



Getting to the Heart of the Matter:

How to do a Root Cause Analysis



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Session Objectives

- Identify the core issues that an intervention needs to address if it is going to work;
- Diagnose problems before designing solutions;
- Utilize (and practice) several different tools to identify the root cause of performance gaps;

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Solutions Gone Horribly Wrong!

- Think of an instance you saw where an organization tried to implement an intervention or solution that turned out to be the wrong action;
- Why was the organization so convinced this was the appropriate solution?;

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Identifying the Root Cause is Critical

- It's the difference between a band-aid and a solution;
- It determines what action you take;
- You'll make matters worse—the problem will persist despite your action and cynicism will worsen;

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Most Common Mistake

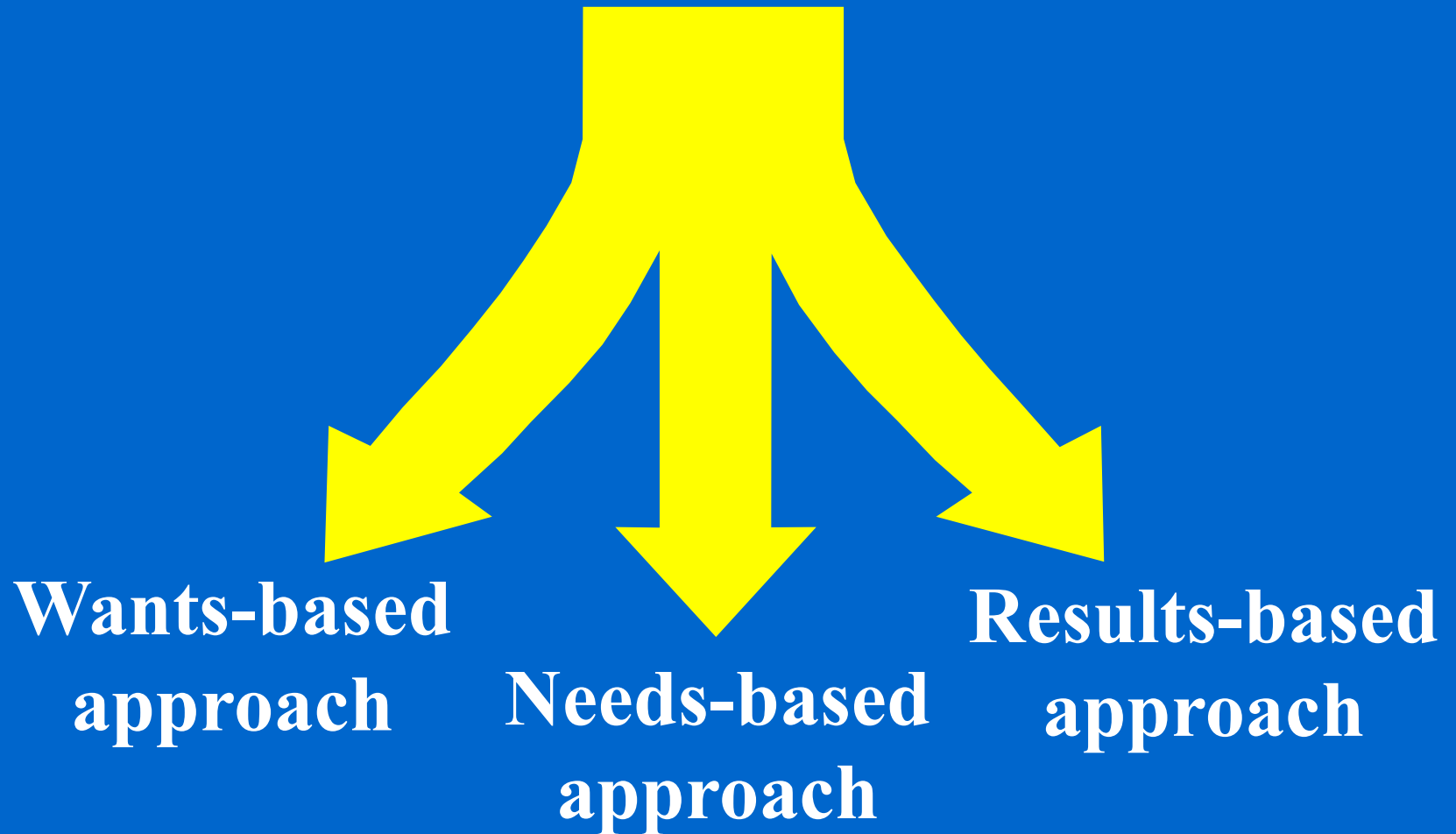
“The most common mistake I see performance consultants make is a failure to identify the real cause of the problem.”

