LEARNING OBJECTIVES

After reading and studying this chapter, you should be able to do the following:

8.1 Describe the steps to a training needs assessment, including the purpose of each, and how they are used to develop training goals.

8.2 List the characteristics of the employee and the organizational context that can be leveraged to enhance training effectiveness.

8.3 Describe some of the most important training methods and media used by organizations and list their respective advantages and disadvantages.

8.4 Identify the major categories of criteria for assessing training effectiveness.

8.5 Analyze the factors associated with effective career development and management.

HR in Action: The Case of Tying Training Data to Performance

Research shows that organizational training improves performance of both employees and organizations. Analytics provides a good opportunity for companies to research the effectiveness of their training programs in terms of productivity, sales, attitudes, and worker well-being. These sorts of analytics can give an advantage to organizations that want to improve their training functions to achieve the best organizational results. Analytics can also show where a training program may need to be tweaked to improve it.

Analytics requires measures of training effectiveness, and the challenge is finding practical ways to measure training effectiveness. As we will discuss in this chapter, we know that training outcomes can be broken down into four categories: (1) trainee reactions to the training, (2) whether trainees actually learned, (3) trainees’ behavior back on the job, and (4) organizational results (e.g., financial improvements for the company). But collecting these types of data in organizations is not always easy.
Some organizations are addressing the challenges of measuring the effectiveness of their training. Allstate Insurance developed a single set of standardized training performance measures. This allowed Allstate to compare training performance in different business units across the company.¹

**Case Discussion Questions**

1. Give an example of a performance measure that you think could be used across a single company for different types of jobs.

2. What are some factors—in addition to the training itself—that could affect how well people do in training?

3. If you were a manager, what would you want to know about a training program to determine if it is effective?

As we have said in the earlier chapters, an organization’s employees are its greatest asset. For this reason, organizations invest a lot in training their employees. Some sources estimate global expenditures on training at $362 billion.² But for this investment to pay off, the training must address the needs of both the organization’s objectives and the needs of employees. And organizational decision makers need to know whether the training worked.

This chapter describes the process for building a training program and showing its value to the organization. As shown in Figure 8.1, this process involves conducting a training needs assessment, considering the characteristics of the worker and the organization, choosing the right training methods, and evaluating the program’s effectiveness.

Most of you will be involved in organizational training and development activities at some point in your lives as a trainee. But you may also have to decide whether to undertake a training program for yourself, your team, or even for an organization. The

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**FIGURE 8.1**
The Process for Developing, Implementing, and Evaluating an Organizational Training Program

- Assess Training Needs
- Address Characteristics of the Trainee, Organization, and Training to Enhance Learning
- Choose Appropriate Training Method(s)
- Assess Training Effects at the Individual and Organizational Levels
principles described in this chapter will help you make informed decisions about training in your workplace.

**Training Needs Assessment**

**LO 8.1** Describe the steps to a training needs assessment, including the purpose of each, and how they are used to develop training goals.

Before spending the capital needed to train employees, it is wise to get a better understanding of what the organization’s training needs actually are through some sort of a needs assessment. Training needs assessment is a systematic evaluation of the organization, the jobs, and the employees to determine where and what type of training is needed. Training needs assessment is a key part of developing training goals that fit the organizational strategy. Training needs assessment also helps in understanding how to develop and implement the training program in the best way. In fact, it may be the most important step in developing an effective training program. This process has three components: organizational analysis, job analysis, and person analysis (see Figure 8.2).

**Organizational Analysis**

Organizational analysis involves getting to know the organization at a broader level so a training program can be developed to fit the organization. Organizational analysis could involve interviews with management and employees, review of company records, or surveys.
Organizational analysis includes understanding issues such as the following:

- The organization's **goals and strategies**, which should be aligned with the training program. Imagine that an organization's focus is to gain market share over the next 5 years. In this case, it may be worthwhile to consider training efforts focused on the salesforce to develop the market share.

- The organization's **culture**—the shared beliefs that employees have about accepted behavioral norms—is key to implementing an effective training program. For example, if a company's culture values nonconfrontational interpersonal relationships, developing a training program focused on promoting an assertive, confrontational interpersonal style would not be appropriate. Or if managers show little support for training, that would probably have a negative impact on the training program. In short, the culture is an important factor in determining training effectiveness.

- The **resources** that the organization can devote to training are important to know from the start. This includes issues such as the available budget, facilities, equipment, and personnel.

- The organization's **external environment** such as laws and regulations are important to understand when developing training. This might include requirements for safety training or for training about equal employment opportunity laws among hiring managers.

**Job Analysis**

Once an organizational analysis has been conducted, the next step in a training needs assessment is to conduct a job analysis. A job analysis helps determine which KSAOs, tasks, and competencies are associated with a job, as well as the critical incidents that employees face on the job, to develop an effective training program. In Chapter 5, we discussed the range of options for job analysis and competency modeling as well as the basics of how to do them (e.g., interviews, surveys).

