

Participant Workbook

Course 1

Modules:

INTRO

BLAME

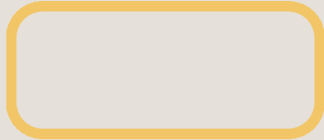
COMPLEXITY

BLACK LINE BLUE LINE

CHECKPOINT - WRAP UP

How to use this Workbook

Each workbook page goes with a video in the course. You'll see these symbols in the workbook. Here's what they mean and what to do when you see them:



Concept Capture: When you see a yellow border with rounded corners, it's your cue to jump in! Fill in the blanks to complete the phrases and solidify the concept.



Questions in Need of an Answer: You will see this icon when a question is posed for you to answer. Use the space provided to capture your answers and thoughts.



Pause and Reflect: When you see this mark, take a moment to consider the scenario presented. These activities are all about introspection.



Summary: Summaries encapsulate the core ideas and approaches boiled down into clear insights. They act as quick recaps, reinforcing key takeaways.



Resource Area: Check the glossary at the back for definitions of *red italicized* terms from the workbook, eLearning, and videos. You'll also find a list of books and podcasts for further learning.

Key Point

Keep your eye out for these circles throughout the workbook highlighting key points.

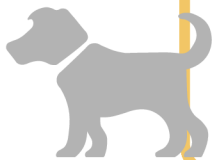
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Why Blame Matters

Blame changes how we perceive reality. It can make us believe we have a problem with a _____, even if we don't.

Bob's Dog Gate Story



Bob used to get upset with his kids for forgetting to close the dog gate until one day HE forgot to close the gate! He realized that it was easy for ANYONE to forget. This wasn't a **person problem**. It was a _____ problem!

How we define problems influences how we try to fix the problems.

If Bob sees the problem as **lazy, uncaring kids**, he may look for ways try to 'fix the kids' and to make them care more (and he'll likely continue being angry, disappointed and frustrated).

If Bob sees the problem as **a gate issue**, he'll focus on improving the system, understanding that humans (himself included) will eventually forget to close the gate—not due to stupidity, but because of human reliability*.

"We never say 'don't blame'. Blame is a natural human response. When we mess something up, we even blame ourselves! But just because it's our natural response, doesn't mean it's helpful. Blame doesn't fix anything."

- Bob

"Although we are going to feel blame, we don't want to make decisions from that headspace. In that moment, our understanding of the underlying problems is too skewed to be productive."

- Andy

Key Point

Blame is really common and leads us to believe that we have issues with people, even when we don't.

Care more campaign?

"In industry we have literally said, "you people need to care more", like that's somehow going to fix the problem. Caring more doesn't seem like it's a good solution to anything, but fixing a gate so it auto closes does."

- Bob

*In this case human reliability refers to the natural limits of human attention, memory, and focus. Even well-trained, well-intentioned people will occasionally forget or make mistakes.

Fundamental Attribution Error

One of the reasons we blame is due to:

Fundamental Attribution Error

Fundamental Attribution Error is when we think others act a certain way because of their character or personality, not their situation. But when we act a certain way, we attribute it to outside factors.

Key Point
Fundamental Attribution Error often leads us to harshly judge others for actions that we excuse in ourselves.



How do you tend to feel about a driver who cuts you off in traffic?

Have you ever cut someone off? What were the circumstances?
How do you view your actions compared to the other drivers?



Experiencing Fundamental Attribution Error can lead us to think, "I wouldn't have done that".

It's also called being a _____!



Think of a recent time when someone's actions frustrated you. Perhaps you thought, "That idiot!" or "What were they thinking?"

Consider possible external reasons for their behavior. What would have to be true for you to take a similar action?

Summary ✓

It is easy to judge other's behaviors based on assumptions about their character or personality. Curiosity about the context, system influences, and factors that inform people's actions can lead to better defined problems (and better solutions).

Understanding the Blame Trap

Blame's Big Deficiency



The reason why blame doesn't fix anything is because blame masks _____ problems as _____ problems.

This is a critical distinction because the *solution sets* for person problems are completely different from the solution sets for *system problems*.



What tactics has your industry typically used to try to 'fix' a person?

