

Problem-Solving Skills: Case Studies

PROBLEM-SOLVING SKILLS are important in any career. They allow you to deal with a wide variety of situations in your professional life. For example, you may encounter problems such as arranging transportation to work, dealing with difficult coworkers, prioritizing daily tasks, and treating uncommon conditions. In this unit, you will learn how case studies can be used as an educational tool to improve your problem-solving skills on the job.



Objective:



Explain how to use case studies to improve problem-solving skills.

Key Terms:



- brainstorm
- case studies
- critical thinking
- evaluate
- learning objective
- prioritize
- problem-solving skills

Understanding Problem-Solving Skills

Some problems have a standard solution. For example, a specific medication may be used nearly always to treat a certain medical condition. However, you likely will encounter many problems in your career that have several possible solutions. One way to become more confident and successful in your career is to “practice” solving problems that you may face on the

job. Your teachers may choose to use case studies to increase your understanding and prepare you for a career in medical assisting.

BENEFITS

Case studies are detailed examples of a situation or patient presented as a learning tool for students or healthcare professionals. Teachers may use case studies to improve your problem-solving skills.

Problem-solving skills are the ability to work through a problem to come to a solution. These skills involve several steps. First, you must identify the problem, which sometimes means considering the cause. Next, you have to **brainstorm** or think of multiple possible solutions. You should **evaluate** (make a judgment based on the likely outcomes) the options and weigh the risks versus the benefits to decide which would have the best outcome. Problem-solving skills may require the use of **critical thinking**—using knowledge as well as past experience to approach a problem.

Various benefits exist pertaining to the use of case studies as learning tools. Case studies offer opportunities for discussion (when used in a classroom or clinical setting). The teacher supplies the details and discusses what information is important as well as what information is still needed. This helps students learn what questions to ask in a real-life situation.

Case studies allow you to apply knowledge immediately in the context of real-life situations. This enhances your understanding about why one solution works but another possible solution might not work.

This type of study is true learning, not just memorization. Most importantly, it gives students the framework for making good decisions in the future. Reading and discussing case studies helps boost a student's confidence in his or her problem-solving abilities.



FIGURE 1. Case studies require more than simple memorization. They allow students to put knowledge in the context of real-life situations.

CASE STUDIES IN USE

Case studies involve real-life or fictitious situations or patients. The cases presented in this unit are fictitious and are for illustration and learning purposes only. The key to a good case study is specific details. Details help you learn what type of information is needed to make a decision. This lets students know what questions to ask in the future.



FURTHER EXPLORATION...

ONLINE CONNECTION: Creating a Case Study

Case studies are helpful to doctors trying to diagnose rare conditions. If a patient presents an unusual set of symptoms, a doctor may not know which tests to run or what medications to try without doing additional research. Medical journals and other resources for doctors may present detailed case studies of patients with certain medical conditions. The case studies may help doctors decide how to proceed with the patient's care or alert them to potential conditions with which they are unfamiliar.

Use your computer to conduct your own online research. Find a case study about a patient with an unusual condition that you find interesting. Share the case study with your classmates, and explain how the case might help doctors become better problem solvers in the future.

Case studies should include a clear learning objective. A **learning objective** is specific information, skills, or ideas for the student to learn. Learning objectives use action verbs, such as “explain,” “demonstrate,” “evaluate,” “identify,” or “prioritize.” **Prioritize** is to rank tasks in order of importance or urgency. Learning objectives should avoid vague objectives, such as those that begin with the word “understand.” This helps ensure the objectives require higher-level thinking, so you must apply knowledge rather than repeat memorized information. The goal of a case study is to help you apply knowledge in the future.

Case studies also encourage discussion. They may present options for you to analyze. Instructors should encourage you to brainstorm ideas and list other information that would be helpful in the decision-making process. When evaluating a case, you may be asked to compare two or more cases or to evaluate the outcome of a situation. Case studies allow you to discuss how different approaches could have been better or worse. In addition, you may be able to identify other information or details that could have impacted the decision.

Example Case Study

Read the case study details, and discuss the case with classmates until you are confident you have met the learning objective: **Prioritize duties assigned to a medical assistant.**

Case study:

- ◆ Amanda is a medical assistant in a busy doctor's office. She is responsible for several duties that must be performed on a daily, weekly, or monthly basis. In addition, she has responsibilities related to patient care as well as duties as assigned by the doctor. Some days, Amanda has trouble deciding which jobs need her attention first.
- ◆ Amanda's time sheet is due each Friday before she leaves at 5 p.m.
- ◆ An inventory of supplies must be conducted by the last day of the month.
- ◆ Exam Room 2 must be sanitized before another patient may be called.

- ◆ The doctor asks Amanda to print out the schedule for his meetings the following Wednesday.
- ◆ The patient in Exam Room 1 is waiting for samples of the medication prescribed by the doctor.

Consider the urgency of each job. Which should be done right away? What other information is needed to make a good decision? Ask your instructor additional questions. For example, you may need to know what the day and date are before you can prioritize the jobs of taking inventory, completing a time sheet, and printing the doctor's schedule. Continue the discussion considering the following information:

- ◆ It is Friday afternoon on the 25th of the month.

In most cases, any job related to immediate patient care takes top priority. If Amanda leaves the patient in the exam room waiting for samples while she inventories supplies, the doctor will not be able to see the next patient. This could negatively affect the patient schedule for the rest of the day. Therefore, Amanda should deliver the medication samples right away.

The next priority would be to prepare rooms for the next patients by sanitizing the table, instruments, and other surfaces. That allows the nurses and doctors to continue seeing patients on schedule.

As the day wears on, Amanda's time sheet becomes a higher priority because it must be completed before she leaves for the day. She could print the doctor's schedule at the same time because she will be at the computer anyway.

The inventory is the lowest priority on the list because it does not have to be done until the following week. However, it may have been a higher priority at 11 a.m. on a day when supply orders must be placed by noon. Explain how those details would impact your decisions when prioritizing.

Summary:



Case studies are detailed examples of a situation or patient presented as learning tools for students or healthcare professionals. Case studies offer opportunities for discussion when used in a classroom or clinical learning situation. They allow students to ask questions and apply knowledge immediately in the context of real-life situations. This type of study is true learning, not just memorization. Most importantly, it gives students the framework for making good decisions in the future. Case studies should include a clear learning objective that uses action verbs, such as "explain," "demonstrate," "evaluate," "identify," and "prioritize." This helps ensure the objectives require higher-level thinking, which means students must apply knowledge rather than repeat memorized information.

Checking Your Knowledge:



1. What is a case study?
2. Describe two benefits of using case studies as learning tools.
3. What is critical thinking?
4. What is a learning objective?
5. List four examples of action verbs that could be used in a learning objective.

Expanding Your Knowledge:



Ask a healthcare worker (e.g., a medical assistant, nurse, or physician's assistant) to describe how he or she used case studies as learning tools. Did they read and discuss case studies only as students? Or do they use case studies to continue their education and improve their problem-solving skills as current members of the workforce? What benefits do they see for using case studies?

Web Links:



Successful Problem Solving

<http://www.nursingtimes.net/thinking-your-way-to-successful-problem-solving/200636.article>

Collection of Case Studies

http://sciencecases.lib.buffalo.edu/cs/collection/results.asp?subject_headings=Nursing

Learning Objective

<http://www.instructables.com/id/How-to-write-learning-objectives/>

Action Verbs

<http://rfptemplates.technologyevaluation.com/list-of-action-verbs.html>