

Literature review

Your goal: Build a structured literature review summarizing what existing sources say about your prototype's problem.

One product: Three-source literature review with citations, main claims, conflict notes, and a synthesis paragraph identifying a design gap.

Question: What do three inspected sources support, where do their results differ, and what bounded design question remains?

Start the work

Match the evidence method to the claim and keep its limits visible.

1. Choose three credible sources on your Problem 3 design challenge.
2. For each source, record the citation, the main claim, and the supporting evidence.
3. Note where sources agree and where they conflict.
4. Identify one gap that your prototype could address.
5. Write a short synthesis paragraph connecting the three sources to your design goal.

Save the same review locally. List the unavailable assignment or portfolio; submit when the teacher confirms access.

Words you will use

literature review

A structured comparison of existing sources about a focused question.

citation

Information that identifies a source so someone can find it.

main claim

The central conclusion a source presents.

supporting evidence

The reported observation or result used to support a claim.

synthesis

An explanation connecting several sources to one question.

design gap

An unanswered design question within the evidence inspected, not proof of worldwide novelty.

credible source

A source whose authors, methods and evidence can be checked for the question.

peer review

Evaluation of scholarly work by relevant experts; it does not guarantee correctness.

abstract

A short research summary that omits some full-article details.

primary research

A report of a study by the people who conducted it.

population

The group about which a study seeks information.

comparison condition

The reference condition used to interpret an intervention.

randomized trial

A study that uses chance in assignment to compare conditions.

stepped-wedge design

A design in which groups switch to an intervention at different assigned times.

outcome

The feature measured to assess a result.

perceived helpfulness

A person's rating of how helpful something seems.

null result

A result without a detected difference for the specified analysis; it is not proof of no possible effect.

statistically significant

Meeting a study's chosen statistical threshold; it does not by itself show practical importance.

mean

The sum of values divided by their number.

limitation

A boundary on what evidence can establish.

conflict

A disagreement or tension between claims that must be examined in context.

prototype

An early representation of a proposed design.

validation metric

A defined measure used to assess a design against its intended goal.

decision matrix

A table comparing design options against stated criteria.

oncologist

A doctor who treats cancer.

palliative care

Care focused on symptoms, stress and quality of life during serious illness.

usual care

The care used as a study's routine comparison, which can vary by setting.

patent

A legal right granted for an invention; a patent record is not proof of clinical benefit.

testimonial

A person's account of an experience; it does not alone establish a general effect.

intention-to-treat analysis

An analysis that compares participants according to their original assigned groups.

S1: original recovery question and design

Use your actual March 18 problem definition and March 19 proposal if you have them. State the question that guides your review. Do not claim those records or the March 22 source debate are complete without checking.

If those inputs are missing, adopt this clearly labeled original recovery idea. A large-print paper card would help people organize questions before a healthcare visit. Audio is a future option; the paper task must work without a phone. The card offers no medical advice.

Proposed layout: title, Questions for my visit; purpose, prepare questions, not medical advice; two separate areas, Questions and Notes. Use only invented questions, such as What does this term mean? Collect no personal health information.

Recovery review question: what do three studies suggest about question prompts, and what remains unknown about this proposed layout? E1-E3 are real study summaries for this question. They do not test this card, large print or audio. Your review is original practice, not a search you personally completed.

E1: Brown 1999, clinician-addressed prompt sheet

Citation: Brown et al. (1999). Promoting patient participation in the cancer consultation: evaluation of a prompt sheet and coaching in question-asking. *British Journal of Cancer*, 80, 242-248. DOI: 10.1038/sj.bjc.6690346. Public record: <https://pubmed.ncbi.nlm.nih.gov/10390003/>. This is an original paraphrase of the abstract, not the full article.

The trial assigned 60 people with various cancers to three groups before their first visit with one of two oncologists. It compared a prompt-sheet intervention, added question coaching, and a control group. The clinician endorsed and worked through the sheet. Recorded visits supplied question counts.

The authors report more total questions and more questions about tests and treatment after presenting and discussing the sheet. Added coaching did not produce a significant extra effect. Psychological outcomes did not differ among groups.

The abstract does not supply the size of the question-count increase. Keep it unknown. These results concern this setting and clinician involvement. They do not establish that every prompt format improves health or that our proposed card works.

E2: Schwarze 2020, mailed surgical question list

Citation: Schwarze et al. (2020). Effectiveness of a Question Prompt List Intervention for Older Patients Considering Major Surgery: A Multisite Randomized Clinical Trial. *JAMA Surgery*, 155, 6-13. DOI: 10.1001/jamasurg.2019.3778. Public record: <https://pubmed.ncbi.nlm.nih.gov/31664452/>. This original paraphrase uses the abstract; the article appeared online in 2019.

