PART TWO
Meeting Human Resources Requirements

CHAPTER
3
Designing and Analyzing Jobs

LEARNING OUTCOMES
AFTER STUDYING THIS CHAPTER, YOU SHOULD BE ABLE TO

EXPLAIN the steps in job analysis and the difference between a job and a position.
DEFINE job design and explain the difference between a job and a position.
DESCRIBE the evolution of job design and how organizational structure influences job design.
EXPLAIN the three reasons why competency-based job analysis has become more common.
DESCRIBE and evaluate multiple methods of collecting job analysis information.
EXPLAIN the difference between a job description and a job specification.

REQUIRED PROFESSIONAL CAPABILITIES (RPC)

• Provides the information necessary for the organization to effectively manage its people practices
• Identifies the data required to support HR planning
Job analysis is a process by which information about jobs is systematically gathered and organized. Job analysis is sometimes called the cornerstone of HRM.

A job consists of a group of related activities and duties. Ideally, the duties of a job should be clear and distinct from those of other jobs, and they should involve natural units of work that are similar and related. This approach helps to minimize conflict and enhance employee performance. A job may be held by a single employee or may have a number of incumbents. The collection of tasks and responsibilities performed by one person is known as a position. To clarify, in a department with 1 supervisor, 1 clerk, 40 assemblers, and 3 tow-motor operators, there are 45 positions and 4 jobs.

Uses of Job Analysis Information

Job analysis is the procedure firms use to determine the tasks, duties, and responsibilities of each job, and the human attributes (in terms of knowledge, skills, and abilities) required to perform it. Once this information has been gathered, it is used for developing job descriptions (what the job entails) and job specifications (what the human requirements are). As illustrated in Figure 3.1, the information gathered, evaluated, and summarized through job analysis is the basis for a number of interrelated HRM activities.

Human Resources Planning

Knowing the actual requirements of an organization’s various jobs is essential for planning future staffing needs. When this information is combined with knowledge about the skills and qualifications of current employees, it is possible to determine which jobs can be filled internally and which will require external recruitment.
Recruitment and Selection

The job description and job specification information should be used to decide what sort of person to recruit and hire. Identifying bona fide occupational requirements and ensuring that all activities related to recruitment and selection (such as advertising, screening, and testing) are based on these requirements is necessary for legal compliance in all Canadian jurisdictions.

Compensation

Job analysis information is also essential for determining the relative value of and appropriate compensation for each job. Job evaluation should be based on the required skills, physical and mental demands, responsibilities, and working conditions—all assessed through job analysis. The relative value of jobs is one of the key factors used to determine appropriate compensation and justify pay differences if they are challenged under human rights or pay equity legislation. Information about the actual job duties is also necessary to determine whether a job qualifies for overtime pay and for maximum-hours purposes, as specified in employment standards legislation.

Performance Management

To be legally defensible, the criteria used to assess employee performance must be directly related to the duties and responsibilities identified through job analysis. For many jobs involving routine tasks, especially those of a quantifiable nature, performance standards are determined through job analysis. For more complex jobs, performance standards are often jointly established by employees and their supervisors. To be realistic and achievable, such standards should be based on actual job requirements as identified through job analysis.

Labour Relations

In unionized environments, the job descriptions developed from the job analysis information are generally subject to union approval before being finalized. Such union-approved job descriptions then become the basis for classifying jobs and bargaining over wages, performance criteria, and working conditions. Once job descriptions are approved, significant changes to them may have to be negotiated.

Training, Development, and Career Management

By comparing the knowledge, skills, and abilities (KSAs) that employees bring to the job with those that are identified by job analysis, managers can determine gaps that require training programs. Having accurate information about jobs also means that employees can prepare for future advancement by identifying gaps between their current KSAs and those specified for the jobs to which they aspire.

Restructuring

Job analysis is useful for ensuring that all of the duties that need to be done have actually been assigned and for identifying areas of overlap within duties. Also, having an accurate description of each job may lead to the
identification of unnecessary requirements, areas of conflict or dissatisfaction, or health and safety concerns that can be eliminated through job redesign or restructuring.

Steps in Job Analysis

There are six critical steps involved in analyzing jobs. Organizations collect details about jobs on a relatively continuous basis for many uses, such as the ones outlined above (planning, recruitment and selection, performance management, compensation, and so on). Traditionally, organizations would first determine the intended use of job analysis information, since this determined the types of data that should be collected and the techniques used. However, this preliminary step has been largely abolished in practice, given the diverse uses of job analysis information and the continual need for such information.

The six steps involved in job analysis are as follows:

1. Relevant organizational information is reviewed.
2. Jobs are selected to be analyzed.
3. Using one or more job analysis techniques, data are collected on job activities.
4. The information collected in Step 3 is then verified and modified, if required.
5. Job descriptions and specifications are developed based on the verified information.
6. The information is then communicated and updated on an as-needed basis.

The structure of this chapter aligns with the six steps of job analysis.

STEP 1: REVIEW RELEVANT ORGANIZATIONAL INFORMATION

An organization consists of one or more employees who perform various tasks. The relationships between people and tasks must be structured so that the organization achieves its strategic goals in an efficient and effective manner through a motivated and engaged workforce. There are many ways to distribute work among employees, and careful consideration of how this is done can provide a strategic advantage over competitors.

**Organizational structure** refers to the formal relationships among jobs in an organization. An **organization chart** is often used to depict the structure. As illustrated in Figure 3.2, the chart indicates the types of departments established and the title of each manager’s job. By means of connecting lines, it clarifies the chain of command and shows who is accountable to whom. An organization chart presents a “snapshot” of the firm at a particular point in time, but it does not provide details about actual communication patterns, degree of supervision, amount of power and authority, or specific duties and responsibilities. In the example provided in Figure 3.2, there may be the expectation that...
Auditor Plant A will have to report some information to Manager Plant A. Often an organizational chart will exclude this information or identify secondary reporting responsibilities using a dotted line.

Designing an organization involves choosing a structure that is appropriate, given the company’s strategic goals. Figure 3.3 depicts three common types of organizational structure: bureaucratic, flat, and matrix. In flatter organizations, managers have increased spans of control (the number of employees reporting to them) and thus less time to manage each one. Therefore, employees’ jobs involve more responsibility. In organizations using self-managed work teams, employees’ jobs change daily, so management intentionally avoids having employees view their jobs as a specific, narrow set of responsibilities. The focus is on defining the job at hand in terms of the overall best interests of the organization.

