

WorkKeys[®]

**TARGETS FOR
INSTRUCTION**

Reading for Information

ACT[®]

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OVERVIEW

Reading for Information

- **Reading for Information Skills**
- **Strategies for Teaching Reading for Information Skills**
- **The Skill Scales and Assessments**
- **Format and Construction of the *Reading for Information* Assessment**

Reading for Information Skills

WorkKeys Reading for Information is the skill people use when they read and use written text in order to do a job. The written materials include memos, letters, directions, signs, notices, bulletins, policies, and regulations. They do not include information that is presented graphically, such as in charts, forms, or blueprints. Workplace communications are not always well written or targeted to the appropriate audience and, since WorkKeys materials are based on actual workplace documents, they may reflect those weaknesses.

There are five levels of difficulty in the *Reading for Information* test. Level 3 is the least complex and Level 7 is the most complex. The complexity of each level is determined by the difficulty of the reading material and the difficulty of the tasks the reader must carry out. The difficulty of the reading passages is not based solely on any readability formula, but rather on a combination of factors described in each level description. These factors can include any or all of the following: length, difficult or unfamiliar vocabulary, number of confusing details, clarity of the writing, and number and type of conditional statements. You can use the level descriptions and the sample passages to choose the appropriate level of materials for your classroom or training program.

As the difficulty of the material increases, so does the level of skill required to fully understand and use the material. At Level 3, for example, materials are short and direct, and meant to convey clear and concise directions. The main skills needed to read Level 3 documents for information include finding the main idea and identifying important details. The levels build on each other, each incorporating the skills assessed at the preceding levels. At Level 7, the documents explain complicated procedures, policies, and laws. Many interwoven skills are needed to comprehend the purpose and requirements of Level 7 materials. The skills included can be loosely grouped into four categories:

CHOOSING MAIN IDEAS OR DETAILS

Employees must often select the most important information and supporting details from a written document. Looking for main ideas and details is a common reading task. But, reading tasks encountered in the workplace differ from the selections most often used in reading classrooms and training programs. In such programs, the main idea is generally found in the topic sentence at the beginning of a paragraph or occasionally in a concluding sentence. However, written communication found in the workplace is often less systematic in its construction. Consequently, employees need to be able to use clues other than placement to identify the main ideas and important details.

UNDERSTANDING WORD MEANINGS

Any worker who is required to read on the job must have a basic vocabulary, including work-related words. More difficult workplace reading materials also use specialized language including jargon. Therefore, workplace reading skills extend from knowing simple words and identifying definitions that are clearly stated in the reading to using the context to determine the meanings of more difficult words. Jargon, technical terminology, and words with multiple meanings occur more often as the contexts become more intricate.

APPLYING INSTRUCTIONS

Reading skills are frequently needed in the workplace for interpreting and executing written instructions. Skill in applying instructions involves sequencing and generalizing. At the lower levels, employees need only apply instructions to clearly described situations. As the skill levels increase in complexity, the instructions contain more steps, and conditionals are added. At the higher levels, employees must apply instructions to situations that are somewhat similar to those described and, eventually, to new situations.

APPLYING INFORMATION AND REASONING

For effective performance of a task, employees often need to apply information, to predict consequences of certain actions, and to understand the reasoning (which may or may not be stated) behind a policy. Employees may be asked to apply information and reasoning to clearly described situations at the lower levels, and to apply information and reasoning to similar and then to new situations at the higher levels.

Strategies for Teaching Reading for Information Skills

General strategies used to teach reading skills in traditional classrooms are also applicable in preparing individuals for the workplace. This *Target* adds to them by pointing out some work-related differences in the content and cognitive strategies required, by identifying appropriate materials, and by suggesting activities that may be particularly useful. Cognitive strategies are like tools in a toolbox. The more learning tools individuals possess, the better equipped they will be to handle the challenges of each new situation in the workplace.

As mentioned, unlike materials produced for a traditional educational setting, workplace materials are not always designed to facilitate reading or reading instruction. Every adult has at some time been frustrated by instructions that are unclear and confusing. Individuals who struggle with basic reading tasks will find most typical workplace materials even more daunting. As a teacher or trainer, you can help individuals develop their own approaches to these materials so they can avoid shutting down mentally when faced with difficult or confusing reading. Therefore, in preparing instruction in Reading for Information, find appropriate, real-life materials whenever possible. Fortunately, our society offers an abundance of announcements, directions, policies, and other written documents that can be used for this purpose.

In a school or community college setting, regular announcements and bulletins should offer a good source of materials. In choosing lists of instructions, take care to select tasks that do not require job-specific skills unless those skills are already possessed by or are included in the instructional goals of the learners. For example, materials on how to use a digital camera or fill out a tax form would probably be appropriate for

most groups, while materials on how to program a computer or to install a dishwasher would be appropriate only for selected learners. For secondary school students, school-based materials could include regulations for school athletic programs, driver's license manuals, and government documents such as jury notices or voter registration materials. Materials from the workplace can easily be collected from local businesses or by the students themselves from their own jobs or those of families and friends.

Learners should practice breaking these documents into simpler, more understandable parts. Once learners have practiced dissecting difficult documents and have experienced some success with understanding them, they will be less likely to shut down when faced with unfamiliar reading materials in the workplace.

Integration of Reading for Information Skills into School Curricula

If the teaching of Reading for Information skills is to be diffused throughout existing courses, dovetail them wherever appropriate with the rest of the course material. Reading non-literary text is part of all courses, and the addition of workplace materials and some of the strategies presented in this guide to the existing curriculum can strengthen the teaching of these skills.

Reinforcement of the Reading for Information skills in other classes should be strongly encouraged by the school or institution. These skills are not only appropriate to all academic disciplines, vocational classes, and the fine arts, but they are also important for success in those areas. An important factor in such an integrated program would be giving one individual or group responsibility for establishing, monitoring, and evaluating the program. A well-organized, integrated plan for teaching Reading for Information skills throughout the system would clearly strengthen the entire educational program.

Working with Adult Learners

Since many WorkKeys learners are adults, there are some useful points concerning adult learning to keep in mind. Adults are usually motivated to learn something primarily because they believe it will be useful. You will therefore want to be sure that learners understand and appreciate the connections between Reading for Information skills and the workplace.

Adults especially need to be able to relate new material to something they already know. Otherwise they are less likely to retain or use the new material. They may also have less self-esteem in the classroom than younger learners. You can respect this by giving them ample opportunities to practice a skill on their own successfully before demonstrating the skill in front of others, or by having them work in small groups or teams to learn collaboratively.

Although there is no universal agreement among educators on correct approaches to teaching adults in comparison to children, many feel that there are a number of good teaching practices that should especially be used in adult education. In "Using Adult Learning Principles in Adult Basic and Literacy Education," Susan Imel summarizes the recommendations from several sources:

- **Involve adults in program planning and implementation.** This practice can inform the instructor more completely about the learner's previous educational experiences, relate the material to the learner's present needs, and improve motivation.
- **Develop and/or use instructional materials that are based on learners' lives.** Again, the focus is on relating learning more directly to the learner's experience. It is especially appropriate to use workplace documents from the learner's work environment when addressing the skills assessed by the WorkKeys tests.
- **Develop an understanding of learners' experiences and communities.** Although individualizing instruction has great benefits, it is important to keep the learner's community

background and daily life in view. This can help you to understand their motivations and problems and can provide material and help to identify strategies that they can relate to.

- **Incorporate small groups into learning activities.** Small group work has been used successfully with all ages. For adults, this approach can provide peer support, a context more similar to those where they actually practice literacy skills—that is the workplace, home, and other daily settings.

Whatever the level of the learner or the length of the program, it is important to remember the following guidelines:

- ◆ Allow enough time to effect a permanent increase in all skill levels by incorporating adequate practice to establish solid competence.
- ◆ Be sure each learner is clearly aware of his or her own goals and of the relationship between those goals and job qualifications.
- ◆ You can use pretests to motivate learners and avoid time-consuming reteaching of skills they have already mastered. Posttesting can be useful for evaluating their mastery of skill levels.
- ◆ Present the instruction sequentially; learners should master each step before going on to the next.
- ◆ Be sure that learners demonstrate the prerequisite skills for each level before continuing with the instruction.

The Skill Scales and Assessments

WorkKeys assessments simulate the requirements of the workplace to the maximum degree possible given the demands of large-scale standardized assessment. As a result, the WorkKeys system is not geared toward any particular age group but instead focuses on the conditions of the workplace. It provides information to instructors and trainers so they can help individuals improve their workplace skills.

