

# Lesson 4

## Decision Making and Problem Solving



### Key Terms

cohesive  
contingencies  
improving  
influencing  
intuitions  
objectively  
operating

### What You Will Learn to Do

- Solve a problem using the seven-step problem-solving process

#### Linked Core Abilities

- Communicate using verbal, nonverbal, visual, and written techniques
- Apply critical thinking techniques

### Skills and Knowledge You Will Gain Along the Way

- Describe the seven-step problem-solving process
- Describe the decision-making process
- Describe behaviors that contribute to or block efforts to solve a group problem
- Define the key words contained in this lesson

# Chapter 4

## Introduction—Putting Your Leadership Skills in Perspective

### Key Note Terms

**influencing** – to exercise or have physical or moral influence on

**operating** – to work, function; to conduct or manage

**improving** – to make better

As defined in previous JROTC lessons in this chapter, leadership is the process of **influencing** others by providing purpose, direction, and motivation while **operating** to accomplish the mission and **improving** the organization. Purpose gives subordinates a reason why they should do different things, sometimes under stressful circumstances. Direction shows what must be done. Through motivation, leaders give subordinates the will to do everything they are capable of doing to accomplish a mission.

### Leadership Framework

Recall the fundamentals of *BE*, *KNOW*, and *DO*. As you can clearly see in Figure 4.4.1, they are deeply embedded throughout the leadership framework. The top of this framework shows the four categories of things that leaders must *BE*, *KNOW*, and *DO*. They are values, attributes, skills, and actions. The bottom lists the dimensions of leadership, grouped under these four categories. The dimensions consist of the 7 values and 15 subcategories under attributes, skills, and actions.

Leadership starts at the top, with the character of the leader, with your character. To lead others, you must first ensure your own house is in order.

The leadership framework is a tool that will allow you to think about leadership as a whole. The dimensions each contain components that are all interrelated; none stand alone. This framework will help you to put your job, your followers, and your unit into perspective. Think about it in this manner:

#### Be, Know, Do

*BE* a leader of character. Embrace the values and demonstrate the leader attributes. Study and practice so that you will have the skills to *KNOW* your job. Then act. *DO* what is right to achieve excellence.

Figure 4.4.1: Values and subcategories.



## *Approaches to Decision Making and Problem Solving*

A leader is expected to get the job done. To do so, he or she must learn to plan, analyze situations, identify and solve problems (or potential problems), make decisions, and set realistic and attainable goals for the unit. These are the thinking or creative requirements of leadership and they set direction. These actions provide vision, purpose, and goal definition. They are your eyes to the future, and they are crucial to developing a disciplined, **cohesive**, and effective organization.

Decision making and problem solving are basic ingredients of leadership. More than anything else, the ability to make sound, timely decisions separates a leader from a nonleader. It is the responsibility of leaders to make high-quality decisions that are accepted and executed in a timely fashion.

Leaders must be able to reason under the most critical conditions and decide quickly what action to take. If they delay or avoid making a decision, this indecisiveness may create hesitancy, loss of confidence, and confusion within the unit and may cause the task to fail. Because leaders are frequently faced with unexpected circumstances, it is important to be flexible. Leaders must be able to react promptly to each situation; then, when circumstances dictate a change in plans, prompt reaction builds confidence in them.

Within business and the military today, leaders at all levels use some form of a decision-making and problem-solving process. There are at least several different approaches (or models) for decision making and problem solving. The most common is the seven-step problem-solving and decision-making process.

### *The Seven-Step Problem-Solving and Decision-Making Process*

Having a logical thought process helps ensure that you will not neglect key factors that could influence the problem and ultimately your decision. In fact, you should always apply a clear, logical thought process to all leadership situations that you encounter. The seven-step process is an excellent tool that can guide you in solving problems and making those sound and timely decisions. The seven steps are as follows:

- 1. Identify (recognize/define) the problem.**
- 2. Gather information (facts/assumptions).**
- 3. Develop courses of action (solutions).**
- 4. Analyze and compare courses of action (alternatives/solutions).**
- 5. Make a decision; select the best course of action (solution).**
- 6. Make a plan.**
- 7. Implement the plan (assess the results).**

#### **Key Note Term**

**cohesive** – sticking together

The following sections describe each of these steps in detail.

