Learning Objectives

After studying this chapter, you will know how to

LO 15-1 **Identify varieties of reports.**

LO 15-2 **Define report problems.**

LO 15-3 **Employ various research strategies.**

LO 15-4 **Choose information for reports.**

LO 15-5 **Organize reports.**

LO 15-6 **Present information effectively in reports.**

LO 15-7 **Document sources correctly.**

LO 15-8 **Write progress reports.**

LO 15-9 **Prepare the different components of formal reports.**

Careful analysis, smooth writing, and effective document design work together to make effective reports, whether you're writing a 2½-page memo report or a 250-page formal report complete with all the report components. Reports typically depend on research. The research may be as simple as pulling up data with a computer program or as complicated as calling many different people, conducting focus groups and surveys, or even conducting experiments. Care in planning and researching proposals and reports is needed to produce effective documents.

In writing reports, there are four basic steps:

1. Define the problem.
2. Rearch and analyze data and information.
3. Organize the information.
4. Write the report.

Varieties of Reports

LO 15-1

Many kinds of documents are called reports. In some organizations, a report is a long document or one that contains numerical data. In others, one- and two-page memos are called reports. In still others, reports consist of PowerPoint slides delivered orally or printed and bound together. A short report to a client may use letter format or even be delivered via email. **Formal reports** contain elements such as a title page, a transmittal, a table of contents, an executive summary, and a list of illustrations. **Informal reports** may be letters and emails or even computer printouts of production or sales figures. But all reports, whatever their length or degree of formality, provide the information that people in organizations need to make plans and solve problems.

Reports can provide just information, both information and analysis alone, or information and analysis to support a recommendation (see Figure 15.1). Reports can be called **information reports** if they collect data for the reader, **analytical reports** if they interpret data but do not recommend action, and **recommendation reports** if they recommend action or a solution.

Figure 15.1 Variety of Information Reports Can Provide

Information only
Sales reports (sales figures for the week or month).
Quarterly reports (figures showing a plant's productivity and profits for the quarter).
Information plus analysis
Annual reports (financial data and an organization's accomplishments during the past year).
Audit reports (interpretations of the facts revealed during an audit).
Make-good or payback reports (calculations of the point at which a new capital investment will pay for itself).
Information plus analysis plus a recommendation
Recommendation reports evaluate two or more alternatives and recommend which alternative the organization should choose.
Feasibility reports evaluate a proposed action and show whether or not it will work.
Justification reports justify the need for a purchase, an investment, a new personnel line, or a change in procedure.
Problem-solving reports identify the causes of an organizational problem and recommend a solution.

The following reports can be information, analytical, or recommendation reports, depending on what they provide:

- **Accident reports** list the nature and causes of accidents in a factory or office. These reports also can analyze the data and recommend ways to make conditions safer.
- **Credit reports** summarize an applicant's income and other credit obligations. These reports also can evaluate the applicant's collateral and creditworthiness and recommend whether or not to provide credit.
- **Progress and interim reports** record the work done so far and the work remaining on a project. These reports also can analyze the quality of the work and recommend that a project be stopped, continued, or restructured.
- **Trip reports** share what the author learned at a conference or during a visit to a customer or supplier. These reports also can recommend action based on that information.
- **Closure reports** document the causes of a failure or possible products that are not economically or technically feasible under current conditions. They also can recommend action to prevent such failures in the future.
- **White paper reports** explain a problem and then may advocate for a solution to the problem. These reports can be written to inform a general audience. Sometimes companies use white paper reports for marketing purposes.
- **Return on investment (ROI) reports** correlate how money companies spend on advertising relates to sales or increased traffic. Marketing firms routinely compose these reports for clients.

Report Problems

LO 15-2

Good reports grow out of real problems: disjunctions between reality and the ideal, choices that must be made. When you write a report as part of your job, the organization may define the problem. To brainstorm problems for class reports, think about issues that face your college or university; housing units on campus; social, religious, and professional groups on campus and in your city; local businesses; and city, county, state, and federal governments and their agencies.

A good report problem in business meets the following criteria:

1. The problem is
   - Real.
   - Important enough to be worth solving.
   - Narrow but challenging.
2. The audience for the report is
   - Real.
   - Able to implement the recommended action.
3. The data, evidence, and facts are
   - Sufficient to document the severity of the problem.
   - Sufficient to prove that the recommendation will solve the problem.
   - Available to *you.*
   - Comprehensible to *you.*

Often, problems need to be narrowed. For example, "improving the college experiences of international students studying in the United States" is far too broad. First, choose one college or university. Second, identify the specific problem. Do you want to increase the social interaction between U.S. and international students? Help international students find housing? Increase the number of ethnic grocery stores and restaurants? Third, identify the specific audience that would have the power to implement your recommendations. Depending on the specific topic, the audience might be the Office of International Studies, the residence hall counselors, a service organization on campus or in town, a store, or a group of investors.

Some problems are more easily researched than others. If you have easy access to the Chinese Student Association, you can survey its members about their experiences at the local Chinese grocery. However, if you want to recommend ways to keep the Chinese grocery in business, but you do not have access to the store's financial records, you will have a much more difficult time solving the problem. Even if you have access, if the records are written in Chinese, you will have problems unless you read the language or have a willing translator.

Pick a problem you can solve in the time available. Six months of full-time (and overtime) work and a team of colleagues might allow you to look at all the ways to make a store more profitable. If you're doing a report in 6 to 12 weeks for a class that is only one of your responsibilities, limit the topic. Depending on your interests and knowledge, you could choose to examine the prices and brands carried, its inventory procedures, its overhead costs, its layout and decor, or its advertising budget.

Look at the following examples of report problems in the category of technology use:

Too broad:	Texting in class and its effects on college students.
Too time-consuming:	What are the effects of in-class texting on college students?
Better:	What are texting habits of students in XYZ University's Business School?
Better:	How can texting be integrated in XYZ University's business courses?

The first problem is too broad because it covers all college students. The second one is too time-consuming. Scholars are only starting to study the effects, and for you to do a report on this topic, you would need to do your own longitudinal project (i.e., a study of students' in-class texting habits over time). The third and fourth problems both would be possibilities. You would select one over the other depending on whether you wanted to focus on students or courses.

How you define the problem shapes the solutions you find. For example, suppose that a manufacturer of frozen foods isn't making money. If the problem is defined as a marketing problem, the researcher may analyze the product's price, image, advertising, and position in the market. But perhaps the problem is really that overhead costs are too high due to poor inventory management or that an inadequate distribution system doesn't get the product to its target market. Defining the problem accurately is essential to finding an effective solution.

Once you've defined your problem, you're ready to write a purpose statement. A good **purpose statement** makes three things clear:

- The organizational problem or conflict.
- The specific technical questions that must be answered to solve the problem.
- The rhetorical purpose (to explain, to recommend, to request, to propose) the report is designed to achieve.

The following purpose statement for a report to the superintendent of Yellowstone National Park has all three elements:

> Current management methods keep the elk population within the carrying capacity of the habitat but require frequent human intervention. Both wildlife conservation specialists and the public would prefer methods that controlled the elk population naturally. This report will compare the current short-term management techniques (hunting, trapping and transporting, and winter feeding) with two long-term management techniques, habitat modification and the reintroduction of predators. The purpose of this report is to recommend which techniques or combination of techniques would best satisfy the needs of conservationists, hunters, and the public.

To write a good purpose statement, you must understand the basic problem and have some idea of the questions that your report will answer. Note, however, that you can (and should) write the purpose statement before researching the specific alternatives the report will discuss.

Research Strategies for Reports

LO 15-3

Research for a report may be as simple as getting a computer printout of sales for the last month; it may involve finding published material or surveying or interviewing people. **Secondary research** retrieves information that someone else gathered. Library research and online searches are the best-known kinds of secondary research. **Primary research** gathers new information. Surveys, interviews, and observations are common methods for gathering new information for business reports.

Finding Information Online and in Print

You can save time and money by checking online and published sources of data before you gather new information. Many college and university libraries provide workshops and handouts on research techniques, as well as access to computer databases and research librarians.

Categories of sources that may be useful include

- Specialized encyclopedias for introductions to a topic.
- Indexes to find articles. Most permit searches by key word, by author, and often by company name.
- Abstracts for brief descriptions or summaries of articles. Sometimes the abstract will be all you'll need; almost always, you can tell from the abstract whether an article is useful for your needs.
- Citation indexes to find materials that cite previous research. Citation indexes thus enable you to use an older reference to find newer articles on the topic. The *Social Sciences Citation Index* is one of the most useful for researching business topics.
- Newspapers for information about recent events.
- U.S. Census reports, for a variety of business and demographic information.

To use a computer database efficiently, identify the concepts you're interested in and choose key words that will help you find relevant sources. **Key words** are the terms that the computer searches for. If you're not sure what terms to use, check the ABI/Inform Thesaurus for synonyms and the hierarchies in which information is arranged in various databases.

When you do a computer search, be aware that Google now personalizes your search results. This personalization means that someone with environmental concerns—say, a member of the Sierra Club—who Googles "global warming" will be led to widely different sources than someone with big oil connections. To get a more complete picture, you will have to dig deeper.[1]

Evaluating Web Sources

Some of the material on the web is excellent, but some of it is wholly unreliable. With print sources, the editor or publisher serves as a gatekeeper, so you can trust the material in good journals. To put up a web page, all one needs is access to a server.

Use the criteria in Figure 15.2 to evaluate websites for your research project. Answers to those questions may lead you to discard some of the information you find. A recurring example concerns travel and product reviews: some authors of positive reviews are connected to the companies providing the goods and services, while some authors of negative reviews are connected to competitors.

When the source has a vested interest in the results, scrutinize the data with special care. To analyze a company's financial prospects, use independent information as well as the company's annual report and press releases.

Figure 15.2 Criteria for Evaluating Websites
Authors: What person or organization sponsors the site? What credentials do the authors have?
Objectivity: Does the site give evidence to support its claims? Does it give both sides of controversial issues? Is the tone professional?
Information: How complete is the information? What is it based on?
Currency: How current is the information?
Audience: Who is the intended audience?
Purpose: Is the purpose to educate and inform? Or promote an agenda or sell advertising?

Drug and medical device companies, and the researchers funded by them, keep appearing in the news with reports of undue influence. Duke University researchers checked 746 studies of heart stents published in one year in medical journals. They found that 83% of the papers did not disclose whether authors were paid consultants for companies, even though many journals require that information. Even worse, 72% of the papers did not say who funded the research.[2] A study in the prestigious *New England Journal of Medicine* noted that positive studies of antidepressant trials got published and negative ones did not: "According to the published literature, it appeared that 94% of the trials conducted were positive. By contrast, the FDA analysis showed that 51% were positive."[3]

Many students start their research with Wikipedia, the largest, most popular encyclopedia ever. It has more than 40 million articles in 293 languages and is the fifth most visited website in the world.[4] So, while it may be acceptable as a starting place, be aware that many instructors and other professionals do not accept Wikipedia—or any encyclopedia—as an authoritative source. Think about impressing your audience with the credibility and depth of your research. Wikipedia (and similiar wiki pages), personal blogs, and the first five results of an Internet search will not impress your audience. Anyone with a computer, access to the Internet, and a few minutes of time can access sources like these. When you are conducting research in an academic or business environment, credible sources will help establish your professionalism and ethos.

Check the Currency of the Data. Technology figures in particular need to be current. Do remember, however, that some large data sets are one to two years behind in being analyzed. Such is the case for some government figures, also. If you are doing a report in 2018 that requires national education data from the Department of Education, for instance, 2017 data may not even be fully collected. Even the 2016 data may not be fully analyzed, so the 2015 data may be the most current available.

Analyzing and Designing Surveys

A **survey** questions a group of people. The easiest way to ask many questions is to create a **questionnaire,** a written list of questions that people fill out. An **interview** is a structured conversation with someone who will be able to give you useful information. Organizations use surveys and interviews to research both internal issues such as employee satisfaction and external issues such as customer satisfaction.

Figure 15.3 lists questions to ask about surveys.

1. Who Did the Survey and Who Paid for It? Unfortunately, it is far too easy to introduce bias into surveys. Thus, a good place to start when examining survey results is with the survey producers. Who are they? How were they financed? How comfortable should you be with the results of a survey about a medical device when the survey was financed by the maker of the device? Was a survey about auto model satisfaction financed by the maker of the auto?

2. How Many People Were Surveyed and How Were They Chosen?

To keep research costs reasonable, usually only a sample of the total population is polled. How that sample is chosen and the attempts made to get responses from

Figure 15.3 Questions to Ask about Surveys

1.	Who did the survey and who paid for it?
2.	How many people were surveyed and how were they chosen?
3.	How was the survey conducted?
4.	What was the response rate?
5.	What questions were asked?

nonrespondents will determine whether you can infer that what is true of your sample is also true of the population as a whole.

A **sample** is a subset of the population. The **sampling units** are those actually sampled. Frequently, the sampling unit is an individual. If a list of individuals is not available, then a household can be the sampling unit. The list of all sampling units is the **sampling frame.** For interviews, this could be a list of all addresses, or for companies a list of all *Fortune* 500 CEOs.[5] The **population** is the group you want to make statements about. Depending on the purpose of your research, your population might be all *Fortune* 1000 companies, all business students at your college, or all consumers of tea in the mid-Atlantic states.

A **convenience sample** is a group of subjects who are easy to get: students who walk through the union, people at a shopping mall, workers in your own unit. Convenience samples are useful for a rough pretest of a questionnaire and may be acceptable for some class research projects. However, you cannot generalize from a convenience sample to a larger group. If, for instance, you survey people entering your local library about their opinion of the proposed library bond (which has to be voter approved), you are taking a convenience sample and one that will not tell you what non-library users think.

A purposive or **judgment sample** is a group of people whose views seem useful. Someone interested in surveying the kinds of writing done on campus might ask each department for the name of a faculty member who cared about writing and then send surveys to those people.

In a **random sample,** each person in the population theoretically has an equal chance of being chosen. When people say they did something *randomly* they often mean *without conscious bias.* However, unconscious bias exists. Someone passing out surveys in front of the library will be more likely to approach people who seem friendly and less likely to ask people who seem intimidating; are in a hurry; are much older or younger; or are of a different race, class, or sex. True random samples rely on random digit tables, published in texts and online.

