GG610
Spring 2012
Friday, 1:30 - ~~2:20~~ 2:50

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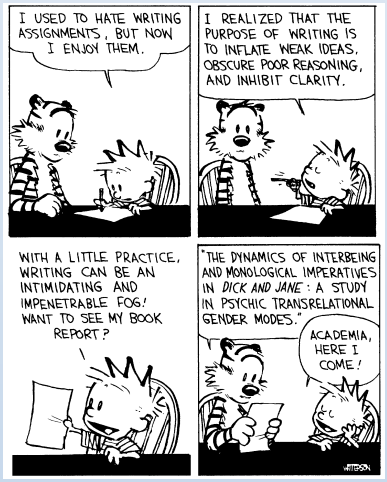
Class Roster (26)

1	Tayro Acosta
2	Naif Alquthami
3	James Bishop
4	Brian Boston
5	Dana Brodie
6	Alice Colman
7	Sarah Crites
8	Benjamin Czeck
9	Joseph Fackrell
10	Emily First
11	Patrick Gasda
12	Sarah Glancy
13	Samantha Jacob
14	Maria Janebo
15	Christine Jilly
16	Haunani Kane
17	Kendra Lynn
18	Sarah Maher
19	Matthew Markely
20	Katharine Robinson
21	Myriam Telus
22	David Trang
23	Jonathan Tree
24	Christine Waters
25	Gabrielle Weiss
26	Jonathan Weiss

Topics

- Main theme* and focus
- Goals and objectives
- Logistics
- Writing Tips
- Good References
- Conclusions



Main Theme for a Good Presentation

- Define a potent central theme, stick to it, and develop it – relentlessly

- Focus: Short presentations

Goals vs. Objectives

Goals

- Broad
- General
- Intangible
- Can't be validated
- Example
  - Become a well-prepared geologist

Objectives

- Narrow
- Specific
- Tangible
- Can be validated
- Example
  - Complete my thesis on Kilauea by March 30

Class Goals and Objectives

Goals

- Develop ability to communicate in short formats by practice
  - AGU-style talks
  - Abstracts
- Provide pointers for better writing

Objectives

- Present one 15-minute AGU-style talks
- Prepare one effective single-paragraph abstract
- Constructively critique 13 peer presentations

Course Logistics

Course Schedule

Week(s)	Topic(s)
1	Introduction / Writing organization & style
2	Oral presentations
3	Abstracts
4	TBA
5 2/8/13	Pop Ups (2 minutes/person)
6-11	15-minute presentations (3/session; 1-18
12	Spring Break
13-15	15-minute presentations (3/session; 19-27)
16 4/26/13	Class evaluation

Session Schedule for Presentations

Time (minutes)	Item
5	Logistics
15	Oral presentation 1 (with questions)
10	Critique 1
15	Oral presentation 2 (with questions)
10	Critique 2
15	Oral presentation 3 (with questions)
10	Critique 3
80 minutes	

Grades

Assignment	Weight
Oral Presentation*	40%
Critiques of peer presentations (13)	30%
Abstract**	20%
Pop-Up (1-slide, 2 minutes)***	10%

* Will be open to others in SOEST

** Due 1 week before your presentation
Will be posted to gg-all 1-2 days before presentations

*** Due 2/6/13 (Wednesday)

Writing Tips

Key Attributes of a Good Presentation

- Value
- Focus
- Clarity
  - In writing
  - In illustrations
- Good organization

Key Attributes of a Good Presentation

- Value
- Focus
- Clarity
  - In writing
  - In illustrations
- Good organization
- Conciseness
- Economy
- Humility
- Acknowledgement
- Memorability

Generic Scientific Outline

- Abstract
- Introduction
- Procedure
- Data
- Analysis
- Discussion
- Conclusions
- Acknowledgements
- References
- Figures

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- An outline is not needed for a 13-minute AGU-style talk!
- It wastes 2 minutes!

