Written language skills are an important goal within programs of language development for students with mental disabilities. Specific facets should be considered in the teaching of writing, such as drawing on previous linguistic experiences, viewing writing as both process and product, emphasizing writing as a form of communication, tying writing to cognition, and seeing writing as an opportunity for personal expression. The process of writing is conceptualized as having three sequential stages: pre-writing, writing, and post-writing. In the pre-writing or planning stage, concerns include stimulation, motivation, and purpose. In the writing or drafting stage, a distinction is made between teach-write approaches and write-teach approaches. During this writing stage, a number of key skill areas warrant instructional attention; these include handwriting, spelling, vocabulary development, sentence development, and paragraph writing. The revision stages involved in post-writing should become a routine and integral part of the writing process, requiring the active involvement of the writer in the careful review and revision of what has been previously written. (JDD)
Chapter Twenty-one

Written Language

Edward A. Polloway
Thomas W. Decker
OVERVIEW

The development of written language skills represents the summit of the language hierarchy. Building upon oral language and reading, writing can be seen as a critical component and thus an important goal within programs of language development. This chapter concerns the general domain of written language as well as its major subdomains.

Traditionally, written language has been relatively ignored in the curriculum in both regular and special education. This lack of attention reflects historical neglect of research in this area. Recently however, written language has been on the ascendancy with significant increases in research activities and programming including the development of practical instructional techniques. These advances have begun to influence practice in both regular and special education.

Advances in research and programming in written language come at an opportune time as indicated by a 1986 media report from the federal government. According to this report, 80% of all high school students write inadequately, over 1/2 do not like the process of writing, and approximately 4/5 can not write well enough to insure that they will always accomplish their purpose. While these findings suggest major problems in writing for the general student population, one can deduce that the stresses and handicaps of students in special education programs accentuate these same problems.

BASIC CONSIDERATIONS

Facets of Writing

There are a number of specific facets of writing that serve as general programming considerations. Five general considerations are briefly discussed below.

First, in order to write, one must draw on previous linguistic experiences. Thus, written skills always relate to the language hierarchy. For this reason, prior problems in listening, speaking, or reading may be reflected, and perhaps magnified, in the area of writing.

Second, writing must be viewed as both process and product. Products typically serve as our primary goal. However, educators need to insure that students learn how to reach that objective. For example, some students may have the mistaken impression that the textbooks used in various subject areas were written by some obscure scholar who simply transcribed thoughts directly to a finished product. For these children, it would be helpful for them to understand the process behind that product; in this sense, we then would have an opportunity to emphasize the concept of the "rough draft."

Third, writing must be emphasized as a form of communication. Writing requires a specifiable audience which then necessitates the setting of purpose. Writers do not have the luxury of unclear ideas that can be clarified in further exchanges, as is the case with oral communication. As students learn to write, they need to keep in mind who will be the reader of their products.
Fourth, writing must be tied to cognition. Clear writing demands clear thinking. Prior to instructional or writing efforts, students should be given ample opportunity to discuss what it is they intend to write in order to be appropriately prepared for the task.

Finally, writing provides a unique opportunity for personal expression. In this sense, writing is not simply an achievement goal but also a vehicle. Writing can provide opportunities for the expression of feelings, attitudes, and concepts. Writing can and should become both an end and a means (Dehouske, 1979; Rich & Nedboy, 1977).

Model for Written Language

The process of writing can best be conceptualized as a multi-component model (Hall, 1981). As such, it becomes a series of three or four sequential stages which illuminates the teaching process necessary for facilitating student learning.

One example of a model of written language is presented in Figure 1. This model divides the process of writing into three stages: pre-writing, writing, and post-writing.

The prewriting stage is essentially a planning stage. During this time, the writer focuses on the development and elaboration of ideas, the setting of purpose, the organization of ideas in logical fashion, and the assessment of the reading audience. As noted in Figure 1, this particular model focuses on three interrelated aspects: stimulation, motivation (both intrinsic and extrinsic), and purpose (both creative or expressive and functional or utilitarian).

The writing stage is essentially the drafting or transcribing process. According to Vogel and Conrad (in press), this stage includes use of appropriate grammatical conventions, clear expression of ideas, specific word choices, diversity in vocabulary, appropriate forms of varied sentence structures, and appropriate transition reflective of a logical ideational progression. It also includes attention to the tool subjects of handwriting and spelling.

Finally, the postwriting stage includes rewriting through revision and editing. Postwriting should be a major concern with regard to the improvement of both the skills and ideas of the writing task.

