Chapter Three

Multisensory Teaching Methods: Tutoring Joey

As the previous chapter has shown, present mainstream Composition theory and practice does not allow for the percentage, however small, of students who might have a neurological learning difficulty. Most pedagogies, whether Mina Shaughnessy's, Peter Elbow's, or Ira Shor's, operate under the unquestioned assumption that writing is natural for all and mainly requires interesting and engaging opportunities in order to develop. If, however, we admit the possibility of dyslexia or specific learning disability, how would our teaching methods change? Since learning disability is such an elusive phenomenon, and since no two LD students have exactly the same set of difficulties and/or talents, it is impossible at this time to prescribe a set curriculum. What helps one person simply may not help another. What works on a one-to-one tutoring or mentoring basis might not work in a classroom situation, and vice versa.

One element of the LD controversy concerns what instructional approaches are more effective for LD students. As whole language practices become successful and established ways of teaching reading and writing in primary and secondary schools in districts throughout the country, parents of LD students especially question whether the assumptions about language acquisition upon which whole language practices are based are appropriate for their children. Whole language relies heavily on high-interest texts and motivation on the part of students to learn. It assumes that if people are immersed in meaningful opportunities to use language, they will, with some well-placed instruction, develop the skills necessary to become literate. In contrast, the structured pedagogies influenced by Orton-Gillingham (O-G) rely more extensively on structured,

explicit phonics instruction, often in conjunction with multisensory links, or mnemonics. Designed primarily for LD students, O-G methods operate under the philosophy that some children, in spite of a high motivation to read, have neurological frameworks less suited to linguistic tasks than those of others.

The differences between these two methods might suggest differences that could be applied to pedagogies used with college students. In this chapter, I relate my experiences tutoring my nephew Joey, and what might be discovered from how and when he made progress in learning to write. This account illustrates first, what "multisensory" means and second, what role it plays with children like Joey. It also shows the importance of an intense interest in learning. In Chapters Four and Five, I will attempt to translate what these two conditions mean for college teachers of LD students.

As little as has been written in the Composition field concerning learning disabilities, there is even less written on how college teaching methods would change if instructors believed some of their students learned differently. Quite a bit has been written, however, on how elementary and special education teachers use Orton-Gillingham (O-G) and other multisensory methods to teach students they believe are linguistically learning disabled. These methods are different from those based on the belief that exposure to meaningful texts coupled with some basic instruction is enough for students to learn.

Readers interested in the various offshoots of the O-G method are referred to Diana Brewster Clark's book, *Dyslexia: Theory and Practice of Remedial Instruction*. She explains the packaged programs available to teach reading, writing, and spelling through very explicit, sound/symbol instruction. She also recommends programs that are more appropriate for various age groups. There are many such programs, such as the Slingerland method, Alphabetic Phonics, Recipe for Reading, Preventing Academic Failure, and the Lindamood program, which Clark says is intended for teaching phonics to older students (1988, 200). These programs and others follow certain generic principles, which recommend proceeding from the simplest unit of instruction to the more complex—from sound symbols, to syllables, to sentences. Those students who easily absorb linguistic forms may be excruciatingly bored by such rigid phonics instruction. However, as Katrina De Hirsch points out, for frustrated LD students, ". . . phonetic techniques provide a feeling of mastery and security where in the past they have relied on guessing only" (1984, 109).

Isabelle Liberman argues the need for phonics instruction by discussing the logograms of the Chinese language. Logograms are

not part of an alphabetic sound/symbol system, but represent whole words, necessitating whole-word memorization. This process is reputedly easier to learn at first, but becomes increasingly complicated as more and more logograms, or whole words, need to be memorized. Liberman says, ". . . children who learn to read English words as if they were logograms will never be able to read a word they have never seen before in print" (1983, 87).

A comparison of these two approaches may not be a direct help for college composition teachers, whose students come to them (for the most part) already knowing how to read. I present these differences, however, so that creative college teachers can adapt whatever ideas they can glean from creative elementary teachers who attempt to help their students find alternate paths to learning when conventional neurological paths might be somehow blocked, impeded, or otherwise occupied.

In their text, *Preventing Academic Failure: A Multisensory Curriculum for Teaching Reading, Writing and Spelling in the Elementary Classroom*, Phyllis Bertin and Eileen Perlman agree that different students require different, more explicit teaching methods. Explicit teaching means, for example, that LD students must be told that the sound /a/ (short vowel for *a*) is responsible for the sound /a/ in *apple*. Merely seeing the word and hearing it pronounced may not be enough for these students to figure it out on their own. The code that most students deduce without direct instruction must be explicitly pointed out, perhaps more than once, and cued with a mnemonic link (1980, 1–4).

