

# Chapter 12

## Teamwork and Problem-Solving Skills

### SECTIONS

**12.1** Teamwork

**12.2** Problem Solving



### • Reading Prep

As you read this chapter, take notes on the important points you want to remember. Record the information in the form of an outline to help you understand the material covered.

### Introduction

Working as part of a group or team is an important skill for future success. You likely will have a role on a team at some point in your career. You may even lead the team. Team members need to know how to communicate well and listen to other people's thoughts and ideas. These skills are important for solving problems, which is an important function of teams. Using problem-solving tools can make a team more effective.

Working with others can be fun and rewarding. It also can be frustrating and complex. This chapter explains the importance of working as a team member in the workplace and ways to promote meaningful collaboration.

## CAREER SNAPSHOT

### Police, Fire, and Ambulance Dispatcher

#### Responsibilities

A **police, fire, and ambulance dispatcher** responds to 9-1-1 emergency and nonemergency calls, such as alarm system calls. Dispatchers must collect information from callers to determine the location, nature, and priority of an emergency call and communicate it to first-responder agencies. A **police, fire, and ambulance dispatcher** must:

- Coordinate the dispatch of police and fire personnel to accident scenes
- Maintain contact with and track the status and location of all police and fire units on assignment
- Coordinate responses with other area communication centers
- Enter, update, and retrieve information from a variety of computer systems
- Keep detailed records of all calls
- Monitor several complex public safety radio frequencies
- Provide basic first-aid or safety instructions to the caller
- Operate a variety of communications equipment, including radio consoles, telephones, and computer systems

#### Work Environment

A **police, fire, and ambulance dispatcher** usually works in a communication center with many other emergency dispatchers. Some answer calls for a variety of agencies, but others work only for police or fire departments. This type of work can be stressful, but dispatchers must remain calm. **Police, fire, and ambulance dispatchers** must be available to work evenings, weekends, and holidays, as needed. Many dispatchers have to work long shifts, so overtime is common.

#### Education and Skills

- High school diploma or equivalent
- Passage of written exam and typing test
- Passage of background check, hearing and vision tests, and drug screening
- On-the-job training
- Various certifications required by some states
- Strong communication, decision-making, and multitasking skills

#### Expected Growth and Pay

- 6% growth in jobs through 2029
- 98,300 employed in this occupation in 2019
- Median annual wage of \$43,290 in 2020

*Adapted from the US Bureau of Labor Statistics*



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# Teamwork

## ESSENTIAL QUESTION

How is a team's success measured?

## TERMS

globalization  
quality  
team  
virtual team  
functional team  
cross-functional team  
self-directed team  
multifunctional team  
norm  
Gantt chart

## LEARNING OBJECTIVES

After completing this section, you will be able to:

- LO 12.1-1** Explain how changes in the workplace have led to the need for teamwork.
- LO 12.1-2** Discuss types of teams and their role in the workplace.
- LO 12.1-3** Identify the stages of team development.
- LO 12.1-4** Describe the characteristics of an effective team.

## LO 12.1-1 The Need for Teams

Not too long ago, managers made decisions, and workers followed their orders. Workers spent long hours performing repetitive tasks that often required little or no formal training or creative thinking. These jobs paid a good wage and provided good benefits. Workers could count on working their entire career with one company in a job that provided their families with a high standard of living.

Over time, trade agreements, as well as advancements in technology and transportation, led to globalization. **Globalization** is the process of international businesses and financial markets becoming more interconnected. Globalization increases both competition and opportunities for companies and workers. The effects of globalization have changed the role of the typical worker. Workers are now faced with more complex problem solving and decision making about such things as procedures, quality, and finances. All of this has created a need for a more highly skilled and educated American workforce.

This need for a highly trained workforce is apparent in today's global workplace. Foreign companies with low labor costs are able to produce and sell their products for less. In an effort to be more competitive, many American companies have moved their manufacturing and assembly operations overseas where labor costs are lower. This is particularly true of jobs that require little or no college education. As a result, low-skill jobs that pay a reasonable wage are quickly disappearing from the American scene.

Today, successful companies use teams of workers to solve problems once handled by top managers. Employers need well-educated workers who are comfortable working in teams and sharing ideas with others from diverse backgrounds. They expect workers to stay knowledgeable about their work and continually make improvements in their skill level. Employers want workers who can work well with others, solve problems, manage conflict, and focus on quality. **Quality** is a commitment by everyone in an organization to exceed customer expectations.



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Our workplace experiences would be very different without teams. *How do you think working in teams improves productivity?*

## LO 12.1-2 Teams in the Workplace

A **team** is a group of people working together for a common purpose. Depending on its purpose, the typical number of members on a team ranges from 3 to 15 people. Many companies use teams to help solve problems and increase productivity in the workplace. Teams are committed to finding solutions and accomplishing goals.

For a team to be successful, each member must be able to demonstrate good communication and interpersonal skills. *Interpersonal skills* are the skills people use to positively interact with one another and build relationships. This includes being able to collaborate and cooperate with others who have different backgrounds and areas of expertise. Team members must be teachable, meaning they are willing and able to learn from one another. They should treat each other in a respectable and professional manner. Perfecting these skills can increase your effectiveness in working with managers, coworkers, and customers. Good communication and interpersonal skills will help you eliminate communication barriers, create a pleasant working environment, and solve problems.

### Types of Teams

Teams may be formal or informal. Some teams are formed to serve an ongoing need, while others operate on a temporary basis.

#### Formal Teams

Teams set up to meet an ongoing workplace need are usually formal teams. Formal teams are organized for a specific purpose and have an

appointed leader to run the group. The sales team in an organization is an example of a formal team.

It is often difficult to get formal team members together in one place because members may be working in different parts of the country or world. A **virtual team**, sometimes called a *geographically dispersed team*, is a team whose members work from different locations. Virtual teams can function successfully through the use of technology. Team members use technologies such as e-mail, videoconferencing, telephones, and local- and wide-area networks to communicate with one another. Virtual teams are a popular solution and enable companies to save money and time in travel.