It is advantageous to consider these three stages of writing as distinct and significant in their own right, primarily because such a distinction enables instruction to focus on the specific tasks facing the would-be writer. To illustrate the writing process as it relates to skilled and unskilled writers, Isaacson (1987) analyzed the particular characteristics of these respective groups of writers across the three stages (see Table 1). While considering the concept of three distinct stages, it is important to realize that in practice these phases cannot be seen as perfectly discrete. For example, planning continues to take place during the postwriting stage, and revising, to a limited extent, does take place during the drafting stage. This process of recursion (Scarmadalia & Bereiter, 1986) is certainly a common occurrence. Nevertheless an initial focus on the stages of writing provides a process-type approach for students. Such an effort can assist them in enhancing their thinking and in developing an "inner voice" by thinking about that they are to do (Thomas, Englebert, & Gregg, 1987).
Figure 1
Model for Written Language

```
\begin{itemize}
  \item Input
  \begin{itemize}
    \item Experiences
    \item Visual stimuli
    \item Reading
    \item Interpersonal interactions
    \item Verbalizations
    \item Conducive atmosphere
  \end{itemize}

  \item motivation
  \begin{itemize}
    \item Desire to communicate
    \item in written form
  \end{itemize}

  \item purpose
  \begin{itemize}
    \item Expressive
    \item Flexibility in content
    \item Divergent thinking
    \item Convergent thinking
    \item Personal perspective
    \item Utilitarian
    \item Understanding task objective
    \item Identifying target audience
    \item Analyzing task demands
    \item Adopting appropriate framework
  \end{itemize}

  \item related tools
  \begin{itemize}
    \item Handwriting
    \item Spelling
  \end{itemize}

  \item mechanics
  \begin{itemize}
    \item Vocabulary acquisition and word usage
    \item Sentence structure
    \item Paragraph sense
    \item Organizational integrity
  \end{itemize}

  \item proofreading
  \begin{itemize}
    \item Edit/revision of structure
    \item Edit/revision of ideation
  \end{itemize}

  \item completed products
  \begin{itemize}
    \item Creative Expression
    \item Compositions
    \item Story writing
    \item Poetry
    \item Personal journals
    \item Alternative forms
    \item functional Forms
    \item Letters and notices
    \item Reports, records of events
    \item Essay test responses
    \item Applications, requests
    \item Note-taking
  \end{itemize}
\end{itemize}

```
### Table 1

The Writing Process of Skilled and Unskilled Writers

<table>
<thead>
<tr>
<th>Stage</th>
<th>Unskilled Writer</th>
<th>Skilled Writer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td>Does not participate in prewriting discussions.</td>
<td>Explores and discusses topic.</td>
</tr>
<tr>
<td></td>
<td>Spends little time thinking about topic before beginning composition.</td>
<td>Spends time considering what will be written and how it will be expressed.</td>
</tr>
<tr>
<td></td>
<td>Makes no plans or notes.</td>
<td>Jots notes; draws diagrams or pictures.</td>
</tr>
<tr>
<td>Transcribing</td>
<td>Writes informally in imitation of speech</td>
<td>Writes in style learned from models of composition.</td>
</tr>
<tr>
<td></td>
<td>Is preoccupied with technical matters of spelling and punctuation.</td>
<td>Keeps audience in mind while writing.</td>
</tr>
<tr>
<td></td>
<td>Stops only briefly and infrequently.</td>
<td>Stops frequently to reread. Takes long thought pauses.</td>
</tr>
<tr>
<td>Revising</td>
<td>Does not review or rewrite.</td>
<td>Reviews frequently.</td>
</tr>
<tr>
<td></td>
<td>Looks only for surface errors (spelling, punctuation).</td>
<td>Makes content revisions, as well as spelling and punctuation corrections.</td>
</tr>
<tr>
<td></td>
<td>Rewrites only to make a neat copy in ink.</td>
<td>Keeps audience in mind while rewriting.</td>
</tr>
</tbody>
</table>


### Planning Stage

Three interrelated concerns have been identified within the prewriting or planning stage: stimulation, motivation, and purpose (Figure 1). Although it is arbitrary to separate these three overlapping concerns they are discussed separately here simply to facilitate a discussion of some basic information about this stage.
The importance of stimulation becomes clear when considering the concept that there must be input prior to any output. Stimulation can be developed through using other receptive language areas such as reading and listening, discussing ideas and concepts, and thinking about areas of possible interests for writing. An emphasis on stimulation through oral language does not insure improvement in specific task skills (Phelps-Gunn & Phelps-Terasaki, 1982); however, it does provide the requisite orientation and cognitive focus necessary to begin the writing task.

Motivation as used here refers to the desire to communicate. In the natural sense, motivation should come from within (Tway, 1975). A transactional view of oral language stresses the importance of the social base for communication (McLean & Snyder-McLean, 1978). The same emphasis is appropriate when considering written language.

Relevant and interesting writing tasks spark an interest to share some personal reflections or observations. However, particularly for adolescent learners who have a disability, a limited desire to write and reluctance to participate in such an assignment are common traits. Therefore, antecedent strategies geared to making the student interested may not be sufficient. In this instance, writing may not flow from the writer and extrinsic means of motivation must be considered (Brigham, Graubard, & Stans, 1972). Contingency management programs provide one approach to remedy motivational deficits in writing.

Alley and Deshler (1979) summarize several good observations about motivation. Identifying attitude toward writing as a key concern, they suggest that the following might prove effective: (1) encourage students initially to focus on ideation rather than mechanical skills; (2) expose students to a variety of experiences to build their knowledge base for writing; (3) use tape recorders as an initial way to record thoughts followed by efforts to transcribe and revise these thoughts; and (4) have students write daily or weekly journals without corrective feedback.

The third phase of the planning stage as outlined in Figure 1 is that of the setting of purpose. Two purposes have been mentioned earlier: expressive or creative and functional or utilitarian. It is critical for the writer to have a clear understanding of what the purpose is, particularly since expressive and functional writing have very different intents and thus require variant formats. Table 2, taken from Polloway, Patton, and Cohen (1981), outlines some of the specific questions that can actively involve a student in the setting of purpose.

Drafting Stage

The writing or drafting stage is the broadest of the three components within this writing model. It is of no surprise that problems and deficits are common in students who have a disability. Isaacson (1987) clearly contrasts the writing products of skilled and unskilled writers, providing a good overview of the types of difficulties that are common during this stage. Key concerns related to specific issues in writing instruction are the questions: how are skills most effectively learned and how are they most effectively taught?
Table 2
Self-questioning to Set Purpose

Expressive Writing

What interests me most about this topic?
What information do I know about this topic?
What else do I need to learn about it?
How can this information be related?

