

Writing an Environmental Analysis Paper

ENVS 10
Lecture 3

Lecture Outline

- Purpose of the Paper
- Choosing an Appropriate Topic
- Finding Relevant Literature
- Analyzing the Topic
- Writing an Organized Paper
- Citing Literature
- Paper Format Guidelines
- Review Important Paper Dates

Paper Purpose

- This paper is designed to introduce you to current environmental topics and the scientific literature, and show your critical thinking skills.
- You are expected to objectively analyze an environmental topic using known scientific facts relevant to the issue.
- The paper must be based on independent and original library research you have conducted.

Choosing an Appropriate Environmental Topic

- There are many potential topics to choose from:
 - Climate Change Effects
 - Conservation Efforts for threatened and endangered species.
 - Restoration Efforts
 - Green Living Influences
 - GMO effects
 - Etc.
- Make sure your paper topic is specific enough to sufficiently analyze in three pages!

Choosing an Appropriate Environmental Topic

- For example:
- The effects of climate change on:
 - species geographic ranges
 - coastal wetlands
 - water resources in California
 - California native plants
 - indigenous human communities
 - restoration of the San Francisco Bay Delta

Choosing an Appropriate Environmental Topic

- For example:
- The effects/benefits of:
 - GMOs on public health
 - Transportation on wildlife movement (choose a specific species)
 - Invasive species on biodiversity
 - Habitat fragmentation on biodiversity
 - Wind turbines on migratory birds or other wildlife
 - Restoration for vernal pool/wetland conservation
 - Recycling for decreased waste production

Choosing an Appropriate Environmental Topic

- For example:
- The conservation of:
 - California tiger salamander
 - San Joaquin kit fox
 - California spotted owl
 - Coho Salmon
 - Etc.

U.S. Threatened and Endangered Species

- <http://www.fws.gov/endangered/wildlife.html#Species>
- For a list of US Threatened and Endangered Species

California Threatened and Endangered Species

- <http://www.dfg.ca.gov/wildlife/species/genplantsanimals.html>
- For a list of California Threatened and Endangered Species.

Finding Relevant Literature

- The paper must include at least three references:
 - Two references must come from research articles in scientific journals.
 - The third reference may be another research article or may include a book chapter, “gray literature” (government reports and environmental impact statements and reports), or **one** internet source.
 - You are not allowed to use more than one internet source unless I have approved the website.

Finding Relevant Literature

- Use SJSU Library Website to access literature databases:
 - Science Direct
 - BioOne
 - Academic Search Premier
 - Web of Science
- Search for topic in “key words” section.

Analyzing the Topic

- Carefully analyze the topic using known scientific facts you have gained and ask yourself the following questions:
 - Why is your topic important?
 - What are the main issues?
 - How does the research you have found shed light on the topic (use specific examples with citations)?

Analyzing the Topic

- Question the explanations:
 - Do they address the problem
 - Do their results seem plausible
 - Can more be done?
 - What are some future directions for research in this area?
 - Does society influence your topic or vice versa?

Writing an Organized Paper

- A paper should be organized by paragraph **and** within each paragraph.
- A well-organized paper includes a clear:
 - Title
 - Introduction
 - Body
 - Conclusion

Title

- Catchy
- True to the content of your paper
- Brief

Introduction

- First paragraph (or first two)
- Introduce the topic that you will be discussing using relevant background information to set the stage for your topic.
- **Include a clear thesis sentence!**
 - Usually stated at the end of the Intro

Body

- Expand on the specific topic using information from your articles to support your thesis statement.
- Stay organized and on track with your thesis statement.
- Use concrete examples from the articles (remember to cite!).
- Analyze the situation – does the science provide plausible explanations? How do societal views influence this area of science and vice versa?

Conclusion

- Last paragraph
- Summarize the major points of the paper as they pertain to your thesis statement.
- Describe future directions for research in this area.
- Do not include any new information in the conclusion.

Citing Literature

- Literature should be cited within the paper (in-text citations) and in a separate “References” section at the end of the paper.
- If the literature is not properly cited, you are plagiarizing.
- See MLA formatting for assistance: <http://owl.english.purdue.edu/owl/resource/557/01/>

In-text Citations

- In-text citations are used after you summarize or quote information published by someone else.
- For one author: (Author year).
- For two authors: (Author 1 & Author 2 year).
- For more than two authors: (Author 1 *et al.* year).
- For multiple papers: (Author year; Author year) in chronological order with earliest paper appearing first.

References Section

- The References Section is not included in your paper page limit but is an additional page attached to the end of your paper in which you alphabetically and chronologically lists the references you have used.
- Ex: A journal article reference will look like this: Smith, P. E. 2007. Article title. Journal Title. Volume: pages.

Tables and Figures

- You may use Tables and Figures you find in references.
- Table and Figures do not count towards your page limit.
- Be sure to cite the source of the Table and/or Figure.

Paper Format Guidelines

- All Papers (abstract, draft, final):
 - Double-spaced
 - 12 pt Times New Roman font
 - 1" Margins
 - References section (separate page).

Paper Format Guidelines

- **Paper Abstract (1 page):** Identify the specific environmental issue, summarize the main topics you will cover and the main themes of the paper.
 - Include in-text citations and a separate references page (page 2) listing the relevant articles you are using.

Paper Format Guidelines

- **Paper Draft (3 pages):** Should be as complete as possible and address suggestions made on the abstract. Elaborate in your analysis of the environmental topic in a clear introduction, body and conclusion.
 - Include in-text citations and a separate references page (page 4) listing the relevant articles you are using.

Paper Format Guidelines

- **Final Paper (3 pages):** Should be the complete package! Check and double-check for errors. The final paper should incorporate the suggested revisions from the draft paper if you feel these improve your paper. Submit the reviewed paper abstract and draft paper with your final paper.
 - Include in-text citations and a separate references page (page 4) listing the relevant articles you are using.

Paper Examples

- Example papers are on the course website to show you the variability in topics and appropriate format.

Paper Grading

- Paper Grading Sheets can be found on the course website.

Important Paper Dates

- Paper Abstract due: February 9th
- Draft Paper due: March 19th
- Final Paper due: April 23rd.