WorkKeys assessments are based on skill scales that are divided into levels. The scale used to score each assessment is also used in WorkKeys profiling and SkillMap inventories to determine the level of the related skill that is needed to adequately carry out the tasks of specified jobs and occupations. The same scale is also used to describe the skill in the corresponding *Targets for Instruction*. This common scale enables instructors or trainers to use the assessments, profiling, and the *Targets for Instruction* together to help learners prepare for their chosen jobs or occupations.

The number of levels and the range of the levels vary from skill to skill. For example, the skill scale for the Listening skill has levels ranging from 1 to 5, while the scale for Applied Technology has levels ranging from 3 to 6. This variation reflects the variation in the levels of skill that employers want tested. Just as a score of 6 in golf does not mean the same as a score of 6 in bowling, there is no intended equivalence between Level 3 in one skill and Level 3 in another skill.

Figure A shows how WorkKeys matches the skills of a particular person with the skill requirements of a particular job. The person whose skill profile is shown may be currently employed in or interested in a particular job that requires Level 6 Applied Mathematics skills, Level 4 Teamwork skills, and Level 5 Reading for Information skills. The person's

WorkKeys assessment scores show that this person has achieved Level 6 Applied Mathematics skills, Level 5 Teamwork skills, and Level 4 Reading for Information skills. Therefore, this person needs to improve his or her Reading for Information skills in order to meet the skill requirements of the job.

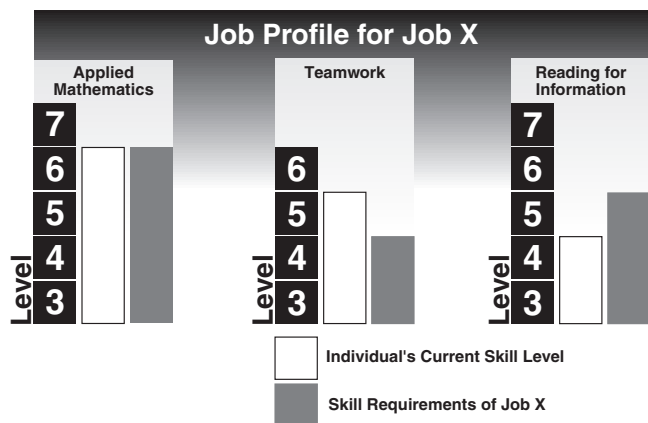


Figure A

The *WorkKeys Targets for Instruction* guides instructors in helping learners improve by focusing on the skills needed at each level of the WorkKeys skill scale. For example, for the learner represented in Figure A, this *Target* identifies the Reading for Information skills that are added at Level 5. It then suggests how to help the learner improve his or her skills from Level 4 to Level 5. Remember that it is not the purpose of the *Targets for Instruction* to teach the exact material that is on the tests but rather, to help learners build the skills that characterize each level of the skill scale.

The WorkKeys occupational profiles can be used to inform individuals about the generalizable workplace skills they are likely to need in selected occupations. They can also serve as a starting point for a discussion about standards and/or requirements for entering or exiting a training program. Occupational profiles that have been completed by WorkKeys job profilers are available at <http://www.act.org/workkeys/profiles/occupprof/index.html>.

Format and Construction of the Reading for Information Assessment

The WorkKeys Reading for Information assessment measures the examinee’s skill in reading and understanding work-related instructions and policies in a format suitable for large-scale, standardized administration. The reading selections are in the form of workplace documents such as memos, bulletins, notices, letters, policy manuals, and government regulations. These reading passages are arranged in order of increasing difficulty, so that each test form begins with the least complex passages and ends with the most complex. Each passage is followed by one or more questions, for which examinee responses are *dichotomously scored* (correct or incorrect). Answers left blank are treated as wrong answers; there is no penalty for guessing.

There are several equivalent forms of the Reading for Information assessment. Most are administered in a paper-and-pencil format, but computer-based tests are also available. Each form contains multiple-choice items at each of the five levels of difficulty. The levels range from Level 3, which is the least complex, to Level 7, which is the most complex and they are comparable to one another across the different forms. Note that Level 3, as its designation implies, is defined by reading skills that are well above simple decoding.

The accuracy and appropriateness of the passages and items have been reviewed by content and fairness experts. The assessment forms are constructed so that a variety of occupations are represented. Care has been taken to ensure that the assessment items are as realistic as possible and that the content of the tasks is accurate. The passages and items focus on situations that might actually be encountered in the workplace. The tasks contain enough detail to create a realistic workplace context, but not so much detail that the assessment is job specific. The passages and the items depict approximately equal distribution of power between men and women with a variety of racial/ethnic backgrounds.

SKILL LEVELS

Reading for Information

3

Reading for Information Level 3

Level 3 reading materials include basic company policies, procedures, and announcements. They are short and simple, with no extra information. Individuals read the materials to find out what they should do. All of the information they need is stated clearly and directly, using easy words and straightforward sentences. Additionally, in the Reading for Information assessment, the wording of the questions is identical or nearly identical to that in the passages. Individuals with Level 3 Reading for Information skills can:

- **Pick out the main ideas and clearly stated details.**
- **Choose the correct meaning of a word when the word is clearly defined in the reading.** This requires the individual to use typographic, punctuation, and syntactic clues to a definition, such as parentheses, boldface, appositives, or words like “is” or “is called.”
- **Choose the correct meaning of common everyday and workplace words** (such as *employee*, *timecard*, and *office*). The individual must understand the meanings of words indicating order, position, time, and other relationships. However, the vocabulary is not job specific and, at this level, is basic.
- **Choose when to perform each step in a short series of steps.** Many workplace communications involve instructions or schedules, and individuals must demonstrate awareness of when each step or event is to occur. At this level, instructions are for simple procedures involving few steps, and schedules and announcements are uncomplicated.

- **Apply instructions to a situation that is the same as the one they are reading about** (such as knowing what button to push first after reading instructions on how to run a copy machine). At Level 3, an individual is required to determine what to do in a particular situation rather than when to perform a particular step. The individual must be able to locate a specific instruction in a passage and understand what it says.

Moving to Level 3 Skills

In developing WorkKeys, educators, employers, and ACT staff identified Level 3 skills as comprising the lowest level of reading for which employers would be likely to want assessment results. The individual is required to read only the writer’s words—not to draw conclusions or to interpret any implied information.

The individual who does not attain Level 3 on the *Reading for Information* assessment poses special instructional problems. You will want to ensure that the test score is representative of the individual’s skill level (e.g., that the individual was motivated to do well on the assessment). If the score is representative, the individual needs help with the most basic reading techniques. It is important to determine if the individual uses English as a second language, has a learning disability, or has some other impediment to achievement. If such factors are present, the individual may also need instructional adaptations that are not addressed in this *Target*.

Adults and high school students alike can often hide poor listening skills by saying they were preoccupied, or poor math or writing skills by saying they were in too much of a hurry. But a lack of reading skills

carries a much stronger social stigma in our society. These individuals have often developed numerous coping skills to hide their lack of reading skills.

Motivation is extremely crucial for these learners. Adults who seek out or at least submit willingly to reading instruction obviously have their own motivation. But many high school students and adults who are required to obtain training in this area may be especially embarrassed and reluctant. Motivation can be nurtured by using vocabulary and materials that individuals actually need to read in their daily lives. Use open-ended statements completed by learners to be assured of using vocabulary that is familiar to them, such as “The hardest part of my job is _____.” or “The thing I like best about my job is _____.” For readers with minimum skills, these responses may need to be dictated to and written down by someone else. Reading their own responses will help learners connect written words with their larger oral vocabularies.

It will also be beneficial to involve learners in setting reasonable goals and a time frame for reaching them. Attainable goals will contribute to early success and improved self-esteem.

You can adapt the following strategies for any age level or occupation by choosing materials that are both appropriate and interesting to the group. The materials can be adapted for instruction at higher reading levels by varying their complexity. For Level 3, instructions for everyday tasks such as making a long-distance telephone call using a calling card are interesting and provide opportunities for vocabulary assessment.

Learners may not understand words used as cohesive ties in connected text. Cohesive ties are words that help learners make connections within and among sentences. For example, have learners designate which words are referred to by pronouns and adverbs. It is not necessary that they do this by part of speech, only that they make the connections. In the following sentences, *that time* refers to *year*, *he* or *she* refers to *each employee*, and *that education* refers to *ten hours of training*. Learners can use numbers to make these connections visually as demonstrated in Figure 3.1.

