

Introduction to Biophysics Seminar

MBP 1015Y

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****With content/structure borrowed from M. Hoffman****

Land Acknowledgement

We wish to acknowledge the land we are meeting on today and work on every day. For thousands of years this has been the traditional land of the Huron-Wendat, the Seneca, and most recently, the Mississaugas of the Credit River. This sacred land has been a site of human activity for at least 15,000 years and is the subject of the Dish with One Spoon Wampum Belt Covenant. Today, this meeting place is still the home to many Indigenous people from across Turtle Island.

National Day for Truth and Reconciliation

[U of T Truth & Reconciliation Calls to Action](#)

[National Day for Truth and Reconciliation Inclusive
Employer Guide](#)



Goals for this introductory talk

1. Explain how MBP1015 as a course operates
2. Describe how virtual presentations will be facilitated
3. Tips and tricks for giving a fantastic talk

Primary points of contact:

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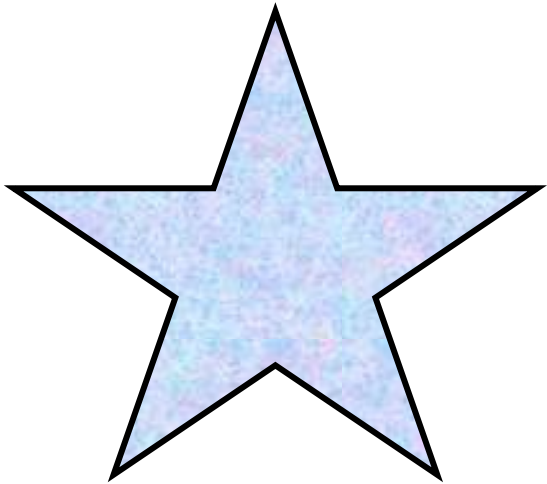
Schedule

Student year	Presentation length	Evaluation by	Graded
4	25 min + 5 min	Faculty	–
2 (PhD)	25 min + 5 min	Faculty	+
2 (MSc)	25 min + 5 min	Faculty	+

Grading

- Required attendance every semester
- Stick around after your talk for feedback
- Grading based on 2nd year seminar

Presentation goals



inspire

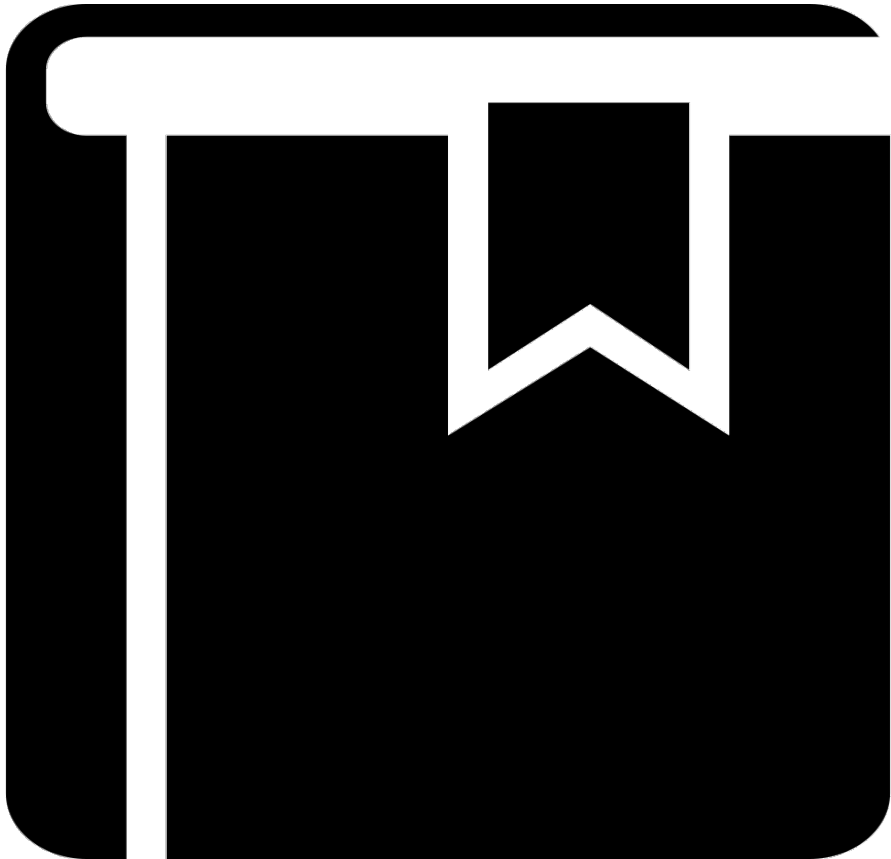


educate



entertain

Outline your presentation: tell a story



Introduction

Middle

- Topic 1
- Topic 2
- Topic 3

Conclusion

Don't be so
pedantic.
It is very boring to
hear someone
read this slide.