--George Piskurich

Performance technologist and Editor of [HPI Essentials](#)

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A Performance Mindset

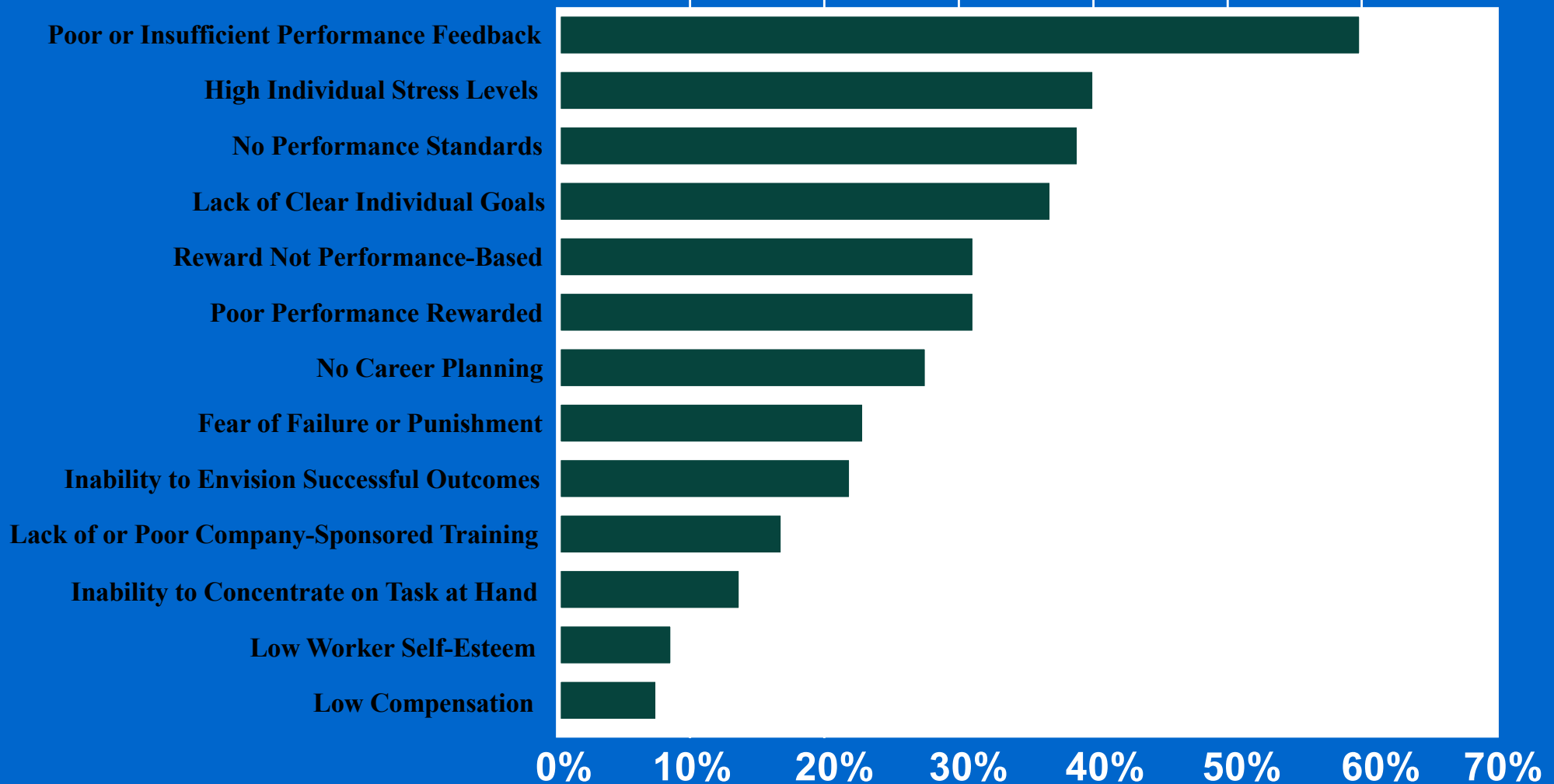


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Key Principles to Performance Improvement (HPI/HPT)

- HPI is a systemic, systematic, results-based approach to dealing with performance-gaps;
- HPI begins by focusing on accomplishments, not behavior;
- The performer operates in a system—we must operate systemically if we are to improve the performance;

Causes of Poor Performance



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What's Wrong With These Causes?