How can it best be organized?
What are my personal opinions about the subject?
How can I convey my personal feelings in my writing?

Utilitarian Writing

What is my objective in this task?
Who am I writing for? What do they know about this topic?
What do they want to know?
How can I make sure I convey the necessary and correct information?
Do I need to do research on the topic to be familiar with it?
How should I arrange and organize my writing to be most effective in meeting my objectives?


Distinctions made by Smith (1982) as elaborated on by Isaacson (1987) explore writer responsibilities. Two roles inherent in the writing process are the author role and the secretarial role. The author role concerns the formulation and organization of ideas, and the selection of words and phrases to express those ideas. On the other hand, the secretarial role emphasizes the physical and mechanical concerns of writing such as legibility, spelling, punctuation, and grammatical rules. Both roles are critical to the writer’s success and influence instructional practice in written language. Discussion of these two roles provide an appropriate place to begin discussion on the writing stage.

Sink (1975) distinguishes between a focus on teach-write versus a focus on write-teach. The former corresponds reasonably well with the secretarial role of writing. This approach emphasizes formal grammar instruction, an emphasis on structure, skill exercises, perhaps diagramming of sentences, and often a reliance on worksheets and workbook pages. The teach-write approach is extremely common in classrooms; however, it is important to note that its traditional usage is not indicative of proven effectiveness. Sherwin (1969) extensively reviewed the literature on this topic and found little evidence of its success with nonhandicapped learners. There is even less reason to expect that the teach-write approach might therefore be effective for individuals with handicaps.
The key concern with such a teach-write approach is that the types of instructional activities listed above can be completed without any opportunity for actual writing. At the same time, such activities carry the threat of possible damage to motivation to write and require a major commitment of time—something that special education programs already have in limited supply for writing instruction (Silverman, Zigmond, Zimmerman, & Vallecorsa, 1981; Zigmond, Vallecorsa, & Leinhardt, 1980). While skills are important, they may not often be truly integrated in this fashion. Therefore, while necessarily playing a supplemental role, the teach-write focus does not appear to be an appropriate place to initiate instruction.

The alternative is to consider the write-teach focus which initially stresses the primacy of the author role. Ideation over form is emphasized in this approach so that ideas are honored and structure is later established. The write-teach approach also capitalizes on the desire to write while avoiding a stifling of the writing effort. Structure is then emphasized within the context of actual writing opportunities.

Graves (1985) succinctly stated the case for this approach when he noted:

Most teaching of writing is pointed toward the eradication of error, the mastery of minute, meaningless components that make little sense to the child. Small wonder. Most language arts texts, workbooks, computer software, and reams of behavioral objectives are directed toward the "easy" control of components that will show more specific growth. Although some growth may be evident on components, rarely does it result in the child's use of writing as a tool for learning and enjoyment. Make no mistake, component skills are important; if children do not learn to spell or use a pencil to get words on paper, they won't use writing for learning any more than the other children drilled on component skills. The writing-processing approach simply stresses meaning first, and then skills in the context of meaning (p. 43).

If this second option is adopted, there are several clear implications for instruction. Most significant is the fact that students need time to write. Students need to write regularly for writing to improve. Graves (1985) recommended that students write at least four days per week and indicated that irregular instruction merely reminds students of their inability to write. Providing these opportunities to write in a positive, supportive atmosphere simply is a logical supplement; journal writing is a good example of an approach that has effectively been used for this purpose (see Fader & McNeill, 1968).

Once the emphasis on opportunity to write is confirmed, developmental skills can best be handled through selective feedback. Using this approach, one or at least a limited number of skills are emphasized at a given point in time. Students should not have to deal with heavily marked and edited papers. Rather, they will profit most from feedback specific to their own text and specific to the skills of importance to them. Selective feedback is a preferred alternative both to the extremes of inordinate corrections on papers as well as generalized, meaning "good work" or the like.

One way to accomplish the selective feedback goal is through the use of a teacher conferencing approach (Barenbaum, 1983). With this orientation, the teacher proofreads written assignments and provides feedback directly to students, most
often in an oral conference. Such an approach provides an opportunity to introduce and reinforce specific skills and conventions.

During the drafting or writing stage, a number of key skill areas warrant instructional attention. The discussion below focuses on several that are particularly significant for instruction for students with handicaps. See the following reference for additional information: Cohen & Plaskon (1980); Polloway & Smith (1982); Wallace, Cohen, & Polloway, (1987); Hall (1981); and Johnson & Myklebust, 1967.

Handwriting

Handwriting is one of the two so-called tool subjects within the written language domain. It is included herein because of its contribution to successful writing; however, it is quite different from other writing skills in terms of the types of instruction required.

Several points about this area must initially be made. Although tradition in American schools has often been to teach for "perfection," few students achieve this level of performance. Rather a more realistic goal is that of legibility. It is safe to assume that for most adults, the development of a personal style which regularly, or at least sporadically, includes illegible or semi-legible letters and words is not uncommon. Therefore, instructional programs should avoid stressing the perfect reproduction of recognized standards and instead encourage a legible, yet unique style (Wallace, Cohen, & Polloway, 1987).

The succeeding paragraphs will discuss instructional methods, materials, and considerations for handwriting. Attention is given in particular to readiness concerns, beginning writing, and manuscript and cursive writing.

Prior to the development of legible handwriting skills, every child needs to have achieved the two objectives of establishing a preferred hand and coordinating vision with specific fine motor skills. Numerous skills have typically been suggested for the acquisition of actual handwriting skills including manipulation of objects, tracing of objects with the index finger in sand, manipulation of scissors for cutting paper, crayon and finger painting, placing forms in proper holes in form boxes and connecting dots and completing figures.

