This report details my experience as a technical communications intern at Vandalay Group Inc. in Cincinnati, Ohio, from April 14, 2003 to July 18, 2003. My responsibilities included serving as a consulting technical editor for various companies, including Procter & Gamble, Delmar, and Thomson Learning. My major project was to heavily edit the second edition of Technical Writing for Success, a textbook that is published by Thomson Learning. I was completely responsible for this project from start to finish.

This report is divided into four chapters:

- **Chapter One**: An introduction that provides background information on Vandalay Group Inc. and my position within the company.

- **Chapter Two**: A brief explanation of the projects I worked on during my internship.

- **Chapter Three**: An in-depth discussion of my major project.

- **Chapter Four**: An assessment of the usefulness of Paul V. Anderson’s Problem Solving Model for my major project.
REPORT ON A TECHNICAL COMMUNICATION INTERNSHIP AT VANDALAY GROUP INC.

AN INTERNSHIP REPORT

Submitted to the
Faculty of Miami University
in partial fulfillment of
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Master of Technical and Scientific Communication
Department of English

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CHAPTER ONE: Internship at Vandalay Group Inc.

My internship at Vandalay Group Inc. in Cincinnati, OH, began on April 14, 2003, and ended on July 18, 2003. My mentor was Lauri Harwood, a Master of Technical and Scientific Communication (MTSC) graduate and president of Vandalay Group, Inc.

Background of Vandalay

Vandalay Group Inc. is a small technical communications freelance company. Lauri Harwood started Vandalay Group Inc. in 1998 with one other employee. Since then it has grown into a successful company with a total of five full-time employees and eight part-time or temporary employees. Vandalay provides corporate training and other types of learning initiatives, such as multimedia learning tools, Web-based educational demonstrations and products, and training delivered through a variety of media for large global organizations, such as Procter & Gamble.

Vandalay also designs and develops educational materials, such as textbooks and supplemental CDs, for textbook publishing companies. In particular, the employees at Vandalay serve as consulting editors for textbooks and supplementary learning materials. In this role, a consulting editor is an editor who develops and edits material before it goes into production. A consulting editor may or may not work directly with the author. Consulting editors (also called developmental editors if employed by the company that is publishing the material) focus on the substance of the text and show the author how to develop the content so that it makes sense to the audience. Many times, consulting editors are specialists in specific fields. In this capacity, Vandalay works with companies such as Thomson Learning and Delmar.

The Culture at Vandalay

The culture at Vandalay is typical of a small business with few employees. Employees work hard to complete projects, which might mean they work during the weekends or work 80-hour weeks. Occasionally, business is slow because clients will not have projects for Vandalay to complete during a particular time. At other times, projects may pour in, and the small number of employees must handle all of them at once. During these times, the workplace can be chaotic and stressful, and freelance writers and editors may be hired as temporary employees to help handle the workload.
Projects are usually not collaborative at Vandalay except at the beginning. Instead, Lauri assigns projects to individual employees as clients request them. She explains the purpose of the project and its deadline early in the project schedule, answers any questions, and then directs employees to work with clients for the remainder of the project schedule. Each person then completes his or her project usually without the help of others in the organization. For example, after the initial meetings for a textbook project I completed during my internship, I did it on my own except for receiving some guidance from Penny Shank, the project manager at Thomson Learning. Even though I worked on this project alone after its initial stages, I still contributed to the overall success of the organization because Lauri was able to invoice Thomson Learning for my work; my work helped generate revenue for the company.

Working alone without a support system from Vandalay raised some problems and concerns for me during the duration of the project. At the beginning of the project, when I realized that I would be completing it on my own, I felt uneasy about being responsible for such a huge task without any guidelines. I had been trained in school, and I had worked previously as a technical writer at a telecommunications company, but I did not know how the publishing industry worked. The unknown increased my stress level. In retrospect, now that I’m finished, I would like to be able to redo some aspects of the project because I feel that the textbook could be improved with the experience I gained.

I learned from working on my own that company training or a mentorship program, either formal or informal, is helpful to increase the effectiveness of employees, whether they are new to the company or have been working for the company for many years. Even if employees are experienced, they could still benefit from the interaction with other employees and support systems that such programs would provide. Additionally, they would be able to celebrate the company’s successes with others as well as encourage other employees to learn and grow.

Of course, such programs are not always feasible in small companies since all employees have aggressive deadlines. A small company does not have a training department to put together corporate training or a human resources department to organize team-building activities. In such cases, getting together for informal meetings on a weekly basis would help to increase the cohesiveness and morale of the employees.
On the other hand, working at a small company does have advantages over working for a large company. A small company empowers individuals to make decisions and act on those decisions without having to wade through corporate bureaucracy. In addition, a small company does not have the politics and strict, confining regulations that a large company usually has. A small company allows employees to control their careers and develop themselves to help the company succeed.

The Organizational Structure at Vandalay

No one has a specific title at Vandalay, since everyone acts as an administrative assistant, a janitor, or a decision maker for the company. The term I believe best describes my position, though, is *technical communications consultant*. Figure 1 below illustrates Vandalay’s organizational structure.

![Organizational Structure Diagram](image)

Figure 1. Chart depicting Vandalay’s organizational structure

My Position at Vandalay

I was hired as a technical communications consultant to act as a consulting editor for Thomson Learning. In particular, I was hired to help write and edit the second edition
of *Technical Writing for Success*, a book published by Thomson Learning in August 2004. I also completed other writing projects as requested, such as creating training programs, editing various Web sites, and editing and creating marketing materials for Procter and Gamble.

In subsequent chapters, I provide more detailed information specific to my internship. In Chapter Two, I describe the projects I contributed to during my internship period. In Chapter Three, I describe my major project, editing the second edition of *Technical Writing for Success*. Finally, in Chapter Four, I explain how Paul V. Anderson’s Problem Solving Model corresponded with my schedule and deadlines for my major project.
CHAPTER TWO: Overview of Internship Projects

During my internship, I was involved with two large projects—one of which I was responsible for from start to finish—and three smaller projects. The first large project was helping to create an initiative leadership pilot training course for Procter & Gamble. The second large project, which I will describe in detail in Chapter 3, was editing the second edition of Technical Writing for Success.

In addition, I was assigned three smaller projects as they came from clients. These projects included copyediting an online course for Delmar Publishing called Faculty Development Training Program for Career Colleges; editing Web site content for a project called OneKey for Procter & Gamble; and editing online supplementary materials for a textbook published by South-Western Publishing, a division of Thomson Learning, entitled California Real Estate. This chapter provides a brief overview of the projects to which I contributed.

The chart below shows the amount of time I spent on each project. I worked on my major project, Technical Writing for Success, throughout my internship. The other projects had more aggressive deadlines and were smaller, so I was able to work them in along with my major project.
When I was assigned the smaller projects, I had to work them into my schedule along with my major project. Since the final deadline for the major project was not aggressive, I worked nearly full-time on the smaller projects as needed. On average, when I had an aggressive deadline for a small project, I worked on it eight hours a day and the major project two hours a day.

**Project One: Procter & Gamble Initiative Leadership Pilot Training Course**

When I started work at Vandalay, Lauri immediately assigned me to help develop a pilot training course for Procter & Gamble. Lauri had been writing and editing the materials for this training course since August 2002, and I was asked to contribute so Vandalay could finalize the project before its deadline. Unlike other projects I completed, this project was one which Lauri and I developed collaboratively.

The training course, *The Art of Successful Initiative Planning*, instructed employees how to successfully launch new products called *initiatives*. Employees who managed initiatives and initiative teams were invited to attend the pilot course. Procter and Gamble launched the two-day course on Monday, March 31, and Tuesday, April 1, 2003.
Project Purpose and Objectives

The purpose of presenting the pilot course was to get feedback for the first official class at the beginning of June. Specifically, the course planners (who included employees at Procter and Gamble and Vandalay) wanted feedback concerning the following questions:

✈ What are the students’ goals in attending the training?
✈ Does the class meet the students’ expectations?
✈ What types of material should be added to or eliminated from the class?
✈ How well does the training meet students’ personal needs for information? Which topics were the most helpful?
✈ Which activities need improvement? Which activities could be stronger?
✈ Which activities need more time?
✈ What are students’ overall recommendations for improving the course?

WorkPerformed

I was called on to attend preliminary meetings and take notes for Lauri, to assemble the notebooks and various materials for the student activities, to copyedit the PowerPoint® slides, and to run various errands as requested. On the first day of the pilot course, I arrived early to prepare the training room at Procter & Gamble’s downtown Cincinnati location. Throughout the course, I noted the successes and failures of the training. After the course, I compiled the feedback from the evaluation forms (that Lauri created) in a Microsoft® Excel® document so Lauri could present the feedback to the Procter & Gamble planning team.

Project Outcome

After evaluating the feedback from the students and meeting to discuss the outcome of the pilot course, the course planners concluded that the students wanted more activities to break up the PowerPoint® presentations; animated, interesting speakers; practical examples; classroom discussion; sharing of real-world mistakes and failures; and less text on the slides. Lauri and the initiative planning team at Procter & Gamble revised the course to incorporate the feedback obtained from the pilot. The course was successfully implemented after making the requested changes.
Project Two: Second Edition of Technical Writing for Success

I discuss editing the second edition of Technical Writing for Success, my major project during my internship, in detail in Chapter 3. The following briefly explains the project purpose and objectives, work performed, and outcome.

Purpose and Objectives

The purpose of this project was to update and improve the first edition of a technical writing textbook used at community colleges and high schools. The objectives were to create an expanded textbook, along with supplementary materials that would include an Instructor’s Resource CD, a Data CD for students, a list of applicable Web sites along with Web site worksheets and activities, sample documents for each chapter, printable tests and quizzes, PowerPoint® presentations, and a Web site devoted to expanding and supplementing the textbook.

Work Performed

The work I performed for this project will be explained in detail in Chapter 3.

Project Outcome

The goal of the project was to produce an effective second edition along with supplemental materials that would sell well in community college and high school communities. At this point, Thomson is pleased with the text and supplemental materials and is successfully selling this product to schools across the country. In fact, the product is selling so well that instructors are requesting an online version.

Project Three: Delmar’s Faculty Development Training Program for Career Colleges

The third project I contributed to during my internship was copyediting an online training course for Delmar, a division of Thomson Learning. The training program, called Delmar’s Faculty Development Training Program for Career Colleges, is designed for instructors at career colleges (community colleges) with little or no background in teaching. The training program helps career college instructors develop effective teaching skills. The course consists of a number of course units, called modules. The modules contain five sections, and each section contains between 15 and 40 pages. I copyedited five sections in one module (Module 1). Section 1 of Module 1 is located in Appendix A.
This sample shows the editorial and formatting changes that I made; these are described in the next section.

Project Purpose and Objectives

The purpose of the module I copyedited was to demonstrate to instructors the most effective learning strategies for adult students when instructors are actively involved in the learning process. The activities are designed to support a range of learning styles related to the students’ career goals. Based on these concepts, each section in the module provides strategies for individual, group, and experiential activities. My objectives, which I developed, included copyediting for:

- consistency
- spelling errors
- grammatical errors
- convoluted sentences
- passive voice
- formatting

Work Performed

I copyedited the five sections in the first module according to my objectives. Each section contained between 15 and 40 pages, and I was able to copyedit those pages in about 24 hours on average, although I copyedited more quickly as I became more experienced and familiar with the material. My fastest copyediting time was 40 pages in 16 hours.

Project Outcome

Unfortunately, I was not told the outcome of this project. Although I submitted the copyedited files to Delmar according to the schedule, I never received any feedback from the project team, from Delmar, nor from Lauri.

Project Four: Web Site Content for Procter & Gamble’s OneKey Project

The second small project I undertook was editing content for a Web site devoted to marketing Procter & Gamble’s OneKey access control project (Appendix B). In addition, I created an electronic template that would enable the project team to create instructions for users of the initiative (Appendix C). This access control was physically manifested through a P&G global ID card, also known as OneKey. Employees used
OneKey cards to open doors within P&G facilities, access information technology services, and buy refreshments at P&G cafeterias.

**Project Purpose and Objectives**

The purpose of the OneKey project was to develop information technology access for Procter & Gamble employees worldwide. The OneKey project team needed to develop technical, deployment, and operating standards and guidelines. From me, the team wanted ideas about the best way to distribute these standards and guidelines to the audience. In other words, they wanted counseling on the best approach to distribute these documents. They did not want me to actually write the documents, but rather they wanted me to create one to four standard templates the team could use in the future to create efficient, user-friendly documents to present to users when OneKey was deployed. I designed these templates to reside on the internal P&G OneKey Web site, which I edited to be more user friendly, clear, and concise.

**Work Performed**

For this project, I created a template after looking at many documents that were associated with the OneKey project. These documents familiarized me with the project as a whole and allowed me to discern what types of user friendly information were needed in the template. I also spoke with the project leader from Procter and Gamble at least once a day via phone or e-mail to learn the guidelines of the project and to learn what he and the team wanted in the template.

Ultimately, I decided to include the following sections: Purpose, Scope, and Content; Technical Standards; Technical Guidelines; Glossary; Reference Documents; and Revision History. I chose these sections because they represented all the sections I saw in the documents associated with the OneKey project. For each section, I gave directions on what information should be included. For example, in the Purpose, Scope, and Content section, I wrote:

Describe the purpose of this document, who will use it, why someone would want to use it, and when it would be used. Describe what this document will and will not cover. Give a brief overview of the table of contents; briefly describe each section that will be covered.
These general headings and instructions allowed users to customize the template for their specific purposes.

Project Outcome

I submitted the first draft of a template within three days. I only submitted one template because the project leader had given me feedback while I worked on it and had tentatively approved the final template. The project team at Procter and Gamble then had various suggestions for improving the template, so we ultimately agreed on the final template within one week. Unfortunately, I do not know if the template is being used for its original purpose. I also do not know if the OneKey Web site is being used to market the OneKey initiative. I did not receive feedback from the OneKey project manager at P&G.

Project Five: Supplementary Materials for California Real Estate Principles

The third small project I undertook was copyediting online supplementary materials for the seventh edition of California Real Estate Principles, a book published by South-Western Publishing (a division of Thomson Learning). The supplementary materials reside on a Thomson Learning Web site and are part of the book’s Web tutor. A Web tutor is supplementary on-line material for a textbook that may include such features as previews, highlights, study guides, quizzes, practical application questions, flashcards, and Web links.

Project Purpose and Objectives

The purpose of this project was to update the sixth edition Web tutor to reflect changes in the seventh edition textbook. My objectives were to update the following items: links to PowerPoint® slides, links to Word® files, questions in the study guide, links to pop-up material, graphics, glossaries, and links to other Web sites. A Word® version of the study guide for the first chapter in the textbook is located in Appendix D.