### ***Step 1: Identify the Problem***

Being able to accurately identify the nature of a problem is a crucial undertaking. All leadership problems, whether they involve a work-related situation or a counseling session, are exploratory in nature; that is, leaders do not always identify the correct cause of a problem or develop the best plan. In fact, two of the most common errors leaders make are identifying the wrong problem and identifying the wrong causes of a problem. Plus, the tendency for leaders to make mental errors increases as their levels of stress increase. Everyone makes mistakes. If leaders are given false information, it may lead them to incorrect problem identification and to incorrect assumptions about the causes of a problem. If leaders then fail to determine the true source of a problem, they may develop an inadequate plan.

Learn to identify the real problems. Consider all angles. Learn to seek only accurate information that leads to the real causes of a problem. To ensure that information is accurate, question its validity. In other words, leaders must take what accurate information they have, use their best judgment, and make educated assumptions about the causes of a problem. They then must consider the courses of action that will be most likely to succeed.

### ***Step 2: Gather Information***

In this step, leaders must gather all available information that pertains to or can influence the situation (identified problem) from sources such as higher, lateral, and subordinate levels of command as well as from applicable outside agencies. Although some of the information may not bear on the problem at hand, it must be available for leaders to consider when developing and analyzing courses of action.

The amount of available time in a leadership situation can be a limiting factor on how much time a leader spends performing the various steps of the problem-solving and decision-making process. If time is extremely limited, this is the only step that leaders may omit so they can quickly think through the remaining steps.

### ***Step 3: Develop Courses of Action***

With the problem identified and available information gathered, you are now ready to develop possible courses of action. Keep an open mind throughout this step and be prepared to anticipate change. “Sixty percent (of good problem solving) is the ability to anticipate; 40 percent . . . is the ability to improvise, to reject a preconceived idea . . . , and to rule by action instead of acting by rules” (S.L.A. Marshall).

Think of as many “what-ifs” as you can and prepare for them; do not be surprised. The laws of probability are strongly in favor of surprise. Develop courses of actions to counteract events that might hinder accomplishment of your mission. Conducting brainstorming sessions is a good technique to use when there is difficulty in developing courses of action. Brainstorming is a creative technique that encourages several people to suggest as many solutions to a problem as possible. Generally, you want to have at least two or three possible courses of action—more if the situation dictates and time permits.

### Step 4: Analyze and Compare Courses of Action

The next step is to determine which course of action will best solve the problem. Therefore, leaders should develop as many advantages and disadvantages for each course of action as possible. Then they must **objectively** and logically analyze the advantages and disadvantages of each one against the advantages and disadvantages of the others.

Up to this point in the problem-solving and decision-making process, leaders should have involved subordinates to research the problem, gather information, and develop and analyze the various courses of action. *Subordinates are more likely to support a plan or decision if they took part in its development.* This technique will pay off in terms of increased interest, higher morale, and better efficiency by team members.

### Step 5: Make a Decision

After you have carefully analyzed the possible courses of action using all available information, consider your **intuitions** and emotions. The decision-making process is not a purely objective, mathematical formula. The human mind does not work that way, especially under stress. Instead, the mind is both rational and intuitive, and because the decision-making process is a thought process, it is also both rational and intuitive. Your intuition is that aspect of your mind that tells you what “feels” right or wrong. Your intuition flows from your instincts and experience.

However, never make the mistake of making decisions guided totally by emotions or intuitions and immediately doing what “feels” right. *This is a prescription for disaster.* Follow the problem-solving process as rationally and objectively as possible. Gather information; then develop, analyze, and compare courses of action. Consider your intuition or hunches, emotions, and values. Try to identify a “best” course of action that is logical and likely to succeed and that also “feels” right in terms of your intuition, values, and character. Finally, make your decision, make a plan, and take action.

### Step 6: Make a Plan

Make a plan that includes who would do what, when, where, how, and why. Be as specific as time permits but do not leave out vital information that could prevent mission accomplishment. Plus, ensure that you specify the what, when, where, how and why for all personnel or elements under your authority. Finally, include **contingencies** in your plan that address possible unexpected situations or actions. Develop these contingencies based on the assumptions made when you identified the problem and gathered available information.

