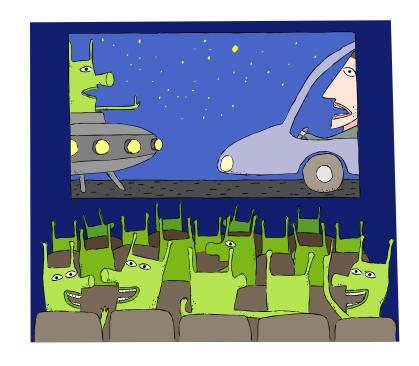
- Impress the audience.
- Tell them all you know about a subject.
- Present every little detail of your work.

...is to:

- Give the audience a sense of what your idea/work is.
- Get feedback on your work.
- Make the audience want to learn more about your work or read your paper.

Know your audience

- Who might be there?
 - Scientists/scholars expert in your field
 - Scientists/scholars, but not expert in your field
 - Graduate Students
 - Undergraduate Students
 - Non experts
 - Community Members
 - Who knows?
- Most likely a mix so have something for all.



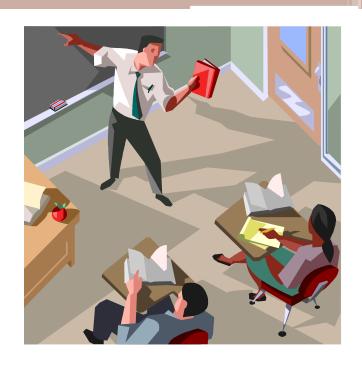
Know your audience

- Keep in mind:
 - They can read
 - They might be tired or hungry
 - They may be thinking "Why should I listen?"
 - If not captivated:
 - Non-experts will tune out earlier in the presentation
 - Experts may tune out a few minutes later
- What can you do?



What can you do?

- Early motivation: at the beginning of your talk motivate your research with easy to understand examples.
- Results: State your results early and in simple terms.
- Visuals: Illustrate your idea with images and diagrams.





Leave your audience with these thoughts:

- "I understood what the problem was and why it was important."
- "I have an idea of what her solution was and how it was different/better than others."
- "He knows the literature and we might collaborate on this particular aspect of his research."
- "I find this research/subject interesting and want to read and learn more about it."

General Research Presentation Outlines

Quantitative Research
Qualitative Research
Mixed Methods Research

Generic Presentation Framework: Quantitative vs. Qualitative?

Quantitative Research

- Introduction/Purpose
 - Motivation and goals
- Literature and framework
- Data and Methodology, study area
- Descriptive data and background
- Quantitative and statistical analysis
 - i.e. outcome of statistical analyses, significance, reject or fail to reject null hypothesis, results of other scientific analysis,...
 - Examples of data results in visual form (chart, graph, ...)
- Results
 - Key contribution?
- Conclusion
 - Summary of what you said
 - Future research

Qualitative Research

- Introduction/Purpose
 - Motivation and goals
- Background information, literature, framework
- Data and Methodology, study area
- Qualitative analysis
 - i.e. case study, interview, survey, focus group (or other qualitative method) results
 - Examples of participant quotes from qualitative data that support the results
- Results
 - Key contribution?
- Conclusion
 - Summary of what you said
 - Future research

Mixed Methods Research

- The flow of the presentation will depend on the type of mixed methods model you are using in you research.
- The order in many mixed methods research presentations, along the lines of the generic framework in the previous slide, typically consists of:
 - Introduction and purpose
 - Background and context
 - Descriptive data
 - Quantitative analysis
 - Qualitative analysis
 - Overall analysis, results, and conclusion

Relevant Literature and Related Work

- Be familiar with all related work.
- Don't list each paper you read.
 - Keep literature review portion down to one slide.
- Mainly talk about results that are immediately related to what you did.
- Include additional references at the end of the talk or embedded within the paper itself.

Technical details: in or out?

- A fine line...depends on your audience.
 - If you have a general audience you may need to explain how something technical or statistical works.
- Present specific aspects that show the heart of your work.
- Leave the rest out. If you were convincing they will read your paper.
- Don't fill up your slides with tons of equations or lengthy quotations that need explaining.
- Prepare back-up slides to answer common or anticipated questions.
 - Leave them at the end of the presentation
 - Might include more detailed equations or lengthier quotations, or additional data.