Step 1 includes the review of relevant background information, such as organization charts, process charts, and existing job descriptions. A process chart (like the one in Figure 3.4) shows the flow of inputs to and outputs from the job under study. (In Figure 3.4, the inventory control clerk is expected to receive inventory from suppliers, take requests for inventory from the two plant managers, provide requested inventory to these managers, and give information to the plant accountant on the status of in-stock inventories.)
### Bureaucratic, Flat, and Matrix Organizational Structures

#### Bureaucratic

**Structure**
- A typical manufacturing organization
- President
- Vice-presidents
- Directors
- Managers
- Staff

**Characteristics**
- Top-down management approach
- Many levels, and hierarchical communication channels and career paths
- Highly specialized jobs with narrowly defined job descriptions
- Focus on independent performance

#### Flat

**Structure**
- A typical research and development organization
- Owner
- Managers
- Associates

**Characteristics**
- Decentralized management approach
- Few levels and multidirectional communication
- Broadly defined jobs with general job descriptions
- Emphasis on teams and on product development

#### Matrix

**Structure**
- A consumer products company
- Marketing
- Finance
- Sales
- Production

**Characteristics**
- Each job has two components: functional and product
- Finance personnel for product B are responsible to both the finance executive and the product B executive
The next step involves the selection of representative positions and jobs to be analyzed. This selection is necessary when there are many incumbents in a single job and when a number of similar jobs are to be analyzed, because it would be too time-consuming to analyze every position and job.

**Job design** is the process of systematically organizing work into the tasks that are required to perform a specific job. An organization’s strategy and structure influence the ways in which jobs are designed. In bureaucratic organizations, for example, because a hierarchical division of labour exists, jobs are generally highly specialized. In addition, effective job design also takes into consideration human and technological factors.

In the twenty-first century, the traditional meaning of a “job” as a set of well-defined and clearly delineated responsibilities has changed. Companies are grappling with challenges such as rapid product and technological change, global competition, deregulation, political instability, demographic changes, and the shift to a service economy. This has increased the need for firms to be responsive, flexible, and much more competitive. In turn, the organizational methods that managers use to accomplish this have helped weaken the traditional definition of a “job.” Requiring employees to limit themselves to narrow jobs runs counter to the need to have them willingly switch from task to task as jobs and team assignments change.

All these changes have led to work becoming more cognitively complex, more team-based and collaborative, more dependent on social skills, more dependent on technological competence, more time pressured, more mobile, and less dependent on geography. This situation has led some organizations to focus on personal competencies and skills in job analysis, hiring, and compensation management, rather than on specific duties and tasks.
The Evolution of Jobs and Job Design

In most organizations, work is divided into manageable units and, ultimately, into jobs that can be performed by employees. The term “job” as it is known today is largely an outgrowth of the efficiency demands of the Industrial Revolution. As the substitution of machine power for people power became more widespread, experts wrote glowingly about the positive correlation between (1) job specialization and (2) productivity and efficiency. The popularity of specialized, short-cycle jobs soared—at least among management experts and managers.

Work Simplification

Work simplification evolved from scientific management theory. It is based on the premise that work can be broken down into clearly defined, highly specialized, repetitive tasks to maximize efficiency. This approach to job design involves assigning most of the administrative aspects of work (such as planning and organizing) to supervisors and managers, while giving lower-level employees narrowly defined tasks to perform according to methods established and specified by management.

Work simplification can increase operating efficiency in a stable environment and may be very appropriate in settings employing individuals with intellectual disabilities or those lacking education and training (as in some operations in the developing world); it is not effective, however, in a changing environment in which customers/clients demand custom-designed products and/or high-quality services, or one in which employees want challenging work. Moreover, among educated employees, simplified jobs often lead to lower satisfaction, higher rates of absenteeism and turnover, and sometimes to a demand for premium pay to compensate for the repetitive nature of the work.

Industrial Engineering

Another important contribution of scientific management was the study of work. Industrial engineering, which evolved with this movement, is concerned with analyzing work methods and establishing time standards to improve efficiency. Industrial engineers systematically identify, analyze, and time the elements of each job’s work cycle and determine which, if any, elements can be modified, combined, rearranged, or eliminated to reduce the time needed to complete the cycle.

Too much emphasis on the concerns of industrial engineering—improving efficiency and simplifying work methods—may result in human considerations being neglected or downplayed. For example, an assembly line, with its simplified and repetitive tasks, embodies the principles of industrial engineering but may lead to repetitive strain injuries, high turnover, and low satisfaction because of the lack of psychological fulfillment. Thus, to be effective, job design must also satisfy human psychological and physiological needs.

Job Enlargement (Horizontal Loading)

By the mid-1900s, reacting to what they viewed as the “dehumanizing” aspects of highly repetitive and specialized jobs, various management theorists proposed
ways of broadening the activities engaged in by employees. **Job enlargement**, also known as **horizontal loading**, involves assigning workers additional tasks at the same level of responsibility to increase the number of tasks they have to perform. Thus, if the work was assembling chairs, the worker who previously only bolted the seat to the legs might take on the additional tasks of assembling the legs and attaching the back as well. Job enlargement reduces monotony and fatigue by expanding the job cycle and drawing on a wider range of employee skills.

**Job Rotation**

Another technique to relieve monotony and employee boredom is **job rotation**. This involves systematically moving employees from one job to another. Although the jobs themselves don’t change, workers experience more task variety, motivation, and productivity. The company gains by having more versatile, multiskilled employees who can cover for one another efficiently.

**Job Enrichment**

It has also been suggested that the best way to motivate workers is to build opportunities for challenge and achievement into jobs through **job enrichment**, also known as **vertical loading**. This is defined as any effort that makes an employee’s job more rewarding or satisfying by adding more meaningful tasks and duties. Job enrichment involves increasing autonomy and responsibility by allowing employees to assume a greater role in the decision-making process.

