

First BI evidence entry

Your goal: Record a first Biomedical Innovations evidence entry that frames an open problem worth solving.

One product: First BI evidence entry: dated problem statement, stakeholder list, one constraint, and a labeled sketch or concept note.

Question: How can a design record show what needs attention without claiming more than its evidence supports?

Start the work

Label the record, cite its source, and separate an organized entry from a proven claim.

1. Read the definitions and the rule for separating an observation from a prediction.
2. Inspect E1, E2, and E3. These are invented design observations, not hospital records. Name a possible problem in each.
3. Choose one card. Use only that card's supplied observation and constraint to frame your entry.
4. Write today's date, a one-sentence problem statement, the affected groups, and one constraint.
5. Draw a labeled sketch or write a concept note showing the current problem. Use the supplied text layout if drawing is difficult.
6. Check each claim against your card. Mark anything not observed as a question or prediction. Keep the entry together and follow the turn-in directions.

If your notebook or assignment is unavailable, use paper or a local document with today's lesson title. Keep the work and report the access barrier. Do not claim an upload succeeded without checking it. Actual-route learners retain their genuine entry; they do not need a second simulated entry.

Words you will use

evidence entry

A dated record of a problem, its supporting information, and the limits on what you can say.

observation

Something directly shown or described in the supplied record.

problem statement

A short sentence naming who faces a specific difficulty and what that difficulty is.

stakeholder

A person or group affected by a design choice.

constraint

A limit the design must work within.

concept note

A short written description of the parts of an idea and how they connect.

prediction

What you think might happen, before it has been observed or tested.

simulated

Invented for a teaching model; not collected from a real event.

wayfinding

Information that helps someone find a destination.

prototype

A draft model made to explore or test an idea.

claim

A statement you make about the problem or evidence.

evidence

Information used to support or challenge a claim.

proposal

A suggested change or plan that has not yet been shown to work.

Start with what is supplied

The teacher selects one route. If the genuine assigned record, criteria and instructions are available, use them for one actual entry. Do not also complete the E-card simulation.

Otherwise use the original E-card route below. Its six steps and response fields organize one practice entry. Paper or a local document works if notebook setup is unfinished.

Design starts with a problem you can describe. A notebook entry gives another reader the evidence for that problem. Today's evidence is a set of invented design cards.

An observation states what a card actually shows. A prediction states what might happen. Keep those two kinds of statements separate.

A card showing faded print supports a claim that the print is faded. It does not show how long anyone waited or whether someone was harmed.

For the opening, read the observation/prediction distinction and the three E-card observations. Use M1 next. Use stakeholder and constraint definitions when adding those parts.

Frame the problem before choosing a fix

A problem statement names an affected group and a specific difficulty. Use this pattern: The supplied design leaves [group] without [needed information].

A stakeholder is a group affected by a choice. Each card names groups you may use. You do not need to interview anyone or share a personal health experience.

A constraint limits possible changes. Use the constraint written on your chosen card. A proposed fix must fit that limit, but a finished solution is not due today.

Make the entry checkable

Record the date and the card label. Add your problem statement, stakeholders, constraint, and sketch or concept note. Keep these parts together.

A sketch can show the supplied signs, objects, or message parts with labels. A concept note can describe those same parts in words. Both are valid choices today.

Do not add measured waiting times, patient outcomes, or claims that a design improved care. No people have tested these simulated examples.

If you want to add an idea for a fix, label it proposed. The required entry describes the current problem; it does not prove a solution works.

Actual route: use the same required entry parts with the genuine teacher-assigned record and criteria. The E-card tasks, model and fictional decision are not additional required work.

Original completeness checks are not a grade rubric. Ask the teacher for missing notebook setup, rubric or criteria, enrolled activity instructions and official-work requirements.

Confirm the actual assignment and format before upload. A locally saved entry is not a received submission. Neither this original entry nor a successful upload proves official PLTW completion.

Use a brief existing record to name each missing item and its next action; do not create a second entry. February 3's separate setup check needs teacher confirmation.

E1 to E3: simulated design observations and a worked entry

All cards below are original teaching models. They describe mock clinic communication materials. They contain no patient records, observed visitors, measurements, or test results.

E1, wayfinding prototype. Supplied observation: a mock clinic entrance sign shows a right-pointing arrow with no destination label. The prototype's reception desk is to the right. The sign does not name reception. Stakeholders: visitors and reception staff. Constraint: the sign may be edited, but the reception desk must stay in place.

E1 text layout: Entrance contains an unlabeled right-pointing arrow. To the right is the reception desk. Labels for a sketch: entrance, arrow without destination, reception desk. This text supplies the whole layout; there is no missing photograph.