Check all that apply:

- | | | |
|---|---|---|
| ☐ Retraining | ☐ <i>Disciplinary Action</i> | ☐ Send someone home to "think about it." |
| ☐ Write up | ☐ Suspension from Duty | |
| ☐ Verbal Reprimand | ☐ Other: _____ | |

The way we 'fix' people is really different from how we 'fix' systems:

People Problem Solutions address individual behavior, assuming the issue lies within the person's attitudes, actions or decisions.

System Problem Solutions adapt the environment or process to support safer or more effective outcomes.

Key Point

How we solve a problem depends on whether we label it as a 'person problem' or a 'system problem'.

Andy's Solvent Story



At Andy's factory, a regulation required workers to dispose of solvent-soaked rags used for routine parts cleaning in a covered bin. To do this, workers had to leave their workstations and walk across the factory to reach the bin.

Why didn't Andy's 'Keep Andy Out of Jail' campaign succeed in changing behavior?

What was the underlying *operational struggle*? How was it addressed?



Person vs System Problems

00:20

Getting Clear on Definitions:

System Problem:

Follows the _____ around. Unlike person problems, system problems persist no matter who is involved. If you have any group working with a tool, piece of equipment, or process, and they all encounter similar struggles, that's a system problem. These challenges are common across different people and reveal issues embedded in the system itself.

People Problem:

Follows the _____ around. Like the character "Pigpen" from Charlie Brown, person problems bring a "cloud" of negativity wherever the person goes within the organization.

People problems include behaviors like bullying, chronic insubordination, or disruptive actions that make others feel uncomfortable or even fearful to work with them.

Key Point

A **person problem** follows the person around.

A **system problem** follows the system around.

Sorting Characteristics: Person Problem or System Problem?

Decide if each characteristic below describes a Person Problem or a System Problem. Check the appropriate column:

Characteristic	Person Problem	System Problem
Follows the person around		
Impacts anyone working within the system		
Other team members are scared to work with this person		
Common struggle for multiple people		
Problem persists no matter who is involved		
Behavior misaligned with organizational values, like bullying		
<i>Errors</i> linked to complex systems or workflows		

Summary ✓

Person problems and system problems are different, and require different types of solutions. They are easy to mix up. Knowing the difference between the two is beneficial.

Blame: Part 3

The Consequences of Mixing Up Problem Types

Video Time Stamps

Key Point

Correctly distinguishing between 'system problems' and 'people problems' helps focus resources effectively and avoids misdirected efforts.

Three Strikes and You're Out: Wasting Resources or Building Solutions?

In a busy warehouse, forklift **operators** move thousands of products each week. Management enforces a "three strikes and you're out" policy to reduce incidents by tracking and disciplining drivers who hit objects, removing them from the role after three strikes. Compare this person-focused approach with a system-focused one:



Person Problem Approach:

System Problem Approach:

Define Problem	"Who is responsible?" Focus on identifying "bad drivers."	"What is driving this outcome?" Focus on understanding operational challenges.
Action Step 1	Introduce a "three strikes and you're out" policy, informing drivers of discipline if they hit three things.	Conduct operational learning sessions with drivers to identify daily challenges.
Action Step 2	Implement a driver tracking system to "catch" drivers who hit objects, logging incidents for analysis.	Adopt drivers' recommendation to track what they hit, shifting focus from "who" caused issues to "where" improvements are needed.
Action Step 3	Identify and remove "bad drivers." Replace them with new drivers, expecting improved results.	Learn from operators about systemic issues such as poor lighting, congestion, limited visibility due to blindspots and unclear traffic flow.
Outcome	New drivers face unchanged conditions, leading to repeated incidents, training costs, and turnover.	Implement targeted local changes, such as better lighting, decluttering, and optimized traffic flow, to enhance safety and ease of navigation. Implement targeted global changes such as improved visibility features on forklifts.
Result	Ongoing resource drain, low morale, and limited safety improvement.	Safer, more efficient operations with empowered employees and sustained safety gains.

01:26

06:12



Are there policies or practices in your operations that focus on fixing "people problems" rather than improving systems?

How could shifting the perspective to a system-focused approach be a better use of resources and create more lasting and meaningful improvements?

Biasing Ourselves Towards System Problems

Video Time Stamps

00:20

00:55

01:10

“It’s easier to just blame someone and move on, but it’s not very helpful. If we could deliberately *bias* ourselves towards seeking to understand, we’d focus more on learning and finding real solutions.”