Enriching a job can be accomplished through activities such as

- increasing the level of difficulty and responsibility of the job;
- assigning workers more authority and control over outcomes;
- providing feedback about individual or unit job performance directly to employees;
- adding new tasks requiring training, thereby providing an opportunity for growth; and
- assigning individuals entire tasks or responsibility for performing a whole job rather than only parts of it, such as conducting an entire background check rather than just checking educational credentials.

Job enrichment is not always the best approach. It is more successful in some jobs and settings than in others; for example, not all employees want additional responsibilities and challenges. Some people prefer routine jobs and may resist job redesign efforts. In addition, job redesign efforts almost always fail when employees lack the physical or mental skills, abilities, or education needed to perform the additional tasks required post job enrichment.

**Ergonomics**

In addition to considering psychological needs, effective job design also required taking physiological needs and health and safety issues into account. **Ergonomics** seeks to integrate and accommodate the physical needs of workers into the design of jobs. It aims to adapt the entire job system—the work, environment, machines, equipment, and processes—to match human characteristics.
Doing so results in eliminating or minimizing product defects, damage to equipment, and worker injuries or illnesses caused by poor work design.

**Competency-Based Job Analysis**

Not coincidentally, many employers and job analysis experts say that traditional job analysis procedures can’t go on playing a central role in HR management. Their basic concern is this: In high-performance work environments in which employers need workers to seamlessly move from job to job and exercise self-control, job descriptions based on lists of job-specific duties may actually inhibit (or fail to encourage) the flexible behaviour companies need. Employers are therefore shifting toward newer approaches for describing jobs, such as competency-based analysis.

Competency-based job analysis basically means writing job descriptions based on competencies rather than job duties. It emphasizes what the employee must be capable of doing, rather than a list of the duties he or she must perform.

**Competencies** are demonstrable characteristics of a person that enable performance of a job. Job competencies are always observable and measurable behaviours that comprise part of a job. The job’s required competencies can be identified by simply completing this sentence: “In order to perform this job competently, the employee should be able to . . .”

**Competency-based job analysis** means describing the job in terms of the measurable, observable behavioural competencies (knowledge, skills, or behaviours) that an employee doing that job must exhibit to do the job well. This contrasts with the traditional way of describing a job in terms of job duties and responsibilities. Traditional job analysis focuses on “what” is accomplished—on duties and responsibilities. Competency-based analysis focuses more on “how” the worker meets the job’s objectives or actually accomplishes the work. Traditional job analysis is thus job focused; competency-based analysis is worker focused—specifically, what must he or she be competent to do?

**Three Reasons to Use Competency Analysis**

There are three reasons to describe jobs in terms of competencies rather than duties. Giving someone a job description with a list of specific duties may simply breed a “that’s-not-my-job” attitude by pigeonholing workers too narrowly.

1. Traditional job descriptions (with their lists of specific duties) may actually backfire if a high-performance work system is the goal. The whole thrust of these systems is to encourage employees to work in a self-motivated way by organizing the work around teams, encouraging team members to rotate freely among jobs (each with its own skill set), pushing more responsibility for things like day-to-day supervision down to the workers, and organizing work around projects or processes in which jobs may blend or overlap. Employees here must be enthusiastic about learning and moving among jobs.

**Competencies**

Demonstrable characteristics of a person that enable performance of a job.

**Competency-based job analysis**

Describing a job in terms of the measurable, observable behavioural competencies an employee must exhibit to do a job well.

Ergonomics considerations apply to manual and knowledge workers alike, and aim at adapting job aspects to physical aspects in a sustainable way.

Competencies

Demonstrable characteristics of a person that enable performance of a job.

Competency-based job analysis

Describing a job in terms of the measurable, observable behavioural competencies an employee must exhibit to do a job well.
2. Describing the job in terms of the skills, knowledge, and competencies the worker needs is more strategic. For example, a company with a strategic emphasis on miniaturization and precision manufacturing should encourage some employees to develop their expertise in these two strategically crucial areas.

3. Measurable skills, knowledge, and competencies support the employer’s performance management process. Training, appraisals, and rewards should be based on fostering and rewarding the skills and competencies required to achieve work goals. Describing the job in terms of skills and competencies facilitates understanding of those required competencies.

Examples of Competencies
In practice, managers often write paragraph-length competencies for jobs and organize these into two or three clusters. For example, the job’s required competencies might include general or core competencies (such as reading, writing, and mathematical reasoning), leadership competencies (such as leadership, strategic thinking, and teaching others), and technical/task/functional competencies (which focus on the specific technical competencies required for specific types of jobs or occupations).

So, some technical competencies for the job of systems engineer might include the following:

• design complex software applications, establish protocols, and create prototypes
• establish the necessary platform requirements to efficiently and completely coordinate data transfer
• prepare comprehensive and complete documentation including specifications, flow diagrams, process patrols, and budgets

Similarly, for a corporate treasurer, technical competencies might include the following:

• formulate trade recommendations by studying several computer models for currency trends and using various quantitative techniques to determine the financial impact of certain financial trades
• recommend specific trades and when to make them
• present recommendations and persuade others to follow the recommended course of action (Note: Exhibiting this competency presumes the treasurer has certain knowledge and skills that one could measure.)

Comparing Traditional versus Competency-Based Job Analysis
In practice, in almost any job description today some of the job’s listed duties and responsibilities are competency based, while most are not. For example, consider the typical duties you might find in a marketing manager’s job description.
Which of the duties would complete this phrase: “In order to perform this job competently, the employee should be able to . . .”?

Some familiar duties and responsibilities would not easily fit these requirements. For example, “work with writers and artists and oversee copywriting, design, layout, and production of promotional materials” is not particularly measurable. How can the extent to which the employee “works with writers and artists” or “oversees copywriting, design, and layout” be measured? Put another way, in analyzing this job, how would one determine whether the person had been adequately trained to work with writers and artists? In fact, what sort of training would that duty and responsibility even imply? It’s not clear at all.

On the other hand, some of the job’s typical duties and responsibilities are more easily expressed as competencies. For example, the phrase “to perform this job competently, the employee should be able to . . .” could easily be completed with “conduct marketing surveys on current and new-product concepts; prepare marketing activity reports; and develop and execute marketing plans and programs.”

