The 1999 Society of Geologists Employers' Survey rated "Oral presentation, report writing, and making diagrams To show data" as the most important non-geological skills For potential graduate employees"

EAS 466:TERM PAPER

Dr. Roger Graves

Director, Writing Across the Curriculum

Professor, English and Film Studies

ROGER GRAVES





Roger Graves

Director, Writing Across the Curriculum

Professor, EFS

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As Director of Writing Across the Curriculum, I'll be working with faculty and students across the university to improve student writing. I consult with instructors and departments, and I teach writing in a wide variety of courses when students in those courses are starting a writing assignment. I will also be working with students and faculty in the Department of English and Film Studies, my home department.

I am the author, co-author, or editor of six books and 29 articles, including Writing Instruction in Canadian Universities. My current research interests include the development of doctoral student writing, writing assignments across disciplinary fields, and rhetorical approaches to text encoding. Currently I serve as co-President of the Canadian Association for the Study of Discourse and Writing (CASDW), the

Recent presentat

This page contains links to sides
displayed at presentations I've given
to classes.

Research and faculty presentations

Digital rhetoric



WRITING ACROSS THE CURRICULUM



Group tutoring schedule (click here)

CENTRE FOR WRITERS



THE WRITING PROCESS

Getting started

- Explore the assignment
- Make rough notes
- Pick a tentative topic

Getting feedback

- Make an appointment at the writing centre
- Sign up for a group writing tutorial
- Get feedback on your draft/revise

Revising

- Work on style and lower order concerns
- Proofread, consult checklist for assignment

THE PLAN TODAY

- Examine the assignment guidelines
- Familiarize ourselves with the genre
- ▶ Plan the paper according to the prompts/paper topics
- Identify next steps for writing
- Set-up group writing tutorials

PURPOSE

- To explore the development of current understanding of a complex geological problem
- Through critical review of the literature
- Review, integrate, and synthesize the work of others

Key terms:

- Explore
- ▶ Critical
- Review
- Integrate
- Synthesize

Unknowns:

Development of current understanding

GRADING CRITERIA

- Depth (number of papers cited)
- Perspicacity (degree of critical assessment of ideas; synthesis/ comparison of ideas within the literature)
- Quality of writing (standard edited English; academic prose; concise prose; not "waffly")
- Pointed/relevant use of maps and diagrams—see details on p. 7
- Paraphrase and summary valued more highly that quotations

AUDIENCE: READERS?

Several references to the readers of your texts beg these questions:

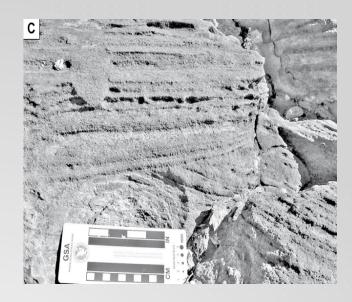
- What do you know about these readers?
- What do they value in a text?
- ▶ How do you adjust your prose to suit these readers?

GENRE: REPORT

In a review of 10 dissertations in EAS, H. Graves found that the method of argument in geology was cumulative rather than argumentative

EXAMPLE OF CRITIQUE

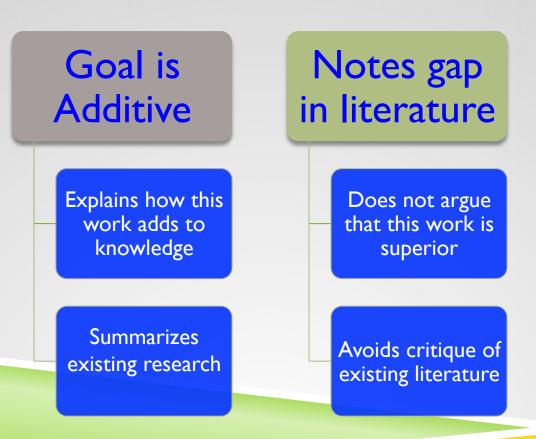
"Various geometrical arguments cast doubt on the inference of an originally continuous, basal detachment surface. This poses a challenge to the rolling hinge interpretation. Although evidence for the migration of extension has been suggested to imply a rolling hinge (e.g., Hamilton, 1988; Holm, et al., 1992; Snow and Lux, 1999; Snow and Wernicke, 2000; Niemi, 2001), such diachrony is not unique to that model. Migration of extension across the region at large can be rooting fault systems" (6).