**Person Analysis**

Once the critical competencies, KSAOs, and tasks of a job have been identified, two types of information still are needed:

1. Which specific KSAOs or competencies need further development among employees? Which employees need this training most?

2. Which characteristics of the employees (referred to as demographics) need to be considered to develop the most effective training program?
Legal issues are relevant to the training function in organizations. First, consider the Uniform Guidelines on Employee Selection Procedures (discussed in Chapters 4 and 7). Although training may not be a selection procedure per se, to the extent that a training program affects which employees are retained or promoted, the training program is part of selection decisions. For example, if success in a training program for new supervisors is necessary for an employee to keep a supervisory job, the training program is being used as a selection procedure. The organization needs to be sure that the training is job related and that employees have fair access to training programs that are used as the basis for hiring and promotion.

Second, certain kinds of training programs are required by employers to remain compliant with current government guidelines and to avoid legal liability. Such compliance training is focused on regulations, laws, and policies related to employees’ daily work. These might include providing supervisors with the skills training they need to be effective; safety training, particularly for workers in safety-sensitive jobs; and diversity and sexual harassment training to protect all employees and provide a safe work environment. If employees are not sufficiently trained, and if their actions then result in injury to themselves or to others, the company may be held liable for negligent training. In short, training programs should be examined with an eye to legal issues from their inception.4

Identifying KSAOs and Candidates for Development

One approach an organization might take is to train employees on every KSAO that is required for the job. But this would assume that employees are weak on all of the KSAOs, which is unlikely to be the case. Also, some employees are more likely to need training more than others do. A person analysis helps you to determine KSAOs that need to be trained and which employees need this training the most.

A number of methods are available for obtaining person analysis data, and there is no one “correct” method. The options include examining objective production or sales data, customer survey data, and performance appraisals. Employees can be surveyed regarding their training needs. Or employees might take tests or go through job performance simulations. The most appropriate method depends largely on which KSAOs are being assessed as well as on the practicality and cost.

Finally, it is important simply to understand some basic employee demographics that might help with training system design. For example, employees’ education level or age might affect the training methods the organization chooses to use. Or a group of employees with little exposure to computer technology may not be good candidates for an eLearning approach.

Developing Training Goals

Once the job analysis and person analysis data have been collected, the gap between what the job requires and what KSAOs the trainees currently possess should be examined. The goals of the training should then be developed based on this gap (see Figure 8.3). Two groups of people will
use this information about training goals. Training developers will use the goals as the basis for their training programs. Trainees need to be given their training goals to help in their learning the material. (We will discuss the importance of goal setting for learning later in this chapter.) And to the extent possible, training goals should be expressed in specific, behavioral terms. For example, a weak training goal might be, “By the end of training, the employee can assemble equipment.” In contrast, a stronger, more useful training goal for training developers and trainees would be, “By the end of training, an employee can assemble two pieces of equipment per hour.”

As a final point about training needs assessment, it is important to remember that it is not always necessary to perform a training needs assessment with the exact steps and stages described here. In fact, many organizations approach the needs assessment process a bit differently. The important thing is to keep the goals of each stage of needs assessment in mind and to stay focused on organization, job, and persons as much as possible prior to designing a training program.5

Enhancing Learning

LO 8.2 List the characteristics of the employee and the organizational context that can be leveraged to enhance training effectiveness.

Once the training needs assessment is complete, the next step is to consider ways to enhance learning. Learning can be defined as the acquisition of new knowledge, skills, and behaviors and can occur either within or outside of the training context.6 Effective training programs take into account trainee characteristics and characteristics of the organization.7

Trainee Characteristics

A number of trainee characteristics may affect the success of a training program and should be taken into account to enhance the effectiveness of the training system.

- **Self-efficacy**, or a person’s belief that they can accomplish a task, is one of the most important predictors of training effectiveness. If a person does not believe that they can master the material in a training course, they will not do so well in training. This is because people who don’t feel they can master a particular skill will put less effort into learning it. One of the most effective approaches to address low self-efficacy among learners is to teach the training material in small “bites” that allow people to feel a sense of accomplishment.
• **Trainee motivation** also predicts training success. In other words, learners have to be motivated to learn for the training to be effective. Part of this means that trainees have to believe that the training is relevant to them and to their work. In addition, perhaps the most practical motivation theory for the training context is goal-setting theory. According to this theory, it is important to make the training goals specific but achievable and to clearly communicate training goals to the learner. The theory also emphasizes the importance of providing feedback to learners.

