Communication Tools

PART A

Part A of the Systems Analyst's Toolkit discusses communication tools that can help the analyst write clearly, speak effectively, and deliver powerful presentations. A successful systems analyst must have good written and oral communication skills to perform his or her job effectively. Never underestimate the importance of effective communication, whether you are using a memo, email, an oral presentation, or a social networking site to convey your ideas. The following guidelines will help you prepare and deliver effective presentations. Remember, however, that nothing increases your ability to communicate better than practicing these skills.

LEARNING OBJECTIVES

When you finish this part of the Toolkit, you should be able to:

1. Apply successful communication strategies
2. Follow guidelines for effective written communications
3. Follow guidelines for effective oral communications
4. Deliver successful presentations
5. Manage and strengthen your communication skills

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A.1 SUCCESSFUL COMMUNICATION STRATEGIES

Successful communication does not just happen. Usually, it is the result of a specific strategy that includes careful planning, hard work, and practice. To be a successful communicator, you must consider five related questions about yourself, your audience, and your objectives: why, who, what, when, and how. You also must consider the cultural context of your communication. Above all, you must know your subject and have confidence in yourself.

A.1.1 Why, Who, What, When, and How

The **why, who, what, when, and how of communications** are important questions that you must answer before you communicate. These five questions are described in the following section.

WHY: Know *why* you are communicating and what you want to accomplish. Ask yourself the question, "Is this communication necessary, and what specific results am I seeking?" Your entire communication strategy depends on the results that you need.

WHO: Know *who* your targets are. Chapter 1 described how information needs of users depend on their organizational and knowledge levels. When communicating with management, for example, sometimes a fine line exists between saying enough and saying too much. Each situation is different, so you must use good judgment and be alert for input from your audience.

WHAT: Know *what* is expected of you and when to go into detail. This is directly related to knowing who your targets are and the organizational and knowledge levels of your audience. For example, a vice president might expect less detail and more focus on how a project supports the company's strategic business goals. You must design your communications just as carefully as your systems project. For example, will the recipients expect you to address a specific issue or topic? Will they expect cost estimates or charts? Design your communications based on the answers to those questions.

WHEN: Know *when* to speak and *when* to remain silent and let others continue the discussion. To be an effective speaker, you must be a good listener—and use audience feedback to adjust your presentation. Good timing is an essential part of every presentation. Your delivery must be paced properly—too fast and you will lose your audience; too slow and they might become bored.

HOW: Know *how* to communicate effectively. You can strengthen your communication skills by using Toolkit suggestions, reflecting upon your own experiences, and observing successful and unsuccessful techniques used by others.

A.1.2 Cultural Context

Communication strategy is affected by the cultural context in which the communication takes place, as shown in Figure A-1. Cultural factors can include geography, background, educational level, and societal differences, among others. These differences must be considered when asking and answering the *why*, *who*, *what*, *when*, and *how* questions.

In addition to these factors, you learned in Chapter 1 that corporate culture is very important. A corporate culture includes the beliefs, rules, traditions, values, and attitudes that define a company and influence its way of doing business. To be successful, a systems analyst must understand, and work within, this culture. For example, if you speak to a group in a company that encourages a highly participative style, you might want to solicit feedback, invite audience comments, or conduct a poll during your presentation. Similarly, if the organization or group is very formal, or very informal, you might want to adjust your style accordingly.
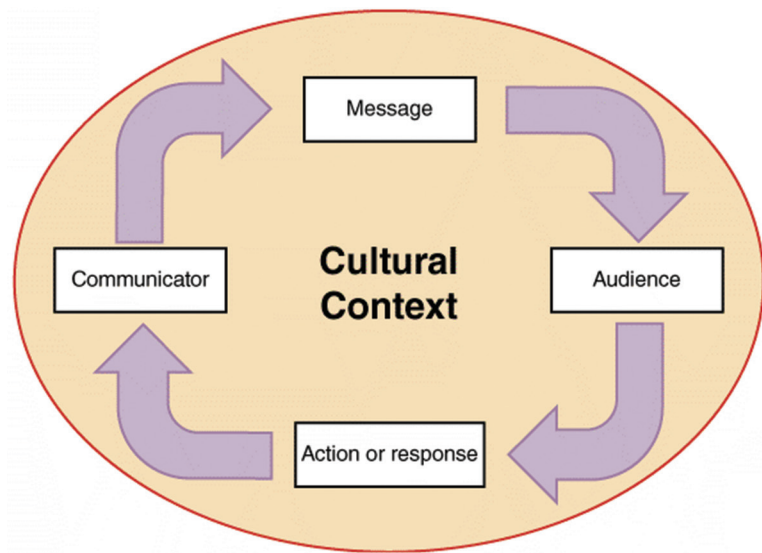

FIGURE A-1 Every communication takes place within an overall cultural context.

A.1.3 Know Your Subject

No matter how well you plan your communication, you must know your subject inside and out. Your credibility and effectiveness will depend on whether others believe you and support your views. No one can know everything, so it is important to adopt a specific preparation strategy. For example, before a presentation, consider what others expect you to know and what questions they will ask. No matter how well you prepare, however, you will not have an answer for every question. Remember that it is better to say, "I don't know, but I'll find out and get back to you," rather than to guess.

A.2 WRITTEN COMMUNICATIONS

Good writing is important because others often judge you by your writing. If you make a mistake while speaking, your audience probably will forget it. Your written errors, however, might stay around for a long time. Grammatical, typographical, and spelling errors distract readers from your message. Your written communications will include email messages, memos, letters, workgroup communications, and formal reports.