Hypothesis and Aims

Global hypothesis: I hypothesize that I am telling a story

- Aim 1
 - Most of the work I've done so far
 - Really almost everything is in “Aim 1”
 - All of our interesting results are really on this aim
- Aim 2
 - Very little
- Aim 3
 - Almost nothing

Conclusion: I have not told an interesting story

NOT A COHERENT STORY!

Global hypothesis: I hypothesize that I am telling a story

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**Present the science,
not the project!**

On your slides...

- Limit number of ideas
- Limit words
- Include references directly on slides
 - Author, Journal, Year

Macedo F., Oncology reviews 11:321, 2017

Choose good fonts



*This is not very
easy to read*

This is much
easier to read

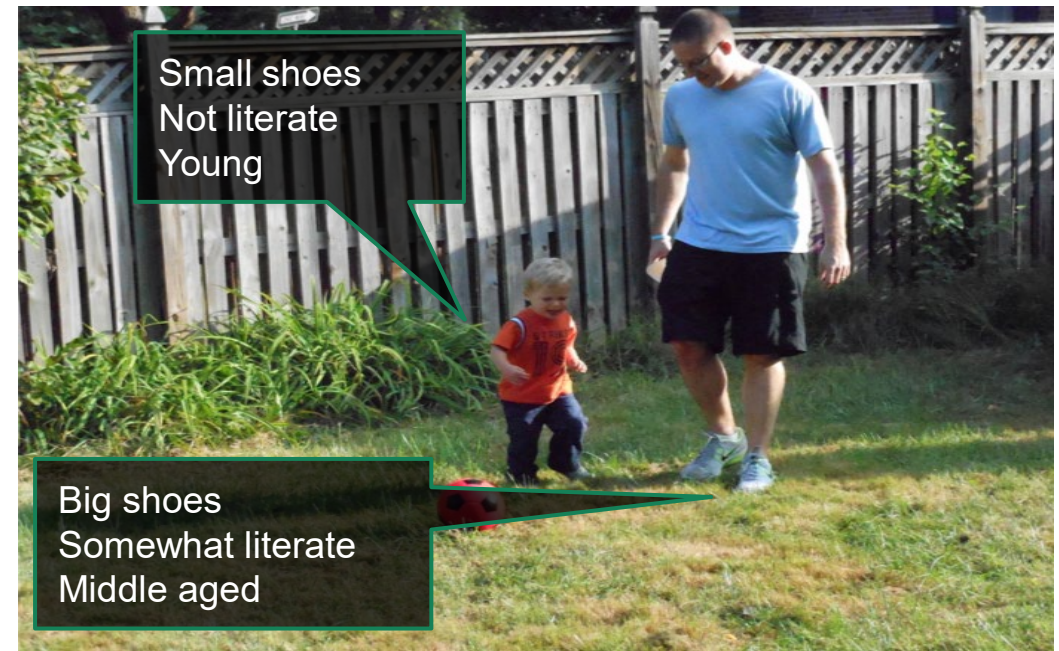
Use large text



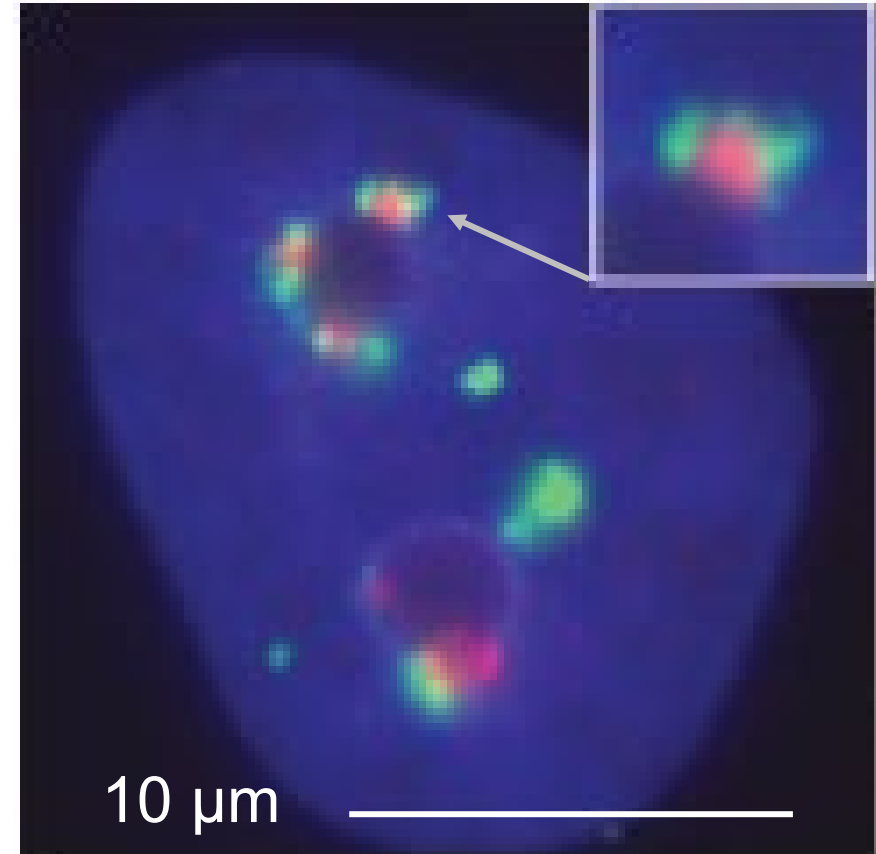
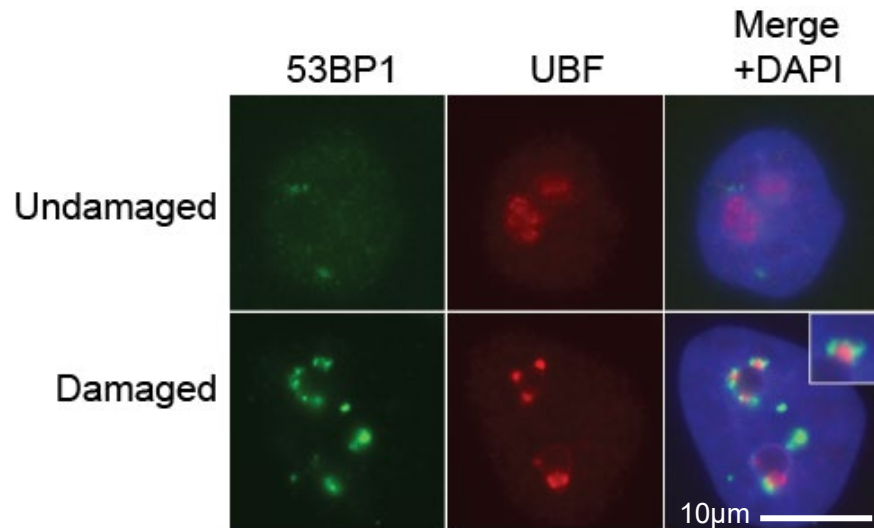
This is not very easy to read

This is much
easier to read

Use large images



Use large images





- Speak clearly
- Express excitement
- Silence is OK
- Be yourself!

Introduction & Background

- Details on background material
- Full explanation of question and *why* conducting project

Lots of time and effort
can be focused on the
introduction and
background
information!