- He's got a bad attitude;
- She's not a team player;
- The team deviated from procedure for assembling the B-29X Widget compiler;
- He make a mistake and provided the wrong answer to the customer;

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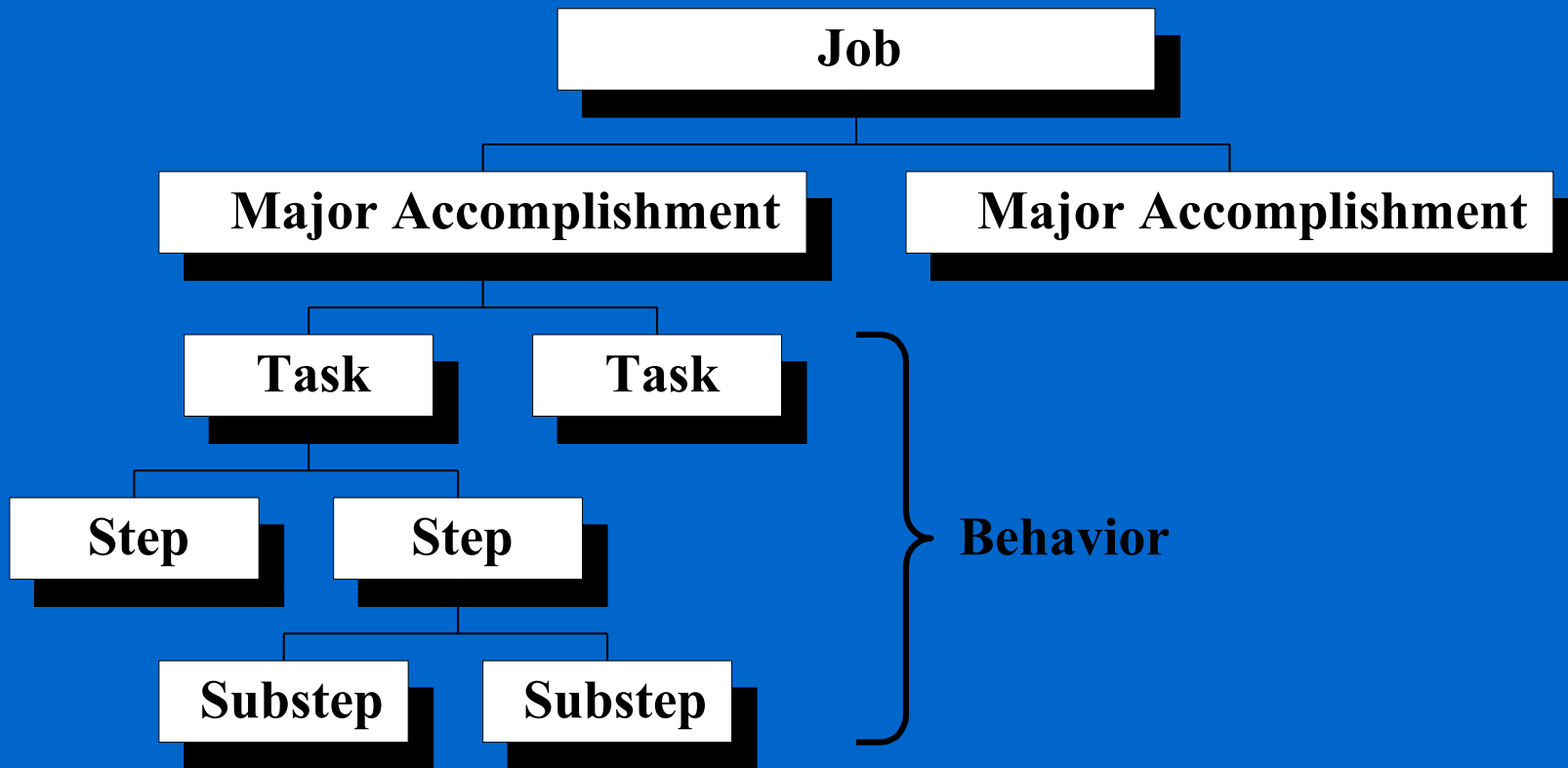
Start With Accomplishments, Not Behavior

- Accomplishments are what matters to the organization;
- Behavior is more subjective, harder to measure;
- Focusing first on behavior leads to poor cause analysis—we usually misdiagnose;

Different Performance Measures

<u>Tasks</u>	<u>Accomplishments</u>	<u>Scores</u>		<u>Behaviors</u>	<u>Scores</u>	
		<u>Quik</u>	<u>Sloe</u>		<u>Quik</u>	<u>Sloe</u>
Rifle marksmanship	Target scores	100	0	Checklist of rifle handling behaviors	100%	99%
Long division	Number of correct answers 100 problems	100	0	Percentage of long-division problems performed correctly	100%	98%
Speaking Spanish	Percentage of instructions Spaniard can follow	100%	0	Percentage of language elements in repertory	94%	70%

Performance Hierarchy



Distinguishing Accomplishments and Behavior

- Accomplishments involve results, outputs, deliverables, outcomes, or products. Accomplishments usually don't have verbs;
- Tasks involve behavior or things that we do or think or know. Behavior can usually be measured only when the performer is there. Behaviors or tasks almost always have verbs;

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The Analysis Sequence

- What goal isn't achieved? (Result)
- What accomplishments are critical to that goal—and which one is deficient? (Accomplishment)
- What tasks are critical to that performance gap and which tasks aren't done well? (Behavior)
- What causes/barriers create that performance gap? (Cause)
- What is the root cause—the common thread or most important factor--for those barriers? (Root cause)