A.2.1 Writing Style

If you have not taken a writing course, you should consider doing so. If you have a choice of courses, select one that focuses on business writing or technical writing. Any writing class, however, is worth the effort. Most bookstores and libraries have excellent books on effective communications, and many Internet sites offer writing guidelines, tips, and grammar rules. As you prepare written documents, keep in mind the following suggestions:

1. Know your audience. If you are writing for nontechnical readers, use terms that readers will understand.

2. Use the active voice whenever appropriate. For example, the active voice sentence "Tom designed the system" is more engaging than "The system was designed by Tom," which is an example of the passive voice. However, passive voice is sometimes used in academic writing and formal publications.

3. Keep your writing clear, concise, and well organized. Each paragraph should present a single topic or idea.

4. Use an appropriate style. For example, use a conversational tone in informal documents and a business tone in formal documents.

5. Use lists. If a topic has many subtopics, a list can organize the material and make it easier to understand.

6. Use short, easy-to-understand words. Your objective is not to impress your audience with the size of your vocabulary.

7. Avoid repeating the same word too often. Use a thesaurus to locate synonyms for frequently repeated words. Many word processing programs include a thesaurus and other tools to help you write better.

8. Check your spelling. You can use the spell checker in your word processing program to check your spelling, but remember that a **spell checker** is a tool that identifies only words that do not appear in the program's dictionary. For example, a spell checker will not identify instances when you use the word *their*, instead of the word *there*.

9. Check your grammar. Most word processing programs include a **grammar checker**, which is a tool that can detect usage problems and offer suggestions. When you use a grammar checker, you can set various options to match the level and style of the writing and to highlight or ignore certain types of usage. For example, you can set the grammar checker in Microsoft Word to check grammar rules only, or you can configure it to check writing style, including gender-specific words, sentence fragments, and passive sentences. For more sophisticated grammar analysis, special-purpose tools, such as Grammarly shown in Figure A-2, can be used.

10. Review your work carefully. Then double-check it for spelling, grammatical, and typographical mistakes. If possible, ask a colleague to proofread your work and suggest improvements.
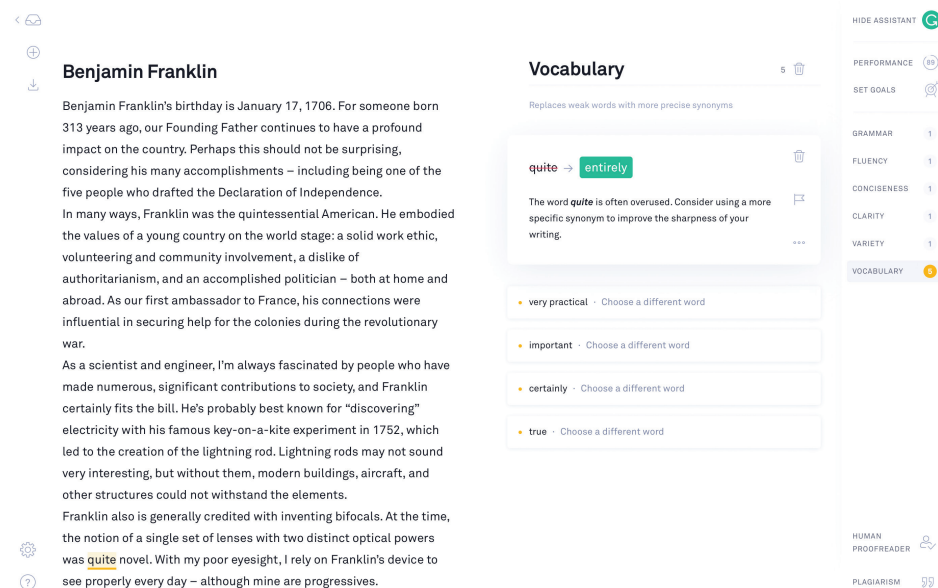

FIGURE A-2 Grammarly is a sophisticated tool for checking grammar that works with Microsoft Office or within a browser.
Source: Grammarly Inc.

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A.2.2 Readability

All writers must consider readability, which analyzes ease of comprehension by measuring specific characteristics of syllables, words, and sentences. Two popular readability measures are the Flesch Reading Ease score and the Flesch-Kincaid Grade Level score. Both scores can be calculated automatically using Microsoft Word, as shown in Figure A-3.

The Flesch Reading Ease score measures the average sentence length and the average number of syllables per word and rates the text on a 100-point scale. With this tool, the higher the score, the easier it is to understand. Microsoft suggests that for most standard documents, you should aim for a score of 60–70. This paragraph has a Flesch Reading Ease score of 61.