- Bob

Key Point

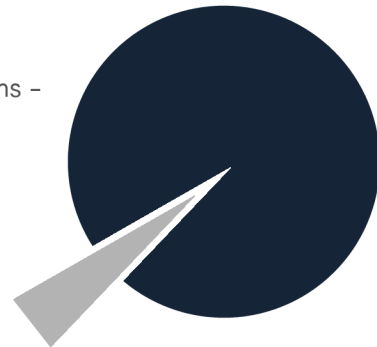
Biasing ourselves towards learning is a deliberate strategy.

Betting on the Bigger Picture

Studies show that only _____ to _____ percent of problems are person problems* – the vast majority are system problems*. When we mistakenly label system problems as person problems, we waste valuable resources trying to ‘fix’ the wrong things. By approaching challenges with a mindset focused on learning and understanding the system, we are more likely to identify lasting solutions that benefit everyone.

System Problems -

Person Problems -



* James Reason, Managing the Risks of Organizational Accidents (Aldershot, UK: Ashgate Publishing Limited, 1997), Table 7.3

“Even if it feels like a person problem at first glance, the reality is we’re most often dealing with a system problem.”

- Andy

Summary ✓

When we label a system problem as a person problem we end up wasting resources (and the real problems remain unsolved). We have person problems, but they are a very small percentage of the population. We are most often dealing with system problems.

Blame: Application

Blame Homework Challenge

"It's amazing how often the urge to blame fades when you start to see the system challenges people are up against."

- Bob

Your Challenge, Should You Choose to Accept It:

Instructions:

1. Identify a Situation:

Think of a situation in your work or personal life where you feel inclined to blame a specific individual for a problem. It might be tempting to view the issue as a person problem.

2. Go Learn:

Instead of acting on that initial inclination, take some time to learn more about what this person faces in their role. Consider:

- What challenges do they encounter?
- How difficult is it to complete their tasks?
- What system-related factors might be influencing their actions?

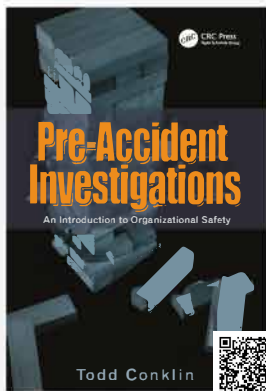
3. Reflect:

Observe if your initial inclination to blame the person begins to change as you gain more context. Document your insights and how your understanding has shifted.

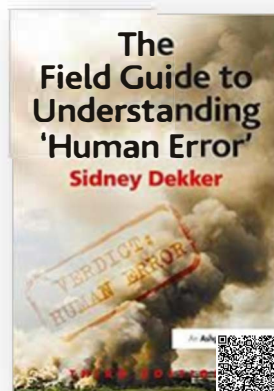
Resources

Continue exploring Human and Organizational Performance (HOP) with our suggested list of additional resources. Whether you're looking to broaden your knowledge, find practical tools, or connect with a community of like-minded professionals, these resources can help.

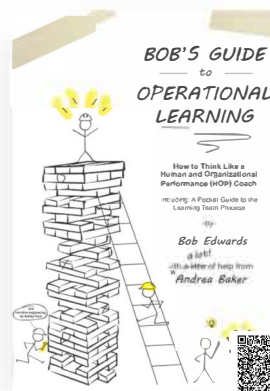
Good Reads:



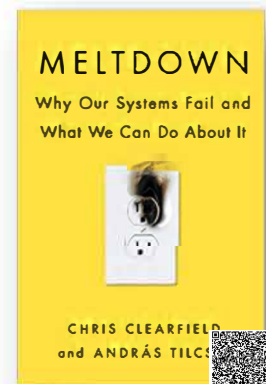
Todd Conklin, PhD



Sidney Dekker, PhD



Bob Edwards
Andrea Baker



Chris Clearfield
Andras Tilcsik

Podcasts:



Andrea Baker
Matthew Florio



Todd Conklin, PhD

More:



hophub.org

Glossary

Welcome to the Glossary!

This section is your go-to guide for exploring the new vocabulary and concepts introduced throughout the course. Whenever you see words written in *this color* across the workbook and eLearning, you'll know they're explained here. Some words and people are referenced in the videos; those terms appear in the list as well.

