

Five Bad Root Cause Analysis Questions

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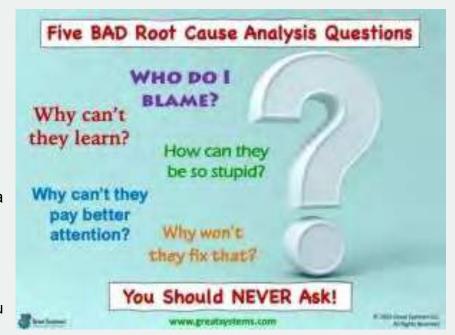
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Five Bad Root Cause Analysis Questions You Should Never Ask

Do you want to find the true root causes of a problem? If so, avoid these five BAD root cause analysis questions! Instead, use the GREAT questions I share in this post to help reduce daily work errors and waste.

How effective are your root cause analysis questions? As a Western culture, we don't do very well when it comes to root cause analysis.

All too often, we blame people, equipment, or the weather. You hear it at work when people talk about problems and their causes.





By the way ... I did include some very good root cause analysis questions you should ask in this post.

Bad Root Cause Analysis Question #1: Whom Should We Blame?

This the worst question we can ask when we want to fix a process problem. Human error is often a contributing factor to a problem. However, it is rarely the root cause. When we blame people, we block the potential for true process improvement. Essentially, we predestine ourselves to weaker fixes, such as reminders, warnings, and punishment.

Unfortunately, it is human nature, in many cultures, to blame the person for the error. Similarly, people are prone to blame the equipment when a component fails. One key to work culture change lies in how we change our problem-solving conversations.

How often do you hear people blame other people for problems at work? Conversely, how often is the process the focus?

Seven better questions to help understand how work design affects the potential for human performance challenges:

- 1. How did work process design affect correct task performance?'
- 2. What types of safeguards were in use to help perform the task in an error-free manner?
- 3. How did the person prepare for work?
- 4. What type of work instructions did they use or did they work from memory?
- 5. How did they learn to do the job?
- 6. How many error-free task cycles have they performed?
- 7. What is different when errors occur versus their regular 'error free' work?

Bad Root Cause Analysis Question #2: How can they be so stupid?

In our youth, we don't make as many little mistakes as we do when we are older. Even as we age, people typically do the job right each day. Often, we make errors less than 5 out of every 100 process cycles. Why do people make silly mistakes? Do they want to make errors and cause problems?

Few humans can sustain mistake-free work without some form of work system support. Poor sleep, bad diet, stress or overwhelm, dehydration, and fatigue can all cause cognitive blips. Plus, these cognitive challenges can often occur simultaneously.

Typically, job aids, sound ergonomics, training, rules, and supervision fill daily task execution support roles. As the risk potential from task errors increases, we should decrease our reliance



on memory alone. We should flex our safeguards to accommodate the expected higher risk level for that daily work.

Four better questions to help understand how cognitive load and mental health affect the potential for human error:

- 1. What can cause those 'one time' mental lapses or glitches that lead to rare, but problematic, errors?
- 2. What types of safeguards were in use to help perform the task in an error-free manner?
- 3. How do your work team leaders determine if their team members are fit for duty each day?
- 4. How do your work teams 'amp up' their workplace safeguards when task performance risk increases?

Bad Root Cause Analysis Question #3: Why can't they pay more attention to their work?

Without direction and feedback on a consistent basis, people tend to go their own way. Similarly, when a leader provides little or no attention or feedback, people care less about their work. Plus, a lack of feedback can cause one's attention to drift. Sheer job boredom, where little interaction with the work environment or equipment occurs, has a similar effect.

As a plant manager, if someone on my team did not pay attention, I would start with one question. How did we somehow fail to design a work environment that keeps everyone's attention? **Multiple strategies exist to help keep people focused**— what was missing or failed? Also, these strategies must be flexed from day to day to accommodate shifts in workforce cognition levels.

One best practice uses work environment cues to keep peoples' attention on task. Signs and supervisor warnings are two weak examples. More effectively, wearable devices can notify a person when they enter a relatively high-risk work area. Pop-up box and drop-down menu design play key roles in helping people complete tablet-based forms accurately and guickly.

Three better questions to help understand how daily supervision and the work environment affect the potential for human error:

- 1. What daily strategies do your leaders use to keep their work teams focused?
- 2. How did the design of our work environment fail to help maintain everyone's focus and attention?
- 3. What types of cues exist in the work environment to help alert people to heightened levels of error potential and risk?



Bad Root Cause Analysis Question #4: Why won't they learn?

All too often we wonder why people fail to absorb the hours of content we dump on them during an onboarding session. Why can't they remember all our work rules? Too many people only receive refresher training once a year. Memory has its limitations, even with annual reinforcement.

From a formal training perspective, skill gaps are often due to content gaps, delivery challenges, and/or a lack of practice. Typically, people receive too much content, with too little time to absorb it all. Also, they rarely get much time to practice the basics. In other cases, leaders fail to effectively identify skill gaps that exist.