The Flesch-Kincaid Grade Level score uses the same variables but in a different formula that produces a rating keyed to a U.S. grade-school level. For example, a score of 8.0 would indicate material easily understood by a person at an eighth-grade reading level. With this tool, Microsoft suggests that for most standard documents, you should aim for a score of 7.0 to 8.0.
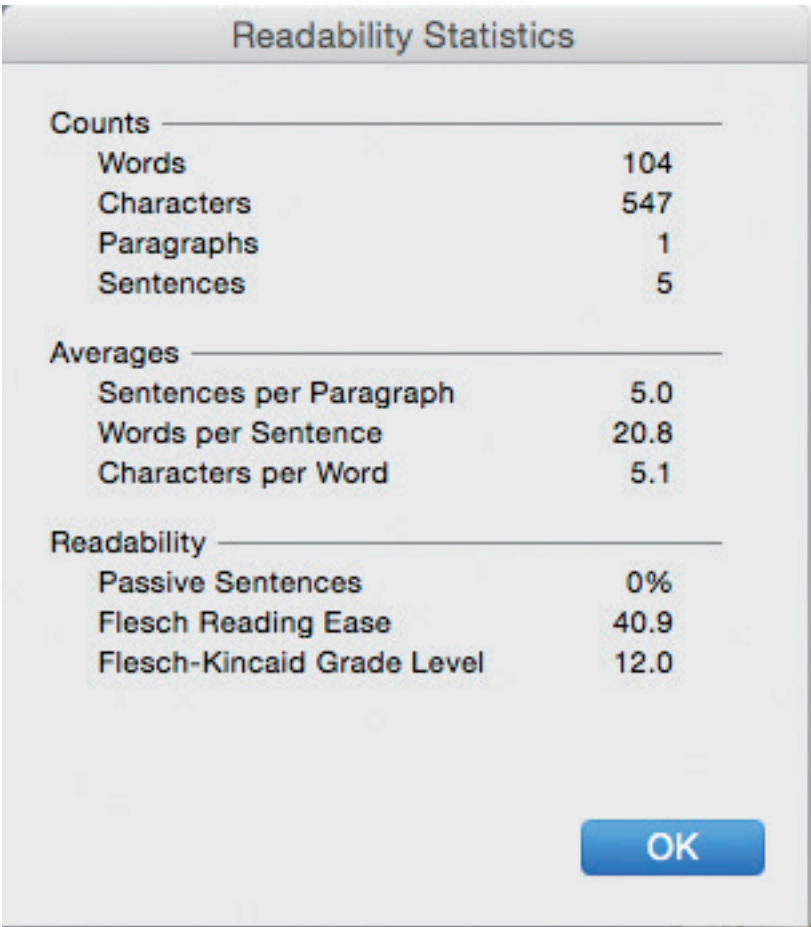

Readability Statistics

Counts	
Words	104
Characters	547
Paragraphs	1
Sentences	5

Averages	
Sentences per Paragraph	5.0
Words per Sentence	20.8
Characters per Word	5.1

Readability	
Passive Sentences	0%
Flesch Reading Ease	40.9
Flesch-Kincaid Grade Level	12.0

FIGURE A-3 Two popular readability measurement tools are the Flesch Reading Ease score and the Flesch-Kincaid Grade Level score.
Source: Microsoft Word

A.2.3 Email, Memos, and Letters

Because email will be your primary tool for written communication, it is important to use it properly and effectively. Email usually is less formal than other written correspondence, but you still must follow the rules of good grammar, correct spelling, and clear writing.

Although many authors use a more conversational style for email, you should remember that email messages often are forwarded to other recipients or groups, and so you must consider the users to whom it might be distributed. If you regularly exchange messages with a specific group of users, most email programs allow you to create a distribution list that includes the members and their email addresses. Now that email has become the standard method of business communication, it is important that all users know how to use email properly, professionally, and courteously. This topic is discussed in the following section.

Although email is the main form of internal communication, internal memos and announcements still are important, and external communications often require letters printed on company letterhead. Most companies use a standard format, or template, for internal memos and external letters. If your company stores those on a network, you can download and use the templates. If you want to create your own designs, you

can use a word processor to create templates with specific layouts, fonts, and margin settings. A template gives your work a consistent look and makes your job easier. Most word processing programs also provide a feature that allows you to design your memos as forms and fill in the blanks as you work.

A.2.4 Social Media at Work

Social media is seeing explosive growth, which is certain to continue. This section focuses on just one aspect of this trend: social media in the office. It would be difficult to cite a communication method with greater potential benefits—and dangers—than the volatile mix of social networking and modern business settings. Many employees use social networking to advance their careers. Unfortunately, others have been reprimanded or worse for saying too much, or to the wrong people, or at the wrong time. An IT professional should consider the following issues:

THE BACKDROP: Corporations are racing to embrace social media in their marketing plans. They have learned that they can create excitement, call attention to their products, and reach out to a young, active, socially aware market. In the corporate world, social media-driven event marketing has become a specialty unto itself. These trends are healthy, from an IT viewpoint, because they demonstrate that technology and creativity have an important role in corporate strategy, and that is good news for systems analysts.

ADVANTAGES: IT professionals can use social media to network with others, find out about new technology, meet colleagues, discuss career issues, and maintain an online presence that would have been impossible just a few years ago. A person can gain credibility by sharing information and technical tips, posting how-to videos, or documenting an especially interesting assignment or challenge. However, any one of these activities could also have disastrous consequences.

RISKS: Drivers who are stopped for speeding often say, "I didn't know I was going that fast." Similarly, employees who misuse social media usually plead ignorance. But there is a better way: know the rules, observe the rules, and when in doubt—don't!

Most firms have social media policies that govern workplace behavior. Some prohibit personal communications on company time or with company resources. Others use a case-by-case approach. Rather than guess at your company's policy, you should find out exactly what is the policy and make sure you understand it clearly.

THREE WAYS TO GET FIRED: You must be absolutely sure that your message content is appropriate and in no way violates your company's confidentiality policy. One way to get fired quickly is to brag about a new marketing strategy before it has been publicly announced. Another way is to be somewhere or do something that might degrade your company's image, especially if your employer can be identified by your nametag, uniform, or location. Perhaps the quickest way to get fired is to launch an angry verbal attack on your fellow employees or managers.

OTHER ISSUES: You should use a "need to know" approach, so you direct your messages to those who have a legitimate interest and are people you trust. Avoid blanket messaging and broadcasting. Also think about whether the content is appropriate for the site you are using. For example, a funny joke might be out of place on LinkedIn but okay on Twitter. Your minute-to-minute experience at a rock concert might interest some people, but you might not want to send it to your entire contact list or your followers.

The bottom line is that social networking, instant messaging, and cell-phone texting are popular because they allow informal, interactive, and immediate communication. While these can be valuable collaboration tools, users should exercise good judgment and common sense, just as they would in any form of interpersonal contact. No one will remember all your excellent messages. They will, however, never forget the inappropriate ones.

