

## Synthesis assignment

In this assignment, you will practice synthesizing ideas across multiple publications and developing your own opinion about the published literature. This exercise will help prepare you to write your literature review.

### Learning objectives

- Reading, interpreting, and paraphrasing primary literature
- Identifying and summarizing the main points of the literature
- Synthesizing ideas from multiple papers
- Citing sources appropriately in the text and in a literature cited section
- Describing the broader context and significance of the research

1. Read Damjanovic et al. 2017, Rosado et al. 2019, and Blackall et al. 2020.
2. In three pages or less, synthesize the main themes of the three articles. Use the following format (but don't use headings):
  - a. Introductory paragraph: These three papers share similar overarching questions (the “story”). Write an introductory paragraph that tells this story. Explain why this research is important and why it is of interest to a broader audience (e.g., other scientists, the general public, your grandma, etc). Be convincing – sell it!
  - b. Body paragraphs. Identify 2-4 themes that are presented in more than one paper (ideally the themes are in all 3 papers). Write a paragraph about each theme in which you compare and contrast the papers. Your themes could include, but are not limited to:
    - i. The types of bacteria/animals the authors chose to study
    - ii. Their experimental approaches
    - iii. Their results
    - iv. The conclusions they made from their results
  - c. Concluding paragraph: What do YOU think? Do you agree with their approaches/interpretations? Which aspects of the work presented in the articles was interesting to you? What remaining questions do you have that were not addressed? This part can be written in first person.
3. Include a “Literature Cited” page that includes these three papers, arranging them in alphabetical order by the first author’s last name, and each one formatted as such:

Damjanovic, K., Blackall, L. L., Webster, N. S., & van Oppen, M. J. (2017). The contribution of microbial biotechnology to mitigating coral reef degradation. *Microbial biotechnology*, 10(5), 1236-1243.

**Format:** The assignment should not exceed 3 pages (double spaced, 12 pt. font, one-inch margins), not including the “literature cited” page. A concise but detailed synthesis is best. Do not feel like you need to fill the maximum number of pages; exceeding this limit will result in point deduction.