E2, appointment message prototype. Supplied observation: a mock appointment message names the clinic but gives no building entrance. The mock clinic has a main entrance and a side entrance. Stakeholders: visitors and appointment staff. Constraint: keep the appointment date and time unchanged; only the directions section may be edited. No actual appointment date or time is needed or supplied.

E2 text layout: Message contains a clinic-name field, a date-and-time field, and an empty entrance-directions field. The draft does not say main entrance or side entrance. Do not guess which entrance is correct.

E3, feedback form prototype. Supplied observation: a mock clinic feedback form has an empty response box with no question above it. Stakeholders: visitors and staff who read feedback. Constraint: keep the response box; changes may be made to its heading. No completed forms or responses are supplied.

E3 text layout: The heading area is blank. Beneath it is a response box. A sketch can label blank heading and response box. A concept note can describe the same missing question.

Worked parallel example M1, a library sign. This is a separate simulated example. Observation: a library sign names the book-return desk but shows no arrow. The desk is on the left. Constraint: the desk stays in place. Stakeholders: library visitors and desk staff.

M1 example entry. Date: use the date you write the entry. Source: M1. Problem statement: The supplied library sign leaves visitors without a direction to the named book-return desk. Stakeholders: visitors and desk staff. Constraint: keep the book-return desk in place.

M1 concept note: The sign names the book-return desk but has no arrow. The desk is to the left. The missing connection is a direction arrow. This identifies the design gap; it does not show that anyone got lost.

Use M1's record structure for your chosen E card. Do not copy the library problem as your BI entry.

Try the decision

Original route only, a practice card that is not E1, E2 or E3: a mock hallway sign names the pharmacy in faded print. No visitor behavior was observed. Which statement can your evidence support? Actual-route learners use their genuine record and teacher criteria instead.

- The supplied sign names the pharmacy, but its print is faded.
- Conclude that the faded sign caused visitors to miss their medicine, despite having no visitor observations.
- No problem can be described until real visitors test the sign.

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

Your 80-minute flow

0–10 minutes	Original route: name a short possible problem from each E-card observation. Actual route: use the teacher’s genuine opening task; do not add three simulated problems.
10–25 minutes	Original route: Choose one E card, date the entry, and draft the problem sentence. Actual route: complete the same stage with the genuine assigned record.
25–45 minutes	Original route: Add affected groups and the given constraint. Actual route: complete the same stage with the genuine assigned record.
45–60 minutes	Original route: Create the labeled sketch or concept note. Actual route: complete the same stage with the genuine assigned record.
60–75 minutes	Original route: Check evidence boundaries, revise the same entry, and save or submit it. Actual route: complete the same stage with the genuine assigned record.
75–80 minutes	Point to the observation and constraint on your same chosen-route entry. No partner response or extra submission is required.

Your response record

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

Original route: Three possible problems

Name one possible design problem from each of E1, E2, and E3.

Use a short phrase for each. No personal observation is required. Actual route: use the genuine assigned record instead; this fictional response is not extra work.

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

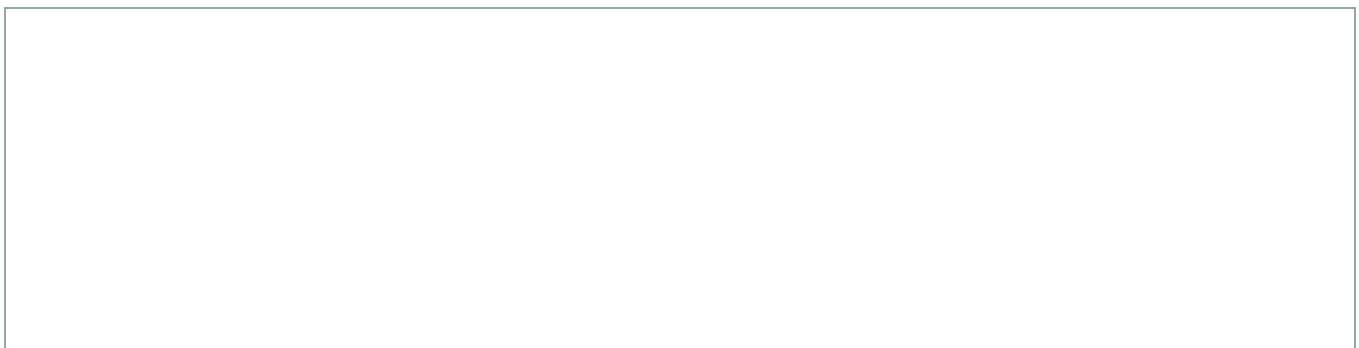


Original route: Entry date

Write the date of your entry.