Several things should be noted about readiness activities. First, some are important simply for their own worth (e.g., cutting with scissors) and thus have merit regardless of their relationship to writing. There is no empirical support, however, for the hypothesis that these exercises assist in refinement of existing writing skills in the child already writing. Indeed, the focus on non-writing fine motor skill readiness may simply take time away from direct instruction in writing. Also, readiness activities which overemphasize fine motor skills may not be the most beneficial approach for children with limited skills. The handwriting process itself provides fine motor practice and thus can accomplish both linguistically-relevant goals in the area of written language as well as the motoric goal of enhancing fine motor coordination. As Hammill (1986) noted, so-called prerequisite skills can be naturally developed through directing students to write letters and words rather than through extensive readiness instruction.
The beginning handwriting stage is focused on the refinement of fine motor skills into coordinated communicative ability. Thus, initial concerns for instruction are most often on the specific motor demands that may present difficulty to the individual.

From a task analytic perspective, the process of assessing the troublesome components of the writing act begin with consideration of reaching for and grasping the writing utensil, slanting the utensil to the appropriate angle, and the arrangement of fingers. Especially for young or developmentally delayed children, the greatest problem is often the correct grip on the writing utensil. A variety of prosthetic aids have been used to facilitate appropriate grip. These aids include larger primary-sized pencils common to many kindergarten and first grade classrooms, wrapping of the pencil with tape, use of a multi-sided large pencil, and adaptation of a standard pencil with a Hoyle gripper - a three-sided, plastic device which encourages the child to place two fingers and the thumb in the proper position. Although research on handwriting instruction has not demonstrated the necessity of modifying writing utensils through the use of such prosthetic tools (Graham & Miller, 1980) the research has not focused on problem learners. Thus, it seems prudent that teachers assess the grip of individual students who are experiencing difficulties in order to determine whether these adaptations are warranted. Norton's (1980) suggestion that students be allowed to select whichever size is most comfortable for them seems particularly apt.

The next consideration in the transition to actual writing concerns the integration of visual-motor skills. An appropriate activity here is to engage in directionality exercises to reinforce the concept of left to right progression. Guided exercises to draw lines from left to right can be designed in a variety of ways to reinforce this skill.

A third consideration is the introduction of specific shapes and strokes for beginning manuscript writers. This is accomplished by focusing on the most common strokes that students will need to learn in order to be legible writers: straight lines, curved lines, diagonal lines, and circles. While the strokes are often taught apart from actual letters, the integration of instruction on strokes and specific letter forms will more likely reinforce writing progress.

In most classrooms, initial instruction focuses on manuscript writing. This practice continues in spite of a dearth of research supporting it as an initial approach. Readers interested in the issue of whether manuscript or cursive should be initially taught can consult Wallace et al. (1987), Early et al. (1976), Barbe, Milone and Waslyk (1983), Polloway and Smith (1982), or Graham and Miller (1980). Given its predominance in practice, manuscript form is discussed here initially.

The most effective approach to teaching specific manuscript letters and words is one in which teachers follow a consistent presentation. Most programs allude that these forms are probably best taught in isolation, but that opportunities must be provided and reinforced for use in the context of actual writing exercises. Graham and Miller (1980) provided an excellent review of effective instructional techniques to facilitate letter formation. The discussion below is an adaptation of the specific steps they outlined for instruction.
Similar to specialized instruction in other curricular areas, the first step is teacher demonstration of the formation of specific letters. At this time, the student should be attending to specific stroke involved in the formation of the letter in question. Students' attention should be directed to the distinctive features of specific letters and to how they compare with previously learned letters. As the student actually begins to transcribe letters, the teacher should use the strategies of prompting (e.g., manual guidance during writing, directionality arrows, and other forms of cues such as color or grids) and tracing to facilitate the task.

Once there is no longer a need for intrusive prompting, instruction becomes a function of copying. Typically this includes copying from near-point (i.e., from a paper on the student's desk) followed by far-point (i.e., from the blackboard). Throughout the copying stage, and as a transition into writing from memory, students should be encouraged to engage in self-instruction by verbalizing to themselves what writing procedures they are following in forming letters and words.

Once a letter can be written from memory, there is a need for continued repetition to consolidate learning and enhance proficiency. Finally, corrective feedback, extrinsic reinforcement, and/or self-correction can be used to enhance retention as legibility is achieved.

Manuscript instruction requires selection of a logical sequence of letters to be presented. Task-analytic approaches and letter/stroke family approaches are the most appropriate grouping techniques. One possible grouping of lower and upper case manuscript letters is presented by Polloway, Patton, Payne, and Payne (1989).

Once the student has made appropriate progress acquiring competence in the formation of manuscript letters, the transition to cursive is begun. This usually occurs in the third grade in most school divisions. Criteria for student readiness include manuscript proficiency, ability to write all letters from memory, and self-initiated imitation of cursive forms linked to an apparent desire to learn that style (Mandell & Gold, 1984).

The change to cursive writing stress as the key features of that style to afford smooth transition for the learner. Characteristics of cursive style to be discussed and illustrated for the student are paper positioning, utensil remaining on the paper throughout the writing of individual words, all letters starting at the baseline, establishment of left to right rhythm, appropriate slant to the right, connection of letters, and spacing between words. The student should be encouraged to begin with manuscript letters that can directly evolve into cursive forms.