A.2.5 Netiquette

Netiquette combines the words *Internet* and *etiquette*. With the explosive growth of social networking, netiquette is more important than ever. If you follow the guidelines in the preceding section, you can avoid major problems. But you should set your sights higher than that. An IT professional should have strong communication skills and use good manners, proper style, and lots of common sense. Dale Carnegie, a famous educator and authority on interpersonal relations, said many years ago that others evaluate us based on "what we do, how we look, what we say, and how we say it."

All email users should be aware of some simple rules, most of which are nothing more than good manners and common sense. For example, an excellent starting point is to avoid sending material that is personal or confidential, because your messages might be forwarded by others and distributed more widely than you intended. Another important rule is never to send or reply to an email when you are tired or upset. Instead, you can write a draft if you want to but save the unsent message so you can review it later.

Here are some common rules and tips:

- Always fill in the subject field with a brief description of the contents.

- Be brief—in most cases, less is more.

- Be professional. Remember, if it has your name on it, it reflects on you personally and that often is how people will view your messages.

- Be sure to check your spelling.

- Don't forward jokes or chain letters without the permission of the recipient.

- Don't overuse humor or sarcasm that might work in a face-to-face situation but not in an email context.

- Don't type in all caps—it is like YELLING! It is also hard to read.

- Don't use colored fonts, background, or images in business email messages.

- Don't use the return receipt request feature unless there is a valid business reason to do so.

- If you have large attachment files, try to zip or compress them before sending or use a file delivery service that uses cloud storage.

- If you send a message to a group of people, especially if they don't know each other, use a blind carbon copy (Bcc) for all of the recipients in order to shield the addresses from the entire group.

- Never give out personal contact information of others without their specific permission to do so.

- Never include personal information unless you are 100% sure of your recipient and no other means of communication would provide better privacy and security.

- Remember that there are copyright laws. You do not have an unrestricted right to do whatever you please with someone else's email message to you. Laws against discrimination and defamation can also apply to email messages.
- When replying, don't include all the earlier messages unless there is a reason to do so.

In addition to these guidelines, it is important to follow company policy regarding communications at work. Many firms restrict personal communications that involve company time or equipment, and courts have upheld an employer's right to limit or monitor such communications.

A.2.6 Workgroup Software

Many companies use workgroup software, often called groupware, because it enhances employee productivity and teamwork. In addition to basic email, workgroup software enables users to manage and share their calendars, task lists, schedules, contact lists, and documents.

Google Docs offers free, cloud-based collaboration. Using this application, a team can work on centrally stored documents instead of emailing drafts back and forth. Teams also can use powerful multi-authoring software, such as Adobe Acrobat, to add revisions, notes, and comments to PDF documents.

For more immediate communication, tools such as Slack are commonly used to help people collaborate independent of their physical location.

A.2.7 Reports

You must prepare many reports during systems development, including the preliminary investigation report, the system requirements document at the end of the systems analysis phase, the system design specification at the end of the system design phase, and the final report to management when the system goes into operation. You also might submit other reports, such as status reports, activity reports, proposals, and departmental business plans. You will create your reports as electronic documents, so you can attach them to emails.

When you create a report that will be delivered electronically, you should use the same high standards that apply to traditional printed materials. Notice that Microsoft Word provides many premade templates that you might be able to use for your report. Once you create a Word document, it is simple to transform it in to Adobe PDF format. The PDF format offers several advantages. For example, PDF files are

- *Flexible.* You can work with pages as modules, and combine or extract them to create custom versions of your documents.
- *Compatible.* The PDF format travels well, and can be used and interchanged among virtually all devices, operating systems, applications, and hardware platforms.
- *Secure.* Unlike Microsoft Word, a PDF document can't readily be changed without leaving some trace, and the PDF format does not permit executable code, such as macros, to be embedded. However, no document is 100% secure. The PDF format might not deter a professional thief or intruder, but it can help with day-to-day office security concerns. Also, while the PDF format is not totally immune to malware and virus attacks, it is regarded as more resistant to these threats, compared to Word.

Whether you create the report using Microsoft Word, Adobe Acrobat, or some other program, your work must be professional, well organized, and well written. Experienced systems analysts know that when you put your name on a document, readers will see your work as a reflection of your personal skills and abilities. Also, for better or worse, the document will probably be around for a long time to come. With those thoughts in mind, you might want to review the written communication guidelines that appear elsewhere in this Toolkit.

Although most reports are delivered electronically, in some cases you must prepare printed versions. For example, suppose you had to submit a written system requirements document. You probably would create various sections, including an introduction, an executive summary, findings, recommendations, time and cost estimates, expected benefits, and an appendix containing relevant data.

INTRODUCTION: The introduction usually includes a title page, table of contents, and brief description of the proposal. The title page should be clean and neat and contain the name of the proposal, the subject, the date, and the names of the development team members. If the project already has a recognized name or acronym, you should use it. Also, you can include a table of contents when the report is long or includes many exhibits. Many word processing programs include a tool that can generate a table of contents automatically.

EXECUTIVE SUMMARY: The executive summary is used to summarize the entire project, including your recommendations, in several paragraphs. Generally, the executive summary should not exceed 250 words or one page.

FINDINGS: Use the findings section to describe the major conclusions that you or the team reached during the systems analysis phase. You can make the findings section detailed or summarized, depending on the project. You must explain the logical design of the new system in a way that nontechnical managers can understand clearly. With a management audience, the most important task is to explain how the proposed system supports the company's business needs.

RECOMMENDATIONS: The recommendations section presents the best system alternative, with a brief explanation that should mention economic, technical, operational, and schedule feasibility.

COSTS AND BENEFITS: In the costs and benefits section, you should list the advantages, disadvantages, costs, and benefits of each major system alternative. You should include a clear description of the financial analysis techniques you used. You might want to apply one or more of the financial analysis tools described in Part C of the Systems Analyst's Toolkit. You can use tables or graphs to support and clarify your alternatives when necessary.