### Informal Teams

Informal teams are usually created for a social purpose. A softball team is an example. The leader may be chosen based on team members' votes rather than appointed. As a member of an informal team, it is important to set boundaries to ensure there is no conflict between work life and personal life. For example, talking about customers during your work softball practice when others are around should be avoided. Also, conversations about softball should be limited while at work.

### Functions of Teams

Formal teams in the workplace are formed for different functions or purposes. Functional, cross-functional, and multifunctional teams are characterized by who serves on the team and the role each member plays. **Figure 12-1** provides an overview of how members function within different teams.

### Functional Teams

A **functional team** is a team whose members have similar skills and expertise. Although members would not be able to perform each other's jobs, they can easily share technical expertise. Team members

Teams and Their Members	
Team Type	Characteristics of Team Members
Functional Team	<ul style="list-style-type: none"> <li>• May work in the same department but only meet as a team sometimes</li> <li>• Work on a variety of problems over time</li> <li>• Have similar skills and expertise but unable to perform each other's jobs</li> <li>• May develop strong allegiance to one another</li> </ul>
Cross-Functional Team	<ul style="list-style-type: none"> <li>• Come from different departments within a company</li> <li>• Work on a specific problem</li> <li>• Are selected based on their expertise in a given area</li> <li>• Can solve problems quickly</li> <li>• Cease working together when problem is solved</li> </ul>
Multifunctional Team	<ul style="list-style-type: none"> <li>• Are cross-trained to perform each other's jobs</li> <li>• Are assigned to specific tasks</li> </ul>

**Figure 12-1**

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Team members perform different functions based on the type of team.

## Event Prep .....



### Team Presentation

Team presentation is a competitive event you might enter with your Career and Technical Student Organization (CTSO). This activity is a case study for which your team will provide a solution. You may be asked to role-play the scenario or interact with the judges as they ask you questions about the case. This event will demonstrate your team's ability to make a persuasive oral presentation.

To prepare for a team presentation event, complete the following activities.

1. Read the guidelines provided by your organization. Make certain that you ask any questions about points you do not understand. It is important you follow each specific item that is outlined in the competition rules.
2. Perform an Internet search for *case studies* that relate to your CTSO's area of focus. Your team should select a case that seems appropriate to use as a practice activity. Look for a case that is no more than one page long.
3. Read the case and discuss with your team members. What are the important points of the case?
4. To practice your note-writing techniques, each team member should have two index cards. Make important notes on the cards that will help with a presentation.
5. Team members should exchange note cards so that each can evaluate the other person's notes. Are your cards accurate enough to help as you are presenting?
6. Assign each team member a role for the presentation. Ask your teacher to play the role of competition judge as your team reviews the case.
7. Ask a fellow student to be the timekeeper as the presentation is made.
8. Each team member should review the case, make suggestions for the case, and conclude with a final summary.
9. After the presentation is complete, ask for feedback from your teacher. You may consider having a student audience listen and give feedback.

usually work in the same department. Functional teams solve problems based on their understanding of the work to be done and each team member's unique contribution. For example, a functional team for maintenance at an automotive plant might be composed of a variety of workers such as electricians, plumbers, and air-conditioning specialists. They would have a common understanding of the department's role in keeping a plant running and could help solve maintenance-related problems.

### Cross-Functional Teams

A **cross-functional team** is a team that consists of individuals from different areas within a company assigned to work on a specific project. Members are selected based on their expertise and ability

Cross-functional teams bring employees from different departments together to resolve problems. *What are some of the advantages of working in a cross-functional team?*



*Drazen Zigic /Shutterstock.com*

to make a unique and meaningful contribution. For example, a team whose purpose is to create a new car design might consist of representatives of the company's design, manufacturing, marketing, and financial departments. The marketing representative could share information on special features to include in the new design to help the car sell better. The manufacturing representative would comment on the company's ability to build the new design. Working together, their goal would be to produce a well-designed car that is relatively easy to build and can be profitably sold at a reasonable price. These teams can be very effective and quick to solve problems.

Cross-functional teams may be self-directed. A **self-directed team** has been given full responsibility for carrying out its assignment. The traditional supervisor is replaced by a team leader who leads rather than supervises. Under this person's leadership, team members set the team's work-related goals and objectives. They identify priorities, set budgets, develop work plans, and solve problems. Self-directed teams evaluate their own progress and often hire, train, and evaluate their team members. Once its goals are reached, the team is dismantled.

### **Multifunctional Teams**

A **multifunctional team** is a team that consists of members who have been cross-trained to do another worker's job. Each person is able to perform the duties of all the other team members. An example might be a team of workers who assemble automobile parts. Each member of the team would be able to perform all the jobs on the assembly line. When a worker is ill or takes a break, another team member can step in and do the job without additional instruction.