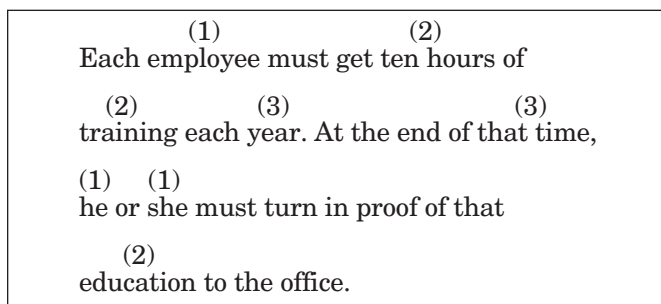


Figure 3.1

Semantic mapping is a good substitute for outlining to use with learners who have problems with the traditional hierarchical form that uses Roman numerals, letters, and numbers. A semantic map is a free-form technique that allows the learner to visually illustrate categories and relationships belonging to a topic or concept. Order, location, and relationship words should be stressed (e.g., first, then, finally, when, as, before, immediately) to help the learner use semantic mapping. A model of a semantic map is shown in the figure below.

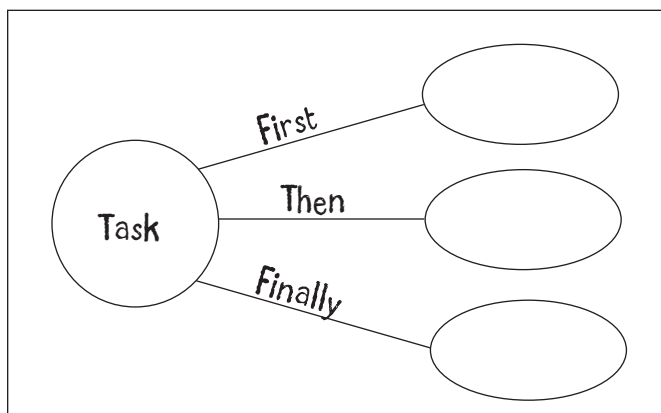


Figure 3.2

Translating paragraphed text into numbered lists using transition words as clues is often helpful to the visual learner. Learners can verbalize directions while another person records them. Then they can use them to practice sequencing ideas or procedures.

OTHER STRATEGIES FOR IMPROVING SKILLS TO LEVEL 3

- Have learners practice the reading techniques of previewing and skimming. Many instructors have experienced the frustration of working with learners who never look at titles or headings. Have learners turn headings from announcements and bulletins into questions or have them use the headings to predict content of the messages.
- Have the learners turn a simple announcement into a ten-word telegram, thereby choosing the most important information.
- Use bulletins and newspaper items concerning meetings to give learners practice in picking out details such as time and place.
- Have learners use who, what, where, when, and how questions to pick out details from rules and notices.
- Using catalogs, have learners find a list of products that meet certain criteria: color, and purpose. This will give learners practice in noticing details.
- For vocabulary building and to help learners use context to understand words while reading, teach them to recognize boldface type, appositives, parentheses, and lead-in words as definition flags. Have learners use content-area texts to find examples of words that are defined in context.
- Use examples of very simple instructions (four to six steps) to help learners recognize sequences. Also, discuss the meaning of each step with the learners.

Level 3 Sample Passage

MEMO

To: All businesses in Logan City Mall
From: Philip Charles, Logan City Mall Manager
Re: New garbage collection rules

Logan City Mall has hired a new garbage collection company. Speedy Sanitation, Inc. will be collecting garbage from all businesses starting next Monday. Collection days will not change. The pick-up time will be one hour later.

Each business will be given one blue garbage can to use. Each business may ask for 2 extra garbage cans. You may have a total of 3 garbage cans. You will not need yellow collection tags anymore. Full garbage cans must weigh less than 30 pounds. Put your garbage in bags before putting it in the garbage cans. Put your garbage cans in the alley behind your business's back door.

The Question:

What is the greatest number of garbage cans each business is allowed to have?

- A. 1
- B. 2
- C. 3
- D. 15
- E. 30

The Skill Assessed:

Understanding a simple detail in a Level 3 passage.

Indications that this is a Level 3 passage:

- ◆ The sentences are simple and direct; most put the subject first and the verb second (e.g., *Speedy Sanitation, Inc. will be collecting garbage from all businesses starting next Monday*).
- ◆ The short paragraphs are made up of short sentences.
- ◆ There are direct instructions for simple tasks (e.g., *Put your garbage cans in the alley behind your business's back door*).
- ◆ The vocabulary is elementary (e.g., *collection* and *pick-up*).
- ◆ The information needed in order to fulfill duties is directly and clearly stated. The examinee does not need to interpret implied information or to draw any conclusions.

Teaching Strategies

In working with the type of passage used in this sample, you may first want to have learners examine the organizational structure. Although instructions are given in this passage, learners should notice that there is no particular time order tying the entire passage together. The only time order words used are *later*, referring to the pick-up time, and *before*, referring to the use of garbage bags.

Instead, this example is really just a collection of informative details, similar to a newspaper announcement. Thus, it lends itself well to “who, what, where, and why” questions which can be presented visually with semantic mapping. By beginning with the question “What?”—new rules for garbage collection—learners will start with the main idea of the passage. Begin the semantic map with this main concept in the center and the connecting lines representing the other questions, as shown in the following figure.

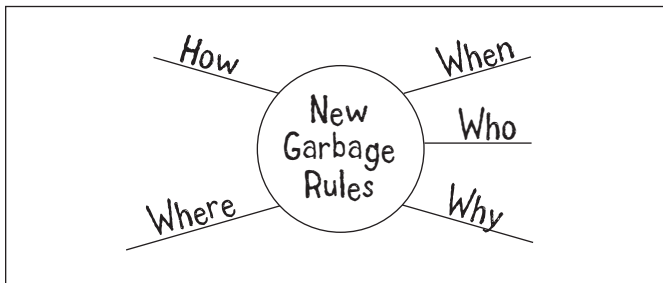


Figure 3.3

Learners should then attempt to place as many of the details on the map as they can. It is important to caution them that to some of the questions can be answered with more than one detail. In discussing the results, they should notice that the question “Why?” is not answered in the passage. They should also notice that some details might be negative: *no yellow tags* and *no more than 3 cans*. Finally, they should see that the passage assumes that the usual day and time for the pick-up are already known. The finished map might look like the one shown below.

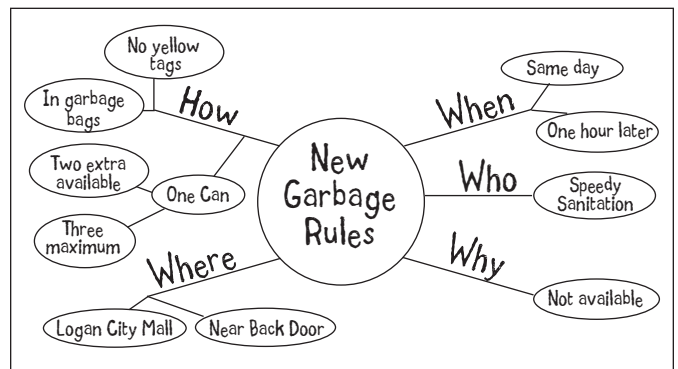


Figure 3.4

4

Reading for Information Level 4

Level 4 reading materials include company policies, procedures, and notices. They are straightforward, but they have longer sentences and contain a number of details. These materials use common words, but do have some harder words, too. They describe procedures that include several steps. When following the procedures, individuals must think about changing conditions that affect what they should do. In addition to demonstrating the skills at Level 3, individuals with Level 4 skills can:

- **Identify important details that may not be clearly stated.** These details may be more difficult to find because the passages themselves are longer. It may be necessary to combine details from different parts of a passage. The details may be embedded in a complex sentence.
- **Use the reading material to figure out the meaning of words that are not defined for them.** These words are still basic vocabulary, but they are slightly more difficult than those at Level 3. Readers should be able to use context to identify the meanings of these words.
- **Apply instructions with several steps to a situation that is the same as the situation in the reading materials.** Readers must delineate steps, in sequence, to follow a procedure. The procedure may contain conditionals that indicate different courses of action. The individual must select the correct action based on both the condition and the sequence.
- **Choose what to do when changing conditions call for a different action.** For example, readers can follow directions that include “if-then” statements.
- **Recognize cause-effect relationships.** The individual is expected to take into account changing factors that may cause different effects. The individual must read to discover what to do when faced with multiple, or a series of, “if-then” situations.

Moving to Level 4 Skills

At Level 4, the learner is expected to make connections that are not clearly stated in the text. These connections include, but are not limited to, important details and relationships between words. The learner also needs practice in selecting information from slightly more complex passages and in making correct connections between particular circumstances and appropriate actions.

A good technique to teach the kind of relationship that can be created between words is to ask learners to describe the picture in their minds created by a brief sentence. For example, from the sentence, *The dog ran easily under the coffee table*, the learner should picture a small dog and a fairly low table, even though the sentence does not contain the words *small* and *fairly low*.

