

Research Paper and Oral Presentation

Assignment

Pose a research question that interests you related to the broad topic of sedimentology and stratigraphy and write a 10 to 12 page paper that helps to answer this question. The purpose of this exercise is for you to explore an area of interest, learn to conduct library research and write a formal research paper that is logically constructed. You should use at least five primary literature sources (peer-reviewed journals) and include figures and tables to illustrate your points. References must be properly cited (see the handout "Writing in Environmental Science – some common errors of grammar and style"). The paper counts for 20% of your class grade.

Preparation

We will do a several things in class that will help prepare you for this assignment. First, I will have a librarian do a ~20 minute presentation on how to construct a literature search that is sufficiently thorough without being too broad. They will also introduce you to the wide array of databases and electronic journals that can be accessed through the University of Pittsburgh library system. Second, we will read a journal article and discuss it in class.

Oral Presentation

These will be done in the style of the Geological Society of America (GSA) and American Geophysical Union (AGU) national meetings for geologists. Time limits will be strictly enforced as they are at the meetings with 12 minute talks (after 10 minutes you are warned and you have 2 minutes to summarize) and 3 minutes for questions. Your grade is equal to 3 lab periods. The TA and all the students will grade each talk on points 1 through 8 listed below and the two scores averaged. Each student will be expected to write down or ask one question for each talk. Organize your talk along the following lines:

- 1) Tell the audience what your talk is about and where you aim to take them.
- 2) Introduce the subject by posing your research question in the context of what is already known.
- 3) Describe the research in sufficient detail. Which means, show us that you read and understand what the researchers did, where they did it, why they did it and what it means to the science (i.e. why should people care).
- 4) Present the results, focusing on no more than three key ideas. Bring each idea to closure.

Criteria for Success: Discuss the implications of the results for management or the discipline of study. A talk will be considered successful if:

1. The talk does not exceed the allotted time of twelve minutes.
2. The subject is well introduced with the scope set and the objectives clearly stated.
3. The implications for the discipline or application are clearly stated.
4. The talk and all key ideas are brought to closure successfully (i.e. the audience is not left hanging or thinking "so what?").

5. Overheads/slides are clearly legible from the rear of the room by the most myopic and are free of unnecessary detail or excessive content including unruly color schemes or backgrounds.
6. The talk is presented in a clear voice, audible from the back of the room and relatively free from, uh, vocal faults.
7. The speaker is clearly enthusiastic about his or her topic.
8. Questions are addressed without evasion, and answers demonstrate deep understanding of the research topic and key issues that relate to it.

Style Points: Given for clear and concise slides, clear speaking, well defined subjects, good response to questions, etc. Use of graphs and diagrams without overwhelming text shows understanding and generates questions at the end of the talk. Most likely, you will be asked at least one question. Do not be scared of these questions if you don't know the answers. They will not be completely out of left field. This talk should be easy after writing your paper.

Grading of Peer-Reviewed Draft

Authors number _____

Reviewers Number _____

Paper topic

Graded on a scale from 1 to 5 (5 = best):

- 1) A well organized paper
- 2) A well introduced, clear, concise research question with the objective clearly started
- 3) Implications for the discipline or application are clearly stated
- 4) Figures and tables are clear and free from unnecessary detail
- 5) Figure captions are descriptive and help the reader understand the paper by illustrating important points
- 6) Do any points need clarification?
- 7) Are the arguments well formed and the conclusions well supported?
- 8) The manuscript brought to closure successfully (not left hanging or asking so what?)

Total

Comments and unanswered questions:

Grading of Oral Presentations

Speaker name

Paper topic

Start time: _____

Finish time: _____

Graded on a scale from 1 to 5 (5 = best):

- 1) Talk does not exceed allotted time of 12 minutes
- 2) A well introduced, clear, concise topic with the objective clearly stated
- 3) Implications for the discipline or application are clearly stated
- 4) Overheads/slides are clearly legible and free from unnecessary detail
- 5) Talk presented in a clear voice, audible for all, free from vocal faults
- 6) Speaker enthusiastic about the subject
- 7) Answers to questions demonstrate an understanding of the topic and research
- 8) Talk brought to closure successfully (not left hanging or asking so what?)

Total

Comments and unanswered questions: