

Part 1

Identifying and Defining Problems

EXTRA INDEPENDENT CHALLENGE 1 SOLUTION

Document for the car dealership that includes a problem statement and a list of possible solutions:

- problem statement of why sales for the T Sports Car has dropped.
- list of possible solutions for each part of the problem statement

EXTRA INDEPENDENT CHALLENGE 2 SOLUTION

E-mail about benefits for using crowdsourcing for an outdoor shop with locations around the country:

- an appropriate subject line
- effective opening sentence
- support for why crowdsourcing would benefit the company
- no grammar or formatting errors
- message sent to student and copied to the instructor

PART 1: Identifying and Defining Problems

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Part 1: Identifying and Defining Problems

Soft Skills Review

Understand the problem-solving process.

1. **What is a problem for an organization?**
 - a. Choice made when faced with a set of alternatives
 - b. Difference between professional and line worker
 - c. Set of objectives or goals
 - d. Difference between current state and goal state
2. **Which of the following should you *not* do when solving problems?**
 - a. Define the problem
 - b. Accept the first solution
 - c. Gather information
 - d. Make a decision

Work with problem owners and stakeholders.

1. **A person who is affected by a problem or needs to be involved to solve it is a:**
 - a. stakeholder
 - b. crowdsourcer
 - c. motivator
 - d. risk taker
2. **When solving a problem for someone else, which of the following should you *not* do?**
 - a. Let the stakeholders find their own solutions
 - b. Communicate your progress
 - c. Recommend alternative solutions
 - d. Demonstrate the benefits of solutions

Analyze problems.

1. **The first step in problem solving is to:**
 - a. make a decision
 - b. describe the problem-solving traps
 - c. identify shortcomings
 - d. communicate your progress
2. **Which of the following is a primary resource of information about a problem?**
 - a. Observation
 - b. Web site
 - c. Magazine article
 - d. Organization files

Develop effective problem statements.

1. **The purpose of a problem statement is to:**
 - a. determine the cause
 - b. assign responsibility
 - c. define the solution
 - d. describe a single problem objectively
2. **A statement such as “Plans to add tours, develop our Web site, and expand staff are now on hold until we can solve this problem,” is an example of:**
 - a. defining the ideal situation
 - b. identifying the consequences
 - c. describing the symptoms of the problem
 - d. describing the size and scope of the problem

Determine causes.

1. **What do you do when using the 5 Whys technique?**
 - a. Identify You, Yourself, Yours, Youth, and Yield
 - b. Draw a fishbone diagram
 - c. Ask why and challenge the answer with another why five times
 - d. Limit yourself to five questions
2. **What does a Cause and Effect diagram show?**
 - a. Who is causing a problem
 - b. Many solutions for a complicated problem
 - c. Many causes for a complicated problem
 - d. The root cause of a problem

Simplify complex problems.

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1. An effective way to deal with a complex problem is to:

- a. break it down into smaller problems
- b. describe its size and scope
- c. build your confidence for solving it
- d. assign it to someone else

2. After identifying subproblems, you should:

- a. sort or rank them
- b. use the 5 Whys technique
- c. brainstorm
- d. focus on the main problem

Identify and manage problem risk.

1. What is risk?

- a. a random form of success
- b. exposure to the possibility of loss or damage
- c. a way to react to a problem
- d. a way to solve a problem

2. What type of solution should you seek when solving problems?

- a. one with low risk and high reward
- b. one with low risk and low reward
- c. one with high risk and high reward
- d. one with high risk and low reward

Avoid common problem-solving traps.

1. Which of the following is a common problem-solving trap?

- a. Bandwagon effect
- b. Not in My Backyard syndrome
- c. Office Politics pitfall
- d. Wild West mentality

2. Which of the following is *not* a symptom of overconfidence?

- a. Underestimating the length of a task
- b. Asking trusted coworkers for their opinions
- c. Overestimating the chance that something you want will occur
- d. Being overly optimistic about your decisions

Technology @ work: Crowdsourcing

1. Crowdsourcing is a way to:

- a. use proven time-management techniques to solve problems
- b. reduce risk and increase rewards
- c. use overseas workers to perform tasks
- d. use groups to solve problems

2. The most successful crowdsourcing examples involve:

- a. volunteer efforts where the results are provided for the common good
- b. persuading customers to purchase services
- c. products that have specific, limited appeal
- d. high company profits with low crowd compensation

Critical Thinking Questions

1. Successful teams—whether in sports or business—usually perform well because each member contributes talents and skills to the group effort. What contribution do problem-solving skills make to team efforts? Provide at least one example that illustrates your points.