If you take a true random sample, you can generalize your findings to the whole population from which your sample comes. Consider, for example, a random phone survey that shows 65% of respondents approve of a presidential policy. Measures of variability always should be attached to survey-derived estimates like this one. Typically, a **confidence interval** provides this measure of variability. Using the confidence interval, we might conclude it is likely that between 58% and 72% of the population approve of the presidential policy when the margin of error is 6% to 7%. The confidence interval is based on the size of the sample and the expected variation within the population. Statistics texts tell you how to calculate measures of variability.

For many kinds of research, a large sample is important for giving significant results. In addition to its electronic data, Nielsen Media Research collects about 2 million television viewing diaries annually to gather viewing data. The large numbers also allow it to provide viewing information for local stations and advertisers.[6]

Do not, however, confuse **sample size** with randomness. A classic example is the 1936 *Literary Digest* poll that predicted Republican Alf Landon would beat Democrat incumbent President Franklin Roosevelt. *Literary Digest* sent out 10 million ballots to its magazine subscribers as well as people who owned cars and telephones, most of whom in 1936 were richer than the average voter–and more Republican.[7]

3. How Was the Survey Conducted?

Face-to-face surveys are convenient when you are surveying a fairly small number of people in a specific location. In a face-to-face survey, however, the interviewer's sex, race, and nonverbal cues can bias results. Most people prefer not to say things they think their audience will dislike. For that reason, women will be more likely to agree that sexual harassment is a problem if the interviewer is also a woman. Members of a minority group are more likely to admit that they suffer discrimination if the interviewer is a member of the same minority.

Telephone surveys are popular because they can be closely supervised. Interviewers can read the questions from a computer screen and key in answers as the respondent gives them. The results can then be available just a few minutes after the last call is completed.

Phone surveys also have limitations. First, they reach only people who have phones and thus underrepresent some groups such as poor people. Voicemail, caller ID, and cell phones also make phone surveys more difficult. Most people do not answer or return calls from unknown sources, nor are their cell phone numbers readily available in most cases.

Because a survey based on a phone book would exclude people with unlisted numbers, professional survey-takers use automatic random-digit dialing.

Mail surveys can reach anyone who has an address. Some people may be more willing to fill out an anonymous questionnaire than to give sensitive information to a stranger over the phone. However, mail surveys are not effective for respondents who don't read and write well. Further, it may be more difficult to get a response from someone who doesn't care about the survey or who sees the mailing as junk mail.

Online surveys deliver questions over the Internet. The researcher can contact respondents with an email containing a link to a web page with the survey or can ask people by mail or in person to log on and visit the website with the survey.

Another alternative is to post a survey on a website and invite the site's visitors to complete the survey. This approach does not generate a random sample, so the results probably do not reflect the opinions of the entire population. Mattel, maker of Barbie, conducted an online poll to see what young girls wanted for the doll's next career. Results of the poll surprised Mattel. Although young girls wanted Barbie to be a TV anchorwoman, the career winning the most votes was computer engineer because various computer organizations for women asked their members to vote.[8]

In general, volunteers for online surveys are more educated, more likely to be white, and more likely to be at the ends of the age spectrum than the general population.[9] Nevertheless, with online surveys costing about one-tenth of phone surveys, they are increasing their acceptance among experts and growing in popularity.

4. What Was the Response Rate? A major concern with any kind of survey is the **response rate,** the percentage of people who respond. People who refuse to answer may differ from those who respond, and you need information from both groups to be able to generalize to the whole population. Low response rates pose a major problem, especially for phone surveys. Answering machines and caller ID are commonly used to screen incoming calls, resulting in decreased response rates.

Widespread use of cell phones in recent years also has negatively affected the ability of telephone surveyors to contact potential respondents. Because U.S. laws prevent autodialing of cell phones in most situations, including cell phones in a survey adds significantly to both the cost and the complexity. For survey firms that rely on recordings to conduct polls automatically, the cost of a cell phone call is 10 times more. Nevertheless, to protect their reputation, some survey firms are requiring clients to include a set percentage of cell phone calls.[10]

The problem of nonresponse has increased dramatically in recent years. The mail response rate for the *mandatory* U.S. Census was only 65%, even with the $370.6 million spent promoting response.[11] The response rate for random phone surveys fell every year from 36% in 1997 to 9% in 2012, where it has remained according to a 2016 study. The rate for cell phone surveys is 7%.[12] Organizations such as the Pew Research Center and the American Association for Public Opinion Research are stressing the necessity for all phone surveys to include both cell phone and landline calls.[13]

5. What Questions Were Asked? Surveys and interviews can be useful only if the questions are well designed. Good questions have these characteristics:

- They ask only one thing.
- They are phrased neutrally.
- They are asked in an order that does not influence answers.

- They avoid making assumptions about the respondent.
- They mean the same thing to different people.

At a telecommunications firm, a survey asked employees to rate their manager's performance at "hiring staff and setting compensation." Although both tasks are part of the discipline of human resource management, they are different activities. A manager might do a better job of hiring than of setting pay levels, or vice versa. The survey gave respondents—and the company using the survey—no way to distinguish performance on each task.[14]

Phrase questions in a way that won't bias the response, either positively or negatively. Respondents tend to agree more than disagree with statements. If a survey about managers asks employees whether their manager is fair, ethical, intelligent, knowledgeable, and so on, they are likely to assign all of these qualities to the manager—and to agree more and more as the survey goes along. To correct for this, some questions should be worded to generate the opposite response. For example, a statement about ethics can be balanced by a statement about corruption, and a statement about fairness can be balanced by a statement about bias or stereotypes.[15]

The order in which questions are asked may matter. Asking about the economy—and its impact on families—before asking about the president will lower opinions of the president during bad economic times; the opposite is true for good economic times.[16]

Avoid questions that make assumptions about your subjects. The question "Does your spouse have a job outside the home?" assumes that your respondent is married.

Use words that mean the same thing to you and to the respondents. If a question can be interpreted in more than one way, it will be. Words like *often* and *important* mean different things to different people. When a consulting firm helped Duke Energy assess the leadership skills of its managers, an early draft of the employee survey asked employees to rate how well their manager "understands the business and the marketplace." How would employees know what is in the manager's mind? Each respondent would have to determine what is reasonable evidence of a manager's understanding. The question was rephrased to identify behavior the employees could observe: "resolves complaints from customers quickly and thoroughly." The wording is still subjective ("quickly and thoroughly"), but at least all employees will be measuring the same category of behavior.[17]

Bypassing occurs when two people use the same words or phrases but interpret them differently. To catch questions that can be misunderstood and to reduce bypassing, avoid terms that are likely to mean different things to different people and pretest your questions with several people who are like those who will fill out the survey. Even a small pretest with 10 people can help you refine your questions.

Survey questions can be categorized in several ways. **Closed questions** have a limited number of possible responses. **Open questions** do not lock the subject into any sort of response. Figure 15.4 gives examples of closed and open questions. The second question in Figure 15.4 is an example of a Likert-type scale.

Closed questions are faster for subjects to answer and easier for researchers to score. However, because all answers must fit into pre-chosen categories, they cannot probe the complexities of a subject. You can improve the quality of closed questions by conducting a pretest with open questions to find categories that matter to respondents. Analyzing the responses from open questions is usually less straightforward than analyzing responses from closed questions.

Use closed multiple-choice questions for potentially embarrassing topics. Seeing their own situation listed as one response can help respondents feel that it is acceptable. However, very sensitive issues are perhaps better asked in an interview, where the interviewer can build trust and reveal information about himself or herself to encourage the interviewee to answer.

Use an "Other, Please Specify" category when you want the convenience of a closed question but cannot foresee all the possible responses. These responses can be used to improve choices if the survey is to be repeated.

Figure 15.4 Closed and Open Questions

Closed questions
Are you satisfied with the city bus service? (yes/no)
How good is the city bus service?
Excellent 5 4 3 2 1 Terrible
Indicate whether you agree (A) or disagree (D) with each of the following statements about city bus service.
A D The schedule is convenient for me.
A D The routes are convenient for me.
A D The drivers are courteous.
A D The buses are clean.
Rate each of the following improvements in the order of their importance to you (1 = most important and 6 = least important).
______ Buy new buses.
______ Increase non-rush-hour service on weekdays.
______ Increase service on weekdays.
______ Provide earlier and later service on weekdays.
______ Buy more buses with wheelchair access.
______ Provide unlimited free transfers.
Open questions
How do you feel about the city bus service?
Tell me about the city bus service.
Why do you ride the bus? (or, Why don't you ride the bus?)
What do you like and dislike about the city bus service?
How could the city bus service be improved?

What is the single most important reason that you ride the bus?
______ I don't have a car.
______ I don't want to fight rush-hour traffic.
______ Riding the bus is cheaper than driving my car.
______ Riding the bus conserves fuel and reduces pollution.
______ Other (please specify): ______

When you use multiple-choice questions, make the answer categories mutually exclusive and exhaustive. This means you make sure that any one answer fits in only one category and that a category is included for all possible answers. In the following example of overlapping categories, a person who worked for a company with exactly 25 employees could check either *a* or *b*. The resulting data would be hard to interpret.

Overlapping categories: Indicate the number of full-time employees in your company on May 16:

______ a. 0–25
______ b. 25–100
______ c. 100–500
______ d. over 500

Discrete categories:	Indicate the number of full-time employees on your payroll on May 16: _____ a. 0–25 _____ b. 26–100 _____ c. 101–500 _____ d. more than 500

Branching questions direct different respondents to different parts of the questionnaire based on their answers to earlier questions.

10. Have you talked to an academic adviser this year? yes no
    (If "no," skip to question 14.)

Generally, put early in the questionnaire questions that will be easy to answer. Put questions that are harder to answer or that people may be less willing to answer (e.g., age and income) near the end of the questionnaire. Even if people choose not to answer such questions, you'll still have the rest of the survey filled out.

If subjects will fill out the questionnaire themselves, pay careful attention to the physical design of the document. Use indentations and white space effectively; make it easy to mark and score the answers. Label answer scales frequently so respondents remember which end is positive and which is negative. Include a brief statement of purpose if you (or someone else) will not be available to explain the questionnaire or answer questions. Pretest the questionnaire to make sure the directions are clear. One researcher mailed a two-page questionnaire without pretesting it. One-third of the respondents didn't realize there were questions to answer on the back of the first page.

See Figure 15.5 for an example of a questionnaire for a student report.

Analyzing Numbers

Many reports analyze numbers—either numbers from databases and sources or numbers from a survey you have conducted. The numerical information, properly analyzed, can make a clear case in support of a recommendation.

When you have multiple numbers for salaries or other items, an early analysis step is to figure the average (or mean), the median, and the range. The **average** or **mean** is calculated by adding up all the figures and dividing by the number of samples. The **mode** is the number that occurs most often. The **median** is the number that is exactly in the middle in a ranked list of observations. When you have an even number, the median will be the average of the two numbers in the center of the list. The **range** is the difference between the high and low figures for that variable.

Averages are particularly susceptible to a single extreme figure. Three different surveys reported the average cost of a wedding at nearly $30,000. Many articles picked up that figure because weddings are big business. However, the median cost in those three surveys was only about $15,000. Even that amount is probably on the high side because the samples were convenience samples for a big wedding website, a bride magazine, and a maker of wedding invitations, and thus probably did not include smaller, less elaborate weddings.[18]

Often it's useful to simplify numerical data by rounding off or combining similar elements. Graphing also can help you see patterns in your data. (See Chapter 13 for a full discussion of tables and graphs as a way of analyzing and presenting numerical data.) Look at the raw data as well as at percentages. For example, a 50% increase in shoplifting incidents sounds alarming. An increase from two to three shoplifting incidents sounds less so but could be the same data, just stated differently.

Figure 15.5 Questionnaire for a Student Report Using Survey Research

An interesting title can help.

In your introductory ¶,
1 tell how to return the survey
2 tell how the information will be used

Survey: Why Do Students Attend Athletic Events?

The purpose of this survey is to determine why students attend sports events, and what might increase attendance. All information is to be used solely for a student research paper. Please return completed surveys to Elizabeth or Vicki at the Union help desk. Thank you for your assistance!

Start with easy-to-answer questions.

1. Gender (Please circle one) M F

2. What is your class year? (Please circle) 1 2 3 4 Grad Other

Seeing a response in a survey can make respondents more willing to admit to feelings they may be embarrassed to volunteer.

The words below each number anchor responses, while still allowing you to average the data.

3. How do you feel about women's sports? (Please circle)

1	2	3	4	5
I enjoy watching women's sports		I'll watch, but it doesn't really matter		Women's sports are boring/ I'd rather watch men's sports

4. Do you like to attend MSU men's basketball games? (Please circle)
Y N

5. How often do you attend MSU women's basketball games? (Please circle)

1	2	3	4	5
All/most games	Few games a season	Once a season	Less than once a year	Never

6. If you do not attend all of the women's basketball games, why not? (Please check all that apply. If you attend all the games, skip to #7.)
__I've never thought to go.
__I don't like basketball.
__I don't like sporting events.
__The team isn't good enough.
__My friends are not interested in going.
__I want to go; I just haven't had the opportunity.
__The tickets cost too much ($10).
__Other (please specify) ____________________

Think about factors that affect the problem you're studying and write survey questions to get information about them.

7. To what extent would each of the following make you more likely to attend an MSU women's basketball game? (please rank all)

1	2	3
Much more likely to attend	Possibly more likely	No effect

__Increased awareness on campus (fliers, chalking on the Oval, more articles in the *Gazette*)
__Marketing to students (give-aways, days for residence halls or fraternities/sororities)
__Student loyalty program (awarding points towards free tickets, clothing, food for attending games)
__Education (pocket guide explaining the rules of the game provided at the gate)
__Other (please specify) ____________________

Thank you!
Please return this survey to Elizabeth or Vicki at the Union help desk.

Repeat where to turn in or mail completed surveys.

Analyzing Patterns

Patterns can help you draw meaning from your data. If you have library sources, on which points do experts agree? Which disagreements can be explained by early theories or numbers that have now changed? Which disagreements are the result of different interpretations of the same data? Which are the result of having different values and criteria?