B. Renik, "Distribution of Neogene Extension and Strike Slip in the Death Valley Region, California-Nevada," Ph.D., Columbia University, 2010.

FEATURES OF CUMULATIVE ARGUMENT

8 of 10 theses (& dissertations) used a cumulative argument



CUMULATIVE ARGUMENT IN GEOLOGY

- "In the Mississippi Alluvial Valley where much previous research has emphasized whole-valley evolution, detailed analysis of a study area can be evaluated within a regional geologic framework. This approach provides control and depth to the interpretations made on a local scale. In turn more detailed local data helps refine broader understanding of valley evolution" (60).
- Rains, Daniel S. "Origin of Quaternary deposits west of Marianna Gap, Mississippi Alluvial Valley, Eastern Arkansas." M.Sc. University of Arkansas, 2010.

SUMMARY: NO CRITIQUE, JUST ADD ON

"The Gayna River Zn-Pb deposit . . . is located 80 km west of the proposed Mackenzie Valley pipeline route. If this pipeline project is completed it could supply access and power to any future mine development at Gayna River

"The Gayna River deposit is potentially one of the world's largest undeveloped carbonate hosted Zn-Pb deposits. . ..

"Despite the importance of the deposit, **there have been few studies carried out** on the Zn-Pb mineralization at Gayna River. . ..

"This study was undertaken to delineate the nature of mineralization and the origin of the mineralizing fluids at Gayna River with an ultimate goal of determining the main controls on mineralization." (p. 12)

S. Wallace, The Genesis of the Gayna River Carbonate-Hosted Zn-Pb Deposit, MSc, U of A, Fall 2000.

Rationale

Gap in knowledge

Purpose of paper

EXAMPLE: DISCUSS

- "Several major ore deposit types are associated with arc magmatism. Discuss the unique features of magmetic arcs that give rise to this association."
- "most arc magmas are basaltic whereas the continental crust is andesitic"
- "dense, mafic to ultramafic cumulates at the base of the crust are gravitationally unstable, and eventually sink into less dense, underlying mantle. Such 'delamination' of cumulates could, potentially, convert basaltic arc crust into andesitic continental crust."
- "partial melting of subducted sediments and/or basalts is common in arcs."
- I. http://www.ldeo.columbia.edu/gpg/projects/arc-magmatism-and-continental-genesis

DISCUSS

► "In magmatic-hydrothermal ore systems, such as porphyry Cu and Cu-Au deposits, exsolved volatiles have been shown vital in controlling ore formation. As the volatile phases are exsolved from the melt (dominantly aqueous phases such as vapor and brine) they remove incompatible metals (Cu & Au) concentrating them in the small volume of volatiles present. As the volatile phases ascend through the overlying country rock and volcanics, changes in pressure, temperature or other conditions result in precipitation of various mineral phases which can form ore deposits."

THESIS FOR DISCUSS

▶ Several unique features of magmetic arcs are thought to contribute to the formation of ore deposits. These features vary somewhat depending on the specific formations they occur in. Recent research in magmatic-hydrothermal ore systems suggests that exsolved volatiles can account for ore deposits. ² Other researchers have identified the 'delamination' of cumulates as a process that turns basaltic crusts into andesitic continental crust. ¹

REVIEW AND CRITIQUE

"Review and critique the competing arguments for the source and geochemical character of primary arc magmas (e.g., slab melting vrs. Asthenospheric wedge metasomatism and melting."

- Competing argument I: describe + identify gaps/limitations
- Competing argument 2:
- Competing argument 3: