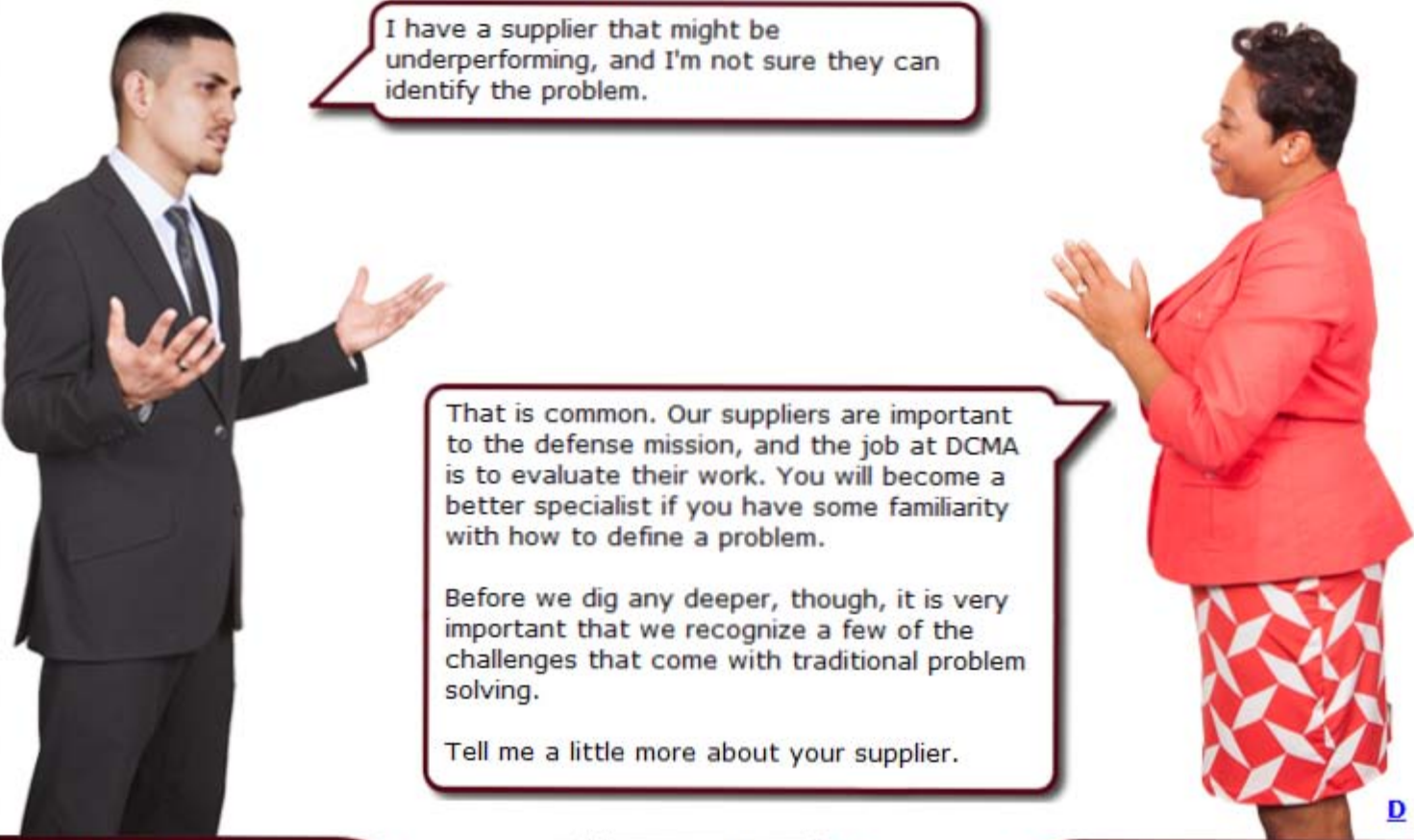


Lesson Introduction

[View CR](#) [Submit CR](#)



I have a supplier that might be underperforming, and I'm not sure they can identify the problem.

That is common. Our suppliers are important to the defense mission, and the job at DCMA is to evaluate their work. You will become a better specialist if you have some familiarity with how to define a problem.

Before we dig any deeper, though, it is very important that we recognize a few of the challenges that come with traditional problem solving.

Tell me a little more about your supplier.

**Long Description**

The mentor and the DCMA specialist continue their conversation. The DMCA specialist looks concerned, and he states, "I have a supplier that might be underperforming, and I'm not sure they can identify the problem." The mentor replies, "That is common. Our suppliers are important to the defense mission, and the job at DCMA is to evaluate their work. You will become a better specialist if you have some familiarity with how to define a problem. Before we dig any deeper, though, it is very important that we recognize a few of the challenges that come with traditional problem solving. Tell me a little more about your supplier."

## Lesson Objectives

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Terminal Learning Objective - Given a root cause analysis scenario describing an event-based problem, define the problem.

Lesson 2 is divided into two parts. Part one has four objectives. Upon completion, you should be able to:

- Identify the challenges of traditional problem solving.
- Identify the activities involved in problem solving.
- Identify the common pitfalls encountered during problem solving.
- Identify the skills and attitudes of a successful problem solver.