Nearly every task a team handles is related to solving a problem. Handling problems involves identifying and discussing solutions, and then deciding on the best one. Team members can contribute to problem-solving tasks by breaking large problems into small subproblems, introducing creative alternative solutions, evaluating those solutions, and then articulating reasons for and against each one.

For example, members of Quest teams in marketing, finance, and tour development need to understand Quest's current economic problems. A member of the marketing team should be able to evaluate the problems travelers have with the travel industry overall and identify ways that Quest can overcome those general problems. A member of the finance team needs to realistically evaluate how Quest's flat sales affect financial goals and introduce solutions such as finding alternate sources of income, reconsidering the financial goals, and cutting costs. A member of the tour development team needs to focus on creating or enhancing tours so they are profitable.

2. You can take a problem-solving approach to resolving conflicts in an organization. Suppose you and your colleague are working together on a high-profile project to develop software for handling orders at your company. You want to adapt existing software and your colleague wants to develop new software. How would you apply the problem-solving steps shown in Figure 1-2 to resolve the conflict?
 - **Identify the problem:** State the problem generally and specifically. For example, a general statement is "Automate how we handle orders for products." More specifically, break the problem down into smaller problems and define the goal for each one. For example, one problem might be that it takes one week for your company to process an order and your goal is to reduce that to three days.
 - **Gather information:** Learn how your organization solved similar problems in the past. Discover how other organizations handled similar problems. Identify which existing software you could adapt to handle order processing and what types of general changes need to be made. Also identify the resources needed for developing new software to handle order processing. Learn about specific problems with each alternative and how others overcame them.
 - **Clarify the problem:** Clarify anything about the problem that is vague, undefined, or unknown. For example, what exactly does it mean to process an order? Receive an order for products from a customer or salesperson and then ship the order? What are the starting and ending points for the process? Also list the tasks that you want the order-processing software to perform. Use objective measures to define success—should the system be able to handle thousands of orders at the same time? Or just up to 10? Should customers be able to submit and track orders using the company Web site?
 - **Consider possible solutions:** Compare the existing software to new software. Can one handle more orders than another? Is one designed for online order taking? Evaluate how each solution meets your objectives.

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- **Select the best option:** At this point, one solution might clearly be superior to another because one meets most of your goals while the other does not. If so, the conflict between you and your colleague is also resolved. If not, you might need to gather more information (find out the budget and schedule for the project, for example) and continue to clarify the problem. For example, should the system ideally process an order in three days but cost only a certain amount of time and money to develop?
 - **Make a decision and monitor the solution:** Working through the basic problem-solving steps and using objective measures should eventually identify the solution that meets most of your company's goals. If a clear consensus has not emerged, you might try out one solution before committing completely to it.
3. Describe a time when you solved a basic problem. Then describe a situation in which you solved a complex problem. What are the similarities and differences in the approaches and the solutions?

Responses will vary but overall, you can solve both types of problems by describing the current state and then identifying the ideal or goal state. However, solving a basic problem takes less time and effort than solving a complex problem. For example, a basic problem might be that your new job involves a trip across town during rush hour, which results in a long commute and decreases the amount of time you have available for other activities. You can often solve a basic problem by identifying your true goals. If you want to create more time for exercise, you could bike to and from work instead of drive. If you want more time to stay in touch with friends, you could take public transportation and use the free time to contact friends electronically.

When solving a complex problem, you also identify the current state (your job is boring, stressful, and demeaning but you depend on the income and benefits) and your goal state (a job that energizes you, takes advantage of your skills and training, and rewards you accordingly). You might take more time to analyze the problem and identify possible solutions, such as changing jobs within the same field, changing positions within the same company, taking advantage of training opportunities, or leaving your job to return to school for additional training. You might also involve other people to help you solve the problem.

4. Samuel Johnson said, "Integrity without knowledge is weak and useless, and knowledge without integrity is dangerous and dreadful." What does this mean for solving problems in a contemporary business?

Integrity means approaching problems with fairness and sincerity and avoiding the appearance of a conflict of interest. Knowledge is the expertise and skills you acquired through experience or education, your understanding of a subject, including facts, opinions, and history about the subject. You need both to solve problems ethically. For example, a business problem might be that business has been slow for a few months and many employees don't have enough work to do to be productive. Should some employees be laid off? If so, which ones? Trying to solve that problem by being strictly fair means laying off all employees or none of them. Neither approach is likely to solve the problem. You need to learn more about the problem, such as why business is slow, which employees are the most productive, and whether business will probably increase soon. On the other hand, focusing only on facts might lead to a decision to lay off the highest paid

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employees, for example. That might save money, but cause resentment, quality, and legal problems.

5. Based on the grids shown in Figures 1-9 and 1-10, list three typical business problems, such as flat sales, loss of loyal customers, and dissatisfied employees. Draw a grid showing how you would solve one of these problems.

