

WEEK 1 SKILL · THE ONE YOU'LL USE EVERY WEEK AFTER

How to Read a Scientific Article

Without losing an afternoon, your confidence, or your mind.

The big secret

Nobody — not your professor, not the authors themselves — reads a journal article the way you read a novel: start to finish, every word, in order. Scientists read the way detectives work a case: they form a hunch, check the most revealing evidence first, and only interrogate every witness if the case deserves it.

An empirical article isn't a story with spoilers to protect. It's a *filing cabinet with a standard layout*. Once you know which drawer holds what, you can walk up to any article in any journal and find what you need in minutes. That layout is Bem's (2004) hourglass: broad at the top (Introduction), narrow in the middle (Method and Results), broad again at the bottom (Discussion).

Where things hide

Before the strategy, the map. When you want a specific thing, go straight to its drawer:

What you want

Where it lives

The one-paragraph version	Abstract — the whole paper in ~150 words
Why anyone cares	First paragraphs of the Introduction
The exact hypothesis	Last paragraph of the Introduction — almost always
Who was studied	Method → Participants (sample size, who, from where)
What was actually done	Method → Procedure — read it as if you were the participant
What they found, fast	The figures and tables — results in picture form
What the authors think it means	First paragraph of the Discussion
What's wrong with the study	Limitations paragraph, late in the Discussion — the authors will tell you themselves
Your next sources	The reference list — a pre-built reading list for your topic

The three-pass method

Borrowed from Keshav (2007) and standard practice everywhere science is read: you don't read an article once, slowly. You read it up

to three times, fast then slower, and you're allowed to stop after any pass. Most articles you meet this semester will never earn Pass 3 — that's the system working, not you cheating.

PASS 1 · THE FLYOVER · ~5 MINUTES

Title, abstract, all figures and tables, first paragraph of the Discussion. Then answer one question: **does this article matter for my project?** No? Log it in your search log and move on, guilt-free. Yes? It's earned Pass 2. You can triage a whole database session this way in an hour.

PASS 2 · THE GUIDED TOUR · ~25 MINUTES

Now read for the argument, in the sneaky-efficient order:

1. **Introduction, opening** — what problem is this whole field trying to solve? (Not "what is this paper about" — bigger.)
2. **Introduction, last paragraph** — the hypotheses, in the authors' own words. Write them down.
3. **Method** — walk through it as if you were the participant. What would you see, click, answer? Note the sample: how many people, who, from where.
4. **Figures and tables again** — now they'll make sense. State each finding in a plain English sentence before you accept anyone else's version.
5. **Discussion** — do the authors' conclusions follow from what you just saw? Where do they admit weaknesses?

PASS 3 · THE DEEP DIG · AS LONG AS IT TAKES

Reserved for the articles at the heart of your literature review — maybe five or six all semester. Full read, notes throughout, dissection worksheet completed (that's Week 3's skill). Here you argue with the paper: Would you have designed it this way? Is the sample generalizable? Do the statistics test what the authors

claim they test? Can you think of an alternative explanation the authors missed? Don't assume they're infallible — they aren't, and spotting the crack in a published study is where research proposals are born.

The bias-proofing trick

Here's a move Raff (2013) recommends for your Pass 3 deep digs: **form your own interpretation before you read theirs.** After the Results, stop. Ask yourself what the findings mean. *Then* read the Discussion and see if you still agree. If you always let the authors tell you what their results mean, you'll never notice when the results say something else. It's okay to change your mind after reading their take — you often will — but make them earn it.

Taking notes like someone who has to write a paper later

Because you do. Every article that survives Pass 2 gets an entry in your notes — in your seminar folder — with the full APA reference (you'll need it for your reference list anyway) and a few lines in *your own words*: purpose, sample, method, finding, and where it fits in *your* paper ("good for the intro — similar finding," "good for the discussion — future direction").

The trap

Copying sentences "just for now," planning to paraphrase later. Later, you can't remember which words were yours. That's how honest students end up

The habit

Paraphrase from the very first note. If you must save an exact passage, paste it in quotation marks with the page number and label it PASTED. Your future self,

with plagiarism problems — and it's why citing an article you've only read the abstract of is off-limits, always.

writing at 11pm in November, will be very grateful.

Test yourself

You've found an article that might anchor your literature review. Where do you look first for each of these? Decide, then check.

The study's exact hypothesis

Last paragraph of the Introduction. The whole intro funnels down to it.

Whether the sample was 40 psych majors or 4,000 adults

Method → Participants. Thirty seconds, and it changes how much the findings can claim.

The fastest honest sense of what they found

The figures and tables — then say each one out loud in plain English before reading the authors' spin.

The study's weaknesses

The limitations paragraph near the end of the Discussion — and your own Pass 3 skepticism, because the authors never catch everything.

Ten more sources for your topic

The reference list — follow it backward in time, and use Google Scholar's "Cited by" to follow the article forward.

Bottom line: five minutes decides if an article matters; twenty-five minutes gets its argument; only your core five or six ever need the full dig. Read with a purpose, take notes in your own words, and never let an abstract stand in for an article.

References

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