APPENDIX: When you have a large number of supporting documents, such as questionnaires or sampling results, you should put those items in an appendix located at the end of the document. Make sure you include only relevant information and provide references for interested readers.

A.3 ORAL COMMUNICATIONS

An oral presentation is required at the end of the preliminary investigation and again at the conclusion of the systems analysis phase. You might need to give more than one presentation in some situations to present technical material to members of the

IT department or to present an overview for top managers. When preparing an oral presentation, you should perform six important tasks: Define the audience, define the objectives for your presentation, organize the presentation, define any technical terms you will use, prepare your presentation aids, and practice your delivery.

A.3.1 Define the Audience

Before you develop a detailed plan for a management presentation, you must define the audience. Senior managers often prefer an executive summary rather than a detailed presentation, but that is not always the case, especially in smaller companies where top management is more involved in day-to-day activities. If you consider the expectations of your audience and design your presentation accordingly, you will improve your chances of success.

A.3.2 Define the Objectives

When you communicate, you should focus on your objectives. For example, in the management presentation for the systems analysis phase, your goals are the following:

- Inform management of the status of the current system.
- Describe your findings concerning the current system problems.
- Explain the alternative solutions that you developed.
- Provide detailed cost and time estimates for the alternative solutions.
- Recommend the best alternative and explain the reasons for your selection.

A.3.3 Organize the Presentation

Plan your presentation in three stages: the introduction, the information, and the summary. First, you should introduce yourself and describe your objectives. During the presentation, make sure that you discuss topics in a logical order. You should be as specific as possible when presenting facts—your listeners want to hear your views about what is wrong, how it can be fixed, how much it will cost, and when the objectives can be accomplished. In your summary, briefly review the main points, and then ask for questions.

A.3.4 Prepare Presentation Aids

Much of what people learn is acquired visually, so you should use helpful, appropriate visual aids to help the audience follow the logic of your presentation and hold their attention. Visual aids also can direct audience attention away from you, which is helpful if you are nervous when you give the presentation. You can use a visual aid with an outline of topics that will help you stay on track. You can enhance the effect of your presentation with visual aids that use various media and software, as explained in the following sections.

VISUAL AIDS: Visual aids can help you display a graphical summary of performance trends, a series of cost-benefit examples, or a bulleted list of important points. You can use whiteboards, flip charts, overhead transparencies, slides, films, and videotapes to enhance your presentation. When preparing your visual aids, make sure that the content is clear, readable, and easy to understand. Verify ahead of time that the audience can see the visual material from anywhere in the room. Remember that equipment can fail unexpectedly, so be prepared with an alternate plan.

PRESENTATION SOFTWARE: With a computer and a projection system, you can use presentation software, such as Apple Keynote or Microsoft PowerPoint, to create a multimedia slide show. As shown in Figure A-4, Apple offers many tips and techniques that can improve your Keynote presentations.
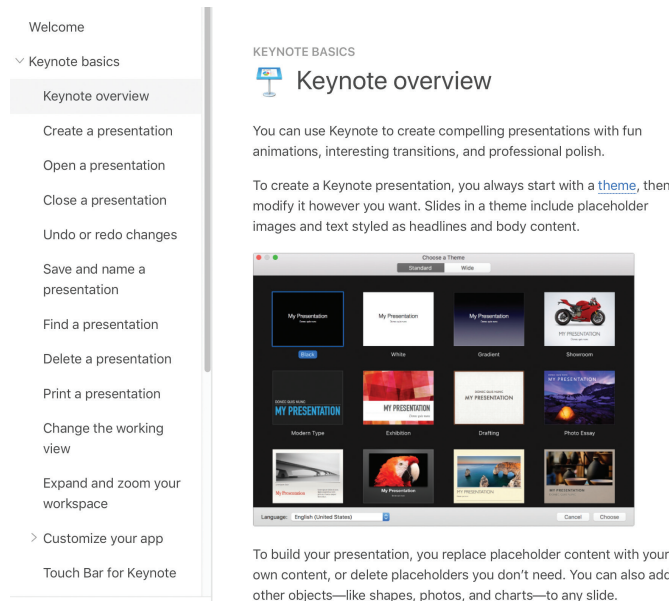

FIGURE A-4 Apple Keynote is an example of powerful presentation software.
Source: Apple Inc.

Preparing an effective slide presentation requires time and effort, and personal experience is the best teacher. There is no universal agreement about how to prepare a slide show, and many sources of information exist. Some overall guidelines include the following:

- Your first step (and perhaps the most important) is to prepare an overall outline that will be the foundation of your presentation. You should focus on the content and structure of your presentation before you consider visual issues.

- There's a fine line between providing too little information and too much.

- Display one topic per slide, and try to follow the rule often called the 7 by 7 rule: no more than seven items per slide, and no more than seven words per item. Some presenters believe that a 6 by 6 rule is even more effective.

- When displaying a list of items, consider using a series of slides to add each point sequentially, especially if you want to focus attention on the item being discussed.

- Use bullets rather than numbers, unless you are showing a specific sequence or order.

- Choose easily readable fonts. Use sans serif styles, such as Arial, for all body text. If you do use a serif style (e.g., Times Roman), apply it only in titles.

- Use appropriate point sizes for titles and body text. Your goal is to prepare slides that are readable and visually attractive. Although point size selection depends on individual judgment and experience, for titles, try either 40- or 36-point fonts; for body text, 32- or 24-point fonts usually work well.

- Use special effects and animations judiciously. Too many graphics, colors, sounds, or other special effects will distract your audience.

- You can include tables or graphics, but keep them simple and easy to understand. Also, you can use a special effect, such as boldface, italic, underlining, or a different color, to highlight an important word or phrase.