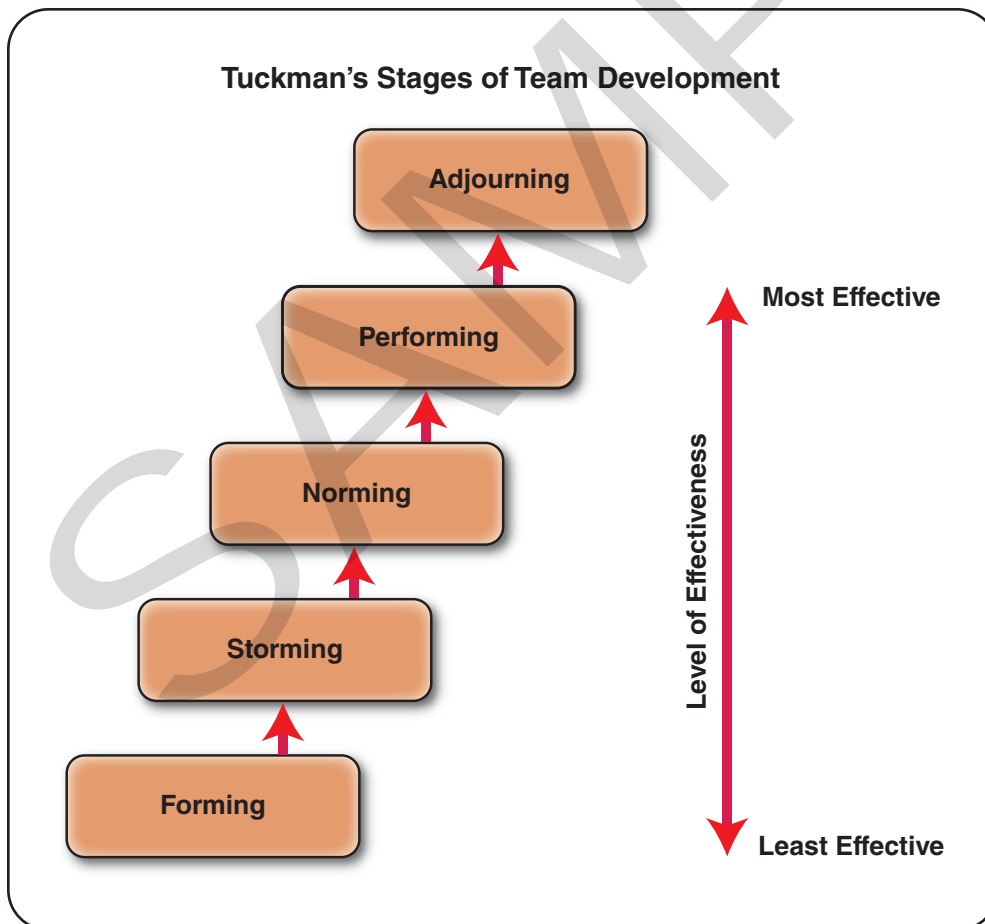
## LO 12.1-3 Stages of Team Development

Placing a group of strangers together and expecting them to perform well right away often leads to conflict. Teams are composed of diverse individuals and multiple relationships. As such, teams go through stages of development and take time to evolve into a cohesive group.

Group dynamics expert Dr. Bruce Tuckman identified five stages of team development, as listed below and shown in **Figure 12-2**.

- Forming
- Storming
- Norming
- Performing
- Adjourning

Generally, team members do not begin to work well together until the norming and performing stages. However, not all teams experience norming and performing. Some teams may not make it past forming and storming before having to end or adjourn.



**Figure 12-2**

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Teams progress through the stages of development at different rates.



## Go Green .....



Many organizations are establishing green teams. These teams brainstorm ways the organization can make its daily business operations more environmentally friendly. For example, companies may be able to improve shipping routes to consume less fuel, implement online systems to replace paper forms, and replace traditional office lighting with low-voltage bulbs. In addition, green teams may address employee habits in the workplace, such as implementing a recycling program and eliminating the use of disposable plastic water bottles.

### Stage 1: Forming

Teams go through the forming stage when they first come together. In many cases, team members do not know each other very well. At this stage, the members may feel excited and motivated about what the team can achieve. They may also feel uncomfortable, afraid to speak, and full of doubts, wondering what is expected of them. During this stage, team members become acquainted. They also discuss the team's purpose. Often, a leader emerges to provide direction and guidance. Group members work together to establish rules and procedures for the way the team will communicate and function.

### Stage 2: Storming

Similar to most new relationships, disagreements are likely to occur as team members get to know each other. There may be disagreements over how the team operates, who is in charge, or when and where the team meets. Team members may even question why the team was formed. Sometimes these conflicts are discussed openly during meetings. In other cases, there may be personality clashes and arguments. As a result, team members may find it hard to work together and make decisions. This is when interpersonal skills are essential for success because team members must work through distrust and misunderstandings. Although the storming stage can be quite difficult, it is also the stage when members begin to trust each other and share their feelings and ideas more openly.

### Stage 3: Norming

The title of this stage comes from the scientific term *norm*. A **norm** is a pattern that is typical in the development of a social group. During the norming stage, team members begin to work together and appreciate each other's strengths. Teams resolve the disagreements that began in the storming stage and work towards common goals. The members openly discuss issues, listen to and learn from one another, and become more involved. The leader and other team members begin to settle into their roles. They feel good about themselves and the team. They accept the team's decisions and are willing to work hard to carry them out.

## Career Case .....



### Pit Crew Members Are Team Players

Pit crews are critical to the success of professional racecar drivers. The crew may include a chief mechanic, general manager, driver assistant, fuel person, tire crew, transportation personnel, and others. Pit crews must set up the pit area hours before a race. They make sure gasoline, tires, and anything else they may need are available in the pit.

Before the race, the pit crews move pit buggies and huge toolboxes into the pit area. The equipment and supplies include jacks, spare chassis, a drink holder with extended handle for the driver, a brush with extended handle to clean the car's grill, and spare shocks. Several gas cans containing extra gallons of fuel are also placed in the pit. There is also a broom in the pit for cleanup and a gas catch-can to trap excess fuel during a fill-up. There are various lubricants, mufflers, lug nuts, sets of spare tires, and sometimes even a spare steering wheel. The list of items needed during a race is quite lengthy. If something is needed in a race and is not in the pit, a crew member must run to the garage to get it. That takes valuable racing time.

Air wrenches are carefully placed around the pit buggy. Hoses connecting them with nitrogen tanks are coiled and secured, so the crew will

not trip over them. The nitrogen tanks provide the pressure needed to operate the wrenches.

Probably one of the most important tools used during pit stops is a two-way radio. Before coming down pit row, the driver can tell the crew about any problems the car has. The driver can also talk with the crew for instructions, such as when to make a pit stop and how many tires will be changed.

Only a limited number of crew members are allowed over the pit wall at any time to work on the car. So special techniques are used to perform the work at lightning speed. Pit crews can change four tires and fuel up the car in a matter of seconds.

For the driver to win the race, the team has to function like clockwork. All members must be highly skilled and know their job well. An effective team not only helps the driver win a race but also assures a safe race without injuries.

### Critical Thinking

1. What characteristics of an effective team are evident in a pit crew at a professional car race?
2. To what stage of team development has a racecar pit crew evolved?
3. How does teamwork solve the problems associated with driving racecars in competition?

### Stage 4: Performing

This is the highest level of team performance and effectiveness. The positive feelings that developed during the norming stage continue to grow. Members are committed to the team and the organization. They examine the best way for the team to function and make adjustments as needed. Different team members may take charge, depending on the task at hand. Ultimately, a team that has reached the performing stage effectively functions for the benefit of the company.