Acknowledgements

- Acknowledge co-authors (title slide).
- At end of presentation, acknowledge:
 - those who helped/assisted you.
 - funding sources (if applicable).

Preparing to Present

Preparing to Present

- Prepare the slides well in advance.
- Show the presentation to friends and colleagues for their suggestions and feedback.
- As with any draft, when you think you are finished, set it aside for a day and then go back and look at the presentation again.

Suggestions for Good Presentation

- Speak clearly and audibly for the size of the room.
- Use figures more than text:
 - "A picture is worth a thousand words"
- Do not read your slides to the audience. (Presumably your audience can read for themselves).
- Be sure the projection is on the screen and point to the projection (screen), not the source monitor.
- Talk to the audience, not the screen.
- Be mindful of the time and end on time, preferably with time for questions.





Bad Presentations tend to...

- ...include too many slides for the time length.
- ...not leave time for questions.
- ...contain over-animated slides.
- ...be read by presenter word for word.



To counteract these tendencies:

- Practice your presentation with friends/colleagues/critics for feedback, and have them:
 - comment on the aesthetics of the presentation
 - ask potential tough audience questions

Delivering the Presentation Talk

- Dress and act professionally.
 - If you do not appear or act professional or respectful, why would people think you are professional about your research?
- Be confident and enthusiastic!
 - If you aren't excited about your chosen research topic why should the audience be?
- Make eye contact with the audience.
- Identify a few "nodders" in the audience and speak to them.

Handling Questions

- Different types of questions/comments handle accordingly:
 - Need clarification
 - Suggest something helpful
 - Want to engage in research dialog
 - Show that he/she knows more than you
- Anticipate questions as you prepare.

How can I get better at presenting?

- Practice every opportunity you can
- Observe others:
 - Incorporate good presentation ideas and components you see from other presentations into your own.
 - Notice all the things that turned you off of a presentation and remember not to make the same mistakes in your own.
- Seek comments from friends and mentors.

Presentation Aesthetics

- Slide Organization
- Fonts
- Colors
- Backgrounds
- Charts, Graphs, Images

Presentation Slide Aesthetics

- Less is more. Fill in with narration not words.
- Use animation sparingly or not at all.
- Use color to emphasize some points but limit to 2 or 3 that complement one another.
- Be *consistent* in the choice and use of color, font size/type, backgrounds, etc.
- Use slide "real estate" appropriately

Slide Organization

Slide Organization - Bad

This page contains too many words for a presentation slide. It is not written in point form, making it difficult both for your audience to view and for you to present each point. Although there are exactly the same number of points on this slide as the previous slide, it looks much more complicated. In short, your audience will spend too much time trying to read this paragraph instead of listening to you.

Slide Organization - Good

- Show one point at a time:
 - Helps audience concentrate on what you are saying
 - Prevents audience from reading ahead
 - Helps you keep your presentation focused

Slide Animation

- Use sparingly. Don't over-animate.
- Don't have words, sentences and pictures flying around the screen.
 - Distracts audience away from the purpose of your presentation.
- Slide transitions should be instantaneous or at least very quick.
 - Slow slide transitions cut down on your overall time to actually present your research.

Fonts

Font - Bad

- If you use a small font, your audience won't be able to read what you have written.
- CAPITALIZE ONLY WHEN NECESSARY. IT IS DIFFICULT TO READ AND YOU DON'T NEED TO SHOUT AT YOUR AUDIENCE VIA TEXT.
- Don't use a complicated font.
- Serif fonts such as Times New Roman may not show up as well on presentation screens and may be harder to read from further away.
- don't type a txt msq. lol

Font - Good

- Use a decent font size.
- Use different size fonts for main points and secondary points.
 - this font is 20-point, the main point font is 24-point, and the title font is 40-point
- Use a standard sans-serif font like Arial.
- Be consistent.

