LESSON 7

Write the Research Paper

Use the structure your field expects and draft in rounds.

About 190 min | Reading 35 min | Slides 150 min | Quiz 5 min

Learning objective. By the end you will be able to outline a research paper in the structure your field expects and turn your notes into a first draft you can revise.

Key points

- Science papers usually follow IMRaD; humanities papers build an argument around a thesis.
- Draft Methods and Results first, and write the introduction last.
- Cite every source you use, then improve the paper over several rounds.

Learn

A research paper explains what you asked, what you did and what you found, clearly enough that someone else could check your work. Fields organise papers differently. Most science and social science papers use IMRaD: Introduction (why the question matters), Methods (exactly what you did), Results (what happened, shown with tables or graphs) and Discussion (what it means and what its limits are). Humanities papers usually build an argument around a thesis, with each section adding evidence and analysis.

You don’t have to write in the order the paper is read. Plenty of researchers start with Methods because it’s the easiest part, then do Results, and leave the Introduction and the short abstract for last, once they know what the paper actually says.

Expect several drafts. Your first draft just needs to get the ideas down. In later rounds you fix the structure, tighten your claims, check every citation in one style (APA, MLA or whatever your teacher asks for), and then proofread. If writing shows you a gap in your data or argument, going back to an earlier step is a normal part of research.

Example

Sam surveyed 60 classmates on whether phone use before bed affects how rested they feel. Sam wrote Methods first: who took the survey, which questions were asked and how the answers were counted. Then came Results, with a bar chart and the numbers in plain words. The Discussion admitted that a small sample from one school can’t prove cause and effect. Sam wrote the Introduction and a 150-word abstract last, and redid the conclusion twice after a teacher’s comments.

Across disciplines

In the sciences you follow IMRaD with headings, report your data before you interpret it, and usually cite in APA. In the humanities you lead with a thesis you can argue for, weave evidence and analysis together throughout, and usually cite in MLA or Chicago.

Watch

The Parts of a Scientific Paper and What Goes Into Each One, Scientific Writing with Karen L. McKee (6 min): youtube.com/watch?v=x9R8cjOYXyo

> **Takeaway.** Use the structure your field expects, write your first draft quickly, and improve it over several rounds of revision.

Try it: Build your paper skeleton

Name: _____ Date: _____

1. Decide whether your project fits IMRaD or an argument-driven essay, and write down the section headings you'll use.

2. Under each heading, write 2–3 bullet points from your notes or data.

3. Write a one-sentence answer to your research question. That's your main claim or key finding.

4. Draft the Methods section (or your first body section) in 10 minutes without fixing anything. You'll revise later.

Lesson 7 quiz

Circle one answer for each question. Pass mark: 4 of 5.

1. In an IMRaD paper, which question is the Methods section meant to answer for the reader?

(A) Why does this topic matter, and what gap is left?
(B) What do the findings mean, and how confident can we be in them?
(C) What exactly did you do, and could someone repeat it?
(D) So what, and what should happen next in future research?

2. A student studying plant growth writes: "Seedlings in shaded pots were on average 4 cm shorter after three weeks." Which section does this sentence belong in?

(A) Introduction, because it explains why the topic matters
(B) Discussion, because it is the most important finding of the study
(C) Conclusion, because it sums up the whole study in one line
(D) Results, because it reports a finding with no interpretation

3. A student studying economics surveyed one school and found part-time workers reported less homework time. Which conclusion sentence fits the design best?

(A) Part-time jobs cause teenagers to spend less of their time on homework.
(B) This survey proves that all students should avoid taking part-time work.
(C) Part-time work has no real effect on how much homework students do.
(D) In this school, part-time work was associated with less homework time.

4. A student writing a history paper about a primary document asks which citation style is most typical. Which is it?

(A) APA 7, with author-date citations such as (Author, 2024)
(B) MLA 9, with author-page citations such as (Author 45)
(C) Any style the student prefers, as long as it is used consistently throughout
(D) Chicago notes, with a superscript number and a footnote

5. A student studying a poem wants to analyse the exact phrase the poet uses. What is the best choice?

(A) Paraphrase the phrase so the whole essay stays in their own words
(B) Patchwrite it by changing a few of the words to close synonyms
(C) Quote the exact words and add an MLA author-page citation
(D) Describe it without citing, since the poem is well known to readers

Further reading

- **Scientific Reports**, The Writing Center, University of North Carolina at Chapel Hill. Explains what goes in each IMRaD section, with dos and don’ts.
  https://writingcenter.unc.edu/tips-and-tools/scientific-reports/

- **Thesis Statements**, The Writing Center, University of North Carolina at Chapel Hill. Shows how to turn a vague claim into an arguable thesis for humanities papers.
  https://writingcenter.unc.edu/tips-and-tools/thesis-statements/
- **Revising Drafts**, The Writing Center, University of North Carolina at Chapel Hill. Practical ways to revise in several passes, each with a different focus.
  https://writingcenter.unc.edu/tips-and-tools/revising-drafts/
- **APA General Format**, Purdue OWL, Purdue University. Free APA 7 guide to title pages, abstracts, headings and references.
  https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_formatting_and_style_guide/general_format.html