CHAPTER 13

# Written Language Difficulties: Written Expression, Spelling, and Handwriting

*What is the most frightening thing you ever encountered?*
*—A blank sheet of paper.*
—Ernest Hemingway

## LEARNING OBJECTIVES

*After reading this chapter, you should be able to:*

**13.1** Explain theories describing written language difficulties
**13.2** Describe written language and expression
**13.3** Outline how to teach spelling
**13.4** Outline different methods to teach handwriting
**13.5** List teaching strategies to improve written language difficulties
**13.6** List writing strategies to be used in the general education classroom
**13.7** List strategies for teaching manuscript and cursive writing
**13.8** List strategies for teaching word processing
**13.9** Compare and contrast strategies for teaching spelling
**13.10** Outline strategies for teaching handwriting

# STANDARDS Addressed in This Chapter:

**Council for Exceptional Children Initial Level Special Educator Preparation Standards as approved by the National Council for the Accreditation of Teacher Education**

CEC Initial Preparation Standard 1: Learner Development and Individual Learning Differences

- 1.0—Beginning special education professionals understand how exceptionalities may interact with development and learning and use this knowledge to provide meaningful and challenging learning experiences for individuals with exceptionalities.
- 1.1—Beginning special education professionals understand how language, culture, and family background influence the learning of individuals with exceptionalities.
- 1.2—Beginning special education professionals use understanding of development and individual differences to respond to the needs of individuals with exceptionalities.

CEC Initial Preparation Standard 3: Curricular Content Knowledge

- 3.0—Beginning special education professionals use knowledge of general and specialized curricula to individualize learning for individuals with exceptionalities.
- 3.1—Beginning special education professionals understand the central concepts, structures of the discipline, and tools of inquiry of the content areas they teach and can organize this knowledge, integrate cross-disciplinary skills and develop meaningful learning progressions for individuals with exceptionalities.
- 3.2—Beginning special education professionals understand and use general and specialized content knowledge for teaching across curricular content areas to individualize learning for individuals with exceptionalities.
- 3.3—Beginning special education professionals modify general and specialized curricula to make them accessible to individuals with exceptionalities.

CEC Initial Preparation Standard 4: Assessment

- 4.0—Beginning special education professionals use multiple methods of assessment and data-sources in making educational decisions.
- 4.1—Beginning special education professionals select and use technically sound formal and informal assessments that minimize bias.
- 4.2—Beginning special education professionals use knowledge of measurement principles and practices to interpret assessment results and guide educational decisions for individuals with exceptionalities.
- 4.3—Beginning special education professionals in collaboration with colleagues and families use multiple types of assessment information in making decisions about individuals with exceptionalities.
- 4.4—Beginning special education professionals engage individuals with exceptionalities to work toward quality learning and performance and provide feedback to guide them.

CEC Initial Preparation Standard 5: Instructional Planning and Strategies

- 5.0—Beginning special education professionals select, adapt, and use a repertoire of evidence-based instructional strategies to advance learning of individuals with exceptionalities.
- 5.1—Beginning special education professionals consider an individual's abilities, interests, learning environments, and cultural and linguistic factors in the selection, development, and adaptation of learning experiences for individuals with exceptionalities.
- 5.2—Beginning special education professionals use technologies to support instructional assessment, planning, and delivery for individuals with exceptionalities.
- 5.3—Beginning special education professionals are familiar with augmentative and alternative communication systems and a variety of assistive technologies to support the communication and learning of individuals with exceptionalities.
- 5.4—Beginning special education professionals use strategies to enhance language development and communication skills of individuals with exceptionalities.
- 5.6—Beginning special education professionals teach to mastery and promote generalization of learning.
- 5.7—Beginning special education professionals teach cross-disciplinary knowledge and skills such as critical thinking and problem solving to individuals with exceptionalities.

For students, Common Core Standards for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects can be found at: *http://www.corestandards.org*

Written language is the third form of the integrated language system. In the "Theories" section of this chapter, we consider three areas of written language: (1) written expression, (2) spelling, and (3) handwriting. In the "Teaching Strategies " section of this chapter, we present specific instructional strategies for (1) written expression, (2) word processing, (3) spelling, and (4) handwriting to help students with writing difficulties develop their written language skills.

## 13.1 Theories Describing Written Language Difficulties

Many people dislike writing and try to avoid writing. Their disdainful attitude is depicted in the story of the New York City taxicab driver who skillfully guided his cab past a pedestrian. The cabby then explained to his passenger why he was so careful: "I always try to avoid hittin' 'em because every time ya hit one, ya gotta write out a long report about it."

Words are the primary means of communication for human beings. Using words is the way we tell one another what we want, what we do not want, what we think, and how we feel. When words are spoken, they are a wonderful asset—quick, direct, and easy. But when words must be written, they can become burdensome, part of a slow and laborious task. Many students with learning disabilities and related mild disabilities have difficulty writing. Some of these students also have underlying language problems, including difficulty with spoken language. Many students, however, do well with oral language but encounter significant problems in the acquisition and use of written language. Moreover, written language difficulties often continue to adversely affect their lives as adults (Linstrom, 2007; Harris, Graham, & Mason, 2003; Lenz & Deshler, 2003; Adelman & Vogel, 2003; Vogel & Adelman, 2000).

Writing is the most sophisticated and complex achievement of the language system. In the sequence of language development, writing is typically the last to be learned, although the early literacy approach encourages children to write even before they learn to read. Through writing, we integrate previous learning and experiences in listening, speaking, and reading. Proficiency in written language requires an adequate basis of oral language skills, as well as many other competencies. The writer must be able to keep one idea in mind while formulating the idea into words and sentences, and the writer must also be skilled in planning the correct graphic form for each letter and word while manipulating the writing instrument. In addition, the writer must also possess sufficient visual and motor memory to integrate complex eye–hand relationships.

The instructional concept of "writing across the curriculum" has become a persuasive force in the teaching of writing. This implies that writing should be taught in all subjects of the curriculum, not only those in which written language is the center of instruction. Three components of writing are addressed in this chapter: (1) written expression, (2) spelling, and (3) handwriting.

**Did You Get It?**

There are a myriad of tasks, processes, and expectations that go into the learning and mastery of our language system. In that regard, experts deem which of the following as being both the most complex and most sophisticated?

**a.** speaking
**b.** writing
**c.** reading
**d.** processing

## 13.2 Written Expression

Success as a writer is intimately tied to the quality of writing instruction the student receives. Writing requires many related abilities, including facility in spoken language, the ability to read, skills in spelling, legible handwriting or skill with computer keyboarding, knowledge of the rules of written usage, and cognitive strategies to organize and plan the writing (Bashir & Singer, 2009).

## STUDENT STORIES 13.1

### Written Language Problems

Written language skills are required in most occupations today—even to be a successful bank robber. The following news story from Miami illustrates the importance of writing skills for successful communication. In an attempted burglary, a would-be robber handed this handwritten note to the bank teller:

> A GOT A BUM. I ALSO HAVE A CONTOUR. I'M GOING TO BLOW YOU SKY HEIGHT. I'M NO KILLEN. THIS IS A HELD UP.

Unable to decipher the note, the teller asked the robber for help in reading the message. By the time the robber deciphered the words for the teller, the police had arrived and arrested the robber. To make matters worse for the robber, the police were able to trace him to other bank holdups in which the same spelling and writing errors were made in the burglary notes (*Miami Herald*, 1980).

(*Possible translation:* I got a bomb. I also have a control. I'm going to blow you sky high. I'm no killer. This is a holdup.)

#### REFLECTIVE QUESTION

1. Analyze the would-be bank robber's note. Do you think the bank robber's note displayed difficulty with phonics or visual memory of sight words? Why?

Many students with learning disabilities and related mild disabilities may lack many of these critical writing-related abilities and therefore find communicating through writing very challenging. The writing of these students is often replete with errors in spelling, punctuation, capitalization, handwriting, and grammar. Their written products tend to be short, poorly organized, and impoverished in terms of development of ideas.

Poor skills in written communication and difficulty in sharing thoughts through writing can persist over time and into the adult years (Harris et al., 2003; Lenz & Deshler, 2003). Student Stories 13.1, "Written Language Problems," provides one account of an individual with writing difficulties.

### 13.2a The Writing Connection in the Integrated Language System

The links among the elements of language connect the language forms with one another and also strengthen the underlying language system. Extensive oral language experiences promote reading. In turn, instruction in reading improves performance in writing. Further, experiences with writing and composing improve one's knowledge of language and skills in speaking and reading. All of these language experiences strengthen the underlying language system (Jennings, Caldwell, & Lerner, 2010).

There are many similarities in the processes used in spoken language, reading, and writing. In both reading and writing, people set and revise goals, refining and reconstructing meaning as they go through the material. They develop expectations about what they will read or write next, form attitudes about the text, and they monitor the information they wish to remember or convey (Mason, 2009; Harris et al., 2003).

By its very nature, writing is an active process. The physical aspect of writing literally forces active involvement upon the writers. Writers perform the actions of picking up a pen or pencil (or using a computer keyboard) and

recording their thoughts. While people write, they must actively work at producing something that did not exist before by using their own background knowledge and integrating their language skills. The process of revising requires rethinking and reconstruction. Much reading also occurs during the process of writing. When adults write, over half of the writing time is actually devoted to reading. As soon as good writers complete a section of writing, they reread it. They also reread to see how to connect a previously written section to one they are about to write. When writers complete an entire text, they reread it again immediately and then reread it a short time later. The kind of reading that takes place during writing is intensive and involves much critical analysis (Mason, 2009; Berry, 2006; Graham & Harris, 2005; Graham, Harris, & Mason, 2005).

## 13.2b Early Literacy and Writing

The term **early literacy** refers to a young child's early entrance into the world of words, language, and stories. The concept of early literacy emphasizes the interrelatedness of the various forms of language in the child's development. Children develop literacy through simultaneous experiences with language, reading, and writing.

**early literacy**
The child's early entrance into the world of words, language, and stories. Literacy emerges in children through simultaneous experiences with oral language, reading, and writing.

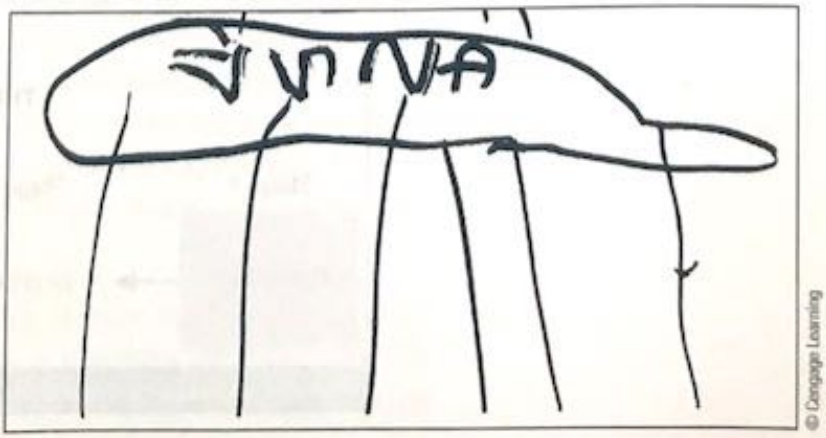
The philosophy of early literacy instruction suggests that writing may be easier than reading and may actually develop earlier than reading (Snow, Burns, & Griffin, 1998). Writing is a more self-involving task than reading because the meaning of a writer's message originates from within the writer and is known to the writer in advance. In contrast, reading requires that the reader be able to interpret someone else's ideas and use of language, which is a more difficult task for the beginner.

The early literacy curriculum emphasizes that writing is beneficial, even for primary-age children, and should be encouraged (CIERA, 1998; Snow et al., 1998). When young children write, they directly explore both the functions and the forms of written language. Writing helps children understand that, in English, print progresses from left to right. Many young children who have not yet learned this rule of written English reverse this process, writing from right to left, as shown in Figure 13.1.

**invented spelling**
The beginning writer's attempt to write words. The young writer attends to the sound units and associates letters with them in a systematic, although unconventional, way.

FIGURE **13.1**
Children Must Learn That Writing in English Goes from Left to Right

In their early writing experiences, young children should not be required to adhere to criteria of proper form or correct spelling; they should simply be encouraged to explore and to play with writing. Young children are encouraged to use **invented spelling**, which means they follow their own spelling rules. Early writing also increases the child's awareness of the phonological properties of language. When children attempt to put their ideas into print, they explore and learn about the alphabetic nature of written English. As they begin to realize that words can be segmented into sounds, they acquire important skills for the early stages of reading. Figure 13.2 shows an example of a child's writing.