• **Metacognitive skill** is the person's ability to step back and assess their own performance—are they doing well in training? Are there some topics that they find harder than others and that they need to brush up on? Some people are better at assessing their own performance than others, and this ability can affect whether they learn. As a solution, training programs can give learners frequent feedback about their actual performance levels and even remind them to step back and think about how well they are learning.

• Personality and cognitive ability can affect a person's learning. For example, proactive personality, conscientiousness, openness to experience, and extraversion have all been shown to be related to training performance. And cognitive ability is related to a person's learning speed. One way to address these personality and cognitive differences among learners is to devise training systems that allow people to learn at their own pace. For example, a training program could be made up of three modules. More proficient learners could move through the three modules quickly, while less proficient learners could go more slowly.

**Organizational Context: Enhancing Transfer**

Perhaps one of the most important issues in training is training transfer, or whether the training results in changes in performance on the job. A training program may create increased knowledge among employees, but if performance is not affected, the training is not helping the organization.

A number of factors can affect whether training results in transfer.

• First, is there support for training in the organization? For example, a bank may implement a training program to improve interactions with customers. In fact, the trainees may show strong improvement in their interpersonal skills while in the training environment. But when they return to work, the bank managers tell them that the training is nonsense and that there is no time to interact with customers in this way. In other words, despite the strength of the training, training knowledge and skills are unlikely to transfer due to an unsupportive climate.

• Training is more likely to transfer to the extent that the training environment is similar to the work environment. Consider employee training focused on the use of a new software system. Company A gives its employees training on the system using computer equipment that is the same system that employees will use on
the job. Company B simply gives a lecture describing the new software and how to use it. In this case, Company B’s training approach is not much like the work environment and is not likely to lead to good results.

- Training employees on the principles behind the training content helps transfer. Consider a situation in which customer service workers are being trained on how to handle customer complaints. Company A trains its employees on the issues involved—addressing customer complaints by balancing fairness and customer satisfaction. Company B, however, only tells the trainees to apologize to customers if there is a complaint. Clearly, the employees in Company A will be better able to handle a range of customer service complaints and also handle them in a way that results in customer satisfaction.9

Training Methods

LO 8.3 Describe some of the most important training methods and media used by organizations and list their respective advantages and disadvantages.

As with many HR practices, there is no one best way to train employees. Instead, it may be best to think about choosing the best combination of methods for training. For example, rather than choosing between lectures and on-the-job training, an organization may use a combination of both to get the strongest effect at a reasonable cost. In this section, we present some of the most common training methods, as well as their advantages and disadvantages.

On-the-Job Training

Perhaps the most commonly used training method is on-the-job training (OJT), in which a more senior employee works with a new employee to teach him or her how to perform the job tasks. In fact, you may have experienced some form of OJT. In theory, OJT could be the most effective type of training: The training and transfer situations are the same, ensuring a high potential for transfer. However, in practice, the advantages of OJT are sometimes not maximized. Often the employee doing the training is not given much support and must continue doing their job, with the extra burden of training a new employee. Also, to do OJT well, the “trainer” employee should be given some training themselves on how best to do OJT, not just be told, “Go train this person.” Still, mixed with other training methods such as lectures or online training, OJT can be a powerful training tool if done correctly.10

Lectures

Lectures are training events in which a trainer speaks to a group of workers to explain and impart knowledge. Lectures have a bit of a bad reputation in terms of being boring and not very engaging. Although the lecture method does have some drawbacks, it also has some definite strengths. Lectures can be great for getting information to a large number of people quickly. Lectures can also be much more engaging and useful if they involve interaction between the lecturer and trainees, not just one-way communication. Lectures are also excellent supplements for other training methods. And despite lectures’ negative
reputation, meta-analytic research suggests that they can provide significant value in terms of training many types of tasks and skills.\textsuperscript{11}

**Simulators**

We know that OJT is a potentially effective training method. But it can be very dangerous to conduct OJT with certain types of jobs such as commercial airline pilots. For these types of jobs, simulators are used for training. As just one example, at its Aircrew Training Center in Atlanta, Delta Airlines has multiple flight simulators reflecting its different types of aircraft.\textsuperscript{12} Simulations attempt to balance the limitations of OJT by providing a safe environment to train employees. In addition, simulators can allow the trainer to expose the trainee to some important but rarely occurring conditions. For airline pilots, this might include dangerous but rare weather conditions that a pilot would need to be able to act on safely. The simulator experience is often followed up by a debriefing to discuss what happened during the training session. The drawback of many types of simulators, including pilot simulators, is their cost, and they are often only used for very specific types of jobs in which safety is important.\textsuperscript{13}

**Programmed Instruction**

Programmed instruction involves presenting the learner with a set of learning modules or steps. After each module, the learner takes a quiz to demonstrate that they have mastered the material. If they pass the quiz, they can go on to the next module. If not, they must repeat the module until they can demonstrate that they have mastered the material. Programmed instruction has been around since at least the mid-20th century, with modules and quizzes presented in paper form. Today, however, programmed instruction is typically delivered online.