Work Performed

To update the Web tutor, I went through each section of the Web tutor and made sure that it was updated to reflect changes in the seventh edition. To do this, I looked at a hard copy of the new material and matched it with the old material. I copied and pasted the electronic form of the old material (which Vandalay had on file because Lauri had created the sixth edition of the Web tutor before I started my internship) and renamed
each section. Then, I went through the material and updated it to reflect any changes that had been made for the new edition. Sections included previews, highlights, study guides, quizzes, practical application questions, flashcards, and Web links for each chapter.

Project Outcome

*California Real Estate Principles* was already published when I began copyediting, so the Web tutor should have gone into production immediately after I finished. Unfortunately, the project manager at South-Western did not follow through with this project, so I do not know at this point if the Web tutor was ever distributed.
CHAPTER THREE: Major Project: Revise and Edit Second Edition of *Technical Writing for Success*

*Technical Writing for Success* was first published in 1997 and successfully sold to high schools. However, it had not been updated since then. Its audience at the time of its first publication was high school seniors. The authors, Sue Jefferson and Darlene Smith-Worthington, both teach technical writing at Pitt Community College in Greenville, North Carolina, and had been approached to publish a second edition with Thomson.

Recently, high school and community college instructors have been looking for current textbooks in technical writing. Therefore, Thomson Learning responded to this need by agreeing to publish a second edition of *Technical Writing for Success*. However, Penny Shank, my project manager for the production of the second edition, did not have enough editors at Thomson Learning to develop the book. Therefore, she called Lauri at Vandalay Group. The entire project, which began on April 14, 2003, took me about 1 year and 3 months to complete. At the beginning of the project, Lauri and I worked together to establish the project guidelines, to learn Penny’s requirements for the project, and to become acquainted with the authors. Lauri also developed various preliminary documents to help me get started on the project. When I became comfortable with the guidelines and requirements, Lauri turned the project over to me.

**Acquiring Background about Thomson Learning**

Before I began my major project, I acquired background information about our client, Thomson Learning, part of The Thomson Corporation. Thomson Learning delivers learning solutions to individuals and businesses worldwide, including textbooks, virtual learning programs, and tailored learning solutions, which are training programs developed for a particular classroom or company. These products are marketed to academic, professional, and corporate audiences. The academic audience is comprised of instructors and their students in secondary, post-secondary, and graduate-levels, and instructors in both classroom and distance-learning environments. The corporate audience is comprised of adults desiring to continue their education through adult education courses, certification materials, and training centers.
Performing Preliminary Activities

Lauri and I first met with Penny Shank, the project manager, to discuss the project. During this initial meeting, Penny gave us a correlation instrument (the first page is located in Appendix E) that explained how the second edition should meet the audiences’ needs. A correlation instrument, a document that describes each element of the book and how those elements could be improved, shows the page number the elements are located on and provides a rating; elements are rated according to student and instructor feedback. Any element with a negative rating needs substantial work for a subsequent edition. After the meeting, I read the correlation instrument and highlighted places in the text that received a negative rating so I could focus on those places while editing the text. Specifically, I needed to focus on providing information about workplace ethics and expanding the information on technical research and the writing process in addition to incorporating explanations of new technology available to students.

Penny also gave us a proposal narrative that outlined the project revenue, the market, and the purpose of the project. The narrative showed that revenue from the second edition was expected to exceed $577,500 with a unit price of $38.50. The number of units (or books) sold was expected to be 15,000. The market was described as follows:

The entire high school communication market size is approximately 200,000 students per year. The technical writing market space is approximately 15,000 students per year. The historical sales indicate this text has about a 60% market share and the forecast for this edition is based on a 60% market share.

The narrative also focused on dynamics and trends in the market and how the book should answer those dynamics and trends. The marketing department at Thomson conducted research that showed that the number one complaint by companies was that students do not possess necessary writing skills needed to succeed at work. With increased use of e-mail for communication in the workplace, employees spend a significant portion of their day writing. Therefore, any book published in technical or business writing needed to strongly focus on written communication, grammar, and new technology. Research showed that companies expect students to know how to effectively write a variety of documents including memorandums, letters, resumes, application letters, thank-you letters, presentations, news releases, progress and periodic reports,
recommendation reports, and informal and formal proposals. Therefore, in the second edition of the textbook, I included an explanation of the purpose of these documents and how to write them effectively. In addition, the narrative noted that the most current technologies must be addressed in books so that students learn how to communicate effectively using technology. Because of this trend, I focused heavily on incorporating information about technology used for communicating in business throughout the text, including the use of e-mail, instant messaging, virtual meetings, personal digital assistants, and word processing software.

The narrative also explained the purpose of the text. The purpose was to create an updated edition of an already successful textbook for students in high schools and community colleges that would appeal to a specific segment of the market, the instructors who focus mainly on written communication in their courses. The book would be perfect for this niche because it includes the most coverage of preparing written communications. Other books for this specific market include more information on oral communication and much less detail on written communication.

Two days after the initial meeting, Penny e-mailed reviews of the book, which were written by technical writing instructors across the country who had used the book in the classroom. A Thomson Learning team chose these instructors before I began working on the project. The reviewers were instructors who would be using the textbooks in the classroom and who would have an opinion about whether or not their school system should purchase the textbooks. These instructors included Janet S. Cook, who teaches technical writing at Hutchinson Community College in Hutchinson, KS; Jean Heck, who teaches technical writing at Lyman High School’s Engineering Institute in Longwood, FL; and Linda Thompson, a secondary English instructor in Kenosha, WI. Jean Heck also submitted a syllabus from her English II Institute of Engineering class, along with her review of the text.

During the revision process of the textbook, these reviewers also evaluated each chapter for a small sum, which Thomson provided. I sent the instructors the semifinal draft and asked them to make sure that the content made sense and that the activities were applicable and useful for their classes. I considered and incorporated each of the reviewers’ comments as I was editing each chapter.
In addition to the correlation instrument, the proposal narrative, and the reviewers’ comments, Penny gave me excerpts from technical writing texts from other publishers to use as examples and to stimulate ideas. The excerpts included a table of contents, a description of the text (an abstract summary), author commentaries, descriptions of features, descriptions of supplements, and media resources including online research aids. From these excerpts, I specifically found ideas for updating information about technology, ethics, grammar, and communication dilemmas and trends in the workplace today. Figure 3 outlines the title, author, publisher, and publication date of each sample excerpt.

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>Publisher and Publication Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Technical Communication for Readers and Writers</em></td>
<td>Brenda R. Sims, University of North Texas</td>
<td>Houghton Mifflin Copyright: 2003</td>
</tr>
</tbody>
</table>
Other preliminary activities, which I explain in more detail in subsequent sections, included the following:

- updating information in the text,
- updating features in the text such as sidebar features and end-of-chapter activities,
- determining responsibilities and budget,
- determining page layouts and chapter recommendations,
- defining a chapter checklist,
- creating a sample chapter,
- mapping the features, and
- finalizing the template.

### Updating Information in the Text

Updating information in the first edition, one of my first activities, included checking old dates, computer terminology, dollar amounts, photographs, names, and so on. After reading the entire text and marking places that needed updating, I created a table that listed outdated information including graphics that I believed could be more contemporary. I e-mailed the table to the authors, Jefferson and Smith-Worthington, who commented on the information. The authors agreed that much of the information I marked was outdated, but they disagreed that the pictures of people needed updating. I explained that many of the photos contained people with outdated haircuts or clothes,
which made the book look outdated and thus less marketable. In addition, I explained to them that some of the photos would have to be replaced with pictures of people from a variety of ethnic backgrounds. The authors then agreed that I should update the pictures.

**Updating Features in the Text**

In addition to flagging outdated material, I decided which original features should be included in the second edition and recommended new features. Features include excerpts of text in the margins of the pages as well as text that is treated differently within running text. Each chapter contains the following features: See the Sites, Focus on Ethics, Communication Update, Communication Dilemma, and Writing at Work. For each one, I had to think of a topic relating to the information in the chapter. For example, since Chapter 1 introduces students to technical writing, the See the Sites feature for Chapter 1 directs students to Web sites that introduce technical writing as a discipline and as a profession. I chose the Society for Technical Communication Web site and the College View Web site, both of which give an overview of technical writing.

I listed all the features in a Word® document along with my recommendation for each. This document includes essential new information, recommended new information, and possible new information for features. I e-mailed the list to the authors, who returned the document with their comments on the recommendations. Both authors were pleased with my ideas for the features; in particular they appreciated my ideas for the Communication Update feature since neither of them is technologically savvy. This feature introduces students to new developments in technology that are used to communicate in the workplace and are relevant to chapter content.

**Determining Budget and Responsibilities**

After I completed the preliminary work described above, Lauri and I met again with Penny to discuss the authors’ comments about Vandalay’s recommendations and to discuss how to proceed. As a result of this second meeting, I came away with (1) the tentative project budget, and (2) a task document that I wrote which highlighted responsibilities for the authors, Thomson Learning, and Vandalay. The task document groups responsibilities according to project items: Student Edition (SE), Annotated Instructor’s Edition (AIE), Instructor Resource CD (IRCD), Data CD (for students), ExamView®, PowerPoint® presentations, Web links, photos, and permissions. Vandalay
was responsible for all of the items except for some of the features in the Student Edition (SE) and the actual writing of the chapters in both the Student Edition (SE) and the Annotated Instructor’s Edition (AIE). (The authors wrote the chapters after Vandalay outlined the content for each chapter.)

**Determining Page Layouts and Chapter Recommendations**

My next task was to design sample chapter layouts that incorporated our new suggestions. Lauri and I drafted a document for the authors that outlined recommended chapter reorganization, spread design, writing instructions, and responsibilities. This document explains:

- specific formatting
- examples
- new features
- standardization for chapter openings
- standardization for the chapter structure and format
- standardization for documents, excerpts, and figures
- chapter review content
- purpose, description, placement/format, and the responsible party for each feature
- icons
- instructor notes
- general information and responsibilities

This document also includes useful thumbnails of the chapter openers, chapter body, and chapter reviews. The thumbnails were for the page designer and the authors to show them how each feature and design element would be formatted. The thumbnails were not to scale and did not show realistic margins or text. Nevertheless, the authors could glance quickly at these thumbnails to understand the page design.

**Defining a Chapter Checklist**

After the authors and I finalized the recommendations, I was asked to create a chapter checklist I could use to verify that every element was included in each chapter. I also sent the checklist to Jefferson and Smith-Worthington so they could use it to verify that all elements were present. I referred to the checklist before I finalized each chapter.
and sent the final draft to Thomson. Doing so confirmed to me that all necessary elements were present.

**Creating a Sample Chapter**

Penny next requested a sample chapter. The sample chapter, created by me and used by the designer at Thomson Learning to make a template, included every element that was to be in each chapter. Specifically, the chapter included all the special features; chapter introductions and review sections; instructors’ notes; figures; photos; and formatting such as numbered lists, all levels of headings, examples in text (not labeled as figures), figures with callouts, columns in text, and so on.

I had to make sure that the sample chapter and the first page of the review section started on an even page. In addition, the review section had to be four pages, while the last page of the chapter had to end on an odd page so that the first page in the next chapter would be even. This strict format became somewhat like a puzzle once I began editing the chapters for length. I had to place the pieces of the puzzle, the text on each page, into modules that eventually developed into an attractive and useful text that fit Thomson’s budget. This was a puzzle that I eventually enjoyed solving.

The sample chapter had to be reviewed by a team of developers at Thomson. After presenting the chapter to the team, Penny asked me to add some of the elements that I had neglected to include. These elements included different heading levels, font size and style for lists and tables, and second-level bullet styles. After I added these elements, the development team at Thomson approved the sample chapter.

**Mapping the Chapter Features**

After I created a sample chapter, I had to “map” the chapter features for all the chapters. I created a features “map,” or chart, in which I listed all the features along with ideas for content. This map helped me tremendously as I wrote the text for the features later in the textbook development process. A sample of this map includes the following for Chapter 2:
<table>
<thead>
<tr>
<th>Chapter Title</th>
<th>Writing on the Job</th>
<th>Focus on Ethics</th>
<th>Communication Dilemma</th>
<th>Communication Update</th>
<th>See the Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 2 Plan for Your Audience and Purpose</td>
<td>Job where someone must write for a very specific audience or multiple audience, such as someone in advertising or marketing. Another idea is someone like an optometrist who explains eye problems to his patients in a way they will understand and won’t be alarmed.</td>
<td>Various ways to mislead an audience through marketing, being truthful in advertising. Avoiding stereotypes —using sexist language.</td>
<td>Expand on idea about being truthful in marketing, advertising, or avoiding stereotypes and sexist language.</td>
<td>New tools for modifying documents for different audiences, such as hyperlinks, nested documents, etc. Even a document in Microsoft Word® can have many of these features; doesn’t have to be on the Internet.</td>
<td>Overview of business etiquette and business culture in over 33 countries, go to <a href="http://www.cyborlink.com">www.cyborlink.com</a>. To learn about the interests and lifestyles of different generations, check out <a href="http://library.thinkquest.org">http://library.thinkquest.org</a> and click on “generation gap.”</td>
</tr>
</tbody>
</table>

The features map also helped Michelle Kramer, a freelance writer who Vandalay hired on a temporary basis, to write the Writing at Work feature. In this particular feature, Michelle interviewed and wrote about people who use technical writing on the job. Some of the people she interviewed included technical editors, technical writers, project managers, systems analysts, marketing specialists, and freelance document designers. I was responsible for making sure that Michelle interviewed the writers and turned in the profiles of the writers to me on time. This feature appeared on the second page of each chapter and introduced the students to a “real-world” application of the writing they would be reading about in the chapter.

Finalizing the Template

After Penny sent me the layout for the chapters that the designers at Thomson had created, I developed a template based on the design. A screen shot of the template is located in Appendix F. I used this template when authoring and editing the chapters. I spent a weekend creating it by comparing it to the design and by using a pica ruler to replicate exact measurements. The template had to be nearly identical to the design. This consistency was necessary because the text is taken from the template and placed into the
design when the chapters are in production. The text needed to fit exactly on the page in production.

I created styles for every feature as well as a toolbar, grouped by category, which contained all the styles. These styles included chapter opener, headings, chapter text, instructor notes, features, and end-of-chapter matter. A screen shot of the style toolbar is located in Appendix G.

**Revising and Editing**

Once the preliminary work was finished, I was ready to begin revising and editing. During one of the first meetings, Penny had given me a schedule that outlined milestone dates for each chapter. Although most of the schedule dates were not final (if I missed a few deadlines the project didn’t suffer), I referred to this schedule extensively while writing and editing to make sure the authors and I were staying on track to meet final production dates.

Before I sent the first draft of each chapter to the authors, I created a first-draft memo in which I outlined the revised chapter for them and described the changes that I had made in each chapter. Then, I included a comparison outline of the new chapter and the old chapter. I included all the old and new heading levels as well as chapter openers and end-of-chapter activities. Having this memo allowed the authors to see at a glance how I had reorganized each chapter and to see a plan for the overall flow, structure, and content.