### Stage 5: Adjourning

Adjourning is the fifth and final stage of group development. This typically occurs when a team has completed the norming and performing stages. During the adjourning stage, teams will reflect

on and celebrate the team's accomplishments. Relationships formed within the group tend to remain or end well. On the other hand, when adjourning is sudden and goals are left unfinished, the team can unravel. Team members may experience feelings of disappointment and frustration. Therefore, planning a good ending is essential for any team, especially for teams who were unsuccessful in meeting their goals.

## LO 12.1-4 Characteristics of an Effective Team

A team that has reached the performing stage is highly effective. Team members collaborate and function well together. They may share or change roles as needed to carry out a task in the most effective manner. They stay focused and work for the common good. Characteristics of an effective team are described below.

### Shares Leadership

Leadership on effective teams is shared among the members. Often, the member who knows the most about a given problem takes the lead to resolve it. A team member who has expertise in another area may take the lead to resolve a different issue. When leadership is shared, everyone feels responsible for the success or failure of the team. All members of the group are more willing to make decisions and take responsibility. Leadership does not mean telling others what to do. Instead, it involves helping the team move forward. Leaders use their communication and interpersonal skills to actively listen to and encourage their fellow team members. Therefore, great leadership is marked by how well the leader can collaborate with, rather than control, others.

### Rotates Team Roles

A good team keeps everyone involved. One way to accomplish this is to assign roles to members. This is particularly true in team meetings. The roles shown in **Figure 12-3** can be rotated among members.

These roles may vary, depending on the needs of the team. Interest increases when team members take turns performing roles. For example, the taskmaster one week may be the recorder the next week. It is important to remember that all roles have an impact on the team's development. Therefore, how each member contributes to the team's growth, positive or negative, determines what the team can accomplish.

### Stays Focused

An effective team consists of members who are aware of the team's mission as well as their individual roles. There are several ways to keep the team focused on its mission, including setting goals, using humor, and taking breaks.

## Team Roles

### Leader

- Sets the team's agenda and helps the group make progress

### Encourager

- Inspires all members to participate and makes certain that everyone's opinions are heard

### Taskmaster

- Keeps the group focused on achieving its goal(s)

### Evaluator/Critic

- Questions whether the assumptions expressed and decisions made by the group are reasonable

### Recorder

- Keeps detailed notes

**Figure 12-3**

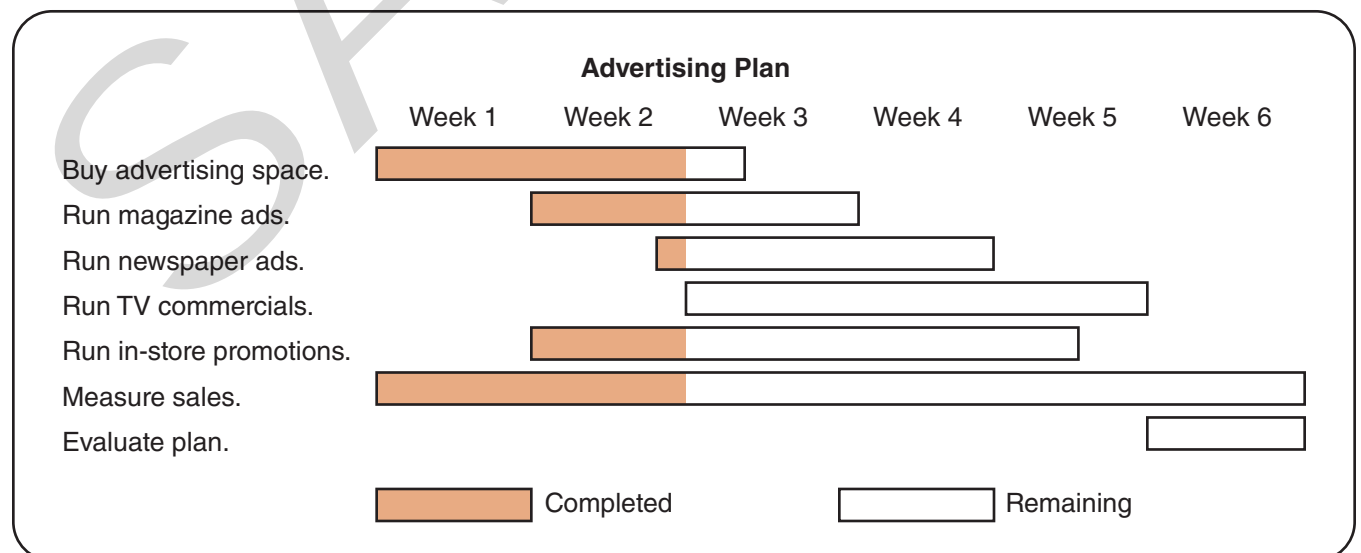
For a team to work effectively, all the roles must be filled.

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## Sets Goals

Setting goals helps team members continually move forward. A *goal* is something a person or team wants to attain. For example, a team may work toward the goal of creating an advertising plan that will increase sales by 20 percent by the end of the year. Concentrating on the steps everyone must take to achieve that goal keeps the team focused.

One tool used to help maintain focus in achieving goals is a Gantt chart. A **Gantt chart** is a graph that shows the steps of a task divided across a timetable. See **Figure 12-4**. Team members can tell at a glance what phase of the goal should be in progress and what steps have been completed.



**Figure 12-4**

This advertising plan is an example of a Gantt chart.

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### Uses Humor Effectively

Humor relaxes team members and helps them focus on the issues. There are times when groups become frustrated or tense. A humorous comment helps to release the tension. However, make sure humor is not used to “put down” or embarrass another team member. Also, humor should never be culturally inappropriate or used to criticize a specific cultural identity or belief system.

### Takes a Break

A break can relieve pressure, reduce tension, and get a team back on track. A break can be a few minutes or a few days long, depending on the situation. Team members often return with fresh ideas and more positive attitudes, even after a ten-minute break.

### Works for the Common Good

Members of effective teams agree on what they are trying to do. The team members are able to set and meet deadlines. They encourage each other and celebrate both team and individual accomplishments. Effective teams make sure everyone understands the plan and helps carry it out. Along the way, the team evaluates how it is operating to see if changes or improvements should be made.