Applying instructions with several steps is another task challenging the Level 4 learner. Such directions, while still uncomplicated, may include some steps to be performed before an event or action and other steps to be performed after. The learner, then, needs help in using the structure of the passage. Outlining, charting, and semantic mapping can be useful here. Learners should have practice as well in using connectives as signals to the structure of a piece of writing. Words designating enumeration (*first, next, secondly*) and time order (*before, after, when*) are very useful in identifying the structure and outlining a set of directions.

At Level 4, learners must identify cause-effect and problem-solution relationships. These relationships show how facts or events come into being because of other facts or events. Again, instruct learners to look for typical connectives (*because, since, therefore, and if-then*) to determine which event or action is the consequence of the other. Even though the *if-then* form is extremely common in workplace materials, the *then* is often implied, so look for plenty of examples of this type (e.g., *If the fire alarm goes off, call the fire department immediately*).

Although straight vocabulary testing or instruction is not a focus of WorkKeys, individuals need some basic vocabulary knowledge to effectively use reading materials even at the lowest level. Level 4 vocabulary is slightly more advanced than that at Level 3, and vocabulary assessment and practice should be a regular part of any instruction involving Level 4 materials. Learners should work with words on more than just a definitional level in order to conceptualize their meaning. That is, instead of assembling vocabulary lists for learners to memorize, help them use the context to figure out the meanings of unfamiliar words. Activities involving the further use of these words not only strengthen definitional knowledge, but also help the learner to manipulate these words.

Cloze sentences (sentences that require learners to supply missing words) may be useful for working with unknown words. For example, using the sample passage provided at the end of the Level 4 description, present learners with the following sentences before they see the whole passage. Notice that the words *boarding* and *board* have been left out of the sentences in the figure below.

Employees usually _____ at those places will be picked up at the Metro stop. . . . At stops where the snow has been piled deep at the curb, be prepared to _____ out in the street.

Figure 4.1

After learners suggest various words that would fit these sentences, the rest of the passage can be presented and examined with the words still missing. Does the added context eliminate any of the words or phrases suggested so far? Possible answers may include *get on* and *wait*. After looking at the rest of the sample, learners should conclude that *wait* is not appropriate because it is found elsewhere in the paragraph and, more importantly, *waiting* out in the street would not be in keeping with the safety tone of the rest of the passage. If anyone suggests *board*, discuss why this word is appropriate. If not, you can introduce the word along with related uses that may be more familiar (e.g., *all aboard*). This kind of

exercise induces learners to reason out a definition and to become familiar with the word’s use in a more meaningful way than simply memorizing a definition. With these strategies at their disposal, learners are less likely to panic and give up if they see a word they do not recognize.

OTHER STRATEGIES FOR IMPROVING SKILLS TO LEVEL 4

- Use semantic mapping or charting to diagram cause-effect and problem-solution situations. Begin with simple statements and work up to paragraphs. Two models for semantic mapping of cause effect relationships are shown in the figure below.

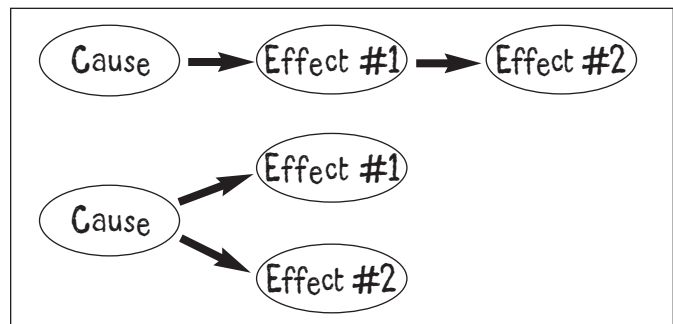


Figure 4.2

- Look for examples of “if-then” type statements in rules for games. One exercise may involve asking learners to make up rules to a game and then to map the rules.
- Use troubleshooting sections of instructions for appliances as examples of problem-solving writing. Some of these are present in expository form and some in chart form. Ask learners to discuss the differences in format and whether the resulting information is actually different. Have learners convert the information given in charts to sentences and vice-versa.
- Read a set of instructions to learners and have them jot down questions that come to mind about details that may be missing. Give each learner a copy of the instructions and have them try to answer their own questions. Discuss the results, particularly focusing on less obvious details.

Level 4 Sample Passage

Greenfield Memorial Hospital



During and after a snowstorm, there will be both route and schedule changes for the hospital employee bus. The bus will run 15 minutes early, so be at your stop early. The bus will not stop at Bellevue Square or the Stadium. Employees usually boarding at those places will be picked up at the Eastdale Mall stop. Olive Street will be closed, so people usually picked up at that stop must walk to the Spring Street stop. If your stop is on a hillside, wait at the city bus stop closest to the top of the hill, so that the driver can stop safely. At stops where the snow has been piled deep at the curb, be prepared to board out in the street. Ice storms may cause the shuttle service to be canceled for a period of time. Listen to your local radio station after an ice storm. Any cancellations will be announced regularly.

The Question:

Your stop is on a hillside. During and after a snowstorm, where should you board the bus?

- A. Bellevue Square
- B. Eastdale Mall
- C. Olive Street
- D. Spring Street
- E. The Stadium

The Skill Assessed:

Apply stated instructions from a Level 4 passage to a situation that is described in the passage.

Indications that this is a Level 4 passage:

- ◆ The sentences are more complex than at Level 3, but they are still clear and relatively short (e.g., *The bus will run 15 minutes early, so be at your stop early.*)
- ◆ The sentence structure is varied—some introductory phrases are used (e.g., *At stops where the snow has been piled deep at the curb, be prepared to board out in the street.*)
- ◆ There are more details—which stops will be closed, where to board on a hill, where to listen for cancellation notices.
- ◆ The information needed is still directly and clearly stated—the examinee does not need to interpret implied information or draw any conclusions.
- ◆ There is more difficult vocabulary.

Teaching Strategies

This Level 4 passage contains several simple conditionals or cause-effect relationships. Although semantic mapping could be used here, a simple chart like the one at the right may be the clearest visual presentation of this material. The first column lists the conditions, while the second lists the resulting changes in the schedule.

| Condition | Change |
|-------------------------|--------------------------------------|
| snowstorm | bus runs 15 minutes early |
| no Bellevue Square stop | pick up at Eastdale Mall stop |
| no Stadium stop | pick up at Eastdale Mall stop |
| Olive Street closed | walk to Spring Street stop |
| hillside stop | city bus stop, top of hill |
| snow piled at curb | board in street |
| ice storm | may be canceled, listen to the radio |

Figure 4.3

Using the chart, learners should be able to progress from answering simple *if-then* questions about the passage to combining the variables. What happens if an employee's normal stop is Olive Street and there is an ice storm? What if a hillside stop has snow piled at the curb?

5

Reading for Information Level 5

At Level 5, policies, procedures, and announcements include all of the information that individuals need to finish a task. The information is stated clearly and directly, but the materials have many details. They also include jargon, technical terms, acronyms, or words that have several meanings. In addition to demonstrating the skills at the previous levels, individuals with Level 5 skills can:

- **Figure out the correct meaning of a word based on how the word is used.** Some reading materials contain words with multiple meanings, and an individual must use context clues to determine the correct meaning.
- **Identify the correct meaning of an acronym that is defined in the document.** As with the previous skills, these definitions are either clearly stated or can easily be derived from context at this level. However, being able to select important details that help identify or determine the definition is important.
- **Identify the paraphrased definition of a technical term or jargon that is defined in the document.** The definitions of jargon and technical terms used at this level are either stated directly in the passage or are obvious from context.
- **Apply technical terms and jargon and relate them to stated situations.** An individual must understand the jargon and technical terms well enough to relate them correctly to the rest of the passage.
- **Apply straightforward instructions to a new situation that is similar to the one described in the material.** An individual must use given information to make a decision by following the guidelines stated in the passage.
- **Apply complex instructions that include conditionals to situations described in the materials.** Instructions involve more steps and/or details than previously. The described situations or problems may involve more variables that must be taken into consideration.

Moving to Level 5 Skills

An individual whose goal is to move from Level 4 to Level 5 must meet several new challenges. At Level 5, the application of instructions becomes more complex, and the learner must, in addition, deal with jargon, technical language, acronyms, and words with multiple meanings. Techniques for working with unfamiliar jargon, acronyms, and technical terms are often not presented in the regular classroom.