You'll also find explanations of industry-specific terms that may appear in the videos, helping you navigate concepts that might be unfamiliar depending on your role or industry. So if you don't know what a cardinal rule, a third shift worker, or a combi lift is — have no fear, explanations are here! Click on the letter to jump to that section.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Adaptation The ability of workers and systems to adjust to unexpected challenges and changing conditions to maintain safety and performance. Adaptation is essential in dynamic and complex environments.	Attention activators Factors, equipment, or techniques that heighten awareness and focus in critical moments, such as brake lights in cars.	Auditing to the black line A sense-making model that contrasts the ideal, imagined, or documented work process (black line) with how work is performed in reality (blue line).
Bias back The preconceptions or predispositions that individuals bring to their understanding and decision-making processes. Eg: Hindsight Bias	Black Line The plan for completing work ("Work as Imagined"), often unable to account for real-world variability.	Black Line Blue Line A sense-making model that contrasts the ideal, imagined, or documented work process (black line) with how work is performed in reality (blue line).
Blame back The act of attributing fault or responsibility to an individual or group without considering system factors.	Blue Line The actual path taken to complete work ("Work as Done"), adapting to real-world challenges.	Brittle A system or process that lacks resilience, offering little capacity to absorb or adapt to variability or unexpected conditions. Brittle systems are prone to failure under stress.

Glossary

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Complex Adaptive System

A dynamic network of interdependent variables that continuously adapt and evolve to changing environments. It often involves human interaction and requires ongoing adjustment to manage variability and change. Examples include organizations and industrial processes.

Complexity

The interaction of numerous variables and dynamic conditions within a system, making outcomes unpredictable and emergent.

Complexity Science

The study of how complex systems operate, adapt, and evolve. It focuses on understanding patterns, interdependencies, and emergent behavior in dynamic systems.

Compliance

Adherence to rules, regulations, and standards. In HOP, compliance is considered necessary but not sufficient to ensure safety or operational excellence.
Synonym: autopilot

Compliance mentality

A mindset that prioritizes following rules and procedures above all else—often at the expense of learning, adaptability, or understanding real work. It assumes that rule-following alone will ensure safety and success.

Context

The specific conditions and circumstances surrounding an event or situation, including both the physical environment and the less tangible factors that influence how work is done and decisions are made.

Coupling of variability

The interaction and amplification of different sources of variability within a system.

Cross-thread

The misalignment of threaded parts during fastening that compromises the connection.

Disciplinary action (Discipline)

Measures imposed on individuals who violate established rules or expectations. (From a HOP perspective, disciplinary action should be applied fairly and proportionately, taking into account underlying system factors that might influence behavior.)

[back](#)

Error

An unintended action often leading to an unintended result.

[back](#)

Event

An occurrence with potential safety, operational, or system implications.

F.R. clothing

PPE specifically for fire protection.

Flight plan

A detailed sequence of maneuvers that outlines the load's trajectory, rigging configuration, and operational steps to ensure safe, efficient, and coordinated lifting and placement of heavy loads.

Fox in the hen house

(idiom) Bob uses this term to describe employee sentiment about inspectors and auditors when they come into the workplace looking to identify and correct non-compliance (without understanding context).

Fundamental Attribution Error

A bias where we think others act a certain way because of their character or personality, not their situation.

[back](#)

Glossary

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Hawthorne Effect

The tendency for individuals to change their behavior simply because they are aware that they are being observed.

Hollnagel, Erik

A renowned Danish researcher and thought leader in safety science and resilience engineering, best known for developing the Safety-II approach and advancing our understanding of human and organizational performance.

HOP

see: **Human and Operational Performance**

Human and Operational Performance

An operating philosophy that focuses on understanding how humans interact with their work environment and systems, and the need for resilient design.

Leader standard work

A structured set of daily routines and responsibilities that leaders follow to ensure operational consistency, maintain safety standards, and drive continuous improvement through regular performance checks and team engagement.

LEAN

An industrial philosophy and methodology focused on continuously eliminating waste, optimizing processes, and enhancing efficiency to maximize value and quality in production and operations.

Learning session

One session of a learning team. see: **Learning team**

Learning team

A facilitated conversation with those who perform the work to understand how the work actually gets done. The goal is to learn first, then define the problems, and lastly to come up with ways to make things better. It is based on elevating the voice of the worker.

Masters of the Blue Line

Frontline workers who, operating within complex adaptive systems, possess intimate day-to-day operational knowledge around procedural adherence and necessary adaptations in real-world situations.