- Strive for a consistent look and feel among your slides, and position visual elements in the same place on each slide. You should use a master template to ensure uniformity and conform to company-wide standards that might apply, such as a copyright notice, a confidentiality statement, or placement of the company name and logo. Choose colors carefully, and keep them consistent. Usually, light letters on a dark background are easiest to read. Presentation software normally has predefined color palettes that provide background and text colors that ensure readability. Use these palettes as a guideline for selecting colors when possible.

- Be sure to check spelling and grammar.

- During the presentation, do *not* read your slides to the audience; they can read the slides on their own. Your slide presentation is an outline that provides structure and emphasis—it is not the presentation itself.

- It is important to deliver a presentation that can be viewed easily from anywhere in the room. When setting up, consider the size of the room, the number of people attending, the size and location of your visual aids, and the characteristics of any projection equipment you will be using.

A.3.5 Practice

The most important part of your preparation is practice. You should rehearse several times to ensure that the presentation flows smoothly and the timing is correct. Practicing will make you more comfortable and build your confidence.

Do not be tempted to write a script. If you read your presentation, you will be unable to interact with your audience and adjust your content based on their reactions. Instead, prepare an outline of your presentation and practice from the outline. Then, when you deliver the actual presentation, you will not have to struggle to remember the exact words you planned to say, and you will be able to establish a good rapport with your audience.

A.3.6 The Presentation

When you deliver your presentation, remember the following pointers:

SELL YOURSELF AND YOUR CREDIBILITY: As a presenter, you must sell yourself and your credibility. A brilliant presentation will not convince top managers to approve the system if they are not sold on the person who gave the presentation. On the other hand, projects often are approved on the basis of the presenter's knowledge, commitment, and enthusiasm.

Your presentation must show confidence about the subject and your recommendations. You should avoid any conflicts with the people attending the presentation. If you encounter criticism or hostility, remain calm and stay focused on the issues—not the person making the comments. You will have a successful presentation only if you know the material thoroughly, prepare properly, and sell yourself and your credibility.

CONTROL THE PRESENTATION: During the presentation, you must control the discussion, maintain the pace of the presentation, and stay focused on the agenda—especially when answering questions. Although you might be more familiar with the subject material, you should not display a superior attitude toward your listeners. Maintain eye contact with the audience and use some humor, but do not make a joke at someone else's expense.

DEFINE TECHNICAL TERMS: You should avoid specialized or technical terminology whenever possible. If your audience might be unfamiliar with a term that you plan to use, either define the term or find another way to say it so they will understand your material.

ANSWER QUESTIONS APPROPRIATELY: Let your audience know whether you would prefer to take questions as you go along or have a question-and-answer session at the end. Sometimes the questions can be quite difficult. You must listen carefully and respond with a straightforward answer. Try to anticipate the questions your audience will ask so you can prepare your responses ahead of time.

When answering a difficult or confusing question, repeat the question in your own words to make sure that you understand it. For example, you can say, "If I understand your question, you are asking . . ." This will help avoid confusion and give you a moment to think on your feet. To make sure that you gave a clear answer, you can say, "Have I answered your question?" Allow follow-up questions when necessary.

USE EFFECTIVE SPEAKING TECHNIQUES: The delivery of your presentation is just as important as its content. You can strengthen your delivery by speaking clearly and confidently and projecting a relaxed approach. You also must control the pace of your delivery. If you speak too fast, you will lose the audience, and if the pace is too slow, people will lose their concentration and the presentation will not be effective.
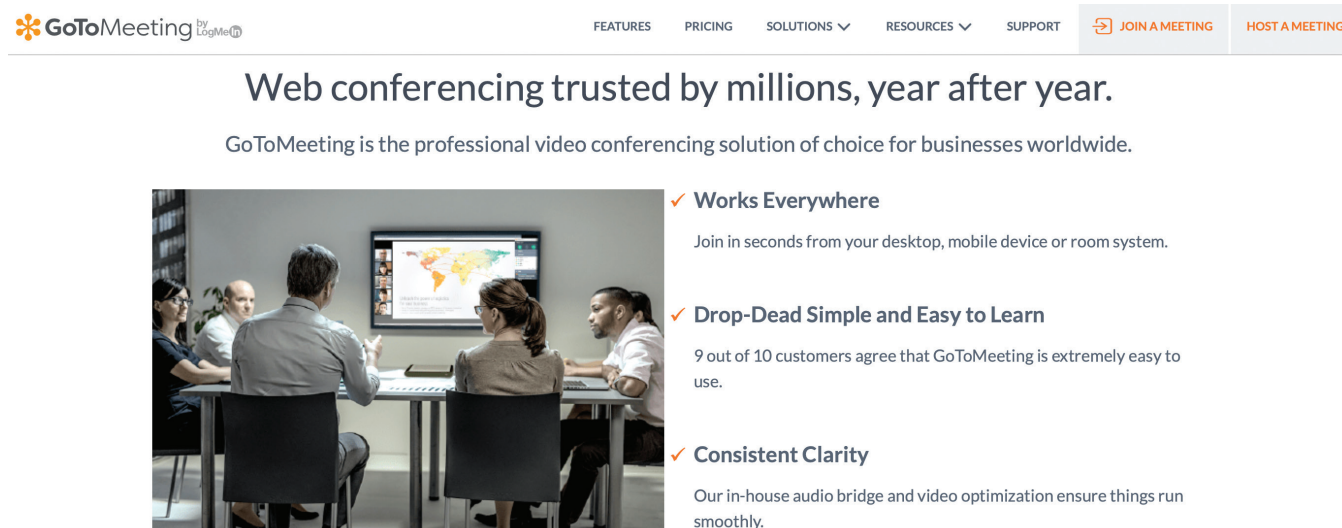
Many speakers are nervous when facing an audience. If this is a problem for you, keep the following suggestions in mind:

- Control your environment. If you are most nervous when the audience is looking at you, use visual aids to direct their attention away from you. If your hands are shaking, do not hold your notes. If you are delivering a computer-based presentation, it is a good idea to use a handheld wireless device to control the slides. Concentrate on using a strong, clear voice. If your nervousness distracts you, take a deep breath and remind yourself that you really do know your subject.