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Analysis Sequence Illustrated

- Goal: Profitable consulting business;
- Accomplishments critical to goal: Sales (20) per year; 80% customer retention;
- Deficient accomplishment: sales (10) per year;
- Critical tasks: identify services to offer, contact potential clients, schedule meeting, close sale;
- Tasks not done well: contact potential clients (only 20 potential clients contacted a year);
- Cause: too busy delivering work to market to more clients;
- Root cause: too busy doing work because existing work is priced too low for the time required;

Analysis Sequence Illustrated #2

- Goal: On-time arrival at point of origin (90% of the time goal, 40% reality)
- Accomplishments critical to goal: Destination info is accurate and timely 100% of time; operational equipment 98% of the time; ready and prepared crew.
- Deficient: Crew is not ready and adequately prepared.
- Critical tasks: accurate driving, smart navigation, sufficiently staffed, .
- Performance gap: takes too long to get to transferee.
- Cause(s): wrong maps, need to stop for directions, traffic.
- Root cause: Dispatchers/Booking Agents don't get sufficient information other than map coordinates and addresses so crews must gather their own as they drive to confirm location.

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Cause vs. Root Cause

Case 1: The Admin assistant doesn't produce accurate and timely reports. The performance gap is that reports are usually a day late and average 8 typos per page. The primary cause of this gap is that she rushes the reports and doesn't proof-read them. The root-cause is that her manager delegates poorly, giving her unclear instructions and late assignments.

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Cause vs. Root Cause II

Case 2: Customers return 30% of all orders shipped because they receive the wrong items. The performance gap is incorrect packing sheets. It turns out that clerks fill out the packing sheets incorrectly. But the clerks are dependent upon order forms produced by the call center—where the forms are filled out illegibly. The root cause is that the pressure to process many calls leads to sloppy order taking by the call center.

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Beware Premature Conclusions

- Human error isn't a root cause—there is always a preceding cause to any human error;
- Any procedural deviation must be preceded by another cause;
- Failure to act is not a root cause (unless there was a pre-existing duty to act);

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Root Cause Tools

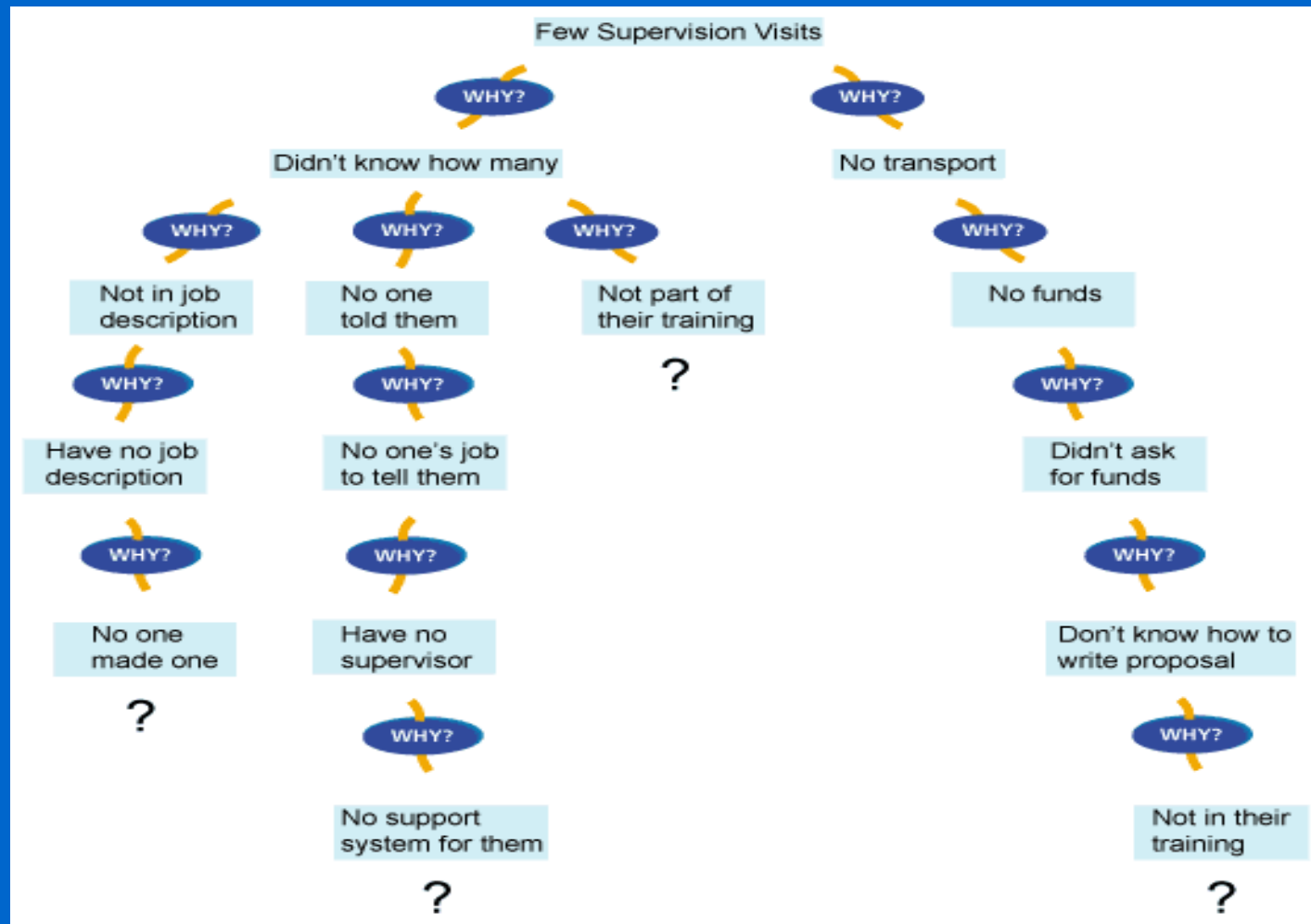
- Five Why's/Why-Why;
- Lotus Blossom Technique;
- Ishikawa/Fishbone/C-E Relationship;
- Bounding Technique;
- Paradox Approach;
- Flow-Charting;
- Interrelationship Digraph;