You can approach a problem by rating how well possible solutions solve related problems, as in Figure 1-9.

How can we increase sales?			
Subproblems and solutions	Enhance current products	Increase promotions and ads	Offer commissions for sales
High turnover in sales staff	3	2	5
Few new products	2	0	0
Competitors have same products	5	3	3
Score	10	5	8

You can also approach a problem by assessing the risks and rewards of possible solutions, as in Figure 1-10.

How can we increase sales?		
Option	Potential reward	Potential risk
Enhance current products	Moderate	Moderate
Increase promotions and ads	High	Moderate
Offer commissions for sales	Moderate	Low

Independent Challenges

Because students will solve the independent challenges in different ways, it is important to stress there is not just one correct solution. The following are examples of possible solutions for the Independent Challenges in Part 1 of this book.

Independent Challenge 1

Filename: PS1-IC1.docx

Students should review the statements and facts in Figure 1-16, and then outline the steps Lawrence Media can take to analyze and solve their sales staff problem.

Ken:

“The turnover is terrible. Good salespeople sign up, work hard, seem to enjoy their stay, and then leave for our biggest competitors and start working against us.”

Facts:

- Average annual attrition among salespeople is 43%.
- When salespeople quit, the company loses the equivalent of two to four times the amount of their annual salary in lost opportunities and expenses in training new personnel.

Problem analysis:

- Lawrence Media is not retaining salespeople. This problem is typical among salespeople since 43% leave their position each year.
- When salespeople quit, Lawrence Media no longer has to pay their salary.
- However, they have to have additional expenses because they have to train new salespeople. They also lose money because they lose opportunities the salespeople might have developed.
- In addition, salespeople often leave Lawrence Media to work for their competitors.

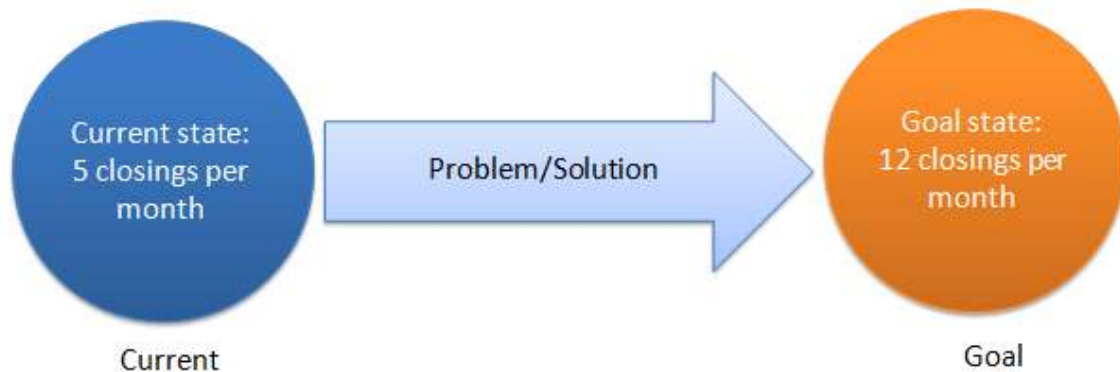
Steps to solve the problem:

- Find out why salespeople switch jobs in general. Do they like the challenge of a new job? Do they want less supervision? Do they earn higher salaries or commissions when they switch.
- Find out why salespeople leave Lawrence Media in particular—do they want to make more money? Do they think the quality of the products are low? Are the working conditions difficult or inflexible? Do they want more variety in their activities?
- Learn whether competitors handle salespeople differently from Lawrence Media.
- Evaluate the answers to these questions and identify possible solutions. For example, if salespeople want to make more money, can Lawrence Media offer or increase the commissions on each sale? Could salespeople receive bonuses if they meet goals such as time with Lawrence Media, amount of sales or number of new customers?

Independent Challenge 2

Filename: PS1-IC2.docx

Students should review the diagram of the problem for Sage Realty Services shown in Figure 1-17, write a problem statement, and then list possible solutions.



Problem statement:

Based on previous years, Sage Realty Services should have 12 closings per month to meet its financial goals. However, they currently have only five closings per month. Real estate agencies nationwide are experiencing similar problems. Plans for expanding Sage Realty Services are on hold until closings increase.

Possible solutions:

- **Expand services:** If Sage Realty Services concentrated in single family homes, for example, they might expand into rental markets.
- **Offer new services:** They could also offer additional services to sellers, such as helping to stage homes for open houses and showings.
- **Find creative, short-term solutions:** If real estate sales are low nationwide, Sage could improve its relationships with potential customers. For example, they could help sellers rent properties that have been for sale for awhile. When the market improves, those customers are more likely to feel loyal to Sage and retain them as their real estate agent.
- **Change goals:** The goal of 12 closings per month might be unrealistic in this market. Sage might need to redefine their financial goals and evaluate the consequences.