First, you will learn about the challenges to traditional problem solving.



## Problem Solving Challenges Introduction

[View CR](#) [Submit CR](#)

The Acme Company is a supplier of shock-mitigating seats for the U.S. Navy. These seats are mounted to the decks of naval vessels and are fixed by metal clamps.

The seats are specified as removable in the contract. The DCMA Quality Assurance Specialist (QAS) at Acme Company is seeing an unusually high number of Product Quality Deficiency Reports (PQDRs) citing the clamp that holds the seat to the deck as fragile.

DCMA has been tasked to look at Acme Company and determine if there are any challenges to their method of traditional problem solving.



**Long Description**

An exploded assembly diagram of a chair is displayed. The chair is mounted atop a pedestal which is affixed to the floor by a single metal clamp.

## Problem Solving Steps

[View CR](#) [Submit CR](#)

Suppliers typically try to solve their problems in two steps:

1. Collect data.
2. Define the problem.



**Long Description**

The same chair from the previous screen is zoomed in. A magnifying glass is focused on the metal clamp that connects the chair to the floor.

## Data Collection

[View CR](#) [Submit CR](#)

The purpose of collecting data during traditional problem solving is to answer these questions:

- What?
- Who?
- Where?
- When?
- How much?
- How many?

This spreadsheet is typical of the type of data collected by a supplier in search of a solution to a problem.

[Click here to access a PDF of this spreadsheet.](#)

ACME Company				
Clamp Production by Employee				
	John	Mary	Theo	Tom
06-10 Jan	11	12	14	9
13-17 Jan	10	12	16	6
20-24 Jan	3	4	5	2
27-31 Jan	11	12	16	6
03-07 Feb				
10-14 Feb				
17-21 Feb				
24-28 Feb				
03-07 Mar				
10-14 Mar				
17-21 Mar				
24-28 Mar				
01-04 Apr				
07-11 Apr				
14-18 Apr				

**Long Description**

An Acme company spreadsheet is displayed that presents columns and rows of statistical information. The spreadsheet is entitled "Clamp Production by Employee". The purpose of the spreadsheet is to illustrate January production counts, by week, for the manufacture of chair clamps. The counts are listed for four employees named John, Mary, Theo, and Tom. Data is provided for each employee that depicts how many clamps each employee made each week.

**Case Study Knowledge Review**

[View CR](#) [Submit CR](#)

Use the graphic to answer as many of these questions as you can to yourself: What? Who? Where? When? How much? How many?

Enter the questions you were able to answer in the box below and select Check Answer to receive feedback.

**Check Answer**

ACME Company				
Clamp Production by Employee				
	John	Mary	Theo	Tom
06-10 Jan	11	12	14	9
13-17 Jan	10	12	16	6
20-24 Jan	3	4	5	2
27-31 Jan	11	12	16	6
03-07 Feb				
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17-21 Feb				
24-28 Feb				
03-07 Mar				
10-14 Mar				
17-21 Mar				
24-28 Mar				
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**Long Description**

An Acme company spreadsheet is displayed that presents columns and rows of statistical information. The spreadsheet is entitled "Clamp Production by Employee". The purpose of the spreadsheet is to illustrate January production counts, by week, for the manufacture of chair clamps. The counts are listed for four employees named John, Mary, Theo, and Tom. Data is provided for each employee that depicts how many clamps each employee made each week.

## Data Challenges

[View CR](#) [Submit CR](#)

When a supplier's problem is quality workmanship, it is common for them to collect data and quickly look for solutions.

The spreadsheet may lead a supplier to quickly think that they had a bad week.

Note how employee production of clamps dropped in the week of 20 to 24 January and quickly recovered the following week.

Does the data collected for this problem tell the whole story?

That question can only be answered after all of the data has been collected.

ACME Company				
Clamp Production by Employee				
	John	Mary	Theo	Tom
06-10 Jan	11	12	14	9
13-17 Jan	10	12	16	6
20-24 Jan	3	4	5	2
27-31 Jan	11	12	16	6
03-07 Feb				
10-14 Feb				
17-21 Feb				
24-28 Feb				
03-07 Mar				
10-14 Mar				
17-21 Mar				
24-28 Mar				
01-04 Apr				
07-11 Apr				
14-17 Apr				

D

**Long Description**

An Acme company spreadsheet is displayed that presents columns and rows of statistical information. The spreadsheet is entitled "Clamp Production by Employee". The purpose of the spreadsheet is to illustrate January production counts, by week, for the manufacture of chair clamps. The counts are listed for four employees named John, Mary, Theo, and Tom. Data is provided for each employee that depicts how many clamps each employee made each week.

### Data Challenges, Cont.

[View CR](#) [Submit CR](#)

One of the challenges to traditional problem solving is insufficient data collection. In their haste, suppliers might be quick to cite a quality problem on the most obvious cause, when other data provides information that might explain it.

Note how the loss of production for the week of 20 - 24 January can be explained by looking at more data. In this case, the calendar may explain the drop in production. The supplier closed its shop due to a snow storm.



Long Description

A calendar is displayed with a magnifying glass emphasizing the days January 21, 22, and 23, which are marked as "SNOWED IN" in big bold letters.

