

Choose a problem-solving approach

Use a known standard, observed gap and learning need to choose an initial problem-solving route, while separating immediate restoration from recurrence investigation.



A restart closes the outage, not the recurring problem

Fictional service-desk case: Harbor Support processes customer change requests. Every Monday the routing service stops sending acknowledgments. A documented restart restores routing. The duty lead has marked four weekly incidents complete after restarting, but the same failure has returned. A separate improvement request asks for faster handling of routine changes.

Your role and the reference condition

Duty lead deciding the immediate response and process owner assigning subsequent learning.

Normal: The current service standard is acknowledgment within one working hour. The restoration procedure returns the service to that condition.

Gap: Four Monday incidents breach the standard; the reason for recurrence has not been established.

Work within these conditions

1. Restore the active service through its authorized procedure before conducting a prolonged study.
2. Classification selects the learning need; it does not prove a cause or prescribe a particular form for every issue.

Fictional teaching case. Supplied observations support the exercise; proposed actions are not verified customer results.

See how the method works

First protect the operation when a current abnormality needs immediate attention. Then decide what kind of learning is required. Restoring a known condition differs from investigating a recurring gap, reaching a better future condition or exploring a new service. The four examples help choose proportionate effort, ownership and cadence. A large project template can slow a simple response, while a quick fix can leave a systemic cause untouched. Revisit the choice as evidence develops. Methods such as A3, DMAIC or experiments should support the problem, not become rituals imposed on every situation regardless of need.

Which learning question fits this situation?

Restore

Is an approved normal condition already known?

Restore it within authority; record what disrupted it.

Close standard gap

Does the same gap recur against an existing standard?

Investigate causes and verify a durable response.

Reach new condition

Is the present standard met, but a better target is needed?

Use bounded experiments toward the next condition.

Explore new value

Is the new value or service still uncertain?

Test assumptions with users before committing a solution.

A situation may need immediate restoration and a separate investigation. Choose deliberately. Method exhibit: Restore, Close standard gap, Reach new condition, Explore new value.

Follow the evidence and decisions

Inspect the supplied case inputs

Case fact	What is actually known
Current incident	No acknowledgments for 90 minutes; standard 1 working hour
History	Four Monday incidents; each restored by documented restart
Cause evidence	No tested explanation recorded
Improvement request	Routine requests currently meet 1-hour standard; propose 30 minutes
New opportunity	Customers ask for a service category the team does not yet offer

01 / Identify the immediate gap

The duty lead compares the 90-minute interruption with the one-hour standard and initiates authorized restoration, recording affected requests and verification.

Why: An urgent known-condition gap needs response now. Opening a lengthy analysis template must not postpone the immediate service response.

Evidence / check: Restoration record shows what resumed and which requests still need acknowledgment.

02 / Keep the recurrence question open

The process owner opens a separate learning record for four repeated Monday failures. The problem statement names frequency, condition and impact without asserting a software cause.

Why: Repeated restoration demonstrates that the immediate action did not prevent recurrence. A gap-from-standard investigation is needed even when the latest queue clears.

Evidence / check: Incident history and an explicit untested-cause status remain attached to the problem.

03 / Distinguish improvement beyond the standard

The 30-minute request is classified as a target-condition challenge where the existing one-hour standard is currently met. The owner asks what current steps consume time and proposes bounded experiments.

Why: Calling all improvement a defect hunt can make a new performance ambition look like employee noncompliance.

Evidence / check: Current standard, proposed target and the gap to that target are separately recorded.

04 / Recognize an open-ended question

The new service category is routed to customer-value exploration with stated unknowns and a small learning activity. It is not assigned an invented current operating standard.

Why: Where the service and value proposition are not yet known, a routine restoration checklist cannot supply the missing knowledge.

Evidence / check: The record names the customer question and what the first conversation or prototype should establish.

05 / Allow the routes to connect

The lead links today's restoration to the recurring-gap owner, and the owner can later use experiments to test a cause or a target. The classification is reviewed as evidence changes.

Why: These are different learning purposes, not sealed departments or competing branded forms. One incident can require both immediate response and deeper work.

Evidence / check: The handoff names the next owner, evidence and review point instead of merely assigning a category.