Results

- Limited discussion of approach
- Focused presentation of results

- Highlight necessary parts

Conclusion

- Emphasize take-home message

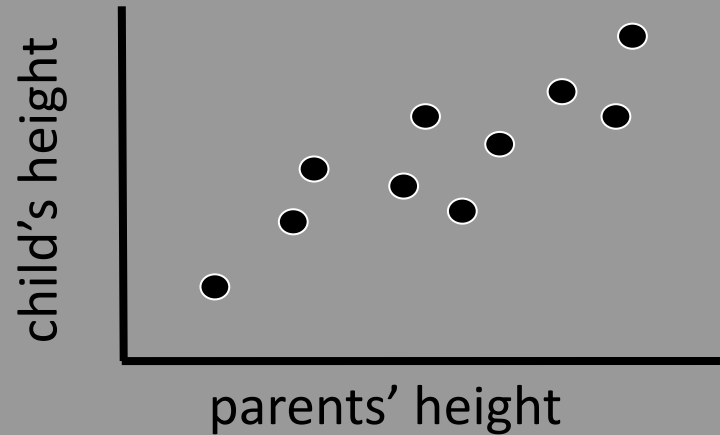
Adapted from Ellis SE, CC BY 4.0

<https://leanpub.com/universities/courses/jhu/cbds-communication>

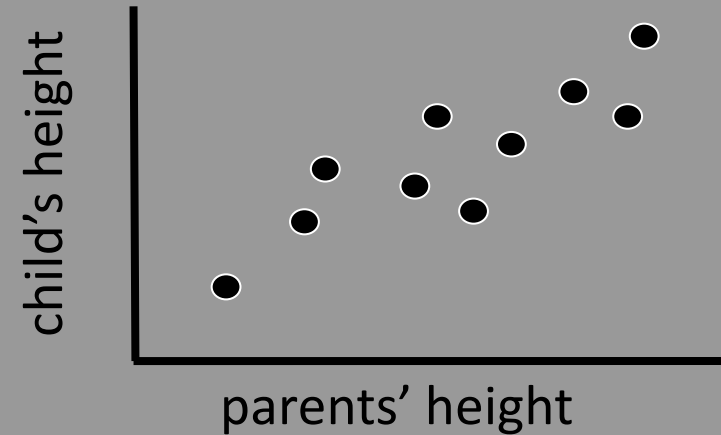
Explain your figures



“Parents’ height affects a child’s height.”



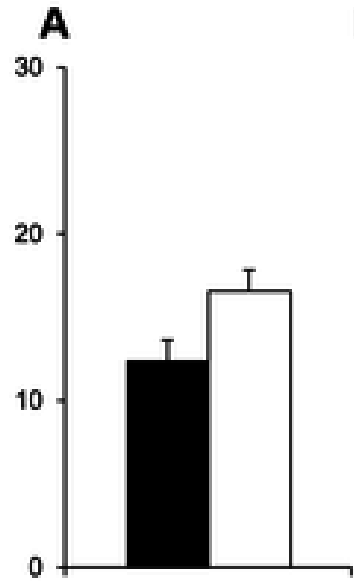
“Here, we have parent’s height along the x-axis and the child’s height along the y-axis. Each point represents a different child. We can see from the scatterplot that there is a positive relationship between parents’ height and their child’s height.”