Programmed instruction provides a number of advantages. It gives learners feedback on whether they are mastering the material—and we know that feedback enhances training effectiveness. Programmed instruction also allows learners to go at their own pace. It may also be helpful for those with poor metacognitive skills to gauge whether they understand the training material. And once the upfront development costs are invested, programmed instruction can be cost-effective. In fact, organizations do not necessarily have to develop their own programmed instruction training—it is available from many vendors and eLearning platforms. However, programmed instruction may sometimes lead to disengaged trainees, especially if the modules are little more than a series of PowerPoint slides. With that said, programmed instruction can be a great way to teach certain types of skills and can be used in combination with other training methods.\textsuperscript{14}

**eLearning**

eLearning, or training that is delivered through an online platform via computers or mobile devices, is quickly increasing in popularity. Although online and computer-based training has been around for years, investment in learning technology has grown substantially over the past few years.\textsuperscript{15} The flexibility and variety of eLearning means that companies have access to tens of thousands of eLearning modules, which can be tailored for specific
skills within their particular industry. It also means that employers can provide standardized training to their employees, regardless of location.

At the same time, eLearning should not be seen as a solution for all training issues. Rather, it should be seen as a training method that fits into a larger training system that includes multiple training methods. Also, online learning approaches that provide guidance to learners may prove most effective. As a positive point, a meta-analysis showed that online training can be as effective as classroom training for teaching simple knowledge types of material, and it can be highly effective if it allows some learner control and provides learners with feedback. In short, eLearning and other types of online systems hold promise for tailoring to individual workers’ needs but are not the only solution for delivering training.

Behavioral Modeling Training

Behavioral modeling training (BMT) usually involves a trainee observing a person (model) performing a behavior (either live or in a video), practicing it, and then receiving feedback about their own performance. BMT is based on the idea that people can learn from observing others and then can practice that skill themselves and receive feedback about their own performance. BMT is often used to train interpersonal types of skills and is a popular type of training for supervisors, who need to develop strong skills for dealing with subordinates and providing them with feedback. Meta-analytic studies show that BMT is a powerful training tool and that its results last over time. Interestingly, BMT is more likely to result in good training transfer if learners are provided with both positive models (what to do) and negative models (what not to do).

Diversity Training

Workplace diversity is increasing due to increasing diversity in the U.S. population. Work teams also comprise individuals from different cultural backgrounds working together remotely from around the world. One way that organizations seek to manage this diversity and have it work in their favor is the introduction of diversity training. Although the question of how to conduct diversity training is far from settled, some conclusions can be drawn at this point.

- Meta-analytic research suggests that diversity training does have a positive effect on affective (attitudes), cognitive (beliefs), and skill-based (behavioral) outcomes.
- Diversity training seems to have greater effects when conducted face to face over time rather than in a single session.
• More research is needed on how training can target unconscious processes, that is, not only focusing on bias that participants are aware of. Google has begun to implement training to address unconscious bias in its gender diversity program.
• Others have noted that organizations will get better effects from diversity training if they frame it in positive terms to employees such as by making training voluntary, engaging employees, and increasing contact among workers from different backgrounds.

Training to Increase Team Effectiveness

The workplace has become more oriented toward teamwork, and companies sometimes focus their training not only on individuals but on work teams as well. This could involve team members taking on each other’s jobs or learning how to better communicate and coordinate among themselves. The research suggests that these approaches work. For example, a meta-analysis found that team training can positively affect team performance. Another study found that cross-training could help teams develop a shared “mental model”—or conceptualization—of their work, an important issue for team coordination.22

Training for Managers and Leaders

Many of the training methods described so far can also be used to train managers. There are also additional options for training managers.

• In role-plays, trainees act in managerial situations such as counseling a difficult subordinate.
• In case studies, participants analyze a difficult business case.
• In games and simulations, teams challenge each other as if they were businesses in competition.
• Assessment centers, which Chapter 7 discusses in terms of their use for selecting managers, can do double duty as training and development exercises, providing feedback to managers.
• Executive coaching has grown in popularity as a way to provide individual advice and counseling to managers regarding their work and careers.
• Specific job assignments are sometimes provided to managers as a developmental experience. For example, a member of the sales team might be given a series of supervisory and managerial assignments in different geographical locations as preparation for a middle management role.24
Current Workplace Training Issues

A number of new types of training methods and approaches are emerging. The first of these is mindfulness training. Mindfulness is a state in which a person allows themselves to be in the present moment and also learns to notice things around them in a nonjudgmental way. Initial research shows that mindfulness training can lead to important outcomes like reduced employee stress and better sleep.\(^{25}\) According to some estimates, 22% of large employers offer mindfulness training to their employees, including Target, General Mills, and Google.\(^ {26}\)