Team-Based Job Designs

A logical outgrowth of job enrichment and the job characteristics model has been the increasing use of team-based job designs, which focus on giving a team, rather than an individual, a whole and meaningful piece of work to do and empowering team members to decide among themselves how to accomplish the work.

Team A small group of people with complementary skills who work toward common goals for which they hold joint responsibility and accountability.

STEP 3: COLLECTING JOB ANALYSIS INFORMATION

Various qualitative and quantitative techniques are used to collect information about the duties, responsibilities, and requirements of the job; the most important ones will be discussed in this section. In practice, when the information is being used for multiple purposes, ranging from developing recruitment criteria to making compensation decisions, several techniques may be used in combination.

Collecting job analysis data usually involves a joint effort by an HR specialist, the incumbent, and the jobholder’s supervisor. The HR specialist (an HR manager, job analyst, or consultant) might observe and analyze the work being done and then develop a job description and specification. The supervisor and incumbent generally also get involved, perhaps by filling out questionnaires. The supervisor and incumbent typically review and verify the job analyst’s conclusions regarding the job’s duties, responsibilities, and requirements.
The Interview

The interview is probably the most widely used method for determining the duties and responsibilities of a job. Three types of interviews are used to collect job analysis data:

1. *individual interviews* with each employee;
2. *group interviews* with employees who have the same job; and
3. *supervisory interviews* with one or more supervisors who are thoroughly knowledgeable about the job being analyzed.

The group interview is used when a large number of employees are performing similar or identical work, and it can be a quick and inexpensive way of learning about the job. As a rule, the immediate supervisor attends the group session; if not, the supervisor should be interviewed separately to get that person’s perspective on the duties and responsibilities of the job.

The most fruitful interviews follow a structured or checklist format. A job analysis questionnaire may be used to interview job incumbents or may be filled out by them. It includes a series of detailed questions regarding such matters as the general purpose of the job; responsibilities and duties; the education, experience, and skills required; physical and mental demands; and working conditions.

**Interview Guidelines**

When conducting a job analysis interview, supervisors and job analysts should keep five major considerations in mind:

1. The job analyst and supervisor should work together to identify the employees who know the job best as well as those who might be expected to be the most objective in describing their duties and responsibilities.
2. Rapport should be established quickly with the interviewee by using the individual’s name, speaking in easily understood language, briefly reviewing the purpose of the interview (job analysis, not performance appraisal), and explaining how the person came to be chosen.
3. A structured guide or checklist that lists questions and provides spaces for answers should be used. Using a form ensures that crucial questions are identified ahead of time, that complete and accurate information is gathered, and that all interviewers (if there is more than one) glean the same types of data, thereby helping to ensure comparability of results. However, leeway should also be permitted by including some open-ended questions, such as “Is there anything that we didn’t cover with our questions?”
4. When duties are not performed in a regular manner—for instance, when the *incumbent* doesn’t perform the same tasks or jobs over and over again many times a day—the incumbent should be asked to list his or her duties *in order of importance and frequency of occurrence*. This will ensure that crucial activities that occur infrequently—like a nurse’s occasional emergency room duties—aren’t overlooked.
5. The data should be reviewed and verified by both the interviewee and his or her immediate supervisor.

*Incumbent* Individual currently holding the position.
Questionnaire

Having employees or supervisors fill out questionnaires to describe job-related duties and responsibilities is another good method of obtaining job analysis information. There are two major decisions around questionnaires: how structured it will be and who will complete it. In practice, a typical job analysis questionnaire often falls between the two extremes of structured and open-ended. Table 3.1 shows the difference between the two.

One of the most popular pre-developed, structured job analysis questionnaires is the Position Analysis Questionnaire (PAQ). The PAQ itself is filled in by a job analyst, who should already be acquainted with the particular job to be analyzed. The PAQ contains 194 items, each of which represents a basic element that may or may not play an important role in the job. The job analyst decides whether each item plays a role in the job and, if so, to what extent (using a five-point scale). If, for example, “written materials” received a rating of four, this would indicate that materials such as books, reports, and office notes play a considerable role in this job.

The advantage of the PAQ is that it provides a quantitative score or profile of the job in terms of how that job rates on six basic dimensions: (1) information input, (2) mental processes, (3) work output (physical activities and tools), (4) relationships with others, (5) job context (the physical and social environment), and (6) other job characteristics (such as pace and structure). Because it allows for the assignment of a quantitative score to each job based on these six dimensions, the PAQ’s real strength is in classifying jobs. Results can be used to compare jobs with one another; this information can then be used to determine appropriate pay levels.

Functional Job Analysis (FJA) is also a regularly used pre-established questionnaire that rates a job on responsibilities for data, people, and things from simple to complex. For example, working with “things” literally means the physical interaction with tangibles such as desktop equipment (pencils, paper clips, telephone), groceries, luggage, or a bus. Physical involvement with tangibles such as a telephone may not seem very important in tasks primarily concerned with data (such as data analysis) or people (such as nursing), but its importance is quickly apparent for a worker with a disability. This technique also identifies performance standards and training requirements. Thus, FJA allows the analyst to answer the question: “To do this task and meet these standards, what training does the worker require?”

Table 3.1 How Structured Is a Questionnaire?

<table>
<thead>
<tr>
<th>Structured</th>
<th>Open-ended</th>
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<tbody>
<tr>
<td>a long list of specific duties or tasks (such as “change and splice wire”)</td>
<td>simply describes the major duties of the job</td>
</tr>
<tr>
<td>asks whether or not each duty or task is performed</td>
<td></td>
</tr>
<tr>
<td>how much time is normally spent on the task</td>
<td></td>
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</tbody>
</table>

Who will complete questionnaire?

| Employees: may inflate requirements | Supervisors: may be unaware of all components of the job |
Observations

Observation involves watching employees perform their work and recording the frequency of behaviours or the nature of performance. This can be done using information that is prepared in advance (structured), or in real time with no advance information provided to the observer (unstructured), or a combination of the two.

Direct observation is especially useful when jobs consist mainly of observable physical activities. Jobs like those of a janitor, assembly-line worker, and accounting clerk are examples. Third-party observation focuses more on reality than perception. As a result, third-party observation is often viewed as having more credibility, since there is minimal incentive to distort the results.