The trial included 446 patients aged 60 or older with another health condition, seeing 40 surgeons at five US sites. Assignment depended on visit timing in a randomized stepped-wedge design. There were 223 patients in each condition. The intervention mailed an 11-question brochure and surgeon endorsement letter before the visit; the comparison was usual care.

Primary measures covered patient engagement, including question asking, and well-being. The authors report null primary engagement and well-being results in the main analysis. That analysis followed original assignment rather than counting only people who clearly reviewed the brochure.

A null result does not prove every effect is zero. This delivery method and surgical population differ from E1. The study does not directly compare our paper layout with another layout.

E3: Arthur 2023, question sheet versus information sheet

Citation: Arthur et al. (2023). Helpfulness of Question Prompt Sheet for Patient-Physician Communication Among Patients With Advanced Cancer: A Randomized Clinical Trial. *JAMA Network Open*, 6(5), e2311189. DOI: 10.1001/jamanetworkopen.2023.11189. Public record:

<https://pubmed.ncbi.nlm.nih.gov/37129892/>. This original paraphrase uses the abstract, not the full article.

At a US cancer center, 130 patients entering a palliative and supportive care clinic were assigned a 25-question sheet or general information sheet. The groups contained 67 and 63 patients. The main measure was perceived helpfulness.

Mean helpfulness ratings were 7.2 and 7.1 points, respectively, with no significant difference. The question-sheet group rated the material more positively overall and felt it prompted more new questions. However, observed question counts, speaking time, anxiety and visit length did not differ significantly.

A positive perception rating is not the same outcome as counted questions. The comparison here was another information sheet, not usual care. These findings do not establish better health, readability of our layout or universal benefit.

R1: extraction, quality and comparison rules

For each source, write five entries: full citation and link; main claim; supporting evidence; method and population; limitation. The evidence entry must name an outcome and its reported result. Do not replace it with the author name or a personal belief.

The supplied cards summarize published research abstracts. Record that access level honestly. A citation links to a record but does not prove you read the full article. For your actual topic, inspect each source and record what you could access. Choose sources relevant to the question; do not force E1-E3 onto a different problem.

Judge quality by the fit between question, method, comparison, population and outcome, plus available detail. Peer review provides expert scrutiny, not a guarantee of truth. A larger or newer study is not automatically strongest for every question.

Compare the same kind of outcome before calling results contradictory. Distinguish question counts from helpfulness ratings. Report differences in population, delivery and comparison. Do not average these studies together or delete a source because its result is inconvenient.

Name an agreement and a result tension. Explain whether it is a direct contradiction or a difference under unlike conditions. Three sources cannot prove that nobody has studied your idea. Phrase a gap as something these inspected sources leave unanswered, then connect it to a bounded design goal.

For S1, phrase the gap as a question that a future approved comparison could examine. No such test has occurred here. A literature review and proposed test do not authorize patient contact, human testing, medical advice or data collection.

C1: warmup, tiers and self-check

Warmup: what question is your prototype trying to answer? What is one belief about the problem, and how do you know it? Name one place you would look for a trustworthy source. For recovery, answer about S1 and the public research records.

Prerequisite: use the E1 result paragraph as a short source. Mark its main claim C and supporting evidence E, or use two colors. Check your marking: C should be what the authors conclude, and E should name what was measured and what was found. No numerical increase is supplied.

On-grade route: complete all three citation, claim and evidence rows with method and limits. Write one synthesis paragraph naming an agreement, a conflict or result tension, and a gap linked to the design goal.

Remediation: complete two full rows today and a two-sentence synthesis naming the gap. Add the third source next class, Thursday, March 25. Label the three-source product incomplete until then. This is an allowed staged route, not a two-source completion claim.

Extension: rank the three sources for your specific question using source-quality reasoning from the previous scheduled class, Monday, March 22. Argue in a paragraph why the weakest source's conflicting result should or should not change your goal. R1 supplies recovery criteria if that prior record is absent.

Fictional self-check: two sources say a wound gel speeds healing; a third reports no difference. Should you delete the third? Decide, then explain what you would compare and what uncertainty you would state. These invented statements supply no gel data and cannot establish a directly testable gap by themselves.

P1: authentic inputs, course routes and week holds

Today's work starts Activity 3.1.2 Gathering the Facts in myPLTW and cites three sources. File it in Claim Evidence Reasoning and attach the review to the Problem 3 evidence portfolio when it is available.

Confirm the actual assigned screens, stopping point, portfolio and submission location with the teacher. This original review does not certify official Activity 3.1.2 or Problem 3.1.3 completion.

The official procedure also uses the Activity 3.1.2 Student Response Sheet and your previous partner. It asks about problem significance, reasons to address it, past and current solutions, and evidence for further investment. Obtain the actual sheet and prior product choice. These three articles do not survey all existing products.

