

4

Analyzing Work and Designing Jobs

What Do I Need to Know?

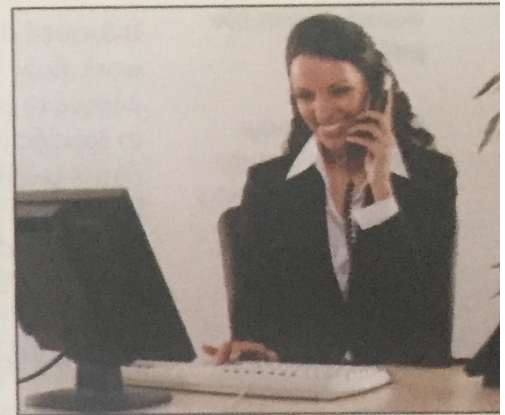
After reading this chapter, you should be able to:

- | | |
|--|--|
| LO 4-1 Summarize the elements of work flow analysis. | LO 4-6 Describe methods for designing a job so that it can be done efficiently. |
| LO 4-2 Describe how work flow is related to an organization's structure. | LO 4-7 Identify approaches to designing a job to make it motivating. |
| LO 4-3 Define the elements of a job analysis, and discuss their significance for human resource management. | LO 4-8 Explain how organizations apply ergonomics to design safe jobs. |
| LO 4-4 Tell how to obtain information for a job analysis. | LO 4-8 Discuss how organizations can plan for the mental demands of a job. |
| LO 4-5 Summarize recent trends in job analysis. | |

Introduction

As workers master new technology, they are sometimes surprised to find that old ways of doing business still matter. An example is using the telephone. So much communication has shifted to texting and sending e-mail that many people who grew up with mobile devices feel uncomfortable about picking up the phone and talking. Patty Baxter noticed this in the sales office of her company, Metro Guide Publishing. The room used to be filled with the chatter of employees asking businesspeople to buy ads, but they had switched to the more comfortable task of sending out e-mails to potential clients. However, this new approach didn't work as well. E-mail was less effective for building customer relationships, and employees sometimes misinterpreted prospects' needs and intentions. Baxter hired a trainer to build her employees' telephone skills and confidence. She also modified their jobs by providing scripts for voice messages and adding the requirement that they keep records of the way they contact each client.

The trainer that Baxter hired for Metro Guide is not alone in noticing that more employees are uncomfortable with using the phone. A trainer at a utility company recently recalled teaching an employee the technical features of a desktop telephone—for example, the dial tone and absence of a Send button. But at least as important as knowing devices' technical features is skill at using one's voice, both on and off the phone. Recent research supports the idea that a person's tone of voice affects the



impression he or she makes. When subjects are asked to rate people based on recordings of their voices, they form negative opinions of people who speak in breathy, rough, strained, or weak tones. Another habit that creates a negative impression is ending sentences in a rising voice, as if asking a question. Fortunately for individuals with these speaking styles, clear and pleasant speech is a skill people can learn.¹

Metro Guide Publishing earns money by selling ads to local businesses, so it needs strong relationships with many different companies. That need gives rise to knowledge of the kinds of skills and work habits employees must provide, such as the ability to speak and listen well over the phone. Consideration of such elements is at the heart of analyzing work, whether in a start-up enterprise, a multinational corporation, or a government agency.

This chapter discusses the analysis and design of work and, in doing so, lays out some considerations that go into making informed decisions about how to create and link jobs. The chapter begins with a look at the big-picture issues related to analyzing work flow and organizational structure. The discussion then turns to the more specific issues of analyzing and designing jobs. Traditionally, job analysis has emphasized the study of existing jobs in order to make decisions such as employee selection, training, and compensation. In contrast, job design has emphasized making jobs more efficient or more motivating. However, as this chapter shows, the two activities are interrelated.

LO 4-1 Summarize the elements of work flow analysis.

Work Flow Design

The process of analyzing the tasks necessary for the production of a product or service.

Job

A set of related duties.

Position

The set of duties (job) performed by a particular person.