As you did when developing the courses of action, be prepared to anticipate change. The ability to make appropriate changes in decisions and plans requires a certain flexibility of mind, which is a crucial trait of a good problem solver, decision maker, and planner.

#### Key Note Term

**objectively** – without prejudice

#### Key Note Term

**intuitions** – instinctive knowledge or feeling; immediate perceptions

#### Key Note Term

**contingencies** – chances or possible occurrences

### ***Step 7: Implement the Plan***

After the decision and plan are made, it is time to act. In this final step, you must put the plan into action and then evaluate it to ensure that the desired results are being achieved. Evaluation is often a neglected step in the decision-making process.

#### ***Note***

President Harry S. Truman kept a plaque on his desk with the inscription “The buck stops here.” Truman was one of America’s most honest and ethical presidents. He never flinched from accepting responsibility for his decisions, however unpopular or controversial.

### ***Approaches to the Planning Process***

Planning is the cornerstone of all other functions: What goes on in planning affects what is done in the remaining functions. There is an old saying that has proven itself time and time again: “If you fail to plan, you plan to fail; plan your work, then work your plan.”

Planning is also the basis for the problem-solving, decision-making process. Leaders spend many hours planning the activities of their organization. In doing so, they must consider the missions and objectives of their unit and how they are going to best accomplish them.

Every activity in which you take part during the day requires some degree of planning and at least one person to do that planning. Naturally, depending on the activity, some aspects of it may require more planning (and more people) than other aspects. Therefore, performing detailed, careful planning should be like a habit. It should be automatic and continuous throughout the activity. Just like in the problem-solving and decision-making process, there are specific steps that you should follow when planning. Likewise, there is more than one planning process. This part of the lesson presents the four-step planning process.

#### ***Four-Step Planning Process***

When planning, leaders must visualize, consider, and examine all the factors involved in accomplishing a mission. Planning is not an easy process and it requires a lot of work. The first approach to planning consists of four basic steps that can help leaders focus on the essential information when planning an activity. These four steps are as follows:

- 1. Define the objective.**
- 2. Study the current situation.**
- 3. List and examine possible courses of action.**
- 4. Select the course of action that will best help to achieve the objective.**

Simply stated, there are two primary purposes of planning: selecting an objective and deciding on how to accomplish it. In the four-step planning process, step one addresses the first purpose; the remaining steps show how you can use planning to reach your objective.

### **Step 1: Define the Objective**

In this step, leaders begin to define or break down their primary objective by determining the various *tasks*, *conditions*, and *standards* that are necessary to complete it.

Defining the objective sounds easy; everybody knows what they want to do. If you are in business, you might say, “I want to make a profit.” That is a good objective, but there is more to it than that. How much profit do you want to make? When do you want to make it?

There is more to setting an objective than just saying what you want (or would like) to do or what a supervisor wants you to do. Be specific. Ensure that subordinates have a clear understanding of the objective so that everyone will be working to accomplish the same thing.

Defining the objective so that it indicates what action is required is the first part of clearly identifying the *task*. Everyone involved must know exactly what they must do to accomplish the objective. Additionally, use words that describe the action that must be done, for example, to “sell” so many items, “fill out” so many forms, or “build” a bridge.

Next, identify any *conditions* that describe the circumstances under which you must perform the objective. For example, say you are a member of a junior band and the group wants to meet 95 percent of the requirements (*standard*) necessary to become senior-band members (*task*). The circumstances or conditions are those factors that you must plan for to ensure task accomplishment (such as obtaining sheet music, having the correct mix of instruments, rehearsing for our example).

Finally, state the objective in a way that makes it measurable. If an objective does not have a measurable *standard*, how will you know when you have accomplished it? Think back to the objective of “making a profit.” When have you achieved this objective? Is it when you make \$1? . . . \$50? . . . \$100? By stating your objective in measurable terms, you will know when you have reached it.

Defining the objective is a critical step. Without a well-defined objective, it would be difficult to complete the remaining steps of the planning process. After you are satisfied with the objective, proceed to the next step.

#### **Note**

A good objective is clearly defined and measurable.