A challenge in using this job analysis method is that observations can influence job behaviour. Additionally, observation is usually not appropriate when the job entails a lot of immeasurable mental activity (e.g., lawyers or design engineers). Nor is it useful if the employee engages in important activities that might occur only occasionally, such as compiling year-end reports. Often, direct observation and interviewing are used together.

Participant Diary/Log

Another technique involves asking employees to keep a diary/log or list of what they do during the day. Each employee records every activity in which he or she is involved (along with the time spent) in a log. This can produce a very complete picture of the job, especially when supplemented with subsequent interviews with the employee and his or her supervisor. The employee might, of course, try to exaggerate some activities and underplay others. However, the detailed, chronological nature of the log tends to minimize this problem.

The National Occupational Classification

The National Occupational Classification (NOC), the product of systematic, field-based research by Human Resources and Skills Development Canada (HRSDC), is an excellent source of standardized job information. It was updated and revised in 2011 and contains comprehensive descriptions of approximately 40,000 occupations and the requirements for each. To illustrate the types of information included, the NOC listing for specialists in human resources is shown in Figure 3.5.

Organizations can readily access information regarding the activities, requirements, competencies, and so on required by job title. However, it is highly recommended that companies who use external sources such as the NOC

1. adjust information based on their organizational strategy and structure;
2. update information as required; and
3. engage in the verification techniques in detail as per Step 4 (which we will discuss shortly).
1121 Human resources professionals

Human resources professionals develop, implement, and evaluate human resources and labour relations policies, programs, and procedures and advise managers and employers on human resources matters. Human resources professionals are employed throughout the private and public sectors, or they may be self-employed.

Example Titles

- business agent, labour organization
- classification officer – human resources
- classification specialist
- compensation research analyst
- conciliator

(more available online)

Main duties

Human resources professionals perform some or all of the following duties:

- Plan, develop, implement, and evaluate human resources and labour relations strategies including policies, programs, and procedures to address an organization’s human resource requirements
- Advise managers and employees on the interpretation of human resources policies, compensation and benefit programs, and collective agreements
- Negotiate collective agreements on behalf of employers or workers, mediate labour disputes and grievances, and provide advice on employee and labour relations
- Research and prepare occupational classifications, job descriptions, salary scales, and competency appraisal measures and systems

(more available online)

Employment requirements

- A university degree or college diploma in human resources management or a related field, such as business administration, industrial relations, commerce, or psychology or
  Completion of a professional development program in human resources administration is required.
- Some employers may require human resources professionals to hold a Certified Human Resources Professional (CHRP) designation.

Additional information

- Progression to management positions is possible with experience.

Classified elsewhere

- Human resources and recruitment officers (1223)
- Human resources managers (0112)
- Personnel clerks (1415)
- Professional occupations in business management consulting (1122)
- Training officers and instructors (in 4021 College and other vocational instructors)

Adapted from Human Resources and Skills Development Canada, National Occupational Classification, 2001

The NOC and its counselling component, the *Career Handbook* (2nd ed.), both focus on occupations rather than jobs. An **occupation** is defined as a collection of jobs that share some or all of a set of main duties. The list of examples of job titles within each of the 520 Unit Groups in the NOC provides a frame of reference for the boundaries of that occupational group. The jobs within each group are characterized by similar skills.

To provide a complete representation of work in the Canadian economy, the NOC classifies occupations into Major Groups based on two key dimensions—skill level and skill type. The Major Groups, which are identified by two-digit numbers, are then broken down further into Minor Groups, with a third digit added, and Unit Groups, at which level a fourth digit is added. Within these three levels of classification, a Unit Group provides the actual profile of an occupation.\(^\text{13}\) For example:

- **Major Group 31**—Professional Occupations in Health
- **Minor Group 311**—Physicians, Dentists, and Veterinarians
- **Unit Group 3113**—Dentists

### Using Multiple Sources of Job Analysis Information

Job analysis information can be obtained from individual workers, groups, supervisors, or observers. Interviews, observations, or questionnaires can be used. Some firms use a single approach, but one study suggests that using only one source is not wise, because each approach has drawbacks. For example, in a group interview, some group members may feel pressure to go along with the group’s consensus, or an individual employee may be careless about how he or she completes a questionnaire. Thus, since collecting job analysis data from only one source may lead to inaccurate conclusions, job analysis data should be collected from several sources whenever possible.

**STEP 4: VERIFYING INFORMATION**

The job analysis information should be verified with any workers performing the job and with the immediate supervisor. This corroboration will help to confirm that the information is factually correct and complete, and it can also help gain the employees’ acceptance of the job analysis data.

The knowledge that information will be verified increases the reliability and validity of the results in two ways. First, areas of inconsistency or concern can be further probed to develop awareness as to why the inconsistency exists and what should be done about it. Second, knowing that they may later be held accountable for their contributions, participants in the data collection techniques will be more honest and consistent.
Chapter 3  Designing and Analyzing Jobs

### Job Descriptions

A **job description** is a written statement of what the jobholder actually does, how he or she does it, and under what conditions the job is performed. The description is quite comprehensive and includes such essential elements as job identification, summary, and duties and responsibilities, as well as the human qualifications for the job.

No standard format is used in writing job descriptions, but most include the following types of information: job identification, job summary, relationships, duties and responsibilities, authority of incumbent, performance standards, and working conditions. As mentioned previously, job specifications (human qualifications) may also be included.

### Job Identification

The job identification section generally contains several categories of information. The **position title** specifies the title of the job, such as vice-president, marketing manager, recruiter, or inventory control clerk. The **department and location** are also indicated, along with the title of the immediate supervisor—in this case under the heading **reports to**.

### Job Summary

The **job summary** should describe the general nature of the job, listing only its major functions or activities. For example, for the job of materials manager, the summary might state that he or she will “purchase economically, regulate deliveries of, store, and distribute all materials necessary on the production line,” while the summary for a mailroom supervisor might indicate that he or she will “receive, sort, and deliver all incoming mail properly, and he or she will handle all outgoing mail, including the accurate and timely posting of such mail.”

### Relationships

The **relationships** section indicates the jobholder’s relationships with others inside and outside the organization. Others directly and indirectly supervised are included, along with peers, superiors, and outsiders relevant to the job.

