

3 Minute Thesis

Communicating Your Thesis Workshop



Michigan Tech

Today's topics

- Audience & Context
- Explain your thesis to anyone
- Communicate with images
- Resources
- Work time
- Wrap-up



Audience & Context

Who is judging 3 Minute Thesis?

What are their goals?

What are *your* goals?



Audience & Context

Who is judging 3 Minute Thesis?

- Faculty and Staff from across campus. You'll encounter a wide variety of fields and expertise!

What are their goals?

- To judge how effectively you can describe your research in only a few short minutes

What are *your* goals?



Explain your thesis to anyone

Elevator Pitch: What is it? Why do I want one?

- An interesting & brief summary of your project and its importance
- Used to spark interest and draw in listeners
- Sometimes looks like: “Problem, why it’s important, my solution”



Explain your thesis to anyone

Talking Points

- Use talking points to share your project in a consistent and concise manner
- Write down points that you know you want to share
- Make sure you don't spend too much time on one point/leave too little time to get to the other ideas you want to share



Explain your thesis to anyone

Talking Points

- Stay brief and avoid jargon
- Remember your audience
- Practice makes perfect



Explain your thesis to anyone

Practice:

- Timing!!
- Pronunciation, word choice, talking speed
- Eye contact with your audience
- Develops confidence!



Practice

1. At your tables, think of 3 key talking points for your research. (5 minutes)
2. In 1 minute, use those talking points to discuss your thesis with your table partners.
3. After 1 minute, switch so the other partner can try.



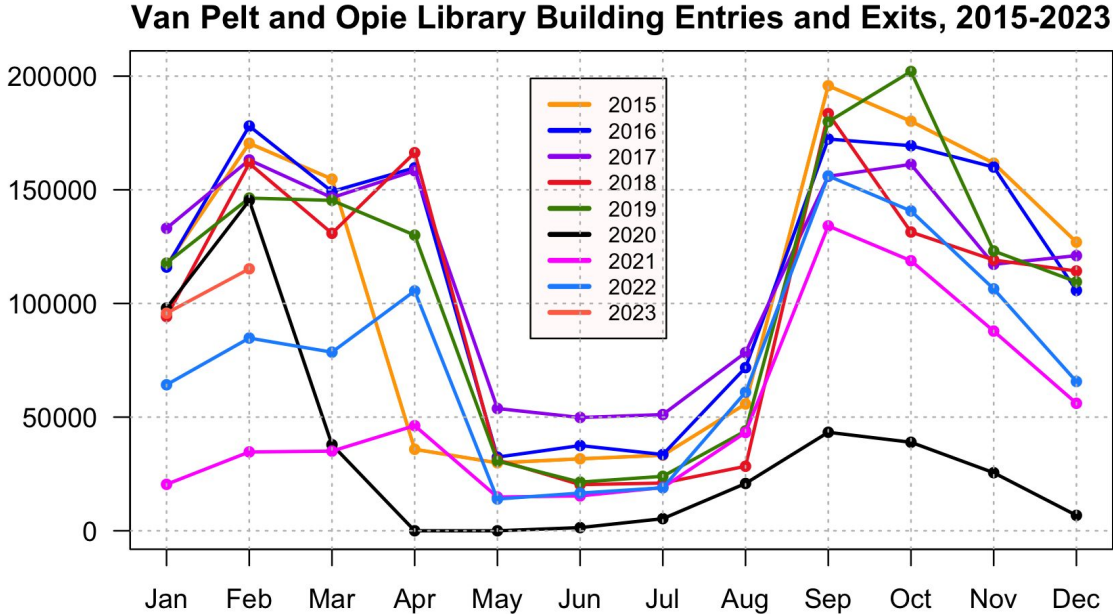
Share

- What did you find the most difficult in that exercise?
- What was easy?
- Where do you think you might need to make changes?