Mechanical system

The tendency to perceive past events as having been more predictable than they actually were; seeing outcomes as having been obvious or inevitable after they have occurred, often leading to an oversimplified view of how events unfolded.

Mistake

An intended action leading to an un-intended outcome.

Near miss

A potential perfect storm where a worker adapted and changed before the negative outcome came about, or an element of luck reduced the severity of the outcome.

Glossary

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Opaque system

A system in which internal processes and decision-making are not readily visible or understandable, making troubleshooting, risk assessment, and optimization more challenging.

Operational challenge/ struggle

[back](#)

The difficulties or challenges encountered during the execution of operational tasks or processes.

Operational fidelity

The degree to which a rule or procedure is practical, makes sense for the end user, and aligns with how work is actually done (Blue Line); the rules and procedures make sense in a day to day operation.

Operational learning

[back](#)

The process of acquiring, adapting, and applying knowledge and insights gained from operational experiences to improve performance, enhance safety, and optimize processes by learning from both successes and failures, and continuously refining practices based on real-world experience and feedback.

Operational learning team

A small group of workers and leaders who come together to understand how work really happens, share insights from experience, and identify ways to improve safety, performance, and systems by learning from both challenges and successes.

Operational upset

An unexpected or disruptive event that deviates from normal operational conditions and can affect efficiency, or effectiveness of processes.

Operator

[back](#)

Individuals who executes work on specific processes or machines.

Ordered system

A structured, predictable environment where operations follow clear, repeatable rules or laws (Like the laws of physics), and failures are typically straightforward with identifiable, single causes that experts can diagnose and fix.

Perfect storm

A swirl of many conditions coming together at the same time.

Person problem

[back](#)

An issue that follows the person around, regardless of team or department; if the person is replaced the problem goes away.

Pressure

see: **Production pressure**

Procedures

Documented, standardized steps that guide workers in performing tasks safely and efficiently, ensuring consistency, regulatory compliance, and quality across operations.

Glossary

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Production

The systematic process of transforming raw materials into finished products through standardized operations that prioritize efficiency, quality, and safety.

Production pressure

The drive to meet output targets and deadlines sometimes leading to compromises in safety and often showing system brittleness.

Red line

The ever present inherent risk in work.

Reliability

The consistent performance of a system over time, recognizing that while machines can maintain steady outputs, human operators often exhibit variability—especially during repetitive tasks—which can lead to errors and requires systems designed to accommodate these inherent limitations.

Robot test

A procedural evaluation method where a task is executed in a step-by-step, algorithmic manner—as if by a robot—to assess whether the written procedure is clear, complete, and robust enough to be followed without ambiguity.

Root cause

Fundamental underlying system or process deficiency that, when addressed, prevents the recurrence of a defect or incident.

Rule

A formal directive intended to ensure safe, consistent operations in industrial settings.

Sense-making model

A tool or framework that helps people or teams make sense of information, observations, or situations.

Six Sigma

A data-driven methodology aimed at reducing process variability and defects to near-perfection.

Solution sets

[back](#)

Collections of viable remedial actions or strategies designed to address operational challenges, improve system performance, and enhance safety by offering multiple options that can be tailored to specific conditions and constraints.

Standard Operating Procedures (SOP)

Documented, step-by-step instructions designed to standardize routine tasks and processes, ensuring consistent, safe, and efficient performance.

Standard work

Documented, repeatable method for executing tasks in an industrial setting, designed to ensure consistent quality, safety, and efficiency while serving as a baseline for continuous improvement and adaptability.

Glossary

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Stop work

An industrial safety protocol empowering workers to immediately halt operations when they identify an unmitigated hazard or procedural deviation.

System improvement

The process of enhancing the efficiency, effectiveness, reliability, and overall performance of a system or process.

System problem[back](#)

An inherent flaw or weakness in organizational structures, processes, or technology that creates conditions for error and adverse outcomes, emphasizing that issues are rooted in the system rather than in individual performance.

System weakness

An inherent vulnerability or flaw in an industrial process, design, or infrastructure that can compromise performance and safety.

Traffic flow

The organized movement of personnel, forklifts, and materials throughout the facility.

Turn around

A planned period of downtime in industrial operations, typically for maintenance, inspection, and repair of equipment and facilities.

Weaponize

To deliberately use established procedures as tools of control or punishment.