Figure 4 shows a flowchart of the chapter development process for Chapter 1. The milestones in the boxes with dashed lines show steps that I added along the way that were not in the original schedule.
Although the process and schedule were straightforward, I added two additional milestones along the way that were not on the original schedule. For example, when I was editing the first draft of Chapter 1, I did not realize that the reviewers Penny had hired needed time to look at the draft between the authors’ first draft to Vandalay and Vandalay’s second draft to the authors. The reviewers needed at least two weeks, sometimes longer, to review the chapters. This put me a little behind schedule with the first chapter. However, once I added this milestone to the schedule, I could plan for it with subsequent chapters.

In addition, Lauri had hired a copy editor, Ed Bedinghaus, to edit the chapters before I submitted the final drafts to Thomson Learning. Therefore, for each chapter, I had to schedule about two weeks for him to copyedit it. This new milestone occurred between the authors sending a second draft to Vandalay and Vandalay sending the final draft to Thomson.
Researching and Selecting Photos

Besides writing and editing content, another of my responsibilities as a consulting editor was to research and select the photos that were to go in each chapter. I had specific guidelines for the photos I could choose, since Thomson Learning had only $1000 allotted for photos. That meant that the majority of photos I used had to be ones that Thomson Learning already owned. Penny directed me to a Web site, www.photodisc.com, which contained photos I could use. The photos also had to be horizontal and in color. In addition, I had specific percentages of photos that included people of various genders and nationalities. I wanted to make sure that text would appeal to all readers and would not marginalize any one group of people.

Finding photos that met the guidelines was challenging. The most challenging aspect of the search was finding people of Hispanic ethnicity pictured in workplace settings. The Web site did not have as many photos of Hispanics as it did Caucasians and African-Americans, and when I did find photos of Hispanics, they were usually shown in agricultural settings. Finding photos of people with disabilities was challenging as well. Many of the photos of people with disabilities showed one person in a wheelchair using a laptop without interacting with others, which seemed to suggest that people with disabilities only worked alone. Further, photos of males working in the home were rare. I concluded that the Web site needed a broader range of photos that encompassed people of all races and genders in a variety of settings. Fortunately, after much searching, I was able to find photos on www.photodisc.com that represent people of all races and genders.

Acquiring Permissions for Figures

Another of my responsibilities was to oversee the requests for permissions to use the figures and for text taken from other written works. To keep the permissions organized, I created a table in which I listed all text and figures for which I needed to obtain permission. Many of my permissions were acquired through Thomson Learning. However, for text or figures not published by a Thomson company, I had to request permission from the particular author. Tracking down the author or publishing company for text or graphics was difficult at times, but I managed to eventually acquire all the permissions I needed. Fortunately, I did not have to do the budget work required to get these permissions.
Communicating with Chapter Authors

At the beginning of my internship, I did not know what to expect of the authors or what they expected of me as a consulting editor. When we started the project, Lauri sent them my resume so they could see my qualifications. After this e-mail correspondence, I called both Jefferson and Smith-Worthington to introduce myself. This gesture opened the communication lines between the authors and me and helped them to trust my skills. After all, I was going to tell them how to improve their book, so we had to establish good communication early in the project.

After this initial phone call, almost all of our correspondence was through e-mail. In addition, I sent all the chapters, memos, figures, and other text via e-mail. When I sent the final chapters to the authors, I made PDFs of the chapters so they could see how the final draft would look. The only time I had to call the authors was when something was unclear, which was infrequent. E-mail was an excellent communication tool throughout this project for the authors and me.

Working with the Software

I created all my documents using Microsoft® Word® XP®, so I polished my Microsoft® Word® skills through free online tutorials during the preliminary, or planning, stages of the project. As a result of these tutorials and through previously created documents I found on Vandalay’s shared drive, I was able to create a styles toolbar for the authors to use within the template. The toolbar was located at the top of the screen and allowed the authors to click on a style they wanted to use for a specific element in the document. (See Appendix G). Unfortunately, the authors had not used Word® enough to know how to use styles, so I ultimately benefited and saved time by using the toolbar. Although this toolbar could have been used as a teachable moment, I decided that taking the time to teach the authors how to use the toolbar would take away from the time needed to finish the project on schedule. Completing the book on schedule was more important, at this point, than teaching the authors something new.

In addition to learning how to create the toolbar, I learned how to save documents as templates to use for future documents, assign and remove shortcuts keys (particularly for em dashes and en dashes), set a cell row height (particularly useful for activity worksheets that students complete), and create forms. I also learned to use the Ctrl key
plus Tab key to tab in table cells without moving to the next cell. I found this feature useful for indenting within a cell.

**Conclusion**

Much of the preliminary work for the textbook took place during my internship. I had to meet with several people, either in person or online, to finalize the project outcome before actually getting started with editing the book. I had to create many documents that outlined material in each chapter as well as goals for updating and revising the book as a whole. I had to establish an effective and professional working relationship with Penny (my project manager) and the authors. In addition, I had to finalize the budget, milestones, schedule, and responsibilities of each person involved with the project. Through all this, I had to learn how a book goes through the publishing process by reading books and articles on publishing and copyediting.

Ultimately, I revised and edited twelve chapters and added two new chapters. I wrote the Instructor’s Resource CD and Student CD (the Data CD) content, which includes lesson plans, chapter activities, solution to chapter activities, sample documents, worksheets for the case study, teaching masters, PowerPoint® slides, tests in PDF format, and additional chapter activities for all fourteen chapters. In addition, I wrote the content for the accompanying Web site, which includes additional Web links, activities to complement the See the Sights features in the text, and crossword puzzles for every chapter.

Finally, apart from the project, I had to learn about the culture at Vandalay, start to develop solid working relationships with my new colleagues, and establish my niche as well as my expectations as a new employee. Once the editing and revising process began and I became used to the culture at Vandalay, though, the project went by more quickly and clearly as I learned more and became more experienced with each chapter I revised and each day that I worked.
CHAPTER FOUR: Application of Paul V. Anderson’s Problem Solving Model

Paul V. Anderson’s Problem Solving Model for Technical Communication corresponded to several phases of my major project. I was able to use the Model to gauge where I was within the project and what I still had to do to establish and finish deliverables. Studying and using the Model helped me realize I was missing a key process in the project cycle, which I will explain more fully in the following paragraphs. In analyzing the Model’s usefulness, I will focus on the applicability of the Model to my major project in the following milestones:

- Creating the first draft of each chapter to send to the authors,
- Gauging the effectiveness of the first draft the authors had revised and expanded according to my suggestions,
- Rewriting the first draft as needed to create a more user-friendly and polished draft, and
- Submitting the final draft of each chapter to production.

I hesitated applying the Model to the process right away because I was unfamiliar with the process of publishing a textbook. However, once I had completed the cycle with a couple of chapters, I realized that the Model paralleled the framework that I was using (the schedule and milestone completion dates) to measure the project’s progress. By referring to the Model, I knew at a glance where I was in the process, or project schedule, and what I had to do to complete the next milestone. My schedule corresponded with the Model as follows:

<table>
<thead>
<tr>
<th>Vandalay sends first draft to authors.</th>
<th>Defining the Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authors send comments on and revisions to the first draft back to Vandalay.</td>
<td>Designing the Solution</td>
</tr>
<tr>
<td>Vandalay submits draft to reviewers.</td>
<td>Testing the Solution</td>
</tr>
<tr>
<td>Authors send comments on revised draft to Vandalay.</td>
<td>Defining Problem/Designing Solution</td>
</tr>
<tr>
<td>Vandalay sends final draft to Thompson for production.</td>
<td>Implementing the Solution</td>
</tr>
</tbody>
</table>
Vandalay Sends First Draft to Authors: Defining the Problem

When I sent the first revised and expanded draft of each chapter to the authors, I had to define the problem or problems with the chapter; in other words, I had to define what was not working in the first edition and note these problems in my initial outline memo to the authors. So, the first milestone in the schedule corresponded with the first stage in the Model, that is, to define the problem or problems with each chapter. *Defining the Problem* within the model means that there is a communication problem within a piece of writing and that problem needs to be defined so that a solution can be acquired. For example, in the chapters, many of the photos and examples were outdated, so this would cause a communication barrier between the textbook and the student, or reader. The student would regard the textbook as being “old” or “out of date.” Therefore, the problem was the lack of new examples, technology references, and photos.

Authors Send Comments on and Revisions to the First Draft Back to Vandalay: Designing the Solution

The stage in which the authors rewrote or revised the first draft corresponded with the second stage of the Model; that is, *Designing the Solution*. This stage in the Model means that a solution to the communication problem, established in the first stage of the Model, is found. Continuing with my previous example, the solution to the problem of the photos and examples being old and outdated is to find and include updated photos, examples, and technology references. Although I outlined solutions to each problem in the preliminary memos, the authors ultimately wrote, or designed, the solutions in each chapter.

Vandalay Submits Draft to Reviewers: Testing the Solution

The testing stage in the Model corresponds with submitting the first draft of each chapter for review. *Testing the Solution* is the stage in the Model in which the solution to the problem is tested, via a field test or user test, by a user who will ultimately employ the product or communication. As stated earlier in this report, the reviewers were instructors who would be using the textbooks in the classroom and who would have an opinion about whether or not their school system should purchase the textbooks. Through using the Model, I realized that an ideal situation would have been if the instructors could have allowed their students to use the chapter and mark places that were unclear or
inapplicable. The students and instructors could also have executed many of the chapter activities to see how successful they were. Usually, however, the reviewers simply marked misspelled words or grammar errors without discussing the usefulness of the chapter as a whole. This aspect of the review process was quite disappointing for me, since I did not think the reviewers sent significant and thoughtful comments and feedback that would have been useful for improving the book. By using the Model and seeing that, through the Model, a communication should be tested by the users who will employ it, I realized that the textbook was not tested as thoroughly as it could have been to make it the most effective communication possible. Studying and using the Model helped me realize I was missing this key process in the project cycle.

**Authors Send Comments on Revised Draft to Vandalay: Defining the Problem/ Redesigning the Solution**

The authors’ revised draft to Vandalay milestone corresponded with two stages of the Model: *Defining the Problem* and *Redesigning the Solution*. In the Model, after a solution to a problem has been tested, the communication then goes through another cycle of defining the problem, designing the solution, and testing the new solution. The tester may have concluded that the original solution to the problem did not fix the problem, and another solution may be proposed. Or, the original problem may not have been the real problem at all, and another problem is proposed. This cycle is the cycle that took place after the reviewers read and edited the communication. After the reviewers submitted the first draft back to me, I defined the problems they saw and highlighted those problems in each chapter. I then designed the solution to those problems by rewriting, adding, or deleting text. When I finished, I sent my revised version of the chapter to the authors, who commented on my solutions to the problems. Finally, the authors defined any final problems they saw in the draft, redesigned the solution (paragraphs, activities, examples, sample documents, etc.) and sent their revised draft back to me to finalize.

**Vandalay Sends Final Draft to Production: Implementing the Solution**

When I sent the final draft of each chapter to production, I was implementing the solution, or final draft. To *Implement the Solution* within the Model means to publish the communication; to submit it to the user; or to ultimately hand it off to the person,
company, etc. who will be using it. In this case, I was handing my drafts over, after defining the problems, designing the solutions, testing the solutions, and then redefining, designing, and testing if necessary, to the production house for implementation.

**Analysis of the Usefulness of the Model**

The Model allowed me to look ahead at future goals and calculate tasks I still needed to perform. It also allowed me to do several tasks at once. For example, while the authors were designing the solution for Chapter 1, I could be defining the problems with Chapter 2. Likewise, while the reviewers were testing the solution for Chapter 6, I could be implementing the solution for Chapter 4. The Model allowed me to continuously stay abreast of the circular pattern of multiple tasks that I needed to perform.

Not only could I use the Model to describe and control each stage, I could also use parts of it to manage the preliminary work for the textbook. For example, I began defining weaknesses in the first edition by discussing the edition with Penny to determine the textbook’s purpose, constraints, and the context in which it would be used, and to analyze the audiences that would use it. Next, I designed the solution, or the layout and organization, of the textbook.

The Model did not fit the completion of the textbook as a whole, however. An overall testing stage did not occur; the preliminary reviews were a part of the testing stage, but they did not include a use of the book in context with a target audience. We implemented the final solution hoping that it would sell.

Although the Model was not entirely useful for the project as a whole, it did allow me to plan for continued improvement of each chapter. The Model is a continuous process, as was my schedule for the project. Within the larger process of moving from the present state to the goal state are the individual phases. Each of these phases can be repeated, resulting in continuous improvement of the document. Understanding these phases and how they fit into the larger process allowed me to visualize the schedule as based on the Model.

The Model was helpful to refer to because it allowed me to see my schedule as goal-based, with a present state always moving toward a goal state and the movement being a circular pattern. It also allowed me to see that I was not testing the solution; that is, the chapters, as effectively as I could have been by employing students to read, edit,
and use the activities in the text. However, I do conclude that the Model simply fit broadly into the schedule that I had already created and that Thomson had already approved. Without the benefit of having the Model, I would have used the schedule for planning and the process or outcome would not have suffered, for the editing process and the schedule were very particular to this project. Therefore, although the Model was useful in gauging the effectiveness of the schedule and determining the outcome, it was not specific enough to complete the project. Editing the textbook was not a typical technical writing project; therefore, the Model was helpful but too generic to be necessary in this particular case.

At this point—a year after my internship period—I have stopped using the Model altogether because the cycle is over and because I have developed the ancillary materials and finished the project. The book was published in August 2004. I was thrilled to finally see the book printed after over a year of hard work and time dedicated to making the book a success.

Having all of the initial responsibilities and changes at one time was a challenge for me, but I’ve worked through those challenges and have grown professionally as a technical writer and editor because of my accomplishments as an intern and now as a permanent employee at Vandalay. Looking back on my internship experience, I see that a person needs certain attributes to succeed in an environment similar to Vandalay’s. These attributes include being able to work independently, being goal-oriented, not being discouraged by less-than-positive comments or a lack of support and/or feedback, being able to function in an environment in which there are no set work hours (in other words, one must set and stick to his or her own schedule), being an acute critical thinker and problem solver, and being highly flexible and accepting of frequent change. Also, one must be assertive and self-confident and able to communicate effectively with clients to discern what they really want. Finally and perhaps most importantly, one must enjoy and believe in the work and be determined to persevere.

I enjoyed managing this project immensely after I sorted through the questions I had at the beginning of the project. I was successful at managing this project because I believed in the success of the finished project. I communicated effectively with the project manager at Thomson and the authors by responding to messages immediately and
by working through any problems that arose, I set my own time schedule and stuck to it in order to meet deadlines, I took deadlines seriously, and I consistently reminded all parties involved of deadlines and specific materials that needed finishing. In addition, I enjoyed learning from each step of the process through my experiences.

At this time, I have a sense of accomplishment that I managed a successful technical writing project and learned from the experience. I am now looking forward to completing similar projects at Vandalay, and with my experience, making them even more successful than the last.
Appendix A: Quantum Section 1 Module 1
Section 1: Foundations of Active Learning

**Introductory Questions**

- How many active learning strategies can you list? (At this point, define active learning strategy any way you wish.)
- Can you list 10 benefits of active learning? List as many as you can on a piece of paper.
- What are the characteristics of an effective learning activity? List as many as you can on a piece of paper.
- What are some of the obstacles to active learning, and what are some of the solutions? List as many as you can on a piece of paper.