- Turn your nervousness to your advantage. Many people do their best work when they are under a little stress. Think of your nervousness as normal pressure.

- Avoid meaningless filler words and phrases. Using words and phrases such as *okay*, *all right*, *you know*, *like*, *um*, and *ah* are distracting and serve no purpose.

- Practice! Practice! Practice! Some people are naturally gifted speakers, but most people need lots of practice. You must work hard at practicing your presentation and building your confidence. Many schools offer speech or public speaking courses that are an excellent way of practicing your skills. It also can be advantageous to preview your presentation with one or more people and ask for input.

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A.3.7 Online Presentations

In addition to face-to-face meetings, you might have to deliver an online presentation, possibly with two-way communication between you and the audience. Products such as GoToMeeting, shown in Figure A-5, can handle live audio and video and allow you to deliver a fully interactive webinar.

FIGURE A-5 GoToMeeting is a popular tool for holding online meetings and shared presentations.
Source: Gotomeeting

A.4 Managing Your Communication Skills

More than ever, employees must rely on their personal skills and experience. In an uncertain world and a turbulent economy, individuals should think of themselves as profit-making companies, complete with assets, liabilities, strengths, and areas for development. In Chapter 2, you learned that a company must have a strategic plan, and the same is true for an individual. Armed with a plan to improve your communication skills, you are much more likely to reach your full potential.

Communicating is like any other activity—the more you practice, the better you become. Many resources are available for students and IT professionals who want to improve their written and oral communication skills. For example, online learning websites such as Lynda and Udemy offer a wide range of free and for-fee courses that can help you become a better writer, presenter, and public speaker. The Association for Computing Machinery (ACM) also offers many online courses and tutorials for members, including students and IT professionals.

Some people find it difficult to stand in front of a group and deliver a presentation or report. For many years, membership in Toastmasters International has been a popular way to gain confidence, overcome stage fright, and develop public speaking skills. As shown in Figure A-6, Toastmasters offers a friendly environment where members critique each speech in a positive manner, note the strengths, and offer suggestions about what might be improved. This organization offers an excellent way to develop better public speaking skills.
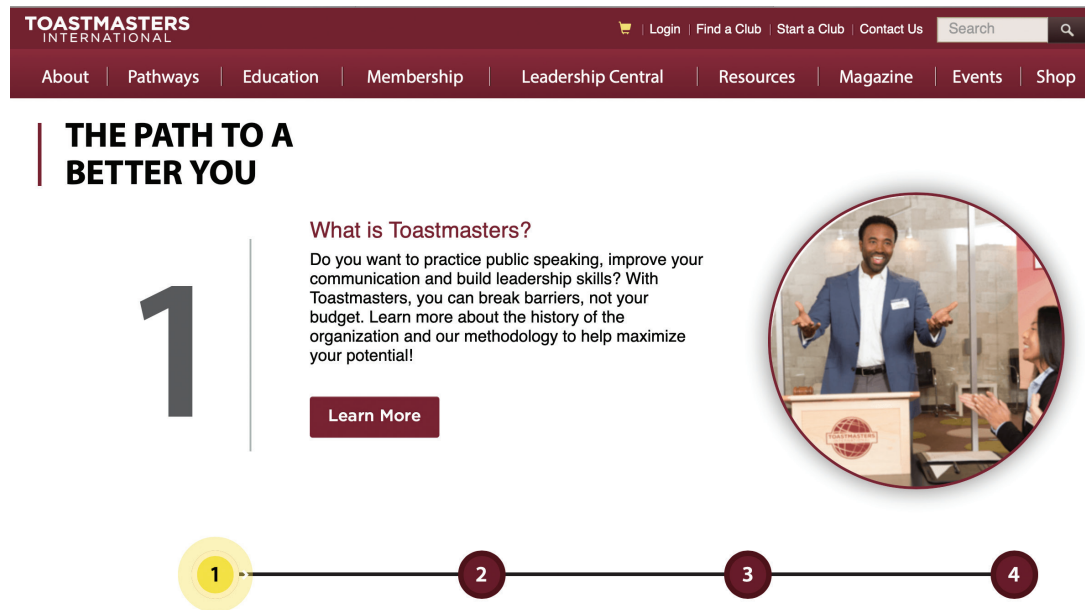
FIGURE A-6 Toastmasters is one of the oldest organizations dedicated to helping individuals become more effective communicators.
Source: Toastmasters International

A.5 SUMMARY

Your success as a systems analyst depends on your ability to communicate effectively. You must know why you are communicating, what you want to accomplish, who your targets are, what is expected of you, and when to go into detail. You must know your subject and how to use good written and oral communications techniques.

You will be judged by your written work, so it must be free of grammatical, spelling, and punctuation errors. You should write email, letters, and memos clearly, and the writing style should match the situation. Many firms have standard formats for letters and memos, and you can use templates to achieve consistency.

Your writing must be clear and understandable. You can use readability measurement tools such as the Flesch Reading Ease score and the Flesch-Kincaid Grade Level score.

Social media is extremely popular because it allows informal, interactive, and immediate communication. While social media can be a valuable collaboration tool, users should exercise good judgment and common sense, just as they would in any form of interpersonal contact. They must understand clearly any workplace policies and rules that affect the use of social media, both on and off the job.

You will prepare various reports during systems development, and the format will vary depending on the nature of the report. Your reports should have a cover memo and might include an introduction, an executive summary, findings, recommendations, time and cost estimates, expected benefits, and a data section.