### Duties and Responsibilities

This section presents a detailed list of the job’s major duties and responsibilities. Each of the job’s major duties should be listed separately and described in a few sentences. Typical duties of jobs might include maintaining balanced and controlled inventories, making accurate postings to accounts payable, maintaining favourable purchase price variances, or repairing production line tools and equipment.

Most experts state unequivocally that “one item frequently found that should never be included in a job description is a ‘cop-out clause’ like ‘other duties, as assigned.’”

---

**An Ethical Dilemma**

In view of the fact that job descriptions are not required by law and that some organizations have found them no longer relevant, would abolishing job descriptions raise any moral or legal concerns?
This phrase leaves open the nature of the job and the people needed to staff it, and it can be subject to abuse.\textsuperscript{15}

**Authority**

This section of a job description should define the limits of the jobholder’s authority, including his or her decision-making authority, direct supervision of other employees, and budgetary limitations. For example, the vice-president of human resources may have the authority to approve all budgeted non-capital expenditures and budgeted capital expenditures up to $100,000; approve expense accounts for subordinates; hire and fire subordinates; and exercise line authority over direct reporting positions.

**Performance Standards/Indicators**

Some job descriptions also contain a performance standards/indicators section, which indicates the standards the employee is expected to achieve in each of the job description’s main duties and responsibilities.

Setting standards is never easy. Most managers soon learn, however, that just telling employees to “do their best” doesn’t provide enough guidance to ensure top performance. One straightforward way of setting standards is to finish the statement “I will be completely satisfied with your work when . . .” This sentence, if completed for each duty listed in the job description, should result in a usable set of performance standards.\textsuperscript{16} Some examples would include the following:

**Duty: Accurately Posting Accounts Payable**

- All invoices received are posted within the same working day.
- All invoices are routed to the proper department managers for approval no later than the day following receipt.
- No more than three posting errors per month occur, on average.
- The posting ledger is balanced by the end of the third working day of each month.

**Duty: Meeting Daily Production Schedule**

- Work group produces no fewer than 426 units per working day.
- No more than 2 percent of units are rejected at the next workstation, on average.
- Work is completed with no more than 5 percent overtime per week, on average.

**Working Conditions and Physical Environment**

The job description should also list the general working conditions involved in the job. This section generally includes information about noise level, temperature, lighting, degree of privacy, frequency of interruptions, hours of work, amount of travel, and hazards to which the incumbent may be exposed.

Special guidelines for entrepreneurial and small businesses are provided in the Entrepreneurs and HR box.
Hints TO ENSURE LEGAL COMPLIANCE

Chapter 3  Designing and Analyzing Jobs

Job Descriptions and Human Rights Legislation

Human rights legislation requires employers to ensure that there is no discrimination on any of the prohibited grounds in any aspect of the terms and conditions of employment. To ensure that job descriptions comply with this legislation, a few key points should be kept in mind:

- Job descriptions are not legally required but are highly advisable.
- Essential job duties should be clearly identified in the job description. Indicating the percentage of time spent on each duty or listing duties in order of importance are strategies used to differentiate between essential and non-essential tasks and responsibilities.
- When assessing suitability for employment, training program enrollment, and transfers or promotions, and when appraising performance, the only criteria examined should be the knowledge, skills, and abilities (KSAs) required for the essential duties of the job.
- When an employee cannot perform one or more of the essential duties for reasons related to a prohibited ground, such as a physical disability or religion, reasonable accommodation to the point of undue hardship is required.

A Practical Approach to Job Analysis and Job Descriptions

Without their own job analysts or even their own HR managers, many small-business owners need a more streamlined approach to job analysis. A resource that includes all of the possible positions that they might encounter, with a detailed listing of the duties normally assigned to these positions, exists in the National Occupational Classification (NOC) mentioned earlier. The practical approach to job analysis for small-business owners presented next is built around this invaluable reference tool.

Step 1: Develop an Organization Chart

Drawing up the organization chart of the present structure comes first. Then, depending on how far in advance planning is being done, a chart can be produced that shows how the organization should look in the immediate future (say, in two months), as well as two or three other charts showing how the organization is likely to evolve over the next two or three years.

Step 2: Use a Job Analysis Questionnaire

Next, a job analysis questionnaire can be used to determine what each job entails. A shorter version of one of the more comprehensive job analysis questionnaires may be useful for collecting job analysis data.

ENTREPRENEURS and HR

Step 3: Obtain a Copy of the National Occupational Classification (NOC) and Related Publications for Reference

Next, standardized examples of the job descriptions needed should be obtained from the NOC website at www.hrsdc.gc.ca/eng/workplaceskills/noc/index.shtml. A related publication entitled Job Descriptions: An Employers’ Handbook is also available for downloading from the NOC website at www.hrsdc.gc.ca/eng/workplaceskills/noc/employers/emplr_handbooks.shtml.

Step 4: Choose Appropriate Job Titles and Job Descriptions and Copy Them for Reference

For each department, the NOC job titles and job descriptions that are believed to be appropriate should be chosen. The NOC definition will provide a firm foundation for the job description being created. It will provide a standardized list and a constant reminder of the specific duties that should be included.

Step 5: Complete the Job Description

An appropriate job description for the job under consideration can then be written. The job analysis information, together with the information from the NOC, can be used to create a complete listing of the tasks and duties of each of the jobs. The working conditions section can be completed once all of the tasks and duties have been specified.
Job Specifications

Writing the job specification involves examining the duties and responsibilities of the job and answering the question, “What human traits and experience are required to do this job?” Much of this information can be obtained from the job analysis questionnaire. The job specification clarifies what kind of person to recruit and which qualities that person should be tested for. It is sometimes included with the job description.

Complying with human rights legislation means keeping a few pointers in mind:

• All listed qualifications are bona fide occupational requirements (BFORs) based on the current job duties and responsibilities.
• Unjustifiably high educational or lengthy experience requirements can lead to systemic discrimination.
• The qualifications of the current incumbent should not be confused with the minimum requirements, since he or she might be underqualified or overqualified.
• For entry-level jobs, identifying the actual physical and mental demands is critical. For example, if the job requires detailed manipulation on a circuit-board assembly line, finger dexterity is extremely important and is something for which candidates should be tested. A physical demands analysis—which identifies the senses used and the type, frequency, and amount of physical effort involved in the job—is often used to supplement the job specification. A sample form is included in Figure 3.6. Having such detailed information is particularly beneficial when determining accommodation requirements. The mental and emotional demands of a job are typically missing from job analysis information. They should be specified so that the mental and emotional competencies of job applicants can be assessed and any need for accommodation can be identified.