**Overview**

Section 1 focuses on the active learning theory and how the instructor can use it effectively to facilitate learning in the adult education classroom.

**Why Learn Theory?**

Understanding active learning theory provides you with the reasons for incorporating active learning into your classroom. By having a strong theoretical background, you will be able to answer the question, “Why should I use activities in the classroom?” An awareness of underlying theory:

- allows you to make more informed choices regarding your class activities, as theory provides a rationale and objective for your actions.
- allows you to provide students (and others) with a grounded explanation of why activities in the classroom are important to education, thus providing students with a greater understanding of their own learning process.
- expands and improves your own teaching skills.

**Reflection Questions**

Be sure to actually write down the answers on a piece of paper or in a computer document.
What are the best activities you have ever assigned in your classes? Why were they so good? (Be as specific as you can).

What are the worst activities you have ever assigned? Why did they fail? (Be as specific as you can).

What kinds of activities do students like the most? Why?

What kinds of activities do students like the least? Why?

What are the biggest disappointments you have had with student performance in activities in the classroom?

What Is Active Learning Theory?

It is well established that learners learn best through active learning, which simply means that the learners are doing something other than passively listening or reading to learn the material. A learning activity can be as simple as taking notes while listening or as complex as conducting a real-life hands-on activity while in the workplace. Section 1 provides a brief overview of the active learning concepts, including some suggestions on how instructors can develop effective active learning opportunities for the classroom. In subsequent sections, individual activities, group activities, and experiential activities are discussed in more detail.

There is significant research about what goes on in college classrooms. Thielens (1987) found that out of 820 liberal arts faculty nationwide, seven percent said that they lectured continuously for most of the period with no interruptions from students, and 73 percent stated that they lectured for most of the period, pausing now and then for student questions or comments. Most educators, however, will tell you that students learn more when they are actively involved in the learning process—using many different techniques in the learning process rather than being passive listeners. Students also stay interested, and interest and success generally translate into student retention and graduation.
According to Fink (1999), active learning can be conceptualized using the following four components: 1) Dialogue with Self; 2) Dialogue with Others; 3) Experiencing by Observing; and 4) Experiencing by Doing.

**Dialogue with self** means that students are actively thinking about their own thinking. They are evaluating how they feel about a topic; what they think about the topic; what they are expected to think about a topic; and how the topic might affect them. Instructors can implement techniques that encourage students to dialogue more with themselves.

**Dialogue with others** means that students are actively engaged in dialogue with someone else. This dialogue can be in the form of dialogue with the authors of a textbook or article by reading their words (though this is only one-sided dialogue); conversing with instructors; interviewing or discussing concepts with experts or professionals; working with classmates; and role playing or working in real-life situations with clients, patients, customers, and so forth. Instructors can incorporate this type of dialogue into their courses using numerous techniques.

**Experiencing by observing** means that the learners watch or listen to someone else do something they are supposed to be learning. Demonstrations, videos, field trips, tours, and Internet tours all involve observational learning. Instructors can use many innovative techniques to ensure that observational learning occurs in their classrooms.

Finally, **experiencing by doing** means that the learners actually do something that leads to learning a concept. Doing means designing, planning, building, creating, practicing, and so forth. Instructors can incorporate into their courses numerous activities in which students actually do something to learn a concept or skill. This type of learning can be direct or vicarious. Direct experience means that the students are actually in the situation while doing the activity. Vicarious experience means that the students are doing the activity in a simulated situation. It is thought that students retain 10 percent of what they
read, 26 percent of what they hear, 30 percent of what they see, 50 percent of what they see and hear, 70 percent of what they say, and 90 percent of what they say as they do something (Brock and Cameron, 1999).

It is important for instructors to expand the kinds of learning experiences they include in their courses to provide as many effective opportunities for learning for their students as possible. They can do this by creating opportunities for students to learn in the four ways described above. These different learning activities should also be properly interrelated to one another to form a cohesive learning experience in the course.

Bonwell and Eisai (1991) and Dearn (1996) list several benefits and characteristics of active learning strategies.

Students are involved in more than listening. They learn more when they discuss, reflect, and problem solve.

There is less emphasis placed on transmitting information and more on developing students’ skills. Students can receive feedback immediately as they perform activities.

Students are involved in higher-order thinking (analysis, synthesis, evaluation). They can relate what they are learning to their own experiences, to their workplaces, and to the knowledge they have already acquired from their education.

Students are engaged in activities. Tasks that reflect real-world situations can be built, possibly based on previous tasks, and can be built to more advanced tasks.

Adult students tend to learn more when they have more control over the process.

More emphasis is placed on student exploration of their own attitudes and values.

Not all students learn best by listening to an instructor. In any given class, there will be numerous students who learn better by talking, doing, reading, and so forth.

Reflection Questions
Be sure to actually write down the answers on a piece of paper or in a computer document.

✍️ Think of each class that you teach. How much time do you spend in active learning as opposed to one-way lecturing?

✍️ What are your thoughts about the amount of time spent? Too much? Too little? Not certain?

✍️ How can you better assess this aspect of your classes? Write a brief analysis of the time you spend on active learning.

Obstacles to Active Learning for Students
Students have been known to complain about activities in the classroom even though they tend to break up the monotony of the traditional lecture. It is important to share with students the exact purpose of each activity and to explain what the students will gain from completing it successfully. It is also important not to assign activities that have no purpose or could be seen as “busy work.” Be prepared to address student complaints or concerns about activities. Common complaints from students include the following:

Students expect to learn from the instructor rather than other students.
Often students complain that when they are required to participate in discussion or group learning activities, they are not gaining from the instructor the expertise for which they are paying. Reassure students that the group process is a sound and beneficial teaching methodology. Remind students that the content for lecture and the goals for the activities come from requirements in the industry and that the instructor is a facilitator and moderator rather than the final word on all information.

Students are not accustomed to being active learners.
Since the traditional teaching methodology is lecture, students are accustomed to classes’ being run in this format. Guide them in the active learning process, and assist them in developing the skills necessary to participate in these types of activities effectively. Assist students in identifying their learning styles. By understanding learning styles,
particularly their own, students will gain insight into the benefits of variation in learning activities.

*Students do not like to grade themselves when requested to complete self-evaluations.*
When asked to complete self-evaluations, many students state that this is the job of the instructor. Explain to students that self-evaluation is often required in the workplace and is an important professional skill to develop.

*Students do not think that being graded as a group is fair.*
There are often many complaints when students are asked to work in groups on projects and are graded as a group. It is critical that instructors devise a fair grading method and incorporate appropriate ways to address the individual efforts by students.

*Students do not feel comfortable assessing others.*
Peer assessment is an important tool for both practicing assisting others and for getting more critical feedback than an individual instructor might be able to provide. Additionally, by using the process of critique and seeing the successes and mistakes of others, students learn more than only being graded themselves. Let students know that peer evaluation is often part of performance reviews in the workplace and that this is a key strategy for growth and development throughout the rest of their careers.

**Obstacles to Active Learning for Instructors**

Instructors have their own complaints about active learning, which limit the amount of time devoted to active learning experiences.

*There is insufficient time to cover the syllabus.*
First, instructors are often convinced that they do not have time in their classes for extra activities. This may be true if the traditional lecture model of education is supported. The traditional model is used when the instructor makes notes out of textbooks (and occasionally other resources), organizes the notes into a presentation, and transfers as
much as possible into a PowerPoint® slide show. The instructor then recites the notes (hopefully with enthusiasm and some supplemental stories). Students write what the instructor says and read the same textbook, memorize as much of the information as possible, and try to understand the main concepts. Finally, the students take an exam on the material. Although this sequence does not necessarily translate to learning, it has been the educational process for many decades.

Remember that covering the syllabus does not mean that an instructor must lecture over each element. It should mean that students learn the material as stated in the objectives of the course. The critical element is that students are made aware of what they need to do in the context of an activity to meet the objective, and that they understand how the activity directly relates to their skill development. Active learning is essential for optimal student learning. Lecture is only one of several teaching methodologies. If various methods are used in place of lecture to cover objectives, there is usually ample time for activities. To budget time effectively:

- allot a specific amount of time to each activity, and stick to the schedule.
- plan activities carefully, and know each step as well as how much time each step will take. Use a written checklist as your guide.
- assess each objective carefully to determine the most effective learning method. Different activities are more or less appropriate, depending on the learning objective and the expected result. Some objectives are best met by activity, others by lecture or reading.

An alternative is to place the responsibility for reading the material on the students and use the class time for clarifying information, explaining difficult concepts, and answering questions. With the bulk of your lecture now the responsibility of the students, there will be ample time for active learning activities in the class. In addition, students might improve their actual learning—rather than mere receiving—of the information. It is also true that at first, completing the steps necessary for a successful activity will take time. However, like anything else, when people practice a skill, they improve their efficiency. The exercises, Reflection Questions, and Professional Development Portfolio
activities related to Module 4 are designed to facilitate the process of implementing activities into the classroom.

**Students do not participate effectively in activities.**

Many students are accustomed to the traditional “sit in class and passively listen to a lecture” way of learning and may not be comfortable with active learning strategies. It may be that instructors need to train students gradually to thrive in active learning environments. This can be done using some of the following ideas.

Set your expectations from the very first day of class about student participation in all activities.

Start small with easy and low-risk activities, and then build up to more complex, higher-risk activities.

Learn how to be a great facilitator, and use these skills in class.

Provide students with praise and encouragement at every opportunity.

Be well organized and very clear on instructions and expectations about what you want students to do. Put complex information down in writing, and use a visual diagram when appropriate.

Give prompt, positive feedback as often as possible and individually to each student.

Emphasize time on task when conducting activities. Establish and enforce the expectations.

Create a safe learning environment for both individual activities and group or interactive activities. Students should feel safe to participate, safe to be wrong, safe to differ in opinion from someone else or from the group, and safe to not know the answer. This safety is the responsibility of the instructor.

Acknowledge the individual talents or background of each student, and use this information in class.
Ensure that activities are objective oriented, applicable to the workplace, and interesting. Eliminate all “busy work.” Ensure that students understand exactly why the activities are important.

Create activities that result in a reference tool that students can ultimately use in the workplace. This links the activities to tangible professional goals, which are important considerations for adult learners.

*Activities require too much grading.*

Some instructors have the perception that if they assign numerous learning activities, they will be overwhelmed with grading. Though students do need feedback, there are several alternatives to instructor-graded responses.

Allow peer grading. Often students will learn as much through grading the assignments of others as they do in completing the assignments themselves. It is important to ensure that the feelings of students are kept in mind and that appropriate confidentiality is maintained; however, students often perform better when they know that their peers will see their work. Also, provide each student with criteria for grading so that all papers are graded equitably. Relate peer grading to peer review in the workplace. In many settings, peer review is an integral part of employee evaluation, as well as growth and development.

Allow students to assess their own work. Provide a key in your office, as a handout, or in the library, and allow students to compare their answers with those you provide. This method obviously takes trust or is balanced with instructor-graded activities if included in a final grade point average.

Assign nongraded activities. Either do not grade or do not count the grades of some activities.

Grade in class. Use a group grading method, which also serves as a review or discussion of concepts.

Grade for completion of the assignments. Consider announcing that you will not grade the assignments, but will provide feedback to students who wish and will check to see that the assignments have been completed.
Take up homework assignments on a random basis for grading. Realize, however, that students who have put in a lot of effort in completing an assignment may be frustrated that you do not read it or they do not get appropriate credit.

Reflection Questions
Be sure to actually write down the answers on a piece of paper or in a computer document.

- What are other obstacles to active learning on the part of either the student or the instructor?
- What are some strategies you could use that would contribute to overcoming these obstacles? (List as many as possible).

Characteristics of Good Learning Activities
There are several characteristics of good individual learning activities that, when considered, will assist instructors in activity development and evaluation.

Purpose of the Activity
Activities must have a purpose other than filling class time or providing students with homework.

To be effective, activities:

- must give purpose and focus to students’ study.
- assist students in actually achieving the learning objectives.
- model skills and thought processes required for the course and the workplace.
- increase interest and enthusiasm for the concepts on the part of the students (and instructor, for that matter).
- shift the class from being teacher-centered to being student-centered, which is generally more effective for the adult learner.
provide a vehicle by which instructors can assess student progress toward the class goals.

make concepts more real and applicable.

**Learning Objectives**

It is critical for the instructor to understand exactly what the students should get out of the experience and have this objective down in writing. The learning objectives should not be a secret to students but should form the basis of all activities, materials, and discussions. Additionally, the level of cognitive learning should be defined specifically.

- What exactly are the students supposed to get out of this activity?
- What topical knowledge and skills should the students achieve?
- What professional or life skills and knowledge should the students achieve?
- Do these objectives relate to the main objectives of the course?
- Do these objectives reflect real-life skills and knowledge?
- Does the activity address sufficient knowledge and skill development to warrant the time required for the activity?
- Does the activity allow for achievement of the objectives?

**Background Information**

Another important factor is the background information provided to the students or taught in class prior to the activity.

- What information do the students need to successfully complete the assignment?
Have the students been fully prepared for the activity?
What content information is necessary?
What are the professional or life skills that need to be addressed or discussed?
Do the students need skills from a previous course that should be reviewed?
How will the instructor fully prepare the students for the activity?

**Resources**

Instructors may need to assist students in finding appropriate resources for successful completion of a project. Additionally, specific equipment may be required to complete the activity.

- Do the students know how to effectively use the library?
- Do the students have effective interviewing skills?
- What specific equipment is required, and do the students know how to safely use the equipment?
- Do the students know how to set up and clean up the activity environment?
- Are there safety issues of which the instructor must make the students aware?
- Will there be teaching assistance available for support?
- To what extent is the instructor available for assistance?

**Instructions**

In order for the students to be able to successfully complete the assignment, they must know exactly what is to be done. The instructions must be laid out in detail.

- What steps should be taken?
- What format should be followed?
- What are the exact specifications of the final product?
- When is the activity due?
- What resources can or should be used?
- How do the students know they have successfully completed the activity?

The more information provided to the students, the more successfully they will be able to complete the activity. It is important for the instructor not to assume that the students
know how to do anything (unless the skills have been previously developed in the course or are specific objectives of a prerequisite course).

**Criteria for Success**

The second critical factor is a well-developed and documented list of criteria that will describe success for the student.

- How will the students know whether the activity has been accomplished successfully?
- What are the milestones for an A, a B, or a C grade?
- Will the students be able to accurately evaluate their own progress?
- Are the criteria outlined in detail in a way that the students can understand?

**Evaluation**

Along with the criteria for success, it is important for students to understand exactly how they will be evaluated, including the point value for each element of the activity.

- Will the students be evaluated on creativity or appearance?
- Will the students be evaluated on content?
- Will the students be evaluated on skill acquisition? Speaking ability? Participation?
- At what level will the students be evaluated?
- How will the students be tested?