## Data Challenges, Cont.

[View CR](#) [Submit CR](#)

Other data challenges to problem solving are:

- Suppliers collected incomplete data.
- Suppliers collected misleading data.
- Suppliers collected no data.



**Long Description**

A squiggly arrow labeled "INCOMPLETE DATA" points to the right, beneath which is a circle with a question mark in the middle labeled "MISSING DATA", beneath which is a squiggly arrow pointing to the left labeled "MISLEADING DATA".

## Cultural Challenges

[View CR](#) [Submit CR](#)

Other cultural challenges to problem solving are:

- Suppliers have no problem solving strategy.
- Suppliers fail to regard the pitfalls of problem solving.
- Suppliers do not possess the skill and attitudes to successfully solve their problems.



D

**Long Description**

A man, who is a supplier from Acme Company, sits looking down with his hands to his temples, looking frustrated.

## Problem Solving Challenges Knowledge Review

[View CR](#) [Submit CR](#)

Which of the challenges to problem solving are cultural?  
(Select all that apply)

- Suppliers collect incomplete data for problem solving
- Suppliers collect misleading data for problem solving
- Suppliers collect no data for problem solving
- Suppliers have no problem solving strategy
- Suppliers do not possess the skill and attitudes to successfully solve their problems
- Suppliers fail to regard the pitfalls of problem solving

[Check Answer](#)

Cultural challenges to problem solving for suppliers typically point to their **lack of strategy**, their **lack of regard for pitfalls**, or their **lack of the skill and attitudes to successfully solve their problems**.

**Problem Solving Challenges Summary**[View CR](#) [Submit CR](#)

As you can see, when your suppliers perform Root Cause Analysis, they face many challenges. Some are data related, and some are cultural. Remain aware of these challenges as you evaluate your suppliers' corrective actions.

Next, you will learn about the activities involved in problem solving.



Problem Solving Activities Introduction

[View CR](#) [Submit CR](#)



My supplier still has a problem with their metal clamps.



Perhaps you should take a look at the activities involved in problem solving, and then compare them with the activities that your supplier used to investigate their clamps. This might help you determine the thoroughness of their evaluation.

**Long Description**

The mentor and the DCMA specialist are having a conversation. The DCMA specialist tells the mentor "My supplier still has a problem with their metal clamps." The mentor replies, "Perhaps you should take a look at the activities involved in problem solving, and then compare them with the activities that your supplier used to investigate their clamps. This might help you determine the thoroughness of their evaluation."

## Company Size

[View CR](#) [Submit CR](#)

Large suppliers may have Quality Assurance (QA) teams with company policies to guide them.

Small suppliers may assign QA to workers as a collateral duty with only a contract to guide them.

Both need to solve problems.

The size of the company does not relieve your suppliers of their duty to implement corrective actions. Their duty is to perform these activities, regardless of size.



**Long Description**

A tall skyscraper labeled ACME towers over a small building labeled ABC Software.

**Problem Solving Questioning Pattern**[View CR](#) [Submit CR](#)

To define their real problems, suppliers perform a series of activities. Different suppliers have different activities, but they typically form a problem solving strategy that follows this pattern of questioning.

Click on each question below to learn more about the activities performed by suppliers when answering these questions.

**What was different this time?**

**Why now, but not before?**

**Why here, but not there?**

**What was different this time?**

1. Determine if new equipment, machines, or tools contributed to the problem.
2. Determine what is wrong now and whether there have been prior complaints.
3. Determine what new undesired behavior is involved.
4. Determine if there has been a change in personnel, such as new hires, transfers, or attrition that may have contributed to the problem.

**Why now, but not before?**

1. Determine when the problem occurred: day, date, time.
2. Determine what shift or phase of operation was in place.
3. Determine if plant or equipment life cycles contributed to the problem.
4. Determine if a time pattern is involved.

**Why here, but not there?**

1. Determine which unit, area, or department contributed to the problem.
2. Determine the location of defective item or defect on item.

Problem Solving Questioning Pattern, Cont.

[View CR](#) [Submit CR](#)



I noticed the activities you identified in problem solving did not answer the question "Who?".



That is a very good observation. A supplier can adapt their activities in problem solving to omit a question if they feel they already know the answer. They can even add questions like, 'How, How Much, or How Many?' Tell me about the activities that Acme Company used to help them solve their problem with their fragile clamps.

**Long Description**

The mentor and the DCMA specialist are having a conversation. The DCMA specialist says to the mentor "I noticed the activities you identified in problem solving did not answer the question 'Who?'" The mentor replies, "That is a very good observation. A supplier can adapt their activities in problem solving to omit a question if they feel they already know the answer. They can even add questions like, 'How, How Much, or How Many?' Tell me about the activities that Acme Company used to help them solve their problem with their fragile clamps."

[View CR](#) [Submit CR](#)

## Case Study



I have a record of the activities we used to identify our problem with the clamps. Click on an activity, and I'll tell you what we did.