Identifying the human requirements for a job can be accomplished through a judgmental approach (based on educated guesses of job incumbents, supervisors, and HR managers) or statistical analysis (based on the relationship between some human trait or skill and some criterion of job effectiveness). Basing job specifications on statistical analysis is more legally defensible. For example, the Personality-Related Position Requirements Form (PPRF) is a survey instrument designed to assist managers in identifying potential personality-related traits that may be important in a job. Identifying personality dimensions is difficult when using most job analysis techniques, because they tend to be much better suited to unearthing human aptitudes and skills—such as manual dexterity. The PPRF uses questionnaire items to assess the relevance of such basic personality dimensions as agreeableness, conscientiousness, and emotional stability to the job under study. The relevance of these personality traits can then be assessed through statistical analysis.17

Completing the Job Specification Form

Once the required human characteristics have been determined, whether using statistical analysis or a judgmental approach, a job specification form should be completed. To illustrate the types of information and amount of detail that should be provided in a well-written job specification, a sample has been included in Figure 3.7.
### FIGURE 3.6 Physical Demands Analysis

<table>
<thead>
<tr>
<th>Division:</th>
<th>Job Title:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Code:</td>
<td>Level:</td>
</tr>
<tr>
<td>Date:</td>
<td>Date of Last Revision:</td>
</tr>
</tbody>
</table>

#### Physical Requirements

Review the chart below. Indicate which of the following are essential to perform the functions of this job, with or without accommodation. Check one box in each section.

<table>
<thead>
<tr>
<th>Section 1</th>
<th>Section 2</th>
<th>Section 3</th>
<th>Section 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incumbent Uses:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NA</td>
<td>Right</td>
<td>Left</td>
<td>Both</td>
</tr>
<tr>
<td>Hands: (requires manual manipulation)</td>
<td>Y</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Feet: (functions requiring foot pedals and the like)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Lifting capacity: Indicate, by checking the appropriate box, the amount of lifting necessary for this job, with or without accommodation.

<table>
<thead>
<tr>
<th>NA</th>
<th>Occasionally (As Needed)</th>
<th>Often (Up to 4 Hours Per Day)</th>
<th>Frequently (Up to 8 Hours Per Day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 kg</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5–10 kg</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10–25 kg</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25–50 kg</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50+ kg</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mobility: Indicate which category the job functions fall under by placing a check next to those that apply.

- Sits constantly (6 hours or more with two breaks and one lunch break)
- Sits intermittently (6 hours or more with frequent change, due to breaks and getting up to perform jobs outside of the area)
- Stands intermittently (6 hours or more with frequent changes, due to breaks and getting up to perform jobs outside of the area)
- Bending constantly (4 hours or more with two breaks and one lunch break)
- Bending intermittently (4 hours or more with frequent changes, due to breaks and getting up to perform jobs outside of the area)
- Walks constantly (6 hours or more with two breaks and one lunch break)
- Walks intermittently (6 hours or more with frequent changes, due to breaks and getting up to perform jobs outside of the area)

*continued*
FIGURE 3.6 (Continued)

Visual acuity: Indicate the minimum acceptable level, with or without accommodation, necessary for the job.
- Excellent visual acuity
- Good visual acuity
- Not relevant to the job

Auditory acuity: Indicate the minimum acceptable level, with or without accommodation, necessary for the job.
- Excellent auditory acuity
- Good auditory acuity
- Not relevant to the job

FIGURE 3.7 Job Specification

Job Title: Lifeguard
Job Code: LG1
Department: Recreation
Date: May 1, 2013

Job Summary
The incumbent is required to safeguard the health of pool users by patrolling the pool, rescuing swimmers in difficulty, treating injuries, advising pool users of safety rules, and enforcing safety rules.

Skill
Formal Qualifications: Royal Life Saving Society Bronze Medallion or equivalent
Experience: No prior experience required but would be an asset.
Communication Skills: Good oral communication skills are required. Proficiency in one or more foreign languages would be an asset. The incumbent must be able to communicate courteously and effectively. Strong interpersonal skills are required. All interaction with the public must be handled with tact and diplomacy.

Effort
Physical Effort: The incumbent is required to stand during the majority of working hours. In the event of an emergency where a swimmer is in distress, the incumbent must initiate rescue procedures immediately, which may involve strenuous physical exertion.
Mental Effort: Continuous mental attention to pool users. Must remain vigilant despite many simultaneous demands on his or her attention.
Emotional Effort: Enforcement of safety rules and water rescue can be stressful. Must maintain a professional demeanour when dealing with serious injuries or death.

Working Conditions
Job is performed in humid indoor environment, temperature-controlled. No privacy. Shift work to cover pool hours from 7 A.M. to 11 P.M., seven days a week. Some overtime and split shifts may be required.

Approval Signatures
Incumbent: _____________________________
Supervisor: _____________________________ Date: __________________________________

Writing Competency-Based Job Descriptions

Defining the job’s competencies and writing them up involves a process that is similar in most respects to traditional job analysis. In other words, the manager will interview job incumbents and their supervisors, ask open-ended questions regarding job responsibilities and activities, and perhaps identify critical incidents that pinpoint success on the job. These job descriptions can be particularly useful in organizations that use competency-based pay, as discussed in Chapter 8.

STEP 6: COMMUNICATION AND PREPARATIONS FOR REVISIONS

Organizations are often affected by internal and external factors, as described in Chapter 1, that influence organizational strategy, structure, or processes. Most organizations adopt strategies with a three- to five-year target, and many are forced to adjust according to environmental factors much sooner. Significant organizational changes such as restructuring, new product development, technological changes, and competition modify the way in which work is done, resulting in a need for revisions to the existing job descriptions and specifications.

Job analysis must be structured enough to allow for modifications as required while still providing current and future employees with an understanding of what they are expected to do. Once a system is developed to collect data, an organization may choose to (1) regularly update the data collected in a proactive manner, (2) develop systems to collect data on an ongoing basis, or (3) adjust job analysis activities in a reactive manner after a significant organizational change has been initiated.