A second recent training issue is gamification. Gamification might include training that is made into a game or simply competition among employees in terms of scores on their training performance (e.g., earning badges, test scores after training). The assumption is that it can increase trainee motivation and engagement. Although the number of vendors selling gamified training solutions is increasing quickly, the published research on gamified training is very limited, and the results do not lend themselves to simple recommendations for implementing gamified training in organizations. For example, employees with a lot of gaming experience (e.g., video games) may prefer gamified training, while others may not. Although gamification of training may hold promise, more research is needed about how and when to implement it and for whom it is most effective.\(^ {27}\)

Onboarding New Employees

Onboarding (or organizational socialization) is the process of helping new employees adjust to their new organizations by imparting to them the knowledge, skills, behaviors, culture, and attitudes required to successfully function within the organization. Good onboarding can lead to positive outcomes for both organizations and individuals such as better new employee role clarity, feelings of connectedness with coworkers, confidence in their new role, higher performance, better job attitudes, and higher retention.\(^ {28}\) The goal of onboarding is to make sure that new employees have the information, orientation, training, and support they need to be successful.

Effective Organizational Onboarding

Organizations can follow several onboarding best practices to set the stage for new employees’ success. One way to think about how organizations can best direct their onboarding efforts is to focus on how to welcome, inform, and guide new employees.\(^ {29}\) It is important for new employees to receive resources such as websites, internal discussion boards, materials, on-the-job training, and additional training programs to help them learn what is expected of them and how to do their job well.

The orientation program, a specific type of training designed to help welcome, inform, and guide new employees, is a great way to give new employees the information they need in a short amount of time. However, a key problem with orientation programs can be that they impart too much information all at once. To solve this, Zappos spread the process out over 5 weeks. And at the Ritz-Carlton Hotel Company, employees spend 2 days with management and dine in the hotel’s finest restaurant. They are introduced to the company’s intensive service standards, team orientation, and its own language.\(^ {30}\) Organizations such as Microsoft, NASA, and PwC think of onboarding as lasting 1 year and beyond.\(^ {31}\)

Organizations may assign a “buddy” or peer to help a new employee with answers to questions, a tour of the facilities, and someone who checks in with the new employee on an ongoing basis.
basis. Other programs might be to assign mentors to newcomers. New employees who receive guidance from organizational insiders such as their coworkers, managers, and mentors are more successful than those who are left to find their own guidance. Research has also consistently shown that organizational insiders are important for helping new employees adjust.32

What Can Newcomers Do? Effective Newcomer Onboarding Behaviors
Newcomers may feel overwhelmed during the adjustment process, but the good news is that much of their success is in their own hands. Seeking feedback and information, socializing with coworkers, networking, seeking to build relationships with managers, and framing things positively to themselves all help newcomers adjust (see Table 8.1).33 Research shows that newcomers who actively seek out information not only receive more of it but also get more ongoing attention from their managers.34

Evaluating the Effectiveness of Training Programs

LO 8.4 Identify the major categories of criteria for assessing training effectiveness.

There is a lot of pressure for HR departments to demonstrate the effectiveness of training programs. Evaluating a training program can show where the program may be falling short and how it can be adjusted or improved to better meet an organization’s needs. Organizations that do evaluations—and do them well—not only can justify the use of organizational resources for training but also can improve their current program to make it even more
effective. The increasing use of data analytics in organizations provides a number of advantages for quickly getting metrics regarding the success of a training program.

### Measures of Training Effectiveness

The dominant framework for classifying different measures of training effectiveness is the Kirkpatrick framework. Kirkpatrick’s model classifies training outcomes into four categories of training evaluation criteria: reactions, learning, behavior, and results. The criteria can be conceptualized as existing on four levels, from the lowest and most basic (reactions) to the highest and most robust (results) (see Figure 8.4).

**Reactions criteria** have to do with assessing how trainees react to the training, namely, whether they liked it. For example, an organization may send a survey to trainees after they have completed the training program, asking them whether they enjoyed the training, thought the training was interesting, or liked the trainer. College course evaluations that ask students what they thought about the course, the instructor, or the materials are reactions criteria that you are probably very familiar with. One important point, of course, is that while training reactions can be important to training effectiveness, they do not necessarily indicate whether the training actually increased employee knowledge or, even more important, whether the training actually transferred to the workplace in terms of increased performance. However, trainees’ beliefs that the training was actually relevant and useful to their jobs have been shown to be related to transfer.35

The next level in the framework is **learning criteria**, or whether the trainee actually gained some sort of knowledge or skill while in training. For example, a company may train its employees on the use of a new software system to track the delivery of its product to customers. To evaluate the training, the company might give the employees a test at the end of the training in which the employees show that they can use the software effectively. Note that this is a major step up from simply asking whether the trainees liked the training or thought it was effective. Still, just because the trainees have gained knowledge or skill as the result of training does not in itself indicate the training is beneficial to the organization. For example, a company may provide training about safety practices on the job, and the employees may be able to pass a test about safe practices as a result of the training. But maybe the types of practices described in the training are not relevant to the employees’ jobs. Or maybe the training will not transfer into actual safety behavior back at work because supervisors are not supportive of it. This is where the next level in Kirkpatrick’s model, behavior, comes in. **Behavior/behavior criteria** refers to actual behavior on the job, perhaps as measured by the supervisor.