Jargon, acronyms, and technical terms are common in workplace communications. Individuals do not need job-specific knowledge to decipher terms included in Level 5 reading materials; the meanings can be obtained from the reading. Specialized terms are easily found in all areas of life today, offering a wealth of practice materials. Newspapers, city codes, school regulations, and tax guides are just a few potential sources of learning materials. Introduce acronyms with lists of common ones that are familiar to most people: *NASA*, *IRS*, *NFL*, *FBI*, *IRA*, and *CD*, for example. Learners should be encouraged to find examples on their own, to compare them, and to discuss how they decoded them. Emphasize that knowing precisely what word each letter stands for is not always necessary or even helpful in determining meaning. Some acronyms, such as *laser* (light amplification by stimulated emission of radiation), *snafu*, *radar*, and *scuba*, have become absorbed into the language as accepted words; yet, although most people are probably familiar with their meanings, few could say exactly what the initials originally stood for.

Examples of jargon and technical terms are also plentiful in Level 5 reading materials. Again, begin with the familiar. Most individuals have encountered jargon in jobs, sports, or hobbies. Some learners in a group could construct sentences using these terms, while the others try to decipher the meaning of the words from the context of these sentences. As suggested previously, strategies for using context to decode unfamiliar word meanings include attention to cohesive ties and practice with cloze sentences. Level 5 passages require more advanced decoding skills. Learners should concentrate on main ideas, topic sentences, and the relationships among sentences in a paragraph. Discuss how these components, or how even the location of a word in a paragraph, can give

clues to meaning. For example, an unfamiliar word in the last sentence of a paragraph on refinishing wood will probably **not** have anything to do with removing the old finish.

Learners can also use sentence clues to help identify unfamiliar words. For example, a definition of a word is often preceded by words such as *means*, *is*, or *are*. Instructions for board games often contain jargon or unfamiliar terms that are defined in this manner and make good examples. Learners can practice identifying and understanding unfamiliar terms by breaking compound words into smaller, more readily understood words (e.g., *facepiece*).

Concept circles can be used to visually aid understanding of relationships among words. Divide a circle into quadrants and place an unknown word in one quadrant. The learners put other words or terms from the reading material that they think are related in the other quadrants of the circle. Discussion of why these words were chosen can help shed light on the decoding process for learners. One section could be left blank for a definition, or the definition could be written outside the circle. For example, if the unknown word was *mean*, the circle might look like the one in Figure 5.1.

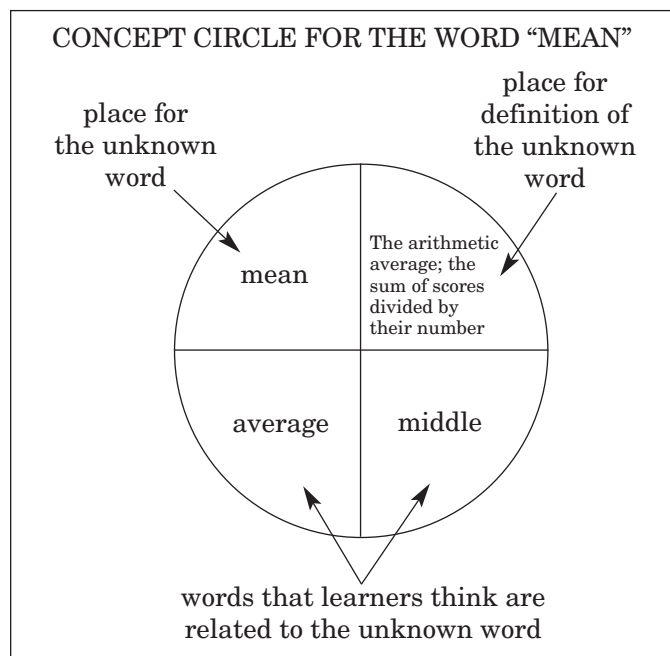


Figure 5.1

Closed word sorts can also be useful in dealing with unfamiliar words. Give the learners a list of twenty terms and three or four categories. Ask them to sort the list of terms into the given categories. This practice fosters deductive thinking and provides a basis for discussion of the common attributes of the terms. Subject matter areas provide a good source of such terms. For example, consider the following list of terms: *Helena*, *network*, *Des Moines*, *drive*, *Albany*, *monitor*, *Springfield*, *port*, and *delicious*. Learners could be asked to place the terms in the categories of *State Capitals*, *Computer Terms*, or *Words That Begin With D*. The learners will quickly see that there are different ways of classifying the same terms. A variation of this activity is the open word sort. In an *open word sort*, learners are given a list of twenty terms and must create their own categories by which to classify the terms.

Words with multiple meanings are often referred to as *homonyms* or *polysemous* words. Many common words have specialized meanings in the workplace; consider the meanings of *smoke* and *cure* in a meat processing plant, *casting* in a machine shop, or *boot* in computer work. The learner must be able to use the context to choose the appropriate meaning.

Emphasize that when dealing with the meaning of a polysemous word, the collective meaning of the known words places restrictions on the meaning of the polysemous word. Since English is a positional language, a learner who is familiar with syntax patterns can determine the grammatical function of the word in question. This limits the possible meanings.

In the example below, the word *run* is used as a noun, giving the reader of the sentence a clue that the common meaning of the word as a verb will not fit.

Each run must be completed in one hour.

Semantic clues can also help pinpoint meaning. Sometimes the context acts like a dictionary and directly defines the word, or the meaning is given in an appositive following the word. Other semantic clues are synonyms, similes, and antonyms. Sometimes the unknown word serves to summarize the information that precedes it. In such cases, this information gives clues to the unknown word's meaning. Finally, the text may give an example that gives more information about the word or include the word in a list that provides clues. The learner then needs practice in finding and using these clues.

OTHER STRATEGIES FOR IMPROVING SKILLS TO LEVEL 5

- Use flowcharts and comparison charts to help learners delineate the more important features of complex procedures. Learners can then practice using the information when different variables are applied.
- Use cloze sentences to provide learners with practice identifying functions of unknown words.
- Make lists of common words that have multiple meanings and that are found in several academic disciplines, sports, or occupations. Words like set, point, and space can provide a starting point. Have learners identify the meaning of the word in each context.
- Look in simple instructions for words that have multiple meanings.

Level 5 Sample Passage

- Goldberg's Auto Parts is served by more than fifty different accounts, each with its own sales representative, company name, corporate address, and shipping address. As a shipping and receiving clerk at Goldberg's, you are required to return defective merchandise to the manufacturer.
- Standard procedure for returning an item begins with your written request to the company for authorization. Always send the request to the corporate address, not to the shipping address. Unless the company file folder contains a form for this procedure, write a business letter to the manufacturer supplying the item's stock number, cost, and invoice number; the date it was received; and the reason for its return. The manufacturer's reply will include an authorization number from the sales representative, a sticker for you to place on the outside of the box to identify it as an authorized return, and a closing date for the company's acceptance of the returned item. If you do not attach the provided sticker, your returned box will be refused by the manufacturer as unauthorized, and you will need to obtain a new letter, authorization, sticker, and closing date. Always send a returned box to the shipping address, not to the company's corporate address.

The Question:

What should you do if you lose an authorization sticker?

- A. Send a request for a return authorization along with the rejected part directly to the manufacturer's shipping address.
- B. Send a request for return authorization along with the rejected part directly to the manufacturer's corporate address.
- C. Repeat the standard procedure to obtain a new letter, authorization, sticker, and closing date.
- D. Use a sticker from another company's folder.
- E. Send the rejected part to your sales representative.

The Skill Assessed:

Apply information from a Level 5 passage to a situation that is not described in the passage.

Indications that this is a Level 5 passage:

- ◆ There are longer, more complex sentences. The information needed is still directly stated; it is just harder to understand because of the phrasing (e.g., *If you do not attach the provided sticker, your returned box will be refused by the manufacturer as unauthorized, and you will need to obtain a new letter, authorization, sticker, and closing date.*)
- ◆ The sentences contain significantly more information.

- ◆ There are longer, more complex paragraphs.
- ◆ The readings contain many steps to be followed and details to be considered.
- ◆ The instructions include a conditional (e.g., Unless the company file folder contains a form for this procedure. . .).
- ◆ There is more difficult vocabulary (e.g., *corporate* and *defective*).

Teaching Strategies

A flowchart would be useful to illustrate the process and conditions included in this passage. Point out the importance of detail in this passage and include the pertinent details with each step. Discuss why these details are important at each step.