- [1. Determine who allowed the fragile clamps to ship to the Navy.](#)
- [2. Determine if new equipment or tools contributed to the problem.](#)
- [3. Determine what is wrong now and if there were prior complaints.](#)
- [4. Determine when the problem occurred: day, date, and time.](#)
- [5. Determine what shift or phase of operation was in place.](#)
- [6. Determine if a time pattern is involved.](#)

D

**1. Determine who allowed the fragile clamps to ship to the Navy.**

We had a snow storm the week of January 20th through the 24th. The Acme Company may have produced fewer clamps during that week, because not all of our regular shift workers could get to work.

**2. Determine if new equipment or tools contributed to the problem.**

We have not installed new equipment or tools in our plant for three years.

**3. Determine what is wrong now and if there were prior complaints.**

What is wrong now is the metal used to fabricate the clamps is too thin to hold the seat in place aboard ship. We have never before received a complaint about our clamps from our naval customers.

**4. Determine when the problem occurred: day, date, and time.**

We have records from the clamp shop that the batch of fragile clamps were built on a Wednesday, 02 January. And no, the fact that the clamps were manufactured the day after a holiday has no bearing.

**5. Determine what shift or phase of operation was in place.**

We were shifting our clamp shop from producing U.S. Army clamps to producing U.S. Navy clamps during the time they were fabricated.

**6. Determine if a time pattern is involved.**

We do not maintain production records down to the hour of the day. We do not know if a time pattern is involved in this problem.

**Long Description**

A supplier from Acme Company stands with his arms folded in a very defensive posture. He says "I have a record of the activities we used to identify our problem with the clamps. Click on an activity, and I'll tell you what we did."

### Case Study Knowledge Review

[View CR](#) [Submit CR](#)

Based on their statements, which of the following Acme Company activities point to a possible solution to their problem with the fragile clamps?

(Select all that apply)

- Who allowed them to ship?
- New equipment or tools?
- What is wrong now?
- Day, date, time of problem?
- Change in shift or phase?
- Time pattern is involved?

Check Answer



Perhaps you found more than two answers, but we feel the scenario suggests that the problem might be better investigated by looking closer at the transition from Army to Navy clamps (**the change in shift or phase**) and the quality of metal used in that batch (**what is wrong now**). Plus, it is advisable to see if a record of date and time for each batch of clamps is a requirement in your contract specifications.

Problem Solving Activities Summary

[View CR](#) [Submit CR](#)



That was a tough question. Are you asking me to dig a little deeper into the activities at Acme company?



For the sake of this training, let's assume they haven't found their problem yet. Then, yes, there is room to help them with problem solving. You may have noticed that the activities to problem solving may differ from supplier to supplier. It is important to remember they all follow a pattern of questioning. But first, we should discuss the pitfalls you may encounter along the way.

**Long Description**

The mentor and the DCMA specialist continue their conversation. The DCMA specialist says to the mentor "That was a tough question. Are you asking me to dig a little deeper into the activities at Acme company?" The mentor replies, "For the sake of this training, let's assume they haven't found their problem yet. Then, yes, there is room to help them with problem solving. You may have noticed that the activities to problem solving may differ from supplier to supplier. It is important to remember they all follow a pattern of questioning. But first, we should discuss the pitfalls you may encounter along the way."

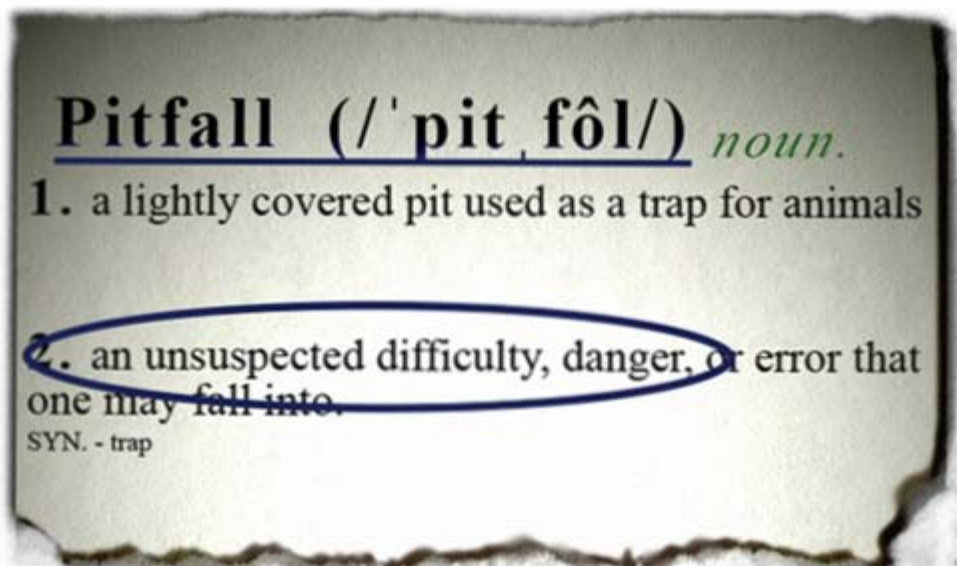
**Problem Solving Pitfalls Introduction**[View CR](#) [Submit CR](#)

Earlier in this tutorial, you learned about the challenges to traditional problem solving.

