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Olivier Serrat
Asian Development Bank

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The Five Whys Technique

Abstract

{Excerpt} When confronted with a problem, have you ever stopped and asked “why” five times? If you do not ask the right question, you will not get the right answer. The Five Whys is a simple question asking technique that explores the cause-and-effect relationships underlying problems.

For every effect there is a cause. But the results chain between the two is fairly long and becomes finer as one moves from inputs to activities, outputs, outcome, and impact. In results-based management, the degree of control one enjoys decreases higher up the chain and the challenge of monitoring and evaluating correspondingly increases. In due course, when a problem appears, the temptation is strong to blame others or external events. Yet, the root cause of problems often lies closer to home.

Keywords

Asian Development Bank, ADB, poverty, economic growth, sustainability, development

Comments

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The Five Whys Technique

by Olivier Serrat

When confronted with a problem, have you ever stopped and asked “why” five times? If you do not ask the right question, you will not get the right answer. The Five Whys is a simple question-asking technique that explores the cause-and-effect relationships underlying problems.

Rationale

For every effect there is a cause. But the results chain between the two is fairly long and becomes finer as one moves from inputs to activities, outputs, outcome, and impact.¹ In results-based management,² the degree of control one enjoys decreases higher up the chain and the challenge of monitoring and evaluating correspondingly increases.

In due course, when a problem appears, the temptation is strong to blame others or external events. Yet, the root cause of problems often lies closer to home.



The Five Whys Technique

When looking to solve a problem, it helps to begin at the end result, reflect on what caused that, and question the answer five times.³ This elementary and often effective approach to problem solving promotes deep thinking through questioning, and can be adapted quickly and applied to most problems.⁴ Most obviously and directly, the Five Whys technique relates to the principle of systematic problem-solving: without the intent of the principle, the technique can only be a shell of the process. Hence, there are three key elements to effective use of the Five Whys technique: (i) accurate and complete statements of problems,⁵ (ii) complete honesty in answering the questions, (iii) the determination to get to the bot-

¹ Inputs, activities, and outputs are within the direct control of an intervention's management. An outcome is what an intervention can be expected to achieve and be accountable for. An impact is what an intervention is expected to contribute to.

² Results-based management is a life-cycle management philosophy and approach that emphasizes results in integrated planning, implementing, monitoring, reporting, learning, and changing. Demonstrating results is important for credibility, accountability, and continuous learning, and to inform decision-making and resource allocation.

³ Five is a good rule of thumb. By asking “why” five times, one can usually peel away the layers of symptoms that hide the cause of a problem. But one may also find one needs to ask “why” fewer times, or conversely more.

⁴ Root cause analysis is the generic name of problem-solving techniques. The basic elements of root causes are materials, equipment, the man-made or natural environment, information, measurement, methods and procedures, people, management, and management systems. Other tools can be used if the Five Whys technique does not intuitively direct attention to one of these. They include barrier analysis, change analysis, causal factor tree analysis, and the Ishikawa (or fishbone) diagram.

⁵ By repeating “why” five times, the nature of the problem as well as its solution becomes clear.

tom of problems and resolve them. The technique was developed by Sakichi Toyoda for the Toyota Industries Corporation.

Process

The Five-Whys exercise is vastly improved when applied by a team and there are five basic steps to conducting it:

- Gather a team and develop the problem statement in agreement. After this is done, decide whether or not additional individuals are needed to resolve the problem.
- Ask the first "why" of the team: why is this or that problem taking place? There will probably be three or four sensible answers: record them all on a flip chart or whiteboard, or use index cards taped to a wall.
- Ask four more successive "whys," repeating the process for every statement on the flip chart, whiteboard, or index cards. Post each answer near its "parent." Follow up on all plausible answers. You will have identified the root cause when asking "why" yields no further useful information. (If necessary, continue to ask questions beyond the arbitrary five layers to get to the root cause.)
- Among the dozen or so answers to the last asked "why" look for systemic causes of the problem. Discuss these and settle on the most likely systemic cause. Follow the team session with a debriefing and show the product to others to confirm that they see logic in the analysis.
- After settling on the most probable root cause of the problem and obtaining confirmation of the logic behind the analysis, develop appropriate corrective actions to remove the root cause from the system. The actions can (as the case demands) be undertaken by others but planning and implementation will benefit from team inputs.