**Opportunities for Practice**

In some activities, practice is required for skill acquisition. Even some professional skills (soft skills required in any workplace) require significant practice.

- To what extent is practice time available?
- How do the students access any equipment required for practice?
- Must practice be supervised?
- Exactly what are the students supposed to practice, both in terms of technical and professional skills?
**Critique of Activity**

Asking students to evaluate an activity after it has been conducted and making an assessment yourself about the effectiveness of the activity can provide very useful information about whether the activity should be conducted next term or if it should be revised. Consider keeping a log of activities you conduct and student feedback for future reference and revisions. Ask students directly:

- Did they like the activity?
- Did it flow well?
- Did they feel like the activity was “busy work” or useful for their career success?
- Did they know what to do?
- Were the instructions clear?

**Student Self-Assessment**

Students should have an opportunity to assess their own performance. This self-assessment is important in order to provide students with practice of this important professional skill. In the workplace, self-assessment is used daily to guide improvement, training, and career development. The more students practice this and the better they are at determining where their own improvement is needed, the better they will be at guiding their own professional development. Provide a safe environment in which students are able to feel comfortable in honestly assessing their strengths, as well as areas for development. Students may fear that by identifying an area in which they need improvement, their grade may be affected. Create an element in the evaluation process that rewards honest assessment and goal setting for professional development and that remains separate from grades.

- What are students to assess specifically?
- How can they objectively assess themselves?
- When is there opportunity in the class?
- What vehicle will be used?

**Critical Thinking Strategies**

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Critical thinking is an important professional skill that is highly requested by industry employers and often perceived as missing in college graduates. This skill, like any other intellectual or physical skill, requires practice. Additionally, students learn more when they think about the learning process and use higher-order cognitive skills.

- Do students know strategies for critical thinking?
- Are there opportunities for critical thinking in the activity?
- Are there critical thinking questions or activities?

Reflection Questions

Be sure to actually write down the answers on a piece of paper or in a computer document.

- How can the activities you currently conduct in your classroom be assessed in terms of the above information?
- In what areas can you improve on your learning activities? Where do you do well?

Teaching Professional Skills

Instructors also have the opportunity to model and provide opportunities for students to develop and practice professional skills (soft skills required in the workplace) associated with the information in their courses. Students will be expected to demonstrate certain nontechnical skills in the workplace, and these are as important as technical knowledge. Some say that employers may actually look more closely at professional behaviors and skills, the assumption being that technical skills can be more easily taught than professional and interpersonal ones.

Professional Presentation: Professional presentation includes appearance and dress. It also refers to the overall image as observed in a composite of behaviors such as attitude, interpersonal skills, ethics, and numerous other personal characteristics.
**Personal Traits:** Many personal traits contribute to one’s professional presentation. These traits include, but are certainly not limited to:

- **Attitude.** Display of an optimistic, yet realistic outlook; demonstration of self-confidence, yet recognizing own development needs; demonstration of self-motivation and initiative within appropriate boundaries; completion of assignments in a manner that reflects commitment to and pride in work; demonstration of an openness to change, new ideas, new processes, and new and different people; demonstration of a respect for diversity.

- **Dependability.** Responsibility for own actions; arrival at work, meetings, projects on time and ready to work; completion of assignments on time (and under budget!).

- **Self-management.** Demonstration of the ability to manage own behavior in a manner that reflects the expectations of the profession and the workplace; ability to manage time and prioritize tasks; demonstration of an awareness of schedules.

- **Leadership.** Evidence of a vision for the future and how to set goals to achieve the vision; ability to face change positively; demonstration of ability to monitor own behavior and set good behavioral examples of professionalism; ability to adjust behavior as needed after self-assessment or peer assessment.

**Lifelong Learning:** Lifelong learning is the recognition that there is a need for continuing education, learning goals, and pursuit of learning opportunities. Lifelong learners stay informed about the developments of their field and demonstrate the ability to locate and apply relevant professional literature and information. They also set professional development goals and apply learning strategies to achieve those goals.

**Ethics:** Ethics is the awareness of the professional code of ethics and ability to make decisions and take actions that reflect such characteristics as honesty, fairness, and beneficence.

**Effective Communication:** Effective communication is reflected by a demonstration of skills in a variety of areas and situations. Some examples are:
cooperative skills. Demonstration of ability to work effectively with a variety of individuals; demonstration of ability to work positively with a team to complete tasks in a quality manner and to contribute to group goals; demonstration of ability to compromise, cooperate, and collaborate.

facilitation skills. Demonstration of ability to conduct organized and effective meetings and presentations, as well as participate in and facilitate group discussions.

verbal communication. Demonstration of ability to speak assertively, be polite and tactful, use language that is acceptable in the workplace, convey messages accurately and in a timely fashion; demonstration of an awareness of relevant information in a variety of situations.

nonverbal communication. Demonstration of nonverbal behavior such as facial expressions, posture, eye contact, and gestures that convey attention, relatedness, respect, and presence.

effective listening. Demonstration of ability to use active listening techniques to facilitate understanding; demonstration of ability to recognize the need for and request clarification as needed; demonstration of ability to hear and interpret instructions and other messages accurately as well as receive messages with an open and objective attitude; display of a sensitivity to emotional content of verbal messages.

effective written communication. Demonstration of the ability to use accurate grammar and spelling in business correspondence and other documents as well as language appropriate to one’s professional setting; demonstration of ability to keep required records and documentation using accepted formats and protocols for professional documents.

Diversity Awareness: Diversity awareness is the demonstration of respect for individuals with disabilities and from different cultural groups, lifestyles, age groups, socioeconomic groups, and genders.
**Professional Development:** Professional development means that individuals complete the requirements as expected by their individual professions. Some examples are:

- credentialing and licensing. Acquisition of proper credentials and licensing required of the profession; keeping of those credentials active and current; demonstration of an understanding of the legal regulations of practice.

- professional conduct. Conducting oneself in accordance with legal parameters and representing oneself according to the standards of one’s profession; practicing within the boundaries of one’s expertise and skills.

- safety. Demonstration of an understanding and adherence to safety regulations of the workplace and ability to be proactive in avoiding safety problems, as well as an understanding of and respect for the liability issues and concerns presented to the employer.

- general business knowledge. Demonstration of the ability to use technology appropriately and effectively as well as remaining abreast of technical and business developments related to the profession; demonstration of an awareness of all aspects of business, including financial and marketing issues as well as administrative and management concerns and roles in daily business operations.

Students can develop at least some of these important skills in every class if instructors provide the opportunity. These professional skills can be a significant part of active learning in the classroom.

**Reflection Questions**

Be sure to actually write down the answers on a piece of paper or in a computer document.

- What are the professional skills critical to your specific students? How do they currently rate in these skills? (Think like an employer!)

- Assess the activities you currently assign in your classes. How can you incorporate the teaching, modeling, or practicing of professional skills required for the workplace?
Suggested General Guidelines

Regardless of the kind of activity or whether it is an individual, group, or experiential assignment, there are several general strategies that may make it easier for students to complete the assignment and for you to assess and document the outcomes. Consider practicing the following strategies.

Create an activity sheet for the learning activities you assign.

By developing an activity sheet for each learning activity you assign, you will ensure that all the important considerations have been addressed. Even for short and simple assignments, complete a brief activity sheet so you can work out exactly the purpose and criteria for success for the assignment. This habit will also allow you to assess the success of the assignment and note revisions that will improve the activity.

Distribute a student version of an activity sheet to students for more complicated assignments.

By distributing an activity sheet to students for complicated assignments, they will have a written record of exactly what you expect them to do. This habit will reduce anxiety and frustration with students and ensure that they understand the goals, criteria for success, and format in which you want the activity submitted. They will also understand the assumptions and limitations of the activity, as well as have a permanent record on which to make learning notes to use for study.

Provide extensive and prompt feedback.

Even if the assignment is not to be graded, provide some kind of system by which students can gain feedback on their work. Remember that the goal is not for students to complete an assignment, but for you to facilitate learning on the part of the students. Consider the following tips on providing feedback.

- Provide feedback on behavior rather than on the person.
Provide feedback on observations rather than on what you think the students mean. Avoid making assumptions or trying to interpret what the students mean.

Avoid judgment; just provide feedback on what you observe as it relates to the criteria for success.

Provide feedback rather than give advice.

Assist students in looking for their own solutions rather than providing cut-and-dry answers.

Provide feedback on students’ thought processes.

Limit the amount of feedback you provide at one time. Focus on the most critical elements first.

Be respectful, and always remember that your only goal is to assist students in learning the material.

Relate what you are seeing to the workplace as a point of reference and basis for your statements. This strategy creates more objectivity.

Be as detailed as possible to give the students a clear picture of what they need to do to improve and how they can achieve this improvement.

Praise positive aspects as often as possible. Start on the positive and end on the positive.

Use “I” statements rather than “You” statements.

Ask students in class to offer feedback on each other—constructively, kindly, and professionally.

Ask students to offer feedback on themselves—constructively, kindly, and professionally.
Complete the assignment yourself before assigning it to students.
Always complete the assignment yourself to ensure that the instructions are clear. Make sure that the references are available, the readings are appropriate, and the expectations are clear.

Set the criteria for grading before you develop the activity.
Ensure that you have thoroughly thought out how you will grade the assignment, and write down the criteria for each level of success. How will students know these criteria?

Go over your expectations with students prior to letting them begin the assignment.
Prior to letting students begin the activity, go over your expectations, format, resources, assumptions, limitations, and grading criteria with them to ensure they understand. Ask for questions, and make needed clarifications.

Reflection Questions
Be sure to actually write down the answers on a piece of paper or in a computer document.

- Write a description of your students’ expected work environment and expected professional behaviors. Next, assess and describe the knowledge, skills, practice, and attitude development that occurs in your classroom. How do these compare with the anticipated work environments or expected behaviors that will challenge the students? (Take time in completing this comparison list.)

- When discussing these with others in your department or teachers who instruct a similar course, what sort of feedback do you get?

Learning Activities
Complete the following learning activities carefully. A more detailed description of each learning activity can be found at the end of Module 4, along with any supporting
documents and required additional resources. Submit as directed or include the completed activities in your Professional Development Portfolio.

**Activity Planning Sheet**

For a class you are or will be teaching, create an Activity Planning Sheet to assist an instructor in determining the best strategy for reinforcing a concept and developing an activity. Be sure to consider all aspects of activity development and implementation, including criteria for success and evaluation. Make this worksheet as detailed as possible so that all elements of activity development are addressed.

**Activity Assessment**

Evaluate five of the activities you currently assign in your classes in light of the Activity Planning Sheet. Do your activities address the important elements? If not, how can you revise them to improve the learning of the students completing the activities? Complete this activity in a group of three to five instructors.

**On-line Research—Active Learning Theory**

Research the Internet for “Active Learning Theory,” and develop a resource list that you can include in a reading list. Talk to other faculty to see if they have resources that they think are useful in developing knowledge and skills in active learning.

(Group Activity  Individual Activity  On-line Activity)

**Summary**

Section 1 discussed foundational information of active learning theory. This topic is enormous, and the content here just provides a brief overview. Additionally, benefits,
obstacles, and solutions were discussed to assist lecture-oriented instructors in increasing the amount of active learning within their classrooms.

**Instructor Improvement Plan**

Now, complete the Instructor Improvement Plan for Section 1. Take some time to thoughtfully prepare a detailed improvement plan. Complete the form, and keep it available as you plan and teach your classes for the next few terms. Note your problems, progress, successes, and questions over the next three to six months. At that time, reevaluate the plan and set new goals.

**Professional Development Portfolio Elements**

To complete Section 1, insert your completed material from Section 1 into the designated division in your Professional Development Portfolio.
Appendix B: Procter & Gamble’s OneKey Access Control Project
What is OneKey?

It’s a security initiative

OneKey is a project designed to develop and deliver improved security through a global, physical, and IT access control platform. The initiative is founded on a P&G global ID card, called the OneKey smartcard.

From a security standpoint, OneKey standardizes and strengthens physical security. In addition, it provides security infrastructure to facilitate IT strong authentication, encryption, and digital signatures.

From an end-user standpoint, OneKey smartcards will be used for door entry, reduced sign-on to IT services, and cash-on-card applications in cafeterias.

It’s a vision

SmarkKey Fundamentals (Need some kind of introductory sentence/paragraph that gives a brief overview to the fundamentals. Then lead in with…Fundamentals include…)

⇒ Every P&G employee and business partner who accesses P&G physical and logical information has a unique digital identity.

⇒ Individuals know only their own unique identity..

⇒ Individuals are shielded from any behind-the-scenes technical accounts that are mapped to their single identity.
More technical services can use the P&G OneKey smartcard identity “backbone” directly.

Each digital identity is permanently and securely stored in P&G’s centralized records.

For convenience, these digital identities are loaded on the OneKey smartcards.

For less sensitive identification, the smartcard is used as a complete proxy for the individual. For example, the individual’s identity can be directly read from digits on the card’s magnetic stripe.

For more sensitive identification, the individual’s identity is “locked” into the smartcard. Only the individual’s PIN or fingerprint can “unlock” the identity.

P&G uses a consistent, global format for its smartcards, so that every badge is instantly recognized at every location worldwide.

A global information system easily manages identities, smartcards, and physical and logical access.

The system is linked to the P&G’s SAP HR database, so that each smartcard is bound to P&G’s authoritative records.

The system is also linked to P&G’s Position Database, from which baseline levels of physical and logical access can be established depending on the individual’s role at P&G.

The system automatically pre-populates required fields as an individual’s data is added or changed. In addition, the SAP HR database will automatically remove access within the access control system as individuals are removed or deactivated, or change roles.

The standardized P&G OneKey smartcard is compatible with many different access control systems used at P&G locations around the world. Thus, all employees can swipe for authorized access regardless of the location. This system allows P&G visitors to be processed more efficiently regardless of the site they are visiting. The system also provides the convenience of only one easily recognizable and authenticated identification badge.

Perspectives

Knowledge Worker

I briefly press my ID Card against the proximity card reader in order to get into the building where I work.

Sometimes I encounter a locked door where I must again use my ID Card to gain access.

In order to gain access to a very secure area, I must also type my personal PIN on the reader’s keypad or press my finger on a biometric reader.

I can also use my ID Card to gain access to other buildings and rooms that I am authorized to enter.

Even at other campuses and sites (globally).

Nearly every P&G building worldwide is secured by these devices.

To log onto my workstation, I insert my ID Card into the card reader that is integral to my workstation’s keyboard. The workstation then asks me for my personal PIN or biometric fingerprint.
It takes only seconds to log on.

- Once I’ve logged on like this, I can access nearly all of the business applications and data that I am authorized to use and view, without any further login dialogs. Very occasionally this doesn’t work because:
  - I have not used my workstation for quite some time, and therefore per P&G security policy my session has expired. I must enter my PIN again.
  - Some business applications are not yet integrated with the ID Card system; those applications require me to log in with their own, separate ID and password. I make sure to let my IT contacts that they should remedy this.