Use the actual writing date, not a date invented for a clinic visit. Actual route: use the genuine assigned record instead; this fictional response is not extra work.

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



Original route: My chosen card

Choose E1, E2, or E3 and record its label.

Use the same card for the rest of your entry. Actual route: use the genuine assigned record instead; this fictional response is not extra work.

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

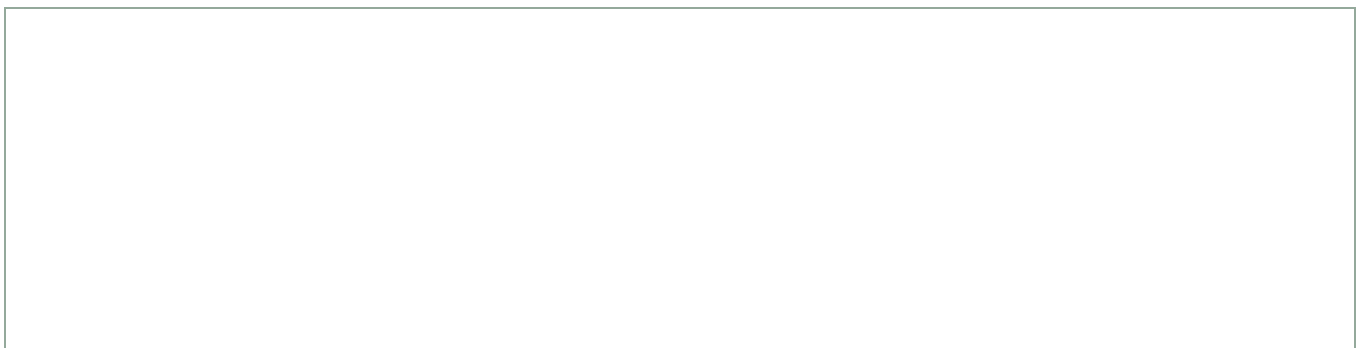


Original route: Problem statement

Write one sentence naming the affected group and the specific missing information.

Describe what your card shows. Avoid an untested fix or an invented outcome. Actual route: use the genuine assigned record instead; this fictional response is not extra work.

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



Original route: Stakeholder list

List the groups affected by your chosen problem.

The card supplies groups you may use. Actual route: use the genuine assigned record instead; this fictional response is not extra work.

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

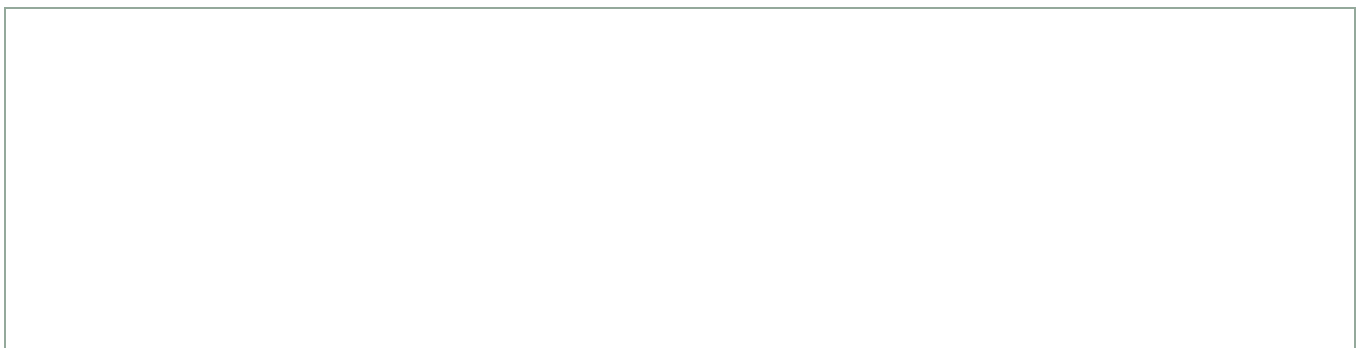


Original route: One constraint

Record the constraint from your chosen card.

Keep the given limit; do not invent a budget or room measurement. Actual route: use the genuine assigned record instead; this fictional response is not extra work.