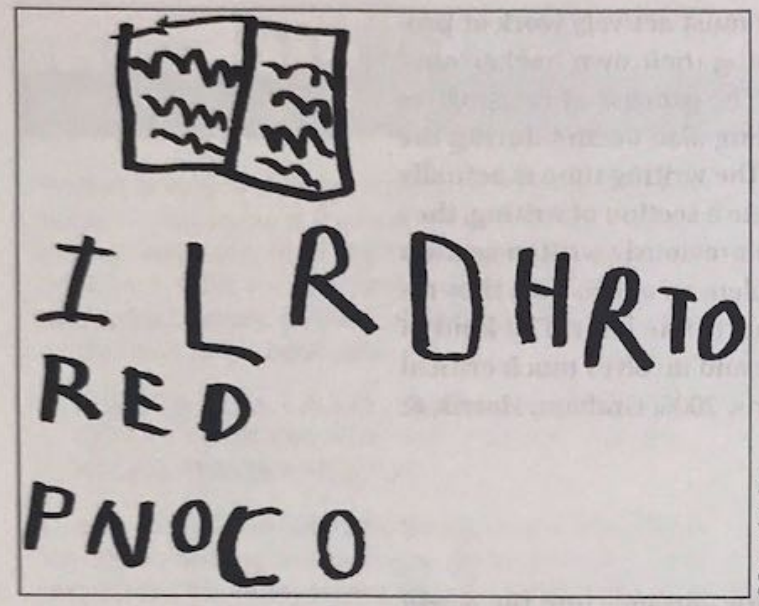





FIGURE 13.2
Example of a Child's Writing in a Kindergarten Early Literacy Class

## 13.2c The Writing Process

Current theories on the teaching of writing call for a major shift in instructional emphasis to the *writing process* instead of the *writing product* (Harris, Grahm, & Mason, 2008; Graves, 1994; Harris et al., 2003). The traditional writing product approach to writing emphasized the written assignment (or product) created by the writer. In contrast, the writing process approach to writing focuses on the entire process that writers use in developing a written document.

**writing product**
A method of teaching writing that focuses on the final written document.

**writing process**
The process whereby writers go through a series of stages during writing. The 4 stages of the writing process are (1) prewriting, (2) drafting, (3) revising, and (4) sharing with an audience.

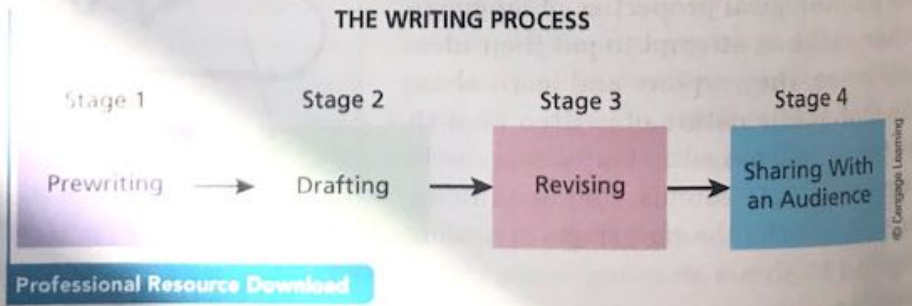
In the traditional writing product approach, the teacher's checking and grading of the written product is based on certain expectations of perfection. Students are expected to spell correctly, to use adjectives, and to compose topic sentences. Their written papers are graded on word choice, grammar, organization, and ideas. The graded papers are then returned to the students with corrections (often in red ink), and students are expected to learn and improve their writing skills from these grades and teacher corrections. The more conscientious the teacher, the more conscientiously the corrections fill student papers. Too often, the result of applying the writing product approach to writing instruction is that people learn to dislike writing.

The writing process approach to writing is different; it emphasizes the thinking that goes on during writing. Teachers are encouraged to understand the complexity of the writing process as they help students think about, select, and organize tasks. Students are encouraged to ask themselves questions such as: What is the purpose of my writing? How can I get ideas? How can I develop and organize the ideas? How can I translate and revise the ideas so that the reader will understand them? Who is the intended audience?

Writing is a learned skill that can be taught in a school setting as a thinking-learning activity, with emphasis on the writing process. As a cognitive process, writing requires both backward and forward thinking. Good writers do not simply sit down and produce a text. Rather, they go through several stages of the writing process—prewriting, drafting, revising, and sharing with an audience, as shown in Figure 13.3 (Graham et al., 2002; Graves, 1994).

**Stage 1: Prewriting** During this first stage, the writer gathers ideas and refines them before beginning formal writing. Prewriting involves a type

FIGURE 13.3
Stages of the Writing Process



of brainstorming, such as talking through some thoughts and ideas, jotting a few notes in a margin, or developing a graphic organizer or list of the main points. During this time, the writer also identifies an intended audience. Students are more willing to write if they choose the topic. They may write about someone they know, a special event, or themselves. Teachers can help by asking students to make a list of people who are special to them or to list activities they did during a holiday break.

**Stage 2: Drafting** In the second stage of the writing process, the writer records ideas on paper. Although many people think of this stage as "writing," it actually is only one step in the process. The term drafting is used instead of *writing* to emphasize that this is one version of what eventually will be written and that it will be changed. The first draft of a piece of writing is not for the reader, but for the writer. As the writer jots down words, sentences, and paragraphs, these give rise to new ideas or ways to revise ideas already written. At this stage, there may be an overflow of ideas, with little organization or consideration of prose, grammar, and spelling.

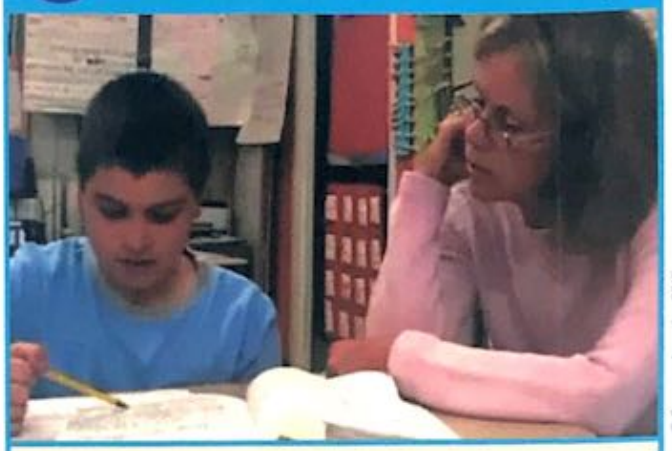
**Stage 3: Revising** Having completed the prewriting and drafting stages, the writer then refines the draft version of the text by revising and editing. Mature writers take the ideas of the first draft, and then reorganize and polish them. There may be several revisions, with different kinds of changes made in each, such as in content, the way of expressing the ideas, the vocabulary, the sentence structure, and the sequence of ideas. The last revision is editing, which includes checking for grammatical, punctuation, and spelling errors. This stage requires a very critical view of one's own work.

Students who have writing difficulties are often reluctant to revise. Just writing the draft requires extensive effort, and making revisions can seem overwhelming. Rewriting of earlier drafts is greatly facilitated by using computers and word-processing software programs.

To help writers learn to revise, teachers can model revisions in dictated stories or in their own work. They can have students make suggestions for revising some of the teacher's writing, make the revisions, and share the revised version. Students can also make suggestions for revising the drafts of their classmates. It is important to make this a positive experience. Be sure to note some good features of a student's work before making suggestions for revision.

**Stage 4: Sharing With an Audience** This stage is important because it gives value and worth to the entire writing process. It provides students with the opportunity to receive feedback and to perceive themselves as authors who are

**TeachSource Video Case Activity**





Visit the Education CourseMate website and watch the TeachSource Video Case entitled "Elementary Writing Instruction: Process Writing." In this video, the classroom teacher and the literacy coordinator work together to help students at various stages of the writing process. The students get ideas from social studies and history to develop stories of historical fiction.

QUESTIONS

1. How do the students in this video get their ideas for writing?
2. What are the stages of the writing process shown in this video?

**prewriting**
The first step of the writing process, in which writers evoke and gather ideas for writing.

**drafting**
A stage in the writing process in which a preliminary version of the written product is developed.

**revising**
A stage of the writing process in which the writer reworks a draft of a written product.

responding to an audience. In this final stage, the writer considers the audience for whom the material is intended and whether the ideas will be well communicated to the reader. The amount of rewriting will depend on the intended audience. The audience could be the teacher, other students in the class, or a larger audience that is reached through publication (Harris, Graham, & Mason, 2005; Graham et al., 2002; Graves, 1994).

**sharing with an audience**
A stage of the writing process in which the final written product is read by others.

Sharing with an audience can occur in a number of ways: A written document can be published and bound and shared with a class or placed in a classroom library. Students can share their work through a presentation, a bulletin board display, a newsletter, or a puppet show.

## 13.2d Principles for Teaching the Writing Process

The following principles apply to planning instruction for the writing process (Harris et al., 2003).

**1. During the prewriting stage, the writing process requires much time, input, and attention.** Writers need something to write about. They need sufficient prior experiences to create and stimulate ideas for a good written production. When teachers give a written assignment (such as "write a 100-word theme on spring") without first supplying a prewriting buildup, the process will not produce a rich written product. Teachers can provide necessary input experiences through activities, such as trips, stories, discussions, and oral language activities. Sources of inspiration for writing include reading, art, content-area activities, films, television, newspapers, trips and field experiences, brainstorming, and Internet searches. Devote as much time to the prewriting stage as to the writing stage.

**2. The drafting stage frees students from undue concentration on the mechanics of writing.** Students should realize that all writers make errors in spelling and grammar in the first draft. Although such mistakes should *eventually* be corrected, they need not be fixed immediately. Instead, the student should focus on the content during the drafting stage and later clean up the work through editing.

**3. The revising stage helps students edit their work.** Students often think that their writing is finished when they have completed their first draft. When they realize that they must go through the revising stage before their work will be complete, they begin to think of writing as a process instead of a product. A teacher can demonstrate the imperfections of a first draft by exhibiting first drafts of his or her own writing to show the students that all writing needs to be edited. Students can form small groups to review and edit one another's work.

**4. Avoid excessive corrections of students' written work.** Students are discouraged from trying if their attempts to express ideas are met by having their papers returned full of grammatical, spelling, punctuation, and handwriting corrections in red ink, with heavy penalties for mistakes. As one pupil remarked, "An *F* looks so much worse in red ink."

When students receive negative reinforcements, they soon learn to beat the game. They will limit their writing vocabulary to words they know how to spell, to keeping their sentences simple, to avoid complex and creative ideas, and to keep their compositions short.

## 13.2e The Learning Strategy Approach to Writing

A learning strategy approach called *self-regulated strategy development (SRSD)* is an explicit, structured approach to teaching writing (Graham & Harris, 2005; Graham, Harris, & Larsen, 2001; Harris et al., 2003). Students who have difficulty with writing need structure and direction to acquire writing strategies. The goals of SRSD are (1) to help students develop a knowledge of writing and the strategies involved in the writing process, (2) to support students in the ongoing development of the abilities needed to monitor and manage their writing, and (3) to promote students' development of positive attitudes about writing and about themselves as writers.

Tom Stewart/Flirt/Corbis

By its very nature, writing is an active process. When people write, they must actively work at producing something that did not exist before by using their own background knowledge and integrating that with their language skills.

The six stages of the SRSD model of writing are (Mason, 2009; Harris et al., 2003):

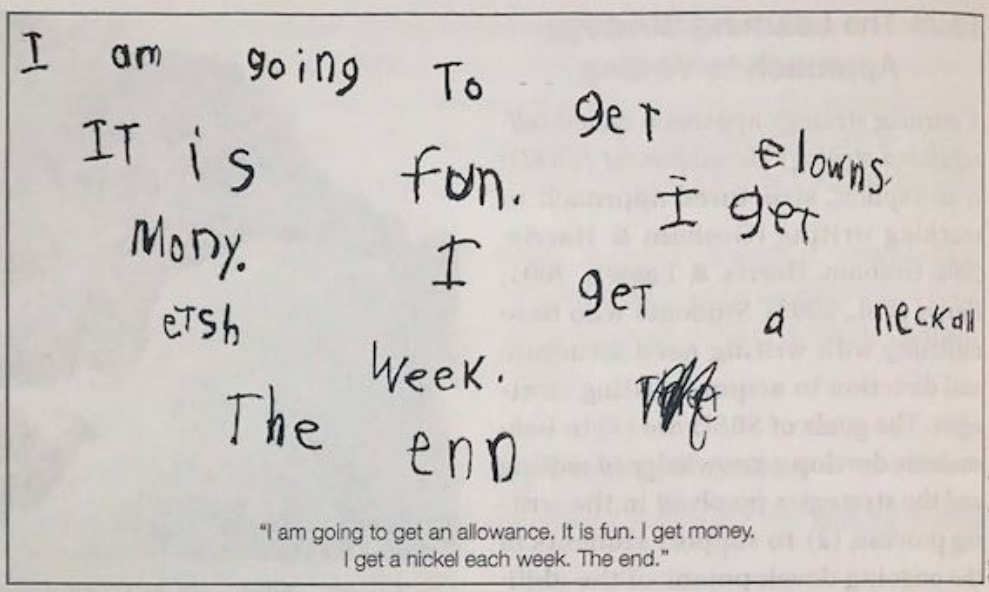
1. **Develop background knowledge.** Working within a group, students think about what is known about the topic and find additional information from a variety of sources.
2. **Discuss it.** The students talk about and discuss what they have learned with one another and with their teacher. They then discuss a specific writing strategy that they plan to use. For example, they may decide to use the strategy of semantic mapping.
3. **Model it.** The students model how to use a writing strategy, thinking aloud as they work.
4. **Memorize it.** Students review and say aloud the parts of the writing strategy.
5. **Support it.** Students begin to write a story by using the writing strategy.
6. **Independent performance.** Students now use the writing strategy independently.