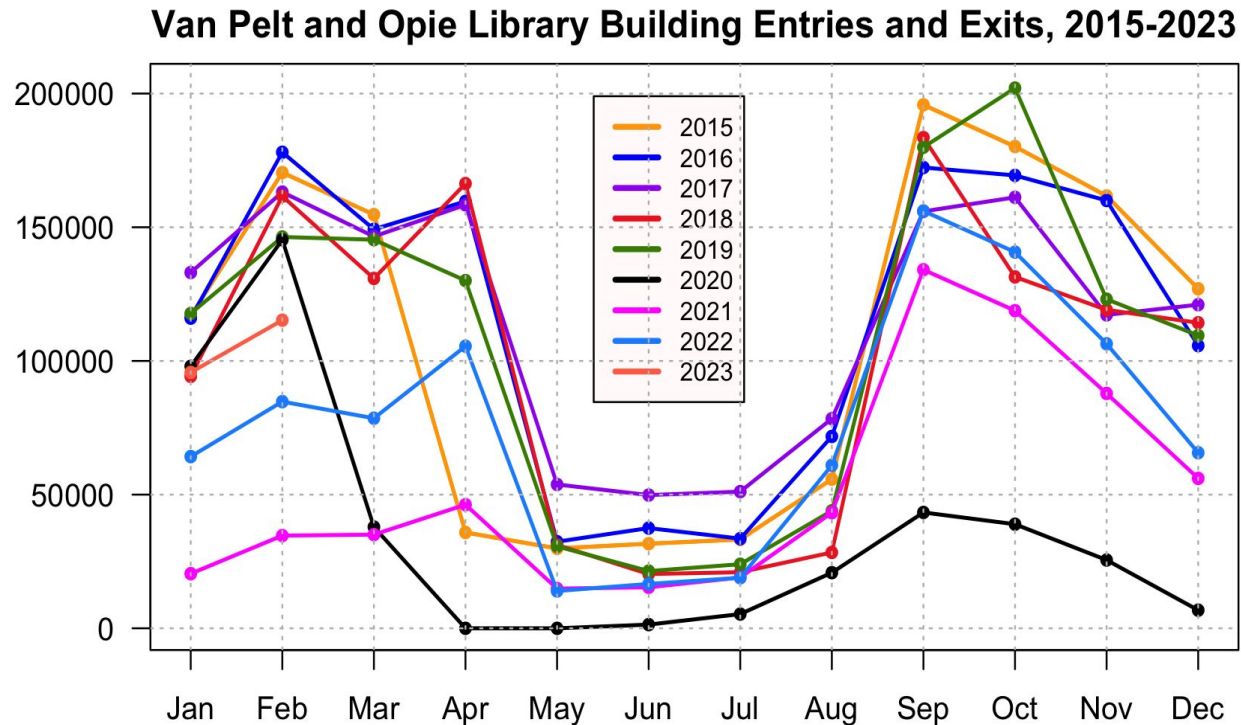
Communicating w/Images: Telling Stories

What story do you want to tell with your images?

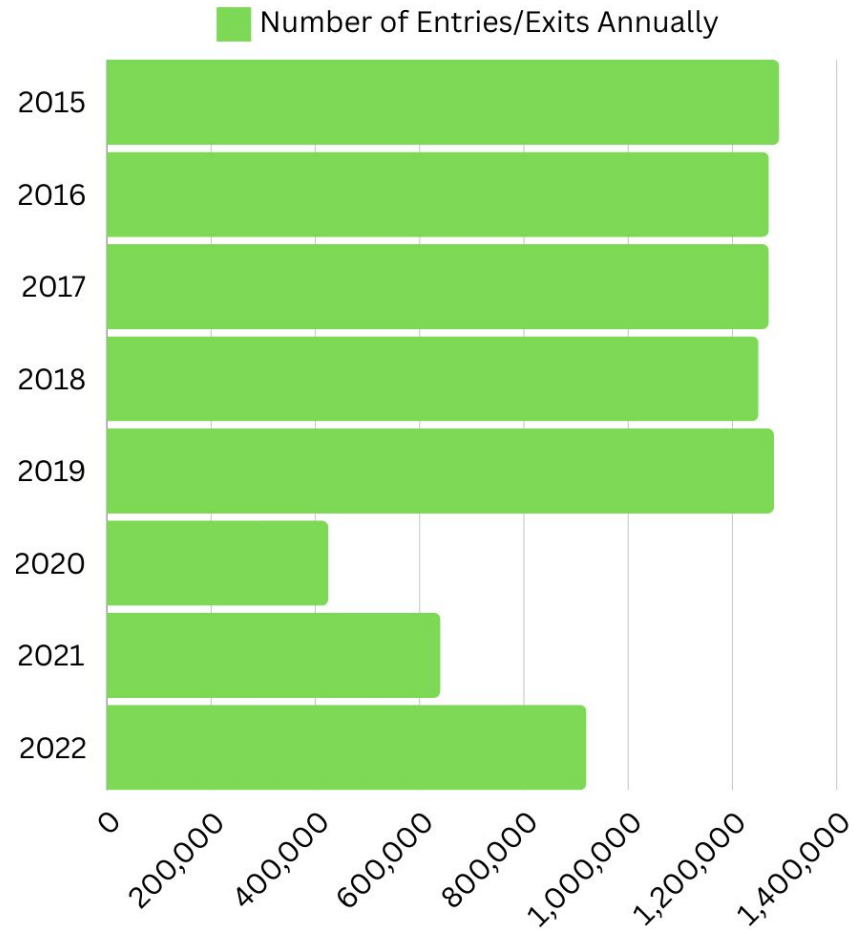


Telling Stories

Looking at the graph below, what can we do to make the story clearer?