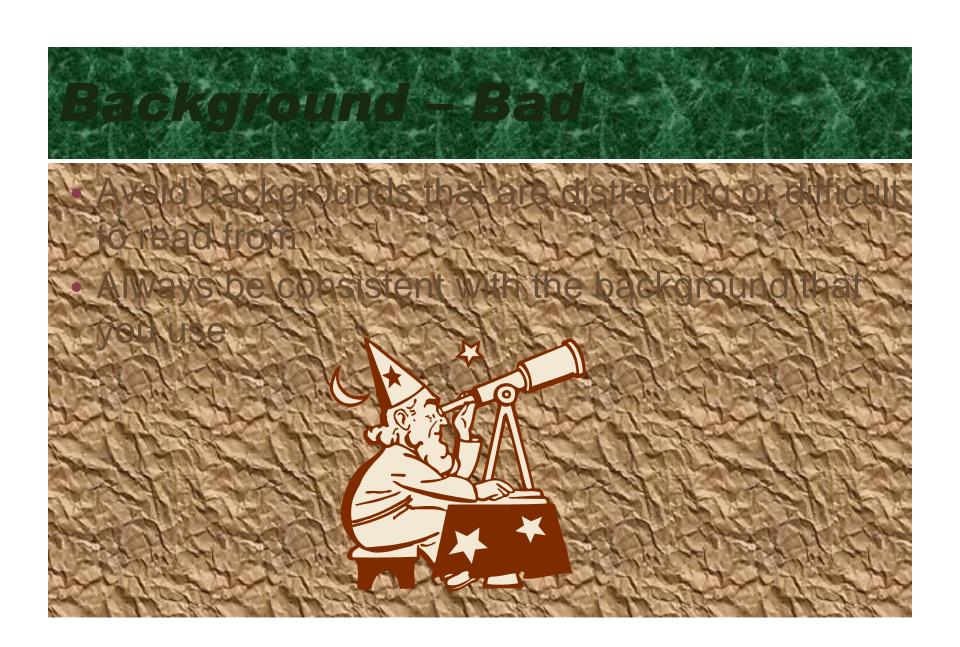
Color

Color - Bad

- Using a font color that does not contrast with the background color is hard to read
- Too much decoration is distracting and annoying.
- Using a different color for each point is unnecessary
 - Same for secondary points
- Trying to be colorful can also be bad

Color - Good

- Use font color that contrasts sharply with the background.
- Use color to reinforce the logic of your structure.
 - Ex: darker title and slightly different subtext
- Use color or bold or italics or ALL three to emphasize a point
 - But only use this occasionally
- Be consistent.



Background - Good

- Use backgrounds such as this one that are attractive but simple.
- Use backgrounds which are light.
- Use the same background consistently throughout your presentation.
 - Be consistent.

Charts vs. Graphs? Graphs are usually better...

Good Graphs

- When presenting quantitative data/results:
 - Graphs help to graphically visualize data better than charts or words.
 - Data in graphs are easier to comprehend & retain than raw data or a chart of only numbers.
 - Trends are easier to visualize in graph form.
- Contain a title, legend, x- and yaxis labels.

Bad Graphs

- Minor gridlines are unnecessary
- Font too small
- Colors are illogical
- Title and labels are missing
- Legend is unclear
- Shading is distracting
- No data source listed (if appropriate)
- No sample size (if appropriate)

Use charts sparingly and only when absolutely necessary Raw Number Charts = Boring

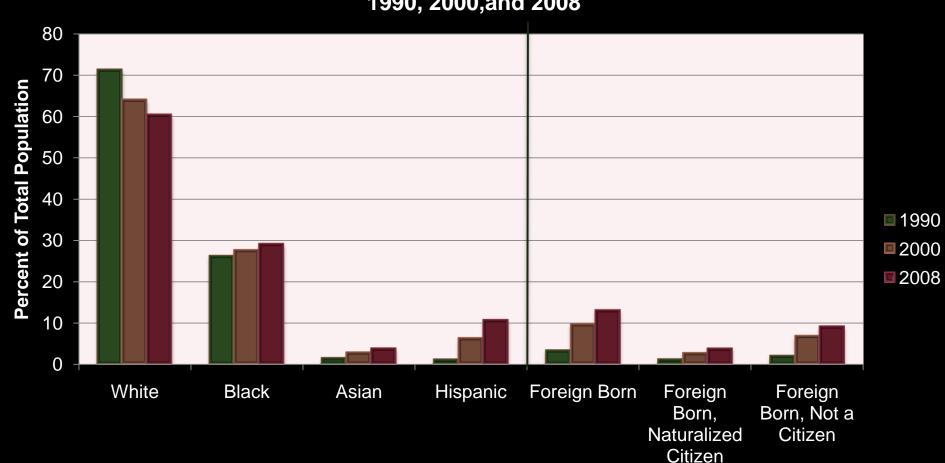
Population in Mecklenburg County, North Carolina						
	1990	2000	2008	Growth Rate (%): 1990-2008		
Total	511,433	695,454	890,515	74.12		
White	364,651	445,356	537,441	47.39		
Black	134,468	192,666	259,772	93.18		
Asian	8,461	20,819	35,167	315.64		
Hispanic	6,693	44,871	96,214	1,337.53		
Foreign Born	17,875	68,349	117,421	556.90		
Foreign Born, Naturalized Citizen	6,740	19,810	35,021	419.60		
Foreign Born, Not a Citizen	11,135	48,539	82,400	640.01		
Source: U.S. Bureau of the Census, American Community Survey						