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Five Why's/Why Tree/Why-Why

- This technique came out of Toyota;
- Ask “why” and move through answers for several levels until you think you’ve reached a realistic root cause;

Five Why's-Why Tree Example



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The Lotus Blossom Technique

E	B	F
A		C
H	D	G

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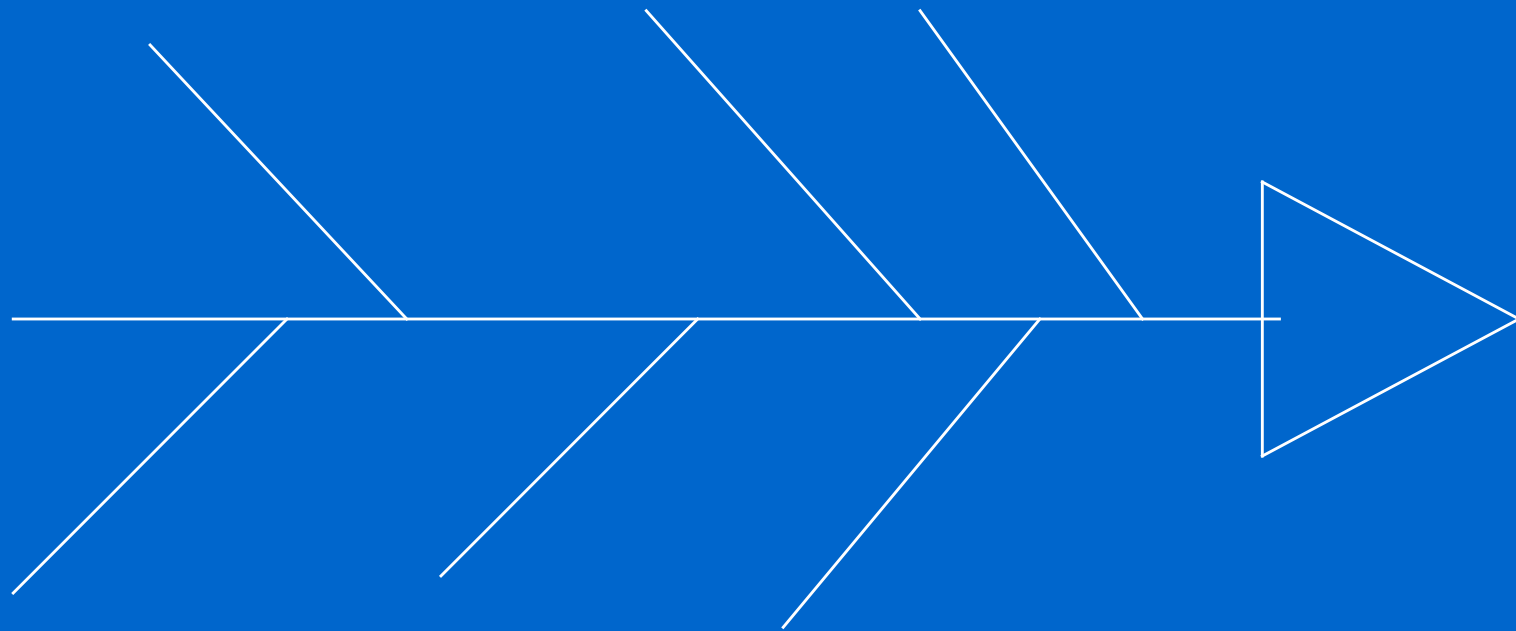
The Lotus Blossom Technique