## 13.2f Strategies for Writing

For students who find writing tasks overwhelming, teachers must provide adequate structure to help students carry out a writing assignment. Support students in finding ideas for writing, sharing ideas on paper, and finding interesting and descriptive vocabulary. Use a variety of writing strategies, such as (1) personal journals, (2) written conversations, (3) patterned writing, (4) graphic organizers, and (5) drawing pictures (Graham et al., 2001; Harris et al., 2003; Jennings et al., 2010).

**Personal Journals** In a personal journal, students record personal events or experiences in writing. They practice writing by recording day-to-day accounts of events in their lives and their feelings about these experiences, which they can read later. Each student needs a journal, usually a notebook of lined paper.

FIGURE **13.4**
An Example of a Journal Entry




"I am going to get an allowance. It is fun. I get money.
I get a nickel each week. The end."



Students often create titles for their journals and decorate the cover or title page. Set aside time (usually at least a few periods a week) to record personal thoughts in journals. It is easier for students to read and write if they use only one side of a page.

Students may choose to share some of their journal entries, but they should have the choice of not doing so. If a student does not want the teacher to read a journal entry, the student can fold a page in half lengthwise, and the teacher will then not read the folded pages. Teachers should also be careful not to correct grammatical errors or spelling errors because this practice undermines the student's confidence and may decrease the amount of writing.

Some students with writing difficulties lack the confidence to maintain a journal. Teachers can help students overcome this problem by modeling journal writing and help students who cannot think of journal topics with suggestions, such as favorite places, special people, favorite stories, things I like to do, things I don't like to do, things that make me angry, and things I do well. When one parent asked for permission to take a student out of school for a special family trip, the teacher asked that the student keep a journal about the trip. A list of "Ideas for Writing" could be put on a chart in the room or placed in the student's journal on an "Ideas" page. An example of a journal entry is shown in Figure 13.4

**Written Conversations** Written conversations or dialogue journals are written interactions between teacher and student or between 2 students. Students write their thoughts or questions to the teacher, and the teacher writes a response. Students keep their journal during the day and then give it to the teacher at the end of the school day. The teacher responds to the student's thoughts. A student and teacher can also use e-mail to communicate with each other. For example, the teacher can ask the student in writing how things are going. Or the teacher can write a greeting and message, and the student can answer. For this exchange, each writer can use a different-colored pen or pencil (Jennings et al., 2010). Figure 13.5 shows an example of a written conversation.

**Patterned Writing** In this strategy, the students use a favorite predictable book with a patterned writing, and then they write their own version. This method

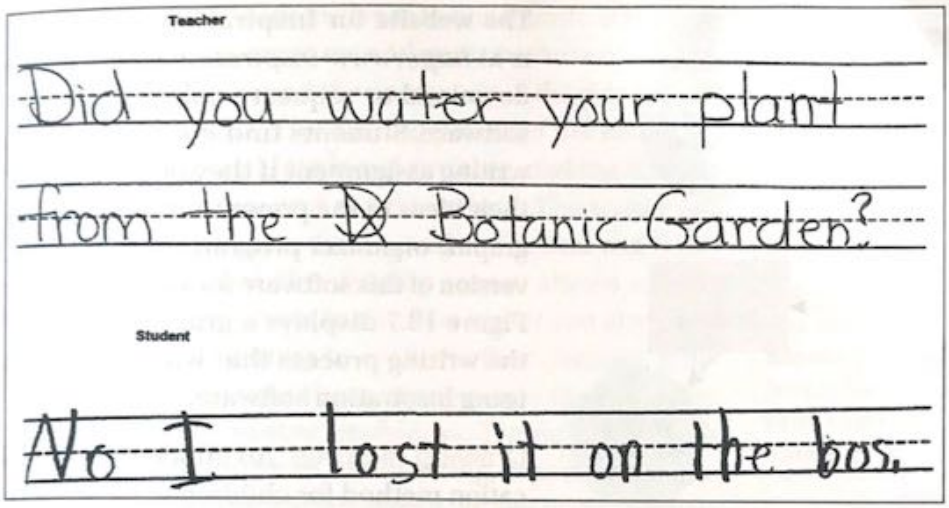



FIGURE **13.5**
An Example of Written Conversation

gives students the security of a "frame" to use to write a personalized response. For example, "Black Dog, Black Dog, What do you see? I see a red bird looking at me." Students make up their own refrain and illustrate it. The finished writing of several students can be put together into a book and placed on the library table for others to read.

**Graphic Organizers** Graphic organizers are visual displays that organize and structure ideas and concepts. In the context of reading, graphic organizers help students understand the reading material. Research shows that reading comprehension improves when students use graphic organizers. In the context of writing, graphic organizers can help students generate and organize ideas as they prepare for a writing assignment (Lenz & Deshler, 2003; Sabbatino, 2004).

**graphic organizers**
Visual representations of concepts, knowledge, or information that incorporate both text and pictures to make the material easier to understand.

The Venn diagram is one graphic organizer in which there are 2 intersecting circles. This graphic is useful for preparing for a "compare and contrast" writing assignment. For example, in comparing 2 people in history, one puts the descriptors of one person in one circle, the characteristics of the other person in the second circle, and the common characteristics in the intersecting section. Figure 13.6 shows a Venn diagram comparing oranges and apples.

Inspiration is a software program that makes it easy for students to develop graphic organizers to plan, develop, organize, or summarize a writing project.

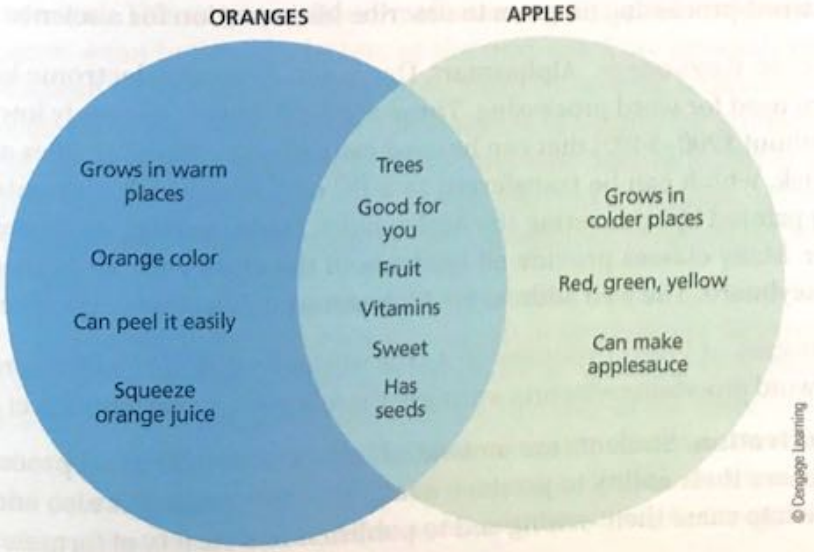



FIGURE **13.6**
Venn Diagram Comparing Oranges and Apples

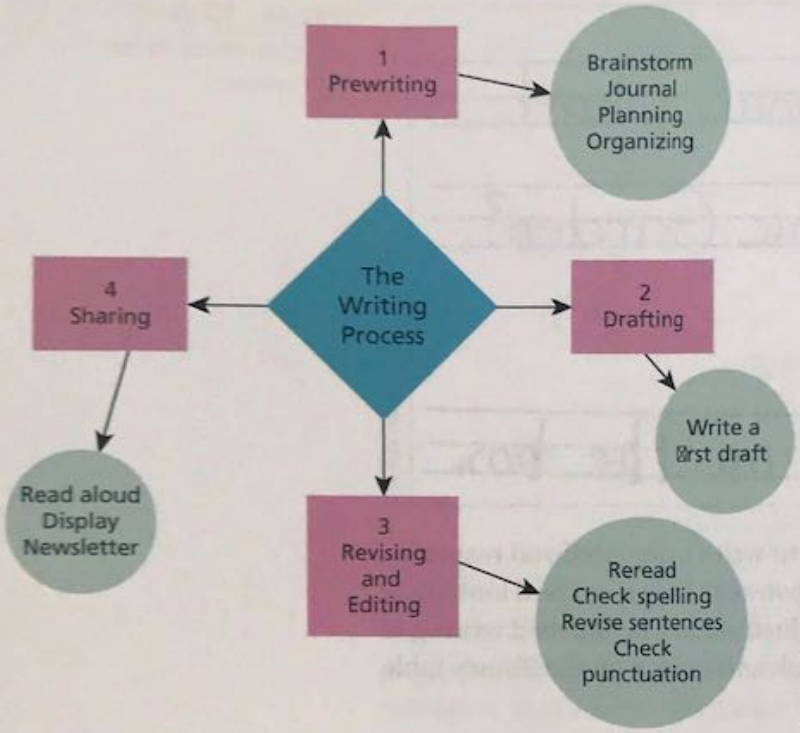





FIGURE **13.7**
Graphic Organizer for the Writing Process

The website for Inspiration Software, Inc. is at *http://www inspiration.com.* Users can download or request trial versions of this software. Students find it easier to tackle a writing assignment if they begin to organize their ideas in the prewriting stage using this graphic organizer program. Kidspiration is a version of this software for younger children. Figure 13.7 displays a graphic organizer of the writing process that was accomplished using Inspiration software.

**Drawing Pictures** An important communication method for children with writing difficulties is the drawing of pictures. Children with learning disabilities and related mild disabilities often excel at expressing their ideas in pictures. The visual areas of learning are often an area of strength and should be encouraged (Smith, 2001, 2005; West, 1997).

## 13.2g Assistive and Instructional Technology for Struggling Writers

Technology offers a wide range of applications to support struggling writers (MacArthur, 2009; Roe, Stoodt-Hill, & Burns, 2011). In this section, we discuss word processing, electronic keyboards, keyboarding, talking word programs, word-prediction programs, voice-recognition systems, e-mail, and presentation software.

**word processing**
Writing with a computer (as contrasted with writing by hand or on a conventional typewriter).

**Computers and Word Processing** One of the most widely used computer applications, word processing offers an excellent means of teaching writing and integrating the language systems. With this effective tool, writing can become a less arduous task for many individuals with writing difficulties. With a computer, students can write without worrying about handwriting and can revise without making a mess of the written document. In Figure 13.8, a fourth-grade student uses a word-processing program to describe his invention for a science project.

**Electronic Keyboards** Alphasmart, Dana, and Nero are electronic keyboards that are used for word processing. These are lightweight, relatively low-cost devices (about $200–$400) that can be used instead of a computer. Files are stored on a disk, which can be transferred to a PC or a Macintosh computer. Pages can be printed by connecting the Alphasmart, Dana, or Nero keyboards to any printer. Many classes provide all students in the class with an Alphasmart or Dana keyboard. The web address for Alphasmart is *http://www.alphasmart.com.*

**Advantages of Word Processing** As the writing tool of the contemporary classroom, word processing supports writing in the following ways (Jennings et al., 2010):

- **Motivation.** Students are motivated to write because word processing increases their ability to produce neat, error-free copies. It also encourages them to share their writing and to publish it in a variety of formats.

- **Collaboration** Students learn to collaborate in the writing process with teachers and peers because of the visibility of the screen and the anonymity of the printed text.
- **Ease of revision.** The editing power of the computer eases the physical burden of revising, making it easier to correct, revise, and rewrite a text. The writer can readily add, correct, delete, and revise and can freely experiment until the display screen shows exactly what the writer wants to say. The writer can also work with the printed copy to make further changes, if desired, and then enter those changes into the computer.
- **Help with fine-motor problems.** Typing is inherently easier and neater than handwriting, especially for students with fine-motor problems. At any point, by clicking "print," the writer can obtain a printed copy. Word processing eliminates the difficult task of recopying or retyping and encourages the student to expend energy on the important part of the writing process—thinking about content, editing, and revising.
- **Special features.** Many word-processing software programs have special features, such as spell checkers, a thesaurus, grammar checkers, and speech synthesis programs, that make the process of writing easier.