Completed routing record - one team, four learning needs

Situation	Initial route	Next evidence / owner
Active 90-minute routing failure	Restore known condition	Duty lead: verify acknowledgments and affected queue
Fourth Monday recurrence	Investigate gap from standard	Process owner: stratify incident timing and test explanations
Reduce 1 hour to 30 minutes	Work toward a target condition	Improvement owner: observe current steps and trial
Unformed new service	Explore new customer value	Service designer: test need and feasibility

The standard is missing

A fifth complaint concerns a request type whose promised response time is disputed. Sales says one day; operations has no approved definition or time basis.

Decision

Clarify the customer commitment and operating definition with the responsible owner before labeling the team below standard. Address the live customer need while gathering facts.

Reasoning

A gap cannot be measured against an invented or ambiguous reference. Clarification may reveal a performance gap, a target discussion or a service-design problem.

What would change the decision?

Retain the promise, request type, time basis and who can resolve the standard; revise classification only after this is clear.

Practise with a changed case

Choose the work that remains

New fictional dispatch team: a missing printer roll stops labels, and the approved replenishment procedure restores printing. Records show no earlier roll shortage. Meanwhile address errors occur every Friday despite repeated rework, and the team wants to reduce a reliably met two-day dispatch standard to one day.

Case	Supplied evidence
Printer roll	First recorded shortage; known refill procedure
Address errors	Five Friday recurrences; cause untested
Faster dispatch	Current 2-day standard met; new 1-day aim
Ambiguous complaint	Customer says late; promised date not recorded

Your task

1. Assign the initial learning route for each case and justify it using the reference condition.
2. State what would change your choice for the printer-roll case.
3. Write the next owner/evidence handoff for the recurring address errors.

Use the next page to record your reasoning before reading the answer.

Your practice worksheet

Choose the work that remains

Case / current reference

Observed gap or unknown

Immediate response

Learning route and why

Evidence that could change the route

Complete your reasoning before turning to the answer. Use the separate learner workbook for group practice.

Check your reasoning and transfer it

1. The first roll shortage starts with restoration and verification. Evidence of repeated shortages or a systemic replenishment failure would justify deeper gap investigation; a single event does not prohibit learning.
2. Five recurring Friday address errors require structured investigation beyond rework. The one-day dispatch aim is a target condition beyond the supplied two-day standard.
3. For the ambiguous complaint, establish the promise and actual timing before asserting the category. Make the customer response explicit while resolving that uncertainty.

Suggested completed record

Case	Initial learning route	Next evidence / response
Roll shortage	Restore	Review if recurrence or broader evidence emerges
Address errors	Gap-from-standard investigation	Owner tests causes using Friday/non-Friday comparison
One-day dispatch	Target-condition learning	Observe current work; define bounded trial
Unrecorded promise	Clarify reference	Obtain customer commitment and timing

Plausible wrong turns

1. Every problem does not require the same project template.
2. Restoration and recurrence prevention are not interchangeable completion criteria.

Evidence of a sound answer

1. Tie each route to a stated reference or unknown.
2. Keep immediate customer response visible.
3. Name contrary evidence that would change a classification.

Take the learning back to work

Commitment	Agreed follow-through
Owner	Frontline lead and the owner of the affected process
Record	Brief problem-selection and handoff record linked to the live response
Review	At the next daily review and when new evidence changes the problem definition
Verification evidence	Clear current condition, standard/target, observed gap, tested versus unknown cause and assigned next learning step
If unresolved	Escalate an unclear standard or missing ownership; retain containment/restoration records without declaring recurrence solved.

Help someone else apply the method

Prepare

1. Four worked-case cards
2. Practice cards with the final ambiguity concealed until discussion
3. Blank routing/handoff record

Minutes	Activity and coaching prompt
4	Frame restoration versus learning What closes an outage? What prevents its return?
7	Demonstrate four routes Which case lacks a current service standard?
9	Classify changed cases in pairs What fact supports your category?
5	Reveal ambiguity and debrief What evidence would make you change your answer?

Debrief

1. Coach a category-only answer by asking for the current reference and next evidence.
2. Accept different initial routes if the learner states defensible assumptions and customer response.

Individual or remote practice

Write your assumptions before naming a route, then compare your reasoning rather than only the category label.

Connect the method and check its boundaries

Before application

1. Known current standard or explicit absence
2. Urgency assessed

Outside this lesson

1. Not every issue needs DMAIC
2. Quick restoration does not prove root cause removal

LEI: Problem Solving Resource Guide

LEI: Problem Solving Resource Guide

Troubleshooting, gap from standard, target condition and open-ended innovation

Method reference; original OPEX scenario and diagram are synthetic teaching content, not source case results.

[Open this lesson and its visual aids](#)