Telling Stories: Library Traffic

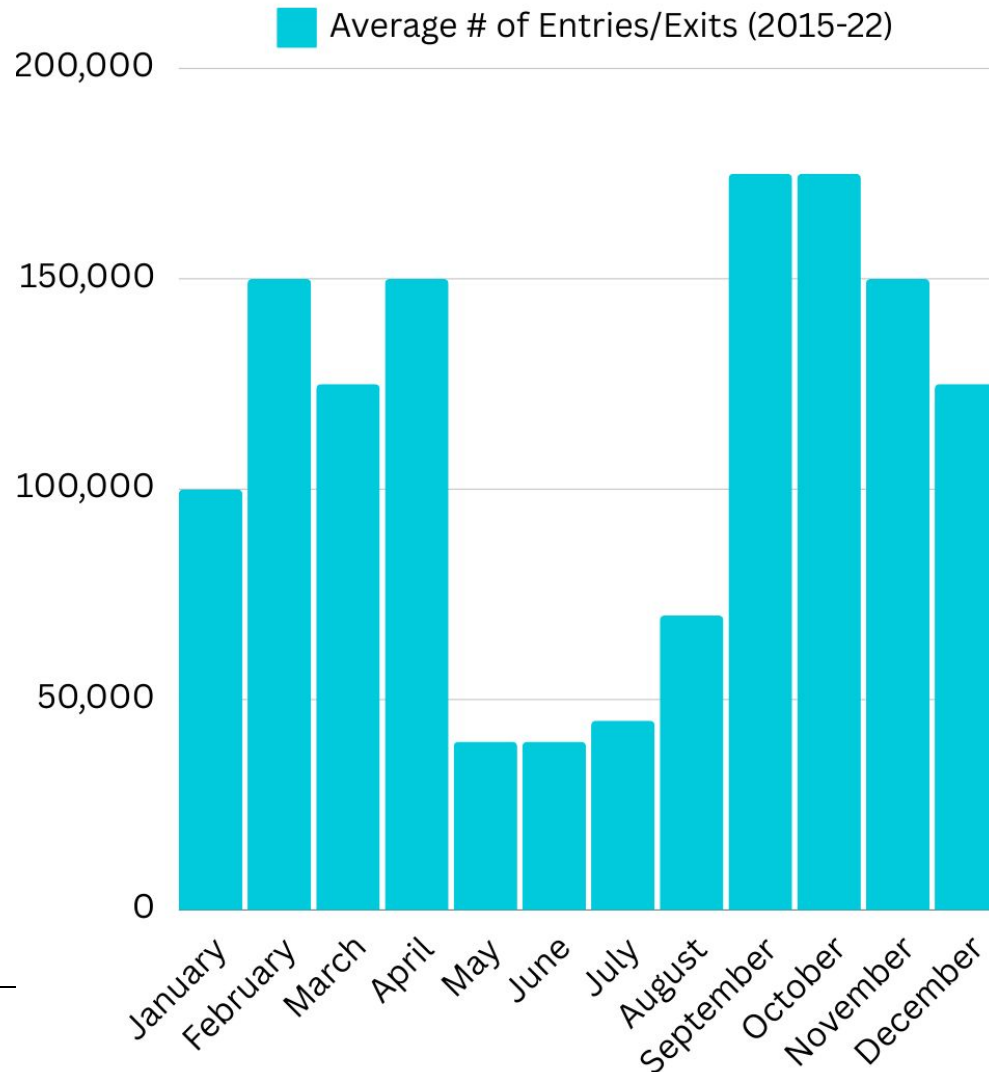


← Covid-19

← Slow Recovery?
Or changes in counting?



Telling Stories: Library Traffic



What potential stories are more clear here?