In your interviews and surveys, what patterns do you see?

- Have things changed over time?
- Does geography account for differences?
- Do demographics such as gender, age, or income account for differences?
- What similarities do you see?
- What differences do you see?
- What confirms your hunches?
- What surprises you?

Many descriptions of sales trends are descriptions of patterns derived from data.

Checking Your Logic

A common logic error is confusing causation with correlation. *Causation* means that one thing causes or produces another. *Correlation* means that two things happening at the same time are positively or negatively related. One might cause the other, but both might be caused by a third. For instance, consider a study that shows pulling all-nighters hurts grades: students who pull all-nighters get lower grades than those who do not pull all-nighters. But maybe it is not the all-nighter causing the poor grades; maybe students who need all-nighters are weaker students to begin with.

Correlation and causation are easy to confuse, but the difference is important. The Census Bureau publishes figures showing that greater education levels are associated with greater incomes. A widely held assumption is that more education causes greater earnings. But might people from richer backgrounds seek more education? Or might some third factor, such as intelligence, lead to both greater education and higher income?[19]

Search for at least three possible causes for each phenomenon you've observed and at least three possible solutions for each problem. The more possibilities you brainstorm, the more likely you are to find good options. In your report, discuss in detail only the possibilities that will occur to readers and that you think are the real reasons and the best solutions.

When you have identified causes of the problem or the best solutions, check these ideas against reality. Can you find support in references or in numbers? Can you answer claims of people who interpret the data in other ways?

Make the nature of your evidence clear to your reader. Do you have observations that you yourself have made? Or do you have inferences based on observations or data collected by others? Old data may not be good guides to future action.

If you can't prove the claim you originally hoped to make, modify your conclusions to fit your data. Even when your market test is a failure or your experiment disproves your hypothesis, you still can write a useful report.

- Identify changes that might yield a different result. For example, selling the product at a lower price might enable the company to sell enough units.
- Divide the discussion to show what part of the test succeeded.
- Discuss circumstances that may have affected the results.

- Summarize your negative findings in progress reports to let readers down gradually and to give them a chance to modify the research design.
- Remember that negative results aren't always disappointing to the audience. For example, the people who commissioned a feasibility report may be relieved to have an impartial outsider confirm their suspicions that a project isn't feasible.

A common myth associated with numbers is that numbers are more objective than words: "numbers don't lie." But as the previous discussion shows, numbers can be subject to widely varying interpretation.

Conducting Research Interviews

Schedule interviews in advance; tell the interviewee about how long you expect the interview to take. A survey of technical writers (who get much of their information from interviews) found that the best days to interview subject matter experts are Tuesdays, Wednesdays, and Thursday mornings.[20] People are frequently swamped on Mondays and looking forward to the weekend, or trying to finish their week's work, on Fridays.

Interviews can be structured or unstructured. In a **structured interview,** the interviewer uses a detailed list of questions to guide the interview. Indeed, a structured interview may use a questionnaire just as a survey does.

In an **unstructured interview,** the interviewer has three or four main questions. Other questions build on what the interviewee says. To prepare for an unstructured interview, learn as much as possible about the interviewee and the topic. Go into the interview with three or four main topics you want to cover.

Interviewers sometimes use closed questions to start the interview and set the interviewee at ease. The strength of an interview, however, is getting at a person's attitudes, feelings, and experiences. **Situational questions** let you probe what someone does in a specific circumstance. **Hypothetical questions** that ask people to imagine what they would do generally yield less reliable answers than questions about **critical incidents** or key past events.

Situational question:	How do you tell an employee that his or her performance is unsatisfactory?
Hypothetical question:	What would you say if you had to tell an employee that his or her performance was unsatisfactory?
Critical incident question:	You've probably been in a situation where someone who was working with you wasn't carrying his or her share of the work. What did you do the last time that happened?

A **mirror question** paraphrases the content of the last answer: "So you confronted him directly?" "You think that this product costs too much?" Mirror questions are used both to check that the interviewer understands what the interviewee has said and to prompt the interviewee to continue talking.

Probes follow up an original question to get at specific aspects of a topic:

Question:	What do you think about the fees for campus parking?
Probes:	Would you be willing to pay more for a reserved space? How much more? Should the fines for vehicles parked illegally be increased? Do you think fees should be based on income?

Probes are not used in any definite order. Instead, they are used to keep the interviewee talking, to get at aspects of a subject that the interviewee has not yet mentioned, and to probe more deeply into points that the interviewee brings up.

If you read questions to subjects in a structured interview, use fewer options than you might in a written questionnaire.

I'm going to read a list of factors that someone might look for in choosing a restaurant. After I read each factor, please tell me whether that factor is Very Important to you, Somewhat Important to you, or Not Important to you.

If the interviewee hesitates, reread the scale.

Always record the interview. Test your equipment ahead of time to make sure it works. If you think your interviewee may be reluctant to be recorded, offer to give a copy of the recording to the interviewee.

Using Focus Groups

A **focus group,** yet another form of qualitative research, is a small group of people convened to provide a more detailed look into some area of interest—a product, service, process, concept, and so on. Because the group setting allows members to build on each other's comments, carefully chosen focus groups can provide detailed feedback; they can illuminate underlying attitudes and emotions relevant to particular behaviors.

Focus groups also have some problems. The first is the increasing use of professional respondents drawn from databases, a practice usually driven by cost and time limitations. The *Association for Qualitative Research Newsletter* labeled these respondents as a leading industry problem.[21] To get findings that are consistent among focus groups, the groups must accurately represent the target population. A second problem with focus groups is that such groups sometimes aim to please rather than offering their own evaluations.

Using Online Networks

An updated version of the focus group is the online network. These networks, first cultivated as research tools by technology and video game companies, are being employed by various producers of consumer products and services, including small companies. The networks are often cheaper and more effective than traditional focus groups because they have broader participation and allow for deeper and ongoing probing. Companies can use them for polls, real-time chats with actual consumers, and product trials.[22]

A still larger online community comes from Twitter and online blogs. These communities are the least controllable of feedback groups but are becoming more important. Many companies are hiring employees or technology services to monitor comments on social networks and respond quickly. They also use data from Twitter and Facebook to track trends and preferences.

Observing Customers and Users

Answers to surveys and interviews may differ from actual behavior—sometimes greatly. To get more accurate consumer information, many marketers observe users. Before designing new ketchup packets, Heinz watched fast-food customers in their vehicles wrestle with traditional packets. The new packets allow users to dip or squeeze.[23] Intuit, a leader in observation studies, sends employees to visit customers and watch how they use Intuit products such as QuickBooks. Watching small businesses struggle with QuickBooks Pro told the company of the need for a new product, QuickBooks Simple Start.[24]

Observation also can be used for gathering in-house information such as how efficiently production systems operate and how well employees serve customers. Some businesses use "mystery shoppers." For instance, McDonald's has used mystery shoppers to check cleanliness, customer service, and food quality. The company posts store-by-store results online, giving store operators an incentive and the information they need to improve quality on measures where they are slipping or lagging behind the region's performance.[25] So many organizations use mystery shoppers that there is a Mystery Shopping Providers Association.

Observation often is combined with other techniques to get the most information. **Think-aloud protocols** ask users to voice their thoughts as they use a document or product: "First I'll try. . . ." These protocols are recorded and later analyzed to understand how users approach a document or product. **Interruption interviews** interrupt users to ask them what's happening. For example, a company testing a draft of computer instructions might interrupt a user to ask, "What are you trying to do now? Tell me why you did that." **Discourse-based interviews** ask questions based on documents that the interviewee has written: "You said that the process is too complicated. Tell me what you mean by that."

Using Technology for Research

Technology has been used routinely in research and is playing an ever-increasing role in business research. Frequently, it provides better and cheaper data than older research methods. For example, one problem with asking consumers about their television-watching behavior is that they sometimes underreport the number of hours they watch and the degree to which they watch programs they aren't proud of liking.

Researchers have tried to develop a variety of measurement methods that collect viewing data automatically. Arbitron introduced the Portable People Meter (PPM), which receives an inaudible electronic signal from radio stations and broadcast and cable TV stations. Consumers simply carry the PPM and it records their media exposure. One of the first results showed that consumers listened to radio more than they had indicated in diaries.[26]

Nielsen Media Research added commercial viewings to its famous TV show numbers; advertisers are naturally eager to know how many people actually watch commercials instead of leaving to get a snack or fast-forwarding through them on digital video recorders.[27] Nielsen also started tracking college students' viewing, installing its people meters in commons areas such as dorms.

Within the past few years, social media also are playing a larger role in research. Businesses are using cell phone feedback to get more immediate, realistic information about products and marketing. Twitter also is beginning to play a larger role in research:

- Businesses use Twitter to track opinions about products, marketing, and employee morale.
- Researchers can use Twitter data to track outbreaks of flu or food poisoning; in fact, Twitter is usually faster than information from the Centers for Disease Control and Prevention.
- The U.S. Geological Survey is experimenting with Twitter as an earthquake tracking method that is faster and cheaper than its seismometers.
- Hedge funds and investment firms are using Twitter data in their investment formulas.

One major limitation of Twitter data mining is that Twitter users are not a representative sample—let alone a random sample—of the population. They tend to be younger, more educated, more urban, more affluent, and less likely to have children than nonusers. Another significant limitation is that thanks to language complexity, it is not always obvious—even to human researchers, let alone data-mining programs—what opinion is being expressed in a tweet.[28]

One notable outcome of all this data collection is that the job of data scientist—composed of a combination of mathematician, statistician, computer scientist, and business guru—is predicted to be one of the hottest jobs of the decade.[29]

Technology also can help you manage your time more efficiently. For example, Google Drive, the home of Google Docs, will allow you and your teammates to work on different sections of the report simultaneously instead of emailing drafts back and forth. As an added bonus, a revision history is always saved so you can go back to an earlier version of your work if needed. Other features allow your team to have real-time instant message chats if your schedules don't permit you to all meet in the same physical location to work on the report.

Choosing Information for Reports

LO 15-4

Don't put information in reports just because you have it or just because it took you a long time to find it. Instead, choose the information that your audience needs to make a decision. NASA received widespread criticism over the way it released results from an $11.3 million federal air safety study. NASA published 16,208 pages of findings with no guide to understanding them. Critics maintain the lapse was deliberate because the data contained hundreds of cases of pilot error.[30]

If you know your audience well, you already may know their priorities. For example, the supervisor of a call center knows that management will be looking for certain kinds of performance data, including costs, workload handled, and customer satisfaction. To write regular reports, the supervisor could set up a format in which it is easy to see how well the center is doing in each of these areas. Using the same format month after month simplifies the audience's task.

If you don't know your audience, you may be able to get a sense of what is important by showing a tentative table of contents and asking, "Have I included everything?" When you cannot contact an external audience, show your draft to colleagues and superiors in your organization.

How much information you need to include depends on whether your audience is likely to be supportive, neutral, or skeptical. If your audience is likely to be pleased with your research, you can present your findings directly. If your audience will not be pleased, you will need to explain your thinking in a persuasive way and provide substantial evidence.

Sometimes even good sources and authorities can differ on the numbers they offer, or on the interpretations of the same data sets. Researchers from the United Nations and Johns Hopkins University differed on their estimates of Iraqi deaths in the war by 500% because of research design and execution flaws plus sampling error in the Hopkins report.[31] You will be best able to judge the quality of data if you know how they were collected.

You also must decide whether to put information in the body of the report or in appendices. Put material in the body of the report if it is crucial to your proof, if your most significant audience will want to see it there, or if it is short. (Something less than half a page won't interrupt the audience.) Frequently, decision makers want your analysis of the data in the report body rather than the actual data itself. Supporting data that will be examined later by specialists such as accountants, lawyers, and engineers are generally put in an appendix.

Anything that a careful audience will want but that is not crucial to your proof can go in an appendix. Appendices can include

- A copy of a survey questionnaire or interview questions.
- A tally of responses to each question in a survey.
- A copy of responses to open-ended questions in a survey.
- A transcript of an interview.
- Complex tables and visuals.

- Technical data.
- Previous reports on the same subject.

Organizing Information in Reports

LO 15-5

Most sets of data can be organized in several logical ways. Choose the way that makes your information easiest for the audience to understand and use. If you were compiling a directory of all the employees at your plant, for example, alphabetizing by last name would be far more useful than listing people by height, Social Security number, or length of service with the company, although those organizing principles might make sense in lists for other purposes.

The following three guidelines will help you choose the arrangement that will be the most useful for your audience:

1. **Process your information before you present it to your audience.** The order in which you became aware of information usually is not the best order to present it to your audience.
2. **When you have lots of information, group it into three to seven categories.** The average person's short-term memory can hold only seven chunks, though the chunks can be of any size.[32] By grouping your information into seven categories (or fewer), you make your report easier to comprehend.
3. **Work with the audience's expectations, not against them.** Introduce ideas in the overview in the order in which you will discuss them.

Patterns for Organizing Information

Organize information in a way that will work best for your audience. Figure 15.6 lists common patterns for organizing information that are particularly useful in reports. Any of these patterns can be used for a whole report or for only part of it.

Comparison/Contrast Many reports use comparison/contrast sections within a larger report pattern. Comparison/contrast also can be the purpose of the whole report. Recommendation studies generally use this pattern. You can focus either on the alternatives you are evaluating or on the criteria you use. See Figure 15.7 for ways to organize these two patterns in a report.

Focus on the alternatives when

- One alternative is clearly superior.
- The criteria are hard to separate.
- The audience will intuitively grasp the alternative as a whole rather than as the sum of its parts.