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**FIGURE 8.4** Kirkpatrick’s Four Levels of Training Outcomes

<table>
<thead>
<tr>
<th>Results</th>
<th>Were there improvements in key organizational indicators attributable to training such as increased profit or decreased accidents?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavior</td>
<td>Did job behavior change?</td>
</tr>
<tr>
<td>Learning</td>
<td>Did the trainees demonstrate new knowledge or skill from training?</td>
</tr>
<tr>
<td>Reactions</td>
<td>Did the trainees like the training? Do they believe that it was relevant to the job?</td>
</tr>
</tbody>
</table>

CHAPTER 8  Training, Development, and Careers

The final and highest level of Kirkpatrick’s training criteria is results criteria, or whether the training actually translates into improvements in organizational outcomes such as profits and performance. Using the safety example presented here, the company may be able to demonstrate that, as a result of the training program, accidents actually decreased company-wide and employee injuries and medical claims as a result of injuries decreased.

One of the most challenging aspects of training evaluation is demonstrating that the training outcomes are actually tied back to business objectives—that is, to results criteria. The use of analytics in organizations can be particularly helpful in this regard, allowing decision makers and managers to see whether training is affecting training outcomes, such as learning, and how these are impacting business outcomes, such as performance. The key is to be able to measure these training outcomes accurately—not just quickly and cheaply. For example, an organization may implement a two-part training program, finding that the training increases employee skill levels and sales but does not increase quality. Armed with this information, decision makers can determine how to tweak the program to provide better results. For example, Bloomingdale’s tracks its sales associates’ knowledge acquisition, retention, and application. It can track this by employee and by store. Bloomingdale’s can also analyze employee knowledge and tie it back to employee behavior and results.

In short, the linkage between training and organizational performance can be clearly illustrated in ways that can aid in organizational decision making—an approach used by Allstate Insurance and discussed in the opening case.

Spotlight on Data and Analytics

HARNESSING ANALYTICS TO ENHANCE AND EVALUATE TRAINING

The development of more high-tech analytics in recent years has led to significant opportunities for organizations to more effectively manage and evaluate their training. First, the measurement of training outcomes in organizations has become more easily accessible to organizational decision makers. As an example, Xerox evaluates its training in terms of efficiency (e.g., number of trainees completing a training program; program cost), effectiveness (e.g., knowledge assessment scores), outcomes (e.g., whether the learner is engaging with the training program, such as website visits), and alignment (e.g., the training function’s net promoter scores within the organization). These types of outcomes can help organizational managers make more informed decisions about what people are learning and how training can be improved. A key here is to make these outcome measures relatively easy and affordable for the organization to collect.

Similarly, automation resulting from the use of artificial intelligence (AI) in organizations may also enhance training functions. AI can be used to follow up with learners to reinforce certain key learning points, or it can be used to survey learners to assess their knowledge retention. In short, AI may become a significant tool for enhancing learning in organizations.

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Career Development and Management

LO 8.5 Analyze the factors associated with effective career development and management.

Another important aspect of development relates to one's career. Career management is the continual process of setting career-related goals and planning a route to achieve those goals. Understanding career management in the context of training and development is important because the needs of employees change over time.

Career Management Activities

Three categories of career management activities include work performed, personal relationships, and education. First, work performed includes job rotation, which refers to employees who work on different assigned jobs within the same organization. Job rotation allows employees to develop a variety of skills and helps them to be more informed about various aspects of the business and to be exposed to different individuals, teams, and departments across the organization. At Raytheon, its multiyear job rotation program is a leadership development program that helps employees gain valuable leadership skills across a variety of settings within the organization. Second, organizations can give people challenging or stretch assignments. Specifically, employees are given a task, project, or responsibility that is outside their current KSAOs. Challenging assignments can groom employees for management positions. The key is not to stretch employees so far that they fail.

Second, personal relationships at work are important. Relationships with managers can help make or break an employee's career. In addition, other organizational members or even someone outside of the organization may be helpful in mentoring employees to achieve positive career outcomes. Research consistently shows that having a mentor can help employees' career outcomes such as compensation, promotions, and career satisfaction. Third, employees may seek additional education to help them develop skills either at their own expense or via reimbursement from their organization.

