OBJECTIVES OF RESEARCH PRESENTATION

- An oral research presentation is meant to showcase your research findings
- Not about what you knew and all you did for a project
- No need to present every detail
- It is to give the audience a sense of what your key idea/work is
- Make them want to read your paper
- Presentation can be more important than the corresponding research paper

A well-done presentation should:
- Show the importance of your research
- Clearly explain your approach, state your findings, & offer insights
- Leave good impression to audience
- Prompt your researchers to:
  - Give you valuable feedback that could strengthen your research
  - Follow up on your work
  - Talk to you about potential collaboration

TITLE (& ABSTRACT)

- Your presentation should start with a title slide
- This slide must also include:
  - Your name
  - Your affiliation
- If applicable, it should also:
  - Include your supervisor’s name
  - Acknowledge your collaborators

The presentation should also have an accompanied abstract
- 1–2 paragraph long
- Not written in the slides
- The title & abstract are used to promote your presentation
- People decide whether to attend your talk based only on the title & abstract
OUTLINE

• Provide a road map at the beginning of your talk
  • For long talks, people may still get lost about your progress
  • Present a “running outline” at the beginning of each section
  • Use simple bullet points & a visual clue to highlight where you are
  • Or be creative and use workflow diagrams

INTRODUCTION & BACKGROUND

INTRODUCTION
  • Motivate your research early
    • What the problem was?
    • Why it was important?
  • Emphasize the significance of your findings
    • Connect to potential applications
    • Slide the broader impacts of your research results

BACKGROUND
  • Discuss only the most related & significant work
  • Put your work in the context of existing ones
  • Demonstrate your knowledge on literature
  • Highlight how your research is different from or improve upon them

RESEARCH QUESTION & METHOD

RESEARCH QUESTION
  • The specific inquisitive statement that guides to the purpose & objectives of your research project
    • Most likely only 1–2 sentences
  • Showcase your research question in a separate slide
  • Your audience can let it sink in for a moment

RESEARCH METHOD
  • Explain the key & most novel idea proposed in your approach
    • Offer simple take home messages
    • Leave the details out
  • Put details in backup slides for potential questions
  • Try not to fill up your slides with equations

EXPERIMENTAL RESULTS

• Organize & display your data in the most clear & concise way
  • Your audience only have a minute or less to view each slide
  • Let the data do the talking
  • Support all your claims with data
  • Explain to the audience what they should look for
• Graphs, charts, plots, & images are better than tables & words
• Data in bar charts or scatter plots are easier to comprehend & retain than in a raw table
• Trends are easier to visualize in line graphs or scatter plots
• An image worth 1,000 words
• Always title your graphs & label the axes

CONCLUSIONS & FUTURE WORK

CONCLUSIONS
  • Provide a concise summary of your main findings
    • Ideally you should give the answer to the previous research question
    • Use an effective & strong closing
    • Your audience is likely to remember your last words.

FUTURE WORK
  • Share your thoughts on future research directions
    • Encourage others to follow upon your work
  • Briefly explain each direction:
    • Why is it worth to pursue?
    • How do you plan to tackle the problem?

REFERENCES & ACKNOWLEDGEMENTS

REFERENCES
  • Include key references:
    • Do not include the entire reference list
    • Normally 3–5 references
  • Point audience to your resources:
    • Citation to your published papers
    • Project webpage
    • Shared source code or datasets

ACKNOWLEDGEMENTS
  • Thank the people & funding agencies that supported your work
  • Be sure to thank:
    • Your supervisor
    • Any postdocs or graduate students that may have helped you
    • Anyone else you may want to add
**QUESTIONS**

- Avoid ending a presentation abruptly
- Include a final slide that thanks audience & invites questions
- Simply put “Thank you for your interest”, “Questions?”
- Or use a clipart/your result image
- Prepare answers for anticipated questions
- A good idea to have extra pages prepared at the end of the slides

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**SLIDE DESIGN PRINCIPLES**

**BACKGROUND**

- Use simple backgrounds that provide some visual interest
- Always use the same background throughout the presentation
- Try not to use backgrounds that are distracting or make it difficult to read the words

**COLOR**

- Use a text color that contrasts sharply with the background
- Do not change colors often
- Use color for emphasis
- Use colors to reinforce the logic of your structure

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**SLIDE DESIGN PRINCIPLES (CONT’D)**

**FOUNTS**

- Should be standard & easy to read
- Stay away from complicated fonts
- Use one font style throughout
- Big enough for audiences to read
- About 44-point for title
- At least 18-point for body text
- Capitalize only to make a point
- DO NOT CAPITALIZE ALL THE TIME

**CONTENT**

- Avoid text heavy slides
- Bullet points, not complete sentences
- Avoid full paragraphs unless quoting
- Show one thing in each slide
- Keep presentation focused
- Help audience to concentrate
- Prevent audience from reading ahead
- Avoid distracting animation

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**PREPARE THE TALK**

**BEFORE THE PRESENTATION:**

- Show your slides to your friends & mentor
- Practice, practice, practice
- Time your talk
- Memorize at least the first few slides
- Check videos with the speaker on
- Prepare backup plan, in case of technology failure

**AFTER THE PRESENTATION:**

- Seek comments from friends & mentor
- Observe others’ presentations and learn from them

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**DURING THE PRESENTATION**

- Be enthusiastic:
  - If you are not excited about your work, why would others be?
  - Offer a big picture about the work’s important applications
- Be confident:
  - Do not read directly from the PPT
  - Point at the screen not the computer
- Be respectful:
  - Finish on time
- Engage the audience
- Maintain eye contact
- Encourage questions
- If you DO NOT know the answer to a question:
  - Say something like: “great question, I actually don’t know the answer, but I will look into it.”
  - It is a bad idea to “fake” an answer