Figure 15.6 Ways to Organize Reports

Comparison/contrast	General to particular or particular to general
Problem–solution	Geographic or spatial
Elimination of alternatives	Functional
SWOT analysis	Chronological

Figure 15.7 Two Ways to Organize a Comparison/Contrast Report

Focus on alternatives	
Alternative A	Opening a New Store on Campus
Criterion 1	Cost of Renting Space
Criterion 2	Proximity to Target Market
Criterion 3	Competition from Similar Stores
Alternative B	Opening a New Store in the Suburban Mall
Criterion 1	Cost of Renting Space
Criterion 2	Proximity to Target Market
Criterion 3	Competition from Similar Stores
Focus on criteria	
Criterion 1	Cost of Renting Space for the New Store
Alternative A	Cost of Campus Locations
Alternative B	Cost of Locations in the Suburban Mall
Criterion 2	Proximity to Target Market
Alternative A	Proximity on Campus
Alternative B	Proximity in the Suburban Mall
Criterion 3	Competition from Similar Stores
Alternative A	Competing Stores on Campus
Alternative B	Competing Stores in the Suburban Mall

Focus on the criteria when

- The superiority of one alternative to another depends on the relative weight assigned to various criteria. Perhaps Alternative A is best if we are most concerned about Criterion 1, cost, but worst if we are most concerned about Criterion 2, proximity to target market.
- The criteria are easy to separate.
- The audience wants to compare and contrast the options independently of your recommendation.

A variation of the comparison/contrast pattern is the **pro-and-con pattern.** In this pattern, under each specific heading, give the arguments for and against that alternative. A report recommending new plantings for a university quadrangle uses the pro-and-con pattern:

Advantages of Monocropping
    High Productivity
    Visual Symmetry
Disadvantages of Monocropping
    Danger of Pest Exploitation
    Visual Monotony

This pattern is least effective when you want to de-emphasize the disadvantages of a proposed solution, for it does not permit you to bury the disadvantages between neutral or positive material.

Problem–Solution Identify the problem; explain its background or history; discuss its extent and seriousness; identify its causes. Discuss the factors (criteria) that affect the decision. Analyze the advantages and disadvantages of possible solutions. Conclusions and recommendation can go either first or last, depending on the preferences of your audience. This pattern works well when the audience is neutral.

A report recommending ways to eliminate solidification of a granular bleach during production uses the problem–solution pattern:

> Recommended Reformulation for Vibe Bleach
> Problems in Maintaining Vibe's Granular Structure
>   Solidification during Storage and Transportation
>   Customer Complaints about "Blocks" of Vibe in Boxes
> Why Vibe Bleach "Cakes"
>   Vibe's Formula
>   The Manufacturing Process
>   The Chemical Process of Solidification
> Modifications Needed to Keep Vibe Flowing Freely

Elimination of Alternatives After discussing the problem and its causes, discuss the *impractical* solutions first, showing why they will not work. End with the most practical solution. This pattern works well when the solutions the audience is likely to favor will not work, while the solution you recommend is likely to be perceived as expensive, intrusive, or radical.

A report on toy commercials, "The Effect of TV Ads on Children," eliminates alternatives:

> Alternative Solutions to Problems in TV Toy Ads
>   Leave Ads Unchanged
>   Mandate School Units on Advertising
>   Ask the Industry to Regulate Itself
>   Give FCC Authority to Regulate TV Ads Directed at Children

SWOT Analysis **SWOT analysis** is frequently used to evaluate a proposed project, expansion, or new venture. The analysis discusses **S**trengths, **W**eaknesses, **O**pportunities, and **T**hreats of the proposed action. Strengths and weaknesses are usually factors within the organization; opportunities and threats are usually factors external to the organization.

A report recommending an in-house training department uses a SWOT analysis to support its recommendation:

> Advantages of In-House Training
> Disadvantages of In-House Training
> Competitor Training Businesses
> Opportunities for Training Expansion

This report switches the order of threats (Competitor Training Businesses) and opportunities to end with positive information.

General to Particular or Particular to General General to particular starts with the problem as it affects the organization or as it manifests itself in general and then moves to a discussion of the parts of the problem and solutions to each of these parts. Particular to general starts with the problem as the audience defines it and moves to larger issues of which the problem is a part. Both are good patterns when you need to redefine the audience's perception of the problem to solve it effectively.

The directors of a student volunteer organization, VIP, have defined their problem as "not enough volunteers." After studying the subject, the writer is convinced that problems in training, supervision, and campus awareness are responsible for both a high dropout rate and a low recruitment rate. The general-to-particular pattern helps the audience see the problem in a new way:

- Why VIP Needs More Volunteers
- Why Some VIP Volunteers Drop Out
    - Inadequate Training
    - Inadequate Supervision
    - Feeling That VIP Requires Too Much Time
    - Feeling That the Work Is Too Emotionally Demanding
- Why Some Students Do Not Volunteer
    - Feeling That VIP Requires Too Much Time
    - Feeling That the Work Is Too Emotionally Demanding
    - Preference for Volunteering with Another Organization
    - Lack of Knowledge about VIP Opportunities
- How VIP Volunteers Are Currently Trained and Supervised
- Time Demands on VIP Volunteers
- Emotional Demands on VIP Volunteers
- Ways to Increase Volunteer Commitment and Motivation
    - Improving Training and Supervision
    - Improving the Flexibility of Volunteers' Hours
    - Providing Emotional Support to Volunteers
    - Providing More Information about Community Needs and VIP Services

Geographic or Spatial In a geographic or spatial pattern, you discuss problems and solutions by units according to their physical arrangement. Move from office to office, building to building, factory to factory, state to state, region to region, and so on.

A sales report might use a geographic pattern of organization.

- Sales Have Risen in the European Community
- Sales Are Flat in Eastern Europe
- Sales Have Fallen Sharply in the Middle East
- Sales Are Off to a Strong Start in Africa
- Sales Have Risen Slightly in Asia
- Sales Have Fallen Slightly in South America
- Sales Are Steady in North America

Functional In functional patterns, discuss the problems and solutions of each functional unit. For example, a small business might organize a report to its venture capitalists by the categories of research, production, and marketing. A government report might divide data into the different functions an agency performed, taking each in turn.

- Major Accomplishments FY 18
    - Regulation
    - Education
    - Research
    - International coordination

Chronological A chronological report records events in the order in which they happened or are planned to happen. Many progress reports are organized chronologically.

Work Completed in October
Work Planned for November

If you choose this pattern, be sure you do not let the chronology obscure significant points or trends.

Patterns for Specific Varieties of Reports

Informative, recommendation, and justification reports will be more successful when you work with the audience's expectations for that kind of report.

Informative and Closure Reports **Informative reports** and *closure reports* summarize completed work or research that does not result in action or recommendation.

Informative reports often include the following elements:

- Introductory paragraph summarizing the problems or successes of the project.
- Purpose and scope section(s) giving the purpose of the report and indicating what aspects of the topic it covers.
- Chronological account outlining how the problem was discovered, what was done, and what the results were.
- Concluding paragraph offering suggestions for later action. The suggestions in a closure or informative report are not proved in detail.

Figure 15.8 presents an example of an informative report.

Closure reports also allow a firm to document the alternatives it has considered before choosing a final design.

Recommendation Reports **Recommendation reports** evaluate two or more alternatives and recommend one of them. (Doing nothing or delaying action can be one of the alternatives.)

Recommendation reports normally open by explaining the decision to be made, listing the alternatives, and explaining the criteria. In the body of the report, each alternative will be evaluated according to the criteria using one of the two comparison/contrast patterns. Discussing each alternative separately is better when one alternative is clearly superior, when the criteria interact, or when each alternative is indivisible. If the choice depends on the weight given to each criterion, you may want to discuss each alternative under each criterion.

Whether your recommendation should come at the beginning or the end of the report depends on your audience and the culture of your organization. Most audiences want the "bottom line" up front. However, if the audience will find your recommendation hard to accept, you may want to delay your recommendation until the end of the report when you have given all your evidence.

Justification Reports **Justification reports** justify a purchase, investment, hiring, or change in policy. If your organization has a standard format for justification reports, follow that format. If you can choose your headings and organization, use this pattern when your proposal will be easy for your audience to accept:

1. **Indicate what you're asking for and why it's needed.** Because the audience has not asked for the report, you must link your request to the organization's goals.
2. **Briefly give the background of the problem or need.**

Figure 15.8 An Informative Report Describing How a Company Solved a Problem

March 14, 2018

To: Donna S. Kienzler

From: Sara A. Ratterman *SAR*

Informal short reports use letter or memo format.

Subject: Recycling at Bike Nashbar

First paragraph summarizes main points.

Two months ago, Bike Nashbar began recycling its corrugated cardboard boxes. The program was easy to implement and actually saves the company a little money compared to our previous garbage pickup.

Purpose and scope of report.

In this report, I will explain how and why Bike Nashbar's program was initiated, how the program works and what it costs, and why other businesses should consider similar programs.

Bold headings.

The Problem of Too Many Boxes and Not Enough Space in Bike Nashbar

Cause of problem.

Every week, Bike Nashbar receives about 40 large cardboard boxes containing bicycles and other merchandise. As many boxes as possible would be stuffed into the trash bin behind the building, which also had to accommodate all the other solid waste the shop produces. Boxes that didn't fit in the trash bin ended up lying around the shop, blocking doorways, and taking up space needed for customers' bikes. The trash bin was emptied only once a week, and by that time, even more boxes would have arrived.

Triple space before heading.

The Importance of Recycling Cardboard Rather Than Throwing It Away

Double space after heading.

Arranging for more trash bins or more frequent pickups would have solved the immediate problem at Bike Nashbar but would have done nothing to solve the problem created by throwing away so much trash in the first place.

Double space between paragraphs within heading.

Further seriousness of problem.

According to David Crogen, sales representative for Waste Management, Inc., 75% of all solid waste in Columbus goes to landfills. The amount of trash the city collects has increased 150% in the last five years. Columbus's landfill is almost full. In an effort to encourage people and businesses to recycle, the cost of dumping trash in the landfill is doubling from $4.90 a cubic yard to $9.90 a cubic yard next week. Next January, the price will increase again, to $12.95 a cubic yard. Crogen believes that the amount of trash can be reduced by cooperation between the landfill and the power plant and by recycling.

How Bike Nashbar Started Recycling Cardboard

Capitalize first letter of major words in heading.

Solution.

Waste Management, Inc., is the country's largest waste processor. After reading an article about how committed Waste Management, Inc., is to waste reduction and recycling, I decided to see whether Waste Management could recycle our boxes. Corrugated cardboard (which is what Bike Nashbar's boxes are made of) is almost 100% recyclable, so we seemed to be a good candidate for recycling.

Figure 15.8 An Informative Report Describing How a Company Solved a Problem *(Continued)*

Donna S. Kienzler
March 14, 2018
Page 2

Reader's name, date, page number.

To get the service started, I met with a friendly sales rep, David Crogen, that same afternoon to discuss the service.

Waste Management, Inc., took care of all the details. Two days later, Bike Nashbar was recycling its cardboard.

Talking heads tell reader what to expect in each section.

How the Service Works and What It Costs

Details of solution.

Waste Management took away our existing 8-cubic-yard garbage bin and replaced it with two 4-yard bins. One of these bins is white and has "cardboard only" printed on the outside; the other is brown and is for all other solid waste. The bins are emptied once a week, with the cardboard going to the recycling plant and the solid waste going to the landfill or power plant.

Double space between paragraphs.

Since Bike Nashbar was already paying more than $60 a week for garbage pickup, our basic cost stayed the same. (Waste Management can absorb the extra overhead only if the current charge is at least $60 a week.) The cost is divided 80/20 between the two bins: 80% of the cost pays for the bin that goes to the landfill and power plant; 20% covers the cardboard pickup. Bike Nashbar actually receives $5.00 for each ton of cardboard it recycles.

Each employee at Bike Nashbar is responsible for putting all the boxes he or she opens in the recycling bin. Employees must follow these rules:

- The cardboard must have the word "corrugated" printed on it, along with the universal recycling symbol.

Indented lists provide visual variety.

- The boxes must be broken down to their flattest form. If they aren't, they won't all fit in the bin and Waste Management would be picking up air when it could pick up solid cardboard. The more boxes that are picked up, the more money that will be made.

- No other waste except corrugated cardboard can be put in the recycling bin. Other materials could break the recycling machinery or contaminate the new cardboard.

- The recycling bin is to be kept locked with a padlock provided by Waste Management so that vagrants don't steal the cardboard and lose money for Waste Management and Bike Nashbar.

(Continued)

Figure 15.8 An Informative Report Describing How a Company Solved a Problem *(Concluded)*

Donna S. Kienzler
March 14, 2018
Page 3

Disadvantages of solution.

Minor Problems with Running the Recycling Program

The only problems we've encountered have been minor ones of violating the rules. Sometimes employees at the shop forget to flatten boxes, and air instead of cardboard gets picked up. Sometimes people forget to lock the recycling bin. When the bin is left unlocked, people do steal the cardboard, and plastic cups and other solid waste get dumped in the cardboard bin. I've posted signs where the key to the bin hangs, reminding employees to empty and fold boxes and relock the bin after putting cardboard in it. I hope this will turn things around and these problems will be solved.

Advantages of the Recycling Program

Advantages of solution.

The program is a great success. Now when boxes arrive, they are unloaded, broken down, and disposed of quickly. It is a great relief to get the boxes out of our way, and knowing that we are making a contribution to saving our environment builds pride in ourselves and Bike Nashbar.

Our company depends on a clean, safe environment for people to ride their bikes in. Now we have become part of the solution. By choosing to recycle and reduce the amount of solid waste our company generates, we can save money while gaining a reputation as a socially responsible business.

Why Other Companies Should Adopt Similar Programs

Argues that her company's experience is relevant to other companies.

Businesses and institutions in Franklin County currently recycle less than 4% of the solid waste they produce. David Crogen tells me he has over 8,000 clients in Columbus alone, and he acquires new ones every day. Many of these businesses can recycle a large portion of their solid waste at no additional cost. Depending on what they recycle, they even may get a little money back.

The environmental and economic benefits of recycling as part of a comprehensive waste reduction program are numerous. Recycling helps preserve our environment. We can use the same materials over and over again, saving natural resources such as trees, fuel, and metals and decreasing the amount of solid waste in landfills. By conserving natural resources, recycling helps the U.S. become less dependent on imported raw materials. Crogen predicts that Columbus will be on a 100% recycling system by the year 2024. I strongly hope that his prediction will come true.