Step #2

5	2	6
1	A	3
8	4	7

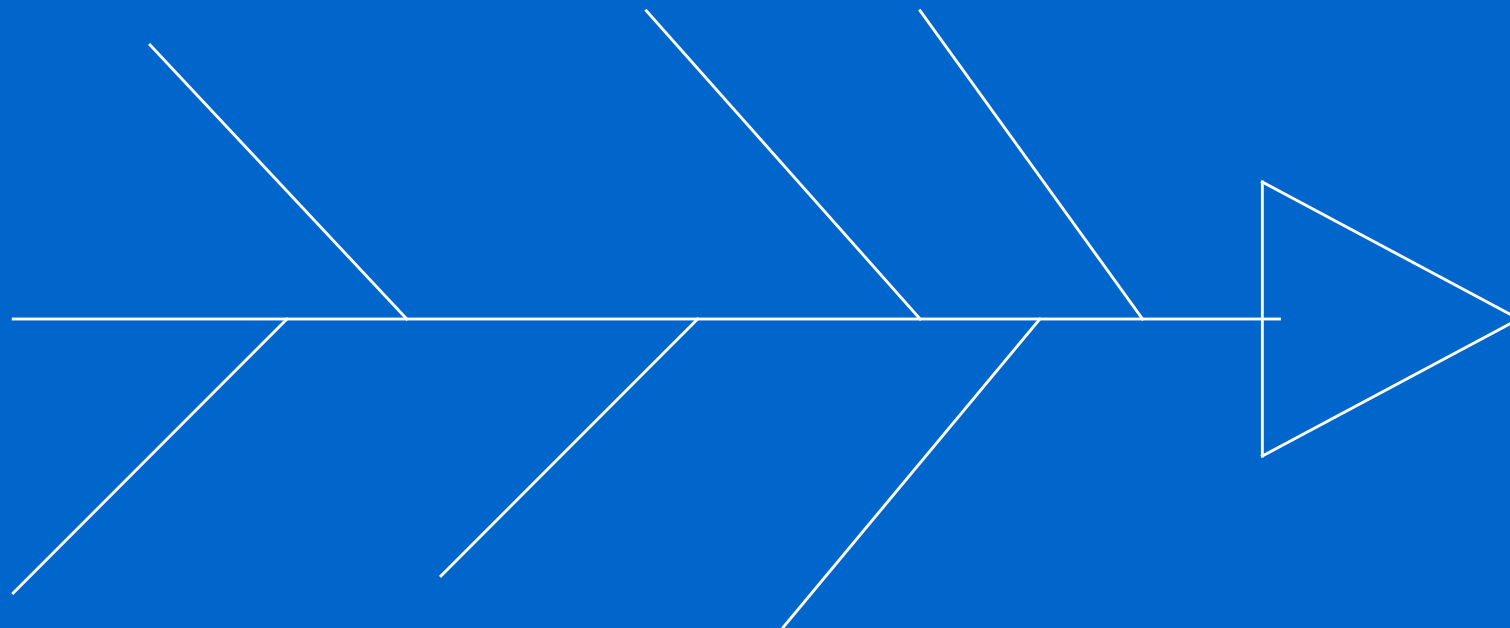
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Ishikawa or Fishbone Technique



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Ishikawa Applied



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Bounding Techniques

- Where do we see the problem? Where don't we see the problem?
- When does the problem arise? When is the performance gap absent?
- What do we know isn't a cause (what can we rule out)?

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The Paradox Technique

- Identify the element of your performance gap that appears to be a paradox;
- Develop an analogy that shares the same paradox;
- “Solve” the analogy (as a means of clarifying the root cause and understanding it—as well as identifying possible solutions);