## Section 12.1 Review

### CHECK YOUR UNDERSTANDING

1. What part did globalization play in changing the role of the worker?
2. How can positive interpersonal skills increase your effectiveness in working with managers, coworkers, or customers?
3. What three common types of teams are used in the workplace?
4. Briefly describe the five stages of team development.
5. What are four characteristics of an effective team?

### BUILD YOUR VOCABULARY

As you progress through this text, develop a personal glossary of career-related terms and add it to your portfolio. This will help build your vocabulary and prepare you for your career of choice. Write a definition for each of the following terms, and add it to your personal career glossary.

globalization

quality

team

virtual team

functional team

cross-functional team

self-directed team

multifunctional team

norm

Gantt chart

# Problem Solving

## Section 12.2

### LEARNING OBJECTIVES

After completing this section, you will be able to:

**LO 12.2-1** Discuss how teams work together to solve problems in the workplace.

**LO 12.2-2** Explain how conflict can be managed when working as a team.

### ESSENTIAL QUESTION

What happens if a problem cannot be solved?

### LO 12.2-1 Problem Solving as a Team

A **problem** is the difference that exists when reality (what you have) is compared to expectations (what you want). **Problem solving** is the process of making an expectation a reality.

Many types of problems arise in the workplace. Some may relate to technical issues that require special skills and knowledge to resolve. Other problems relate to human relations, which may involve employee attitudes, communications, and conflicts. Ethical problems are also common in the workplace. The management team and employees must consider what is right or wrong or fair when making decisions.

Many companies expect their employees to be able to solve difficult problems under pressure. When they are given increased responsibility, employees take greater pride in their work. Accomplishing difficult tasks boosts employees' morale. Employees also tend to be more supportive and invested in action plans they help create.

Solving problems as a team will involve the same basic steps as solving them as an individual. The important difference is that all members should be involved as much as possible to keep the team functioning effectively. You can develop problem-solving skills by learning and following several basic steps.

### TERMS

problem  
problem solving  
criteria  
constraint  
Pareto Principle  
brainstorming  
compromise  
consensus  
conflict

### Steps in Problem Solving

Knowing the steps involved in solving problems will increase your chances of success. Although the steps described below are listed in a recommended order, problem solving is not simply a matter of doing one step at a time. Very often, information you obtain at a later step may send you back to a previous step. As you collect data in Step 2, for example, you may find that you did not fully do Step 1. When this occurs, simply go back to the beginning and work through the steps again.

#### Step 1: Identify and Analyze the Problem

Unsuccessful problem-solvers tend to jump right in and start trying to find solutions. Successful problem-solvers take time to identify and analyze the problem. It is very important to learn as much as you can about the problem before taking any action.

Questions to ask yourself before attempting to solve the problem include: Do you understand what the problem is? Can you state it accurately? *Cause-and-effect reasoning* can help you answer these questions. For example, you may not be getting along well with your supervisor. You are frequently tardy to work because your friends pick you up late when giving you a ride to work. As such, the cause of the problem is your late arrival to work. The effect is the friction with your boss.

The first step in solving a problem is to state it accurately. As you try to determine the basic problem, you will identify factors related to the problem. These factors will be useful when you consider possible solutions in Step 3. The factors to consider are criteria and constraints.

**Criteria** are standards used to find the best solution to a problem. Without the criteria to help make an evaluation, it is difficult to know if the problem is solved. For this example, you may need a solution that incorporates the following criteria: arriving five minutes early to work and arriving dressed in your work uniform. Evaluation criteria will have an important influence on which solution you choose.

**Constraints** are factors that may restrict or hinder the ability to solve a problem. One constraint to arriving on time to work may be a lack of transportation, or not having your own car. Another constraint may be having just 50 minutes between your last class and the time you must start work. At this point, your identification and analysis of the problem would resemble the chart in **Figure 12-5**.

## Step 2: Collect and Analyze Data

In this step, you collect and analyze data related to the problem and ask yourself certain questions. What do you need to know about the problem that you do not already know? What information is available to help you solve the problem? Do you have everything you will need? If not, can you obtain what you need or must you make adjustments?

### Identifying the “Late Arrival” Problem

#### Problem

- Late arrival at work caused by riding with friends who are usually late

#### Criteria

- Arriving five minutes early to work
- Arriving dressed in uniform

#### Constraints

- No car
- Just 50 minutes between the last class and the time work starts

**Figure 12-5**

Careful examination of the problem helps identify all the relevant factors.

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Data are available from many sources. Your current circumstances or surroundings may provide the evidence or data you need to solve a problem. You may be able to apply previous learning experiences to a new problem. Other times, you may need to conduct further research by reading articles and reports or talking to others. When talking to others, it may be helpful to use different questioning strategies, as shown in **Figure 12-6**. You want to be sure to ask the right questions to get the information you need. The information should help you better understand the problem and provide ideas for possible solutions.

As you go through this process, other questions may arise. When thinking about your tardiness problem, other questions you may ask include: What type of public transportation is available? How much does it cost? Can I get a ride to work from more reliable friends, relatives, or coworkers?

One of the challenges in collecting data is organizing it in a form that you and others can easily understand and apply. Pareto analysis is one strategy for accomplishing this. The **Pareto Principle** states that, generally, 80 percent of the results achieved are produced by 20 percent of the efforts put forth. This is also known as the *80/20 rule*. The goal of the 80/20 rule is to identify which efforts will be more productive so you can make those a priority. If you can discover which areas to concentrate on, you will be much more productive in solving problems and accomplishing goals. For example, imagine that 100 students were surveyed to determine the type of fundraiser in which they would be willing to participate. Out of those students, 44 percent would prefer a car wash, while 30 percent prefer a spirit