### **Step 2: Study the Current Situation**

You are now ready to study the situation that can affect or influence your ability to accomplish the objective. Stop and look at what you have to work with: How much *time* do you have? How many *people* will help you? What kind of *supplies* do you have? What other *resources* are available to help you?

Next, identify any barriers or obstacles that may stand between you and your goal. Some of these barriers may be a lack of time, people, supplies, and/or other resources.

As you can see, studying the current situation involves a systematic process of defining tasks and arranging resources with respect to mission accomplishment. You should consider five factors when performing this step: effective use of time; identification of subtasks, people, and resources; and setting priorities.

### *Time*

Time is an important factor. You must consider time when you plan events, meet deadlines, and set goals; then you must make plans and execute tasks according to an established time schedule. Effective leaders will schedule their time and the activities of their team to meet these events, deadlines, and goals. You must also ensure that your team members can do all of the tasks within the specified time frame.

### *Tasks*

Identify all the tasks and subtasks that your team must do to accomplish the objective. Be specific. Develop detailed lists to record them and, just as you did in defining the objective, set measurable standards for each task and subtask.

### *People*

After you have a detailed list of tasks/subtasks, determine if you have enough people to do the job. Tentatively match someone to each task/subtask. Base your selection on what each task/subtask requires versus the capabilities of your team members and on how many people (work hours) you will need to accomplish the objective.

### *Set Priorities*

You will always have some tasks that are more important than others or you must start them before others because of how difficult they are. In these situations, plan a “to-do” list in terms of priority for every task and subtask you have identified. Determine which ones your team must do first, second, and so on until you have included everything necessary to carry out the plan. Establish priorities in categories (priority A, priority B, priority C, and so on) for each item on the “to-do” list. Do the A priorities first, then the Bs, the Cs, and so on.

### *Resources*

Identify all resources that are necessary to complete the objective. Determine what is and what is not available; then, before you begin work, set aside what is on hand for later use and make arrangements to obtain the items that you do not have but will need. While completing the task, periodically check the status of your resources and follow up on the availability of those items that you are still trying to obtain.

### ***Steps 3 and 4: Examining and Selecting the Best Courses of Action***

You must now list all of the different ways you can think of to accomplish the objective and to decide on the best course of action. First, list all the different courses of action; then eliminate all that can't be accomplished within the given resource constraints (such as not enough time, knowledge, material, or people). Finally, choose between the remaining viable courses of action. The most common

method is to list the advantages and disadvantages of each course of action separately, then choose the one that is most advantageous. Often, however, there is no single best solution, in which case the decision will require a tradeoff analysis. A tradeoff analysis begins by defining a set of selection criteria and assigning a numeric value to each according to its level of importance. Each course of action is then compared with the selection criteria and assigned matching values. The assigned values are summed and each course of action accorded a separate weight. The best course of action is the one with the highest or lowest weighted value, depending on the selection criteria. For example, if you're buying a car and need to choose between vehicles of approximately the same cost, you could make a list of features you consider important. Assign each feature a priority, 1 (low); 2 (medium); and 3 (high); then match features to assign each vehicle a weighted value. Finally choose the car with the highest value corresponding to the vehicle with the most features you feel are important.

### ***Leadership Case Study***

Jack Wilson, Cindy Spencer, Craig Summers, Alicia Benson, Jacob Walker, and Abdul Al-Kahtani have been assigned to do a group project for their class in U.S. history. They are required to meet outside of class to identify a significant historical document in U.S. history other than the Constitution and Declaration of Independence and work together to research and report on the events that led to the creation of the document. The report is to be 10 to 15 typed pages. They are also required to make a 30-minute, creative presentation to the class that communicates their findings. They have six weeks to conduct the research, write the paper, and prepare their in-class presentation.

Jack and Cindy have been designated to be the team leaders. Their responsibility is to organize the team, assign roles and responsibilities, and assure that the assignment is done well and completed on time. The project grade accounts for 30 percent of the course grade. Half of the grade is based on individual contribution and half of the grade is a team grade awarded to each team member alike. As team leaders, Jack and Cindy can earn up to 10 extra credit points on the project depending on how well the team performs.