**The Sanitary Sleeve**

**I invented the sanitary sleeve so people could wipe their nose on their sleeve and not ruin their shirt. You make a sanitary sleeve by gluing Velcro on the sleeve of your shirt (glue the Velcro on the left sleeve if you are a lefty and on the right sleeve if you are a righty). You'll also need special Kleenex with Velcro on it. This is an invention that your Mom will like because your shirt will stay clean even when you have a cold.**



FIGURE 13.8
The Sanitary Sleeve

**Keyboarding** To use a word processor for writing, students must learn typing or keyboarding skills. Keyboarding is discussed in this chapter, in the section on handwriting instruction.

**Talking Word-Processing Programs** Talking word-processing programs are text-to-speech programs that allow users to hear electronic text. These programs are helpful for people who have difficulty reading print. Several text-to-speech programs are listed in Table 13.1.

**Word-Prediction Programs** Word-prediction programs can be very helpful for poor writers. Word-prediction programs work together with a word processor to *predict* the word the user wants to enter into the computer. When the user types the first one or 2 letters of a word, the word-prediction software offers a list of words beginning with that letter. The user simply selects the desired word. The word-prediction software can also predict the next word in a sentence, even before the letters of the next word are entered. The prediction is based on syntax, spelling rules, word frequency, redundancy, and repetitive factors. The word-prediction software is helpful for students with learning disabilities and related mild disabilities who have difficulty in writing (MacArthur, 2009; Belson, 2003; Lewis, 1998; Raskind & Higgins, 1998a; Roe, Stoodt-Hill, & Burns, 2011). A popular word-prediction program is Co:Writer (see Table 13.1).

**Voice-Recognition Systems** Voice-recognition systems are dictation programs that allow a person to operate a computer by speaking to it. Using it in combination with a word processor, the user dictates to the system through a microphone, and the spoken words are converted to text on the computer screen. The computer learns to recognize the speech of the individual using it. The more the system is used, the more accurate it becomes in recognizing the

TABLE 13.1

Computers and Writing

| Type of Computer Program | Name | Company and Web Address |
|---|---|---|
| Talking word-processing programs | Write: OutLoud | Don Johnston, *http://www.donjohnston.com* |
| | Kurzweil 3000 | Kurzweil Education Systems, *http://www.kurzweiledu.com* |
| | WYNN 5.1 | Freedom Scientific, *http://www.freedomscientific.com* |
| Word-prediction programs | Co:Writer | Don Johnston, *http://www.donjohnston.com* |
| Word-processing software | Microsoft Works | Microsoft, *http://www.microsoft.com* |
| | Microsoft Word | Microsoft, *http://www.microsoft.com* |
| | WordPerfect | Corel, *http://www.wordperfect.com* |
| Voice-recognition programs | Type to Learn Dragon | Sunburst, *http://www.sunburst.com* |
| | NaturallySpeaking | Nuance, *http://www.Nuance.com* |



user's spoken language. Voice-recognition systems may be particularly helpful for those individuals who have oral language abilities that are superior to their written language abilities. Voice-recognition programs are especially useful for individuals with dyslexia (MacArthur, 2009; Belson, 2003; Raskind & Higgins, 1998a). Some voice-recognition systems are listed in Table 13.1.

**Word-Processing Software** Many excellent word-processing programs are available for students at all levels. Table 13.1 lists some of the programs used in schools.

**Writing E-mail Messages** A widely used and exciting method for encouraging writing and sharing written messages with an audience is through e-mail. Many classes are linking up with other classes through the Internet, providing children with the opportunity to write to one another. Many students with learning disabilities and related mild disabilities use social networking websites, such as Facebook and MySpace.

**Using Presentation Software** Software that allows users to develop presentation slides (such as Microsoft PowerPoint) provides an excellent way for students to engage in writing. Students with writing difficulties often struggle with writing, a skill that taps into many of their most severe disability areas. Secondary students with severe writing disabilities often master presentation software very quickly.

Students might develop, for example, a PowerPoint slide presentation about what they did during their winter break, recalling an experience that was recent and vivid. Presentations can be augmented with color, a variety of

fonts, background colors, animations, graphics, and photos. Students can then present their PowerPoint shows to the class.

Many students with writing difficulties are enthusiastic about using PowerPoint and about making PowerPoint presentations in lieu of writing compositions. They explain that it is easier to write in short phrases rather than in long sentences; it is fun; and, most important, it is easy to share their work with an audience. Creating a presentation slide project seems to call upon the students' visual skills, an area of strength for many students with learning disabilities.

**Making a Web Page** Wikispaces is a program that allows classes or groups of students to easily develop websites. The address for Wikispaces is *http://www.wikispaces.com.*

## 13.2h Assessment of Written Expression

The assessment of writing usually focuses on the written product. As with other areas of instruction, both informal and formal measures can be used to assess writing. Some of these measures are listed in Table 13.2. Written language tests usually require students to first write a passage, which is then evaluated.

**Did You Get It?**

**The authors of your text describe success and achievement in writing as being "intimately tied" to something else specifically, that tangible something which allows students to hone their skills now and for the future. To what are the authors referring?**

**a.** Proper instruction
**b.** Inherent, nonteachable factors
**c.** Inner drive and motivation
**d.** A high intelligence quotient

**TABLE 13.2**

Tests of Written Expression

| Test | Age or Grade Assessed |
|---|---|
| • OWLS: Written Language Scales, AGS *http://ags.pearsonassessments.com* | Ages 3–21 |
| • Test of Adolescent Language—3 (TOAL-3), Pro-Ed *http://www.proedinc.com* | Ages 12–19 |
| • Test of Written Expression (TOWE), Pro-Ed *http://www.proedinc.com* | Ages 5–17 |
| • Test of Written Language—3 (TOWL-3), Pro-Ed *http://www.proedinc.com* | Ages 7–18 |
| • Woodcock-Johnson Psychoeducational Battery—III, Tests of Achievement, Riverside Publishers *http://www.riverpub.com* | Grades K–17 |

## 13.3 Spelling

Spelling has been called "the invention of the devil." Continuing this spiritual analogy, someone has quipped that the ability to spell well is "a gift from God." Spelling is one curriculum area in which neither creativity nor divergent thinking is encouraged. Only one pattern or arrangement of letters can be accepted as correct; no compromise is possible. What makes spelling so difficult is that the written form of the English language has an inconsistent pattern; there is not a dependable one-to-one correspondence between the spoken sounds of English and the written form of the language. Therefore, spelling is not an easy task, even for people who do not have learning disabilities and related mild disabilities.

Spelling a word is much more difficult than reading a word. In reading, there are several clues—context, phonics, structural analysis, and configuration—that help the reader recognize a word in print. Spelling offers no such opportunities to draw on peripheral clues. Many individuals who have trouble spelling words are skilled in recognizing words in reading. However, individuals who are poor in decoding words in reading are almost always poor in spelling as well.

### 13.3a Developmental Stages of Learning to Spell

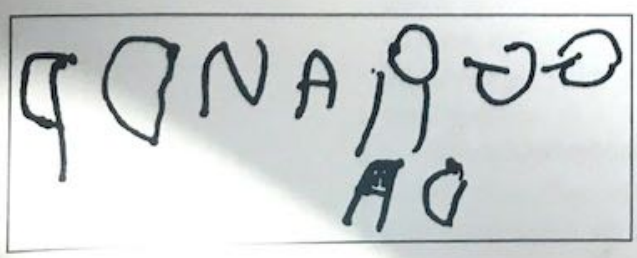
Children go through several distinct stages of spelling development, following a general progression of spelling knowledge. The rate of progression differs among children with different spelling abilities, but all children pass through the stages in order. Moreover, the spelling errors that children make reflect their current developmental stage of spelling. There are overlaps in the ages at which children pass through each developmental stage of spelling. The stages and their accompanying ages and characteristics follow:

**Stage 1: Developing Prephonetic Writing, Ages 1–7** Children scribble, identify pictures, draw, imitate writing, and learn to make letters, as shown in Figure 13.9.

**Stage 2: Using Letter Names and Beginning Phonetic Strategies, Ages 5–9** Children attempt to use phoneme representations but exhibit limited knowledge. They use invented spelling by letter name (e.g., *HIKT* for *hiked, LRN* for *learn,* or *TRKE* for *turkey).* Children may be able to spell some sight words correctly, as shown in Figure 13.10.

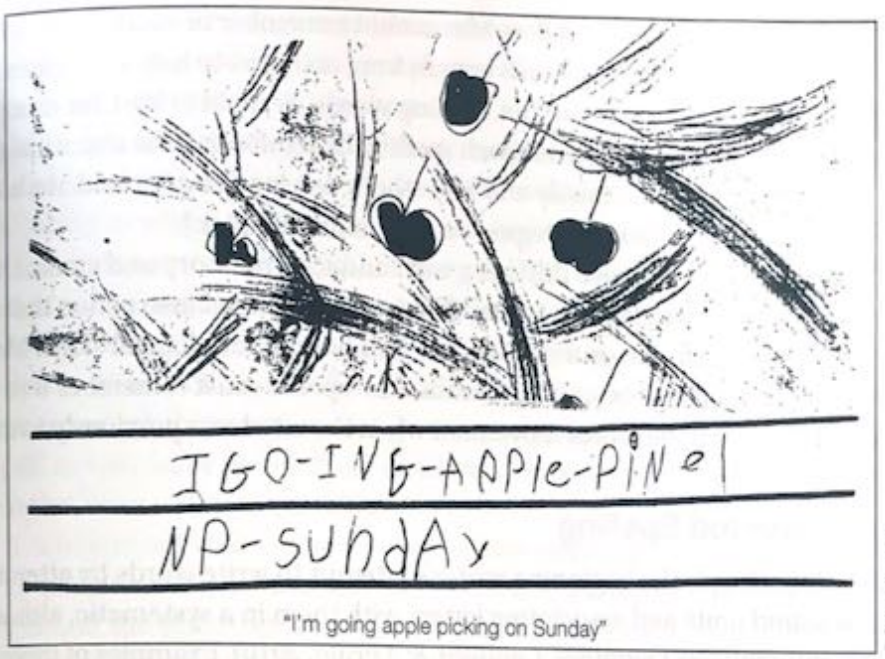
**Stage 3: Using Written Word Patterns, Ages 6–12** Spelling attempts are readable, pronounceable, and recognizable, and they approximate conventional spelling, even though they are not precise (e.g., *offis* for *office* or *alavater* for *elevator).* The child's invented spellings follow rules of short vowel and long vowel markers. Many sight words are spelled correctly, as shown in Figure 13.11.

FIGURE **13.9**
Developing Prephonetic Writing: Making Letters





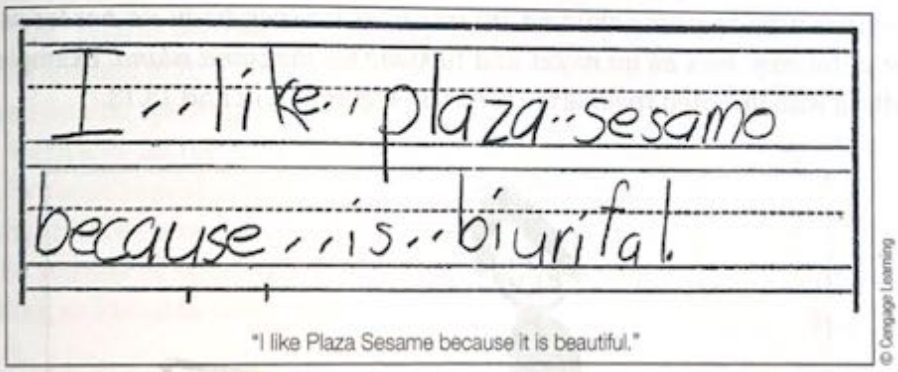
**Stage 4: Using Syllable Junctures and Multisyllabic Words, Ages 8–18** Students display errors in multisyllabic words. Invented spelling errors occur at syllable juncture and *schwa* positions and follow




"I'm going apple picking on Sunday"



FIGURE **13.10**
Pictures and Beginning Phonetic Stages




"I like Plaza Sesame because it is beautiful."



FIGURE **13.11**
Witten Word Patterns

deviational rules (e.g., *useage* for *usage;* the term *schwa* refers to unaccented syllables and reflects common spelling errors, such as *cottin* for *cotton).* Multisyllabic sight words may or may not be transferred to spelling performance.