- I can log in like this at any company workstation. As my workstation session loads, it automatically adjusts to reflect my personal configuration preferences, favorites, history, etc.

- Sometimes, when I am completing a particularly sensitive transaction (like authorizing a very large payment to someone, or approving clinical test results), the business application I am using requires me to enter my personal PIN again. The dialog that asks me to do this informs me that by entering my PIN again, I am in effect placing my personal signature on the transaction.

- Once I log in, I can easily encrypt files by either moving them to a special directory on my hard drive, or by right clicking the file name in Windows Explorer and selecting “Encrypt” from the context sensitive menu.
  - I can make files readable only by myself, or I can choose the list of individuals and/or groups which should be able to decrypt the file.
  - I can also rest assured that any document I check into the company’s global Content management solution will have the appropriate encryption placed on it, because when I checked the document into the system I specified the Smart Sharing classification (Internal Use, Restricted, or Highly Restricted) and enumerated the authorized viewers. The company’s Content Management solution automatically handled the encryption for me, and will automatically handle the decryption for authorized viewers.

- I treat my ID Card very carefully, because I need it to get through doors, and I have my lunch money stored on it.

- When I need to leave my workstation for lunch, the restroom, meetings, etc., I remove my ID Card from the card reader. When I do this, my workstation will be locked until I again insert my ID Card and enter my PIN.

- I can load money onto my ID Card by visiting one of the many kiosks conveniently located around the campus I’m at. I can use this money to buy lunch and other items at the cafeterias and convenience stores located on campus. I can use that money to pay for P&G parking on a daily basis or if I’m a monthly contract parker, I use my ID Card to enter the parking garage.
Sometimes I must enter my PIN to complete a retail transaction. It depends on the rules in effect at the local point of sale regarding value of the transaction, etc.

My ID Card identity works for me while I’m away from the office as well.

My laptop is equipped with an ID Card reader.

While working from home or when using my laptop on a business trip, I use my ID Card and PIN to log onto P&G’s internal network via a VPN switch on the public internet.

When I need to access P&G web applications from an airport kiosk, I insert my ID Card into a small holder which generates a temporary passcode, much like the old SecureID code used in 2001. That temporary passcode, plus my PIN, gives me access to what I need.

- I am careful to not access Highly Restricted data from an airport kiosk, because I can never be totally sure what data is being monitored from or cached on the kiosk.

When working offline, I still must use my ID Card to access any of the workstation files that I have encrypted, or to read secure email that has been archived or stored on my workstation.

Plant Worker

I briefly press my ID Card against the proximity card reader in order to get into the plant and manufacturing area where I work.

I use my ID Card to quickly identify myself to the manufacturing control application my team uses. We all share a single workstation on the manufacturing floor, but the ID Card’s quick and painless authentication to this shared workstation (the proximity reader on the workstation automatically senses my presence and simply asks for my PIN) allows our individual records are kept separated.

Since I work in a health care plant, and the FDA requires signed records to be kept for each batch we produce, I use my ID Card and my PIN to electronically sign SAP-generated manufacturing records. The FDA accepts this form of digital signature.

P&G Security Professional

I can easily but securely provision an ID Card to a new employee.

The individual was automatically authorized to receive an ID Card at this location when their manager enrolled them in the SAP HR database.

The individual came to this location’s ID badge station, and showed me proper form of government ID, etc. The information which constitutes proper authorization to receive an ID Card has been specified to me through the link to the SAP HR database.

I take the individual’s digital photo and use it to produce a standard Company ID Card.

Since I have carefully checked the individual’s identity before issuing their ID Card, I can also lock the individual’s digital identity into their ID Card.

- I require the individual to type in a secret PIN, which only they can use to access their digital
identity from the ID Card.

- Vast majority of badge issuance is automated and allows the knowledge worker to become active in physical and logical access systems quicker and easier than ever before. Current method requires submission of paperwork either electronically or hardcopy and sometimes the authorization does not arrive prior to start of work. Database integrity of current physical and logical access systems is enhanced through the automated ability to remove those no longer employed by the Company. Current state requires notification from someone in the individual’s organization to place a phone call or submit the required paperwork, often this part of the process is missed and users maintain the ability to access our Company both physically and logically. Local control of site access is maintained because the system is tied together on a local to regional to global data sharing. ID Badges have the ability to be active for one or multiple sites globally meaning the local business unit can decide if they want to extend access on a regular basis to non-site residents or turn them on and off according to planned visits.

- I can revoke all physical and/or logical access within minutes.

  - Access control system data will be able to be turned off immediately upon request of authorized individual at the local site level. This could happen in the event an ID badge is lost or an employee is terminated for cause.

  - We also have the ability to put the access back into the system immediately upon notification the badge has been located.

  - Access revocations also happen automatically via the SAP/HR system, commensurate with normal status changes (job change, termination, leave of absence, etc.).

  - P&G Position Database is a starting point for the business rules around what the new rights, if any, should be.

- Reporting

  - To be developed.

Help Desk

- Call volume for password resets has dropped off dramatically, because with the ID Card + PIN system, PINs do not need to be changed periodically. Thus, people do not forget their PINs as readily. Since the PIN is worthless without the actual ID Card, security can be maintained without requiring periodic PIN changes.

- When an individual does require a PIN reset, or loses their badge, they must visit any badging station with proper credentials. A new ID Card is issued and the old ID Card is disabled.

  - Alternative authentication mechanisms of sufficient strength may be available (such as voice recognition plus secret question/secret answer). To be further developed.

Site Facilities
It is easy to integrate our site’s access control mechanisms with the corporate standard.

- The complexity of choices has been boiled down to 3-4 prepackaged solution sets. These solutions provide us with flexibility to match our needs.
- There is clear documentation to help us decide which solution set is appropriate at our site.
- Any of the prepackaged solutions interoperates with the others.
- The solution sets include a choice of integrators who will help get the solution installed while allowing for competitive bidding.

It’s a set of standards

Need some type of introductory statement or paragraph here about standards and an overall blanket statement of how OneKey meets those standards. Then say that OneKey meets standards specifically in the following ways…

Every P&G employee, contractor, and business partner who works on site will be issued a P&G-managed digital identity based on X.509 digital certificates. Over time, this identity will allow access to all of P&G’s IT assets. Each user’s digital certificate will be locked into the globally-standard P&G identification badge, or smartcard. The certificate will be accessed only when the user’s smartcard and PIN are presented.

P&G’s IT infrastructure and applications will be converted to use OneKey technologies for secure authentication, encryption/decryption, and digital signatures. As a result, new technology selection criteria must consider OneKey compatibility.

P&G’s physical access control systems will be converted to accept, produce, and manage these smartcards. As these systems are converted, their attendant management processes will be standardized and consolidated. They will also be appropriately integrated with IT credential management functions.

Have some kind of lead in statement to the following lists:

Standards for physical control systems

- Physical access control software (including data standards)
- Badges (including graphical design)
- Control panels
- Door readers
- Badge printers
- Badge cameras
- Processes and procedures
- Data

Standards for IT security backbone

X.509 PKI backbone

Another bullet needed

It’s a pilot implementation

Include as the first information in this section that a pilot will take place, when, where, who is in charge, etc. Give the basic background information of the pilot first. Then, launch into learning goals. Learning goals for the pilot include validating the technology, integration, key processes, and security improvements (badges, PIN resets, visitor management, etc.). Other learning goals include evaluating end-user reactions and cultural acceptance, validating the remote deployment process, and testing the support model.

Need transition statement for the following. Design deliverables for what? The following lists may not fit into the pilot implementation section. Actually, this may need a separate heading altogether.

4. **Design Deliverables**
   a) Hardware standards
   b) Software standards
   c) Data standards
   d) Standard Operating Procedures (SOPs) and Current Best Approaches (CBAs)
   e) Deployment playbook
   f) Pilot implementation plan, including pilot success criteria (Launch Criteria)
   g) Lab-based technology demonstration
   h) Updated enterprise funding strategy and deployment plan

Out of Scope Deliverables:

   a) Cash-on-card applications. OneKey will only outline the sector(s) of the smartcard that can be used in future projects.

   b) Single sign-on configurations for applications beyond NetWare, Microsoft Client, Notes, Intranet, and VPN switch. Future efforts can easily build additional SSO configurations using OneKey technology; however, the appropriate platform/application team is responsible for this.

5. **Project Interdependencies**
   a) GBS Global Directory Services password synchronization project
b) GBS password synchronization strategy work

c) GBS NG initiatives (ITO and Facilities)

d) Various sites’ physical security system replacements/upgrades

e) Various sites’ canteen/convenience payment projects

Why is OneKey important?

**OneKey Value Proposition**

Customer: P&G’s business owners

– They’re responsible for protecting Company assets (facilities and information)

Need: Existing security infrastructure is increasingly inefficient/inadequate

– Multiple “silo” physical security systems
– Multiple approaches to IT security

Benefit: OneKey program drives synergistic security infrastructure upgrade in both physical and IT spaces

Business Opportunity/Market Overview

- Over 35 physical access control systems are used at P&G locations worldwide. Over 30 P&G facilities have systems (including the Cincinnati Matrix) that are no longer useful and should be replaced immediately. Corporate Security has been seeking to improve standardization of equipment and processes across sites as these control systems are replaced. This represents a required baseline investment over time regardless of OneKey.

P&G lacks an industry-standard end-to-end security backbone. Lacking this backbone, technology and application teams are often forced to deploy point security solutions for their products. Even worse, teams must choose to move ahead without a feasible/adequate security solution. Technology and application teams could leverage such a backbone to ensure compliance with P&G’s information security policies and standards.
Global Information Security (GIS) has successfully piloted industry-standard digital certificates to establish identity, encrypt data, and electronically sign transactions. For example, 1,400 users at six beauty care plants use digital certificates to electronically sign SAP batch records. Further, a digital certificate-based workstation file encryption utility is currently underway in GBS Global Personal Computing. Finally, we have successfully used digital certificates in our labs to authenticate web content and P&G’s remote access VPN switch. We have also allowed P&G Notes users to send secure Emails to business partners who use Microsoft Outlook.

The business goal for OneKey is to address these physical and IT security opportunities. Via centralized funding, OneKey will be aggressively rolled out to become the de facto standard among P&G’s business units and sites. Beyond urgent physical access control needs, the “investment throttle” required to adequately establish the OneKey standard is a judgment call. The recommended funding strategy is to acquire enterprise licenses for P&G digital identities and attendant software. In addition, we want to deploy the OneKey physical and logical access controls to our 45-50 highest priority sites, which represents approximately 60% of P&G’s knowledge workers. Remaining sites will then have a firm standard to follow as local funding helps replace end-of-life physical access control systems.

Competitive Overview
No significant competing physical security efforts are internally underway. We do not expect the GBS NG Facilities outsourcing outcome to introduce significant competing physical security solutions. This is because P&G will continue to own most buildings and physical access control systems. Further, P&G Corporate Security prefers to implement P&G-specified physical security at leased properties.

Currently, authentication to IT services is generally limited to SecurID tokens for remote access. Acceptance of SecurID tokens for authentication has been weak.

IT encryption outside of standard web SSL connections has generally been limited to point solutions, often involving shared symmetric keys and their attendant challenges. One exception is Notes’ proprietary encryption and signing capabilities (including the
DataLock utility for workstation file encryption). However, these are not extensible outside of Notes. OneKey’s scope includes completing the existing PC Data Encryption project, which uses the same technology solution.

Internal single sign-on solutions have been limited to the web via GBS Directory Services’ AutoPass and session cookie technologies. GBS is currently considering back-end password synchronization, which is a different approach from OneKey’s client-side focused SSO solution. During Design, the OneKey project will determine if these are competing or complementary solutions.

The PKI capabilities of the NG ITO supplier will be examined and considered with the OneKey pilot execution. Learnings will help formulate OneKey’s scale-out strategy.

Primary Target Audience
Any P&G employee or contractor, and many external business partners who access P&G IT services will receive a OneKey smartcard.

Any person who normally receives a permanent P&G physical access badge will also receive a OneKey smartcard. If the person does not access P&G IT services, the smartcard will not include the PKI-enabling cryptography chip.

Secondary Target Audience
Physical and computer security administrators, as well as IT call center personnel, will use or will be affected by OneKey processes. Technology and applications teams will use OneKey technology to make their product offerings secure.

User/Consumer Benefits
Users can use the OneKey smartcard for convenient authentication, sign-on, and door access.
The goal is for end users to authenticate just once each session: insert card, type PIN, and go. This quick process should allow users to access most IT services, including NetWare, Microsoft client, Notes, Intranet, and VPN. Current workstations will be equipped with an add-on smartcard reader, which will eventually be built in. Users will also benefit from small door readers (no need to aim well while swiping through a door) and the ability to swipe at most P&G locations.

Payer/Customer Benefits
This information should go somewhere else—in an additional information section perhaps. Steve David has presented this project. The project board consists of Ed Casey (Corporate Security), Al Loeser (Global Information Security), Melanie Moody (GBS Security), Pat Kern (Internal Controls) and William Reeves (GBS Workplace Services). A.G. Lafley has approved a 3-site pilot.

Business information owners will benefit from improved information security (more attractive, stronger authentication mechanism and standard backbone for data encryption and digital signatures).

Technology and applications teams will benefit from an industry standard security backbone (PKI) that can be used to build security into product offerings to comply with P&G information security policy. This will, over time and per business and risk-tolerance priorities, drive conversion of P&G’s IT infrastructure and applications to use OneKey-delivered technologies.

P&G site owners and managers will benefit from improved physical security.

What is Vision for OneKey?

Need OneKey vision

What is the Project Plan for OneKey?
Project Approach
Paradigm Shift

In:
Incremental functionality and deliverables with earlier results
Accept proof-of-concept quality where appropriate (e.g., single signon)
P&G takes over most engineering and implementation
Pilot sites driven by business needs, and contribute funding (unless Company mandates)
Broad communication of vision, plan, and deliverables

OneKey Project Schedule

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<td>• Physical access control system standards</td>
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<td>• Physical access system replacement plan</td>
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<td>• Tactical PAC replacements using OneKey standards</td>
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<td>• 3/31</td>
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</table>
### OneKey Project Schedule

#### Site Implementations
- Albany, GA plant
- Single Cincinnati site (BRTC or F&HC)
- Cincinnati Matrix replacement (not funded by OneKey budget)
- European site (2nd PAC system)

#### OneKey Features: Physical
- Improved visitor management
- Badged visitor convenience between OneKey sites
- Enterprise physical security reporting
- Role-based physical access authorization
Who’s paying for OneKey? (The following sections are not part of the outline. Maybe they should be “additional information” links?)

The investment through the pilot is $1.15MM. This amount is funded by global appropriation #N.00964. Randy Reedy approved this amount on 18-Mar-2003. Unspent FY 02/03 GBS 07 capital was used for this appropriation. Corporate Functions Global Information Security (Al Loeser) will carry depreciation in connection with pilot capital.