Information provided from the job analysis must be communicated to all relevant stakeholders. For example, employees must be aware of the core job requirements if they are to achieve desired performance. Line managers must be aware of information provided in the job analysis to help align expectations of various jobs, manage performance, and manage HR planning activities. Recruiters use this information to determine and assess the desired knowledge, skills, abilities, and other characteristics (KSAOs) of potential candidates and to develop job ads. Compensation specialists can use this information to develop or modify pay scales according to job-related activities. Overall, the job analysis process is a fundamental component of HRM and a cornerstone that is critical to other organizational activities related to labour and work processes.
Chapter SUMMARY

1. In any organization, work has to be divided into manageable units and ultimately into jobs that can be performed by employees. The process of organizing work into tasks that are required to perform a specific job is known as job design. The term “job” means a group of tasks and duties, and several employees may have the same job. The collection of tasks and responsibilities performed by one person is known as a “position.”

2. Job analysis involves six steps: (1) collecting background information, (2) selecting the representative positions and jobs to be analyzed, (3) collecting data, (4) reviewing the information collected with the incumbents and their supervisors, (5) developing job descriptions and job specifications, and (6) communicating and reviewing on an ongoing basis.

3. Techniques used to gather job analysis data include interviews, questionnaires (including the PAQ and FJA), direct observation, participant diaries/logs, and the National Occupational Classification (NOC), to list just a few.

4. Competency-based job analysis, focusing on how the job is done (the behaviours required) more than on task requirements, has become more common for three reasons. First, traditional job descriptions may not be appropriate in organizations with flexible jobs. Second, describing the job in terms of the skills, knowledge, and competencies the worker needs is more strategic. Third, competency-based job analysis supports the employer’s performance management process.

5. A job description is a written statement of what the jobholder actually does, how he or she does it, and under what conditions the job is performed. The job specification involves examining the duties and responsibilities and answering this question: “What human traits and experience are required to do this job?”

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Key TERMS

- competencies (p. 57)
- competency-based job analysis (p. 57)
- diary/log (p. 62)
- ergonomics (p. 56)
- Functional Job Analysis (FJA) (p. 61)
- incumbent (p. 60)
- industrial engineering (p. 55)
- job (p. 49)
- job analysis (p. 49)
- job description (p. 65)
- job design (p. 54)
- job enlargement (horizontal loading) (p. 56)
- job enrichment (vertical loading) (p. 56)
- job rotation (p. 56)
- job specification (p. 68)
- National Occupational Classification (NOC) (p. 62)
- occupation (p. 64)
- organization chart (p. 51)
- organizational structure (p. 51)
- physical demands analysis (p. 68)
- position (p. 49)
- Position Analysis Questionnaire (PAQ) (p. 61)
- process chart (p. 52)
- team (p. 59)
- team-based job design (p. 59)
- work simplification (p. 55)
Review and Discussion

QUESTIONS

1. Explain how job analysis provides important information that is required for at least three different functions of HRM.
2. Differentiate among job enlargement, job rotation, and job enrichment, and provide an example of each.
3. Why is ergonomic job design becoming increasingly important?
4. Several methods for collecting job analysis data are available—interviews, the Position Analysis Questionnaire, and so on. Compare and contrast four of these methods, explaining what each is useful for and listing the pros and cons of each.
5. Although not legally required, having job descriptions is highly advisable. Why? How can firms ensure that their job specifications are legally defensible?
6. What are competencies? Why are companies starting to use competency-based job analysis? How is this approach different from the traditional approach?

Critical Thinking

QUESTIONS

1. Why is it sometimes undesirable or inappropriate to use job enrichment when designing jobs? How would you determine how enriched an individual employee’s job should be?
2. Assume that you are the job analyst at a bicycle manufacturing company in British Columbia and have been assigned responsibility for preparing job descriptions (including specifications) for all the supervisory and managerial positions. One of the production managers has just indicated that he will not complete the job analysis questionnaire you have developed.
   a. How would you handle this situation?
   b. What arguments would you use to attempt to persuade him to change his mind?
   c. If your persuasion efforts fail, how would you go about obtaining the job analysis information you need to develop the job description for his position?
3. Because the top job in a firm (such as president, executive director, or CEO) is by nature more strategic and broader in scope than any other job, is competency-based job analysis more appropriate? Is there less need for a job description for the president? Why or why not?
4. If you were designing a job for a new marketing and sales representative for a small entrepreneurial company that is experiencing rapid growth, what approach would you take? Explain why you would take this approach. How would you go about determining job specifications?
5. If a supervisor reviews the job analysis information provided by an employee and says the job duties and responsibilities have been inflated, but the employee says that the supervisor does not really know what the job entails, how can a decision be made about what information is accurate?
Experiential EXERCISES

1. Use organization chart software to draw an organization chart that accurately depicts the structure of the organization in which you are currently employed or one with which you are thoroughly familiar. Once you have completed this task, form a group with several of your classmates. Taking turns, have each member show his or her organization chart to the group, briefly describe the structure depicted, explain whether or not the structure seems to be appropriate, and identify several advantages and disadvantages he or she experienced working within this structure.

2. Working individually or in groups and using the HRSDC website, find the National Occupational Classification (NOC) job descriptions for both a university professor and a college professor. Compare the two descriptions, noting similarities and differences. Using the NOC descriptions and your own observations of people in this role, create a competency profile for each job. How similar are they? Why do you think this is so? Compare and discuss your results with other individual students or groups.

3. Working individually, prepare a job description (including job specifications) for a position that you know well, using the job analysis questionnaire in this chapter. Once you have done so, exchange job descriptions with someone else in the class. Critique your colleague’s job description and provide specific suggestions regarding any additions/deletions/revisions that you would recommend to ensure that the job description accurately reflects the job and is legally defensible.

4. Working in groups of three or four, identify the jobs that have been or are held by students in your group. Select one job to analyze. Use the job analysis questionnaire provided in the chapter to conduct a job analysis interview and document a job description and specifications. Compare and critique your work with the work done by another group.

To view the CBC videos, read a summary, and answer discussion questions, go to MyManagementLab.