**Stage 5: Developing a Mature Spelling Perspective, Ages 10–Adult** At this stage, previously acceptable invented spellings are now viewed as errors. Many individuals continue to have great difficulty with spelling, even if they follow the rules. Because of the many exceptions in English, individuals should learn to rely on backup sources, such as dictionaries, computer spelling checks, and electronic spellers. (Franklin Electronics offers many handheld electronic spelling devices, *http://www.franklin.com.*)

## 13.3b Problems Related to Spelling

Spelling requires many different abilities. For example, a child who lacks phonological awareness will not recognize that there are phonemes or sounds within spoken words and will have difficulty with the spelling-to-sound linkages that are necessary in spelling (Torgesen, 1998). Some children are initially unable to read a spelling word. Other children do not know how to apply phonics and structural analysis to spell a word. Still others are poor at visualizing the appearance of the word. Some children have poor motor facility and physical difficulty writing words.

To spell a word correctly, an individual must not only have stored the word in memory, but must also be able to completely retrieve it from memory without the

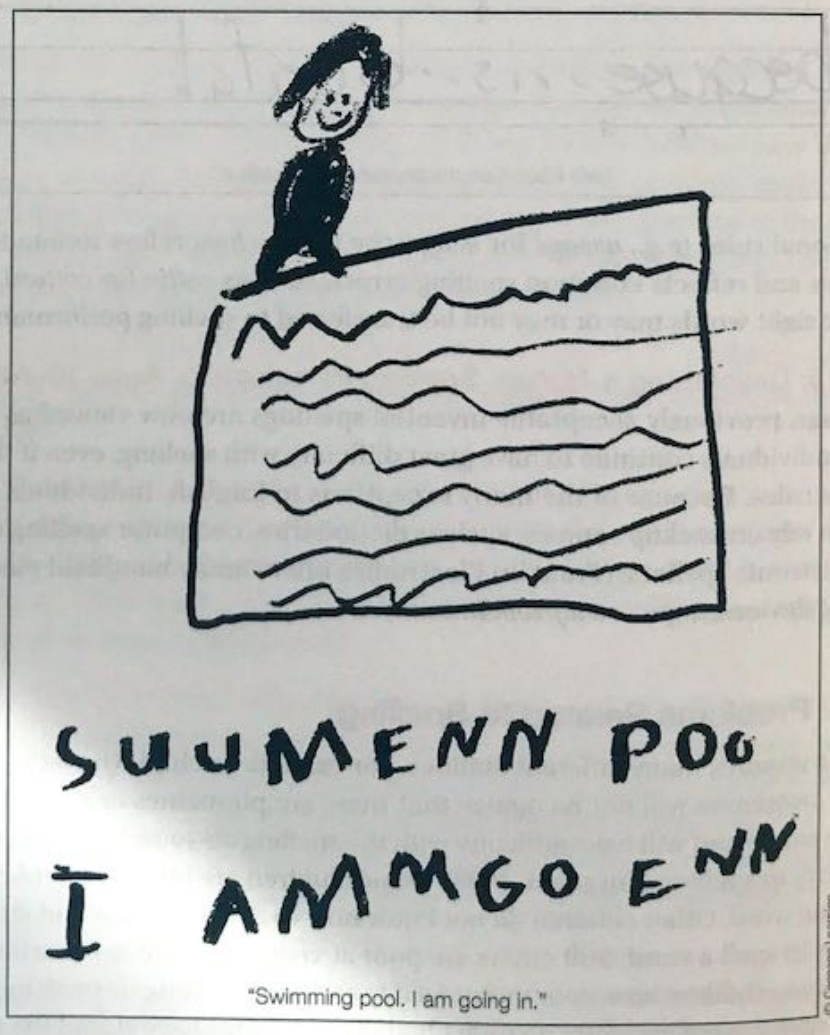
help from visual clues. Poor spellers who cannot remember or visualize the letters and the order of the letters in words benefit from activities to help strengthen and reinforce the visual memory of the spelling words. Fernald (1988), for example, developed a tracing technique to teach spelling by reinforcing the visual image of the word, drawing on the tactile and kinesthetic senses. (The Fernald Method is described in the "Teaching Strategies" section of this chapter.)

Some poor spellers have difficulty with auditory memory and cannot hold the sounds or syllables in their minds. These students need instruction that will help them recognize the sounds of words and build phonological skills. Motor memory is also a factor in spelling because the speller must remember how the word "felt" or recall the motor movement when the word was previously written.

### 13.3c Invented Spelling

Invented spelling is the beginning writer's attempt to write words by attending to their sound units and associating letters with them in a systematic, although unconventional, way (Jennings, Caldwell, & Lerner, 2010). Examples of invented spellings used by young children are *evry budy* for *everybody, na-bor* for *neighbor, ez* for *easy, neck all* for *nickel,* and 1000*ilnd* for *thousand island.* Examples of writing with invented spelling are shown in Figures 13.12 and 13.13.

FIGURE **13.12**
Example of Invented Spelling

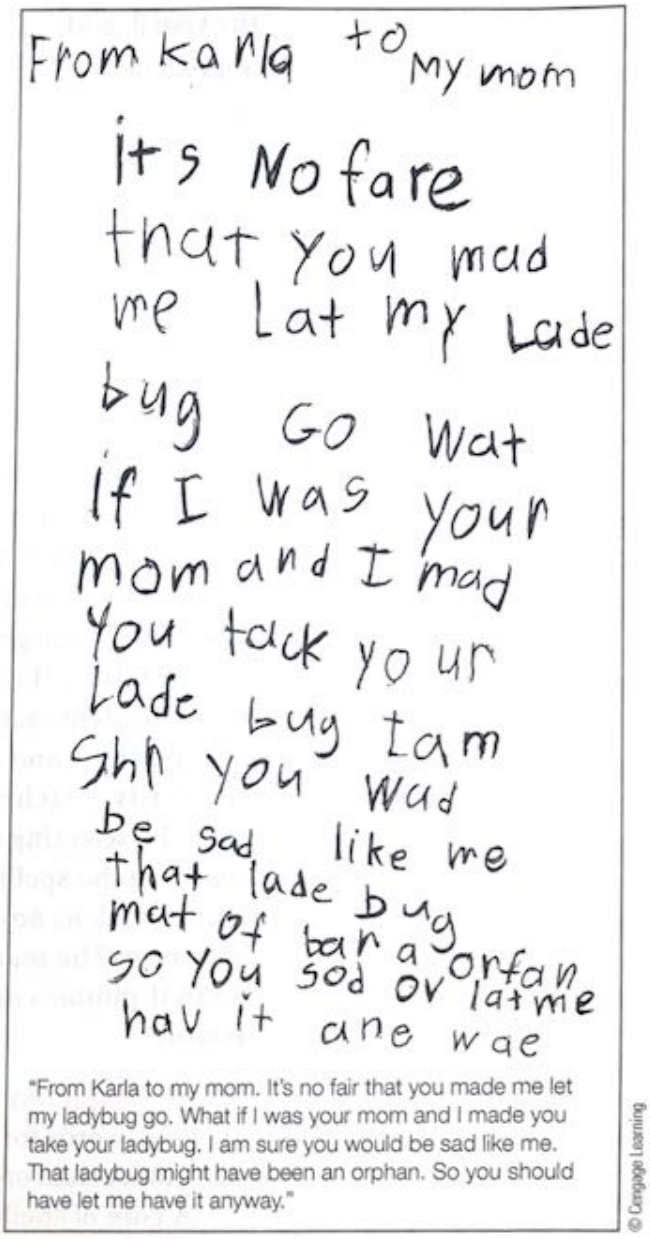



"Swimming pool. I am going in."

Children who are encouraged to use invented spelling and to write anything they want in whatever way they can are much more willing to write. They learn to take risks in a failure-free environment, and they come to understand that writing is a pleasurable form of communication in which thoughts are translated into symbols that mean something to other people. Figure 13.13 illustrates the writing of a second-grade student who was able to express her deep emotional feelings about a ladybug. Research shows that children who were allowed to invent their own spelling at an early age tend to spell as well as, or better than, children who were not given this instruction (Sipe, 2001).

It is important that teachers who use invented spelling as an instructional technique make sure that parents understand the philosophy and purpose of the method. Student Stories 13.2, "Learning the Awful Truth About Spelling," relates the tale of Brian, who happily used invented spelling in first and second grade and was shocked when told that spelling has rules.

A critical factor in using invented spelling is the child's phonological awareness of the sounds of language. Young children who have acquired phonemic awareness of the sounds of language have proficiency in invented spelling and tend to write more.




"From Karla to my mom. It's no fair that you made me let my ladybug go. What if I was your mom and I made you take your ladybug. I am sure you would be sad like me. That ladybug might have been an orphan. So you should have let me have it anyway."



FIGURE **13.13**
A Second-Grade Student's Note to Her Mother Using Invented Spelling

### 13.3d Multisensory Approaches to Spelling

We discussed multisensory approaches for reading in Chapter 12, "Reading Difficulties." Multisensory techniques are also useful for teaching spelling. Using several senses helps to reinforce the learning of spelling words. Multisensory learning involves learning spelling through

## STUDENT STORIES 13.2

### Learning the Awful Truth About Spelling

Sometimes children who freely use invented spelling in first and second grades are jolted when they realize that there are strict rules about correct spelling. Brian had been in third grade for two weeks in the fall semester when he asked his mother to transfer him to a different third-grade class. When his mother asked Brian about why he wanted to change teachers, Brian explained that the reason was that his current third-grade teacher was not a very good teacher. When his mother probed further, Brian confided that his third-grade teacher thought there was only one way to spell a word.

#### REFLECTIVE QUESTION

1. Do you think children should be encouraged to use invented spelling?

the visual, auditory, kinesthetic, and tactile senses. The multisensory spelling approaches include the *multisensory method* and the *Fernald Method*, which are described in detail in the "Teaching Strategies" section of this chapter.

## 13.3e Two Theories of Word Selection for Teaching Spelling

In selecting words for teaching spelling, there are two alternative approaches: (1) the *word-pattern approach* and (2) the *word-frequency approach*.

**word-pattern approach to spelling**
A theory of word selection and instruction in spelling. It is based on the belief that the spelling of English is sufficiently rule-covered to warrant a method of selection and instruction that stresses phonological, morphological, and syntactic rules or word patterns.

**Word-Pattern Approach to Spelling** The word-pattern approach to spelling is based on the contention that the spelling of American English is sufficiently rule-covered to warrant an instructional method that stresses phonological, morphological, and syntactic rules or word patterns. This word-pattern approach capitalizes on the underlying regularity between the phonological and morphological elements in oral language and their graphic representations in written language.

In spite of the seemingly numerous exceptions to the rules of spelling, research demonstrates that American English spelling does have predictable patterns and an underlying system of phonological and morphological regularity. Teachers can help students discover underlying linguistic patterns by selecting certain words for spelling instruction. For example, when teaching the spelling pattern of the phoneme */ɔ/*, the teacher should include words such as *boy*, *joy*, *Roy*, and *toy* to help students form a phonics generalization. The teaching of spelling can be merged with phonics instruction so that phonics and word-analysis skills are practiced during the spelling lesson.

**word-frequency approach to spelling**
A method of word selection and instruction for spelling. Words are selected for spelling instruction on the basis of how frequently they are used in writing.

**Word-Frequency Approach to Spelling** In the word-frequency approach to spelling, words for spelling instruction are chosen on the basis of frequency of use, rather than on phonological patterns.

A core of spelling words that are most frequently used in writing was determined through extensive investigations of the writing of children and adults (Fitzgerald, 1951). A few words in our language are used over and over. In fact, only 2,650 words and their derivative repetitions make up about 95% of the writing of elementary-school children. A basic list of 3,300 words covers the needs of children in elementary school (Fitzgerald, 1955), and 60% of our writing consists of the 100 words shown in Table 13.3.

The word-frequency approach to spelling is based on the contention that so many exceptions to spelling rules occur in the most frequently used words that it is difficult to convey patterns and rules to beginning spellers. Examples of the irregular relationship between phonemes (the spoken sounds) and graphemes (the written symbols) are easy to cite. George Bernard Shaw, an advocate of spelling reform, is credited with the suggestion that the word *fish* be spelled *ghoti*: *gh* as in cough, *o* as in *women*, *ti* as in *nation*. Following phonic generalizations, the word *natural* could be spelled *pnatchurile*.

One teacher found that students' spelling of the word *awful* was varied and included *offul*, *awfull*, *offel*, and *offle*. Each is an accurate phonetic transcription of the oral sounds of the word.