Work Flow in Organizations

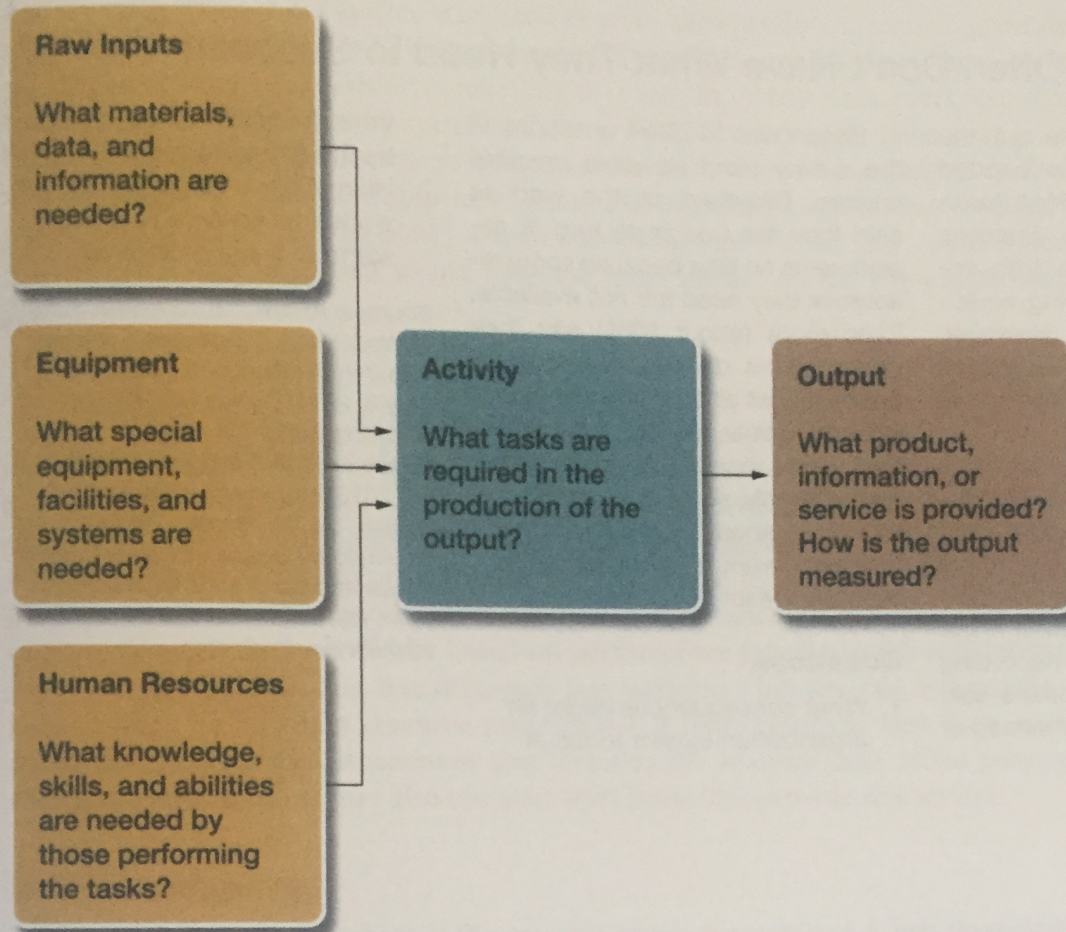
Informed decisions about jobs take place in the context of the organization's overall work flow. Through the process of **work flow design**, managers analyze the tasks needed to produce a product or service. With this information, they assign these tasks to specific jobs and positions. (A **job** is a set of related duties. A **position** is the set of duties performed by one person. A school has many teaching *positions*; the person filling each of those positions is performing the *job* of teacher.) Basing these decisions on work flow design can lead to better results than the more traditional practice of looking at jobs individually.

Work Flow Analysis

Before designing its work flow, the organization's planners need to analyze what work needs to be done. Figure 4.1 shows the elements of a work flow analysis. For each type of work, such as producing a product line or providing a support service (accounting, legal support, and so on), the analysis identifies the output of the process, the activities involved, and the three categories of inputs (materials and information, equipment, and human resources).

Outputs are the products of any work unit, say, a department or team. Outputs may be tangible, as in the case of a restaurant meal or finished part. They may be intangible, such as building security or an answered question about employee benefits. In identifying the outputs of particular work units, work flow analysis considers both quantity and quality. Thinking in terms of these outputs gives HRM professionals a clearer view of how to increase each work unit's effectiveness.

Work flow analysis next considers the *work processes* used to generate the outputs identified. Work processes are the activities that a work unit's members engage in to produce a given output. They are described in terms of operating procedures for every task performed by each employee at each stage of the process. Specifying the processes

**Figure 4.1**

Developing a Work Flow Analysis

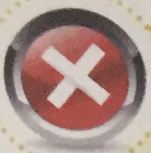
helps HRM professionals design efficient work systems by clarifying which tasks are necessary. Knowledge of work processes also can guide staffing changes when work is automated, outsourced, or restructured.

Finally, work flow analysis identifies the *inputs* required to carry out the work processes. As shown in Figure 4.1, inputs fall into three categories: raw inputs (materials and information), equipment, and human resources (knowledge, skills, and abilities). In the advertising industry, for example, technology has changed the relative importance of inputs. The stars of the ad business used to be the creative minds who dreamed up messages for television ads that would get people talking (and buying). But as consumers turn their attention to digital media, ad agencies need people who understand the latest in social media and who can not only generate a stream of messages but also can measure the reactions streaming back from consumers. Data and skill in analyzing data are today's hotly demanded inputs for advertising.² Another way to understand the importance of identifying inputs is to consider what can go wrong. The "HR Oops!" box illustrates that if an organization's outputs fall short of goals, HR managers might find that the cause is a failure in planning for inputs.

Work Flow Design and an Organization's Structure

Work flow takes place in the context of an organization's structure. It requires the cooperation of individuals and groups. Ideally, the organization's structure brings together the people who must collaborate to create the desired outputs efficiently. The structure may do this in a way that is highly centralized (that is, with authority

LO 4-2 Describe how work flow is related to an organization's structure.



HR Oops!

Workers Often Don't Have What They Need to Succeed

Work flow analysis spells out the human and other resources needed for carrying out well-defined tasks that will meet objectives. Success requires the right people with access to resources including equipment and information. However, research suggests that some of these inputs may be missing at many organizations.