The instructional procedures for manuscript writing (discussed above) are equally valid for cursive instruction, although, given the loops and flourishes of many letters and the unique forms of specific letters, attention to distinctive graphic features becomes even more critical. The major difference is in the instructional sequence followed for the introduction of letters, though there is no proven system that needs to be followed in cursive instruction. The sequence presented by Polloway et al. (1989) presents one alternative method of sequencing lower and upper case letters.

Instruction in both manuscript and cursive writing requires procedures that promote maintenance and proficiency. One technique originally reported by Lovitt
(1975) is selective checking. This approach is most appropriate for maintenance and proficiency in the formation of individual letters or words previously taught to students in either manuscript or cursive form. After students complete a daily assignment, the teacher selects a specific letter to be evaluated. A model is then provided to the student with a criterion for acceptable legibility. Following this assignment, a quick review is made of each of the specific examples of the letter-of-day within ongoing written work. Illegibility then is used as a basis for assigning additional practice exercises while correct letter information becomes the basis for reinforcement.

Contingency management programs can also be useful for the development of handwriting proficiency. Reinforcement schedules based on tangible rewards, free time, and activities are helpful in encouraging students to improve legibility (Hopkins, Schutte, & Garton, 1971; Salzberg, Wheeler, Devar, & Hopkins, 1971).

The success of any maintenance/proficiency program is ultimately based on the active involvement of the student. Teachers emphasizing self-regulation provide the most effective long-term procedure to follow. Appropriate procedures include self-monitoring of letter or word formation, self-evaluation of how the individual letter/word compares to the established criterion, and self-reinforcement for successful performance (see Kosiewicz, Hallahan, Lloyd & Graves, 1982, and Graham, 1983, for specific examples).

Spelling

A second tool subject in written language is spelling. Unlike handwriting, spelling demands perfection and defies creativity. As a vehicle for communicating thoughts in written symbols, spelling serves as the intermediary between handwriting and written expression - drawing from the former and aiding in the development of the latter (Polloway & Smith, 1982).

Spelling disabilities can be assumed to be widespread and fall into two general categories: isolated deficits and difficulties related to a pattern of academic and language disabilities. The latter group is of particular interest for our purposes. For this group, spelling problems relate to other language disabilities. For example, reading difficulties frequently predict spelling problems since it is rare for children to spell more expertly than they read. It is clear that poor spellers will need remedial help (Otto & Koenke, 1969). While a full discussion of the sub-domain of spelling is beyond the scope of this chapter, the discussion that follows (adapted from Polloway & Smith, 1982) highlights particular specific word study approaches that can serve as the core of instructional efforts.

Fernald's (1943) multisensory approach to teaching language skills is one of the best known educational techniques for use with handicapped learners, though it is actually applicable to all learners. The following specific procedures for teaching spelling are based on Fernald's (1943, pp. 201-202) directions for children learning new words. The techniques provide an excellent example of the multisensory nature of the approach.

1. Look at the word very carefully and say it over to yourself.
2. See if the word can be written just the way you say it.
3. Shut your eyes and see if you can get a picture of the word in your mind. If you cannot get a clear picture of the word, you can remember the parts that are written the way you say them by pronouncing the word over to yourself or feeling your hand make the movements of writing the word.

4. When you are sure of every part of the word, shut your book or cover the word and write it, saying each syllable to yourself as you write it.

5. If you cannot write the word correctly after you have looked at it and said it, ask the teacher to write it for you. Trace the word with your fingers. Say each part of the word as you trace it. Trace the word carefully as many times as you need to until you can write it correctly. Say each part of the word to yourself as you write it.

6. If the word is difficult, turn the paper over and write it again.

7. Later in the day try writing it from memory.

8. Make your own dictionary.

While Fernald's methodology can be implemented as a strict model, flexible adaptations will be more realistic options for classroom teachers (see Miccinati, 1979).

Fitzgerald's (1955) approach is another program which, like Fernald's, relies on visual, auditory, kinesthetic and tactile modalities. The specific steps are:

1. Select a word that the child can understand. To insure that the child knows the meaning of the word, ask him or her to use it in a sentence.

2. Have the child trace the word in the air with eyes closed. The purpose of this stage is to develop visual imagery.

3. Have the child look at the word, close his or her eyes, and spell it orally.

4. Have the child practice writing words from memory. The words should be studied, covered, and spelled.

5. At the mastery level, ask the child to write the word from memory and, if correct three times, enter it into a word bank or onto a mastery list.

Fitzgerald's (1955) approach suggests specific ways to develop spelling skills. However, as with Fernald's (1943) method, a major advantage is its use as a prototype for the development of individually tailored instructional sequences.

The Orton-Gillingham-Stillman method is another intensive multisensory approach for remedying language problems (Gillingham & Stillman, 1960). The simultaneous oral spelling (SOS) component of the program is of special interest here. It heavily relies on sound-symbol correspondences and is therefore especially useful for teaching regular words. SOS capitalizes on the association of how a word
or a letter looks, sounds, and feels when it is being written. Steps to institute the approach include:

1. A regular word is selected and pronounced by the teacher (e.g., "sat").
2. The student repeats the word after the teacher.
3. The student says the sounds in the word. (This is an analytic phonics sequence.)
4. The student names the letters used to represent the sounds.
5. The student writes the word, naming the letters as he/she writes them.
6. The student repeats the word after it has been written.
7. As the student becomes a more proficient speller, steps two and three can be omitted.

The SOS approach stresses phonetic analysis in the spelling of words that follow regular patterns and can be adopted for modified use.

