

# IMRaD Writing Structure

Lots of STEM writing—lab reports, scientific writing, experiments, and research—follows the IMRaD (Introduction, Methods, Results, and Discussion) structure:

## I

### Introduction

- Explain the topic, the background information the reader needs to know to contextualize the experiment/research
- What other research already exists in the field regarding this issue?
- What question does this experiment/research seek to answer, and how?
- If there is a hypothesis or null hypothesis, they go in the introduction section
- May briefly discuss the results and conclusion of the experiment/research

## M

### Methods

- How was the experiment/research conducted?
- Should be detailed enough that the experiment could be replicated by a reader or future researcher
- May comment on the reasoning behind the method followed
- If the experiment is developed from other researchers' methods, cite them

## R

### Results

- Present what happened in the experiment/research. If there are data—figures, graphs, tables, etc.—they go in this section.
- Explains the data and results so the reader knows what is significant, particularly explaining figures and graphs so the reader can make sense of them
- Highlights significant trends and anomalies that might surprise readers, or that might feed into the discussion and conclusion
- Presents the data accurately and faithfully, not exaggerating the significance to support hypotheses
- Written in past tense, short and direct. Be as clear as possible!
- Focuses just on the results—not getting into analysis or discussion

## D

### Discussion

- Analyzes the data/results, drawing conclusions and attempting to answer the question or address the hypothesis
- States the main conclusions clearly and concisely at the start
- Puts the findings into context. What are other researchers saying about this issue?
- Explains the implications and significance of the findings, notes possible limitations and shortcomings of the experiment/research, and suggests future research directions

#### Style notes:

- Straightforward and concise is preferred, staying away from flowery or overly complex language.
- Some disciplines prefer first person, and others prefer third person passive voice.