In a survey of more than 500 U.S. workers in different industries, AtTask, a maker of project management software, found that large numbers of workers are struggling to meet objectives on time—if they even know what their objectives are. According to AtTask, 60% of the workers said they are completely overwhelmed or barely meeting deadlines.

Responses to other questions in the survey point to some possible causes. One-third of the workers said they are unable to turn in assignments on time because some resources they need are not available. Even more (about 50%) say their organizations do not have enough people to get all the necessary tasks finished unless people work overtime. More than a third of them say they are only somewhat, a little, or not clear about desired outputs—how their work is measured or how their supervisor defines success.

Questions

1. What consequences might an organization expect to result

from the conditions described by the AtTask survey?

2. How might an organization use work flow analysis to prevent some of these problems?

Sources: AtTask, "2013 AtTask State of Work Survey: Executive Summary," <http://www.attask.com>, accessed May 6, 2014; Dennis McCafferty, "Projects Suffer from Lack of Staffing, Resources," *CIO Insight*, December 19, 2013, <http://www.cioinsight.com>; AtTask, "AtTask Survey: Workers Overwhelmed by Deadlines Blame Lack of Focus and Constant Interruptions," news release, November 14, 2013, <http://www.attask.com>.

concentrated in a few people at the top of the organization) or decentralized (with authority spread among many people). The organization may group jobs according to functions (for example, welding, painting, packaging), or it may set up divisions to focus on products or customer groups.

Although there are an infinite number of ways to combine the elements of an organization's structure, we can make some general observations about structure and work design. If the structure is strongly based on function, workers tend to have low authority and to work alone at highly specialized jobs. Jobs that involve teamwork or broad responsibility tend to require a structure based on divisions other than functions. When the goal is to empower employees, companies then need to set up structures and jobs that enable broad responsibility, such as jobs that involve employees in serving a particular group of customers or producing a particular product, rather than performing a narrowly defined function. The organization's structure also affects managers' jobs. Managing a division responsible for a product or customer group tends to require more experience and cognitive (thinking) ability than managing a department that handles a particular function. In contrast, managing a functional department requires skill in managing conflicts and aligning employees' efforts with higher-level goals, because these employees tend to identify heavily with their department or profession.³

Work design often emphasizes the analysis and design of jobs, as described in the remainder of this chapter. Although all of these approaches can succeed, each focuses on one isolated job at a time. These approaches do not necessarily consider how that single job fits into the overall work flow or structure of the organization. To use these techniques effectively, human resource personnel should also understand their organization as a whole.

For example, Procter & Gamble traditionally gives each product division a great deal of control over its activities. Thus, research and development for a product line was the responsibility of the division controlling that line. But when consumers responded to difficult economic times by spending less on P&G's brand-name consumer goods, each division tightened its research budget to the point that the company overall was not spending enough to develop new ideas. The company's top leaders decided to restructure work by making R&D a corporate-wide function so they could concentrate resources on ideas that would have the most impact on the company's overall performance.⁴

Job Analysis

To achieve high-quality performance, organizations have to understand and match job requirements and people. This understanding requires **job analysis**, the process of getting detailed information about jobs. Analyzing jobs and understanding what is required to carry out a job provide essential knowledge for staffing, training, performance appraisal, and many other HR activities. For instance, a supervisor's evaluation of an employee's work should be based on performance relative to job requirements. In very small organizations, line managers may perform a job analysis, but usually the work is done by a human resource professional. A large company may have a compensation management department that includes job analysts (also called personnel analysts). Organizations may also contract with firms that provide this service.

LO 4-3 Define the elements of a job analysis, and discuss their significance for human resource management.

Job Analysis

The process of getting detailed information about jobs.

Job Descriptions

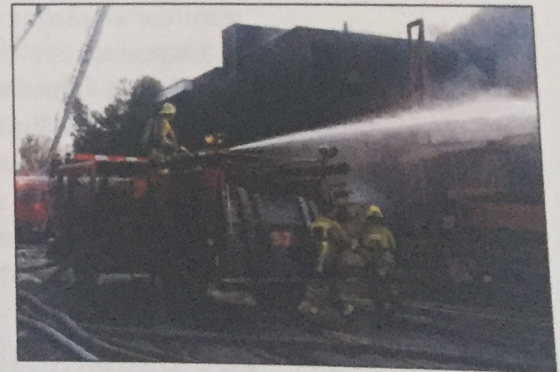
An essential part of job analysis is the creation of job descriptions. A **job description** is a list of the tasks, duties, and responsibilities (TDRs) that a job entails. TDRs are observable actions. For example, a news photographer's job requires the jobholder to use a camera to take photographs. If you were to observe someone in that position for a day, you would almost certainly see some pictures being taken. When a manager attempts to evaluate job performance, it is most important to have detailed information about the work performed in the job (that is, the TDRs). This information makes it possible to determine how well an individual is meeting each job requirement.

Job Description

A list of the tasks, duties, and responsibilities (TDRs) that a particular job entails.

A job description typically has the format shown in Figure 4.2. It includes the job title, a brief description of the TDRs, and a list of the essential duties with detailed specifications of the tasks involved in carrying out each duty. Although organizations may modify this format according to their particular needs, all job descriptions within an organization should follow the same format. This helps the organization make consistent decisions about such matters as pay and promotions. It also helps the organization show that it makes human resource decisions fairly.