Existing approved budgets include all other costs to design this initiative.

Scale-out funding is to be determined. The recommended funding strategy is to acquire enterprise licenses for P&G digital identities and attendant software and to deploy OneKey physical and logical access controls to our 45-50 highest priority sites, representing approximately 60% of P&G’s knowledge workers. This will require a capital investment of $19-22MM. The execution time will depend on available resources. The remaining sites will then have a firm standard to follow as local funding helps to replace physical access control systems. Remaining knowledge workers who require access to highly restricted data will be equipped with OneKey cards on a case-by-case basis.
What if I need information immediately?

Primary OneKey Contacts

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<th>Role</th>
<th>Name</th>
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<th>Phone</th>
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<tr>
<td>Project Manager</td>
<td>Jon Hodgdon</td>
<td>Hodgdon.jc</td>
<td>513-698-6147</td>
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<tr>
<td>IT Lead</td>
<td>Brian Mumper</td>
<td>Mumper.jb</td>
<td>513-945-1149</td>
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<td>Deployment &amp; Support Lead</td>
<td>Dave Tufts</td>
<td>Tufts.dw</td>
<td>513-698-6070</td>
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<tr>
<td>Corporate Security Lead</td>
<td>Dave Flavin</td>
<td>Flavin.dj</td>
<td>513-983-3136</td>
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</table>

Upgrading local PACs immediately

This section provides guidance for sites that need to purchase physical access control systems before the OneKey project can deliver firm purchase specifications.

Background/Resourcing Approach

The OneKey project team will conduct a pilot of the OneKey solution in three sites. The team expects the pilot project to begin approximately October 2003 and end January 2004. This information could also go in the section about the pilot.

Enterprise roll-out approval, strategy, and funding will not be finalized until the pilot is successfully completed 1Q2004. Until then, the lead case calls for centralized funding to roll out OneKey to the highest priority 50-60 sites, covering approximately 60% of the Company's workers. This will establish the OneKey solution as the de facto physical access control standard that all sites can follow for upgrades or replacements. Site personnel will deploy physical access control systems more easily by following the OneKey standard. This is because they can "plug into" the enterprise software system, that is, the brain behind local door controllers. Further, the OneKey standard will make selecting and installing local hardware simpler and potentially less expensive.

The OneKey project team understands that some sites urgently need to install a physical access control system. The ideal scenario would be for sites to wait until the project team can develop the overall OneKey roll-out strategy. For sites that cannot wait due to safety and/or security issues, an alternate plan is needed to meet those critical needs. However, this plan cannot compromise the site's ability to benefit from the OneKey solution.

Physical Access Control System Requirements

PAC Software
P&G will likely pursue an enterprise license for the PAC software. Therefore, the server-side PAC licensing cost of the systems may be unimportant.

Sites in Europe should select the IDtech system. Prior to reaching a purchase agreement, contact Etienne Loones, loones.e, for further guidance.

Sites outside of Europe should purchase a Software House C-Cure 800 system. Purchase the fewest possible functionality modules and the smallest size software license that will work. Prior to reaching a purchase agreement, contact Dave Flavin, flavin.dj, or Jim Dixon, dixon.jh, for further guidance.

**PAC Configuration**

Configure the PAC software to suit local site needs. However, keep these configurations simple because OneKey data standards will eventually overwrite them.

The OneKey standards will include enterprise-wide naming conventions for popular areas/zones, door schedules, people groups, etc. Provisions will be made for site-specific data configurations, but the data scheme for this has not yet been addressed.

OneKey will also provide standardized auditing and reporting templates.

**Server and Workstation Platforms**

The interim PAC system back end should be installed on as small a hardware platform as possible, because this hardware will become surplus once the site ties into the anticipated OneKey regional PAC server.

Under OneKey, sites will likely use dedicated SEWP 5 workstations to host badging/visitor management client software.

**Control Panels**

There is no specific guidance for control panels. Buy the panels that are appropriate for the PAC software and door card readers.

**Door Card Readers**

- Mifare 14443 Type A, recommend field-upgradable to DESfire if available.
- See the documentation on specifications provided separately.

**Badges**

- Mifare 14443 Type A proximity badge, 1K memory. Magnetic stripe to suit local site needs if any.
- All badges will need to be replaced when the site converts to the OneKey standard.
- See the documentation on specifications provided separately.
Appendix C: Procter & Gamble OneKey Template
TECHNICAL STANDARDS: DOOR NAMING

Purpose, Scope, and Content

Describe the purpose of this document, who will use it, why someone would want to use it, when it would be used. Describe what this document will and will not cover. Give a brief overview of the table of contents; briefly describe each section that will be covered.

Technical Standards for Door Naming

Explain that what follows is technical standards for door naming, which means the user must follow them. Explain these are different from guidelines, which will be covered in the next section.

Technical Guidelines for Door Naming

Explain that these guidelines are not mandatory, but are suggested because they reflect current, best practices.

Glossary

Include a list of words that should be defined from the text. Include any words you suspect the user is not familiar with. Bold those words in the document so the user knows the word will be defined in the glossary. These words should be in alphabetical order.

Word  Definition of word.

Reference Documents

Include a list of reference documents that the user might want to look at to get more information. If possible, make these links so that the user just has to click on one to get the document. You might consider also including the name of a person and of course, the url to the OneKey website.
### Revision History

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Chapter 1, Introduction to Real Estate

Study Guide

1. What is “the bundle of rights”? (pp. 4-5, Property Rights)

2. What is the complete definition of "real property”? Pay particular attention to airspace, water rights, easements, and stock in a mutual water company. (p. 6, Real Property v. Personal Property).

3. Does the original owner always keep the rights to minerals, or are they automatically transferred with the sale of real property? (p. 7, Minerals in the Ground)

4. What are the definitions of: (pp. 7-8, Water Rights)
   a. riparian rights;
   b. Doctrine of Reasonable Use
   c. right of appropriation?

5. What are Riparian Rights and Rights of Appropriation? (pp. 7-8, Water Rights)

6. Review the term “run with the land”, or “goes with the land” with regard to Easements, water rights, and deed restrictions (they all “run with the land”). (pp. 7-9 & 72)
7. What are “appurtenances” and what is considered to be “immovable by law”? (p. 9, Appurtenant to the land)

8. Are easements and stock in a mutual water company considered to be real property or personal property? (p. 9, Appurtenant to the land)

9. What are the five tests of a fixture? (pp. 11-12, Tests of a Fixture)

10. Who does the court tend to favor in disputes over fixtures? The buyer or seller? The landlord or tenant? The borrower or lender? (pp. 11-12, Tests for a Fixture)

11. What is the difference between a fixture and a trade fixture? (p. 12, Exception to the Fixture Rule)
Appendix E: Correlation Instrument
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| 01.     | A. write texts: | 01 informative | a essays | Pursue Idea Conduct Research | 118 307 | 9,11 | Rating =
|         |            |                                 |                |                                     |         |                        | Essays are not illustrated in the textbook because the focus is on workplace writing; however, students do write three informative essays. |
|         |            |                                 |                |                                     |         |                        |         |
|         | b reports  | Pursue Idea Additional Activities Computer Applications | 199 79 TM (Teacher’s Manual) 78-79 TM | 190-198 |         | Rating +
<p>|         |            |                                 |                |                                     |         |                        | Students write informative reports, analytical and persuasive reports and researched reports. Note: the textbook uses the term “reports” in the table of contents sections, pages xiii-xv, but uses the term “proposals” for the individual chapter titles. |</p>
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<td>Students write two informal proposals individually, and collaboratively write one formal proposal. Note: the textbook uses the term “reports” in the table of contents sections, pages xiii-xv, but uses the term “proposals” for the individual chapter titles.</td>
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<td>Students write analytical and persuasive reports such as a science lab report, progress report, and recommendation report.</td>
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<td>B. use the distinguishing characteristics of various written forms such as:</td>
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<td>Essays are not in the Index because the focus of the textbook is on workplace writing. Students do write three essays, one of which is an essay on how and why using a problem-solving process might benefit the student in their career. The actual format for an essay is not included in the book nor is it included in the Editing And Revision Checklist found at the end of most chapters in the textbook. Students do learn how technical writing differs from academic writing.</td>
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<td>Students study the formatting and organizing of lab reports, then use the Editing and Revision Checklist to self-evaluate their written scientific reports.</td>
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Revision Checklist for students to self-evaluate their speeches for complying with the acceptable criteria (or distinguishing characteristics) for speeches or oral reports.

Students write numerous memorandums following the steps in the process to compose a memo. Students then self-evaluate their written work using the Editing and Revision Checklist for compliance with the acceptable criteria (or distinguishing characteristics) for memorandums.

Students write instructions following the guidelines for composing instructions as stated in the textbook. Students are given numerous exercises where they change the passive voice sentences to active voice, and another set of sentences where they change the active voice sentences into passive voice.
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<td>a audience</td>
<td>Editing and Revision Checklist</td>
<td>7</td>
<td>69,133,162,241,262,326</td>
<td>Rating =</td>
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<td>Warm Up</td>
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<td>b purpose</td>
<td>Warm Up</td>
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<td>217,361</td>
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<td>Apply What Learned</td>
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<td>221,362</td>
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<td>Consider Case</td>
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<td>Pursue Idea</td>
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<td>D. organize ideas in writing to ensure:</td>
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<td>182-183</td>
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<td>Apply What Learned</td>
<td>183</td>
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<td>02 logical progression, and</td>
<td>Apply What Learned</td>
<td>183</td>
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<td>Rating =</td>
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<td>Pursue Idea</td>
<td>187,217</td>
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<td></td>
<td>Editing and Revision Checklist</td>
<td>182,217</td>
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</tbody>
</table>

**Ratings:**
- + exceeds
- = meets
- - does not meet

**Comments:**
- Students write in voice appropriate to purpose and write a science lab report in the passive voice.
- The rating can be increased to + if the word “style” is included in more Editing and Revisions Checklists at the end of the chapters.
- Coherence not in the Index. Students do organize instructions in logical order.
- Logical Progression not in Index. Students do organize ideas in order when completing instructions and a science lab report.
<table>
<thead>
<tr>
<th>TEKS(#)</th>
<th>Topics (#)</th>
<th>Element/Student Expectations(#)</th>
<th>Subelement (#)</th>
<th>Location of student expectation/TEKS</th>
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<th>Content Page Number(s)</th>
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<tr>
<td></td>
<td></td>
<td>03 support for ideas.</td>
<td></td>
<td>Editing and Revision Checklist Pursue Idea</td>
<td>262</td>
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<td></td>
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<td>b develop voice, and</td>
<td></td>
<td>Apply What Learned Pursue Idea Editing and Revision Checklist</td>
<td>183,224</td>
<td>170,178,188, 204,213-214, 223-225</td>
<td>Rating +</td>
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<td>187</td>
<td>177</td>
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</tbody>
</table>

Support for Ideas not in Index. Students write recommendation report and are asked if the introduction gives the purpose of the report, defines the problem, narrows the choices, and introduces the criteria in their proper rank.

Groups brainstorm to generate prewriting strategies for ideas and plan for memo, letter, resume, news release, visuals, instructions, periodic report, and recommendation report.

Students use prewriting strategies to develop voice for instructions and a science lab report.
<table>
<thead>
<tr>
<th>TEKS(#)</th>
<th>Topics (#)</th>
<th>Element/Student Expectations(#)</th>
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<tbody>
<tr>
<td></td>
<td>c plan</td>
<td>Pursue Idea</td>
<td></td>
<td>48,72,101, 135,187,245, 266</td>
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<td>Rating +</td>
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<tr>
<td></td>
<td>Groups brainstorm to generate prewriting strategies for ideas and plan for memo, letter, resume, news release, visuals, instructions, periodic report, and recommendation report.</td>
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<tr>
<td>B. employ precise language and technical vocabulary to:</td>
<td>01 communicate ideas clearly</td>
<td>Inside Track Editing and Revision Checklist</td>
<td></td>
<td>189</td>
<td>188-189</td>
<td></td>
<td>Rating +</td>
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<tr>
<td></td>
<td>Students complete exercises in clarity. Students use Editing and Revision Checklist to self-evaluate for communicating ideas clearly for the memorandum, recommendation report, informal proposal, formal proposal.</td>
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<td></td>
<td>02 communicate ideas concisely;</td>
<td>Inside Track Editing and Revision Checklist</td>
<td></td>
<td>138-139</td>
<td>69</td>
<td></td>
<td>Rating +</td>
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<tr>
<td></td>
<td>The textbook uses the term “Economy” for conciseness. Students complete exercises in communicating ideas concisely (or with economy). Students use the Editing and Revision Checklist to self-evaluate for writing concisely in business letters.</td>
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<td>C. use the following appropriate to audience and</td>
<td>01 sentence structure appropriate to audience</td>
<td>Inside Track Editing and Revision Checklist</td>
<td></td>
<td>50,74,102, 136,188,223 46,182,241, 263,326,360</td>
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<td>Rating +</td>
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<td>Students complete exercises in sentence structure. Students use the Editing and</td>
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<td></td>
<td>02 sentence structure appropriate to purpose</td>
<td>02 sentence structure appropriate to purpose</td>
<td>02 sentence structure appropriate to purpose</td>
<td>Editing and Revision Checklist</td>
<td>46,133,182, 217,241,326, 360</td>
<td>Rating +</td>
<td>Revision Checklist to determine sentence structure appropriate to audience for memorandums, instructions, progress and periodic reports, recommendation reports, informal and formal proposals.</td>
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<td>03 organization appropriate to audience</td>
<td>03 organization appropriate to audience</td>
<td>03 organization appropriate to audience</td>
<td>Editing and Revision Checklist</td>
<td>46,96,241, 263,326,360</td>
<td>Rating +</td>
<td>Students use the Editing and Revision Checklist to determine organization appropriate to audience for memorandums, news releases, instructions, science lab reports, progress and periodic reports, and formal proposals.</td>
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<td>04 organization appropriate to purpose</td>
<td>04 organization appropriate to purpose</td>
<td>04 organization appropriate to purpose</td>
<td>Editing and Revision Checklist</td>
<td>96,241,263, 326,360</td>
<td>Rating +</td>
<td>Students use the Editing and Revision Checklist to determine organization appropriate to audience for memorandums, employment communications, progress and periodic reports, recommendation reports, informal and formal proposals.</td>
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## Correlation Instrument