Challenges can be overcome.

Pitfalls are more complex and they should be avoided.

They waste time.



**Long Description**

A piece of paper torn from a dictionary that shows the definition of the word "pitfall". The second definition of "an unsuspected difficulty or danger" is circled.

### Problem Solving Pitfalls Occurrence

[View CR](#) [Submit CR](#)

When your suppliers perform activities in problem solving, they often get trapped in pitfalls.

A pitfall typically happens while the supplier is analyzing their data to solve a problem.

Pitfalls happen frequently when your suppliers are determining what has changed to cause the problem.



D

**Long Description**

A yellow diamond road sign is labeled with an exclamation point and the words "DANGER PITFALL AHEAD".

## Supplier Pitfalls

[View CR](#) [Submit CR](#)

Supplier pitfalls during problem solving are:

- Not recognizing gradual change
- Not identifying all the changes
- Not recognizing the effects of change elsewhere



**Long Description**

The supplier from ACME Company stands in a defensive posture and is blindfolded.

## Case Study

[View CR](#) [Submit CR](#)

Do you think Acme Company fell into a pitfall while solving the clamp problem?



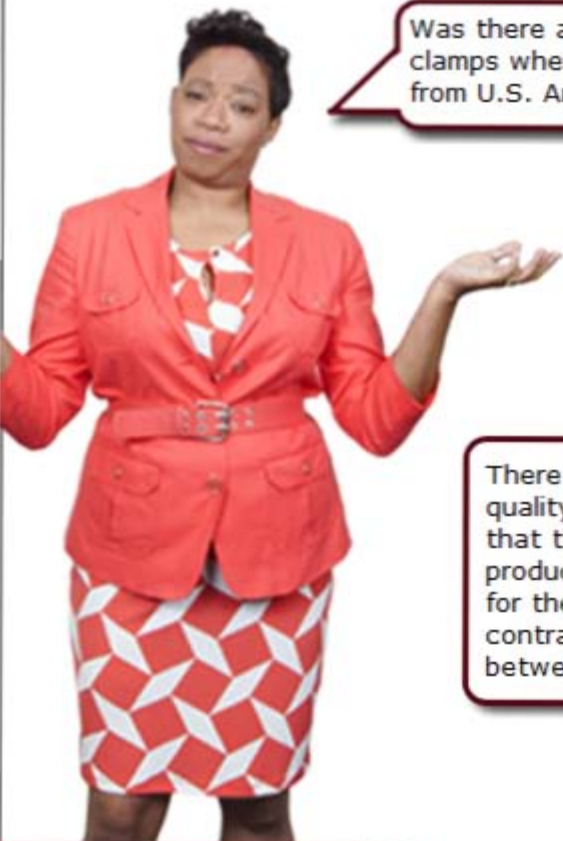
It is very easy to do, so that makes it possible. Perhaps, we should interview that manager from Acme Company? Interviewing is a very important process in the relationship between DCMA and our suppliers. For the sake of this training, let me ask the questions.

**Long Description**

The mentor and the DCMA Specialist continue their conversation. The DCMA Specialist asks the mentor "Do you think Acme Company fell into a pitfall while solving the clamp problem?" The mentor replies, "It is very easy to do, so that makes it possible. Perhaps, we should interview that manager from Acme Company? Interviewing is a very important process in the relationship between DCMA and our suppliers. For the sake of this training, let me ask the questions."

Supplier Interview - Question 1

[View CR](#) [Submit CR](#)



Was there a gradual change in the quality of clamps when your company switched production from U.S. Army to U.S. Navy clamps?

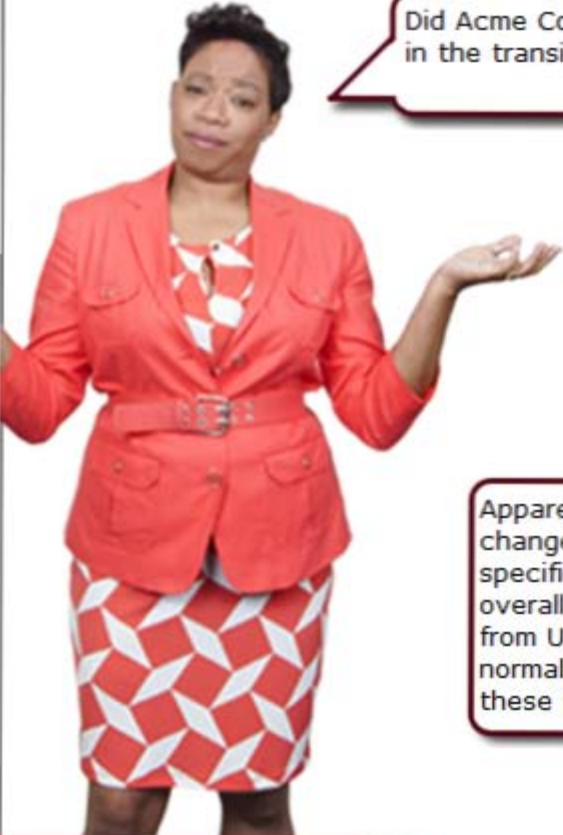


There was not a gradual change in the quality of the U.S. Navy clamps. We found that the difference between the clamps we produce for the Army and those we produce for the Navy is the metal used. The two contract specifications are not consistent between the services.