For Want of a Nail

*For want of a nail the shoe is lost;
For want of a shoe the horse is lost;
For want of a horse the rider is lost;
For want of a rider the battle is lost;
For want of a battle the kingdom is lost;
And all for the want of a horseshoe nail.*

—George Herbert

Five Whys Worksheet

Define the problem:

Why is it happening?

→ Why is that?
 ↓

→ Why is that?
 ↓

→ Why is that?
 ↓

→ Why is that?
 ↓

Source: Author

Caveat

The Five Whys technique has been criticized as too basic a tool to analyze root causes to the depth required to ensure that the causes are fixed. The reasons for this criticism include:

- The tendency of investigators to stop at symptoms, and not proceed to lower-level root causes.
- The inability of investigators to cast their minds beyond current information and knowledge.
- Lack of facilitation and support to help investigators ask the right questions.
- The low repeat rate of results: different teams using the Five Whys technique have been known to come up with different causes for the same problem.

Jeff Bezos and Root Cause Analysis

[The author explains how while he worked for Amazon.com in 2004 Jeff Bezos did something that the author still carries with him to this day. During a visit the Amazon.com Fulfillment Centers, Jeff Bezos learned of a safety incident during which an associate had damaged his finger. He walked to the whiteboard and began to use the Five Whys technique.]

Why did the associate damage his thumb?

Because his thumb got caught in the conveyor.

Why did his thumb get caught in the conveyor?

Because he was chasing his bag, which was on a running conveyor.

Why did he chase his bag?

Because he had placed his bag on the conveyor, which had then started unexpectedly.

Why was his bag on the conveyor?

Because he was using the conveyor as a table.

And so, the root cause of the associate's damaged thumb is that he simply needed a table. There wasn't one around and he had used the conveyor as a table. To eliminate further safety incidences, Amazon.com needs to provide tables at the appropriate stations and update safety training. It must also look into preventative maintenance standard work.

Source: Adapted from Shmula. 2008. Available: www.shmula.com/

Clearly, the Five Whys technique will suffer if it is applied through deduction only. The process articulated earlier encourages on-the-spot verification of answers to the current "why" question before proceeding to the next, and should help avoid such issues.

Further Reading

ADB. 2007. *Guidelines for Preparing a Design and Monitoring Framework*. Manila. Available: www.adb.org/documents/guidelines/guidelines-preparing-dmf/guidelines-preparing-dmf.pdf

———. 2008a. *Output Accomplishment and the Design and Monitoring Framework*. Manila. Available: www.adb.org/documents/information/knowledge-solutions/output-accomplishment.pdf

———. 2008b. *The Reframing Matrix*. Manila. Available: www.adb.org/documents/information/knowledge-solutions/the-reframing-matrix.pdf

———. 2009a. *Monthly Progress Notes*. Manila. Available: www.adb.org/documents/information/knowledge-solutions/monthly-progress-notes.pdf

———. 2009b. *Assessing the Effectiveness of Assistance in Capacity Development*. Manila. Available: <http://www.adb.org/documents/information/knowledge-solutions/assessing-effectiveness-assistance-capacity-development.pdf>

For further information

Contact Olivier Serrat, Head of the Knowledge Management Center, Regional and Sustainable Development Department, Asian Development Bank (oserrat@adb.org).

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Asian Development Bank

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Asian Development Bank
6 ADB Avenue, Mandaluyong City
1550 Metro Manila, Philippines
Tel +63 2 632 4444
Fax +63 2 636 2444
knowledge@adb.org
www.adb.org/knowledgesolutions