

HOW TO READ A RESEARCH PAPER

BCS 259: Language Development

2/2/17

Important questions to keep in mind

- What question(s) is this paper trying to address?
 - What was the specific hypothesis that was tested?
- Does the authors' experiment really address their question?
 - If it generally does, is there anything interesting left unanswered or unaddressed?
 - Is the data analysis method appropriate?
- What's the big takeaway from this paper?
 - What are the greater implications of the paper?
 - What further questions does this research bring up?

Reading strategies

- Research papers aren't necessarily meant to be read from top to bottom
- First, gather basic information and structure. Then, fill in the gaps to your needed level of specificity
- Research papers are structured such that specific types of information are relatively easy to locate, no matter the subject matter

Stage 1: Figure it out

- Title and Abstract
 - Self-explanatory: What is this paper about, what it basically found
- Section headings
 - Get an idea of what kind of information is available in the paper in case a question comes up.
 - You also get a more detailed snapshot of how the paper is organized
- Conclusion
 - Get details on the findings of the paper and the authors' thoughts on them
 - Tells you where the paper is going while you read it
- Introduction
 - Provides insight to the authors' perspective on the topic of the study
 - A good resource for exploration on the topic at hand
 - Carefully read the last few paragraphs

Stage 2: Empirical discussion

- Methods

- Use your own mind and think about whether data collected according to the described design really addresses the authors' questions and hypotheses (think about the linking hypothesis)

- Data Analysis & Interpretation

- Read explanation of statistical analysis to find out which test results most directly address the hypothesis
- Figures: questions to keep in mind
 - Which specific question is this figure addressing?
 - Which part of the methodology does this figure reflect?
 - Pay special attention to the axis labels
 - What literal facts about the data does the figure demonstrate?
 - How do the authors interpret this information?

Stage 3: Detailed reading

- Read the beginning and end of major sections
- Probe for your own interests
 - Look at all statistical tests and their findings more closely
 - Are there any interesting studies mentioned in the introduction?
 - Were any of the questions that came up for you addressed?
 - Did that figure have some pretty colors or what?
 - How *exactly* does this paper relate to the broader question you are researching
 - Secondary topic sections are pertinent to your interests
 - [[If you have been a specific set of questions to answer concerning the paper, look for those answers]]

Note taking: a little trick

- How much detail do you include in your notes?
- These are not notes for an exam you're taking next week
- Imagine a future version of yourself (say 10 years from now)
 - From your notes alone, future you should be able to:
 - Answer everything on the “important questions to keep in mind” slide, or
 - Be able to explain the paper to someone who has never read it well enough that they could answer those questions

How to Annotate a paper

- 1-1½ pages total of bullet-style notes
- Put Title, Author, and Year of article at the top
- Start with 1-2 sentence summary of the paper.
 - (If you ran a marathon and had to communicate the most important tidbits of this paper at the finish line, what would you say?)
- Lay out each section heading in an organized bullet list
 - Under each header, take the main 2-3 points of the section
- If you exceed a page and a half, consolidate
- Read through to make sure you could communicate the important parts of the paper just based on your notes
- (protip: keep all your annotations in one giant Google doc so you can search for any paper instantly)

Summarizing a paper

- Same mindset as annotation, but you get to exercise your writing skills more
- Confirm to yourself your understanding of the paper
 - If you can effectively condense and explain the paper, you can be more confident you understood it.
- Build your writing skills
 - Be pithy, be effective, be elegant
 - It's one thing to understand a scientific finding, it's another to engage with the scientific field
 - If you can write a good summary of a paper, you can effectively write about that paper in a public forum
- ~1 page

For the purposes of this assignment

- We've taken some of the pressure off and set some parameters for you:
 - The structure of the research paper
 - Which kinds of information are most important to explain
 - Detailed guide questions specific to this paper
- Do read the paper thoroughly. The reading techniques we've gone through today only work if you not only can pick out important information, but if you also have a grasp of what kind of information you get from a complete reading of the article
- This is a very simply organized research paper, so there are no *extra* sections for more detailed reading in step 3

Plagiarism

- Do not copy and paste sentences from the original paper.
- Do not copy and paste sentences from the original paper then change a word/words.
- Do not copy and paste sentences from the original paper then remove a word/words.
- Do not copy and paste sentences from the original paper then add a word/words
- Do not copy and paste sentences from the original paper then replace all the words with synonyms
- Don't take shortcuts, this assignment is already an exercise in efficiency. It's also just plain dishonest.
- **Do not copy and paste sentences from the original paper.**

GOOD LUCK!

If you need help, or are still confused:

I am available after class in Meliora 417b

You can email me: mseifeld@ur.rochester.edu

I will do my best to respond as quickly as possible