**Long Description**

The mentor is interviewing the supplier from Acme Company. The mentor is standing in a questioning posture, while the supplier is standing with his arms folded in a very defensive posture. The mentor asks, "Was there a gradual change in the quality of clamps when your company switched production from U.S. Army to U.S. Navy clamps?" The supplier answers, "Apparently so. The difference between the clamps we use for the Army and those we use for the Navy is the metal used. The two contract specifications are not consistent between the services."

## Supplier Interview - Question 2

[View CR](#) [Submit CR](#)

Did Acme Company identify all of the changes in the transition?




Apparently not. If we identified all of the changes required by the contract specification, we lose a few clamps to the overall count. Our shop workers draw metal from U.S. Army and U.S. Navy bins. We normally hide one from the other during these transitions.


**Long Description**

The mentor is still interviewing the supplier from Acme Company. The mentor is standing in a questioning posture, while the supplier is standing with his arms folded in a very defensive posture. The mentor asks, "Did Acme Company identify all of the changes in the transition?" The supplier answers, "Apparently not. If we identified all of the changes required by the contract specification, we lose a few clamps to the overall count. Our shop workers draw metal from U.S Army and U.S. Navy bins. We normally hide one from the other during these transitions."

## Supplier Interview - Question 3

[View CR](#) [Submit CR](#)

Did you account for the effects of change elsewhere in your fabrication of clamps for our contract?



No, we did not. You see, the U.S. Army changed the specification on their clamps to a sturdier metal. I think in retrospect, we had fragile clamps intermingled with our production clamps for the U.S. Navy. I am going to call our Army customer when I get back to my office.

**Long Description**

The mentor is interviewing the supplier from Acme Company. The mentor is standing in a questioning posture, while the supplier is standing with his arms folded in a very defensive posture. The mentor asks, "Did you account for the effects of change elsewhere in your fabrication of clamps for our contract?" The supplier answers, "No, we did not. You see, the U.S. Army changed the specification on their clamps to a sturdier metal. I think in retrospect, we had fragile clamps intermingled with our production clamps for the U.S. Navy. I am going to call our Army customer when I get back to my office."

Case Study Summary

[View CR](#) [Submit CR](#)



Wow! Someday I hope to interview like you.



Someday, you will. The reason I wanted to talk to the supplier myself is to introduce you to the pitfalls of interviewing. Let's take a look at the things that should be avoided during an interview.

### Long Description

The mentor and the DCMA Specialist continue their conversation. The DCMA Specialist exclaims to the mentor "Wow! Someday I hope to interview like you." The mentor replies, "Someday, you will. The reason I wanted to talk to the supplier myself is to introduce you to the pitfalls of interviewing. Let's take a look at the things that should be avoided during an interview."

### Case Study Summary, Cont.

[View CR](#) [Submit CR](#)

To recap, interviewing pitfalls during problem solving are:

- An over-talkative interviewer
- An interviewee who becomes defensive
- An over-talkative interviewee



## Problem Solving Pitfalls Knowledge Review

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Study the photo of the supplier shown here, and read his answers to the questions. What may be a signal to the DCMA interviewer that the supplier being interviewed has fallen into a defensive pitfall?

(Select all that apply)

- "The two contract specifications are not consistent between the services."
- "Our shop workers draw metal from U.S. Army and U.S. Navy bins."
- "My folded arms and defensive posture make me defensive."
- "We normally hide one bin from the other during these transitions."
- "We had fragile army clamps intermingled with our U.S. Navy clamps."
- "I am going to call our Army customer when I get back to my office."

[Check Answer](#)

The best choices are **"The two contract specifications are not consistent between the services."** and **"My folded arms and defensive posture make me defensive."** It is important to note that the folded arms and defensive postures do not always signal the interviewee is in a defensive pitfall.



### Problem Solving Pitfalls Summary

[View CR](#) [Submit CR](#)

You have finished the topic for problem solving pitfalls. Avoid them.

Next, you will learn about the skills and attitudes of successful problem solvers.



Problem Solving Skills and Attitudes Introduction

[View CR](#) [Submit CR](#)



How do I face all of the challenges and the pitfalls to problem solving?



Great question. Since no two problems are ever exactly alike, the best course of action for a DCMA specialist is to approach your suppliers using the skills and attitudes of a successful problem solver. When you carry these positive traits to your meeting with suppliers, you bring knowledge and experience with you. Your supplier can tell by these traits that you are aware of the challenges and pitfalls to problem solving. For now, though, let's talk about skills and attitudes.

**Long Description**

The mentor and the DCMA Specialist continue their conversation. The DCMA Specialist asks the mentor, "How do I face all of the challenges and the pitfalls to problem solving?" The mentor replies, "Great question. Since no two problems are ever exactly alike, the best course of action for a DCMA representative is to approach your suppliers using the skills and attitudes of a successful problem solver. When you carry these positive traits to your meeting with suppliers, you bring knowledge and experience with you. Your supplier can tell by these traits that you are aware of the challenges and pitfalls to problem solving. For now, though, let's talk about skills and attitudes."