Real Life Independent Challenge

This is an open-ended exercise that gives students an opportunity to apply the problem-solving techniques they learned in this unit to challenges, difficulties, and other problems in other parts of their lives. Students should select a problem to solve and then identify possible solutions.

In a document for personal use, they should list up to 10 problems to solve, ranging from minor to major. These statements should be written as complete sentences, similar to the following:

- I need a more reliable form of transportation.
- The rent on my one-bedroom apartment is increasing in two months and will be out of my price range. However, I like the apartment building and don't want to move.
- My aunt's health insurance runs out soon and she won't be able to afford medication for her chronic condition.
- The bike path where I like to exercise is often cluttered with trash.
- I need to find a second job during the summer months.
- I want to make the three-hour trip to visit my family, but don't want to drive my unreliable car.

For each problem statement on the list, they should indicate whether they or anyone they know can do anything about the problem. If not, they should move the problem to a new page with the heading "Out of Scope." For example, Out of Scope items might be:

- My aunt's health insurance runs out soon and she won't be able to afford medication for her chronic condition.
- The bike path where I like to exercise is often cluttered with trash.

For each problem statement on the revised list, they should brainstorm possible solutions. For example, they might brainstorm the apartment problem as follows:

- The rent on my one-bedroom apartment is increasing in two months and will be out of my price range. However, I like the apartment building and don't want to move.

Find a roommate

Offer to perform services at the apartment complex in exchange for rent reduction

Move to a smaller apartment in the same building

Negotiate the same rent until I start working a second job

Then they should select one problem and organize the possible solutions into a table to determine which solution offers the best risk/reward ratio.

How can I maintain the same rent?		
Option	Potential reward	Potential risk
Find a roommate	High	Low
Perform services	Low	Moderate
Move to smaller apartment	Moderate	High

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Negotiate same rent for short period	Low	Moderate
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Team Challenge

The scenario is that you have been hired by Colorado Green Builders, a company in Boulder, Colorado, specializing in sustainable building. The goals of your company are to design and build structures that use energy, resources, and materials efficiently; protecting the health of occupants and improve the productivity of employees; and reduce waste, pollution, and environmental degradation. For your first project, you are assigned to a newly formed team that will communicate with clients and solve their problems. However, your new team itself is having problems: the team has only met once and one person dominated the discussion. Everyone else was silent or quietly responded to text messages. Your manager learned about the ineffective meeting and suggested that you start by creating a team charter, which spells out the rules for conduct for the team and its members.

Charters will vary, but typical rules include:

- **Attitude and approach:** The team members will work cooperatively and constructively to meet goals.
- **Team meetings:** The team will meet every week on Tuesday at 10:00 am in the main conference room. All team members are expected to attend team meetings unless they are out of the office. The team leader will write and distribute an agenda by e-mail by midday on Monday. Meetings will start promptly on time.
- **Communications and decision making:** The team leader will strive for balanced participation of all team members. Our goal is collaboration and consensus for important decisions and problems. When team members pose an issue or a problem, they should also try to present a solution.
- **Problem solving:** When solving problems, the team will use objective, impersonal approaches such as brainstorming. At times, non-team members will be invited to help solve problems or provide information. If conflicts arise in the team, one impartial member or outsider will serve as a facilitator to discuss and resolve the conflict.

Be the Critic

Students review the following meeting, which includes employees at Athena Insurance. The company often contributes to local nonprofit organizations, and provides major support to one organization each year. Students should create an e-mail message that lists the weaknesses in the problem-solving discussion shown in Figure 1-18.

Alice (committee chair):
Let's support the food pantry.

Don:
That sounds like a good idea.

Sylvia:
I like any idea that helps people in need.

Frank:
I have to leave in 10 minutes.

Emily:
What about something else, such as the electronics recycling program?

Alice:
Electronics recycling doesn't seem as helpful as the food pantry.

Don:
I agree.

Frank:
So we've settled on the food pantry?

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Communication weaknesses:

- As the committee chair, Alice should introduce the question or problem instead of starting the meeting by suggesting the solution to support the food pantry.
- Don encourages groupthink by immediately agreeing with Alice.
- Sylvia steers the conversation toward more general topics, though her statement might be too general.
- Frank is obviously not involved in the meeting and only wants to leave. His impatience is probably a distraction.
- When Emily makes a helpful, specific suggestion, Alice rejects it without letting others discuss it. Don again encourages groupthink by agreeing with Alice.
- Frank seems to settle the decision, even though he only wants to leave the meeting.