3. **Explain each of the possible solutions.** For each, give the cost and the advantages and disadvantages.
4. **Summarize the action needed to implement your recommendation.** If several people will be involved, indicate who will do what and how long each step will take.
5. **Ask for the action you want.**

If the reader will be reluctant to grant your request, use this problem-solving pattern:

1. **Describe the organizational problem (which your request will solve).** Use specific examples to prove the seriousness of the problem.
2. **Show why easier or less expensive solutions will not solve the problem.**
3. **Present your solution impersonally.**
4. **Show that the disadvantages of your solution are outweighed by the advantages.**
5. **Summarize the action needed to implement your recommendation.** If several people will be involved, indicate who will do what and how long each step will take.
6. **Ask for the action you want.**

How much detail you need to give in a justification report depends on the corporate culture and on your audience's knowledge of and attitude toward your recommendation. Many organizations expect justification reports to be short–only one or two pages. Other organizations may expect longer reports with much more detailed budgets and a full discussion of the problem and each possible solution.

Report Style and Headings

LO 15-6

The advice about style from previous chapters also applies to reports, with three exceptions.

1. **Use a fairly formal style, without contractions or slang.**
2. **Avoid the word *you*.** In a document with multiple audiences, it will not be clear who *you* is. Instead, use the company's name.
3. **Include in the report all the definitions and documents needed to understand the recommendations.** The multiple audiences for reports include people who may consult the document months or years from now; they will not share your inside knowledge. Explain acronyms and abbreviations the first time they appear. Explain as much of the history or background of the problem as necessary. Add as appendices previous documents on which you are building.

Headings are single words, short phrases, or complete sentences that indicate the topic in each section. A heading must cover all of the material under it until the next heading. For example, *Cost of Tuition* cannot include the cost of books or of room and board; *College Costs* could include all costs. You can have just one paragraph under a heading or several pages. If you do have several pages between headings, you may want to consider using subheadings. Use subheadings only when you have two or more divisions within a main heading.

Topic headings focus on the structure of the report. As you can see from the following example, topic headings are vague and give little information.

Recommendation
Problem
    Situation 1
    Situation 2
Causes of the Problem
    Background
    Cause 1
    Cause 2
Recommended Solution

Talking heads, in contrast, tell the audience what to expect. Talking heads, like those in the examples in this chapter, provide a specific overview of each section and of the entire report.

Recommended Reformulation for Vibe Bleach
Problems in Maintaining Vibe's Granular Structure
    Solidification during Storage and Transportation
    Customer Complaints about "Blocks" of Vibe in Boxes
Why Vibe Bleach "Cakes"
    Vibe's Formula
    The Manufacturing Process
    The Chemical Process of Solidification
Modifications Needed to Keep Vibe Flowing Freely

Headings must be parallel; that is, they must use the same grammatical structure. Subheads must be parallel to each other but do not necessarily have to be parallel to subheads under other headings.

Not parallel:
Are Students Aware of VIP?
    Current Awareness among Undergraduate Students
    Graduate Students
Ways to Increase Volunteer Commitment and Motivation
    We Must Improve Training and Supervision
    Can We Make Volunteers' Hours More Flexible?
    Providing Emotional Support to Volunteers
    Provide More Information about Community Needs and VIP Services

Parallel:
Campus Awareness of VIP
    Current Awareness among Undergraduate Students
    Current Awareness among Graduate Students
Ways to Increase Volunteer Commitment and Motivation
    Improving Training and Supervision
    Improving the Flexibility of Volunteers' Hours
    Providing Emotional Support to Volunteers
    Providing More Information about Community Needs and VIP Services

In a complicated report, you may need up to three levels of headings. Figure 15.9 illustrates one way to set up headings. Follow these standard conventions for headings:

- Use a subheading only when you have at least two subsections under the next higher heading.
- Avoid having a subhead come immediately after a heading. Instead, some text should follow the main heading before the subheading. (If you have nothing else to say, give an overview of the division.)
- Avoid having a heading or subheading all by itself at the bottom of the page. Instead, have at least one line (preferably two) of type. If there isn't room for a line of type under it, put the heading on the next page.
- Don't use a heading as the antecedent for a pronoun. Instead, repeat the noun.

Figure 15.9 Setting Up Headings in a Single-Spaced Document

Center the title; use bold and a bigger font.

Typing Titles and Headings for Reports *14-point type.*

For the title of a report, use a bold font two point sizes bigger than the largest size in the body of the report. You may want to use an even bigger size or a different font to create an attractive title page. Capitalize the first word and all major words of the title.

Two empty spaces (triple space).

Heading for main divisions.

Typing Headings for Reports *12-point type.*

One empty space (double space).

12-point type for body text.

Center main headings, capitalize the first and all major words, and use bold. In single-spaced text, leave two empty spaces before main headings and one after. Also leave an extra space between paragraphs. You also may want to use main headings that are one point size bigger than the body text.

This example provides just one example of each level of heading. However, in a real document, use headings only when you have at least two of them in the document. In a report, you'll have several.

Two empty spaces (triple space).

Typing Subheadings *Bold; left margin.*

One empty space.

Most reports use subheadings under some main headings. Use subheadings only if you have at least two of them under a given heading. It is OK to use subheadings in some sections and not in others. Normally you'll have several paragraphs under a subheading, but it's OK to have just one paragraph under some subheadings.

12-point type.

Subheadings in a report use the same format as headings in letters and memos. Bold subheadings and set them at the left margin. Capitalize the first word and major words. Leave two empty spaces before the subheading and one empty space after it, before the first paragraph under the subheading. Use the same size font as the body paragraphs.

One empty space (normal paragraph spacing).

Period after heading.

Typing Further Subdivisions. For a very long report, you may need further subdivisions under a subheading. Bold the further subdivision, capitalizing the first word and major words, and end the phrase with a period. Begin the text on the same line. Use normal spacing between paragraphs. Further subdivide a subheading only if you have at least two such subdivisions under a given subheading. It is OK to use divisions under some subheadings and not under others.

Source Citation and Documentation

LO 15-7

In effective reports, sources are cited and documented smoothly and unobtrusively. **Citation** means attributing an idea or fact to its source in the body of the text: "According to the 2010 Census. . . ," "Jane Bryant Quinn argues that. . . ." In-text citations provide, in parentheses in the text, the source where the reference was found. Citing sources demonstrates your honesty and enhances your credibility.

Documentation means providing the bibliographic information readers would need to go back to the original source. The two usual means of documentation are notes and lists of references.

Failure to cite and document sources is **plagiarism,** the passing off of the words or ideas of others as one's own. Plagiarism can lead to nasty consequences, from failure of a class to losing your job. Now that curious people can type sentences into Google and find the sources, plagiarism is easier than ever to catch. Plagiarism is both unethical and illegal.

Another unethical practice that may occur when using sources is taking material out of context in such a way that the meaning of the material used is counter to the meaning of the material within its full context.

If you quote someone in your writing, you will need to use citation and documentation in addition to quotation marks. If you use the source's exact words, you'll use the name of the person you're citing in the body of the proposal or report; you'll put quotation marks around the quote; and you'll indicate the source in parentheses and provide a list of references, or you'll include an endnote. If you put the source's idea into your own words (**paraphrasing**), or if you condense or synthesize information, you don't need quotation marks, but you still need to tell whose idea it is and where you found it.

Long quotations (four typed lines or more) are used sparingly in business reports. Because many readers skip quotes, always summarize the main point of the quotation in a single sentence before the quotation itself. End the sentence with a colon, not a period, because it introduces the quote. Indent long quotations on the left to set them off from your text. Indented quotations do not need quotation marks; the indentation shows the reader that the passage is a quote.

Writing Progress Reports

LO 15-8

When you're assigned to a single project that will take a month or more, you'll probably be asked to file one or more progress reports. A progress report reassures the funding agency or employer that you're making progress and allows you and the agency or employer to resolve problems as they arise. Different readers may have different concerns. An instructor may want to know whether you'll have your report in by the due date. A client may be more interested in what you're learning about the problem. Adapt your progress report to the needs of the audience.

Poor writers of progress reports tend to focus on what they have done and say little about the value of their work. Good writers, on the other hand, spend less space writing about the details of what they've done but much more space explaining the value of their work for the organization.

When you write progress reports, use what you know about emphasis, positive tone, and you-attitude. Don't present every detail as equally important. Use emphasis techniques to stress the major ones.

In your report, try to exceed expectations in at least some small way. Perhaps your research is ahead of schedule or needed equipment arrived earlier than expected. However, do not present the good news by speculating on the reader's feelings; many readers find such statements offensive.

Poor: You will be happy to hear the software came a week early.

Better: The software came a week early, so Pat can start programming earlier than expected.

Remember that your audience for your report is usually in a position of power over you, so be careful what you say to them. Generally, it is not wise to blame them for project problems even if they are at fault.

Poor: We could not proceed with drafting the plans because you did not send us the specifications for the changes you want.

Better: Chris has prepared the outline for the plan. We are ready to start drafting as soon as we receive the specifications. Meanwhile, we are working on. . . .

Other Uses of Progress Reports

Progress reports can do more than just report progress. You can use progress reports to

- **Enhance your image.** Details about the number of documents you've read, people you've surveyed, or experiments you've conducted create a picture of a hardworking person doing a thorough job.
- **Float trial balloons.** Explain, "I could continue to do X [what you approved]; I could do Y instead [what I'd like to do now]." The detail in the progress report can help back up your claim. Even if the idea is rejected, you don't lose face because you haven't made a separate issue of the alternative.
- **Minimize potential problems.** As you do the work, it may become clear that implementing your recommendations will be difficult. In your regular progress reports, you can alert your boss or the funding agency to the challenges that lie ahead, enabling them to prepare psychologically and physically to act on your recommendations.

Subject lines for progress reports are straightforward. Specify the project on which you are reporting your progress.

> Subject: Progress on Developing a Marketing Plan for Fab Fashions

If you are submitting weekly or monthly progress reports on a long project, number your progress reports or include the time period in your subject line. Include information about the work completed since the last report and work to be completed before the next report.

Make your progress report as positive as you *honestly* can. You'll build a better image of yourself if you show that you can take minor problems in stride and that you're confident of your own abilities.

> The preliminary data sets were two days late because of a server crash. However, Nidex believes they will be back on schedule by next week. Past performance indicates their estimate is correct, and data analysis will be finished in two weeks, as originally scheduled.

Focus on your solutions to problems rather than the problems themselves:

Negative:	Southern data points were corrupted, and that problem set us back three days in our data analysis.
Positive:	Although southern data points were corrupted, the northern team was able to loan us Chris and Lee to fix the data set. Both teams are currently back on schedule.

In the example above, the problem with the southern data points is still noted because readers may want to know about it, but the solution to the problem is emphasized.

Do remember to use judicious restraint with your positive tone. Without details for support, glowing judgments of your own work may strike readers as ill-advised bragging, or maybe even dishonesty.

Overdone positive tone, lack of support:	Our data analysis is indicating some great new predictions; you will be very happy to see them.
Supported optimism:	Our data analysis is beginning to show that coastal erosion may not be as extensive as we had feared; in fact, it may be almost 10% less than originally estimated. We should have firm figures by next week.

Progress reports can be organized in three ways: by chronology, task, and recommendation support. Some progress reports may use a combination: they may organize material chronologically within each task section, for instance.

Chronological Progress Reports

The chronological pattern of organization focuses on what you have done and what work remains.

1. **Summarize your progress in terms of your goals and your original schedule.** Use measurable statements.

   Poor: Progress has been slow.

   Better: Analysis of data sets is about one-third complete.

2. **Under the heading "Work Completed," describe what you have already done.** Be specific, both to support your claims in the first paragraph and to allow the reader to appreciate your hard work. Acknowledge the people who have helped you. Describe any serious obstacles you've encountered and tell how you've dealt with them.

   Poor: I have found many articles about Procter & Gamble on the web. I have had a few problems finding how the company keeps employees safe from chemical fumes.

   Better: On the web, I found Procter & Gamble's home page, its annual report, and mission statement. No one whom I interviewed could tell me about safety programs specifically at P&G. I have found seven articles about ways to protect workers against pollution in factories, but none mentions P&G.

3. **Under the heading "Work to Be Completed," describe the work that remains.** If you're more than three days late (for school projects) or two weeks late (for business projects), submit a new schedule showing how you will be able to meet the original deadline. You may want to discuss "Observations" or "Preliminary Conclusions" if you want feedback before writing the final report or if your reader has asked for substantive interim reports.
4. **Express your confidence in having the report ready by the due date.** If you are behind your original schedule, show why you think you can still finish the project on time.

Even in chronological reports, you need to do more than merely list work you have done. Show the value of that work and your prowess in achieving it, particularly your ability at solving problems. The student progress report in Figure 15.10 uses the chronological pattern of organization.