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

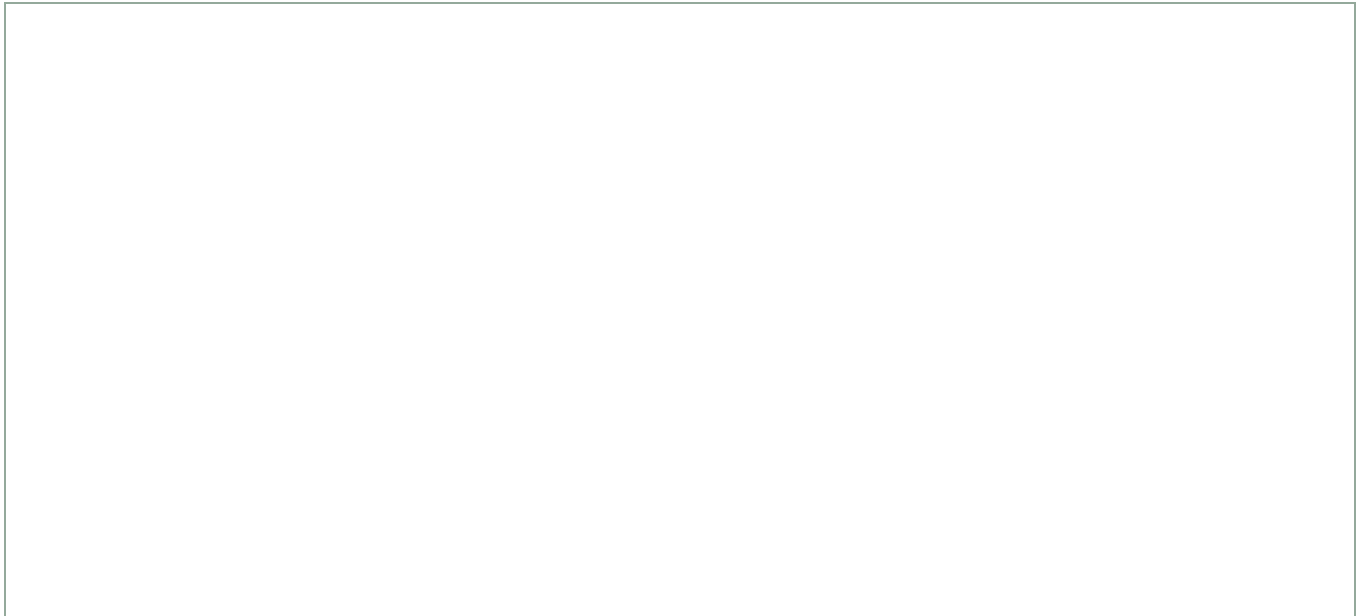


Original route: Labeled sketch or concept note

Draw and label the current design, or describe its parts and missing information in a short concept note.

The card's text layout supplies everything needed. Either format meets this field. Actual route: use the genuine assigned record instead; this fictional response is not extra work.

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

- Original route: My entry has a date and identifies one supplied card.
- Original route: My problem statement names who lacks which information.
- Original route: My stakeholder list and constraint match my chosen card.
- Original route: My sketch or concept note shows the current problem with labels or clear part names.
- Original route: I do not turn a prediction into an observed result.
- Actual route: check the same required product against the genuine assigned record and teacher criteria; no duplicate simulation entry.

Keep the limit: These are explicitly simulated observations of draft communication materials. They support a classroom problem statement, not measured waiting times, patient harm, clinical decisions, or proof of an effective redesign. This original entry cannot complete a separate official PLTW activity.

Turn in your work

Keep the dated problem statement, stakeholder list, constraint, and sketch or concept note together. Use the linked BI assignment and the format confirmed by Mr. Mendoza. After uploading, check that Schoology shows Submitted. If access fails, retain your entry and report the problem.

If your notebook or assignment is unavailable, use paper or a local document with today's lesson title. Keep the work and report the access barrier. Do not claim an upload succeeded without checking it. Actual-route learners retain their genuine entry; they do not need a second simulated entry.

[Open this assignment in Schoology.](#)

Carry forward

Name the observed problem, who it affects, and a real limit before proposing a fix.

On February 3, use the people and limits in your entry to explain why design choices can involve competing needs. Which stakeholder need might conflict with your preferred design change?

Sources and resources

[Open today's page](#)

LOCAL-BI-ENTRY · First BI evidence entry: existing daily objective and product

John Hay Biomedical course source

<https://mendozabiomed.org/learn/pltw-bfh/day/2027-02-02>

PLTW-BI-P1 · Biomedical Innovation, Problem 1: Design of an Effective Emergency Room

Project Lead The Way

<https://classroom.pltw.org/learn/course/biomedical-innovation/problem-1-design-of-an-effective-emergency-room/problem-1-design-of-an-effective-emergency-room?page=1>