Official research includes patent searches through USPTO, journal articles and testimonials. These three study summaries fulfill none of the missing patent or testimonial searches. Record actual citations and access. Interviews are not authorized by this original practice. Complete the actual partner decision,

notebook product idea and Mission File 3 checks before saying you did them.

Keep your actual problem definition, proposal and source-ethics record as inputs when available. No homework is due before this class. Do not mark an absent record complete. March 23 is catch-up, not the previous source-ethics lesson.

The decision matrix comes next, on Thursday, March 25; today's review does not complete it.

The broader unit calls for ranked design options, criteria scores from 1 to 5 and a justified choice. It also requires two measurable validation metrics and a test plan with trial count and success rule. Actual templates, model/materials, measuring tools, timer and data sheet remain separate inputs. Planning does not prove a prototype works.

This week's lab is prototype testing, with a simulated validation plan for asynchronous work. Ask your teacher which other weekly work also applies; this review does not complete it.

The official broader Problem 3.1.3 project includes proposal, model/prototype/detailed schematic and a marketing pitch. Those are separate requirements, not today's three-source product. March 26 is no school.

Pair-share: swap reviews and check each citation, claim and evidence link with a classmate when available. Working alone or asynchronously, perform the same check yourself and label it solo review. Ask for the requested peer check; never invent a classmate's reply. Save the same review locally if submission access is unavailable.

M1: distinct fictional review of package labels

This invented teaching model compares three complete label text records. They are practice inputs, not published studies. The question is which label explicitly identifies a fictional triangle package.

MA, complete text record: Triangle pack. Claim: the text names both the shape and the package type. Supporting evidence: the exact words Triangle and pack appear. Limit: this text record supplies no printed size, placement or user result.

MB, complete text record: TRIANGLE PACK. Claim: the text names the same shape and package type as MA. Evidence: both words appear in capitals. Limit: capitalization alone does not establish readability or user preference.

MC, complete text record: Pack. Claim: this text names a package but leaves its shape unstated. Evidence: Pack is the entire record; Triangle is absent. Limit: a real package might supply other context, but none is provided here.

Model synthesis: MA and MB agree in explicitly naming a triangle package. MC differs because its text omits the shape. This is a content difference, not conflicting user-performance evidence. The records leave readable presentation and missing package context unanswered. A bounded design goal is to state the shape clearly; actual readability would need separate evidence.

Model quality judgment: all three records are directly inspectable for wording. MC offers the least shape information, so I would revise its wording for this stated goal. I would not rank the records by readability because no size or user comparison is supplied. For your review, use E1-E3 research citations and outcomes; MA-MC are only a distinct model.

Try the decision

Which review decision best follows E1-E3?

- Retain all three, compare delivery and outcomes, and state what they leave unknown about the proposed card.
- Delete E2 because its null results weaken the design argument.
- Count E3 positive perceptions as proof that our card increases questions.

Explain your choice using the reading. Discuss it or say it to yourself. This practice does not add another submission.

Your 80-minute flow

0–5 minutes	Warm-up: what question is your prototype trying to answer?
5–20 minutes	Locate and record three credible sources with citations
20–40 minutes	Fill in main claim and evidence for each source
40–55 minutes	Compare sources: where do they agree or conflict?
55–70 minutes	Write synthesis paragraph connecting sources to your design gap
70–80 minutes	Pair-share: swap reviews and check that each source has a citation and a claim

Your response record

Use these labels on paper or in your document. The space below also works when this page is printed.

Frame the question

Answer the three C1 warmup questions. Identify your actual topic or clearly label S1 recovery. Mark the E1 short paragraph for claim and evidence.

Do not turn a belief or a missing prior assignment into a completed record.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.

Select and cite three sources

Select three relevant, inspectable sources. For S1 recovery, use E1-E3 and record their full citations and links. State abstract access.

For a different actual topic, obtain three fitting sources. Ask for access to missing sources; do not invent a search.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.

Extract the evidence

For every source, record main claim, supporting result, method/population and one limitation beside its citation.

Use R1's five entries. A claim and an author name alone are not an evidence row.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.