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Flow-Charting

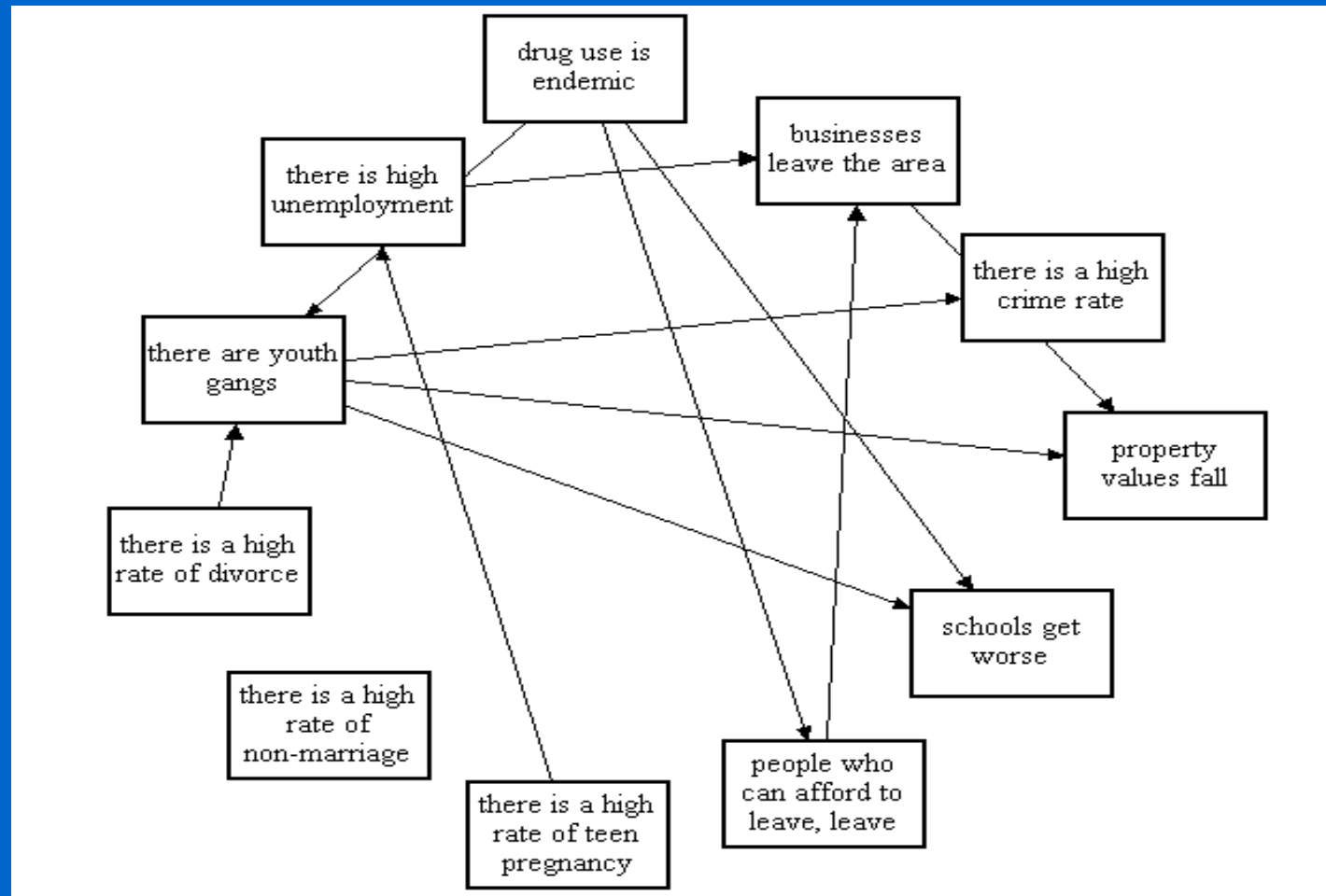


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Flow-Charting Applied

Using this technique, depict the sequence you used to get here this morning.

Interrelationship Digraph



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ID Applied

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Asking the Right Questions

“The Solutions to our problems already exist. All we need to do is to figure out the right questions.”

--Jonas Salk, discover of the Polio Vaccine

- Information
- Environment and tools
- Motivation and incentives
- Organizational support
- Skills and knowledge

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Information Questions

- Do people know what is expected of them at work and if we asked, could they tell us?
- Do they have clearly written job descriptions that really describe what we want them to do—in terms of measurable results?
- How do providers set goals for work? How are they involved in the goal-setting process?
- How do people know how their performance compares to the set standard?
- Does anyone give the workers feedback on their performance? In writing? Verbally?
- If you asked one of the workers how they are doing compared to what the organization wants, would they know? How would they know?

Environment and Tools Questions

- What breaks consistently?
- Is there a part/tool that people need and don't have?
- Is there a tool that everyone uses differently to do the same thing?
- Is there something people choose to replace with a tool of their own? Why?
- What's the most confusing/hard to use piece of equipment on this job and why is it confusing?
- What around you gets in the way/interferes with your ability to do good work?

Motivation and Incentive Questions

- If people do a good job, what happens? Anything? Does their work life get better or worse somehow?
- If people do not do the work the way it should be done, what happens?
- How do people get recognition for their work?
- How do employees perceive recognition?
- What penalizes people for doing good work?
- What rewards/encouragement do people get for not doing their job/taking shortcuts/cutting corners?

Organizational Support Questions

- How does the organization help people get this done?
How does it get in the way?
- Describe the process, step-by-step. What steps appear to be missing or seem redundant?
- How clear are work roles and responsibilities?
- How is “quality” determined and what gets measured?
- What resources do you need and don’t have?
- What are you required to do that is not value-added?

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The .357 Magnum Test

A common mistake is to prescribe training when it isn't a skills/knowledge problem. One quick informal test of causality is the .357 Magnum test. Hypothetically, if the performers had a gun put to their heads and were told “do this job or die”—would they be capable of doing the job? If so, then it isn't a training problem—because they have the skills and knowledge to do the job.