Whenever the organization creates a new job, it needs a new job description. Preparation of a job description begins with gathering information about the job from people already performing the task, the position's supervisor, or the managers creating the position. Based on that information, the writer of the job description identifies the essential duties of the job, including mental and physical tasks and any methods and resources required. Job descriptions should then be reviewed periodically



Careful job analysis makes it possible to define what a person in a certain position does and what qualifications are needed for the job. Firefighters use specific equipment to extinguish fires, require physical strength to do their jobs, and must possess the ability to make decisions under pressure.

Figure 4.2**Sample Job Description**

Source: Union Pacific,
 "Union Pacific Careers:
 Train Crew," [https://
 up.jobs/train-crew.html](https://up.jobs/train-crew.html),
 accessed May 7, 2014.

TRAIN CREW/SERVICE AT UNION PACIFIC**OVERVIEW**

When you work on a Union Pacific train crew, you're working at the very heart of our railroad. Train crew employees are responsible for serving our customers by providing the safe, on-time, and on-plan movement of freight trains.

JOB DESCRIPTION

In this entry-level position, you'll start as a Switchperson or Brakeperson, working as on-the-ground traffic control. You don't need any previous railroad experience; we provide all training. These jobs directly lead to becoming a Conductor and a Locomotive Engineer, where you will have a rare opportunity to work on board a moving locomotive. The Conductor is responsible for the train, the freight and the crew. The Locomotive Engineer actually operates the locomotive.

DUTIES

You will work outdoors in all weather conditions and frequently at elevations more than 12 feet above the ground. You must wear personal protective equipment, such as safety glasses and safety boots. You will frequently carry loads and regularly step on and off equipment and work from ladders. You will use and interpret hand signals and sounds, use computers, count train cars, and follow posted regulations.

MAJOR TASKS AND RESPONSIBILITIES

You won't work a standard 40-hour workweek. Train crews are always on call, even on weekends and holidays. You'll travel with our trains, sometimes spending a day or more away from your home terminal.

(say, once a year) and updated if necessary. Performance appraisals can provide a good opportunity for updating job descriptions, as the employee and supervisor compare what the employee has been doing against the details of the job description.

Organizations should give each newly hired employee a copy of his or her job description. This helps the employee to understand what is expected, but it shouldn't be presented as limiting the employee's commitment to quality and customer satisfaction. Ideally, employees will want to go above and beyond the listed duties when the situation and their abilities call for that. Many job descriptions include the phrase *and other duties as requested* as a way to remind employees not to tell their supervisor, "But that's not part of my job."

Job Specification

A list of the knowledge, skills, abilities, and other characteristics (KSAOs) that an individual must have to perform a particular job.

Job Specifications

Whereas the job description focuses on the activities involved in carrying out a job, a **job specification** looks at the qualities or requirements the person performing the job must possess. It is a list of the knowledge, skills, abilities, and other characteristics (KSAOs) that an individual must have to perform the job. *Knowledge* refers to

TRAIN CREW/SERVICE AT UNION PACIFIC**REQUIREMENTS**

You must be at least 18 years old. You must speak and read English because you'll be asked to follow posted bulletins, regulations, rule books, timetables, switch lists, etc. You must pass a reading comprehension test (see sample) to be considered for an interview.

JOB REQUIREMENTS

You must be able to use a computer keyboard, and you must be able to count and compare numbers. (You might, for example, be asked to count the cars on a train during switching.)

You must be able to solve problems quickly and react to changing conditions on the job.

You must have strong vision and hearing, including the ability to: see and read hand signals from near and far; distinguish between colors; visually judge the speed and distance of moving objects; see at night; and recognize changes in sounds.

You must also be physically strong: able to push, pull, lift, and carry up to 25 pounds frequently; up to 50 pounds occasionally; and up to 83 pounds infrequently. You'll need good balance to regularly step on and off equipment and work from ladders to perform various tasks. And you must be able to walk, sit, stand, and stoop comfortably.

Figure 4.3

Sample Job
Specifications

Source: Union Pacific,
"Union Pacific Careers:
Train Crew," [https://
up.jobs/train-crew.html](https://up.jobs/train-crew.html),
accessed May 7, 2014.

factual or procedural information that is necessary for successfully performing a task. For example, this course is providing you with knowledge in how to manage human resources. A *skill* is an individual's level of proficiency at performing a particular task—that is, the capability to perform it well. With knowledge and experience, you could acquire skill in the task of preparing job specifications. *Ability*, in contrast to skill, refers to a more general enduring capability that an individual possesses. A person might have the ability to cooperate with others or to write clearly and precisely. Finally, *other characteristics* might be personality traits such as someone's persistence or motivation to achieve. Some jobs also have legal requirements, such as licensing or certification. Figure 4.3 is a set of sample job specifications for the job description in Figure 4.2.