The team met for the first time in class on the day the assignment was given. Jack made a quick list of what needed to be done and was eager to make assignments. Cindy wanted to talk with the group to develop a list of assignments together. Craig announced his disdain for history and suggested that all he cared to study was math and science. Alicia sat silently, drew pictures on a piece of paper, and said nothing the entire meeting. Jacob noted that he was an avid student of history and offered several examples of U.S. historical documents that the team could research. Abdul voiced his doubts about Jacob's knowledge and expertise and questioned how much historical data would be available for the documents Jacob suggested. After 15 minutes of talking, the team had made no progress in determining a course of action. All they could decide was that they would need to meet again some day after school to figure out what to do. But they could not agree on a time or place to meet. They considered six different dates and times, but at least one person had a conflict with every time that was suggested.

Cindy and Jack walked to their next class together. "I'm worried about this, Jack," Cindy began. "This team is a mess. We don't agree on anything. Craig doesn't even want to do this. Alicia just sits there. And Jacob and Abdul don't exactly get along. We can't even schedule a meeting together. How are we going to put all this together?"

Jack and Cindy decided that they would meet together to lay out some possible solutions to the challenges they faced on this project. During their meeting they made a list of problems to be addressed:

- Find an agreeable time and place to meet as a team.
- Agree on a U.S. historical document for their project.
- Assign roles for the project.
- Set deadlines for what will be due when.
- Put together a project plan.

Jack and Cindy looked at their list. “This is a good start, Cindy,” Jack noted, “But I think we need more detail.”

“I think you’re right, Jack.” Cindy added. “So what do you think we should do to fill in the blanks in our plan?”

“Why don’t we try the seven-step problem-solving method we have talked about in JROTC?” Jack suggested.

“Sounds reasonable,” Cindy said. “We may as well try to do it instead of just talking about it. What were those steps again?”

Jack and Cindy looked back over their notes of the problem-solving steps.

- Identify the problem
- Identify facts and assumptions
- Generate alternatives
- Analyze alternatives
- Compare alternatives
- Make and execute your decision
- Assess the results

Put yourself in the place of Jack and Cindy. As with most problems, there are multiple dimensions to this problem. Based on what you know of their situation, identify what you think are the three most important dimensions of the problem to address and work through the seven-step problem-solving process. Here are some facts that you can assume:

*Jack Wilson* is a JROTC student who knows Cindy Spencer and has worked well with her on past projects. He is a good student and is an active cadet in the JROTC program.

*Cindy Spencer* is also a JROTC student. She is also a good student, who is active in student government, and plays on the school soccer team.

*Craig Summers* is an exceptionally bright person who loves math and science but is not interested in English and history. He is cooperative, but “tells it like it is.”

*Alicia Benson* is a quiet individual who no one knows very well. She is artistic and keeps to herself. Although she does not say much, she will voice her opinion when you ask.

*Jacob Walker* is a talker who always has an opinion about any given topic. He is very active in the social scene at school. Although he projects an image of having it all together, no one really knows how well he does in school. He is there all the time and talks a good deal, but the people around him have the feeling he is “all talk and no action.”

*Abdul Al-Kahtani* is a new student in the school, whose parents have recently moved to the United States from Saudi Arabia. He is very bright and speaks English well, but he seems to have trouble understanding when people are joking and when they are being serious. He likes the United States and works very hard to get along with people, but it is obvious that Jacob rubs him the wrong way.

## Conclusion

Successful leaders are energetic. They exert a great deal of effort to communicate effectively, solve problems, make decisions, set goals, plan, execute plans, and supervise/evaluate. These are a leader's directional (or thinking) and implementing skills. As a leader, you cannot expect positive results from your subordinates unless you work equally hard at solving problems, making plans, and putting plans and decisions into action. Successful leaders also work hard at accomplishing their missions and objectives while maintaining only the highest possible standards of performance.

In your professional and leadership development you should strive to exercise the same degree of effort and excellence.

In the following lesson, you will learn how to lead meetings. This lesson will give you the skills that you need to take control of a meeting and get the most out of the time you have and the people in attendance.

## Lesson Review

1. List the seven steps to the problem-solving and decision-making process.
2. Choose one of the seven steps and explain it.
3. List and explain the four-step planning process.
4. Explain behaviors that can disrupt your ability to solve a problem.