TABLE 13.3

The 100 Most Common Words in Written Language

| | | | | |
|---|---|---|---|---|
| a | eat | in | our | there |
| all | for | it | out | they |
| am | girl | it | over | this |
| and | go | just | play | time |
| are | going | know | pretty | to |
| at | good | like | put | too |
| baby | got | little | red | tree |
| ball | had | look | run | two |
| be | has | made | said | up |
| big | have | make | saw | want |
| boy | he | man | school | was |
| but | her | me | see | we |
| can | here | mother | she | went |
| Christmas | him | my | so | what |
| come | his | name | some | when |
| did | home | not | take | will |
| do | house | now | that | with |
| dog | how | of | the | would |
| doll | I | on | them | you |
| down | I'm | one | then | your |



Professional Resource Download

## 13.3f Assessment of Spelling

**Informal Tests** Informal and teacher-constructed spelling tests are particularly useful. Curriculum-based assessment also offers a way to obtain information on spelling that is directly linked to instruction (Spinelli, 2006).

A short informal spelling test, as shown in Table 13.4, was developed by selecting 10 words from a frequency-of-use word list. The student is asked to spell on paper words from each grade list until 3 words in a grade list are missed. The student's spelling level can be estimated as that at which only 2 words are missed.

**Formal Tests** Some formal tests of spelling are individual spelling tests, and others are part of a comprehensive academic achievement battery. Table 13.5 shows some commonly used spelling tests.

## TABLE 13.4

### Informal Spelling Test

| Grade 1 | Grade 2 | Grade 3 | Grade 4 | Grade 5 | Grade 6 | Grade 7 |
|---|---|---|---|---|---|---|
| all | be | after | because | bread | build | although |
| at | come | before | dinner | don't | hair | amount |
| for | give | brown | few | floor | music | business |
| his | house | dog | light | beautiful | eight | excuse |
| it | long | never | place | money | brought | receive |
| not | must | in | sent | minute | except | measure |
| see | ran | gray | table | ready | suit | telephone |
| up | some | hope | town | snow | whose | station |
| me | want | live | only | through | yesterday | possible |
| go | your | mother | farm | bright | instead | straight |



**Professional Resource Download**

## TABLE 13.5

### Tests of Spelling

| Test | Type | Age or Grade Assessed |
|---|---|---|
| Brigance Comprehensive Inventory of Basic Skills—Revised, Curriculum Associates *http://www.curriculumassociates.com* | Battery | Grades K–9 |
| Peabody Individual Achievement Test—Revised (PIAT-R), AGS Pearson *http://ags.pearsonassessments.com* | Battery | Grades K–12 |
| Test of Written Spelling—3 (TOWS-3), Pro-Ed *http://www.proedinc.com* | Spelling | Grades 1–12 |
| Wide-Range Achievement Test—4 (WRAT-4), PAR Psychological Assessment Resources *http://www3.parinc.com* | Battery | Ages 5–adult |



### Did You Get It?

**Mr. Kelvin and Ms. Santiago are parallel teachers of a class of young students. These students are today working on spelling-related tasks, such as basic letter-writing, imitation of writing, and simple pictures and sketches, which run the gamut from scribbling to basic drawing. This class is at which level of writing?**

**a.** Syllable junctures
**b.** Prephonetic
**c.** Phonetic
**d.** Written word patterns

## 13.4 Handwriting

Three different ways to produce writing are currently taught in schools: (1) manuscript writing (a version of printing), (2) cursive writing (sometimes called *script),* and (3) keyboarding (or typing).

Even though computer word processing is becoming more common in our schools, handwriting remains a necessary competency. Handwriting is still the major means by which students convey to teachers what they have learned. In many life situations, adults find handwriting an unavoidable necessity.

Handwriting is the most concrete of the communication skills. It can be directly observed, evaluated, and preserved, providing a permanent record of the output. The process of handwriting is intricate and depends on many different skills and abilities. Handwriting requires accurate perception of the graphic symbol patterns. The act of writing entails keen visual and motor skills that depend on the visual function of the eye, the coordination of eye movements, smooth motor coordination of eye and hand, and control of arm, hand, and finger muscles. Writing also requires accurate visual and kinesthetic memory of the written letters and words.

Extremely poor handwriting is sometimes called dysgraphia, and this condition may reflect other underlying neurological conditions. Poor handwriting may be a manifestation of fine-motor difficulties because the student is unable to execute efficiently the motor movements required to write or to copy written letters or forms. Students may be unable to transfer the input of visual information to the output of fine-motor movement, or they may have difficulty in activities that require motor and spatial judgments. Some students exhibit dystrophic problems when they cannot go from a far-point visual task of seeing a letter or word on a chalkboard to then copying that form on a piece of paper, a near-point visual task. Other underlying shortcomings that interfere with handwriting performance are poor motor skills, faulty visual perception of letters and words, and difficulty in remembering visual impressions.

**dysgraphia**
Extremely poor handwriting or the inability to perform the motor movements required for handwriting. The condition is associated with neurological dysfunction.

Figure 13.14 illustrates the attempts of two 10-year-old boys with learning disabilities and handwriting difficulty to copy some writing materials.

### 13.4a Manuscript Writing

Handwriting instruction usually begins with manuscript writing in kindergarten, where children begin to write letters of the alphabet. Manuscript writing usually continues in first, second, and third grade.

**manuscript writing**
The form of handwriting sometimes called *printing.* This form of writing, closer to the printed form, is easier to learn than cursive writing because it consists of only circles and straight lines.

Manuscript writing has certain advantages: It is easy to learn because it consists of only circles and straight lines, and the letter forms are closer to the printed form used in reading. Some educators believe it is not essential to transfer to cursive writing at all because the manuscript form is legal, legible, and probably just as rapid. Many children with learning disabilities and related mild disabilities find manuscript writing easier than cursive writing. The manuscript letters are shown in Figure 13.15.

FIGURE **13.14**
Illustrations of the Handwriting of Two 10-year-old Boys With Handwriting Difficulties (in both cases, the boys were asked to copy from a sample)

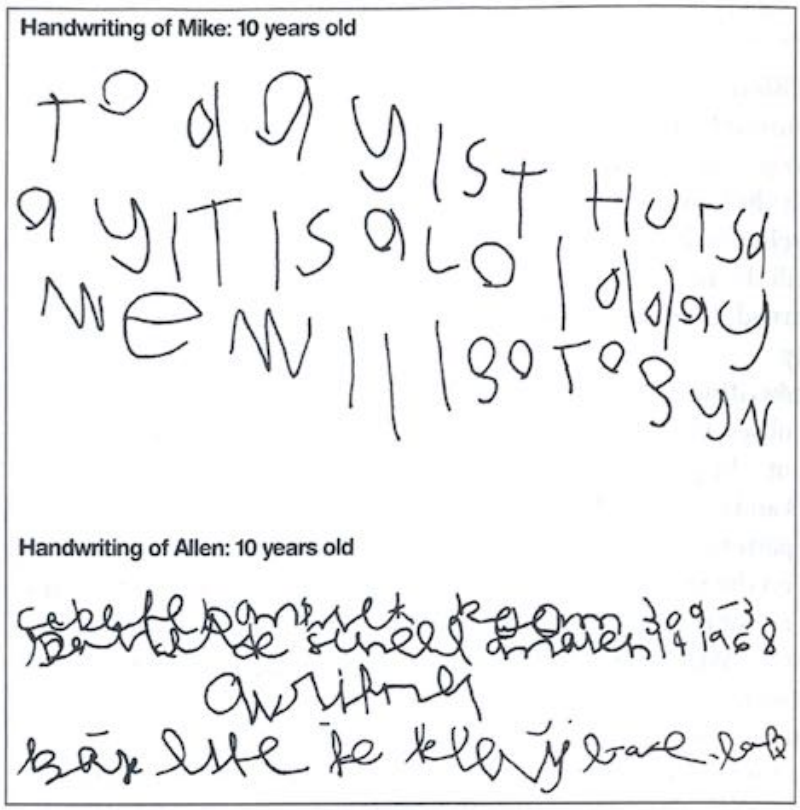






FIGURE **13.15**
Manuscript Letters

## 13.4b Cursive Writing

In cursive writing (sometimes called *script),* the letters are connected. The transfer to cursive writing is typically made somewhere in the third grade, although schools teach cursive writing as late as fifth grade. In an earlier era, writing instruction emphasized the flourishes of cursive writing, but today the goal is to teach functional handwriting. Cursive writing has certain advantages: (1) it minimizes spatial judgment problems for the student and (2) it has a rhythmic continuity and wholeness that are missing from manuscript writing. In addition, errors of reversals are virtually eliminated with cursive writing. However, many students with learning disabilities and related mild disabilities find it difficult to make the transfer to cursive writing after they have learned manuscript writing. Samples of cursive letters are shown in Figure 13.16.

**cursive writing**
The style of writing sometimes called script. The individual letters are joined in writing a word. Children typically learn cursive writing in third grade.

Another handwriting form is the *D'Nealian* writing system. This system helps students make the transition to cursive writing more easily. The D'Nealian system is a simplified cursive writing style in which manuscript letters have the basic forms of the corresponding cursive letters. Most of the manuscript letters are made with a continuous stroke that produces a kind of connected manuscript writing, and the student does not have to lift the pencil. Some students can more easily transfer from manuscript writing to this modified form of cursive writing. A website for D'Nealian writing can be found at *http://www.dnealian.com/lessons.html.*

## 13.4c The Left-Handed Student

Left-handed people encounter a special handwriting problem because their natural tendency is to write from right to left on the page. In writing from left to right, left-handers have difficulty seeing what they have written. Their hand covers up the writing and tends to smudge the writing as it moves over the paper. To avoid the smudging, some left-handed students begin "hooking" their hand when they start using pens. Left-handedness today is accepted as natural. Students who have not yet stabilized handedness should be encouraged to write with their right hand, unless it is observed that the student has great difficulty doing so.



FIGURE **13.16**
Cursive Letters

Students with a strong preference for the left hand should be permitted to write as a lefty, although this creates some special problems in writing and requires special instruction. Research shows that left-handers can learn to write just as quickly as right-handers. For manuscript writing, the paper should be placed directly in front of the left-handed student, without a slant. For cursive writing, the top of the paper should be slanted north-northeast, opposite to the slant used by the right-handed student. The pencil should be long, gripped about 1 inch from the tip, with the eraser pointing to the left shoulder. The position of the hand should be curved, with the weight resting on the outside of the little finger, and hooking should be avoided.

Many word-processing programs include adjustments to change the mouse to a left-handed clicking position. The teacher must observe closely the preference of the student since some left-handed individuals do not want to use a left-handed clicking position.

## 13.4d Keyboarding or Typing Skills

**keyboarding**
The process of typing on a computer keyboard.

The skills needed to use a computer keyboard are referred to as keyboarding or *typing* skills. Students with learning disabilities and related mild disabilities who have handwriting difficulties often find that word-processing programs offer a very welcome and feasible solution to their handwriting difficulties. The motor skills required for keyboarding are easier than the motor skills required for cursive writing, and the output is certainly more legible for the reader. However, simply putting a student in front of a computer is not enough; it is essential to provide explicit and consistent instruction in keyboarding. Teaching students the correct finger positions initially is far superior to allowing them to develop the bad habits of a hunt-and-peck method.

Learning to type is hard work and requires direct and regular instruction over an extended period of time, with ample opportunities for drill and practice. Sufficient time must be provided in the schedule for keyboarding instruction and for the student to practice the skills.

Good keyboarding software programs for students, such as Type to Learn (*http://www.K12software.com*) and Mavis Beacon Teaches Typing (The Learning Company at *http://www.learningco.com*), are based on sound instructional principles. They begin by demonstrating how each new key should be pressed,

showing a keyboard on the screen and demonstrating key strokes by highlighting specific keys. As students practice using the new keys, they receive feedback on their accuracy. There are frequent opportunities for practice, and the programs contain drills emphasizing both accuracy and speed. Good typing instructional programs keep a running record of the students' proficiency level so that students can keep track of how fast they type (in words per minute) and how many errors they make. Students enjoy computer typing games that are provided in these keyboarding programs.

**Did You Get It?**

**Handwriting is considered to be a necessary and useful form of communication; it is considered the most concrete of all forms of communication. Why, and in what aspect is it deemed such a critical and necessary task?**

**a.** It leaves a permanent record of production.
**b.** Because of its history and tradition.
**c.** It is mandated to be part of every curriculum.
**d.** Actually, in light of technology, it is no longer considered critical or as necessary.

## 13.5 Teaching Strategies to Improve Written Language Difficulties

The balance of this chapter presents specific instructional strategies for teaching written language in the areas of (1) writing strategies for the general education classroom, (2) written expression, (3) word processing, (4) spelling, and (5) handwriting.