## Problem Solving Attitudes

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Your supplier may look at an undesirable event one of two ways:

1. This is an exercise.
2. This is a problem.

Their attitude toward the undesirable event depends on their mental process for problem solving.



**Long Description**

The supplier from Acme company pensively stands staring down at puzzle pieces scattered on the ground. The puzzle pieces are labeled as "PROBLEM", "PAST", "PRESENT", and "PLANS".

## Exercise Attitude - Pattern of Steps

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For the supplier that looks at the undesirable event as an **exercise**, their problem solving strategy typically follows this pattern of steps:

- Retrieve a plan that was used in the past.
- Establish connections between the past and now.

This supplier's attitude may be apparent when they admit, "We may need to modify things slightly."



**Long Description**

The supplier from Acme company stands holding a green puzzle piece labeled "EXERCISE".

## Exercise Attitude - Terms

[View CR](#) [Submit CR](#)

The supplier that treats an undesirable event as an exercise may use terms like these in your problem solving discussions:

- "Algorithmic"
- "Reproductive"
- "Typical"



**Long Description**

The supplier from Acme company stands holding a puzzle piece labeled "PRESENT", while he looks up at two other puzzle pieces labeled "PAST" and "PLANS", as though trying to decide how the "PRESENT" puzzle piece fits in with the other two.

## Real Problem Attitude - Pattern of Steps

[View CR](#) [Submit CR](#)

For the supplier that looks at an undesirable event as a **real problem**, their problem solving strategy typically follows this pattern of steps:

- Establish connections between the past and now.
- Create a plan.

This supplier's attitude may be apparent when they admit, "We are going to work the problem backwards from the goal toward the given inputs."



**Long Description**

The supplier from Acme company stands frowning and holding a puzzle piece labeled "PROBLEM".

## Real Problem Attitude - Terms

[View CR](#) [Submit CR](#)

The supplier that treats an undesirable event as a real problem may use terms like these in your problem solving discussions:

- "Productive"
- "Ill-Defined"
- "Atypical"



## Unsuccessful Problem Solvers

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Any supplier that solves its problem and takes corrective action is successful, whether they treat the undesirable event as an exercise or problem.

In order to put emphasis on the successful problem solver, you must be prepared to identify the unsuccessful ones.

These are the suppliers that treat an undesirable event as neither an exercise nor a problem.



**Long Description**

The supplier from Acme company is smiling and holding a puzzle piece labeled "SOLUTION".

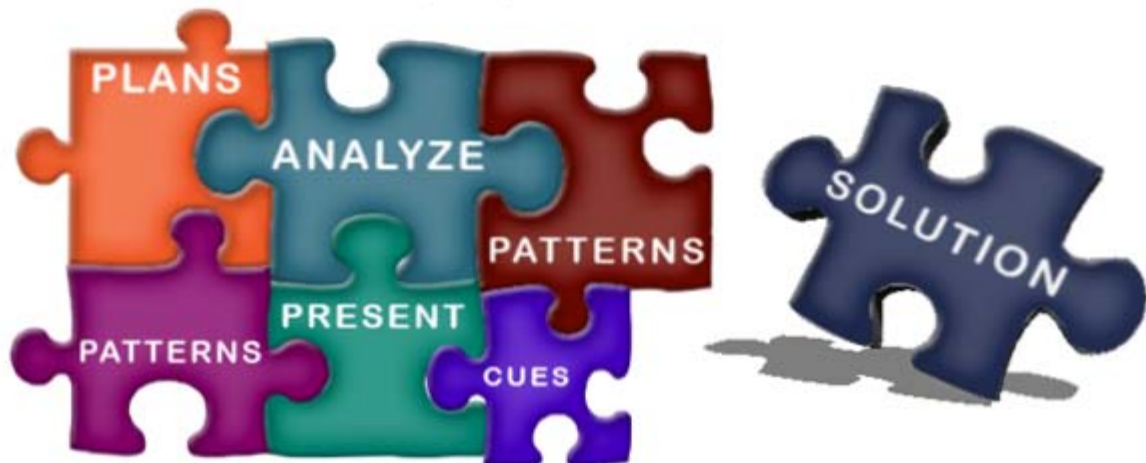
## Problem Solving Skills

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As a general rule, successful problem solvers use five sets of skills when solving problems:

1. They use "cues" to connect subject knowledge in memory to past experience.
2. They are able to "anchor" subject knowledge in reality.
3. They "link" past problem solutions to their "cues" in the subject domain.
4. They find "patterns" in new situations as either an exercise or a problem.
5. They "internalize" the problem with a mental representation.

Of the five skills listed, the internal mental representation is the most challenging. It is actually referred to as the skill that attributes most to "solving the problem."



D

**Long Description**

Several puzzle pieces are all assembled fitting together. They are labeled "PLANS", "ANALYZE", "PATTERNS", "PRESENT", "CUES", and "SOLUTION".

## Case Study Introduction

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It sounds like problem solving could be its own industry.



It is.

Much of the information provided in this tutorial is derived from industry references for problem solving and Root Cause Analysis. That only adds emphasis to how important problem solving is to your suppliers.