Establish a Theme or a Thread

http://upload.wikimedia.org/wikipedia/commons/f/fa/Crystbeads.jpg

http://www.lllwork.com/store/product_info.php?cPath=1_26_25&products_id=469

Better Scientific Outline

- Abstract
- Introduction
- Procedure
- Data
- Analysis
- Discussion
- Conclusions
- Acknowledgements
- References
- Figures

Theme

Abstract
"Scrutiny of the Abstract, II")

http://www.ees.nmt.edu/outside/Geop/Classes/Geop592/Landes[1].pdf

- "in terms of market reached, … the most important part of the paper" (Landes, 1966)
- Tip: Write this first to focus.
  Then rewrite, rewrite, and rewrite...
- To be continued…

Introduction
(From "Scrutiny of the Introduction")

http://sep.stanford.edu/sep/prof/Intro.html

- Purpose: invite readers to invest in your paper

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(From "Scrutiny of the Introduction")

http://sep.stanford.edu/sep/prof/Intro.html

- Purpose: invite readers to invest in your paper
- Organization
  1 Review
  2 Claim
  3 Agenda

Introduction
(From "Scrutiny of the Introduction")

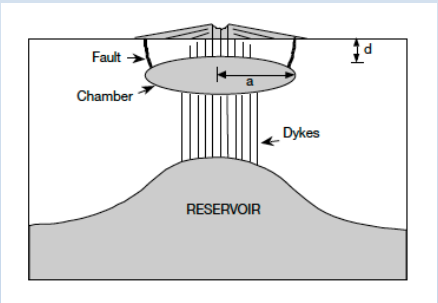
http://sep.stanford.edu/sep/prof/Intro.html

- Purpose: invite readers to invest in your paper
- Organization
  1 Review: Relevant background to motivate paper
  2 Claim: Your central thesis/purpose/hypothesis
  3 Agenda: Road map
    - *Explain how paper works to fulfill claim*
    - Don't merely recite topics
    - Agenda should clarify claim

Example of an Agenda: Gudmundsson, 1998

Formation and development of normal-fault calderas and the initiation of large explosive eruptions

The first objective of this paper is to provide a model for the initiation and development of the boundary faults of normal-fault calderas. This model is based on, firstly, the results of a boundary-element study on the stress field around shallow magma chambers of different shapes and subject to various loading conditions, and, secondly, analytical solutions on the doming (bending) of elastic plates. A second objective is to use this model as an explanation for large explosive eruptions in general and the empirical relation between collapse and large eruptions in particular. This is done by considering the effect of slip in normal-fault calderas on the potential fluid excess (driving) pressure in the magma chamber associated with the calderas.



Paragraph

- "A self-contained unit dealing with a particular point or thought"
- Topic sentence – Introduces the thought
- Development of the thought
- Concluding sentence
  - Wraps up the thought
  - Relates to the topic sentence
  - Leads into the next paragraph

Expressions of Degree of Confidence

- Know (High confidence)
- Determine
- Establish
- Ascertain
- Understand
- Conclude
- Deduce
- Judge
- Infer
- Suspect
- Guess (Low confidence)
- ~~Believe~~ (Avoid because of "faith-based" connotations)

Phrases to Avoid & Alternatives

- At depths up to 20m
- It is most likely that…
- There are many reasons …
- A number of papers …
- A significant difference
- The planet is very small

- At depths as great as 20m
- Most likely …
- For many reasons…
- Several papers
- A difference of 10%
- The planetary radius is 6400 km

Good References

- Suggestions To Authors (Bishop et al., 1978)
  - http://www.nwrc.usgs.gov/techrpt/sta01.pdf
- Scrutiny of the Abstract, II (K.K. Landes, 1966)
  - http://www.ees.nmt.edu/outside/Geop/Classes/Geop592/Landes[1].pdf
- The Elements of Style (Strunk and White, 1999)
  - http://www.bartleby.com/141/
- The Nuts and Bolts of College Writing (Harvey, 2003)
- Tips for Good Scientific Writing
  - http://www.soest.hawaii.edu/GG/FACULTY/ITO/
- Tips on Scientific Writing (Go to Teaching->GG410 Undergraduate Seminar)
  - http://www.nhn.ou.edu/~morrison/Teaching/WritingTips.pdf
- Writing Scientific Manuscripts
  - http://www.jyi.org/resources/320/Guide%20to%20Science%20Writing.pdf
  - http://www.srh.noaa.gov/ssd/html/writetip.htm
- From "The Writing Center" at the University of North Carolina (esp. for paragraphs)
  - http://writingcenter.unc.edu/resources/handouts-demos/specific-writing-assignments/scientific-reports
  - http://writingcenter.unc.edu/resources/handouts-demos/writing-the-paper/paragraphs
- Words of Estimative Probability
  - http://en.wikipedia.org/wiki/Words_of_Estimative_Probability
- Glossary of Critical Thinking Terms
  - http://www.criticalthinking.org/pages/glossary-of-critical-thinking-terms/496

Conclusions

- Set and develop a potent theme*
- Accompanying activities
  - Focus
  - Be economical
  - Support theme by structure, content, and clarity
  - Revise
  - Practice