## 13.6 Writing Strategies for the General Education Classroom

Most students with learning disabilities and related mild disabilities who have writing difficulties receive their writing instruction in the general education classroom.

### 13.6a Instruction for Essay Writing Tests

Often the statewide assessment tests include a writing sample. These writing tests are usually graded by a trained writing evaluator, using a specific framework for the evaluation. To produce an acceptable written essay, students in general education need specific instruction in the scoring framework. The components of a writing framework to teach students how to develop a brief informational written product are described by Jennings and Haynes (2006).

## TEACHING TIPS 13.1

### A Writing Framework

**Topic sentence**
It is important to follow basic safety rules when enjoying an outdoor activity. When you do an outdoor activity, you should wear pads and a helmet at the appropriate time. You should also carry a first-aid kit with you when you go hiking or when you swim. You should do it with a buddy.

**Supporting sentence**
First of all, when you are hiking or skateboarding, you should wear a helmet or other protection. The helmet may save your life if you fall and other pads could prevent other injuries. If a person fell off their bike or skateboard, then there is a chance that they could get hurt. For example, when I first started to learn to ride a two-wheeled bike, I would always fall. Each day I would come in with cuts and scrapes. If I had not worn my helmet, then I could have gotten large cuts on my head. Thankfully, I am a quick learner.

**Supporting sentence**
Secondly, when someone hikes, he or she should carry a first-aid kit with them. When someone hikes, there is always a chance of him or her getting hurt. If someone got hurt when he or she was hiking, then there would most likely be no one around to help him or her. For example, whenever I hike somewhere, I always carry a first-aid kit. The reason I do this is that I have gotten hurt while hiking. I was by myself and I sprained my ankle. With my first-aid kit, I was able to wrap my ankle.

**Supporting sentence**
Thirdly, swimming with a buddy is a safe thing to do. Swimming is not always a safe thing to do by yourself. There is always a risk that someone may drown. If you were swimming by yourself, you should tell someone where you are going. For example, my friend decided that he was hot and wanted to go for a swim. His mom and dad were not at home, so he decided to go anyway. The problem was that he forgot to leave a note for his parents. His parents were worried sick. He likes to go to a pond in Topsfield. The pond is not open this time of year so his parents started to think he might have drowned, but he was only taking a walk around the pond.

**Conclusion**
In conclusion, following safety rules when doing an activity is important. Many bad things could happen to someone if they did not follow the rules.

*Source:* From "Essay writing: An attainable goal for students with dyslexia," by Terrill M . Jennings & Charles W. Haynes, 2006, *Perspectives: The International Dyslexia Assoc, 32(2), 36–39.*

1. **Topic sentence.** The topic sentence tells what this essay is about.
2. **Develop 3 sentences that support the topic.**
   a. **Supporting sentence 1.** The student might start out with the introductory words, "First of all."
   b. **Supporting sentence 2.** The student might start with the word, "Secondly."
   c. **Supporting sentence 3.** The student might start with the word, "Thirdly," or "Finally."
3. **Provide an example of each supporting sentence.** This can be a specific fact or a supporting sentence to back up the supporting topic sentence.
4. **Concluding sentence.** The student could start out with the words, "In conclusion." This sums up what has been presented in the essay.

Teaching Tips 13.1, "A Writing Framework," gives an example of an essay that follows this writing framework.

Most students with learning disabilities and related mild disabilities receive their writing instruction in the general education classroom. General education teachers need to be familiar with strategies for teaching writing to all students. Some writing strategies for the general education classroom teacher are given in Including Students in General Education 13.1, "Writing Strategies."

## Including Students in GENERAL EDUCATION 13.1

### Writing Strategies

**Written Expression**

- Allocate sufficient time for writing. Students learn to write by writing; therefore, have students write four times per week.
- Encourage students in the primary grades to use invented spelling.
- Use brainstorming to create ideas about writing topics.
- Give students a range of writing tasks, including both creative writing and functional writing. Creative writing is personal writing, while functional writing conveys information about a subject.
- Teach students the stages of the writing process: prewriting, drafting, revising, sharing.
- Use a graphic organizer, such as Inspiration (*http://www.inspiration.com*), to plan a story.
- Use a presentation program, such as Microsoft PowerPoint, to develop a story.
- Use the Internet to conduct research on a topic.

**Spelling**

- Limit the number of spelling words to be learned at one time.
- Analyze the phonemes of new words.
- Point out the syllables in multisyllabic words.
- Teach word families (e.g., *at, sat, rat, mat*).
- Provide periodic retesting and review.
- Use multisensory strategies (e.g., see the word, say the word, write the word in the air, see the word in your mind's eye, write the word on paper, and compare the word to the model).
- Use games to motivate students to learn their spelling words. For example, Wheel of Fortune is an enjoyable game that reinforces the learning of particular spelling words.

**Handwriting**

- Begin with manuscript writing and explain that it consists of lines and circles.
- The teacher says the name of the letter to be written.
- Have the students trace the letter with their finger.
- Use dotted lines for a letter and have the students trace the dots with a pencil.
- The teacher gives stroke directions to the students (e.g., first we go down, then we go up).
- Have the students copy a letter (or word) on paper while looking at a model.
- The students write the letter from memory while saying the name of the letter.

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### Did You Get It?

**Within a formatted essay, a student typically writes two or three sentences or short paragraphs beginning—optionally—with the words "firstly," "secondly," or some approximation thereof. These critical sentences are composed in order to do what, in relation to the argument posited by the essay?**

**a.** Open
**b.** Close
**c.** Support
**d.** Dispel

## 13.7 Strategies for Teaching Written Expression

Many students with learning disabilities and related mild disabilities reach upper elementary or secondary levels with little exposure to, and little experience with, written expression. There is so much effort and intense instruction to improve poor reading skills that it often overshadows instruction in writing.

## TEACHING TIPS 13.2

### Teaching The Writing Process

- **Provide opportunities for extensive writing.** Student writers need sufficient time to think, reflect, write, and rewrite. Many students with writing difficulties spend less than 10 minutes per day composing. It is recommended that composing time be extended to 50 minutes each day, 4 days each week. Break the writing time into several smaller segments for students who need a shorter period of writing concentration.
- **Establish a writing environment.** The atmosphere of the writing classroom should foster writing activities and encourage cooperative writing work. Teachers can use individual writing folders containing the students' current writing projects, a list of finished pieces, ideas for future topics, and writing assistance materials, such as individual spelling dictionaries. Keep materials and books in one place, so that students can begin their writing without having to request teacher assistance.
- **Allow students to select their own topics.** Writing projects are most successful when students have a personal interest in the subject. If they need more information, reading other source materials and facilities to use the Internet should be readily available.
- **Model the writing process and thinking aloud.** The act of writing is encouraged when teachers and classmates model the cognitive processes involved in writing. For example, the teacher could model the writing stages by thinking aloud: "I want to plan a mysterious setting for my story. What about a haunted house? Next, I must decide on the characters in this story . . ." (Graham & Harris, 2005).
- **Develop a sense of audience.** In the traditional writing curriculum, students write for the teacher and think they must *match the teacher's* standards of correctness. Expand the students' sense of audience by having them engage in peer collaboration, consulting, group sharing, and publication. Provide opportunities to discuss their writing progress with classmates who are not writing experts. When the writing projects are finished, students can read their material to an audience of peers and discuss their work.
- **Transfer ownership and control of the writing to the students.** A goal of the writing process is to transfer ownership and control to the writer. As students learn to internalize the strategies that are being taught, they should gradually take more responsibility for their writing and be able to work without teacher direction.
- **Capitalize on students' interests.** Learn about the students' interests and be alert for relevant events that can become the subject for writing. Interests in sports, school, music, movies, local and national news, trips, family vacations, or holidays offer subjects for writing. One teacher found that trolls (the little dolls with the homely, elf-like features and colorful hair) were reemerging as a popular toy. So many students were bringing them to school that the teacher had to limit students to one troll guest a day. Capitalizing on their interest, the teacher had students design their own trolls in drawings and write stories telling why the manufacturer should adopt their troll designs.
- **Avoid punitive grading.** Do not allow grading practices to discourage students. Consider grading only ideas, not the technical form, for some assignments, or give 2 grades—one for ideas and one for technical skills. If a student makes errors in many areas, correct only one skill, such as capitalization. When the student masters that skill, concentrate on another area.
- **Differentiate between creative and functional writing.** Creative and functional writing lessons have different goals, and students should understand that different skills are required for each. In creative writing, the goal is to develop ideas and express them in written form, and there is less need for technical perfection. In contrast, functional writing may require students to learn specific formats. For example, if the final product is a business letter, the writer must adhere to certain standards and forms.
- **Provide abundant input.** Students need something to write about. Before asking students to write, make sure that they have enough firsthand experiences, such as trips, creative activities, viewing a television show, movies, or sports events that can be drawn upon for writing. Talk about these experiences.
- **Schedule frequent writing.** Students need frequent writing experiences to develop skills in writing. An assignment to write a certain number of pages per week in a personal journal that will not be corrected (or perhaps even read) by the teacher is an excellent technique for providing necessary practice and improving the quality of writing.
- **Teach how to combine sentences.** This approach is especially useful for adolescents and adults. The teacher writes several separate kernel sentences. Students must combine those sentences into a more complex sentence by adding clauses and connectors.

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Learning to write requires abundant time and opportunities for various kinds of writing.

Some guides for the teaching of writing are given in Teaching Tips 13.2, "Teaching the Writing Process."

**Did You Get It?**

**There are a myriad of suitable strategies that can be implemented with the goal of improving written expression. One of these is to develop a class-wide sense of what the authors of your text refer to as "audience." What is the primary reason for implementing this strategy?**

**a.** To teach social skills in addition to writing skills
**b.** To break the shackles of students writing for teacher alone
**c.** To create a sense of unity and brotherhood
**d.** To provide upper-level students with a venue to showcase their work

## 13.8 Strategies for Using Word Processing

The following list suggests some activities for using computer word processing to teach writing:

- **Expanding vocabulary.** Using a word-processing program, write a sentence or short paragraph on the computer. Use the computer thesaurus to find synonyms for several words.
- **Learning story sequence.** Place several sentences about a series of events in incorrect order. Have the students use the "cut" and "paste" functions to put them in the proper sequence.
- **Beginning a story.** Put the beginning of a story on a disk and have each student continue the narrative. Each student's story can be compared with others'. In another variation, begin a story on a disk and then have one student write the next segment, another student write the following segment, and so on.
- **Keeping an electronic diary or journal.** Keeping a journal of daily events has proved to be an effective technique for improving reading and writing skills. Instead of writing on paper, the student can use a computer with word-processing software.
- **Sending e-mail.** Students can use e-mail to send messages. The messages can be sent between students in the class, between the teacher and the students, or between the students and students in other classes throughout the world.
- **Writing book reports.** To make writing a book report on the computer easier, develop a template with key topics, such as title of the book, author, type of book, summary, and the student's name. To write the book report, the student simply loads the template and fills out the information next to each topic.
- **Writing a class newsletter.** A newsletter can be written with any word-processing program. Several commercial programs allow users to write, illustrate, paste up, and print pages that resemble a newspaper or newsletter. Microsoft Word allows users to set up two columns.

- **Using graphics.** Graphics can easily be added to a word-processing document. Graphics can be found on Internet sites, or photos can be taken with a digital camera. Clipart often comes with word-processing software programs. Graphics can be scanned in with a scanner, or students can create their own art graphics. The search engine Google has a collection of images that can be accessed at *http://www.google.com* (click on "images").
- **Using the Internet.** Students who have access to the Internet can find a wealth of information (such as text, pictures, photographs, and charts) about a topic of their interest. Topics such as dinosaurs, baseball, sports figures, or the history of Canada can be investigated through a search engine. With material gathered from their searches, the students can develop stories and reports or develop PowerPoint presentations to share their reports with others.

**Did You Get It?**

**As a teacher and staff member at Minnesota's Jules Verne high school, you know how absolutely annoying and distracting it is when a student or teacher uses any device to send an e-mail or text during school. Why not just place a sign that says "Forbidden!"**

**a.** No—students need to be able to communicate with loved ones regularly
**b.** No—contextually, e-mailing can be a useful processing tool
**c.** Yes—in most school districts this is now mandated
**d.** Yes—this is recommended

## 13.9 Strategies for Teaching Spelling

The following list provides strategies for teaching spelling:

1. **Auditory perception and memory of letter sounds.** Provide practice in auditory perception of letter sounds, strengthen knowledge of phonics and structural analysis, and develop skills in applying phonic generalizations. (See Chapter 11, "Spoken Language Difficulties: Listening and Speaking.")
2. **Visual memory of words.** Help the students strengthen visual images of each word. Flash cards and computer spelling software can also be used to develop speed and strengthen memory of spelling words. (See Chapter 8, "Young Children With Disabilities," for specific strategies for developing visual perception and memory.)
3. **Multisensory methods in spelling.** Students who are told to study spelling lessons are frequently at a loss as to what to do. The following describes a multisensory approach for learning spelling that engages the visual, auditory, kinesthetic, and tactile senses:
   a. **Meaning and pronunciation.** Have the students look at the word, pronounce it correctly, and use it in a sentence.
   b. **Imagery.** Ask students to "see" the word and say it. Have students say each syllable of the word, say the word syllable by syllable, spell the word orally, and then use one finger to trace the word, either in the air or by touching the word itself.