In developing job specifications, it is important to consider all of the elements of KSAOs. As with writing a job description, the information can come from a combination of people performing the job, people supervising or planning for the job, and trained job analysts. A study by ACT's Workforce Development Division interviewed manufacturing supervisors to learn what they do each day and what skills they rely on. The researchers learned that the supervisors spend much of their day monitoring their employees to make sure the workplace is safe, product quality is maintained, and work processes are optimal. Also, they rely heavily on their technical knowledge of the work processes they supervise.⁵ Based on this information, job specifications for a



Identifying Relevant KSAOs

Without strong support from human resource management, organizations may be tempted to use shortcuts for defining job specifications. They might guess, say, that someone who has a business degree and two years' experience in a similar job would be well qualified for an administrative position. Hiring experts, however, have identified some ways to pinpoint the relevant knowledge, skills, abilities, and other criteria directly related to success in a job:

- Rather than assuming education provides all necessary job skills, tie specifications to the actual skills needed for successful job performance. For example, research by the ACT testing organization found that most people with a college degree have the reading and math skills needed for entry-level jobs in accounting and auditing. But fewer than half have the necessary level of skill in locating information (for example, interpreting graphs and tables). Job specifications

should identify these skills, so companies can test for them.

- Set standards high enough that candidates who meet the specifications will do more than just barely complete the work. Rather, write specifications for an employee who can *succeed* in the job. This requires previous creation of a job description that defines successful performance.
- Use performance data. Especially when many people in the organization perform similar jobs, the company's performance data can become a treasure trove for identifying the behaviors and KSAOs associated with success. Google, for example, is famous for analyzing employee performance data on a company-wide level to see what kinds of behaviors are associated with better outcomes. The company then makes ability to perform in those effective ways part of its job specifications. Among other measures, the company has found that an

applicant's school grades are less important than learning ability and intellectual skills. Applicants for technical jobs also must demonstrate skill in writing software code.

Questions

1. Why do you think many companies include education level and years of experience in their job specifications?
2. Suppose you are writing job specifications for the position of production supervisor. Suggest a few ways to identify KSAOs for that position.

Sources: Google company website, "How We Hire," Careers, <http://www.google.com>, accessed May 6, 2014; Thomas L. Friedman, "How to Get a Job at Google," *New York Times*, February 22, 2014, <http://www.nytimes.com>; Melissa Murer Corrigan, "Measure Work Readiness for Tomorrow's Jobs," *Chief Learning Officer*, October 2013, pp. 44–6; Brad Remillard, "Traditional Job Descriptions Don't Attract Top Talent," *Supervision*, February 2013, pp. 6–7.

manufacturing supervisor would include skill in observing how people work, as well as in-depth knowledge of manufacturing processes and tools.

In contrast to tasks, duties, and responsibilities, KSAOs are characteristics of people and are not directly observable. They are observable only when individuals are carrying out the TDRs of the job—and afterward, if they can show the product of their labor. Thus, if someone applied for a job as a news photographer, you could not simply look at the individual to determine whether he or she can spot and take effective photographs. However, you could draw conclusions later about the person's skills by looking at examples of his or her photographs. Similarly, many employers specify educational requirements. Meeting these requirements is treated as an indication that a person has some desired level of knowledge and skills.

Accurate information about KSAOs is especially important for making decisions about who will fill a job. A manager attempting to fill a position needs information about the characteristics required and about the characteristics of each applicant. Interviews and selection decisions should therefore focus on KSAOs. For more guidelines on writing KSAOs, see "HR How To."

Sources of Job Information

Information for analyzing an existing job often comes from incumbents, that is, people who currently hold that position in the organization. They are a logical source of information because they are most acquainted with the details of the job. Incumbents should be able to provide very accurate information.

A drawback of relying solely on incumbents' information is that they may have an incentive to exaggerate what they do in order to appear more valuable to the organization. Information from incumbents should therefore be supplemented with information from observers, such as supervisors, who look for a match between what incumbents are doing and what they are supposed to do. Research suggests that supervisors may provide the most accurate estimates of the importance of job duties, while incumbents may be more accurate in reporting information about the actual time spent performing job tasks and safety-related risk factors.⁶ For analyzing skill levels, the best source may be external job analysts who have more experience rating a wide range of jobs.⁷

The government also provides background information for analyzing jobs. In the 1930s, the U.S. Department of Labor created the *Dictionary of Occupational Titles* (DOT) as a vehicle for helping the new public employment system link the demand for skills and the supply of skills in the U.S. workforce. The DOT described over 12,000 jobs, as well as some of the requirements of successful job holders. This system served the United States well for over 60 years, but it became clear to Labor Department officials that jobs in the new economy were so different that the DOT no longer served its purpose. The Labor Department therefore introduced a new system, called the Occupational Information Network (O*NET).

Instead of relying on fixed job titles and narrow task descriptions, the O*NET uses a common language that generalizes across jobs to describe the abilities, work styles, work activities, and work context required for 1,000 broadly defined occupations. Users can visit O*NET OnLine (<http://www.onetonline.org>) to review jobs' tasks, work styles and context, and requirements including skills, training, and experience. ManpowerGroup, a staffing services agency, uses O*NET's information on skills to match individuals more precisely to jobs it has been hired to fill. Piedmont Natural Gas uses O*NET to conduct job analyses and match job applicants' skills and preferences to the requirements of available positions. The effort has helped reduce turnover among Piedmont's entry-level workers.⁸ Furthermore, although the O*NET was developed to analyze jobs in the U.S. economy, research suggests that its ratings tend to be the same for jobs located in other countries.⁹

Position Analysis Questionnaire

After gathering information, the job analyst uses the information to analyze the job. One of the broadest and best-researched instruments for analyzing jobs is the

LO 4-4 Tell how to obtain information for a job analysis.