Career Movements

Sometimes an employee's career path is defined, and redefined, by promotions, transfers, and even demotions. A promotion, when an employee is given a greater amount of responsibility within their job, is often accompanied by a pay increase because of the additional level of work. A transfer refers to an employee making a lateral move to part of the organization (domestic or international) without a major change in job duties, responsibilities, or compensation. Transfers can be helpful both for the organization (the better use of employees) and to address employee needs.

Are Managers or Employees Responsible for Career Management?

Both organizations and individuals play an important role in career management. For example, strong career management pays off at Genentech, one of Fortune's “100 Best
Companies to Work For. Genentech invested heavily in one-on-one career consulting, webinars, mentoring programs and support, career assessments, and short online video clips to help employees think about their careers in new ways. All of this led to an employee turnover rate of nearly 6% versus the industry average of 11%, and in 1 year alone, it helped retain 76 high-potential employees. For individuals, career management strategies include seeking mentoring relationships, understanding your own strengths and weaknesses, setting career goals, and taking on challenging assignments. Some best practices for both individuals and organizations are noted in Table 8.2.

### TABLE 8.2 Career Development and Management Best Practices

<table>
<thead>
<tr>
<th>BEST INDIVIDUAL PRACTICES FOR CAREER DEVELOPMENT AND MANAGEMENT</th>
<th>BEST ORGANIZATIONAL PRACTICES FOR CAREER DEVELOPMENT AND MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Build relationships.</td>
<td>• Invest in career development.</td>
</tr>
<tr>
<td>• Seek mentors, including peer-to-peer mentors.</td>
<td>• Career development is aligned with employees’ personal goals as well as corporate objectives.</td>
</tr>
<tr>
<td>• Develop self-awareness of your own strengths and weaknesses.</td>
<td>• Develop a culture that values, supports, and rewards learning.</td>
</tr>
<tr>
<td>• Set career goals and review them on a regular basis.</td>
<td>• Managers are given training on how to help employees with career development.</td>
</tr>
<tr>
<td>• Create a plan for developmental activities aligned with your career goals.</td>
<td>• Accountability for career development exists.</td>
</tr>
<tr>
<td>• Take on challenging assignments in areas related to your career goals.</td>
<td>• Employees are provided with the processes, information, tools, and resources they need to develop their careers.</td>
</tr>
</tbody>
</table>


### CHAPTER SUMMARY

Organizations invest significant resources in training and development, and this investment can lead to increased performance. The best practices described in this chapter include conducting a training needs assessment, considering trainee and organizational characteristics when developing a training program,
choosing the appropriate training methods for the situation, and measuring training outcomes that are tied to organizational objectives. Guidelines for how to actually implement these best practices in organizations are summarized in Table 8.3. When done well, training forms part of overall career development, which benefits both the employee and the organization.

**TABLE 8.3** Key Questions Human Resource Executives, Chief Learning Officers, and Business Leaders Should Ask About Training

<table>
<thead>
<tr>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have we invested sufficiently and wisely in training- and learning-related activities in our organization? How do we know?</td>
</tr>
<tr>
<td>How have we determined and prioritized our most important training needs?</td>
</tr>
<tr>
<td>How clear are we about the competencies we will need to compete successfully? How clear are we about where the gaps exist?</td>
</tr>
<tr>
<td>What have we done to diagnose our organization’s learning environment?</td>
</tr>
<tr>
<td>What are we doing to make our organization more conducive to learning?</td>
</tr>
<tr>
<td>What do you need me to do to send the right signals to our employees about the importance of training and learning in our organization?</td>
</tr>
<tr>
<td>How will we know that our overall efforts in training and development have an impact? What evidence do we expect to see?</td>
</tr>
</tbody>
</table>


Choosing the appropriate training methods for the situation, and measuring training outcomes that are tied to organizational objectives. Guidelines for how to actually implement these best practices in organizations are summarized in Table 8.3. When done well, training forms part of overall career development, which benefits both the employee and the organization.

**KEY TERMS**

- needs assessment: 181
- self-efficacy: 184
- trainee motivation: 185
- metacognitive skill: 185
- training transfer: 185
- eLearning: 187
- role-plays: 189
- case studies: 189
- games and simulations: 189
- executive coaching: 189
- mindfulness training: 190
- gamification: 190
- onboarding (organizational socialization): 190
- orientation program: 190
- reactions criteria: 192
- learning criteria: 192
- behavior/behavior criteria: 192
- results criteria: 193
- career management: 194

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The Kehoe Company, which specializes in the sales of medical office software, has decided to provide training for its salespeople. The training includes live role-plays and online training about the products themselves.

