



Preparing and Delivering Technical Presentations

Andrew Fry

Associate Professor, Brigham Young University



Presentation Outline

- Presentation Requirements and Grading Rubric
- Building your Presentation (Technical Content)
- Presentation Tips
- Presentation Topics



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Presentation Specs

- 15.00 minutes total presentation time
- Questions will be additional 5 minutes
- Rule of thumb ~ 1min / slide
- Presentations will be made in class (Rm C247 ESC)
- Presentation dates are (2 presentations / day)
 - September 13,18,20, 25 & 27
 - October 2
- Presentations will be provided to me by email, download or thumb drive at the end of class



Technical Presentation Rubric

TECHNICAL PRESENTATION EVALUATION

PRESENTOR: _____ EVALUATOR: _____ DATE: _____

SPECIFIC CHARACTERISTICS

	Comments
<u>Organization:</u>	
Introduction (Did it prepare the audience?)	
Technical Content (Did the presentation convey significant information?)	
Summary (Did it summarize the main points?)	
Timing (Within 15 minutes; not too short)	
<u>Presentation:</u>	
Smoothness (Well-rehearsed)	
Clarity and Flow (Could the audience understand?)	
Visual Aids (Quality and Explanation)	
Questions (Addressed with confidence; prepared)	
<u>Personal Delivery:</u>	
Visual Contact with the Audience	
Clarity of Speech	

Self Evaluation:
Weighted for 1/3 of grade

Instructor Evaluation:
Weighted for 2/3 of grade



Presentation Outline

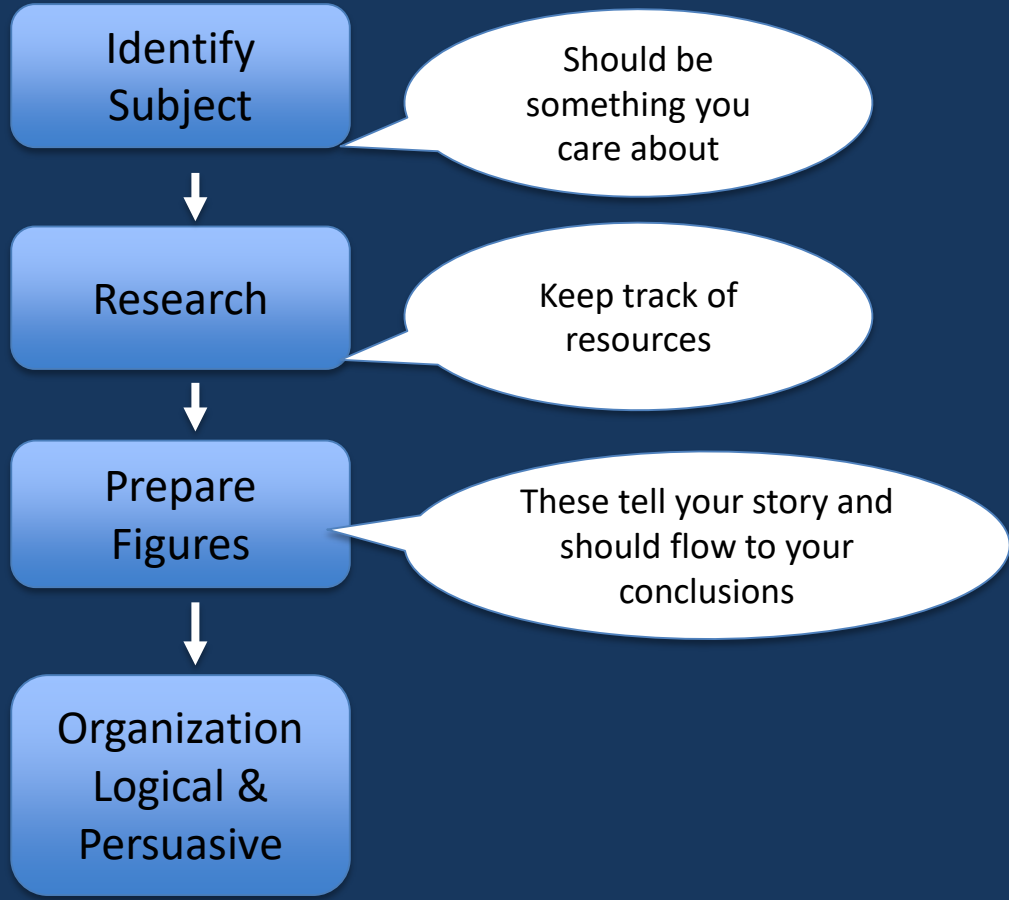
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Pre-Presentation Preparation

Where did this come from?

Research  **Presentation**





Title Slide

Title of your Presentation

Presenting Author¹, Co-Author¹, Co-Author²...

1. First Organization
2. Second Organization

*Often graphics or logos from
the institution are placed here*

Venue for Presentation, Date



Introduction & Background

Required Elements

Objective clearly
communicated

Background information
provided

General Tips

- Should be about 2 or 3 slides
- Assume that your audience:
 - Does not have firsthand knowledge concerning your subject matter
 - You have to provide the building blocks for understanding
 - Very quickly introduce the topic
 - Explain why you care about the topic
 - Convince the audience that they should care



Body

Required Elements

Information presented in a logical, flowing order

Data provided graphically

References provided

Information presented leads to conclusions

General Tips

- Should be about 8 to 10 slides
- Tell a story (the plot thickens)
- Figures (Graphs) are necessary
- Point out the behaviors that are important for your story
- Use animations to highlight behaviors
- As you present data make statements that prelude your conclusions



Summary

Required Elements

Conclusions Logically
flow from results

Conclusions address the
original objective

General Tips

- Should be about 3 or 4 slides
- Assume your readers are intelligent
- They want to draw their own conclusions about your information
- Your previous slides had better lead them down the path to conclude exactly what you present here
- Be careful not to read bullet points



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General Tips

You are telling a story

Develop a succinct logical flow of events

Don't include all of the details

You will never have enough time

Include the pieces that tell your story



General Tips

Use a narrative structure like a detective story:

#1 Present the problem

#2 Describe the search for a solution

#3 Provide an “aha” moment



General Tips (Slide Usage)

Keep your slides simple

Don't use the slides to substitute
for your words

Don't read the bullet
points off of the slides



Presentation Delivery

- Not Great:* Reading a prepared script verbatim
- Good Approach:* Prepare bullet points and talk around them
- Best Results:* Rehearse it until you have internalized every word

Be intimate with your audience, conversational



Stage Presence

There is no substitution for a good story

Stage presence is also useful

Don't move around too much

Keep your lower body motionless
and use gestures

Most important to make eye
contact. Talk to your audience!



Nerves

Being nervous is not a disaster.
Everyone feels nervous to some degree!

Don't let nerves impair your ability to deliver your message

How do I overcome nervousness

#1 Be prepared

#2 Own your presentation

#3 Don't over prepare

#4 Prayer



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Ideas for Presentation Topics

- Research Group
- Internship/Co-Op
- Energy (wind, biomass, solar, coal, oil, drilling)
- Chemical analysis (bomb sniffers, UAVs)
- Transportation (electric or hybrid cars, smart cars etc)
- Biomedical (artificial organs, blood, vaccines, pharmaceuticals)
- Materials
- Environmental (BP oil clean up, new diesel regulations, measurement techniques)