EXAMPLE FLOWCHART

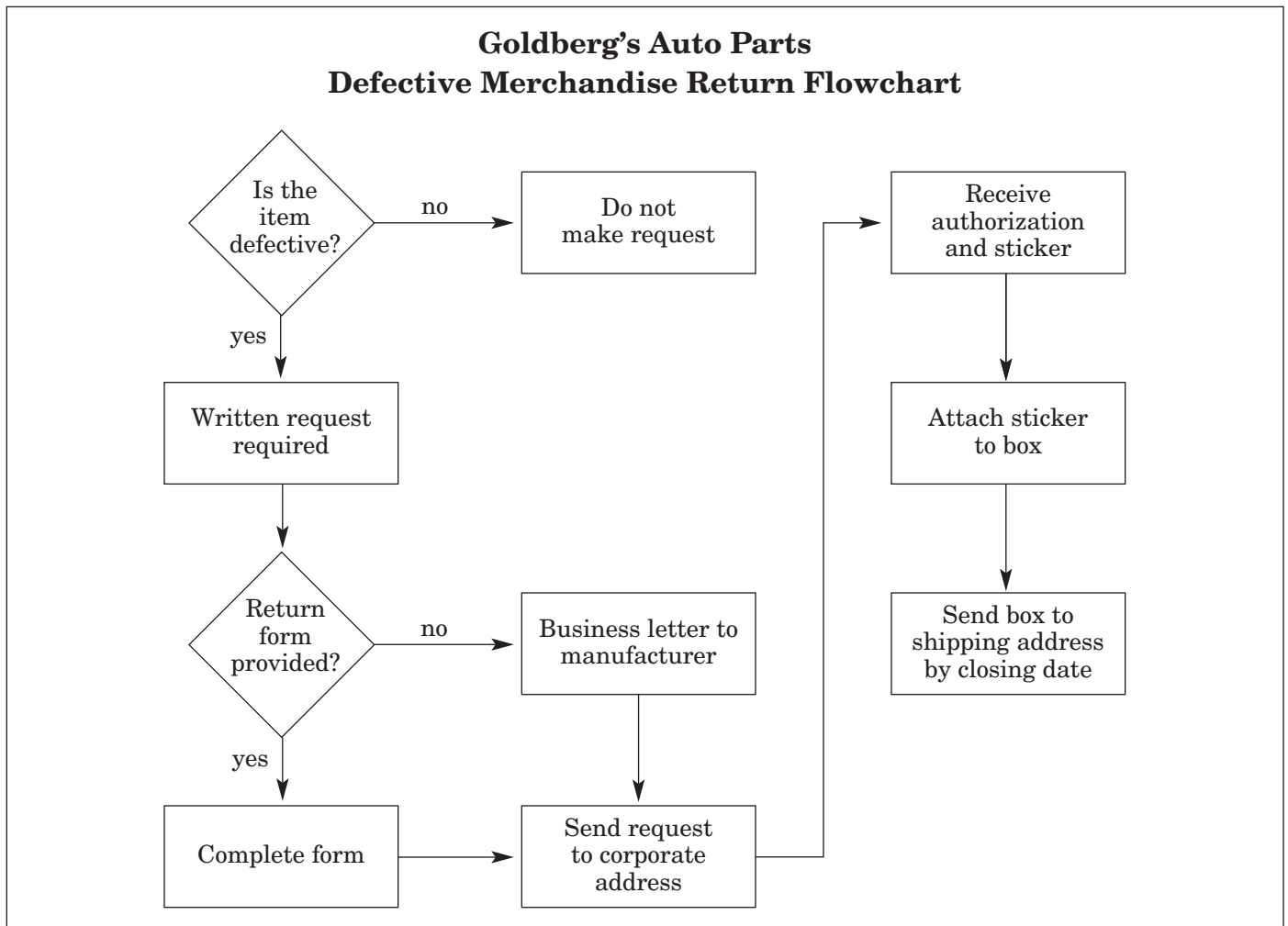


Figure 5.2

6

Reading for Information Level 6

Level 6 materials include elaborate procedures, complicated information, and legal regulations found in all kinds of workplace documents. They use complicated sentences with difficult words, jargon, and technical terms. Most of the information is not clearly stated. In addition to demonstrating the skills at the previous levels, individuals with Level 6 skills can:

- **Identify implied details.** The individual must extract important information and synthesize it to identify details that are only implied.
- **Use technical terms and jargon in new situations.** Critical thinking skills are needed to distill the information necessary to understand the jargon or terms and apply it in an unfamiliar situation.
- **Figure out the less common meaning of a word based on the context.** The individual must be able to apply the contextual clues to derive a less familiar meaning of a word with multiple meanings (the homonyms used at this level are more obscure than those at Level 5).
- **Apply complicated instructions to new situations.** Because the information needed to choose an appropriate course of action is not clearly stated, the individual must recognize the structure of the information given, extract the crucial points, and apply them to other circumstances.
- **Figure out the principles behind policies, rules, and procedures.** The individual must generalize from the concepts found in the reading materials and apply them to new circumstances that are not depicted in those materials.
- **Apply general principles from the materials to similar and new situations.** After determining the principles on which a policy or procedure is based, the individual must apply those principles to a situation that is similar to ones described in the policy or to a totally new situation.

- **Explain the rationale behind a procedure, policy, or communication.** The reader must identify the reasons behind a policy or procedure in order to decide on an appropriate action or behavior.

Moving to Level 6 Skills

Two of the Level 6 skills deal with word meanings in new situations; one is deciphering jargon and technical terms in unfamiliar contexts, and the other is understanding the less common use of words. In both cases, using context becomes even more important than at previous levels, and strategies described earlier, such as cloze sentences, concept circles, and word sorts, can be just as effective at this level with more difficult material.

However, when they get to this level, learners should also be examining the words themselves for clues to meaning. The practice of analyzing a word's structure, *morphemic analysis*, involves breaking a word into its smallest units of meaning. Many technical terms are compound words (e.g., *faceshield*) or words with recognizable stems, prefixes, and/or suffixes. Such words lend themselves particularly well to morphemic analysis.

First, spend some time reviewing common prefixes and suffixes, pointing out that many have varying meanings (e.g., *in-* can mean either *not* as in *inconvenient* or *within* as in *indent*). Others, such as *micro-*, *auto-*, *phono-*, and *tele-*, have consistent meanings. This is not to suggest that learners should memorize long lists of affixes and all their possible meanings; reinforcement will come by studying different words with the same prefixes and suffixes. The clearest way to comprehend this type of word is to remove all prefixes and work with the stem and suffixes first. This process makes the stem more recognizable in most cases.

Level 6 materials are considerably more difficult than the materials at the previous levels. At Level 5, although the sentences and paragraphs are more complex than those at earlier levels, the directions and conditions are still fairly clear cut and limited in

number. Phrases such as *are required*, *always*, *will include*, and *will be refused* are definite and do not call for critical thinking or decision making. Level 6 passages contain more subjective language and indefinite words, such as *many*, *difficult to predict*, and *could require*. It is also necessary to draw conclusions in order to apply information. That application may require both critical thinking and generalizing the information to a new situation. Critical thinking involves judicious evaluation of the material in order to determine how to use it.

One way to understand the change in materials as the levels increase in complexity is to visualize an increase in the layers of meaning. For example, a city regulation may state, *Any dog in the city limits must be on a leash whenever it is off the premises of its owner* or *Untethered or abandoned pets may be confiscated by the police if they create a nuisance in the community*. The possible interpretations of the first statement are more limited than those of the second. *Dog* is a definitive word to most people; it does not include cats, goldfish, or parakeets. The rest of the statement is also clear, leaving little room for question or argument on its meaning. But the second statement calls for more interpretation and critical thinking. Each learner's knowledge and experience will affect his or her understanding. Not only is *untethered* a more difficult word, but *abandoned* raises questions: What constitutes abandonment? How long must a pet be left to be abandoned? Furthermore, what is considered a *pet*? *Nuisance* is also a subjective word; it may be possible to use the context to infer a more precise meaning.

Many learners read this type of text once and, if they don't understand it, feel they **can't** read it. They will need practice in using the context to peel away the layers of meaning and pinpoint the interpretations that are most appropriate in each instance. The traditional reading technique of summarizing the main idea is still useful here. You can also have learners discuss each new fact or statement and consider how it adds to understanding. Does it further describe, explain, support, or qualify something that is already known or stated? Or is it another new general idea?

Finally, passages and documents become more difficult at Level 6 because there are many more details that are often very similar. The fence law used in the Level 6 sample passage is a good example of this type of difficulty. Vocabulary is limited to familiar words and by most common measures, the grade level readability is about the ninth grade and not as high as normally used for Level 6. Yet the abundance of numbers—of wires, of barbs, of distances between posts and between wires, and of widths of boards—and the combinations that are acceptable under the law is extremely confusing.