Since the English language provides "productive relationships" (Hodges 1966, p. 332) between sounds and symbols, instruction in rules is important as a mediating influence in spelling. Such an emphasis considers a possible complement to spelling instruction. To teach rules or generalizations, the following sequence (Brueckner & Bond, 1955, p. 374) can be helpful:

1. Select a particular rule to be taught. Teach a single rule at a time.
2. Secure a list of words exemplifying the rule. Develop the rule through the study of words that it covers.
3. Lead the pupils to discover the underlying generalization by discussing with them the characteristics of the words in the list.
4. Have the pupils use and apply the rule immediately.
5. If necessary, show how the rule in some cases does not apply, but stress its positive values.
6. Review the rule systematically on succeeding days. Emphasize its use, and do not require the pupils to memorize a formalized statement.

See Graham and Miller (1979) for a list of rules that lend themselves to such an approach.
The last approach to be discussed is in a review of research on spelling. Graham and Miller (1980) concluded that the corrected-test method resulted in the greatest spelling improvement. Under teacher direction, students correct specific spelling errors immediately after being tested. This procedure enables students to observe which words are particularly difficult, to identify the part of the word creating the difficulty, and to correct the error under supervision.

A final note needs to be made concerning spelling. Whenever a child encounters an opportunity to spell a word that is not known, there is a risk of a conceptual break in his expressive efforts (see Personkee & Yee, 1966, 1968). Students should be encouraged to attempt an approximation of the word during the writing stage and to plan to review and correct it during proofreading exercises in the postwriting phase.

Vocabulary Development

The primary goal of instruction in vocabulary is to expand the options available to students in their composing efforts. Such expansion should include efforts to increase the variety of words used while enhancing the complexity and descriptiveness of students' written language efforts (Wallace et al., 1987).

A good beginning point for vocabulary development is the student's spoken language. The language experience approach (LEA) offers a natural lead-in by combining lessons that include attention to listening, speaking, reading, and writing. With LEA, students dictate stories which teachers transcribe for subsequent reading. Through the student's revising of stories, the linkage from oral to written expression can be achieved. LEA can assist in shaping the strength of the student's writing vocabulary in the direction of his speaking vocabulary.

Several strategies used with specific writing tasks may be of assistance. Students can generate specific words for the teacher to write on the blackboard for illustration and later use in an assignment. A bulletin board may display a list of words which students can copy and use in a notebook for later use. This procedure can be especially helpful with high frequency words that are spelling demons. Since the demands of spelling can produce a conceptual break in the writing task for poor spellers, it is more important to reinforce word use rather than correct spelling. By providing accurate spellings of words which are likely to be used before the task begins, interruptions in the conceptualization process are avoided (Wallace et al., 1987).

Instructional activities should also focus on enhancing the development of descriptive language. For example, students can brainstorm alternative words to use in a specific instance and then systematically replace the words in their own written compositions. This exercise can be done with synonyms as well as with a variety of adjectives and adverbs in order to increase the descriptiveness of an individual composition.

The use of reinforcement contingencies can also prove helpful in developing a broader lexicon. The variety of words used can be analyzed through the use of a type-token ratio or by the tallying of the number of unusual words used by the student (see Polloway et al., 1983). Reinforcement contingencies can then be established, respectively based on the strength of the ratio or frequency of words counted that are not a part of the student's typical writing efforts.
In conclusion, it is helpful to consider a caution relative to vocabulary development. As noted by Cohen and Plaskon (1980), it is preferable to develop a smaller, accurate vocabulary than of a larger, perhaps superficially impressive one. In this way, fluency is not sacrificed for improvements in overall lexicon. For some students, especially those who are lower functioning with limited writing ability, the most appropriate strategy is to assist them to acquire and correctly use a limited number of words. This is particularly apt when the curriculum focuses on functional writing.

**Sentence Development**

The critical element in syntactical development is the sentence. It is common to find that the poor writer's efforts are characterized by either safe, repetitive short sentences or by rambling prose, absent of structure. Thus, there is clear benefit to learning to write in appropriate sentence structures.

It is important to balance encouragement for "real writing" with use of patterned sentence guides and structures (Isaacson, 1987). Through the use of such guides, students are relieved of some of the content demands and structural ambiguities and can concentrate on effective communication. The simplest form of patterned guide is labeling a picture in a proscribed sentence pattern; for example, one could have the student label simple objects with a sentence such as "This ball is red."

After this beginning, several alternatives are available. A relatively straightforward technique for teaching sentence structure was developed by Giordano (1982) and is referred to as the CATS approach. The approach includes the four stages of Copy, Alter (i.e., a substitution of a word), Transform (i.e., changing a tense, number, gender, negation, interrogative), and Supply a response (to a teacher-generated question). This approach provides a simple transition from initial writing to the subsequent use of appropriate sentence structures. The key is that students are encouraged to actually write and move from initial copying to the generation of responses.

A more systematic approach to sentence development is contained within the Phelps Sentence Guide (Phelps-Terasaki & Phelps, 1980). The Phelps guide is based on the use of the Fitzgerald key with individuals with hearing impairments and is derived from an analysis of sentences into specific parts according to their functions. Although traditional grammar instruction has usually been done through skill instruction on the parts of speech, for many students it can better be accomplished by substituting a focus on the functional nature of the respective parts of speech (Wallace et al., 1987). With the Phelps program Wh - questions are used in lieu of the names of the parts of speech.

Figure 2 provides an example of the Phelps Sentence Guide as it is presented in the program’s manual. Through the use of this program students can learn how to expand from simple phrases to more complex sentences.
Sentence extension or expansion approaches as described above can be used in both analytic and synthetic fashion. A previously generated sentence can be used and analyzed across a blackboard to show how it is broken down into its component parts: A series of words and phrases can be generated for each column and then synthesized together to form sentences. In either instance, the benefit of the approach is that it enables students to appreciate how lexical items can be used to vary sentence usage, sense, and generation.