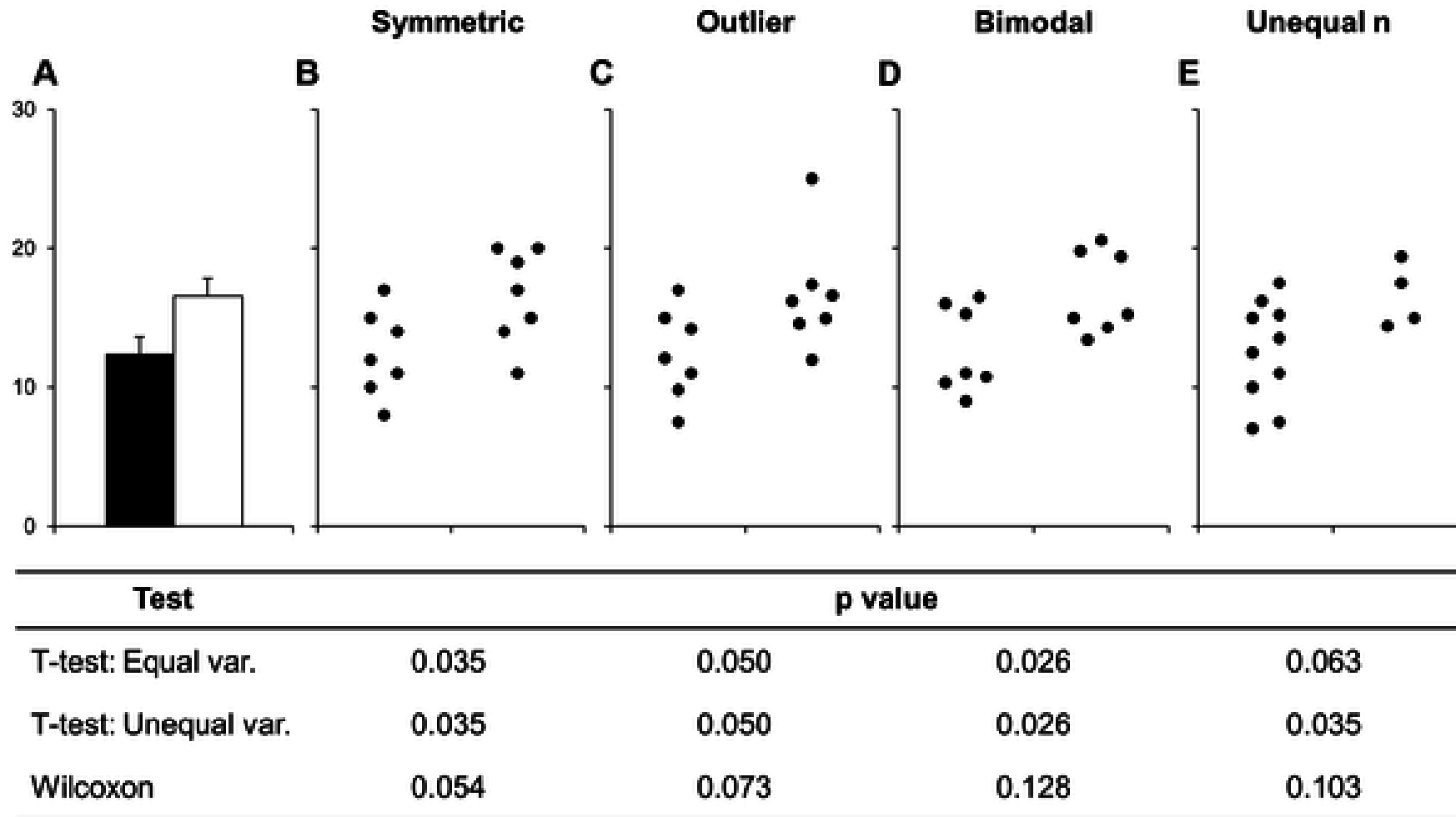
Other common suggestions

- Cite on slide any material you borrow
- **Include on the slide ONLY the things you'll explain**
- Present actual data (not bar plots + error bars)
- **Label axes on ALL plots. Include scale bars on ALL images**
- Show some enthusiasm. Exhibit “sparkle”
- Tell us what you did and what you didn't
- Use a pointer

Dynamite plots



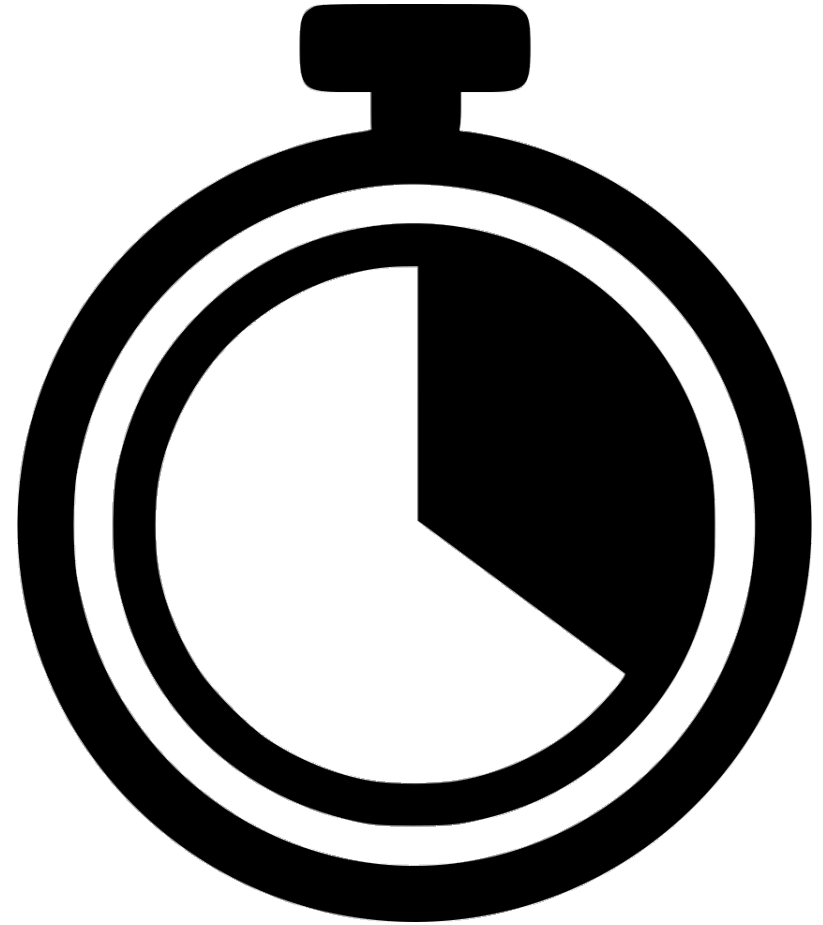
Dynamite plots: **blow them up**



Outliers can be removed from the analysis when they fall outside of the 1.5 times interquartile range (IQR), in keeping with accepted statistical analysis standards