Recognizing organizational structure becomes increasingly important with additional complexity. Using the structure is another technique learners can use to make sense of material that may overwhelm them otherwise. Procedures, regardless of complexity, lend themselves well to outlining or charting. This exercise helps learners identify the important terms and details, recognize the interrelationships, and make generalizations about the material. Understanding the rationale behind a given procedure is important when applying procedures. Selecting the appropriate response for a particular problem or situation requires understanding the reasons why various procedures might be used.

Documents such as tax guides are good materials to use in teaching learners to chart instructions or procedures. For instance, the instructions for claiming the federal dependent care credit are given in both a standard written form and a chart form. This type of material not only gives the learner a graphic illustration of the structure of the written information, but it also generally requires learners to draw upon other Level 6 skills. Jargon and technical terms are abundant, and words with multiple meanings are common. There are also ample opportunities to discuss the rationale behind such regulations and to decide whether the general principles apply to individual cases.

Another organizational strategy that is useful for analyzing technical explanations at this level is the hierarchical arrangement of concepts, or *graphic organizing*. The first task in this process is to list all the important words from a passage or document.

Then the learner must choose the most inclusive concept (which becomes the main idea), select the words that would be classified immediately under the main concept, and continue choosing terms as they become increasingly subordinate. It is helpful to put each term on an index card or sticky note to facilitate experimentation with arrangement. The result is a diagram, similar to semantic mapping, that provides the learner with a visual representation of the relationships of the terms. Discussion should center on the selection and organization processes: What are the characteristics that the learner used to determine each concept's place in the hierarchy?

A graphic organizer can be developed from the outline shown below (Figure 6.1). The beginning of such an organizer is shown in Figure 6.2.

Important words:
workplace safety, exit routes, education, worker health, regulations, fire, emergency, CPR, prevention, types of fires, fire drills

Main idea:
workplace safety regarding fires

Outline:
 WORKPLACE SAFETY
 Proper use of equipment
 How to be a healthy worker
 Preparation for medical emergencies
 CPR training
 Preparation for severe weather
 Electrical safety
 Proper electrical wiring
 Fire safety
 Education
 CPR training
 Types of fires/proper use of extinguishers
 Fire drills/exit routes
 Fire regulations
 Fire prevention
 Proper maintenance of fire extinguishers
 Smoke alarms/sprinkler systems
 Proper storage of flammable materials
 Proper electrical wiring

Figure 6.1

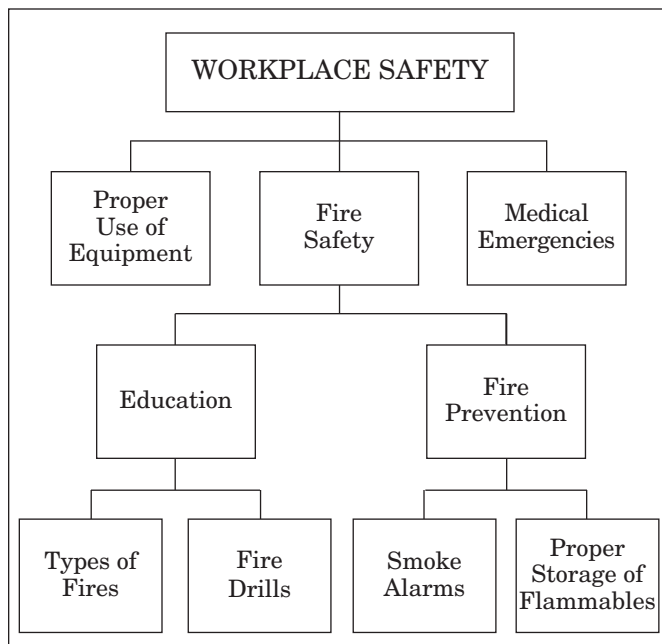


Figure 6.2

Generalizing the underlying principles of a familiar situation to new situations is frequently required in the workplace. For example, in order to apply a safety policy described in a company manual or regulation, an employee will take into account both the words in the policy and previous experiences with similar situations. In group instruction, role-playing in a decision-making process provides an excellent basis for discussing the decision's actual evolution. Potential sources for discussing decision-making processes include zoning regulations, school board and company policies, and state and federal safety regulations. How legislators voted on certain bills is often printed in newspapers and is another potential source for group discussion. One or more learners can present an individual case while other learners act as the decision-making group.

In such exercises, learners often become so involved that they are not cognitively aware of the overall picture. Debriefing then becomes the most important part of the learning process. What characteristics of the individual case fit the regulations? Which ones do not? How does the final decision in the case reflect the generalizations involved? For example, if fire safety is the underlying principle of a certain zoning regulation, was that principle applied in the decision?

It should be noted that the more complex the materials at this level become, the more difficult it is to isolate the skills. However, giving learners adequate practice time to work with these materials will serve to strengthen all of these skills. In the above strategies, there are ample opportunities to work with jargon, technical terms, and words with multiple meanings as they are encountered. Again, it is important to emphasize the learning **process**. Discuss how learners interpret the unfamiliar words they encounter and how they reach those interpretations.

OTHER STRATEGIES FOR IMPROVING SKILLS TO LEVEL 6

- Use concept circles to group similar information, or use one section for a main idea and the others for details—both stated and implied—that relate to the topic. Have learners identify which terms are implied and discuss the reasons for their answers.
- Use analogies in working with word meanings and also in discussing implied details relating to the words in question.
- Use this variation on the closed word sort: give learners several categories with a list of terms, including at least three that apply to each category. Have the learners write one to two paragraphs about one category, selecting and using the appropriate terms correctly. Compare and discuss the results.
- Highlight jargon and unfamiliar terms in instructions and procedures. Develop definitions using the context and have learners compare results.
- Use instructions for activities, such as emergency procedures or operating machinery, to illustrate outlining and graphic organizing. Examine consequences that may occur if correct procedure is not followed.
- Have learners try to determine the reasoning behind a policy or procedure using materials such as tax guides.
- Use policy manuals from businesses, government agencies, and schools to make comparisons between how each handles particular situations. For example, learners can compare their employment or termination procedures. Discuss the similarities and try to determine reasons for differences.
- Using similar policy manuals, develop case studies that learners can use to apply the policies. At this level, the cases should be fairly similar to the situations described in the policies.
- Use simulation techniques to develop policies for a situation familiar to learners—that is, their work or school situations. Have groups present and be prepared to defend and discuss modifications of their suggestions.

Level 6 Sample Passage

Section 113.18

A lawful fence shall consist of:

- 1) Three rails of good substantial material fastened in or to good substantial posts not more than ten feet apart.
OR
- 2) Three boards not less than six inches wide and three-quarters of an inch thick, fastened in or to good substantial posts not more than eight feet apart.
OR
- 3) Three wires, barbed, with not less than thirty-six iron barbs of two points each on each rod of wire; or four wires, two thus barbed and two smooth. The wires are to be firmly fastened to posts not more than two rods apart, with not less than two stays between posts, or with posts not more than one rod apart without such stays, the top wire to be not more than fifty-four or less than forty-eight inches in height. The bottom wire should be not less than twelve or more than eighteen inches above the ground. The middle wire should be not less than twelve or more than eighteen inches above the bottom wire.
OR
- 4) Wire either wholly or in part substantially built and kept in good repair, the lowest or bottom rail, wire, or board to be not more than twenty or less than sixteen inches from the ground, the top rail, wire, or board, between forty-eight and fifty-four inches in height; and the middle rail, wire, or board, not less than twelve or more than eighteen inches above the bottom rail, wire, or board.

The Question:

A farmer's fence has three barbed wires attached to posts spaced two rods apart with two stays between posts. The top wire is forty-nine inches in height. The bottom wire is ten inches above the ground. Based on the regulation shown, why is the fence NOT lawful under Section 113.18?

- A. The fence must have four wires, two smooth and two barbed.
- B. The fence posts should be spaced closer together.
- C. The top wire should be higher.
- D. There should be more stays.
- E. The bottom wire should be higher.

The Skill Assessed:

Apply complicated instructions to a new situation.

Indications that this is a Level 6 passage:

- ◆ The material is taken from a regulatory document. The passage is taken from Section 113.18 and describes what is acceptable as a legal fence. The arrangement of paragraphs consisting of four options is an unusual format.
- ◆ The paragraphs and sentences are filled with details and information. The passage is filled with numbers: of wires, of barbs, of distances between posts and between wires, and of widths of boards.
- ◆ Sentences are long and more varied. For example, paragraph 4 is one sentence.
- ◆ Examinees must apply complicated instructions to a new situation. There are four types of legal fences and acceptable conditions for each. Employees must determine which type of fence is in question and then whether the facts given meet the requirements for that type.
- ◆ Less common meanings of words are used: *stay, rod*.

