

The Power of “Why”

Summary

Finding a solution is not always the most important part of problem solving. Sometimes we need to find the underlying causes, starting with the outcome and working our way backward.

Primary Workplace Readiness Skill

Critical Thinking and Problem Solving

Secondary Workplace Readiness Skills

Conflict Resolution

Customer Service Orientation

Vocabulary

- Problem Solving
- Critical Thinking
- Inductive Reasoning
- Deductive Reasoning
- Cause-Effect
- Root-Cause Analysis
- Analysis
- Logic
- Process
- Process of elimination
- Five Whys Technique

Context Questions

- How can problem solving set you apart from your peers or coworkers?
- How can you demonstrate your ability and willingness to solve problems, in a job interview?
- How is being a problem solver beneficial to your employer?
- How is following a problem solving method beneficial to your employment?
- How do problem solving and critical thinking interrelate? How do they differ?
- When problems arise at work, what are some resources that can help?
- What are some common ways to solve problems in the workplace?
- What are the differences between inductive and deductive reasoning?
- What can you do to make yourself a better problem solver?
- What additional workplace readiness skills are closely related to critical thinking and problem solving? Which are needed to complete this activity?
- What are some alternative models for problem-solving and decision-making methods?
- Why is it good to sometimes fail?

Guidelines

1. Complete practice exercises that teach the process of elimination.
2. Investigate root-cause analysis and the technique of asking “why” questions five times. Watch [this video](#) or watch [this one](#).
3. Complete a root-cause analysis exercise by selecting the best “why” questions. See exercise.
4. Complete the reflection questions.

Evaluation

See [rubric](#).

Process of Elimination/Logic Exercises (from edhelper.com)

As you complete these exercise, start by finding one thing that you know is true. Because both exercises deal with relationships, you need to first assume that any item or age can belong to any person. List these out on scrap paper, and all possible cars or ages they could have or be. Then scratch the cars or ages off when they are absolutely known. Keep in mind that once you find one true thing for one person, you can scratch it off of any other person’s list.

See [exercise #1](#).

See [exercise #2](#).

See **Notes** section (below) for answer key.

Root-cause/Five Whys Exercise:

Problem: One of the monuments in Washington D.C. is deteriorating. How do you find the solution to this problem—by asking the right questions. However, not all questions are created equal. The trick is to ask questions about cause, not solution. Go to the [exercise here](#).

Reflection after Completion

- What did the correct line of questions have in common?
- What are “why” types of questions as opposed to other types of questions?
- Why is it important to identify a specific process for solving problems? What influences your selection of process?
- Did you learn anything about problem solving through these exercises?

Differentiation:

1. Technology use—use word graphic design software to create your questions as images.
2. Multisensory options—watch the videos for this activity.
3. Community connections—identify examples of the problem solving process used in the workplace.
4. Small-group learning—complete the exercises with your peers.
5. Vocabulary strategies—word wall and matching, match words or phrases under each term in the skill area, “problem solving” and “critical thinking.”
6. Student organization of content—final product should include all completed exercises and answers to all reflection questions.

Notes: Answer Key for Process of Elimination/Logic Exercises (from edhelper.com)

Exercise #1:

Morgan—black
Kaitlyn—yellow
Courtney—violet
Emma—blue

Exercise #2:

Alexandra (> Madison and Emily)—37
Destiny (> Alexandra and < Eric)—38
Eric (> Ethan)—40
Emily (< Ethan)—13
Ethan (> Madison but < Alexandra)—31
Madison (> Emily)—14

Resources:

- The 5 Whys, Harvard Business Review, <https://www.youtube.com/watch?v=JmrAkHafwHI>
- 5 Whys, 2020 Delivery, <https://www.youtube.com/watch?v=FXjLeFQFPAQ>
- The Kai Zone (blog), Improving the Business of Life, <http://thekaizone.com/2014/08/5-whys-folklore-the-truth-behind-a-monumental-mystery/>
- The famously difficult green-eyed logic puzzle - Alex Gendler, TED-Ed, <https://www.youtube.com/watch?v=98TQv5IAtY8>
- Tom Wujec: Got a wicked problem? First, tell me how you make toast, TED https://www.youtube.com/watch?v=vS_b7cJn2A