Practicing

- Improves explanations
- Calms nerves
- Ensures you're within the time limit

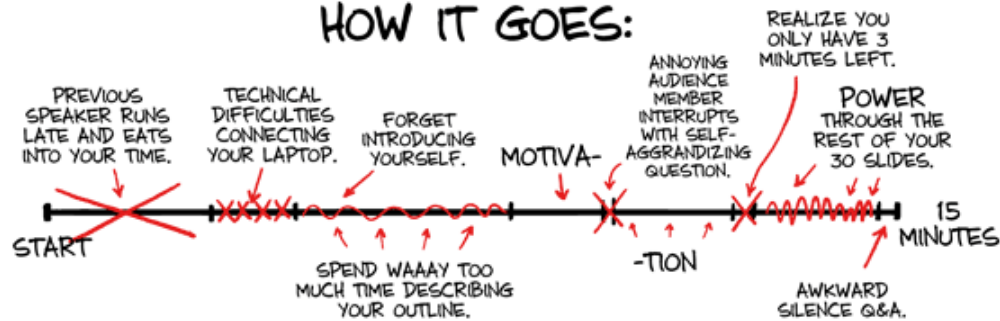


YOUR CONFERENCE PRESENTATION

HOW YOU PLANNED IT:



HOW IT GOES:



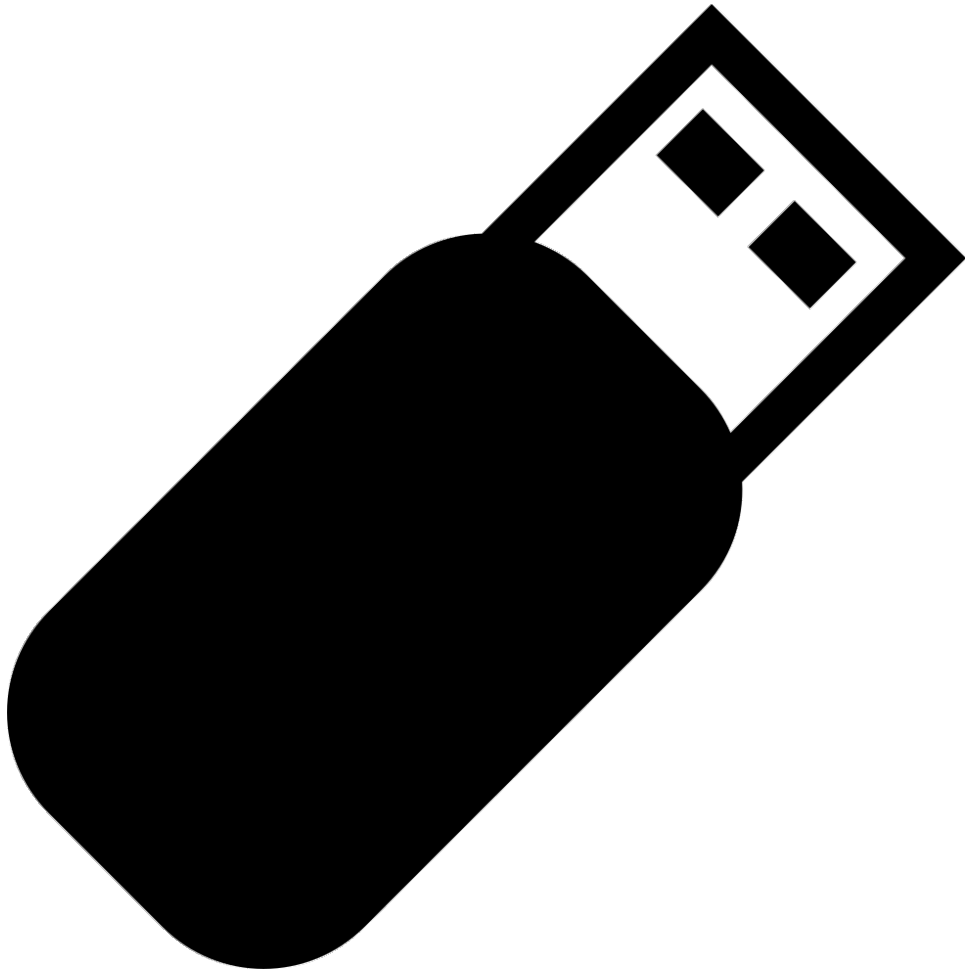
Preparation and time management

- Pre-plan exit strategies
- Keep a timer running while you talk
- It is detrimental to keep going after time expires