Questioning Strategies		
Type of Question	Description	Examples
Closed-ended questions	Questions require only a short answer or <i>yes-no</i> answer; may be used to confirm simple facts; often used in surveys.	<ul style="list-style-type: none"> <li>• What is your name?</li> <li>• Do you prefer tea or water?</li> <li>• Did you go to work today?</li> </ul>
Open-ended questions	Questions require respondents to provide more details; often lead to further discussion.	<ul style="list-style-type: none"> <li>• Why did you choose that brand?</li> <li>• How is your new job going?</li> </ul>
Probing questions	Questions encourage deep thought and provide insight on a topic.	<ul style="list-style-type: none"> <li>• What is the root of the problem?</li> <li>• What are the long-term effects?</li> </ul>
Leading questions	Questions coax respondents to answer in a particular way; often used to get positive or negative responses.	<ul style="list-style-type: none"> <li>• What are some of the things you like about the new and improved version of the software?</li> </ul>
Clarifying questions	Questions result in explanations that avoid or clear up misunderstandings; answers are based on facts.	<ul style="list-style-type: none"> <li>• Who needs a copy of the report?</li> <li>• What do we need to take to the party?</li> </ul>
Assumption-challenging questions	Questions provide a new perspective; they break down previously held beliefs.	<ul style="list-style-type: none"> <li>• How can we fulfill customer orders quicker?</li> <li>• Is this the most efficient way to complete the project?</li> </ul>

**Figure 12-6**

Consider what kind of questions you need to ask to help resolve the problem.

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wear sale. The remaining 26 percent of responses are divided among three other activities. The students conclude that if they concentrate on just the car wash and spirit wear sale, they will have the largest percent of student participation. See **Figure 12-7**.

Once you are satisfied you have accurately defined the problem and collected all of the important data, you can focus on possible solutions.

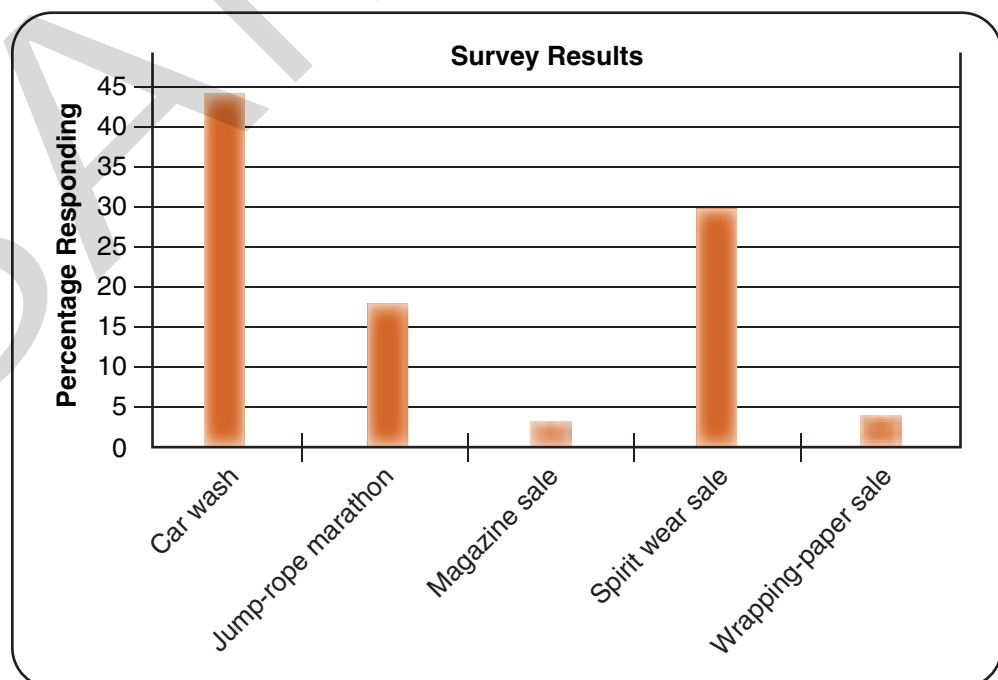
### Step 3: Consider Possible Solutions

Considering possible solutions is the first step in actually solving the problem. Focus on the quantity of ideas you develop, not their quality. Try to think creatively. Keep your ideas simple at first.

Some possible solutions to the problem of tardiness may be to use a rideshare service such as Uber or Lyft, take a cab, ride the bus, or buy a car. Once you list various ideas, you can begin to narrow down the list. Now is the time to think about the quality of your ideas. A good way to do this is to consider the pros and cons of each alternative. For example, what are the pros and cons of using Uber or buying a car? This will help you decide which solutions are more practical. Keep your evaluation criteria in mind, but do not be overly concerned about that at this point. Add more details to the ideas that seem workable. You may even consider combining ideas.

### Step 4: Choose the Best Plan

When you have two or three good ideas, it is time to select the best one. Use critical thinking to evaluate each option in terms of the problem, the evaluation criteria, and the constraints that you identified in Step 1. This may involve inductive and deductive reasoning. When



**Figure 12-7**

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Collecting and analyzing data is an important part of the problem-solving process.

## Soft Skills



### Collaboration

Collaboration skills are behaviors that individuals exhibit when working with others to achieve a common goal and maintain working relationships. *Collaboration* means working together to address a challenge. This includes sharing ideas and compromising, which may mean giving up an individual idea when the greater good of the team is at stake.

using *inductive reasoning*, you make observations, look for patterns or trends, and then make broad generalizations. For example, if you observe that the costs of taking a bus are cheaper than the costs of buying a car, then you might apply this same theory to taking a cab or getting an Uber. When using *deductive reasoning*, you start with a broad, general theory and then try to apply it to specific items. This helps you narrow down your options. For example, you may have a theory that all transportation options are cheaper than buying a car. However, you may discover that the monthly cost of taking a cab is higher than a monthly car payment, so you can eliminate that specific option.

After thoroughly considering all options to solve your tardiness problem, you decide that the solution is to take the city bus.

### Step 5: Implement the Plan

You should now be confident that you have a workable answer to your problem. You know which bus to catch and where to catch it. It is time to carry out your plan.

### Step 6: Observe, Evaluate, and Adjust

This is one of the most important steps in the problem-solving process. Even the best plans may not go smoothly at first. Therefore, the plan must be carefully evaluated after it is put into action. If you experience change or setbacks, perhaps you will need to make adjustments to it. It is also important to allow flexibility in your plan.

The success or failure of your plan will depend largely on how well your plan meets the evaluation criteria. If the plan fails this test, it may need to be abandoned. If that happens, return to Step 1 to reexamine the problem.