If you do use charts, you may want to first present the chart, and then highlight specific components of the chart for emphasis:

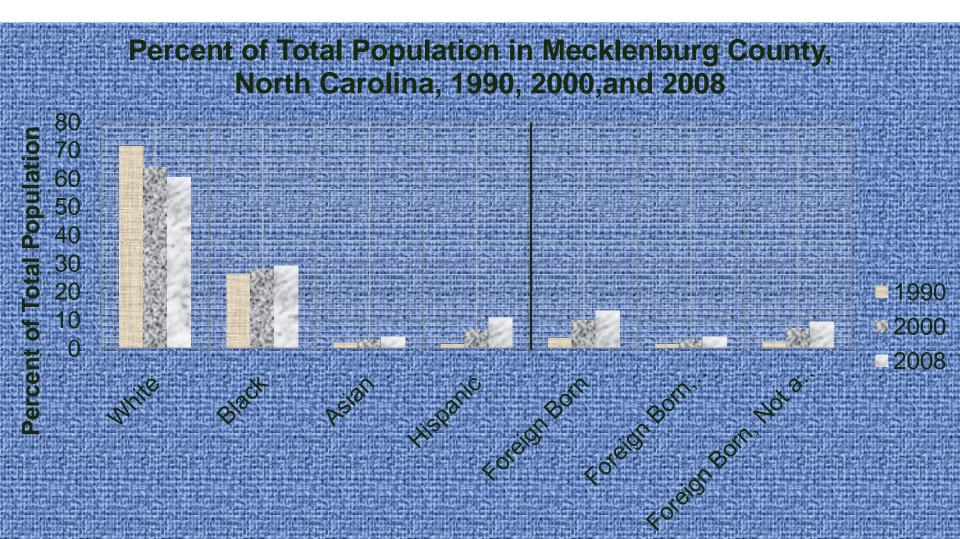
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Graph - Good example

Percent of Total Population in Mecklenburg County, North Carolina, 1990, 2000, and 2008



Graph – Bad example





Images and Pictures



- Depending on your data, audience, or type of presentation, other visual aids in addition to graphs may better convey an idea than a list of text bullet points.
 - Photographs
 - Maps

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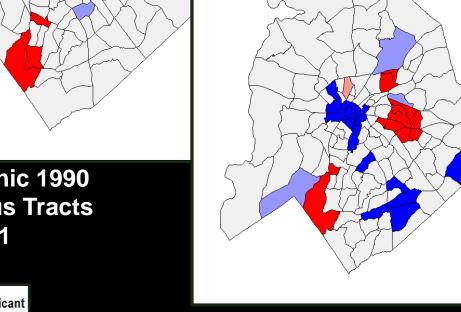






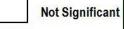
Univariate LISA: Hispanic Population





Hispanic 2000 Census Tracts N = 144

Hispanic 1990 **Census Tracts** N = 111



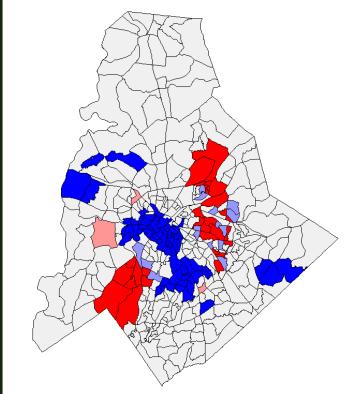
High - High

Low-Low

Low-High

High - Low

 $p \le 0.05$



Acknowledgements

- 2011 Graduate Research Fair Planning Committee
- Graduate and Professional Student Government
- Center for Graduate Life