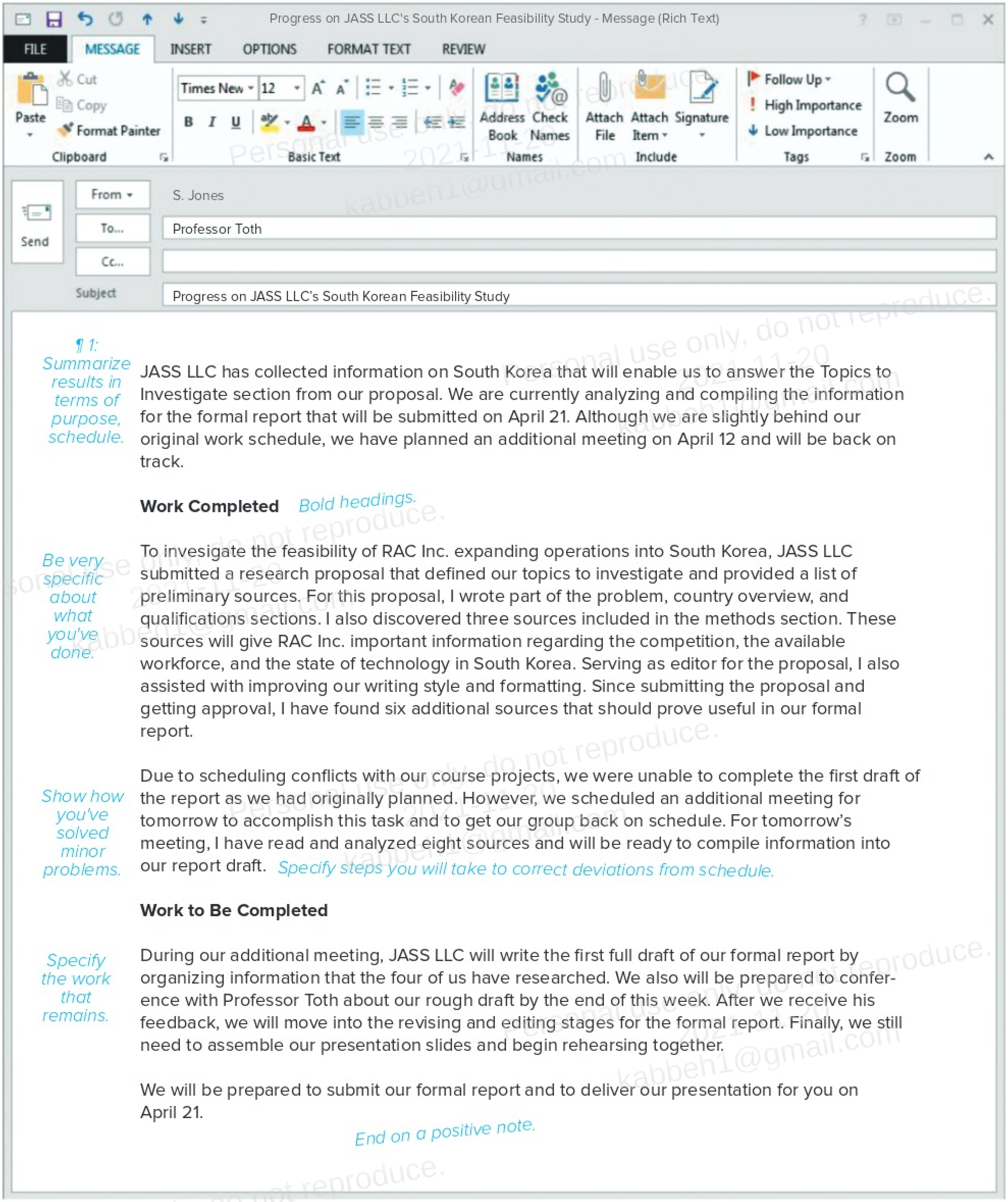
Task Progress Reports

In a task progress report, organize information under the various tasks you have worked on during the period. For example, a task progress report for a team report project might use the following headings:

Finding Background Information on the Web and in Print
Analyzing Our Survey Data
Working on the Introduction of the Report and the Appendices

Under each heading, the team could discuss the tasks it has completed and those that remain.

Figure 15.10 A Student Chronological Progress Report



¶ 1: Summarize results in terms of purpose, schedule.

JASS LLC has collected information on South Korea that will enable us to answer the Topics to Investigate section from our proposal. We are currently analyzing and compiling the information for the formal report that will be submitted on April 21. Although we are slightly behind our original work schedule, we have planned an additional meeting on April 12 and will be back on track.

Work Completed *Bold headings.*

Be very specific about what you've done.

To invesigate the feasibility of RAC Inc. expanding operations into South Korea, JASS LLC submitted a research proposal that defined our topics to investigate and provided a list of preliminary sources. For this proposal, I wrote part of the problem, country overview, and qualifications sections. I also discovered three sources included in the methods section. These sources will give RAC Inc. important information regarding the competition, the available workforce, and the state of technology in South Korea. Serving as editor for the proposal, I also assisted with improving our writing style and formatting. Since submitting the proposal and getting approval, I have found six additional sources that should prove useful in our formal report.

Show how you've solved minor problems.

Due to scheduling conflicts with our course projects, we were unable to complete the first draft of the report as we had originally planned. However, we scheduled an additional meeting for tomorrow to accomplish this task and to get our group back on schedule. For tomorrow's meeting, I have read and analyzed eight sources and will be ready to compile information into our report draft. *Specify steps you will take to correct deviations from schedule.*

Work to Be Completed

Specify the work that remains.

During our additional meeting, JASS LLC will write the first full draft of our formal report by organizing information that the four of us have researched. We also will be prepared to confer-ence with Professor Toth about our rough draft by the end of this week. After we receive his feedback, we will move into the revising and editing stages for the formal report. Finally, we still need to assemble our presentation slides and begin rehearsing together.

We will be prepared to submit our formal report and to deliver our presentation for you on April 21.

End on a positive note.

Task progress reports are appropriate for large projects with distinct topics or projects.

Recommendation Progress Reports

Recommendation progress reports recommend action: increasing the funding or allotted time for a project, changing its direction, canceling a project that isn't working. When the recommendation will be easy for the reader to accept, use the direct request pattern of organization from Chapter 10. If the recommendation is likely to meet strong resistance, the problem-solving pattern, also in Chapter 10, may be more effective.

Oral Progress Reports

Not all progress reports are written. Boeing had to ground an entire fleet of its new 787 Dreamliner after discovering potential fire issues with the lithium-ion batteries. A few months into the investigation and repair stages, the Air Line Pilots' Association of Japan requested a progress report about the airplanes. The group wanted to be sure the root of the problem was discovered and that the planes would be safe to fly.

Boeing offered an oral progress report stating the problem with the batteries was not critical to flight operations, even though it was still unsure what caused the issue. Many companies offer the public progress reports on fixes or solutions when their products are discovered to be faulty.[33] You may be asked by a college professor or a supervisor to give an oral presentation that relates your progress towards completing a project.

Writing Formal Reports

LO 15-9

Formal reports are distinguished from informal letter and memo reports by their length and by their components. A full formal report may contain the components outlined in Figure 15.11 in the left column.

As Figure 15.11 shows, not every formal report necessarily has all components. The components you need will depend on the audiences and purposes of your report. In addition, some organizations call for additional components or arrange these components in a different order. As you read each section below, you may want to turn to the corresponding sections of the report in Figure 15.12 to see how the component is set up and how it relates to the total report. The example in Figure 15.12 shows segments of a formal report for illustration purposes; the full report can be viewed on this text's companion website.

Title Page

The title page of a report usually contains four items: the title of the report, the person or organization for whom the report is prepared, the person or group who prepared the report, and the release date. Some title pages also contain a brief summary or abstract of the contents of the report; some title pages contain decorative artwork.

The title of the report should be as informative as possible. Like subject lines, report titles are straightforward.

Poor title: New Plant Site

Better title: Eugene, Oregon, Site for the New Kemco Plant

Large organizations that issue many reports may use two-part titles to make it easier to search for reports electronically. For example, U.S. government report titles first give the agency sponsoring the report, then the title of that particular report.

Figure 15.11 The Components in a Report Can Vary

More formal ←		→ Less formal
Cover	Title Page	Introduction
Title Page	Table of Contents	Body
Transmittal	Executive Summary	Conclusions
Table of Contents	Body	Recommendations
List of Illustrations	Introduction	
Executive Summary	Body	
Body	Conclusions	
Introduction	Recommendations	
Background		
Body		
Conclusions		
Recommendations		
References/Works Cited		
Appendices		
Questionnaires		
Interviews		
Complex Tables		
Computer Printouts		
Related Documents		

Small Business Administration: Management Practices Have Improved for the Women's Business Center Program

In many cases, the title will state the recommendation in the report: "Why the United Nations Should Establish a Seed Bank." However, the title should omit recommendations when

- The reader will find the recommendations hard to accept.
- Putting all the recommendations in the title would make it too long.
- The report does not offer recommendations.

If the title does not contain the recommendation, it normally indicates what problem the report tries to solve or the topic the report discusses.

Eliminate any unnecessary words:

Wordy: Report of a Study on Ways to Market Life Insurance to Urban Professional People Who Are in Their Mid-40s

Better: Marketing Life Insurance to the Mid-40s Urban Professional

The identification of the receiver of the report normally includes the name of the person who will make a decision based on the report, his or her job title, the organization's name, and its location (city, state, and zip code). Government reports often omit the person's name and simply give the organization that authorized the report.

Figure 15.12 Segments of a Formal Report

Center all text on the title page.

Slated for Success

Use a large font size for the main title.

RAC Inc. Expanding to South Korea

Use a slightly smaller font size for the subtitle.

Prepared for *No punctuation.*

Name of audience, job title, organization, city, state, and zip code.

Ms. Katie Nichols
CEO of RAC Inc.
Grand Rapids, Michigan, 49503

Prepared by *No punctuation.*

Name of writer(s), organization, city, state, and zip code.

JASS LLC
Jordan Koole
Alex Kuczera
Shannon Jones
Sean Sterling
Allendale, MI 49401

Month Day, Year *Date report is released.*

Figure 15.12 Segments of a Formal Report *(Continued)*

The students in this group designed their own letterhead, assuming they were doing this report as consultants.

JASS LLC
1 Campus Drive
Allendale, MI 49401

This letter uses block format.

Month Day, Year *Enter current date.*

Ms. Katie Nichols, CEO
RAC Inc.
1253 West Main Street
Grand Rapids, MI 49503

Dear Ms. Nichols:

In paragraph 1, release the report. Note when and by whom the report was authorized. Note the report's purpose.

In this document you will find the report that you requested in March. We have provided key information and made recommendations on a plan of action for the expansion of a RAC Inc. slate tablet manufacturing plant into South Korea.

Give recommendations or thesis of report.

Our analysis of expansion into South Korea covered several important areas that will help you decide whether or not RAC Inc. should expand and build a manufacturing plant in South Korea. To help us make our decision, we looked at the government, economy, culture, and, most important, the competition. South Korea is a technologically advanced country and its economy is on the rise. Our research has led us to recommend expansion into South Korea. We strongly believe that RAC Inc. can be profitable in the long run and become a successful business in South Korea.

Note sources that were helpful.

JASS LLC used several resources in forming our analysis. The Central Intelligence Agency's *World Factbook*, the U.S. Department of State, World Business Culture, and Kwintessential were all helpful in answering our research questions.

Thank the audience for the opportunity to do the research.

Thank you for choosing JASS to conduct the research into South Korea. If you have any further questions about the research or recommendation, please contact us (616-331-1100, info@jass.com) and we will be happy to answer any questions referring to your possible expansion into South Korea at no charge. JASS would be happy to conduct any further research on this issue or any other projects that RAC Inc. is considering. We look forward to building on our relationship with you in the future.

Offer to answer questions about the report.

Sincerely,

Jordan Koole

Jordan Koole
JASS Team Member

Center inital page numbers at the bottom of the page. Use a lowercase roman numeral for initial pages of report.

i

(Continued)

Figure 15.12 Segments of a Formal Report *(Continued)*

Main headings are parallel, as are subheadings within a section.

Table of Contents does not list itself.

Table of Contents

Use lowercase roman numerals for initial pages.

Introduction begins on page 1.

Capitalize first letter of each major word in headings.

Indentions show level of heading at a glance.

Letter of Transmittal i

Executive Summary iii

Introduction 1
- Purpose and Scope 1
- Assumptions 1
- Methods 1
- Limitations 1
- Definitions 1
- Criteria 1

Government 2
- Government Control 2
- Business Regulations 2
- Taxes 3
- Free Trade 3
- Concerns about North Korea 3
- Summary 3

Economy 4
- Economic Growth 4
- GDP and Other Important Economic Measures 5
- Imports and Exports 5
- Dollars and Cents 5
- Summary 5

South Korean Culture 6
- Business Culture 6
- Honor and Respect 6
- Religion 7
- Summary 7

Market Possibilities and Competitors 7
- Technology Use 7
- Competition 8
- Integration 9
- Summary 9

Location, Location, Location 9

Conclusions and Recommendations 10

References 11

Add a "List of Illustrations" at the bottom of the page or on a separate page if the report has many visuals.

Line up right margin (justify).

List of Illustrations

Figures and tables are numbered independently.

Figure 1 South Korea's GDP Growth from 1911 to 2016 4

Figure 2 Comparison of GDP Growth Rates 5

Table 1 Comparison of Specifications for Existing Tablets 8

Figure 15.12 Segments of a Formal Report *(Continued)*

Report title.

Slated for Success

Many audiences read only the Executive Summary, not the report. Include enough information to give audiences the key points you make.

RAC Inc. Expanding to South Korea

Start with recommendation or thesis.

Executive Summary

To continue growth and remain competitive on a global scale, RAC Inc. should expand its business operations into South Korea. The country is a technologically advanced nation and would provide a strong base for future expansion. Slate tablet competitors of RAC Inc. in South Korea are doing quite well. Because RAC Inc. can compete with them in the United States, we are confident that RAC can remain on par with them in this new market.

The research we have done for this project indicates that this expansion will be profitable, primarily because the South Korean economy is flourishing. The workforce in South Korea is large, and finding talented employees to help set up and run the facility will be easy. In addition, the regulations and business structure are similar to those in the United States and will provide an easy transition into this foreign nation. The competition will be fierce; however, we believe that RAC Inc. will be profitable because of its track record with the Notion Tab in the United States.

Provide brief support for recommendations.

To ensure a successful expansion, JASS LLC recommends the following:

1. **RAC Inc. should establish its headquarters and manufacturing plant in Busan.**
   - Purchase a building to have a place to begin manufacturing the Notion Tab.
   - Educate RAC employees about South Korean culture and business practices before they begin working directly with South Koreans to avoid being disrespectful.
   - Explore hiring South Koreans; the available workforce is large.
   - Ensure that the Notion name is appropriate when translated into Korean. If not, change the name to better market the product.
   - Market and sell the product in both Busan and Seoul.

2. **After one year RAC should determine the acceptance and profitability of the expansion.**
   - Conduct a customer satisfaction survey with people who purchased the Notion Tab living in Seoul and Busan to determine the acceptance of the product.
   - Compare and contrast first-year sales with a competitor's similar product.

3. **If the tablet is competitive and profitable, RAC Inc. should expand its product line into all large cities in South Korea.**
   - To gain an edge on the competition, create a marketing plan that will offer the Notion Tab at some discount in the new cities.
   - Explore integrating other RAC Inc. products into South Korea. These products also could be manufactured at the new manufacturing plant in Busan.

Language in the Executive Summary can come from the report. Make sure any repeated language is well-written!

The Abstract or Executive Summary contains the logical skeleton of the report: the recommendation(s) and supporting evidence.

iii

(Continued)

Figure 15.12 Segments of a Formal Report *(Continued)*

A running header is optional. This one includes the main title on the left and the page number on the right.

