

Systems Thinking + Problem Definition

Design Thinking for MBAs

Monday, February 16, 2026 | Instructor: Patrick Ray

Find the Duct Tape

 Pull out your notebooks. What workaround or improvised fix did you spot last week?

Let's hear a few:

1. What was the **workaround** you noticed?
2. What **underlying problem** does it point to?
3. Who does it affect, and how do they **feel about it**?

 ~15 minutes

The best design opportunities hide in the fixes people have already invented for themselves.

Causal Loop Map Gallery

⌚ Post your Causal Loop Map on the back and side walls. One team member stays at your map as the **docent**: your job is to walk visitors through the map, answer questions, and note what confuses people. Rotate the docent role halfway through.

As you view other teams' maps, focus on:

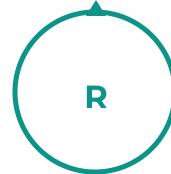
1. What **causes** this problem?
2. What **perpetuates** it? (Look for feedback loops)
3. Who **benefits** if this problem persists?

⌚ ~20 minutes

Reading a Causal Loop Map

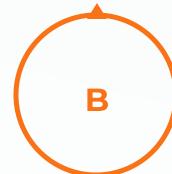
Reinforcing Loops

Amplify change. Things get better or worse in a cycle.



Balancing Loops

Resist change. The system pushes back toward equilibrium.



What to look for: Arrows forming circles, places where the system resists change, stakeholders who benefit from the current state.

"If your map is a straight line with no loops, something is missing."

What Did the Maps Reveal?

- What feedback loops did you find? **Reinforcing or balancing?**
- Who benefits if this problem persists? Why does that matter?
- What second-order effects did you identify?
- Where does the system **resist change**?

Put It Into Words

 Synthesize your research into **one bounded problem statement**.

Your problem definition should:

1. Name the **specific population** affected
2. Describe the **core dynamic** (not just the symptom)
3. Be **traceable** to your research
4. Be **bounded** enough to generate testable solutions

"For [specific population] in [specific context], [core problem dynamic] because [causal factors], which means [consequences for stakeholders]."

 ~20 minutes

Is Your Problem Statement Sharp Enough?

- Could someone outside your team understand exactly what you're investigating?
- Does it describe a **dynamic**, not just a symptom?
- Can you trace it back to your stakeholder research and causal loop map?
- Is it bounded enough to research in 3 more sessions?
- Does it avoid being a solution in disguise?

"If you can only name the symptom, go back to your causal loop. It told you the cause."

Fresh Eyes

⌚ Each team reads their problem statement to the class. As you listen, consider:

1. **Bounded?** Could you research this in 3 more sessions?
2. **Specific?** Do you know exactly who is affected and where?
3. **Traceable?** Can you see how their research led here?
4. **Dynamic?** Does it describe a system, not just a symptom?

Be specific. "I don't know who 'stakeholders' refers to" is useful. "Looks good!" is not.

⌚ ~15 minutes

Permission to Ideate

- You've earned the right to build solutions. Starting Wednesday, we ideate.
- 🗓 Wednesday (Session 9): **Permission to Ideate**. Bring your problem statement.
- 📄 **Problem Definition Report** (team assignment, due Session 9): Synthesize your research into the bounded problem statement you drafted today.

"Solutions built on shallow understanding are just guesses. You've done the work. Now you're ready."

 **Find the Duct Tape:** Each week, identify and document one workaround or improvised fix in your notebook.

See you Wednesday!