A critical part of this method involves the use of several senses. Unlike other reading programs which assume that if children *see* a letter or a word enough times in context they will internalize and therefore learn to use it, the O-G method gives students the opportunity to use their other senses as a kind of backup system. Therefore, if they cannot visualize a word, their auditory or kinesthetic sense can sometimes help them out. This kinesthetic association is somewhat like the way people touch type. If asked, we might not be able immediately to say where a particular letter is located on a keyboard. However, if we were typing, our fingers would "know" automatically where to go. For example, I have known how to type since I was thirteen, but I cannot say where *c* is unless my fingers are positioned over the keyboard. A friend of mine told me that one day at work he forgot the password that he had to key into the computer program in order to access secure files. His mind could not recall the required sequence of letters and numbers, but when he put his hands over the keyboard, his fingers somehow "remembered" the password.

Large-muscle memory is also employed. When a letter or word is introduced, students are taught to "skywrite" it—that is, to write it in large, imaginary letters in the air, using the large muscles of their arms as they simultaneously say the word or letter aloud. Theoretically, once the large muscles are involved in learning, the muscle memory will aid students when they cannot "picture" the word in their minds. It is a part of this kinesthetic pathway—muscle memory—that enables us to ride a bicycle even though we may not have ridden one in years. We might not be able to explain how to balance ourselves, and perhaps if we thought about it too much, we would fall off. But if we get on a bike, we can ride it. In much the same way, experienced golfers may find when they pick up their clubs early in the season that they recover their golf swing more easily if they do not think about it or analyze it too much. Sometimes it is better to relax and allow muscle memory to restore the sequence of movements that will result in a long drive. Similarly, if students cannot remember how an *a* looks, but they begin to "write" it with their hands and arms, the muscles will automatically form the letter correctly. Almost eighty years ago, Maria Montessori discovered the benefits of a type of multisensory teaching. She taught a retarded girl to sew by having her weave mats, an activity that involved a similar over-and-under motion, only on a larger scale. Through a muscle memory, the girl was able to internalize the required motion. Montessori also emphasized the importance of observing the individual student before constructing a pedagogy (Berthoff 1981, 148–51).

Other aspects of writing, spelling, and reading which dyslexics reputedly have trouble with are addressed in Bertin and Perlman's approach (see Bertin and Perlman 1980). Dyslexic students' notoriously bad handwriting can be a result of many factors, but one which O-G teachers work on is the child's difficulty knowing where to begin forming the letter. Dyslexic children sometimes put their pens down any old place on the paper, not necessarily on the left side first, and not necessarily on the writing line. For that reason, first and second graders in the Bertin/Perlman program are given desks with vivid green tape on the left side—because many dyslexic children cannot reliably distinguish left and right. They also are introduced to each letter through skywriting and then given large newsprint textured paper, with four blue horizontal lines approximately four inches apart. To help the child learn which line to start on, the left side of the paper has a person drawn next to it. The top line, where capital letters hit, is the person's "hat line." The middle line, where lowercase letters hit, is the person's "belt line," and below that is the "writing line." Cursive letters such as *f*, which go

below the writing line, hit the imaginary person's "shoe line" (34). When students are directed how to form the letter, they are given explicit instructions using these identifiable landmarks on their paper. For example, the cursive, lowercase letter *i*, is one of the "rocket letters." It begins "on the writing line, goes up like rocket, away from the green, to the belt line and comes back down." Then there are the "tall letters," such as cursive *l*, *h*, *k*, and others, which "begin at the writing line, swing up to the hat line, turn and pull down." For *h* and *k*, students are instructed to "aim to cross at belt line." While this may seem unnecessarily precise for most people, LD teachers claim this method works for dyslexics, for whom each line on a piece of paper either looks the same or shifts unless it is associated with this concrete image of a person with a belt, hat, and shoes (or some other associative link). These teachers claim that if students put their pencils in the same spot each time they begin to write a letter, the letter will come out right. If they begin on the wrong side, the letter will come out backward or upside down.

Students are not taught handwriting separately but in conjunction with the sounds and words that go with it. For example, the sound /u/ would be said aloud and handwritten at the same time. Words using the short /u/ sound would be used in sentences such as "The gum is in the mud." This is what LD teachers mean by "controlled vocabulary" and "structured readers." If they have just gone to much trouble to teach students that /u/ stands for the sound in *mud* and *gum*, they would not want *u* suddenly pronounced like the sound in *rude* or *dude*. That would come in a different lesson, once the children had adequately learned the short /u/ sound.