Slated for Success 1

Introduction

Center main headings.

To avoid getting left behind by competition in global expansion, RAC Inc. has contacted JASS LLC to perform an analysis about expanding into South Korea. JASS has researched South Korea to determine if RAC Inc. will be successful in expanding into this foreign market.

"Purpose" and "Scope" can be separate sections if either is long.

Purpose and Scope

RAC Inc. is a successful business in the United States and has had substantial growth over the last five years. With its competitors beginning to venture into foreign markets to gain more global market share, RAC Inc. is looking to expand into the international market as well. The purpose of our research is to decide whether or not RAC Inc. should expand its business into South Korea.

Give topics in the order you'll discuss them.

Tell what you discuss and how thoroughly you discuss each topic.

Topics in "Scope" section should match those in the report.

This report will cover several topics about South Korea including their government, economy, culture, technology, market competition, and possible locations. Our research will not include any on-site research in South Korea. We also are not dealing directly with the South Korean people.

List any relevant topics you do not discuss.

Assumptions cannot be proved. But if they are wrong, the report's recommendation may no longer be valid.

Assumptions

The recommendations that we make are based on the assumption that the relationship between North and South Korea will remain the same as of the first part of 2018. We also are assuming that the technological state of South Korea will remain constant and not suffer from a natural disaster or an economic crash. In addition, we assume that the process of expansion into South Korea is the same with RAC Inc. as it has been with other American companies. Another assumption that we are making is that RAC Inc. has a good name brand and is competitive in the United States with Apple, Samsung, LG, and other electronic companies.

If you collected original data (surveys, interviews, and observations), tell how you chose your subjects, what kind of sample you used, and when you collected the information. This report does not use original data; it just provides a brief discussion of significant sources.

Methods

The information in our report comes from online sources and reference books. We found several good sources, but the best information that we obtained came from The Central Intelligence Agency's *World Factbook*, the U.S. Department of State, World Business Culture, and Kwintessential. These resources have given us much useful information on which we have based our recommendation.

These limitations are listed because the students correctly assumed their instructor would want to know them. Limitations such as these would never be listed in a real consulting report, because they would disqualify the firm.

Limitations

If your report has limitations, state them.

The information in the report was limited to what we retrieved from our sources. We were not able to travel to South Korea to conduct on-site research. JASS also was limited by the language barrier that exists between the United States and South Korea. Other limitations exist because we have not been immersed in the Korean culture and have not gotten input from South Koreans on the expansion of companies into their country.

Define key terms your audience will need to read your report.

Definitions

There are a few terms that we use throughout the report that we would like to explain beforehand. The first term is slate tablet, an industry term, which from this point on is referred to as a tablet. Another term we would like to clarify is the city Busan. Some sources referred to it as Pusan. From this point forward, we use only Busan. An abbreviation we use is GDP, which stands for gross domestic product. The South Korean and United States Free Trade Agreement signed in 2007 is abbreviated as KORUS FTA, its official name in the United States government.

Figure 15.12 Segments of a Formal Report *(Continued)*

Slated for Success 2

This section outlines the criteria used to make the overall recommendation.

Criteria

JASS LLC has established criteria that need to be favorable before we give a positive recommendation about South Korea. The criteria include the government, economy, culture, and market competition. We have weighted our criteria by percentages:

- Government = 20%
- Economy = 20%
- South Korean culture = 20%
- Market possibilities and competitors = 40%

We will examine each separately and give each criterion a favorable or not favorable recommendation. Market competition is weighted the heaviest and must be favorable or somewhat favorable for us to give a positive recommendation. Market competition can be given a favorable, nonfavorable, or somewhat favorable recommendation based on various external factors in the marketplace. We need a minimum of a 70% total to give a positive recommendation overall.

Triple-space before major headings and double-space after them.

Government

Headings must cover everything under that heading until the next one.

Begin most paragraphs with topic sentences.

South Korea is recognized as a republic government by the rest of the world. A republic government is a democracy where the people have supreme control over the government (South Korea: Political structure, 2018). This foundation makes it similar to the United States' democracy. There is a national government as well as provincial-level governments (similar to state-level governments) with different branches. Larger cities, like Seoul and Busan, have their own city government as well. The government is considered multipartied and has multiple parties vying for positions (South Korea: Political structure, 2018). The Republic of South Korea shares its power among three branches of government, thus providing checks and balances inside the government. The three branches of the government are the presidential, legislative, and judicial (U.S. Department of State, 2018). In this section, we will discuss government control, business regulations, taxes, free trade, and concerns about North Korea.

List subtopics in the order in which they are discussed.

Capitalize all main words of headings and subheadings.

Government Control

It's OK to have subheadings under some headings and not others.

The Grand National Party (GNP) controls the major policy-making branches of the government. Winning control of the National Assembly in April 2008 (South Korea: Political structure, 2009), the GNP is considered the conservative party in South Korea and is similar to the Republican Party in the United States. Its policies favor conservatism and are considered pro-business (Grand National Party, 2018). RAC Inc. should not expect much interference from the government with their business venture into South Korea, unless the GNP loses control of the government in the next election.

Use subheadings only when you have two or more sections.

Period goes outside of parenthesis.

Business Regulations

South Korea ranks 16th on the ease of doing business index (World Bank Group, 2018a). This index measures the regulations that a government imposes on businesses and how easy it is to start and run a business in a given country. Factors this index measures include the ease of starting a business, doing taxes, and enforcing contracts. For comparison, the United States is ranked fifth on this list (World Bank Group, 2018b). While there are more regulations on business in South Korea, they are still near the top of the list. The relatively low rating on regulation can be due in part to the Grand National Party controlling the government. There are a few general regulations that RAC Inc. should know before going into South Korea. For more specific business regulations, RAC Inc. may need to do further research before expanding.

(Continued)

Figure 15.12 Segments of a Formal Report *(Continued)*

Since the 1960s, the GDP has had only one dip, a result of the Asian Economic crisis in the late 1990s that affected most Asian countries. In 2004, South Korea became a part of the trillion-dollar economy club, making them one of the world's top economies (Central Intelligence Agency, 2018).

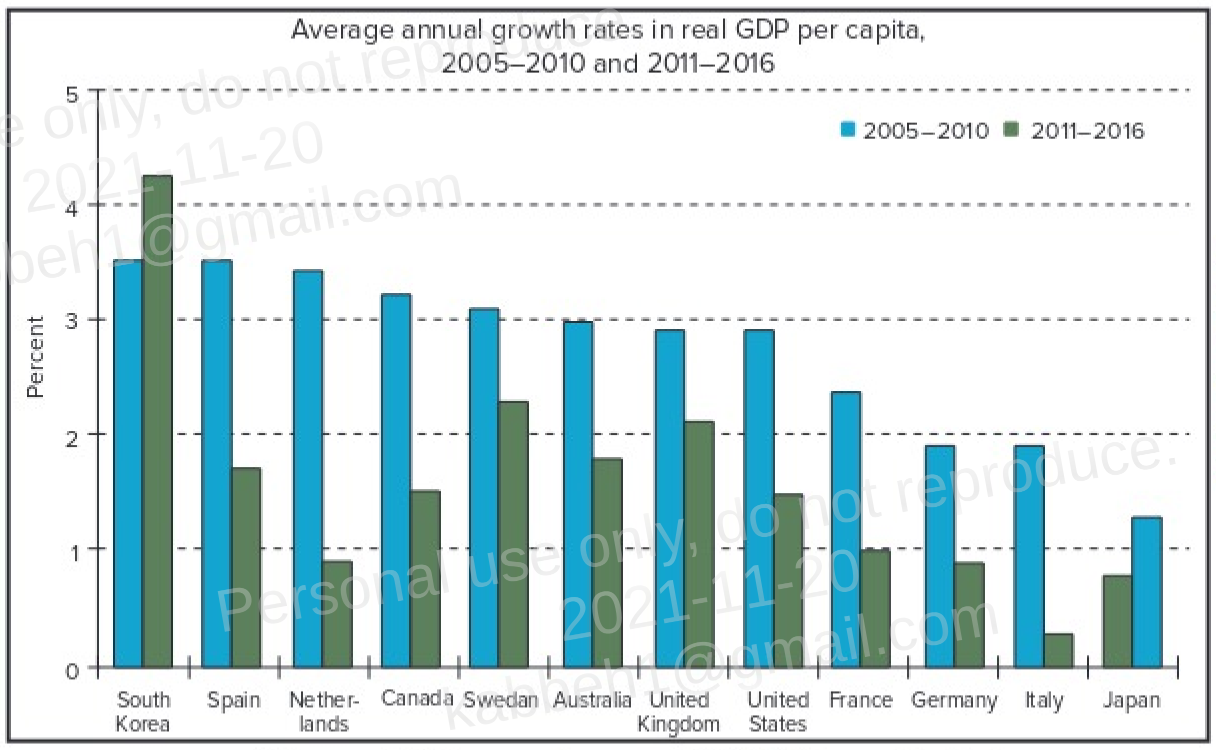
However the economy faces challenges in maintaining steady growth in the future. These challenges include an aging population, inflexible workforce, and an overdependence on exports. Right now, though, South Korea's economy continues to grow. Their industrial production growth rate was 12.1% in 2016, making them the 11th fastest-growing nation in the production industry. In 2016, their GDP grew by 6.8%, the 28th largest growth of GDP in the world (Central Intelligence Agency, 2018). This growth makes South Korea a viable place of expansion.

Refer to figure in the text. Tell what main point it makes.

GDP and Other Important Economic Measures

The official GDP of South Korea was $1.41 trillion in 2018 (Central Intelligence Agency, 2018). This GDP is the 13th highest in the world. GDP measures the total value of goods produced by a country's economy. Figure 2 shows a comparison of GDP growth rates for top countries. GDP per capita in South Korea is $30,200, which is the 44th largest in the world. This measures the output of goods and services per person in the country. It is also an indicator of the average worker's

Number figures consecutively throughout the report; number tables and figures independently.



Label both axes of graphs. See Chapter 13 for more information on creating data displays.

Figure 2: Comparison of GDP Growth Rates
(Source: U.S. Bureau of Labor Statistics, 2018)

Cite source of data.

Figure captions need to be descriptive.

salary in the country. South Korea only has 15% of their population living in poverty. They have a labor force of 24.62 million, which is the 25th largest labor force in the world, with an unemployment rate of 3.3% (Central Intelligence Agency, 2018). These numbers need to be considered when starting operations in South Korea. South Korea also has a service-driven economy with 57.6% of the country's GDP output in the service industry and 68.4% of the labor force employed in the service industry (Central Intelligence Agency, 2018). All of these numbers and high world rankings of the economic measures show that South Korea has a stable and healthy economy where a business could prosper.

Figure 15.12 Segments of a Formal Report *(Continued)*

Slated for Success 11

Conclusions repeat points made in the report. Recommendations are actions the audience should take.

Some companies ask for Conclusions and Recommendations at the beginning of the report.

Conclusions and Recommendations

All of the research that we have done supports the decision to expand into South Korea. The government, economy, and culture criteria all received favorable recommendations for a total of 60%. Market possibilities and competition received half support for an additional 20%. Together, South Korea has earned 80% based on our criteria.

Therefore, we believe that RAC Inc. could profitably expand into South Korea. The Notion Tab is a high-quality product, and it will be easily integrated into this technologically advanced county. In conclusion, we recommend that RAC Inc. should expand into South Korea.

To ensure a successful expansion, JASS LLC recommends the following:

Numbering points makes it easier for the audience to follow and discuss them.

1. **RAC Inc. should establish its headquarters and manufacturing plant in Busan.**
   - Purchase a building to have a place to begin manufacturing the Notion Tab.
   - Educate RAC employees about South Korean culture and business practices before they begin working directly with South Koreans to avoid being disrespectful.
   - Explore hiring South Koreans; the available workforce is large.
   - Ensure that the Notion name is appropriate when translated into Korean. If not, change the name to better market the product.
   - Market and sell the product in both Busan and Seoul.

Make sure all items in a list are parallel.

2. **After one year RAC should determine the acceptance and profitability of the expansion.**
   - Conduct a customer satisfaction survey with people who purchased the Notion Tab living in Seoul and Busan to determine the acceptance of the product.
   - Compare and contrast first-year sales with a competitor's similar product.

3. **If the tablet is competitive and profitable, RAC Inc. should expand its product line into all large cities in South Korea.**
   - To gain an edge on the competition, create a marketing plan that will offer the Notion Tab at some discount in the new cities.
   - Explore integrating other RAC Inc. products into South Korea. These products also could be manufactured at the new manufacturing plant in Busan.

Because many readers turn to the "Recommendations" first, provide enough information so that the reason is clear all by itself. The ideas in this section must be logical extensions of the points made and supported in the body of the report.

(Continued)

Figure 15.12 Segments of a Formal Report *(Concluded)*

Slated for Success 12

References

This report uses APA citation style.

Advameg, Inc. (2018). Culture of South Korea. *Countries and Their Cultures*. Retrieved April 2, 2018, from http://www.everyculture.com/Ja-Ma/South-Korea.html.

AFP. (2010, December 5). U.S., South Korea sign sweeping free-trade agreement. *Taipei Times*. Retrieved from http://www.taipeitimes.com/News/front/archives/2010/12/05/2003490l4.

Central Intelligence Agency. (2018). *The world factbook: South Korea*. Retrieved March 18, 2018, from https://www.cia.gov/library/publications/the-world-factbook/geos/ks.html#.

Grand National Party. (2018, April 1). In *Wikipedia*. Retrieved April 6, 2018, from http://en.wikipedia.org/wiki/Grand_National_Party.

iPad 2 specs. (2011). *OS X Daily*. Retrieved from http://osxdaily.com/2011/03/02/ipad-2-specs.

Koreans love their mobile phones. (2018, January 28). *Korean JoongAng Daily*. Retrieved from http://joongangdaily.joins.com/article/view.asp?aid=2900275.

KRWUS. (2018). *MSN Money*. Retrieved April 10, 2018, from http://investing.money.msn.com/investments/currency-exchange-rates/?symbol=%2fKRWUS.

KT. (2018, April 1). In *Wikipedia*. Retrieved April 2, 2018, from http://en.wikipedia.org/wiki/KT_%28telecommunication_company%29.