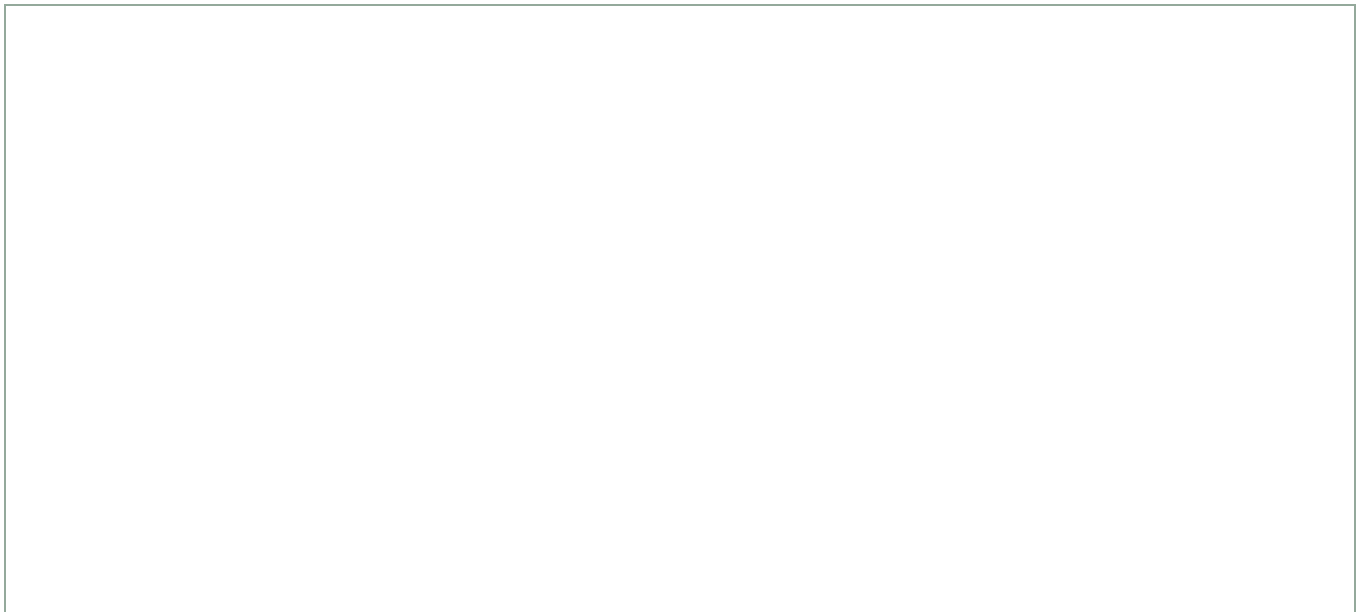


Compare and synthesize

Name one agreement and one conflict or result tension. Explain relevant study differences. Write a short synthesis paragraph connecting all three sources to the design goal and one bounded gap.

Keep conflicting evidence. Do not infer novelty, improved health or a tested card from three abstracts. M1 models comparison with different inputs.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.



Check, revise and submit

Swap reviews for citation/claim checks, or label a solo check. Answer the gel self-check, revise a weak link, and submit the same review. Use the C1 extension if ready.

The two-source remediation route must retain its third-source deadline. P1 preserves actual course, weekly and submission holds.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.

Check your product

- My three sources each have a full citation, claim, supporting result, method and limitation.
- I compare agreement and result tension without hiding evidence or treating unlike outcomes as identical.
- My synthesis connects all three sources to one bounded design gap.
- I label actual or recovery inputs, revise after a citation check, and preserve unfinished official requirements.

Keep the limit: The real abstracts report study-specific findings. The recovery design and M1 are original teaching inputs. No actual student search, patient result, prototype validation or official completion is established. It cannot support conclusions beyond these stated limits.

Turn in your work

Submit the same three-source literature review through the linked BI assignment, and attach it to the assigned Problem 3 evidence portfolio when available. Include citations, claims, evidence, conflict notes and the synthesis paragraph identifying a gap. Save locally and record missing access if the live assignment or portfolio is unavailable. After uploading, check that Schoology shows Submitted.

Save the same review locally. List the unavailable assignment or portfolio; submit when the teacher confirms access.

[Open this assignment in Schoology.](#)

Carry forward

Keep the conflicting evidence, compare its conditions, and name the next question within those limits.

Carry this review into the March 25 decision matrix; ask for missing authentic sources and official tasks. Which criteria and evidence belong in your comparison matrix?

Sources and resources

[Open today's page](#)

BROWN1999 · Promoting patient participation in the cancer consultation: evaluation of a prompt sheet and coaching in question-asking

Brown et al., British Journal of Cancer 80, 242-248 (1999)

<https://pubmed.ncbi.nlm.nih.gov/10390003/>

SCHWARZE2020 · Effectiveness of a Question Prompt List Intervention for Older Patients Considering Major Surgery: A Multisite Randomized Clinical Trial

Schwarze et al., JAMA Surgery 155, 6-13 (2020)

<https://pubmed.ncbi.nlm.nih.gov/31664452/>

ARTHUR2023 · Helpfulness of Question Prompt Sheet for Patient-Physician Communication Among Patients With Advanced Cancer: A Randomized Clinical Trial

Arthur et al., JAMA Network Open 6(5), e2311189 (2023)

<https://pubmed.ncbi.nlm.nih.gov/37129892/>