

Reports on Journal Articles

Micr-22, revised SP18

Objectives:

You have been asked to write two reports on microbiological journal articles. The objectives of this request are to:

- familiarize you with several styles of scientific literature.
- provide an opportunity to read more about topics you find fascinating.
- motivate you to practice connecting what you read to what we discuss in class.
- provide an opportunity to practice your skeptical criticism of scientific work.

Instructions:

1. Choose an article, published this year or last year.

For our first report, choose an article from the first list of periodicals. These journals are written for popular consumption, and give you a taste of some resources available. We will probably do some example searches together in class.

For our second report (due later), find a primary research article. The second list, below, lists journals where you can find this style of article. There are also some examples posted on our class webpage. These articles are more technical, but are coming straight from the experimenters. We will discuss strategies for reading this article style. Again, we will probably do some searches together.

Journals for first report:

New Scientist	Skeptical Inquirer
Science News	Natural History
Discover	Science (the briefs near the front of each issue)
Physician and SportsMedicine	Nature (the briefs near the front of each issue)
Scientific American	American Scientist

Journals for second report: (just as examples of the style)

BioScience Scientist	Journal of Histotechnology
Science	PloS (www.plos.org)
Nature	

A number of scholarly journals can be accessed at no cost, through the Mt. SAC library:

<http://www.mtsac.edu/library/> --> Articles & More --> Databases A-Z --> Biology Journals, your Mt. SAC login may be necessary --> Search.

Google Scholar is another resource (scholar.google.com). Include **filetype:pdf** in your search to get complete articles. Or, look into Sci-hub online.

2. Read your article. (For the technical second article, I suggest starting with the abstract, then figures and tables, then the introduction, then the discussion or conclusion. Feel free to ignore complex methods and statistics sections.)
3. For your report, your assignment is to write an essay in **three labeled sections, of roughly equal length:**
 - (1) Describe the following, in your own words:
 - What did the authors discover? (1 sentence)
 - How did they make their discovery? (1-2 sentences, briefly describing any unusual techniques)
 - What relevance does this discovery have for the rest of the world? (1 sentence)
 - (2) Describe several ways that the article relates to what you are learning in our class (familiar ideas, connections).
 - (3) Evaluate the scientific quality of the article. Use your reliability-analysis abilities.

Resubmission: You may resubmit this report to raise your original score, for a maximum new score of 20/25. Include your original with your resubmission.

Suggestions:

- One of the best ways to plan your paper is to do all of your reading and note-taking until you understand the material. Then get the original material out of your sight and write your thoughts in your own way. Avoid quoting directly from the article.
- Your audience is a student who took microbiology last year. Explain your reasoning and any unusual vocabulary.
- Use present tense to describe what the article **says**, but past tense for what the authors **did**.
*"Briggs **writes** (present) that the investigators **sampled** (past) 45 stool samples."*
*"...the authors **investigated** (past) microbial content of ballast tanks and **report** (present) their findings in this paper."*
- Be careful with your use of "they," "it," and "their." It is often better to be more specific.
- "Bacteria" is plural. "Bacterium" is singular.
 Ex: "Many bacteria **are** mutualists with the human body." "Once the bacteria **were** identified..."
 "Bacteria **are** almost everywhere."
- Neither journals nor articles "talk." Therefore it is inaccurate to say that "the journal says..." Instead, **authors** report, write, declare, etc.

Formatting:

- Label the three main sections.
- Typed, no longer than 2 pages (be concise)
- Double-spaced, Times New Roman font, 12pt. Double-sided printing is great.
- No cover needed – just staple one corner, please.
- Include a citation of your article in your report.
 - Citation format: Author names. Year published. Article title. Journal name, Volume number (Edition): Page numbers.
 - Example: Briggs, C. 2014. Glass blowers and their exposure to thermophilic *Escherichia* in molten products. Journal of Interesting-Sounding Example Studies, 31(2): 123-125.

Our Writing Center is available to help you! Visit building 26B, room 1561.

Rubric for Reports on Journal Articles
 Micr-22, revised SP16

	Possible	Score
Part 1: Article description <i>For parts 1-3:</i> <i>6=clear, coherent, thorough</i> <i>4=coherent, but lacking depth or completeness</i> <i>2=minimal, incomplete, or unintelligible</i> <i>0=absent</i>	6	
Part 2: Connect to class	6	
Part 3: Evaluation of scientific quality of article, such as your judgment, skepticism	6	
Grammar, spelling, sentence structure <i>5 = impeccable</i> <i>4 =few errors</i> <i>3 = several errors</i> <i>0 = many errors, posing obstacles to comprehension</i>	5	
No more than 2 pages	1	
Typed, double-spaced, sections labeled ("Part 1, 2, 3"), article cited, article recent enough	1	
Total	25	