Communicating w/ Images: Slide design

Does Phosphorylation of a Conserved Tyrosine Regulate CK1 Activity?
 S. Eisek McMahen¹, Wesley Carlisle¹, Jonathan Carrere¹, Marci McMahon¹, Lucy Robinson¹, Cynthia Brame¹
 Department of Biology, Centenary College of Louisiana, ¹Department of Biochemistry, Louisiana State University-Health Sciences Center

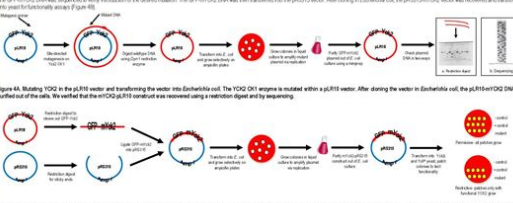
Introduction

A conserved gene that has emerged throughout Prokaryotes and that is required to utilize a substrate as a carbon source... (text continues)



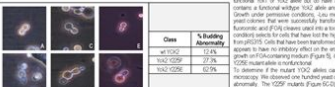
Procedure

The described methodology was used to generate mutant GFP-Y226G alleles in the pET201 vector... (text continues)



Results and Discussion


To determine if the conserved tyrosine was involved in CK1 activity... (text continues)



Genotype	% Budding	Abnormality
Y226G	22.7%	0.0%
Y226E	22.7%	0.0%
Y226S	22.7%	0.0%

Conclusions

Confirmed by inspecting Figure 3, phosphorylation and glucose were substantially substituted for... (text continues)




References

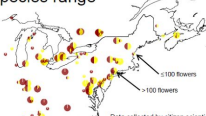
Almouzni, G., et al. (2004) Molecular Biology of the Cell, 15th Edition, Garland Science, New York, NY.

Why does anther colour vary in trout lily (*Erythronium americanum*)?

Emily Austen^{1,2} & Jessica Forrest¹
¹University of Ottawa, Canada; ²austen.emily@gmail.com; emilyjausten.wordpress.com

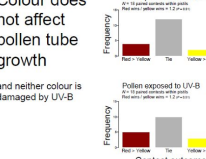


Red & yellow anthers occur throughout species range



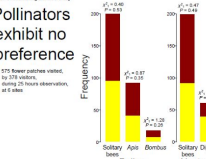
Colour does not affect pollen tube growth

and neither colour is damaged by UV-B



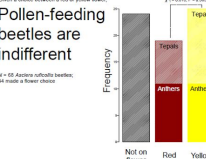
Pollinators exhibit no preference

When encountering a mixed array



Pollen-feeding beetles are indifferent

to anther colour



Anther colour is seemingly (and surprisingly) ecologically neutral.

Acknowledgements: Thanks to... (text continues)

Research institutions: University of Ottawa, Canada; Centenary College of Louisiana, Louisiana State University-Health Sciences Center.

This research was funded by: Natural Sciences and Engineering Research Council (Canada); Ottawa Field Station (UK).

Slide Design

- Clean and simple design
- Clear charts and graphs
- Consistency throughout
- Large images and text

Check out other design tips [here](#)



Communicating w/Images: SHARC

<https://www.sharcframework.com/>

- Scale
- Hierarchy
- Axis
- Readability
- Color

Note: this is focused on charts/graphs, but can often be applied to other situations!



SHARC

<https://www.sharcframework.com/>

- **Scale:** be consistent
- **Hierarchy:** label to provide a clear visual path
- **Axis:** consider story when choosing
- **Readability:** no clutter
- **Color:** be accessible!



Resources: Create your own images

- Create tables, graphs, & infographics
 - Canva
 - Excel
 - Google presentations/sheets
 - Visual.ly
 - PiktoChart
 - Adobe (macs at the library)
 - Gimp - open source photo editor



Resources: Color & Accessibility

- Color palette websites - help you find colors that go well together
 - <https://colors.co/>
 - <https://colorpalettes.net/>
- Color accessibility palettes:
 - [IBM](#)
 - [TOL](#)



Resources: Finding images

- Freely available images:
 - Pixabay
 - Flickr
 - Wikimedia Commons
 - Use Advanced Google Image Searching to limit to images labelled for 'reuse'



Copyright

Rule of thumb: you cannot use images, charts, graphs, etc. that you have not created UNLESS:

- You get permission from the creator
- The work is licensed as “public domain” or “creative commons” (or some other similar license)



Copyright & Creative Commons

Copyright: The creator of a work has the exclusive right to specific uses of that work.

A work doesn't need to have copyright directly on it!

Creative Commons: A specific licensing structure where the creator has said others can use their work if they follow specific rules.



Confidence!

- It's okay (and normal!) to be nervous
- To appear more confident:
 - Don't read from your slide
 - Rehearse!
 - Be yourself
 - Remember: You got this!



Work time!

Take the rest of the time we have this afternoon to work on your 3MT project!

We'll walk around to answer questions or provide feedback as you work.





**ASK
US!**

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