A next logical step toward the expansion and extension of sentences is through the use of sentence combining. Sentence combining involves the expansion of simple sentences to more complex ones. Research indicates that this is an effective way to improve the overall quality of writing and can assist in increasing syntactic maturity (Isaacson, 1987; Scarmadalia & Bereiter, 1986).

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**Figure 2**

Phelps Sentence Guide (Sample)

<table>
<thead>
<tr>
<th>THE PHELPS SENTENCE GUIDE:</th>
<th>SAMPLE STAGE 1 SENTENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>A girl</td>
<td>boy</td>
</tr>
<tr>
<td>The man on the long street</td>
<td>is drawing</td>
</tr>
<tr>
<td>The roast</td>
<td>is flapping</td>
</tr>
<tr>
<td>The sponge</td>
<td>is playing</td>
</tr>
<tr>
<td>The dog in the morning</td>
<td>is running</td>
</tr>
<tr>
<td>The man on the beach</td>
<td>is reading</td>
</tr>
<tr>
<td>The two girls</td>
<td>are running</td>
</tr>
<tr>
<td>The ghost</td>
<td>is sleeping</td>
</tr>
<tr>
<td>The pretty baby</td>
<td>is wearing</td>
</tr>
<tr>
<td>The pitcher</td>
<td>is throwing</td>
</tr>
<tr>
<td>The bear</td>
<td>is hunting</td>
</tr>
</tbody>
</table>

Among the most commonly used programs of sentence combining is the one developed by Strong (1983). In Strong's program, the student is confronted with the task to initially combine clusters of sentences - he is informed that this can be accomplished in a variety of ways and that no specific response is indicated. For example, below is a cluster that appears early in the program.

2.1. Cowboys swagger around.
2.2. They get their gear together.
3.1. Clowns roll out their barrels.
3.2. The carrels are battered.
4.1. Bulls stand in their pens.
4.2. The bulls are huge.
5.1. The sun beats down.
5.2. The announcer introduces the first entry.
6.1. People lean forward in the bleachers.
6.2. They strain to see the chute.
7.1. A shout goes up.
7.2. The bull comes charging out.
8.1. He is a giant animal.
8.2. He has a tornado's energy.
9.1. His eyes are fierce.
9.2. His horns are wicked.
10.1. The cowboy is tossed to one side.
10.2. He tumbles end over end. (Strong, 1983, p. 5)

While Strong's (1983) program does not begin with true writing in that students are working from what is already written, it encourages students to expand and develop their own creation. In addition, the individual tasks finish with an "invitation" to finish the story which then relies on students generating their own ideas.

While Strong's program provides a positive prototype for instruction in this area, it would clearly be limited if used with students with handicaps. In particular, the lessons are not extensive enough to provide the degree of practice necessary for students who have difficulty in writing. Therefore the use of the sentence combining
approach dictates that teachers supplement such a program by generating their own clusters. One example of an approach to doing that was presented by Reutzel (1986) who illustrated four types of sentence combining techniques. Two useful approaches for students with difficulties in writing are addition and embedding. Examples of these respective techniques are presented in Figure 3.

Figure 3

Alternative Sentence Combining Techniques

Addition

Example 1—Primary grade level

Cluster
I put on my detective hat.
I took my notebook and pencil.
I put a note where my mother could see it.

*Nate the Great*
Beacons, Houghton Mifflin, 1981 p 75

Potential writeout
I put on my detective hat, took my notebook and pencil, and put a note where my mother could see it.

Example 2—Intermediate grade level

Cluster
Then Jenny gradually pulled the big desk away from the wall.
She looked at the back of the desk.
She smoothed her fingers all around the back.

*Mystery of the Hulldrop Desk*
Barefoot Island, Ginn 1985 p 220

Potential writeout
Then Jenny gradually pulled the big desk away from the wall, looked at the back of the desk, and smoothed her fingers all around the back.

Embedding

Example 3—Primary grade level

Cluster
"Mr Pond, I saw something unusual."
"It was in my bed."
"It was black."

*Nobody Listens to Andrew*
Ginn to Read A Lot, Ginn 1985 p 13

Potential writeout
"Mr Pond, I saw something black upstairs in my bed."

Example 4—Intermediate grade level

Cluster
She had been lying under her knitted coverlet staring up at the ceiling.

*Upstairs and Downstairs*
Gulliver Voyage, Harcourt Brace, Jovanovich 1983, p 228

Potential writeout
She had been lying under her knitted coverlet staring up at the interesting ceiling.

Paragraph Writing

The transition from the development of sentences to the writing of full essays and compositions can come through paragraphs. For students with handicaps, paragraphing should not be a skill taken for granted since it is an important concept that must be part of any successful written communication. Paragraph instruction provides training in organizational skills while assisting students in enhancing the integrity of their entire written manuscript.

To begin instruction in paragraph writing, it is useful to consider the concept of the topical sentence. Topical sentences, provide an opportunity to reinforce the fact that paragraphs contain initial assertions and then elaborate on that assertion (Otto, McMenemy & Smith, 1973). Thus, an initial teaching strategy can be to provide students with a previously-written topical sentence to serve as the assertion and have them then write two or three sentences to describe the topical one.

Brief, functional tasks provide an excellent opportunity for the initial teaching of the concept of paragraphs. For example, writing a letter to purchase an item fits this format very well. The topical sentence can be the identification of what the item is to be purchased. The additional sentences then provide, a description of the item, a discussion of the form of payments, and the address to which it should be sent.