Review by means of a "card pack" (flash cards) is an important part of any O-G based method. Consonants are written on white cards; vowels on salmon-colored ones. The students say words and sounds out loud as the teacher holds up cards, assuring the multisensory aspect of the learning. It is also important that these students obtain positive reinforcement and reminders about how much they *do* know, and how much they *can* read. For this reason, the "card pack" never includes new material, only the phonemes and words with which the class is already familiar. Students who have repeatedly failed to learn to read are delighted when they can read, on their own, the most elementary words or sentences. (I once watched an articulate twelve-year-old boy, a product of an O-G private school, take about two full minutes to read one sentence on a blackboard. I was horrified at his extreme difficulty, but he and his parents were beaming. Before he attended this school, he could not read at all.) In the O-G-structured, multisensory method, there is no invented spelling, on the theory that LD students cannot afford to

have their mistakes reinforced, or their minds will be getting even more conflicting messages.

Students, parents, and teachers who attend the Orton Dyslexic Society meetings and those of other related associations claim that explicit and multisensory instruction succeeds in teaching nonreaders to become literate when years in conventional reading or writing programs did not. These testimonials might be considered a type of lore, which, to use Stephen North's definition, is "concerned with what has worked, is working, or might work in teaching, doing, or learning writing." Lore may not be backed up by theory or research, but it is "essentially experiential" (1987, 23).

Lore can also be very powerful. A class I took in New York City from Phyllis Bertin was filled with elementary school teachers taking this class on their own time, some at their own expense, to learn a teaching method that they had heard, through word of mouth, was one that "worked." Similarly, classes on whole language teaching methods are filled with teachers eager to learn what they have heard "works." Both sides have their lore; both sides have their devotees. Many whole language teachers swear theirs is the method that works. These LD teachers are utterly convinced their way is the only way their students will ever learn to read.

As discussed in Chapter One, this structured, bottom-up approach to teaching is another part of the LD controversy. Skeptics say that the explicit sounding out of words might be the very activity dyslexics are least likely to do well. Peter Johnston and Richard Allington say that the multisensory techniques promoted by LD enthusiasts are not proven, and that the exaggerated decoding skills may actually cause the slow reading observed in LD students (1991, 999). Even Katrina De Hirsch, who aligns herself primarily with the O-G school of instruction, recognizes some potential problems in teaching phonics to children who have trouble synthesizing multiple factors (1984, 55). Diana Brewster Clark also favors multisensory teaching but mentions the possibility that some LD children might experience "sensory overload" when confronted with the multisensory tasks that O-G methods require (1988, 49). She also writes, however, that "practitioners using these [multisensory] programs appear to be highly supportive of multisensory instruction" (51). And one study reported that multisensory, O-G methods were used successfully even with college students (Guyer and Sabatino 1989, 430).

When I first began the formal research for this book, I interviewed Frank Vellutino at his office. Something he said at that time intrigued me: "You'll learn more [about this learning difference] from tutoring one student than you'll learn from anything you'll

read about it." This has turned out to be true. Much of what I have learned, the information that has most convinced me that LD exists, has come from what my nephew has said and written, during the tutoring sessions I spent with him and in his everyday life. There is no question in my mind that his is a problem remembering linguistic symbols. Although his problems are unique, the pattern of his difficulties seems to be very much like the problems of dyslexics I have read about, heard about, or talked with. At present, there is no way I can prove this. But my observations have convinced me of his need for special instruction—not O-G and not whole language—but an elusive combination of both. I am not suggesting that anecdotal evidence regarding one seven-year-old child proves anything about college composition students. (After all, even those adult students who may be experiencing handwriting problems are not likely to embrace techniques of skywriting, green tape on desks, or little men with hats and belts.) Observing firsthand Joey's frustrations with linguistic recall, however, has persuaded me that were he taught to read exclusively by having to remember words visually, his reading and writing problems would remain or become more extreme as he grew older.

The experiences I had with Joey are, perhaps, tangential to what college writing teachers need to know. I include them because they played a crucial part in making me aware of the need for experimenting, for individualizing curriculum, for listening to the student, and for combining instructional approaches. As I explained in the Introduction, I had an important personal stake in finding a teaching method that might help Joey learn to read and write. He had been read to since he was an infant, and he loved stories, always giving the books his rapt attention and knowing the plots by heart—even if he used many circumlocutions such as "the thing that . . ." to explain the story. However, by the time he was six years old, he could read only the words "Stop," and "McDonald's," (and it was possible he wasn't really recognizing those words, but the octagon shape of the sign and the colorful logo of the restaurant). In spite of Joey's long attention span, his apparently positive attitude toward stories, and the interesting, "meaningful" texts from countless bookstores and libraries, he was clearly not absorbing, as the whole language people said he should be, the phonological keys to his native language.

Partly out of a wary curiosity, partly out of desperation, I enrolled in Phyllis Bertin's O-G-based course for elementary teachers wishing to learn a structured, multisensory approach to reading and writing. My sister purchased the textbook, the large newsprint paper, the card packs, the wall cards, the controlled readers—

everything the LD teachers said dyslexic students needed in order to learn how to read and write. I came back to Albany to try this out on Joey.