Do boring speakers really talk for longer?

Dull talks at conferences can feel interminable. Or could it be that they really do go on for longer?

I investigated this idea at a meeting where speakers were given 12-minute slots. I sat in on 50 talks for which I recorded the start and end time. I decided whether the talk was boring after 4 minutes, long before it became apparent whether the speaker would run overtime. The 34 interesting talks lasted, on average, a punctual 11 minutes and 42 seconds. The 16 boring ones dragged on for 13 minutes and 12 seconds (thereby wasting a statistically significant 1.5 min; t -test, $t = 2.91$, $P = 0.007$). For every 70 seconds that a speaker droned on, the odds that their talk had been boring doubled. For the audience, this is exciting news. Boring talks that seem interminable actually do go on for longer.



- Roll with the punches
- Have an extra copy of your slides
- Test, test, test
- Turn off notifications

Adapted from Ellis SE, CC BY 4.0

<https://leanpub.com/universities/courses/jhu/cbds-communication>

Questions after talks

- Priority will be questions from the live audience
- Feel free to use the raise hand feature of Zoom during the talk
- Usual priority of questions
 1. Students
 2. Other faculty
 3. Federico/Margarete

DON'T: distract your audience and use up your space with template junk

Questions

- Repeat the question back to the audience
- Take a moment to think
- It's ok to say “I don't know”



Presenter #1:

Organization:

- ☐ Outlined background accurately
- ☐ Indicated work's place in the field
- ☐ Identified problem early in talk
- ☐ Described personal contributions
- ☐ Had coherent narrative with a logical flow
- ☐ Delivered appropriate abstract, on time
- ☐ Finished presentation on time
- ☐ Clear take-home message and next steps

/100

Content/Science:

- ☐ Described methods clearly
- ☐ Evaluated results critically
- ☐ Demonstrated significance of project
- ☐ Rigor of approach and conclusions
- ☐ Avoided jargon
- ☐ Answered questions calmly and clearly

/100

DON'T: wave your laser pointer around

Presentation:

- ☐ Slides legible and understandable
- ☐ Data labeled well
- ☐ Appropriate amount of information on each slide
- ☐ Voice audible, pace reasonable, well-modulated
- ☐ Used audiovisual tools effectively
- ☐ "Sparkle" or enthusiasm
- ☐ Materials produced by others clearly identified and cited

/100

Deadlines

- **20 September 2023:** Seminar titles to Daphne (daphne.sears@utoronto.ca)
You can change your title later. Don't overthink it.
- **Thursday before your presentation:** email abstract to Daphne
- Links to evaluation forms for faculty and students will be sent out every week on the seminar date.

Attendance policy

“It is expected that MBP students attend all student seminars. In years where a student is required to present (usually years 1 and 2 of the student's MBP graduate studies, and year 4 if they are a PhD student), the student is required to be available for any assigned presentation date unless they are on a department-approved leave of absence. In years 5 or above the student is required to be available for any assigned date to review 1st year seminars unless they are on a department-approved leave of absence.

On other dates, students are **required** to attend a minimum of 80% of seminars for 2 years of their MSc and 4 years of their PhD. Students must attend seminars in person and sign their own names on the attendance form.”

Questions and feedback

- Administrative questions and schedule swaps

Daphne Sears <daphne.sears@utoronto.ca>

- Feedback on the course

margarete.akens@utoronto.ca

Federico.Gaiti@utoronto.ca

Welcome to Student Seminar

For remote participants:

- Mute your audio
- Turn off your camera
- Check that your display name is your full first and last name. Rename yourself if you need to fix

To ask questions during question period:

1. Participants > Raise Hand (at bottom of Participants dialog)
2. Wait for moderator to call on you, then unmute your audio
3. After asking your question, please mute.