As humans, we also struggle to learn from our past mistakes. Do you struggle to understand why people fail to learn from their past errors? If so, look at yourself. How often do you make changes to keep repeat errors from the past from occurring again?

Three better questions to help understand how training effectiveness affects the potential for human error:

- 1. Was the problem a failure to learn or a failure to apply what ones knows?
- 2. How do you measure and improve your training and learning work systems?
- 3. How do you systematically share and embed the lessons you learn as process changes to keep repeat errors from occurring again?

Bad Root Cause Analysis Question #5: Why doesn't anyone fix this?

To understand component failure, you must understand the path to failure. This path to failure is usually made up of human errors or omissions. Unfortunately, too many people address equipment problems with a standard fix - replace the broken equipment.

Such a fix may buy time in the short-term. However, it is not a sustainable strategy for long-term profitability and effectiveness. Worse yet, the weak analysis that is often behind such weak repairs fails to uncover how human errors and choices affect asset health. Such errors can occur anywhere along the life cycle of the equipment, from design to regular use and maintenance.

Seven better questions to help understand how human error and other factors drive equipment reliability and asset health:

- 1. What is the history of failure? What types of failures does this equipment experience, and how often?
- 2. What equipment or service features did the designers purposefully choose to omit?
- 3. How often were upgrade, repair, or overhaul projects delayed?



- 4. What types of repair or inspection errors might we have made over time?
- 5. How have past attempts to repair this equipment failed?
- 6. Who are the different people that interact with this equipment over its lifetime?
- 7. How has the equipment operating environment or operating parameters changed over time?

Would You Like Some Better Problem-Solving Questions to Ask?

Too many problem solvers rely on the investigation form questions or their experience to guide their evidence collection efforts. Such a practice will cause you to miss potential problem root causes. I consistently see such challenges in the <u>virtual 3-day TapRooT® root cause</u> analysis workshops that I teach.

Instead, every problem solver should build standard question sets to help kick off their evidence collection efforts. The goal is to understand why the error occurred from a human factor perspective. Assume that most people want to do the job right. What process design challenges prevent this from happening?

Check out these pages on my <u>Great Systems website</u> that also have a ROOT CAUSE ANALYSIS focus. If their content does not answer all your questions, just drop me a note!

- Evaluating Root Cause Analysis Processes
- Root Cause Analysis FAQs
- Environmental Root Cause Analysis Best Practices



About the author

As Chief Excellence Officer of Great Systems LLC, Kevin McManus provides virtual coaching and content to help people use proven best practices to enhance and optimize their daily work systems.

Over forty years of work experience in roles such as Industrial Engineer, Training Manager, Production Manager, Plant Manager, and Director of Quality give Kevin a 'real life work' perspective relative to daily work process optimization, work team engagement and empowerment, and sustainable operational excellence.



As a contract trainer for the TapRooT® root cause analysis process, Kevin has taught over 450 courses and further enhanced his ability to help leaders proactively minimize risk, reduce errors, and improve reliability. Kevin holds an undergraduate degree in Industrial Engineering and an MBA. He served as a national Malcolm Baldrige Performance Excellence Award Examiner for twenty years, including a three-year term on the national Judge's Panel.

Kevin has authored the monthly performance improvement column for Industrial and Systems Engineer magazine for over 20 years, is an Institute of Industrial and Systems Engineering Fellow and has been a member of IISE for over forty years. His newest book, "Different Company – How the Best Build Great Organizations", will be published in late 2025.

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- 150 pages of ideas and examples that will help you accelerate and sustain your process improvement efforts
- Over 25 examples of 'best practice' assessment tools that leaders can use to encourage and support high performance work
- 12 team exercises that you can use to begin applying each concept as it is learned



Mistake Proofing and Corrective Action Writing

- 156 pages of exercises, tools, and examples to help you learn about and practice the fundamentals of mistake proofing and corrective action writing
- 14 exercises you can use to practice the five key mistake proofing tactics and identify tasks and processes to target for improvement
- Over 100 proven techniques to help minimize the risk and error potential associated with daily job completion



Error Proof

- 162 pages of examples, strategies and dialogue questions to help you stop daily goofs for good
- Over 100 proven best practices that you can use to help error proof your key work processes
- Can be paired with the 100-page workshop workbook that contains 13 team exercises to help you begin applying key ideas



Facilitating and Leading Teams

- 182 pages of ideas, tools, and examples to help you improve work team, project team, and focus team effectiveness
- 10 assessments that will help you identify areas of strength and weakness relative to work and project team support
- Over 20 team exercises that will help you optimize your use of teams and improve meeting effectiveness, while also practicing your facilitation skills



Lean Tool Use Basics

- 150 pages of exercises, tools, and examples to help you learn about and practice the fundamentals of lean thinking
- 13 exercises you can practice to learn more about using the five key lean tools, creating a lean culture, and planning for lean success
- Two assessments to help you gauge the degree of support your lean efforts require and how much progress you make

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