One helpful technique and useful skill for writing to assist in the building of paragraph writing in general is that of paraphrasing. One example of a paraphrasing strategy, developed by the University of Kansas Institute for Research on Learning Disabilities (Schumaker, Denton, & Deshler, 1984, cited by Ellis & Sabornie, 1986), is identified by the acronym of RAP. RAP refers to: R-Read a paragraph, A-Ask yourself what the main ideas and details in the paragraph were, and P-Put the main idea and details into your own words.

Postwriting

The general goals of writing instruction are to enable students to effectively communicate with others while achieving personal satisfaction with their efforts. In order for these goals to be accomplished, the revision stage must become a routine and integral part of the writing process.

For proofreading and revision to become acceptable to students, they must be sold on the concept of the working draft. To present this concept, the writing stage should be discussed as simply the initial effort to get on paper the information to be shared. The postwriting stage should be advanced as being of value as an alternative to the conceptual breaks that might occur within the writing task. The postwriting stage must evolve toward a positive association for students; it needs to be moved beyond the association of rewriting as punitive action taken by teachers.

Postwriting also requires the active involvement of the writer in the careful review and revision of what has been previously written. For this status to be attained, instruction must be more specific than the directive to students, "Proofread your paper."
Initially students must have the opportunity to establish the concepts and thus activate the skills. Training to accomplish these objectives can begin by providing anonymous papers to students with direct instructions to identify correct and incorrect sentences, find three spelling errors in a paragraph, find all the capitalization errors, or find and correct the punctuation errors on a given page. After reaching acceptable criterion on such limited tasks, the students can shift to their own work.

A number of specific proofreading skills can be identified. Polloway, Patton, and Cohen (1983), deriving their suggestions from the work of Dankowski (1966) and Burns (1980), identify the following ten questions to provide an outline of possible self-evaluation procedures:

1. Does each sentence make sense?
2. Is every word spelled correctly?
3. Are all punctuation marks used correctly? Are any needed marks omitted?
4. Are all words capitalized that should be?
5. Have I used descriptive words and phrases to express my ideas?
6. Are any of the points that I made vague and thus in need of clarification?
7. Are there more specific and precise ways to say anything in my paper?
8. Overall, is the paper organized in a clear way to make the reader's job an easy one?
9. Have I met the objectives that I set for the paper?
10. Have I chosen a good title (when applicable)?

Focusing on all of these items would be an absurd initial task for any student experiencing difficulties in writing. Therefore the assumption is that only one or two skills can be stressed at a given point in time. A helpful approach for the organization of proofreading activities is the use of the error monitoring, learning strategy indicated by the acronym COPS. Schumaker and colleagues (1981) encouraged the use of COPS to represent the following tasks:

C  Have I capitalized the first word and proper nouns?
O  Have I made any handwriting, margin, messy, or spacing errors?
P  Have I used end punctuation, commas, and semicolons correctly?
S  Do the words look like they are spelled right, can I sound them out, or should I use the dictionary?

The COPS process is intended to be introduced one step at a time. Once students have learned a particular skill, they can be introduced to the process of proofreading for that skill. After they have been trained to proofread for each of the components separately, they can then be directed to use
all four of them at the same time. COPS can subsequently serve as a way to review completed compositions or essays and search for particular errors as indicated.

Obviously there is far more to the process of proofreading than simply checking for capitalization, overall appearance, punctuation, and spelling. If students acquire these skills, instruction should then begin to focus on the higher levels of editing, with special attention to content and organization.

**SUMMARY**

Written language instruction has recently begun to receive the degree of attention in the regular and special education professional literature that it deserves. It has been the primary objective of this chapter to identify models and practices which represent promising approaches to teaching students who are experiencing problems in written language. The chapter now concludes with a discussion of best practices derived from Wallace et al. (1987). This discussion briefly highlights the major implications for teaching that stem from the previous discussion on the phases of writing.

In planning the teaching activities that take place during the planning stage the teacher must acknowledge the reality of how students present themselves for instruction. Assumptions should not be made that pupils with handicaps will have had the necessary experiential prerequisites to develop ideation, will have a desire to communicate via written means, and will understand their purpose in writing and the nature of their intended audience. Each of these factors should be addressed in the planning and implementation of instruction.

The actual drafting stage has been the beneficiary of a long history of variant foci. Throughout this pedagogical chronology, educators have consistently emphasized instruction on the structural features of language, at times to the exclusion of having children actually write. However, no database exists in clear support of such a position with non-handicapped students let alone students who have learning deficits. Instruction during the writing stage should, therefore, tie together the regular opportunity to write with the periodic teaching of specific skills that can be directly applied to the students' own work.

The postwriting stage has traditionally been the least emphasized of the components of this curricular area. However proofreading cannot only provide an opportunity to learn valuable skills with immediate applicability but can also afford some benefits regarding positive attitude change. If correctly taught, the supervised process of editing and revision can promote the willingness to receive constructive feedback and the ability to sense improvement in one's own work. For students whose school history has been replete with failure experiences, such an emphasis can provide direction toward the development of strategies for overcoming their specific difficulties while also teaching them how to compensate for others.

Since the domain of written language is quite expansive, the various skill areas in this chapter can not be fully discussed. The reader is referred to the following sources for additional information: Cohen and Plaskon (1980), Polloway and Smith (1982), Hammill and Bartel (1986), Wallace, Cohen, and Polloway (1987), Hall (1981), and Johnson and Myklebust, 1967.

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