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Causes to Always Consider

- Doesn't know how to do steps;
- Doesn't know standards expected;
- Doesn't receive correct inputs (linked);
- Workload too heavy;
- Standards too high or unrealistic;
- Lacks feedback;
- Task aversive (hates the work or specific task);
- No consequences;

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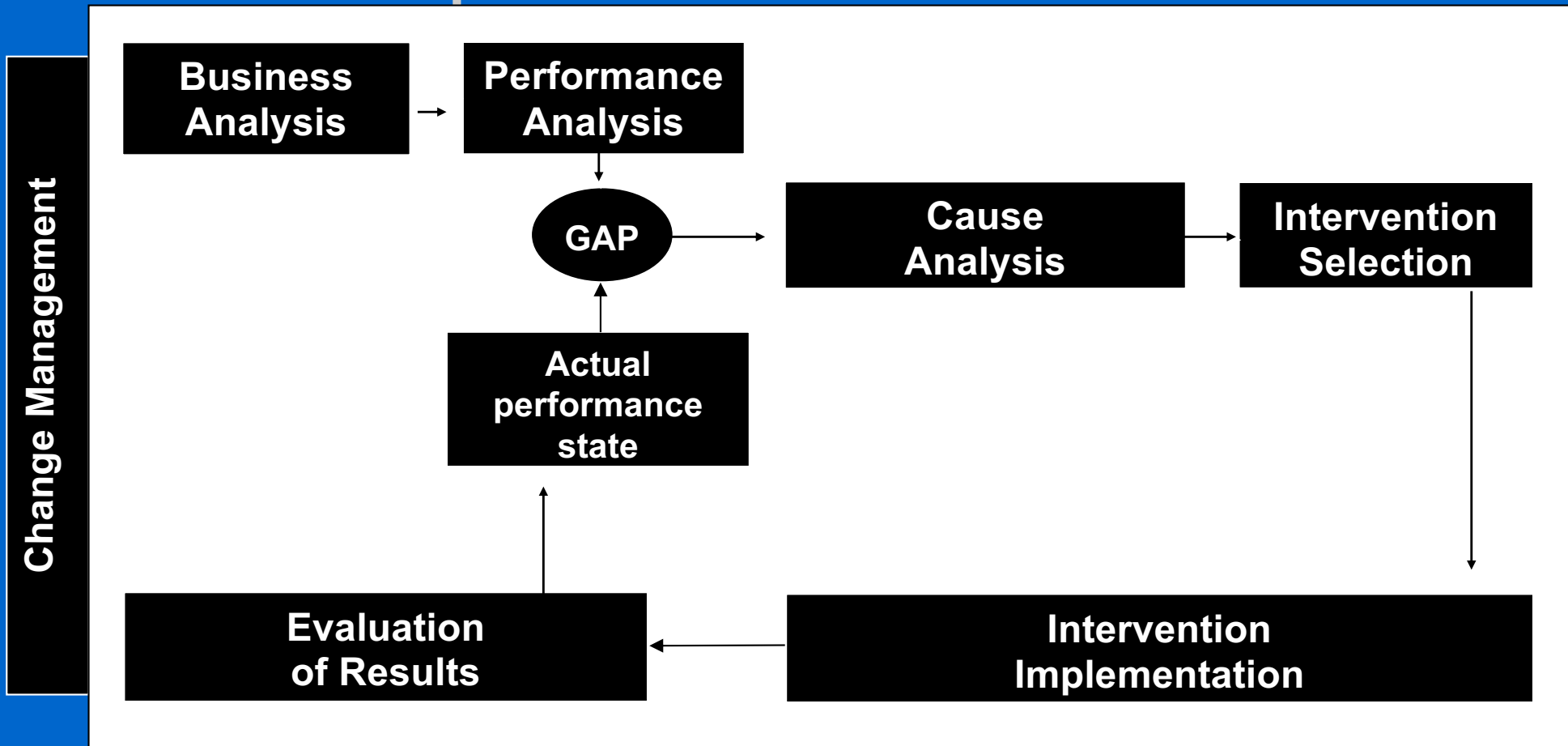
Top Performers

Top Performers do the following:

- Do away with unnecessary steps.
- Perform an extra step that is needed but not documented.
- Use available information and documentation that others do not.
- Possess a self-created job aid that others do not.
- Possess information or data that others do not.
- Possess better tools than do others.
- Possess a different motive for performing.
- Receive different guidance and feedback.
- Obtain different incentives.

--Fuller and Sugrue

ASTD's Human Performance Improvement Model



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Thirty-Five Instructions

- Take an index card and write (legibly) on one side, a key insight you learned today'
- Switch cards with someone else;
- Pair up again and compare cards;
- Reach a consensus on how to divide 7 points (1-6 split maximum, no fractions) and write the points for that card on the back of the card.

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Presenter Rap Sheet

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