Kwintessential. (2018). *South Korea: Language, culture, customers and etiquette*. Retrieved from http://www.kwintessential.co.uk/resources/global-etiquette/south-korea-country-profile.html.

LG Corp. (2018, April 1). In *Wikipedia*. Retrieved April 2, 2018, from http://en.wikipedia.org/wiki/LG.

LG Slate full specifications and product details. (2018, February 2). *Gadgetian*. Retrieved April 3, 2018, from http://gadgetian.com/7069/lg-g-slate-t-mobile-specs-price/.

LG Telecom. (2017, November 29). In *Wikipedia*. Retrieved April 2, 2018, from http://en.wikipedia.org/wiki/LG_Telecom.

Life in Korea. (n.d.). *Cultural spotlight*. Retrieved March 31, 2018, from http://www.lifeinkorea.com/Culture/spotlight.cfm.

Compare this list of sources with those in the proposal. Notice how the authors had to adjust the list as they completed research.

List all the printed and online sources cited in your report. Do not list sources you used for background but did not cite.

Sources for this report continue onto a second page.

If the report is prepared primarily by one person, the "Prepared by" section will have that person's name, his or her title, the organization, and its location (city, state, and zip code). In internal reports, the organization and location are usually omitted if the report writer works at the headquarters office.

Government reports normally list the names of all people who wrote the report, using a separate sheet of paper if the group working on the report is large. Practices in business differ. In some organizations, all the names are listed; in others, the division to which they belong is listed; in still others, the name of the chair of the group appears.

The **release date,** the date the report will be released to the public, is usually the date the report is scheduled for discussion by the decision makers. The report is frequently due four to six weeks before the release date so that the decision makers can review the report before the meeting.

If you have the facilities and the time, try using type variations, color, and artwork to create a visually attractive and impressive title page. However, a plain typed page is acceptable. The format in Figure 15.12 will enable you to create an acceptable typed title page.

Letter or Memo of Transmittal

Use a letter of transmittal if you are not a regular employee of the organization for which you prepare the report; use a memo if you are a regular employee.

The transmittal has several purposes: to transmit the report, to orient the reader to the report, and to build a good image of the report and of the writer. An informal writing style is appropriate for a transmittal even when the style in the report is more formal. A professional transmittal helps you create a good image of yourself and enhances your credibility. Personal statements are appropriate in the transmittal, even though they would not be acceptable in the report itself.

Organize the transmittal in this way:

1. **Transmit the report.** Tell when and by whom it was authorized and the purpose it was to fulfill.
2. **Summarize your conclusions and recommendations.** If the recommendations will be easy for the audience to accept, put them early in the transmittal. If they will be difficult, summarize the findings and conclusions before the recommendations.
3. **Mention any points of special interest in the report. Show how you surmounted minor problems you encountered in your investigation. Thank people who helped you.** These optional items can build goodwill and enhance your credibility.
4. **Point out additional research that is necessary, if any.** Sometimes your recommendation cannot be implemented until further work is done. If you'd be interested in doing that research or if you'd like to implement the recommendations, say so.
5. **Thank the audience for the opportunity to do the work and offer to answer questions.** Provide contact information. Even if the report has not been fun to do, expressing satisfaction in doing the project is expected. Saying that you'll answer questions about the report is a way of saying that you won't charge the audience your normal hourly fee to answer questions (one more reason to make the report clear!).

The letter of transmittal on page i of Figure 15.12 uses this pattern of organization.

Table of Contents

In the table of contents, list the headings exactly as they appear in the body of the report. If the report is fewer than 25 pages, you'll probably list all the levels of headings. In a long report, pick a level and put all the headings at that level and above in the table of contents.

Some software programs, such as Microsoft Word, offer features that automatically generate a table of contents (and a list of illustrations) if you apply the style feature when you generate headings.

Page ii of Figure 15.12 shows the table of contents.

List of Illustrations

A list of illustrations enables audiences to refer to your visuals.

Report visuals comprise both tables and figures. *Tables* are words or numbers arranged in rows and columns. *Figures* are everything else: bar graphs, pie charts, flow charts, maps, drawings, photographs, computer printouts, and so on. Tables and figures may be numbered independently, so you may have both a Table 1 and a Figure 1. In a report with just two kinds of visuals, such as maps and graphs, the visuals are sometimes called Map 1 and Graph 1. Whatever you call the illustrations, list them in the order in which they appear in the report; give the name of each visual as well as its number.

See Chapter 13 for information about how to design and label visuals and data displays.

Executive Summary

An **executive summary** or **abstract** tells the audience what the document is about. It summarizes the recommendation of the report and the reasons for the recommendation or describes the topics the report discusses and indicates the depth of the discussion. A good executive summary should be concise but also should clearly describe the most important elements of the report for the audience who will read only this section of the report.

Abstracts generally use a more formal style than other forms of business writing. Avoid contractions and colloquialisms. Try to avoid using the second-person *you*. Because reports may have many different audiences, *you* may become inaccurate. It's acceptable to use exactly the same words in the abstract and the report.

Summary abstracts present the logic skeleton of the report: the thesis or recommendation and its proof. Use a summary abstract to give the most useful information in the shortest space.

> To market life insurance to mid-40s urban professionals, Interstate Fidelity Insurance should advertise in upscale publications and use direct mail.
>
> Network TV and radio are not cost-efficient for reaching this market. This group comprises a small percentage of the prime-time network TV audience and a minority of most radio station listeners. They tend to discard newspapers and general-interest magazines quickly, but many of them keep upscale periodicals for months or years. Magazines with high percentages of readers in this group include *Architectural Digest, Bon Appetit, Forbes, Golf Digest, Metropolitan Home, Southern Living,* and *Smithsonian.*
>
> Any advertising campaign needs to overcome this group's feeling that they already have the insurance they need. One way to do this would be to encourage them to check the coverage their employers provide and to calculate the cost of their children's expenses through college graduation. Insurance plans that provide savings and tax benefits as well as death benefits also might be appealing.

One way to start composing an abstract is to write a sentence outline. A **sentence outline** not only uses complete sentences rather than words or phrases, but also contains the thesis sentence or recommendation and the evidence that proves that point. Combine the sentences into paragraphs, adding transitions if necessary, and you'll have your abstract.

Descriptive abstracts indicate what topics the report covers and how deeply it goes into each topic, but they do not summarize what the report says about each topic. Phrases that describe the report ("this report covers," "it includes," "it summarizes," "it concludes") are marks of a descriptive abstract. An additional mark of a descriptive abstract is that the audience can't tell what the report says about the topics it covers.

This report recommends ways Interstate Fidelity Insurance could market insurance to mid-40s urban professionals. It examines demographic and psychographic profiles of the target market. Survey results are used to show attitudes toward insurance. The report suggests some appeals that might be successful with this market.

Introduction

The **introduction** of the report always contains a statement of purpose and scope and may include all the parts in the following list:

- **Purpose.** The purpose statement identifies the problem the report addresses, the technical investigations it summarizes, and the rhetorical purpose (to explain, to recommend).
- **Scope.** The scope statement identifies how broad an area the report surveys. For example, Company XYZ is losing money on its line of computers. Does the report investigate the quality of the computers? The advertising campaign? The cost of manufacturing? The demand for computers? A scope statement allows the reader to evaluate the report on appropriate grounds.
- **Assumptions.** Assumptions in a report are like assumptions in geometry: statements whose truth you assume and that you use to prove your final point. If they are wrong, the conclusion will be wrong too.

  For example, to plan cars that will be built five years from now, an automobile manufacturer commissions a report on young adults' attitudes toward cars. The recommendations would be based on assumptions both about gas prices and about the economy. If gas prices radically rose or fell, the kinds of cars young adults wanted would change. If there were a major recession, people wouldn't be able to buy new cars.

  Almost all reports require assumptions. A good report spells out its assumptions so that audiences can make decisions more confidently.
- **Methods.** If you conducted surveys, focus groups, or interviews, you need to tell how you chose your subjects and how, when, and where they were interviewed. If the discussion of your methodology is more than a paragraph or two, you should probably make it a separate section in the body of the report rather than including it in the introduction. Reports based on scientific experiments usually put the methods section in the body of the report, not in the introduction.

  If your report is based solely on library or online research, provide a brief description of significant sources.
- **Limitations.** Limitations make your recommendations less valid or valid only under certain conditions. Limitations usually arise because time or money constraints haven't permitted full research. For example, a campus pizza restaurant considering expanding its menu may ask for a report but not have enough money to take a random sample of students and townspeople. Without a random sample, the writer cannot generalize from the sample to the larger population.

  Many recommendations are valid only for a limited time. For instance, a campus store wants to know what kinds of clothing will appeal to college men. The recommendations will remain valid for only a short time: two years from now, styles and tastes may have changed, and the clothes that would sell best now may no longer be in demand.
- **Criteria.** The criteria section outlines the factors or standards that you are considering and the relative importance of each. If a company is choosing a city for a new office, is the cost of office space more or less important than the availability of skilled workers? Check with your audience before you write the draft to make sure that your criteria match those of your audiences.
- **Definitions.** Many reports define key terms in the introduction. For instance, a report on unauthorized Internet use by employees might define what is meant by "unauthorized use."

A report on the corporate dress code might define such codes broadly to include general appearance, so it could include items such as tattoos, facial piercings, and general cleanliness. Also, if you know that some members of your primary or secondary audience will not understand technical terms, define them. If you have only a few definitions, you can put them in the introduction. If you have many terms to define, put a **glossary** in an appendix. Refer to it in the introduction so that audiences know that you've provided it.

Background or History

Formal reports usually have a section that gives the background of the situation or the history of the problem. Even though the current audience for the report probably knows the situation, reports are filed and consulted years later. These later audiences will probably not know the background, although it may be crucial for understanding the options that are possible.

In some cases, the history section may cover many years. For example, a report recommending that a U.S. hotel chain open hotels in Romania may give the history of that country for at least several decades. In other cases, the background section is much briefer, covering only a few years or even just the immediate situation.

The purpose of most reports is rarely to provide a history of the problem. Do not let the background section achieve undue length.

Body

The body of the report is usually its longest section. Analyze causes of the problem and offer possible solutions. Present your argument with all its evidence and data. Data that are necessary to follow the argument are included with appropriate visuals, data displays, and explanatory text. Extended data sets, such as large tables and long questionnaires, are generally placed in appendices. It is particularly important in the body that you use headings to help your audience navigate your material. Remember to cite your sources and to refer in the text to all visuals and appendices.

Conclusions and Recommendations

Conclusions summarize points you have made in the body of the report; **recommendations** are action items that would solve or ameliorate the problem. These sections are often combined if they are short: "Conclusions and Recommendations." No new information should be included in this section.

Many audiences turn to the recommendations section first; some organizations ask that recommendations be presented early in the report. Number the recommendations to make it easy for people to discuss them. If the recommendations will seem difficult or controversial, give a brief paragraph of rationale after each recommendation. If they'll be easy for the audience to accept, you can simply list them without comments or reasons. The recommendations also will be in the executive summary and perhaps in the title and the transmittal.

Appendices

Appendices provide additional materials that the careful audience may want. Common items are transcripts of interviews, copies of questionnaires, tallies of answers to questions, complex tables, printouts of original or difficult-to-find source material, and previous reports.

Summary by Learning Objectives

LO 15-1 Recognize varieties of reports.

- Information reports collect data for the reader.
- Analytical reports present and interpret data.
- Recommendation reports recommend action or a solution.

LO 15-2 Define report problems.

- A good report problem in business meets the following criteria:
  - The problem is real, important enough to be worth solving, and narrow but challenging.
  - The audience for the report is real and able to implement the recommended action.
  - The data, evidence, and facts are sufficient to document the severity of the problem, sufficient to prove that the recommendation will solve the problem, available to *you,* and comprehensible to *you.*
- A good purpose statement must make three things clear:
  - The organizational problem or conflict.
  - The specific technical questions that must be answered to solve the problem.
  - The rhetorical purpose (to explain, to recommend, to request, to propose) that the report is designed to achieve.

LO 15-3 Employ various research strategies.

- Use indexes and directories to find information about a specific company or topic.
- To decide whether to use a website as a source in a research project, evaluate the site's authors, objectivity, information, audience, and revision date.
- A survey questions a large group of people, called respondents or subjects. A questionnaire is a written list of questions that people fill out. An interview is a structured conversation with someone who will be able to give you useful information.
- Because surveys can be used to show almost anything, people need to be careful when analyzing the results of surveys or designing their own. These are questions commonly asked about surveys:
  - Who did the survey and who paid for it?
  - How many people were surveyed and how were they chosen?
  - How was the survey conducted?
  - What was the response rate?
  - What questions were asked?
- Good questions ask just one thing, are phrased neutrally, avoid making assumptions about the respondent, and mean the same thing to different people.
- A convenience sample is a group of subjects who are easy to get. A judgment sample is a group of people whose views seem useful. In a random sample, each object in the population theoretically has an equal chance of being chosen. A sample is random only if a formal, approved random sampling method is used. Otherwise, unconscious bias can exist.
- Qualitative research also may use interviews, focus groups, online networks, and technology.

LO 15-4 Choose information for reports.

- Choose information to include that your audience needs to know to make a decision. Figuring out whether your audience is supportive, neutral, or skeptical will guide you on how much information you need to include.
- Determine what information to put in the body of the report or in appendices.

LO 15-5 Organize reports.

Choose an appropriate organizational pattern for your information and purposes. The most common patterns are comparison/contrast; problem–solution; elimination of alternatives; SWOT analysis; general to particular, particular to general; geographic or spatial; functional; and chronological.

LO 15-6 Present information effectively in reports.

Reports use the same style as other business documents, with three exceptions:

1. Reports use a more formal style, without contractions or slang, than do many letters and memos.
2. Reports rarely use the word *you.*
3. Reports should include all the definitions and documents needed to understand the recommendations.

Headings are single words, short phrases, or complete sentences that describe all of the material under them until the next heading. Talking heads tell the audience what to expect in each section.

Headings must use the same grammatical structure. Subheads under a heading must be parallel to each other but do not necessarily have to be parallel to subheads under other headings.

LO 15-7 Document sources correctly.

- Citation means attributing an idea or fact to its source in the body of the report.