7

Reading for Information Level 7

At Level 7, the reading materials are very complex. The information includes a lot of details, and the concepts are complicated. The vocabulary is difficult. Unusual jargon and technical terms are used, but they are not defined. The writing often lacks clarity and direction. Readers must draw conclusions from some parts of the reading and apply them to other parts. At this level, passages include excerpts from regulatory and legal documents that are more complicated than those at Level 6. In addition to demonstrating the skills at the previous levels, individuals with Level 7 skills can:

- **Figure out the definitions of difficult, uncommon words based on how they are used.** At this level, it becomes more crucial to discriminate among context clues and to determine which are most important in isolating meaning. Many individuals tend to use proximity as the most important key to meaning; that is, they assume that the words closest to the unknown word will be the best context clues. At Level 7, this practice can be very misleading.
- **Figure out the meaning of jargon or technical terms based on how they are used.** This skill is similar to the first but concerns specialized language.
- **Figure out the general principles behind the policies and apply them to situations that are quite different from any described in the materials.** Because the passages are longer and more complex, practice in eliminating unnecessary information and selecting pertinent data is important. Main ideas and many details are implied, making generalization more difficult.

Moving to Level 7 Skills

Working with more difficult materials will be fundamental to helping learners move to Level 7. Longer, more complex legal documents, regulatory material, and procedures should be used. Much of the reading that any employee does on the job involves finding fairly specific information rather than studying large documents. The employee may be asking such questions as *What does this label mean?*; *Who has the authority in this instance?*; *What dangers does this procedure involve?*; or *What rights of appeal, if any, do I have?* The longer, more involved passages make answering such questions more challenging.

Once again, emphasis on structural clues becomes more crucial. You can stress typographic and semantic devices used in these types of documents to aid the learner in finding pertinent information. Learners might be asked to use highlighter pens to designate headings, numbered statements, and topic sentences in order to see how the material is organized.

There are four basic cognitive operations related to using concepts and words (see Figure 7.1). These operations are extremely important to learners who must read complex materials. The first process is *joining*, or putting similar pieces of information in the same category. Second, there is the process of *excluding*, or discriminating and rejecting information that does not fit the category or question. Third, the learner must *select* needed information and be able to explain why it was selected. The final process is *inferring*, or using the information to make predictions or to determine cause-effect relationships.



| COGNITIVE OPERATIONS FOR USING CONCEPTS AND WORDS | |
|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| JOIN classify like information | $A = A$ |
| EXCLUDE reject information that does not fit the classification |  |
| SELECT select needed information |  |
| INFER use information to make predictions | $A = A \rightarrow A = A$ |

Figure 7.1

These operations translate into essential skills (see Figure 7.2) that are used to find specific information in order to solve a particular problem. In approaching simpler materials, many learners use these skills unconsciously. However, more complex material is often so daunting at first glance that learners must make a conscious effort to begin the task of comprehending it. An example of this process is given in the “Teaching Strategies” using the Level 7 sample passage and question at the end of this section.

| SKILLS NEEDED TO READ COMPLEX MATERIALS AND SOLVE PROBLEMS | |
|------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| 1 | Select information that fits a certain classification. |
| 2 | Exclude nonessential information. |
| 3 | Select the material from the first classification that applies directly to the problem at hand. |
| 4 | Apply that information to the problem. |

Figure 7.2

This process can be applied to all of the Level 7 skills. In figuring out definitions of uncommon words, difficult jargon, or technical terms using the context, the learner must follow these same steps. Especially at this level, the context of the sentence containing the unfamiliar term is unlikely to provide enough clues to understanding; the learner must search through and analyze information from the entire document. In the same way, extracting information to find an underlying principle and then applying that principle to a new situation requires these skills of analysis and synthesis.

OTHER STRATEGIES FOR IMPROVING SKILLS TO LEVEL 7

- Have learners role-play to determine underlying principles. Select situations with more variables, consequences, and complex regulations than those used for previous levels.
- Use policy manuals from businesses, government agencies, and schools to develop case studies involving situations that are dissimilar or less obviously related to the policy. Have learners practice applying the policy and then compare results.
- Use cloze sentences to decipher the meaning of jargon and technical terms that must be understood from the context.
- Focus on analogies in examining and discussing relationships between words or concepts in the reading.

Level 7 Sample Passage

Section 108

- a) Notwithstanding the provisions of Section 106, it is not an infringement of copyright for a library or archive, or any of its employees acting within the scope of their employment, to reproduce no more than one copy or phonorecord of a work, or to distribute such copy or phonorecord under the conditions specified by this section if
- 1) the reproduction or distribution is made without any purpose of direct or indirect commercial advantage;
 - 2) the collections of the library or archive are (i) open to the public, or (ii) available not only to researchers affiliated with the library or archive or with the institution of which it is a part, but also to other persons doing research in a specialized field; and
 - 3) The reproduction or distribution of the work includes a notice of copyright.
- b) The rights of reproduction and distribution under this section apply to a copy or phonorecord of an unpublished work duplicated in facsimile form solely for purposes of preservation and security, or for deposit for research use in another library or archive of the type described by clause (2) of subsection (a), if the copy or phonorecord reproduced is currently in the collections of that library or archive.
- c) The right of reproduction under this section applies to a copy or phonorecord of a published work duplicated in facsimile form solely for the purpose of replacement of a copy or phonorecord that is damaged, deteriorating, lost, or stolen, if the library or archive has, after a reasonable effort, determined that an unused replacement cannot be obtained at fair cost.

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The Question:

Based on the information given, which of the following conditions would prohibit a city employee from photocopying an unpublished manuscript?

- A. If the city library is accessible to any and all citizens and researchers
- B. If the city library's original copy of the manuscript is in danger of damage through use
- C. If the employee makes only one copy of the manuscript as a secure transcription
- D. If the photocopy is to be sent to a public research library that does not have a copy of the manuscript
- E. If the photocopy would not produce any income for the city library

The Skill Assessed:

Individuals must apply the principles behind complicated instructions to new situations.

Indications that this is a Level 7 passage:

- ◆ There are significantly longer, denser, more complex sentences and paragraphs. All of subsection (a) is one sentence.
- ◆ The writing style is complex, often legal. . . . *published work duplicated in facsimile for solely for the purpose of replacement of a copy or phonorecord that is damaged, deteriorating, lost, or stolen.* . . .
- ◆ There is difficult vocabulary: *phonorecord, facsimile.*

- ◆ There are words with uncommon meanings used: *deposit*.
- ◆ The information needed is one of many conditions acceptable to legally copy works in a library.

Teaching Strategies

Close examination of this passage is necessary to determine under what conditions it is not permissible to copy documents. In addition to the various conditions listed, an abundance of negatives make understanding more cumbersome: *Notwithstanding . . . it is not an infringement . . . to produce no more than one copy . . .* It is also worth discussing the rationale

for these exceptions, especially the one pinpointed by the accompanying question. Common sense would seem to dictate that it would be all right to send copies to libraries, especially research facilities, that do not already have the manuscript. The reader needs to return to the first sentence to realize the issue is copyright infringement and that the exception is made for libraries who have already purchased the document but may not be able to copy it.

The steps described previously to help learner's read complex materials can be useful in understanding this copyright law and carrying out the assigned task.

| | | |
|---|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Select information that applies to photocopying unpublished manuscripts. | Part (a) refers to all works and part (b) applies to unpublished works. |
| 2 | Exclude information that does not apply to the unpublished manuscript described. | Part (c) describes only published works and therefore does not apply in this case. The only statement that does not apply to either the question or the choices is (a) (3) because no mention is made in the question or the answers whether a copyright is included in this unpublished work. |
| 3 | Select information from Step 1 that would not prevent this unpublished manuscript from being copied. | <ul style="list-style-type: none"> • Choice A: This would not prevent copying because section (a) (2) allows the practice if the collections are <i>open to the public</i>. • Choice B: This condition is acceptable. According to subsection (b), making a copy of an unpublished manuscript is permissible if the copy is being made for the sake of preservation. If the original is in danger of being damaged through use, then an additional copy would be justified for the sake of preservation. • Choice C: According to subsection (b), making a copy of an unpublished manuscript is permissible if the copy is being made for the sake of security. • Choice E: This condition is acceptable. According to subsection (a), clause (1), one of the conditions for permissible copying of any work is that no commercial advantage will be gained through the copying. |
| 4 | Apply Section 108 b). | The learner should find that the only condition that, if it existed here, is not met is in Section 108 b): <i>for deposit for research use in another library or archive of the type described by clause (2) of subsection (a), if the copy or phonorecord reproduced is currently in the collections of that library or archive.</i> |

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