O*NET OnLine
A great partner of the American Job Center network

Help Find Occupations Advanced Search Crosswalks Share O*NET Sites

Build your future with O*NET OnLine.

Welcome to your tool for career exploration and job analysis!

O*NET OnLine has detailed descriptions of the world of work for use by job seekers, workforce development and HR professionals, students, researchers, and more!

What is O*NET?

Occupation Search Keyword or O*NET-SOC Code:

Find Occupations Browse groups of similar occupations to explore careers. Choose from industry, field of work, science area, and more.

Advanced Search Focus on occupations that use a specific tool or software. Explore occupations that need your skills.

Crosswalks Connect to a wealth of O*NET data. Enter a code or title from another classification to find the related O*NET-SOC occupation.

What's New! New BLS projections and industry info in O*NET Websites. Learn More.

I want to be a... Start the career you've dreamed about, or find one you never imagined. Find It Now at My Next Move.

ATTN: VETERANS Put your military skills and experience to work in civilian life. Learn how at: MY NEXT MOVE. Get Started.

MI PRÓXIMO PASO The Green Economy is changing tasks, work, and jobs across the country. Learn More. Search.

¿Habla español? Mi Próximo Paso incluye tareas, aptitudes, información sobre salarios y más de 600 carreras diferentes.

O*NET OnLine provides job seekers with detailed descriptions of many broadly defined occupations.

Position Analysis Questionnaire (PAQ)

A standardized job analysis questionnaire containing 194 questions about work behaviors, work conditions, and job characteristics that apply to a wide variety of jobs.

Position Analysis Questionnaire (PAQ). This is a standardized job analysis questionnaire containing 194 items that represent work behaviors, work conditions, and job characteristics that apply to a wide variety of jobs. The questionnaire organizes these items into six sections concerning different aspects of the job:

1. *Information input*—Where and how a worker gets information needed to perform the job.
2. *Mental processes*—The reasoning, decision making, planning, and information-processing activities involved in performing the job.
3. *Work output*—The physical activities, tools, and devices used by the worker to perform the job.
4. *Relationships with other persons*—The relationships with other people required in performing the job.
5. *Job context*—The physical and social contexts where the work is performed.
6. *Other characteristics*—The activities, conditions, and characteristics other than those previously described that are relevant to the job.

The person analyzing a job determines whether each item on the questionnaire applies to the job being analyzed. The analyst rates each item on six scales: extent of use, amount of time, importance to the job, possibility of occurrence, applicability, and special code (special rating scales used with a particular item). The PAQ headquarters uses a computer to score the questionnaire and generate a report that describes the scores on the job dimensions.

Using the PAQ provides an organization with information that helps in comparing jobs, even when they are dissimilar. The PAQ also has the advantage that it considers the whole work process, from inputs through outputs. However, the person who fills out the questionnaire must have college-level reading skills, and the PAQ is meant to be completed only by job analysts trained in this method. In fact, the ratings of job incumbents tend to be less reliable than ratings by supervisors and trained analysts.¹⁰ Also, the descriptions in the PAQ reports are rather abstract, so the reports may not be useful for writing job descriptions or redesigning jobs.

Fleishman Job Analysis System

Fleishman Job Analysis System

Job analysis technique that asks subject-matter experts to evaluate a job in terms of the abilities required to perform the job.

To gather information about worker requirements, the **Fleishman Job Analysis System** asks subject-matter experts (typically job incumbents) to evaluate a job in terms of the abilities required to perform the job. The survey is based on 52 categories of abilities, ranging from written comprehension to deductive reasoning, manual dexterity, stamina, and originality. The person completing the survey indicates which point on the scale represents the level of the ability required for performing the job being analyzed. For example, consider the ability, "written comprehension." Written comprehension includes understanding written English words, sentences, and paragraphs. It is different from oral comprehension (listen and understand spoken English words and sentences) and oral expression (speak English words and sentences so others can understand). The phrase for the highest point on the seven-point scale is "requires understanding of complex or detailed information in writing containing unusual words and phrases and involves fine distinctions in meaning among words." The phrase for the lowest point on the scale is "requires written understanding of short, simple written information containing common words and phrases."¹¹

When the survey has been completed in all 52 categories, the results provide a picture of the ability requirements of a job. Such information is especially useful for employee selection, training, and career development.

Analyzing Teamwork

Work design increasingly relies on teams to accomplish an organization's objectives, so HR managers often must identify the best ways to handle jobs that are highly interdependent. Just as there are standardized instruments for assessing the nature of a job, there are standard ways to measure the nature of teams. Three dimensions are most critical ¹²:

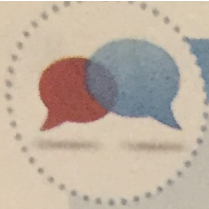
1. *Skill differentiation*—The degree to which team members have specialized knowledge or functional capacities.
2. *Authority differentiation*—The allocation of decision-making authority among individuals, subgroups, and the team as a whole.
3. *Temporal (time) stability*—The length of time over which team members must work together.