In addition to written communications, you must communicate effectively in person. You might have to deliver several presentations to different audiences at different times during the SDLC. Presentations are an important form of oral communication, and you should follow specific guidelines in preparing your presentation. You prepare by defining your audience, identifying your objectives,

and organizing the presentation itself. You also need to define technical terms and prepare visual aids to help your audience understand the material. Most important, you must practice your delivery to gain confidence and strengthen your presentation skills. You may also want to deliver your presentation through an online venue.

When you develop slide presentations, you should follow the 6 by 6 rule or 7 by 7 rule and other guidelines that will make your slides easy to read and understand. You should select fonts and point sizes carefully, and strive for a consistent look and feel throughout the presentation. Special effects can be interesting, but do not overuse them.

When you give the presentation, you are selling your ideas and your credibility. You must control the discussion, build a good rapport with the audience, answer all questions clearly and directly, and try to use good speaking techniques. Again, the best way to become a better speaker is to practice.

Every IT professional should have a strategic plan to manage and improve written and oral communication skills. Many online resources offer courses, tutorials, and support to help you develop the skills you will need in the workplace.

Key Terms

6 by 6 rule A presentation guideline no more than six items should be placed on each slide, and each item should have no more than six words.

7 by 7 rule A presentation guideline no more than seven items should be placed on each slide, and each item should have no more than seven words.

active voice Refers to using sentences where the actor is the subject of the sentence. For example, "Tom designed the system" is in active voice. Active voice is preferred in written communication.

corporate culture A set of beliefs, rules, traditions, values, and attitudes that define a company and influence its way of doing business.

Flesch-Kincaid Grade Level score Uses the same variables as the Flesch Reading Ease score but in a different formula that produces a rating keyed to a U.S. grade-school level.

Flesch Reading Ease score Measures the average sentence length and the average number of syllables per word and rates the text on a 100-point scale, with higher ratings being easier to read.

grammar checker A software program that can detect usage problems and offer suggestions.

groupware Software that runs in the cloud or on a company intranet that enables users to share data, collaborate on projects, and work in teams and may offer features in addition to basic email capability, such as calendars, task lists, schedules, contact lists, and document management. Also called workgroup software.

netiquette A term that combines the words *Internet* and *etiquette*. Encompasses web guidelines for protocol and courtesy. In many cases, FAQs describe the netiquette of a given newsgroup or site.

online presentation A presentation delivered to an online audience, usually through a web browser and/or a third-party application such as Cisco's WebEx or Citrix's GoToMeeting.

oral presentation A presentation that is presented orally and is required at the end of the preliminary investigation and again at the conclusion of the systems analysis phase.

passive voice Refers to using sentences with the actor being the direct object. For example, "The system was designed by Tom" is in passive voice. Active voice is preferable to passive voice in written communication.

presentation software Applications used to create slides with sounds, animation, and graphics.

readability A measure of the ease of comprehension by analyzing specific characteristics of syllables, words, and sentences.

spell checker A component of most word processing programs, a spell checker is a tool that identifies words in a document that do not appear in the program's dictionary.

template A standard format for documents, presentations, and other output, with specific layouts, fonts, margin and other formatting settings. Templates are used to give work a consistent look.

visual aids Tools such as whiteboards, flip charts, overhead transparencies, slides, films, and videotapes used to enhance a presentation.

why, who, what, when, and how of communications Good communications must answer these basic questions: Why is one communicating? Who is the target audience? What is expected? When is detail required? How does one communicate effectively?

workgroup software *See* **groupware**.

Exercises

Questions

1. What five questions should you answer before you communicate?
2. What is a corporate culture, and why is it important?
3. Describe five techniques you can use to improve your written documents.
4. What techniques can help email communications? Provide specific examples.
5. When preparing an oral presentation, what six tasks should you perform?
6. When you organize a presentation, what three stages do you plan?
7. Name three strategies to use if you get nervous during a presentation.
8. Why is practice so important when preparing a presentation? Provide a specific example from your own experience.
9. Why should you have a strategic plan to improve your communication skills?
10. What is Toastmasters?

Discussion Topics

1. Describe the culture at a business where you have been employed.
2. Which do you think is more effective in business reports, active or passive voice? Explain why with examples.
3. Based on your own experience, what tends to make a PowerPoint presentation stronger or weaker? Provide specific examples.
4. Many articles stress the importance of body language. Think of examples where you noticed a person's body language. Did it relate to something they were trying to communicate—or something they were trying *not* to communicate?
5. To be a successful communicator, which skill do you think is more important: written communication or oral presentation? Explain why.

Projects

1. Attend a presentation by a colleague at work, or watch a presentation online, and attempt to answer the five communication questions about the presentation: why, who, what, when, and how.
2. *The Elements of Style* by William Strunk, Jr. and E. B. White is a popular reference manual for proper English usage. The book identifies many words and phrases that are commonly misused, including *between* and *among*, *affect* and *effect*, *different from* and *different than*, *like* and *as*, and *infer* and *imply*. Review *The Elements of Style* or another source, and explain how these words should be used.
3. Using Microsoft PowerPoint, Apple Keynote, or another program, prepare a presentation on "How to Prepare an Effective Slide Presentation." Assume that your audience is familiar with presentation software but has no formal training.
4. As a training manual writer, choose a simple hardware or software task and write a two- or three-paragraph description of how to perform the task. Then use your word processing software to check the readability statistics. Try to keep the Flesch Reading Ease score above 60 and the Flesch-Kincaid Grade Level score to 8.0 or less.
5. View at least three examples of public speaking. You can investigate TV network news broadcasts, C-SPAN, or any other source. Describe each speaker's gestures, expressions, voice levels, inflections, timing, eye contact, and effectiveness. Draft a strategic plan to improve the speaker's communication skills.