## TEACHING TIPS 13.3

### The Fernald Method for Teaching Spelling

a. Students are told that they are going to learn words in a new way that has proved to be very successful. They are encouraged to select a word that they wish to learn.

b. The teacher writes that word on a sheet of paper, as the students watch and as the teacher says the word.

c. The students trace the word, saying it several times, and then write it on a separate piece of paper while saying the word.

d. The students write the word from memory without looking at the original copy. If the word is incorrect, students repeat Step C. If the word is correct, it is put in a file box. The words in the file box are used later in writing stories.

e. At later stages, this painstaking tracing method for learning words is not needed. Students learn a word by *looking* as the teacher writes it, *saying* it, and *writing* it. At a still later stage, the students can learn by only looking at a word in print and writing it. Finally, they learn by merely looking at the word.

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c. **Recall.** Ask students to look at the word and then close their eyes and see it in their mind's eye. Have them spell the word orally. Then ask them to open their eyes and look at the word to see if they were correct. (If they make an error, they should repeat the process.)

d. **Writing the word.** Ask the students to write the word correctly from memory, check the spelling against the original, and then check the writing to make sure that every letter is legible.

e. **Mastery.** Have the students cover the word and write it. If they are correct, they should cover and write it two more times.

4. **The Fernald method.** This method is a multisensory approach, and it is used to teach reading and writing as well as spelling (Fernald, 1988). The Fernald method for teaching spelling is shown in Teaching Tips 13.3, "The Fernald Method for Teaching Spelling."

5. **The "test-study-test" method versus the "study-test" method.** There are 2 common approaches to teaching spelling in the classroom: the "test-study-test" and the "study-test" plans. The test-study-test method uses a pretest, which is usually given at the beginning of the week. The students then study only those words that were missed on the pretest. This method is better for older students who have fairly good spelling abilities because they do not need to study words they already know. The study-test method is better for young students and for those with poor spelling abilities who would miss too many words on a pretest. The study-test method permits them to study a few well-selected words before the test is given.

6. **Listening centers, audiotapes, and CDs.** Spelling lessons can easily be put on audiotapes or CDs. After students have advanced to a level that enables them to work by themselves, they can complete their spelling lessons in a listening laboratory. Earphones allow for individualized instruction and help many students to block out distracting auditory stimuli.

7. **Electronic spellers and computer spell checkers.** Students should learn how to use these spelling devices as an aid in spelling. Franklin Learning (*http://www.franklin.com*) is one manufacturer of electronic spellers.

**Did You Get It?**

One method of testing for spelling adds an additional "test" to the traditional "study-test" method used in many classrooms. What purpose does this additional test serve?

**a.** It is a pretest
**b.** It is an additional posttest
**c.** It is an adjunct, informal essay test
**d.** It is an additional role-play test

## 13.10 Strategies for Teaching Handwriting

The following are useful activities for teaching handwriting:

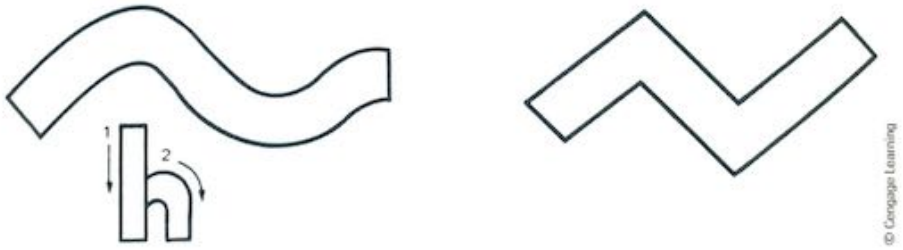
1. **Chalkboard activities.** These activities provide practice before writing instruction is begun. Circles, lines, geometric shapes, letters, and numbers can be made with large, free movements using the muscles of the shoulders, arms, hands, and fingers. (For additional suggestions, see Chapter 8, "Young Children With Disabilities.")
2. **Position.** Have the students prepare for writing by sitting in comfortable chairs at a table that is at the proper height. Be sure that the students' feet are flat on the floor and both forearms are on the writing surface. Each student's nonwriting hand should hold the paper at the top. Have students stand and work at a chalkboard for the initial writing activities.
3. **Paper.** For manuscript writing, the paper should be placed without a slant, parallel with the lower edge of the desk. For cursive writing, the paper is tilted at an angle—approximately 60 degrees from vertical—to the left for right-handed students and to the right for left-handed students. To help the student remember the correct slant, place a strip of tape parallel to the top of the paper at the top of the desk. It may be necessary to attach the paper to the desk with masking tape to keep it from sliding.
4. **Holding the pencil.** Many students with writing disorders do not know how or are unable to hold a pencil properly between their thumb and middle finger, with the index finger riding the pencil. They should grasp the pencil above the sharpened point. A piece of tape or a rubber band placed around the pencil can help the student hold it at the right place.

   If a student has difficulty grasping the pencil, the pencil can be put through a practice golf ball (the kind with many holes). Have the student place the middle finger and thumb around the ball to practice the right grip. Large, primary-size pencils, large crayons, and felt-tip pens are useful for the beginning stages of writing. Clay might also be placed around the pencil to help the student grasp it. Short pencils should be avoided because

it is impossible to grip them correctly. There are also a number of types of pencil grips that can be purchased.

5. **Stencils and templates.** Make cardboard or plastic stencils of geometric forms, letters, and numbers. Have the students trace the form with one finger, a pencil, or a crayon. (Clip the stencil to the paper to prevent it from moving.) Then remove the stencil and reveal the figure that has been made. The stencil can be cut so that the hole creates the shape or, in reverse, so that the outer edges of the stencil create the shape.
6. **Tracing.** Make heavy black figures on white paper and clip a sheet of onion skin or transparent paper over the letters. Have the students trace the forms and letters. Start with diagonal lines and circles, then horizontal and vertical lines, geometric shapes, and finally, letters and numbers. The students may also trace a black letter on paper with a crayon or felt-tip pen or they may use a transparent sheet. Another idea is to put letters on transparencies and project the images onto a chalkboard or a large sheet of paper. Students can then trace over the images.
7. **Drawing between the lines.** Have the students practice making "roads" between double lines in a variety of widths and shapes. Then ask the students to write letters by going between the double lines of outlined letters. Use arrows and numbers to show the direction and sequence of the lines (Figure 13.17).

FIGURE **13.17**





8. **Dot-to-dot.** Draw a complete figure and then draw an outline of the same figure by using dots. Ask the students to make the figure by connecting the dots (Figure 13.18).

FIGURE **13.18**


9. **Tracing with reducing cues.** Write a complete letter or word and have the students trace it. Then write the first part of the letter or word and have the students trace your part and then complete the letter or word. Finally, reduce the cue to only the upstroke and have the students write the entire letter or word (Figure 13.19).

FIGURE **13.19**

10. **Lined paper.** Begin by having students use unlined paper. Later, have them use lined paper with wide lines to help them with the placement of letters. It may be helpful to use specially lined paper that is color cued to aid in letter placement. Regular lined paper can also be color cued to help students make letters (Figure 13.20).

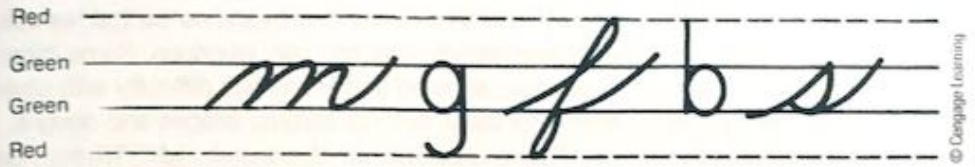



FIGURE 13.20

11. **Template lines.** For students who need additional help in stopping at lines, tape can be placed at bottom and top lines. Windows can be cut out of cardboard to give further guidance for spacing letters. The following figure shows a template made from a piece of cardboard with 3 windows for one-line, two-line, and three-line letters. One-line letters are those that fit in a single-line space: *a, c, e, i, m, n.* Two-line letters are those with ascenders only: *b, d, h, k, l, t.* Three-line letters are those with descenders: *f g j p q z y* (Figure 13.21).


FIGURE 13.21

12. **Letter difficulty.** In terms of ease, cursive letters are introduced in the following order: beginning letters—*m, n, t, i, u, w, r, s, l,* and *e;* more difficult letters—*x, z, y, j, p, h, b, k, f, g,* and *q;* and combinations of letters—*me, be, go, it, no,* and so forth.
13. **Verbal cues.** Students are helped in the motor act of writing by hearing the directions for forming letters—for example, "down-up-and-around." When using this technique, teachers must take care not to distract the students with these verbal instructions.
14. **Words and sentences.** After the students learn to write single letters, instruction should proceed to writing words and sentences. Spacing, size, and slant are additional factors to consider at this stage.

# I Have a Kid Who...

## ROSIE: *A Student Who Struggles With Handwriting*

Rosie is a 12-year-old girl in the seventh grade at the Rosa Parks Middle School. Her seventh-grade teacher, Mr. Trump, complained that Rosie never turns in her written assignments. When asked to write a story or write a report for a subject-area assignment, Rosie does not complete the project and does not turn in her assignments. Mr. Trump observed that during the class writing assignment, Rosie just looks up at the ceiling as though she was trying to think of something to write about, but she never gets any ideas down on paper.

Rosie has many strengths. She does very well in oral language activities, and she enjoys giving oral presentations. Her reading skills are above average. She also likes mathematics and does well on her math assignments. Rosie has many friends and gets along well socially with her peers.

In terms of writing, Rosie's handwriting is so illegible that even she cannot read what she has written. Rosie still uses manuscript writing and refuses to shift to cursive writing. She says that it is too hard to connect all the letters the right way.

The occupational therapist, Ms. Walters, provides related services to children at the school. Ms. Walters observed Rosie as she tries to write and noted that her writing was painstakingly slow and very laborious. Some informal evaluations showed that Rosie has difficulty with several fine-motor tasks, such as copying shapes and designs.

The occupational therapist, Mr. Trump, and Ms. Joseph, the special education teacher, met as a team to discuss Rosie's handwriting difficulties. The team recommended that Rosie learn keyboarding skills so she could use a computer and word processing for her written assignments. The special education teacher will take the lead for teaching keyboarding skills to Rosie.

### QUESTIONS

1. What alternatives are available for handwriting for students who have very poor motor skills?
2. What are important strategies for teaching a student keyboarding or typing skills?
3. Do you think keyboarding can be taught to a small group or must it be taught individually?

### Did You Get It?

**"Drawing outside of the lines"—proverbially thought of as "thinking outside of the box"—is something that experts emphatically state fosters creativity. Drawing inside of the lines should not be used in teaching handwriting.**

**a.** True—the same principle applies
**b.** Yes and no—children should be taught both formal and more haphazard expressive handwriting
**c.** No—students need to learn to stay within parameters with regards to handwriting
**d.** Probably false—experts are divided on this issue

## Chapter Summary

- Written language includes: written expression, spelling, and handwriting.
- Spelling is particularly difficult in English because of their regularity between the spoken and written forms of the language.
- Manuscript writing is the first type of writing most children learn. It is similar to print.
- Cursive writing is more complex and is difficult for many children.
- Word processing is the ability to type with a computer.

## Questions for Discussion and Reflection

1. What are the differences between instruction for the writing process and the writing product?
2. Describe the stages of the writing process.
3. How can graphic organizers be used in writing?
4. Discuss the advantages of computer word processing for writing.
5. What is invented spelling? How does invented spelling influence a young child's writing?
6. What kinds of problems do students with learning disabilities and related mild disabilities have in written language?

## Key Terms

cursive writing (p. 405)
drafting (p. 389)
dysgraphia (p. 405)
early literacy (p. 387)
graphic organizers (p. 393)
invented spelling (p. 387)
keyboarding (p. 407)
manuscript writing (p. 405)
prewriting (p. 389)
revising (p. 389)
sharing with an audience (p. 390)
word-frequency approach to spelling (p. 402)
word-pattern approach to spelling (p. 402)
word processing (p. 394)
writing process (p. 388)
writing product (p. 388)