To evaluate the program, the company assessed sales performance and product knowledge in the year before and after the training. The company compared employees in two regions, Atlanta (the trained group) and Houston (who were not trained). The two groups were considered equivalent in terms of their performance and demographics. All metrics are on a 10-point scale.

The following table shows the results of the training evaluation for the two offices. The metric used to evaluate the training is a composite of sales volume and a measure of employees’ product knowledge.

<table>
<thead>
<tr>
<th>OFFICE</th>
<th>PRETRAINING COMPOSITE (AVERAGE) OF SALES PERFORMANCE AND PRODUCT KNOWLEDGE</th>
<th>POSTTRAINING COMPOSITE (AVERAGE) OF SALES PERFORMANCE AND PRODUCT KNOWLEDGE</th>
<th>SAMPLE SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlanta (trained)</td>
<td>8.4</td>
<td>9.2</td>
<td>449</td>
</tr>
<tr>
<td>Houston (untrained/control)</td>
<td>8.5</td>
<td>8.7</td>
<td>398</td>
</tr>
</tbody>
</table>

Questions

1. Overall, based on these numbers, how effective would you say the training program is?

Next, the company decided to evaluate the effects of the training program on the two metrics separately. The first table shows a measure of average employee sales performance for the two offices pre- and posttraining. The second table shows a measure of product knowledge for the two offices pre- and posttraining.
2. Based on these numbers, what would you say is the effectiveness of the training program with regard to each of the training outcomes?

3. If the company wanted to adjust the training program, what would you recommend?

4. A colleague argues that sales numbers seem to be up as a result of the training program, so it doesn't matter whether employees showed an increase in product knowledge. What would be your response to that argument?

EXERCISE 8.2: INTERPRETING TRAINING AND SAFETY KNOWLEDGE ANALYTICS

The following table shows the average knowledge of safety practices related to chemical leak emergencies at a chemical plant, based on a sample of 221 chemical plant employees.

The employees were given a knowledge test at the time they were hired. They were then given the test again at multiple time points after their original hire date. They were trained on safety procedures at 3 months posthire.

<table>
<thead>
<tr>
<th>TIME OF HIRE/BASELINE JOB KNOWLEDGE TEST SCORE (OUT OF 100)</th>
<th>1 MONTH POSTHIRE</th>
<th>2 MONTHS POSTHIRE</th>
<th>3 MONTHS POSTHIRE ONLINE SAFETY TRAINING</th>
<th>4 MONTHS POSTHIRE</th>
<th>6 MONTHS POSTHIRE</th>
<th>9 MONTHS POSTHIRE</th>
<th>12 MONTHS POSTHIRE</th>
</tr>
</thead>
<tbody>
<tr>
<td>55</td>
<td>60</td>
<td>64</td>
<td>88</td>
<td>80</td>
<td>76</td>
<td>74</td>
<td></td>
</tr>
</tbody>
</table>

The data presented here are sometimes called a *time-series quasi-experimental design* that can be used in evaluating the safety training program.

**Questions**

1. These data indicate a slight increase in the employees’ mean performance on the emergency safety procedures knowledge test at baseline and for the first 2 months after they are hired (prior to the online safety training). What are some possible reasons for this effect?
2. There is a “bump” in the employees’ performance on the knowledge test immediately after they are trained. However, their knowledge then begins to decline over the next several months. What are some possible reasons for this effect?

3. Why would employees’ knowledge in this particular domain decline, even though they are on the job? Put differently, wouldn’t their working on the job continue to maintain their knowledge of emergency safety procedures? Why or why not?

4. Safety is a top priority in companies such as this one. If you were a manager, what could you do to remedy this decline in knowledge level among employees posttraining?

---

**ETHICAL MATTERS EXERCISE: THE TRAINING OF ETHICS IN ORGANIZATIONS**

We discussed the fact that ethics have been integrated into SHRM’s competency model as a key competency. It’s not surprising, then, that many organizations have integrated the training of ethics into their training curricula. This might include training in more general ethical issues such as diversity training. Or it might be more specific to certain types of jobs, such as how to handle monetary transactions, gifts from clients, or conflicts of interest. There have been recent discussions about the ethical issues faced by those working in the high-tech industry and how what they do can affect millions of lives. (Critics say that this sort of ethical training is not discussed enough within the high-tech industry, much less trained.) Still, other organizations do provide explicit training focused on ethics. For example, the National Institutes of Health (NIH) offers annual ethics training for its employees on understanding rules and issues such as those for gifts and financial conflicts of interest.\(^4^2\)

**Questions**

1. Do you think people violate ethics because they lack training (i.e., they don’t know what is ethical and unethical) or see some advantage to their unethical behavior? Give examples to support your opinion.

2. Find an example in the news or in the HR literature of an organization charged with ethics violations. What did the organization do right? What could the organization have done differently?