Continuing with the tardiness example, it is now time to determine how well taking the bus solves the problem. Is it a dependable solution? Do you arrive at work five minutes early each day? Do you have enough time to dress into your work uniform before catching the bus? If this solution does not meet your evaluation criteria, discover why. Perhaps there is a better way to solve your problem.

## Tools for Problem Solving

For a team to solve problems well, all members should be involved in each step of the process. Brainstorming, compromise, and consensus are tools that help teams work through the problem-solving process.

### Brainstorming

**Brainstorming** is a group technique used to list many ideas in a relatively short time. It can be used during a number of different steps in the problem-solving process. Brainstorming is a good way to identify solutions to a problem, especially one that is challenging or tedious. The quality of the ideas is not a major concern during brainstorming. The purpose is to identify as many ideas as possible. No idea is considered too ridiculous. Creative thinking should be encouraged as a way to find new and different solutions that will produce results. See the chart in **Figure 12-8** for a useful way to hold a brainstorming session.

### Compromise

One way to solve a problem is through compromise. **Compromise** occurs when each opposing side gives up something of value to help solve a problem. All sides accept the idea, but no one may feel it is the best one. This is because they gave up something that was important to them to reach the compromise. Voting often is used to reach a compromise. However, the people who vote for an issue may feel more positively about carrying it out than those who vote against it.

### Consensus

Another way to solve a problem is through consensus. A **consensus** occurs when all members of a group fully accept and support a decision. Consensus is much more difficult to achieve than compromise. Ideas must be thoroughly discussed and understood by all team members before a consensus can be reached. As a result, the process often

## Brainstorming Strategy

- Have the team sit in a semicircle to encourage discussion.
- Present the topic to the group.
- Have one member of the group offer an idea.
- Have someone record the ideas on a board or flip chart, so all can see. Do not criticize or discuss the merits of the ideas when they are presented.
- Continue around the circle as each person states one idea. (It is permissible to build on someone else's ideas.) A person with nothing to contribute may pass.
- Continue around the circle as many times as necessary to identify all ideas.
- Discuss and evaluate the ideas.

**Figure 12-8**

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This organized approach will help improve the results of a brainstorming session.

leads to new and more creative ideas that neither side considered in the beginning. There is no need to vote, because everyone supports a decision reached by consensus. When all members agree with a decision, they are more likely to be excited about carrying it out. A major problem with achieving consensus is that it is very time consuming.

## LO 12.2-2 Managing Conflict

When working with others as an individual or in teams, disagreements are bound to occur. More serious disagreements are called *conflict*.

**Conflict** is a situation resulting from two or more opposing views. It is important that you know how to handle conflict so it does not become a destructive force in the workplace.

In a traditional work setting, a permanent manager supervises a group of employees. That manager is responsible for resolving conflict. In teams, however, the team itself is responsible for preventing conflict that can negatively affect productivity. Often, this responsibility may fall on the person assigned to lead the team. The steps to managing conflict are shown in **Figure 12-9**.

### Know When to Intervene

Disagreement is not always a bad thing. Constructive disagreements often lead to improvements in the workplace. One of the first decisions you must make when disagreements arise is whether to become involved. Sometimes it is best not to act. What seems terribly important at the moment may later seem unimportant or even trivial. Premature actions may even make a difficult situation worse.

Often, avoiding or ignoring a serious disagreement only postpones the time when conflict will result and action will be required. As a rule, it is time to consider action when the team's or individual's well-being or productivity is affected.

### Address the Conflict

When you have decided to take action, there are some rules you should follow. The first consideration, and perhaps most important,

## Steps in Managing Conflict

- Know when to intervene.
- Address the conflict.
- Identify the source and the importance of the conflict.
- Identify possible solutions.
- Develop an acceptable solution.
- Implement and evaluate.

**Figure 12-9**

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Knowing how to manage conflicts is part of being an effective team player.

is to take a positive approach. Accept disagreement as a natural part of the group process. Then, try to follow the golden rule as you address the situation. *Treat others the way you want to be treated.* Try to understand the issue from the other person's point of view. In doing so, try to protect the person's self-esteem. Never try to embarrass or hurt someone.

Whenever possible, try to avoid addressing the problem in front of others. Find a quiet place to resolve the conflict so you will not be distracted. Talk directly to the person or persons involved. Avoid arguing with the individual. Demonstrate control by speaking in a calm, firm, constructive way. Avoid using words such as “always” and “never.” Also, use “I” messages as you discuss the problem. For example, you might say: “I really felt embarrassed when you shouted at me” rather than “You always get angry and shout at me.” “You” messages and the use of certain words tend to make people defensive.

## Identify the Source and Importance of the Conflict

The next step in resolving conflict is to state the problem openly. Encourage all people involved to describe the problem as they see it. Be sure there is a real problem, not simply a misunderstanding. Be specific in the discussion rather than general. Ask open-ended questions to get more details. Try to get people to focus directly on the problem. Imagine that someone is continually late for team meetings. Is that the problem, or is tardiness a sign of a larger problem? For example, is it a problem related to workplace procedures or is it a behavioral problem? What is the real problem? Keep an open mind as the problem is discussed. Focus on getting all the facts. Avoid making snap judgments and jumping to conclusions.

When there is conflict between employees, finding an acceptable solution for all involved is important. *If you have a conflict with someone, how would you resolve it?*



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## Identify Possible Solutions

Be sure everyone involved in the conflict understands they are responsible for both the problem and the solution. Anyone who is not involved in the matter should not be included in the discussion. Ask for comments and possible solutions from all sides, and discuss the pros and cons.

## Develop an Acceptable Solution

Focus on behavior that can be changed, not something a person is unable to control. At the end of the discussion, summarize what has been decided and what action will be taken. Make sure everyone understands their role in solving the problem.

## Implement and Evaluate

Once an agreeable solution has been reached, it is time to try it. Be willing to become involved in carrying out the plan. Avoid thinking it is not your problem. Check periodically to make sure teamwork has improved to a satisfactory extent. If not, it may be time to bring the concerned parties back together and try again to resolve the conflict. You could address the conflict from the beginning or return to the point where the breakdown occurred.