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<td>05 rhetorical devices appropriate to audience</td>
<td>Additional Activities Editing and Revision Checklist</td>
<td>46 TM 241</td>
<td>105,109</td>
<td>Checklist to determine organization appropriate to purpose for employment communications, progress and periodic reports, recommendation reports, informal and formal proposals.</td>
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<td>06 rhetorical devices appropriate to purpose</td>
<td>Additional Activities Editing and Revision Checklist</td>
<td>46 TM 241</td>
<td>105,109</td>
<td>Rating – Will comply if instructions Additional Activities, page 46 TM (Teacher’s Manual), numbers 3 or 4, is expanded to say: Use rhetorical devices appropriate to the audience and purpose. These items could also be included in more Editing and Revision Checklists.</td>
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<td>D. use effective: 01 sequence to achieve:</td>
<td>a coherence</td>
<td>Editing and Revision Checklist</td>
<td>182,217,263</td>
<td>Rating = Sequence not in Index. Students use the Editing and Revision Checklist to use effective sequence to achieve coherence to evaluate instructions, science lab report, and recommendation reports.</td>
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<td>b meaning</td>
<td>Editing and Revision Checklist</td>
<td>182,217</td>
<td>Rating = Meaning not in Index. Students use the Editing and Revision Checklist to use effective sequence to achieve meaning to evaluate</td>
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<td>02 transitions to achieve:</td>
<td>a coherence</td>
<td>Inside Track</td>
<td>331-332</td>
<td>330-331</td>
<td>Rating =</td>
<td>Coherence not in Index. Students complete exercise in using transitions to achieve coherence.</td>
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<tr>
<td></td>
<td>b meaning</td>
<td>Inside Track</td>
<td>331-332</td>
<td>330-331</td>
<td>Rating =</td>
<td>Coherence not in Index. Students complete exercise in using transitions to achieve meaning.</td>
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<tr>
<td></td>
<td>E. revise drafts by rethinking the following to better accomplish the task:</td>
<td>01 content</td>
<td>Editing and Revision Checklist, Apply What Learned, Consider Case, Pursue Idea</td>
<td>46,69,96, 133,182, 46,98,133, 184,219,362, 48,100,185, 221, 101,135,187, 199</td>
<td>Rating +</td>
<td>Students have numerous opportunities to revise drafts by rethinking the following to better accomplish the task: content, organization, and style.</td>
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<td>TEKS(#)</td>
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<td>02 organization</td>
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<td>133,182</td>
<td>46,98,133, 219,361</td>
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<td>Apply What Learned</td>
<td>182</td>
<td>48,100,184, 221</td>
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<td>Consider Case</td>
<td>135,187,199</td>
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<td>Pursue Idea</td>
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<td>03 style</td>
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<td>Apply What Learned</td>
<td>182</td>
<td>100,185,221,101,199</td>
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<td>Consider Case</td>
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<td>Pursue Idea</td>
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<td>F. proofread or edit as appropriate for the conventions of standard written English;</td>
<td>01 proofread</td>
<td>Editing and Revision Checklist</td>
<td>end of most chapters</td>
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<td>Rating –</td>
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<td>G. use resources</td>
<td>01 texts</td>
<td>Pursue Idea</td>
<td>118</td>
<td></td>
<td>Rating –</td>
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<td>for editing such as:</td>
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<td>??? ?? ??</td>
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<td>Students are asked to find a model of a written report. Students do use texts for locating information, but do not use texts for editing or rechecking of facts.</td>
</tr>
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<td></td>
<td>02 other people</td>
<td></td>
<td>??? ?? ??</td>
<td>Pursue Idea Editing and Revision Checklist Apply What Learned</td>
<td>48 46 70</td>
<td></td>
<td>Rating = Students exchange memos with classmates and with a respected peer for feedback.</td>
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<tr>
<td></td>
<td>01 creating</td>
<td></td>
<td>??? ?? ??</td>
<td>Pursue Idea Consider Case</td>
<td>48 124,328</td>
<td></td>
<td>Rating = Students complete computer application problems in creating a memo, news release, and informal proposal. Note: The textbook asks students to draw charts and graphs when these charts and graphs could be computer-generated much faster, and most likely with a more professional look.</td>
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<td>02 revising</td>
<td></td>
<td>??? ?? ??</td>
<td>Apply What Learned Consider Case Pursue Idea</td>
<td>47,70,133, 183,263 100,221,242 200</td>
<td></td>
<td>Rating + Students complete computer application</td>
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<td>TEKS(#)</td>
<td>Topics (#)</td>
<td>Element/Student Expectations(#)</td>
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</table>
|         |            | 03 editing, and                 |                | Apply What Learned                   | 47,70,133, 183,263 | 46,69,96,162, 182,217,241, 263, 326 | Rating +
|         |            |                                 |                | Consider Case                        | 100,221,242 |                         |          |
|         |            |                                 |                | Pursue Idea                          | 200      |                         |          |
|         |            |                                 |                |                                     |          | problems in revising or editing a memo, letter, employment communications, news release, instructions, incident report, science lab report, progress report, and recommendation report. |
|         |            | 04 publishing texts; and        |                |                                     |          | Rating –                |          |
|         |            |                                 |                |                                     |          | No information is given on publishing texts. |
|         |            | I. write both:                 |                |                                     |          | Rating +                |          |
|         |            | 01 independently                |                |                                     |          | Students write independently to create a memo, letter, employment communications, visuals, instructions, science lab report, progress and periodic report, recommendation report, and informal proposal. |
|         |            |                                 |                |                                     |          |                         |          |
|         |            | 02 collaboratively.             |                |                                     |          | Rating +                |          |
|         |            |                                 |                |                                     |          | Students work collaboratively on create a formal report. Students also write a memorandum and then ask a respected peer to read and give specific feedback. |
## Correlation Instrument

**Subject**
Research and Technical Writing

**Publisher**
South-Western Thomson Learning, *Technical Writing for Success*

<table>
<thead>
<tr>
<th>TEKS(#)</th>
<th>Topics (#)</th>
<th>Element/Student Expectations(#)</th>
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<th>Page(s)</th>
<th>Content Page Number(s)</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>03. The student writes to investigate self-selected and assigned topics. The student is expected to:</td>
<td>A. use writing such as learning logs to:</td>
<td>01 formulate questions</td>
<td>?? ?? ? ?</td>
<td>Build on What You Know Conduct Own Research Editing and Revision Checklist</td>
<td>306 306 360</td>
<td></td>
<td>Learning log not included in Index. Students do formulate questions for interviewing to find answers to questions, to create interest and or response in written work, and to refine topics and clarify ideas in conducting research and writing formal reports.</td>
</tr>
<tr>
<td></td>
<td>02 refine topics, and</td>
<td></td>
<td>?? ?? ? ?</td>
<td>Conduct Own Research Editing and Revision Checklist</td>
<td>306 360</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>03 clarify ideas</td>
<td></td>
<td>?? ?? ? ?</td>
<td>Conduct Own Research Editing and Revision Checklist</td>
<td>306 360</td>
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<tr>
<td></td>
<td>B. compile information from:</td>
<td>01 primary sources using available technology</td>
<td>?? ?? ? ?</td>
<td>Evaluating Resources Conduct Own Research Apply What Learned</td>
<td>292-293 306 307</td>
<td>284-305</td>
<td>Even though electronic sources are explained in the textbook, the end-of-chapter exercises do not use electronic resources. There is an Appendix on how to use the Internet, but there are no activities in locating and using primary and secondary sources using available technology.</td>
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<tr>
<td></td>
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<td>02 secondary sources using available technology;</td>
<td>?? ?? ? ?</td>
<td>Evaluating Resources Conduct Own Research Apply What Learned</td>
<td>292-293 306 307</td>
<td>284-305</td>
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<td>C. organize and link related information from multiple sources:</td>
<td>01 organize</td>
<td>Editing and Revision Checklist</td>
<td>327,360</td>
<td>318-326</td>
<td>Rating – Link is not in the Index. Students do organize facts and figures, illustrations, and works cited in informal and formal proposals.</td>
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<td></td>
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<td>02 link</td>
<td>? ? ? ?</td>
<td>Editing and Revision Checklist</td>
<td>327,360</td>
<td>318-326</td>
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<td></td>
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<td>D. represent information in a variety of ways such as:</td>
<td>01 graphics</td>
<td>Apply What Learned Consider Case Pursue Idea</td>
<td>163 165 166</td>
<td>142-182</td>
<td>Rating + Students construct visual aids, tables, graphs, charts, organizational charts, and family tree.</td>
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<td></td>
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<td>02 conceptual maps; and</td>
<td>? ? ? ?</td>
<td>Apply What Learned Consider Case Pursue Idea Additional Activities</td>
<td>163 165 166 63 TM</td>
<td></td>
<td>Rating – Conceptual Maps not in Index. Will be rated a + (because of diagrams and flowcharts) if conceptual maps identified in text.</td>
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<td></td>
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<td>E. compile and draw conclusions:</td>
<td>01 written ideas into:</td>
<td>Pursue Idea Apply What Learned Consider Case</td>
<td>200 219 221,243</td>
<td>270-282</td>
<td>Rating + From written ideas students compile and draw conclusions for an incident report, science lab report, and progress report.</td>
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<td></td>
<td></td>
<td></td>
<td>a reports</td>
<td>Conduct Own Research Pursue Idea</td>
<td>307 328</td>
<td>270-282</td>
<td>Rating = The textbook does not use the word</td>
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<td></td>
<td>c other formats</td>
<td>Apply What Learned Consider Case</td>
<td>133,165,361 185</td>
<td>270-282</td>
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<td>Rating +</td>
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<td>02 representations into:</td>
<td>a reports Conduct Own Research Pursue Idea</td>
<td>282 266,363</td>
<td>270-282</td>
<td></td>
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<td>Rating +</td>
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<td>b summaries</td>
<td>Apply What Learned</td>
<td>282,327</td>
<td>270-282</td>
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<td>Rating =</td>
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<td>Consider Case Pursue Idea Apply What Learned Conduct Own Research</td>
<td>134 135,266 162,283 283</td>
<td>270-282</td>
<td></td>
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<td>Rating +</td>
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"Summary" for written work, but students compile and draw conclusions from written ideas for generating an essay on a career field and summarize findings of examining an RFP.

From written ideas, students compile and draw conclusions for a news release, visuals, instructions, title page, table of contents, and list of illustrations.

From representations students compile and draw conclusions for a recommendation report and a formal report.

The textbook does not use the word "summary," but students do write an essay about problem solving steps and the solutions to a problem.

From representations students compile and draw conclusions using scenarios and
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<td>04. The student applies the conventions of usage and mechanics of written English. The student is expected to:</td>
<td>A. produce legible written work, including</td>
<td>01 handwritten,</td>
<td>? ? ? ?</td>
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<td>02 word processed, and</td>
<td>? ? ? ?</td>
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<td>03 typed documents;</td>
<td>? ? ? ?</td>
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<td></td>
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<td>B. use correct:</td>
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<td>01 capitalization</td>
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<td>02 punctuation;</td>
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**Content**: Interview to create a news release, research plan, graphs or charts, purchase recommendations, and an oral presentation.

**Ratings**:  
Ratings:  
+ exceeds  
= meets  
- does not meet

**Comments**:  
Even though students write many documents, there is no differentiation between producing handwritten, word-processed or typed documents. Technically, most students will submit handwritten or word-processed documents, since the word “typed” is not often used today as a means of producing documents. To comply, the authors need to specify which documents can be handwritten and which must be produced electronically.

**Ratings +**:  
Students self-evaluate their work for correct grammar and spelling in writing memos, employment communications, news releases, instructions, science lab reports, progress and periodic reports, informal proposals, and
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<tr>
<td></td>
<td>D. demonstrate control over grammatical elements such as:</td>
<td>01 subject-verb agreement in final drafts;</td>
<td>? ? ? ?</td>
<td>Editing and Revision Checklist</td>
<td>46,96,133, 182,217,241, 326,360</td>
<td>Rating –</td>
<td>Even though subject-verb agreement and pronoun-antecedent are not listed, the Editing and Revision Checklists do ask the students to self-evaluate documents as being free of errors, using correct grammar and verb forms. The following Editing and Revision Checklists do ask students to check grammar: memos, employment communications, news releases, instructions (use verb that commands), science lab reports, progress and periodic reports, informal proposals, and formal proposals.</td>
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<td>Element/Student Expectations(#)</td>
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<td>05. The student evaluates his/her own writing and the writing of others. The student is expected to:</td>
<td>A. analyze and discuss published pieces as writing models;</td>
<td>? ? ? ?</td>
<td>Warm Up Pursue Idea</td>
<td>7</td>
<td>363</td>
<td>Rating = Students critique a proposal and analyze how the writer(s) met the needs of the audience. They also review formatting features and determine the organizational patterns. Students share the results of the critique orally or in an essay. Students also analyze four models in the textbook to determine: type of document, subject of each, what writer wants from the audience, organization of each document, style and tone, and special formatting features.</td>
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<p>|        | B. apply criteria to | Editing and Revision | end of most | Rating = |</p>
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<td></td>
<td>evaluate writing; and</td>
<td></td>
<td></td>
<td>Checklist Pursue Idea</td>
<td>chapters 363</td>
<td></td>
<td>Rating - Students critique a proposal from business and industry. To rate a + students could work collaboratively to establish a table or checklist to evaluate the work using the Editing and Revision Checklists at the end of most chapters as a guideline.</td>
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<td>C. accumulate, review, and evaluate his/her own written work:</td>
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<td>Rating - The textbook has an excellent Editing and Revision Checklist at the end of most chapters for students to determine if they completed all tasks in the writing assignment. Students do exchange a memo with classmates for feedback, and evaluate an oral and a written report. Little emphasis is placed on determining strengths, weaknesses and setting goals as a writer.</td>
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<td>01 to determine its strengths</td>
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<td>Editing and Revision Checklist</td>
<td>end of most chapters</td>
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<td>02 to determine its weaknesses</td>
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<td>Pursue Idea Apply What Learned</td>
<td>49 118</td>
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<td>03 set goals as a writer.</td>
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<td>Pursue Idea Apply What Learned</td>
<td>49 118</td>
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Appendix F: *Technical Writing for Success* Template
WHAT IS TECHNICAL WRITING?

WRITE-TO-LEARN

Read the four model documents on pages 3-5 and think about the type of writing each model represents. In a one-page journal entry, answer these questions: Have you written similar type of documents? If so, what did you write and why? Have you read similar documents? If so, what did you read and why? Which document would you use to make a decision or perform an action? Which type of document do you prefer to write? Why? Which do you prefer to read? Why?

In The Know

Ambiguity more than one interpretation is possible; describes writing that can mean different things to different people.

Academic Writing the expository and persuasive writing done in academic circles, examples include personal essays, research papers, analyses, and arguments.

GOALS

Define technical writing and its importance in the workplace.

Identify the characteristics of technical writing.

Compare and contrast technical writing and other types of writing.
THE WRITING PROCESS

WRITE-TO-LEARN

Read each of the four models presented at the beginning of the chapter. Think about the type of writing each one represents. If you were to write a journal entry or write the answer to a test question, which one represents the kind of assignment you are accustomed to writing? Describe the situations under which you are writing. What are the basic principles of writing? Why? What do you prefer to read? Why?

In The Know

ambiguous: a word that has more than one interpretation or meaning (e.g., a promise)
academic writing: the expository and persuasive writing done in academic circles (e.g., include personal essays, research papers, analyses, arguments)

GOALS

DISCUSS the importance of technical writing in the workplace
DEFINE technical writing
COMPUTE technical writing to other types of writing
DISCUSS solutions to ethical dilemmas in the workplace