Importance of Job Analysis

Job analysis is so important to HR managers that it has been called the building block of everything that personnel does. ¹³ The fact is that almost every human resource management program requires some type of information that is gleaned from job analysis ¹⁴:

- *Work redesign*—Often an organization seeks to redesign work to make it more efficient or to improve quality. The redesign requires detailed information about the existing job(s). In addition, preparing the redesign is similar to analyzing a job that does not yet exist.
- *Human resource planning*—As planners analyze human resource needs and how to meet those needs, they must have accurate information about the levels of skill required in various jobs, so that they can tell what kinds of human resources will be needed.
- *Selection*—To identify the most qualified applicants for various positions, decision makers need to know what tasks the individuals must perform, as well as the necessary knowledge, skills, and abilities.
- *Training*—Almost every employee hired by an organization will require training. Any training program requires knowledge of the tasks performed in a job so that the training is related to the necessary knowledge and skills.
- *Performance appraisal*—An accurate performance appraisal requires information about how well each employee is performing in order to reward employees who perform well and to improve their performance if it is below standard. Job analysis helps in identifying the behaviors and the results associated with effective performance.
- *Career planning*—Matching an individual's skills and aspirations with career opportunities requires that those in charge of career planning know the skill requirements of the various jobs. This allows them to guide individuals into jobs in which they will succeed and be satisfied.
- *Job evaluation*—The process of job evaluation involves assessing the relative dollar value of each job to the organization in order to set up fair pay structures. If employees do not believe pay structures are fair, they will become dissatisfied and may quit, or they will not see much benefit in striving for promotions. To put dollar values on jobs, it is necessary to get information about different jobs and compare them.

Job analysis is also important from a legal standpoint. As we saw in Chapter 3, the government imposes requirements related to equal employment opportunity. Detailed, accurate, objective job specifications help decision makers comply with these regulations by keeping the focus on tasks and abilities. These documents also provide evidence of efforts made to engage in fair employment practices. For



With Good Analysis, Work Isn't *Just* a Game

Job analysis can support one of the hot trends in business, called *gamification*. To gamify work, organizations use elements of games designed to yield better results, and they apply them to jobs to enable stronger performance. For example, they observe how runners and cyclists are motivated when they can share their routes and mileage with their friends on social media, or how teams of players collaborate to defeat an enemy in an online game. A "leaderboard" displaying a list of the top scorers also is a widely used tool to motivate players to improve and earn a place on the list.

Employers can easily create a leader board of top salespeople, ask employees to post their progress on a team project, or award badges for completing training modules. But when a gamification effort is just a matter of adding playful features to the company's internal website, employees may ignore it. Well-planned gamification helps employees achieve goals that are relevant

to their own and their organization's success. This is where job analysis comes in, by pinpointing what employees should be accomplishing and what skills and resources they need. Gamification works when it aligns with job requirements and the learning of relevant skills.

In the United Kingdom, for example, the Department of Work and Pensions (DWP) wanted its employees to become more active in developing useful ideas for innovation. To gamify this aspect of employees' jobs, the company set up a collaboration site on its internal network. Employees are encouraged to submit ideas and vote on the ideas they think are most valuable. As ideas earn votes, they move up a leaderboard, and the company acts on them. Coming up with an idea that wins votes is exciting; seeing it move up the leaderboard is even more motivating; and of course, seeing it make a change for the better is the best prize of all.

Questions

1. Suppose you are a human resource manager at a company that is going to gamify the job of its salespeople. How would job analysis help you advise the team on which behaviors to reward?
2. In the same scenario, how would job analysis help you advise the team on which kinds of rewards to incorporate?

Sources: Brian Burke, "Why Gamification's Not a Game," *CIO Journal*, May 6, 2014, <http://blogs.wsj.com>; Farhad Manjoo, "High Definition: The 'Gamification' of the Office Approaches," *Wall Street Journal*, January 12, 2014, <http://online.wsj.com>; Meghan M. Biro, "Five Ways Leaders Win at Gamification Technology," *Forbes*, September 15, 2013, <http://www.forbes.com>; Cliff Saran, "A Business Case for Gameplay at Work," *Computer Weekly*, August 20–26, 2013, pp. 19–22.

example, to enforce the Americans with Disabilities Act, the Equal Employment Opportunity Commission may look at job descriptions to identify the essential functions of a job and determine whether a disabled person could have performed those functions with reasonable accommodations. Likewise, lists of duties in different jobs could be compared to evaluate claims under the Equal Pay Act. However, job descriptions and job specifications are not a substitute for fair employment practices.

Besides helping human resource professionals, job analysis helps supervisors and other managers carry out their duties. Data from job analysis can help managers identify the types of work in their units, as well as provide information about the work flow process, so that managers can evaluate whether work is done in the most efficient way. Job analysis information also supports managers as they make hiring decisions, review performance, and recommend rewards. For an example of this, see "HRM Social."