## Section 12.2 Review

### CHECK YOUR UNDERSTANDING

1. What are the benefits when workers are given more responsibility for solving problems?
2. Explain the Pareto Principle.
3. Identify tools that help teams through the problem-solving process.
4. List the steps in managing conflict.
5. Why should a worker avoid using “you” messages and words such as “always” and “never” when attempting to resolve conflicts?

### BUILD YOUR VOCABULARY

As you progress through this text, develop a personal glossary of career-related terms and add it to your portfolio. This will help build your vocabulary and prepare you for your career of choice. Write a definition for each of the following terms, and add it to your personal career glossary.

problem	brainstorming
problem solving	compromise
criteria	consensus
constraint	conflict
Pareto Principle	

# Chapter Summary

## Section 12.1 Teamwork

**LO 12.1-1 Explain how changes in the workplace have led to the need for teamwork.**

Globalization has affected the role of the typical worker, whose job now involves more complex problem solving and decision making. Employers need highly skilled workers who are comfortable working in teams to solve problems.

**LO 12.1-2 Discuss types of teams and their role in the workplace.**

Teams can be formal or informal. Formal teams have different purposes. Functional teams often consist of team members from the same department. Cross-functional teams consist of members with expertise in different areas. Multifunctional teams consist of members cross-trained to do another member's job.

**LO 12.1-3 Identify the stages of team development.**

Team development evolves in stages including forming, storming, norming, performing, and adjourning. It takes considerable time for a team to develop into a cohesive group.

**LO 12.1-4 Describe the characteristics of an effective team.**

An effective team shares and rotates leadership and team roles. Members are able to stay focused by setting goals. They work together to carry out the team's plan.

## Section 12.2 Problem Solving

**LO 12.2-1 Discuss how teams work together to solve problems in the workplace.**

Teams can work through six problem-solving steps when faced with a problem. All members should be involved in each step of the process. Tools they can use throughout the problem-solving process include brainstorming, compromise, and consensus.

**LO 12.2-2 Explain how conflict can be managed when working as a team.**

Disagreements are likely to occur in the workplace. The team leader and others responsible for managing conflict should know when to intervene. Once this happens, they need to address the conflict, identify the source and possible solutions, develop an acceptable solution, and then implement and evaluate it.

## Review Your Knowledge

1. Why are teams important in today's workplace?
2. How are the members of a functional team different from the members of a multifunctional team?
3. Discuss why technology is so important to a virtual team.
4. What happens during the first stage of team development?
5. What happens during the second stage of team development?
6. What does a Gantt chart show?
7. Why should teams make a list of goals?
8. What is the purpose of brainstorming?
9. Explain what happens when two sides compromise.
10. In a traditional work setting, who is responsible for managing conflict?

## Apply Your Knowledge

1. Think of a time when you worked with a team on a task or project. List three advantages of working with the team. Do you think the experience would have been different if you had worked alone? Explain your answer.
2. Research the subject of globalization to answer the following questions: What is globalization? How does technology affect globalization? How does globalization affect me? Write a one-paragraph answer for each question.
3. Review the teams in Figure 12-1. Which team would you prefer to work with the most? Which team would you prefer to work with the least? Explain why.
4. List the instances in which you function as part of a team throughout the week. Consider school projects, work, and extracurricular activities. How important is teamwork to you and the activities in your life?
5. Note what you learned about problem solving. Then, prepare a brief presentation to share with your class. Discuss how you might use this information in the future when working with others.
6. Assume you and your team of coworkers have been assigned the task of writing an article for a magazine. Create a Gantt chart for your team to help you stay focused. Consider the following: What are the team goals? Who are the people involved? What are their responsibilities or tasks? Are there any important dates or deadlines to consider? See Figure 12-4 to help you create your team's Gantt chart.
7. Find a news article online that presents a problem between two or more parties. Which of the problem-solving tools would work best to help the parties settle their problem? Explain why.



8. Identify a problem in your community. Then, go through each of the six problem-solving steps to find a possible solution. Make use of cause-and-effect reasoning as well as inductive and deductive reasoning to identify and analyze the problem.
9. Do an Internet search to gather information about the Pareto Principle, or 80/20 rule. Develop an outline of the points you learned. Share your information with the class.
10. Assume you are the team leader. One of your team members has come to you to complain that another team member is uncooperative and has a bad attitude. As team leader, outline the approach you would take to resolve the conflict between these two team members.



## Teamwork

Form a team of four to six members. Identify a problem for the team to solve, and role-play the five stages of team development: forming, storming, norming, performing, and adjourning. End the role-play with a discussion of how members felt during each of the stages.



## College and Career Readiness Activities

**Reading.** Read a magazine, newspaper, or online article that discusses how to handle conflict in the workplace. Determine the central ideas of the article and review the conclusions made by the author. Provide an accurate summary of your reading, making sure to incorporate the *who*, *what*, *when*, and *how* of this situation.

**Writing.** Conduct research on the techniques businesses use to increase productivity through teamwork. Write an informative report consisting of several paragraphs to describe your findings of the implications for businesses.

# Apply Your Technology Skills

Access the G-W Learning companion website for this text at [www.g-wlearning.com/careereducation/7338](http://www.g-wlearning.com/careereducation/7338). Download each activity file for this chapter. Follow the instructions to complete an activity to practice what you have learned.

**Activity File 12–1** Being a Team Player

**Activity File 12–2** Working as Part of a Team



## College and Career Readiness Portfolio

You have collected documents that show your skills and talents. However, some skills and talents are not shown effectively using only documents. Do you have a special talent in an area such as art, music, or design? Have you taken part in volunteer activities?

Create a video to showcase your talents and activities. For example, if you are an artist, create a video that shows your completed works. If you are a musician, create a video with segments from your performances. If you have taken part in a volunteer or service activity, create a video that tells viewers about it. Suppose you volunteer with a group that helps repair homes for elderly homeowners. The video could show scenes from the worksites and comments from the residents. (Be sure you have permission to include other people in your video.)

1. Place the video file in an appropriate subfolder for your e-portfolio.
2. Print a few screen shots from the video. Create a document that describes the video. State that the video will be made available on request or tell where it can be viewed online. Place the information in the container for your print portfolio.