Intro. to Scientific Writing

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About Me

• A PhD Candidate at Northeastern University (Boston, MA)
• Study fish communities in RI
• Originally from Florida
• Did my Masters at SDSU (San Diego, CA)
• Just adopted a dogo
Scientific Writing

01 Main goals and styles

02 Structure of a scientific paper

03 Writing tips and resources

04 Writing exercise
1. **Concise and Precise**
   - Communicate scientific information succinctly
   - We do not want: Flowery, ambiguous, wordy and redundant language

2. **Primary Audience**
   - Other Scientists
     - Helps to reduce explanation of methodology or concepts
     - However, more challenging to communicate to non-scientists

3. **In Context with Previous Work**
   - Science is always building on itself so we must always relate to past work in our field

**Purpose:**
To present data and/or ideas with a level of detail that allows a reader to evaluate the validity of the results and conclusions based only on the facts presented

https://sites.middlebury.edu/middsciwriting/
Journal articles which present on primary research you and collaborators conducted.

Scientists need funding in order to conduct research. Proposals are proof to funding agencies that researchers can accomplish the project.

Summarizing and synthesizing research that has already been carried out.
Scientific Writing: Structure

**ABSTRACT**
- Summarizes the paper

**INTRODUCTION**
- Introduce why your research is important to and relevant in your field
- Presents problem and proposed solution

**METHODS**
- Describe exactly how the experiments and analyses were conducted

**RESULTS**
- States the results of experiment(s) and analyses without interpretation

**DISCUSSION**
- Interpret findings
- Explore broader implications of those findings
1. Form a weekly writing group
   - Creates goals and accountability among peers
   - Allocates *quiet* time to write

<table>
<thead>
<tr>
<th>Date</th>
<th>Name</th>
<th>Session Goal(s) (optional)</th>
<th>Fraction of Goal Met?</th>
<th>Goal(s) for Next Week</th>
<th>Fraction of Goal Met?</th>
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</thead>
<tbody>
<tr>
<td>1/17/2020</td>
<td>Torrie</td>
<td>draft strategic plan for semester, redo figures for TIDE manuscript</td>
<td>0.5</td>
<td>resubmit TIDE manuscript, review manuscript for Diversity</td>
<td>0.25</td>
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<td>1/17/2020</td>
<td>Mallarie</td>
<td>Rework intro of PED proposal</td>
<td>0.5</td>
<td>Finish first draft of PED proposal; Edit career goals and quantitative education statements</td>
<td>0.75</td>
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<td>1/17/2020</td>
<td>Katie</td>
<td>Read papers for a) sustainability seminar, b) ecological dynamics, c) independent readings.</td>
<td>2/3</td>
<td>Read independently</td>
<td>0.75</td>
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<td>1/17/2020</td>
<td>Dan</td>
<td>finish peronova of flowering stages; work into manuscript</td>
<td></td>
<td>edit manuscript</td>
<td></td>
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1. Form a weekly writing group
   ○ Creates goals and accountability among peers
   ○ Allocates quiet time to write

2. Set aside time to write everyday
   ○ Possibly with a beverage of your choice
     • Be sure to edit sober ;}
1. Form a weekly writing group
   ○ Creates goals and accountability among peers
   ○ Allocates quiet time to write
2. Set aside time to write everyday
   ○ Possibly with a beverage of your choice
     • Be sure to edit sober ;)
3. Keep a record of daily writing
   ○ From book: “How to Write a Lot”
**Movie into Abstract**

**Directions:**
1. Pick your favorite movie.
2. Write 6-8 sentences summarizing the movie into the structure of an abstract

**ABSTRACT STRUCTURE**

- 1-3 sentences explaining the intro/building of plot
- 1 sentence describing the objective/conflict
- 1-2 sentences summarizing how they accomplished objective/conflict
- 1-2 sentences discussing the results of objective/accomplishing conflict
1. Human’s abandoned Earth and left behind robot WALL-E to pick up accumulated trash.

2. When a spaceship, EVE, comes to earth in search of living plants, WALL-E falls in love and gives her Earth’s last living plant.

3. Upon receiving plant, EVE gets picked up by spaceship and WALL-E follows.

4. On Axiom, humans have become so fat and lazy, they are unaware of their surroundings- including the fact that a group of robots have taken charge.

5. The evil autopilot, Auto, tries to get rid of the discovered plant EVE brings back to the spaceship, in order to keep humanity on Axiom forever.

6. This compels WALL-E, EVE, the pilot and some malfunctioning robots to retrieve the plant from Auto and begin the transition back to Earth.

7. They make it back to Earth with the only living plant to start cultivating natural life again.
Thanks!

Happy to take any questions!

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