By the way, let's take a look at Acme Company and see if they demonstrate the skills and attitudes of a successful problem solver.

**Long Description**

The mentor and the DCMA Specialist continue their conversation. The DCMA Specialist remarks to the mentor, "It sounds like problem solving could be its own industry." The mentor replies, "It is. Much of the information provided in this tutorial is derived from industry references for problem solving and Root Cause Analysis. That only adds emphasis to how important problem solving is to your suppliers. By the way, let's take a look at Acme Company and see if they demonstrate the skills and attitudes of a successful problem solver."

## Case Study

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The failure of the clamps was an undesirable event. I have a few questions that might help me understand how Acme Company arrived at their corrective action.

Let's see what Acme's answers are.



Supplier Interview - Question 1

[View CR](#) [Submit CR](#)



Where did you start your problem solving effort?



We found an old plan that helped us solve another problem in a different shop. Once we traced our steps through the old plan and established a connection, we figured out our problem.

**Long Description**

The mentor is interviewing the supplier from Acme Company. The mentor asks the supplier, "Where did you start your problem solving effort?" The supplier responds, "We found an old plan that helped us solve another problem in a different shop. Once we traced our steps through the old plan and established a connection, we figured out our problem."

Supplier Interview - Question 2

[View CR](#) [Submit CR](#)



Did you create a new plan?



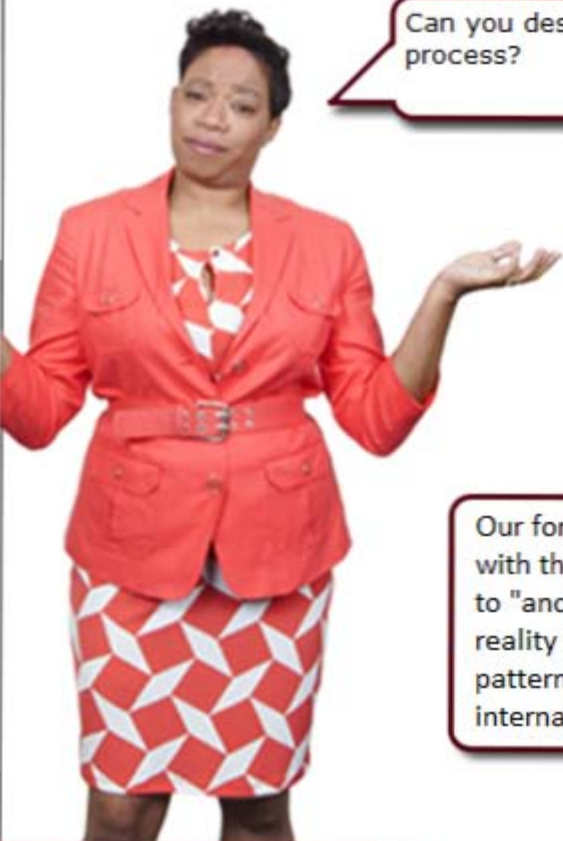
No. We applied the lessons learned from the old plan and followed their lead. We only need to modify things slightly. These events are typical in our industry.

**Long Description**

The mentor continues her interview of the supplier at Acme Company. The mentor asks the supplier, "Did you create a new plan?" The supplier responds, "No. We applied the lessons learned from the old plan and followed their lead. We only need to modify things slightly. These events are typical in our industry."

Supplier Interview - Question 3

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Can you describe a few steps of your process?



Our foreman led the problem solving effort with the clamps. His position allowed him to "anchor" his knowledge of clamps in the reality of the shop. Once he found the patterns in the process, he was able to internalize the problem and define it.

**Long Description**

The mentor concludes her interview with the Supplier from Acme Company with one final question. The mentor asks the supplier, "Can you describe a few steps of your process?" The supplier responds, "Our foreman led the problem solving effort with the clamps. His position allowed him to 'anchor' his knowledge of clamps in the reality of the shop. Once he found the patterns in the process, he was able to internalize the problem and define it."

## Case Study Knowledge Review

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Read the answers Acme Company gave to Linda (the mentor):

- "We found an old plan."
- "We established connections."
- "We only need to modify things slightly."
- "These events are typical in our industry."
- "He was able to anchor his knowledge of clamps ..."
- "He was able to internalize the problem and define it."


Was Acme Company successful when problem solving the clamps? If so, enter a few keywords into the box that signaled their attitude and skills. Select Check Answer to receive feedback.

**Check Answer**



Case Study Summary

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I'll have to study my suppliers carefully to determine if they are successful at problem solving.



So true.

**Long Description**

The mentor and the DCMA Specialist continue their conversation. The DCMA Specialist says to the mentor, "I'll have to study my suppliers carefully to determine if they are successful at problem solving." The mentor replies, "So true."

**Problem Solving Skills and Attitudes Summary**[View CR](#) [Submit CR](#)

As you can see, the skills and attitude required to be a successful problem solver are often hidden in the small conversations you have with your suppliers. You may even find them in the narrative of their corrective action reports.

This concludes our topic on problem solving.

Next, you will be introduced to problem definition.



Lesson Completion

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