Competency Models

These traditional approaches to job analysis are too limited for some HRM needs, however. When human resource management is actively engaged in talent management

Table 4.1

Example of Competencies and a Competency Model

PROJECT MANAGER COMPETENCIES	PROFICIENCY RATINGS
Organizational & Planning Skills Ability to establish priorities on projects and schedule activities to achieve results.	1—Below Expectations: Unable to perform basic tasks. 2—Meets Expectations: Understands basic principles and performs routine tasks with reliable results; works with minimal supervision or assistance. 3—Exceeds Expectations: Performs complex and multiple tasks; can coach, teach, or lead others.
Communications Ability to build credibility and trust through open and direct communications with internal and external customers.	1—Below Expectations: Unable to perform basic tasks. 2—Meets Expectations: Understands basic principles and performs routine tasks with reliable results; works with minimal supervision or assistance. 3—Exceeds Expectations: Performs complex and multiple tasks; can coach, teach, or lead others.
Financial & Quantitative Skills Ability to analyze financial information accurately and set financial goals that have a positive impact on company's bottom line and fiscal objectives.	1—Below Expectations: Unable to perform basic tasks. 2—Meets Expectations: Understands basic principles and performs routine tasks with reliable results; works with minimal supervision or assistance. 3—Exceeds Expectations: Performs complex and multiple tasks; can coach, teach, or lead others.

Source: Based on R. J. Mirabile, "Everything You Wanted to Know about Competency Modeling," *Training and Development* (August 1997): pp. 73–77.

as a way to support strategy, organizations need to think beyond skills for particular jobs. They must identify the capabilities they need to acquire and develop in order to promote the organization's success. For this purpose, organizations develop competency models.

A **competency** is an area of personal capability that enables employees to perform their work successfully.¹⁵ For example, success in a job or career path might require leadership strength, skill in coaching others, and the ability to bring out the best in each member of a diverse team of employees. A competency model identifies and describes all the competencies required for success in a particular occupation or set of jobs. Organizations may create competency models for occupational groups, levels of the organization, or even the entire organization. A competency model might require that all middle managers or all members of the organization be able to act with integrity, value diversity, and commit themselves to delighting customers. Table 4.1 shows an example of a competency model for a project manager. The left side of the table lists competencies required for a project manager (organizational & planning skills; communications; and financial & quantitative skills). The right side of the table shows behaviors that might be used to determine a project manager's level of proficiency for each competency. As in these examples, competency models focus more on how people work, whereas job analysis focuses more on work tasks and outcomes.

Competency

An area of personal capability that enables employees to perform their work successfully.

Competency models help HR professionals ensure that all aspects of talent management are aligned with the organization's strategy. Looking at the competencies needed for a particular occupational group, department, or the organization as a whole shows which candidates will be the best to fill open positions. Not only can the organization select those who can carry out a particular job today, but it can spot those with competencies they can develop further to assume greater responsibility in the future. Competency models for a career path or for success in

management show the organization which competencies to emphasize in plans for development of high-potential employees. And competency models identify the important capabilities to measure in performance evaluations and to reward with pay and promotions.

Trends in Job Analysis

As we noted in the earlier discussion of work flow analysis, organizations have been appreciating the need to analyze jobs in the context of the organization's structure and strategy. In addition, organizations are recognizing that today's workplace must be adaptable and is constantly subject to change. Thus, although we tend to think of "jobs" as something stable, they actually tend to change and evolve over time. Those who occupy or manage jobs often make minor adjustments to match personal preferences or changing conditions.¹⁶ Indeed, although errors in job analysis can have many sources, most inaccuracy is likely to result from job descriptions being outdated. For this reason, job analysis must not only define jobs when they are created, but also detect changes in jobs as time passes.

With global competitive pressure and economic downturns, one corporate change that has affected many organizations is downsizing. Research suggests that successful downsizing efforts almost always entail changes in the nature of jobs, not just their number. Jobs that have survived the downsizing of the most recent recession tend to have a broader scope of responsibilities coupled with less supervision.¹⁷

These changes in the nature of work and the expanded use of "project-based" organizational structures require the type of broader understanding that comes from an analysis of work flows. Because the work can change rapidly and it is impossible to rewrite job descriptions every week, job descriptions and specifications need to be flexible. At the same time, legal requirements (as discussed in Chapter 3) may discourage organizations from writing flexible job descriptions. This means organizations must balance the need for flexibility with the need for legal documentation. This presents one of the major challenges to be faced by HRM departments in the next decade. Many professionals are meeting this challenge with a greater emphasis on careful job design.

LO 4-6 Describe methods for designing a job so that it can be done efficiently.

Job Design

Although job analysis, as just described, is important for an understanding of existing jobs, organizations also must plan for new jobs and periodically consider whether they should revise existing jobs. When an organization is expanding, supervisors and human resource professionals must help plan for new or growing work units. When an organization is trying to improve quality or efficiency, a review of work units and processes may require a fresh look at how jobs are designed.

These situations call for **job design**, the process of defining how work will be performed and what tasks will be required in a given job, or *job redesign*, a similar process that involves changing an existing job design. To design jobs effectively, a person must thoroughly understand the job itself (through job analysis) and its place in the larger work unit's work flow process (through work flow analysis). Having a detailed knowledge of the tasks performed in the work unit and in the job, a manager then has many alternative ways to design a job. As shown in Figure 4.4, the available approaches emphasize different aspects of the job: the mechanics of

Job Design

The process of defining how work will be performed and what tasks will be required in a given job.