At first, he was fascinated with the large paper, especially the imaginary man on the left side of the paper with his hat, belt, boots, and so on. For the first week Joey would stay interested for twenty minutes or so, and he learned the /a/ sound in *apple*, although he really did not master printing the *a*. In the second week, it was harder and harder to keep Joey's attention. The novelty of the blackboard and the large paper had worn off, the game of "playing school" was getting old, and I think he was discouraged with his difficulty in writing the letter *a*.

The next sound in this O-G-programmed lesson was the hard /c/ sound, which Joey could not pronounce anyway—he always said *cake* as *tate*, and his phrase "You only kidding," came out as "You only tidding." Perhaps because of his frustration, perhaps because of the rather dry material, the structured phonics lessons became a chore for both of us after about two weeks. The expensive wall cards and readers remained in their boxes, and I considered other options.

One day I decided not to prepare anything or to bring any of the programmed O-G materials. Joey always had with him some dog-eared flyers that catalog all the old and new Transformers and Autobots so that kids will pester their parents to buy them. Joey was interested in a particularly vile beast called "Skalor," whose claim to fame was that he "smelled." Joey took delight in repeating the slogan, "Skalor Smells!" and pointing it out in the flyer (no doubt so that I'd know it the next time I went to the toy store).

Flying on inspiration, I wrote "Skalor Smells" in giant letters on a piece of paper, using a red marker for the *S*'s and black for the other letters. I also wrote *S* all around the words, saying *S* as I did so and also making the *S* pass for the symbol of fumes rising from the words *Skalor Smells*. Joey had always responded to any multisensory help he could get in trying to remember something. For example, he used to call his bicycle his "motorcycle," although more often than not he would ask us, "What I call this?" and we would say, "Motorcycle." Two minutes later he'd say again, "This my—What I call this?" One day my sister said "motorcycle" at the same time demonstrating for Joey the American Sign Language sign for "motorcycle," which is a person's fists pretending to rev up the hand grips of a motorcycle. She said "Vroom Vroom" as she did it. Joey would imitate the sign and say the word. After a while, whenever Joey asked, "What I call this?" all we'd have to do is to show him the *sign* for "motorcycle"—the fists revving it up—and somehow that would trigger his recall and he would grin proudly and

say, "This my *motorcycle!*" This example of using several senses to stimulate Joey's memory is what made me try the *s* "fumes" and to make such a fool of myself saying, "*S*" and "*Phew!*" and "*SSSSkalor SSSSmells!*" as I wrote it all over his paper. Joey would giggle uncontrollably and repeat the *s* sound and the phrase after me.

The result of my rather undignified performance was that Joey was now extremely interested in *S* and the disgusting (or, as he would say, gisdusting) images it could be used to create. He would attempt to copy my giant *S*, but it usually came out looking like a lower case *e*. (See Figure 3–1.)

This is because he started at a different spot each time and went in the wrong direction. Instead of forming the *s* from right to left, he'd start his pencil going from left to right—sometimes producing something that looked like the number *2*. (See Figures 3–2, 3–3 and 3–4.)

I decided to capitalize on his interest in the letter before he got too discouraged from writing it wrong—which he always instantly recognized as such—and teach him to write it correctly. I took his hand and arm and helped him "skywrite" giant imaginary *S*'s, saying each one as we did it. After we were skywriting the letter for several minutes, Joey giggling the whole time, I put the pen in his hand, and we wrote the *S* large on scrap paper, again saying it and having him say it as we wrote it. Sometimes, I would outline it in

Figure 3–1
Joey's first attempt to write *S*.

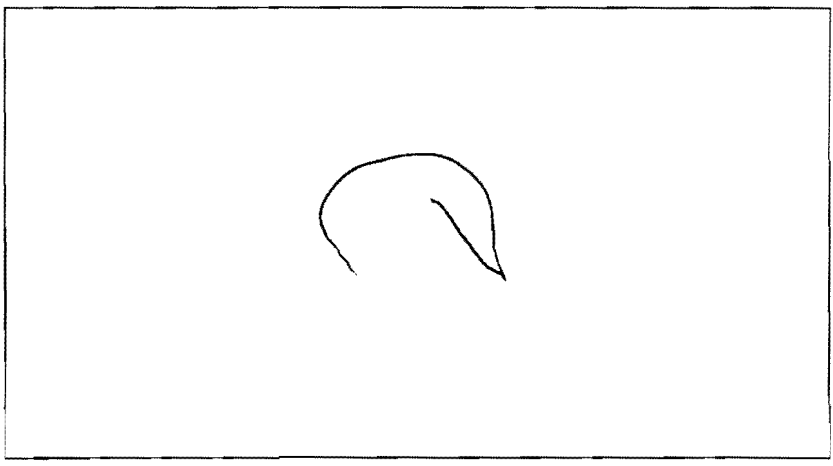
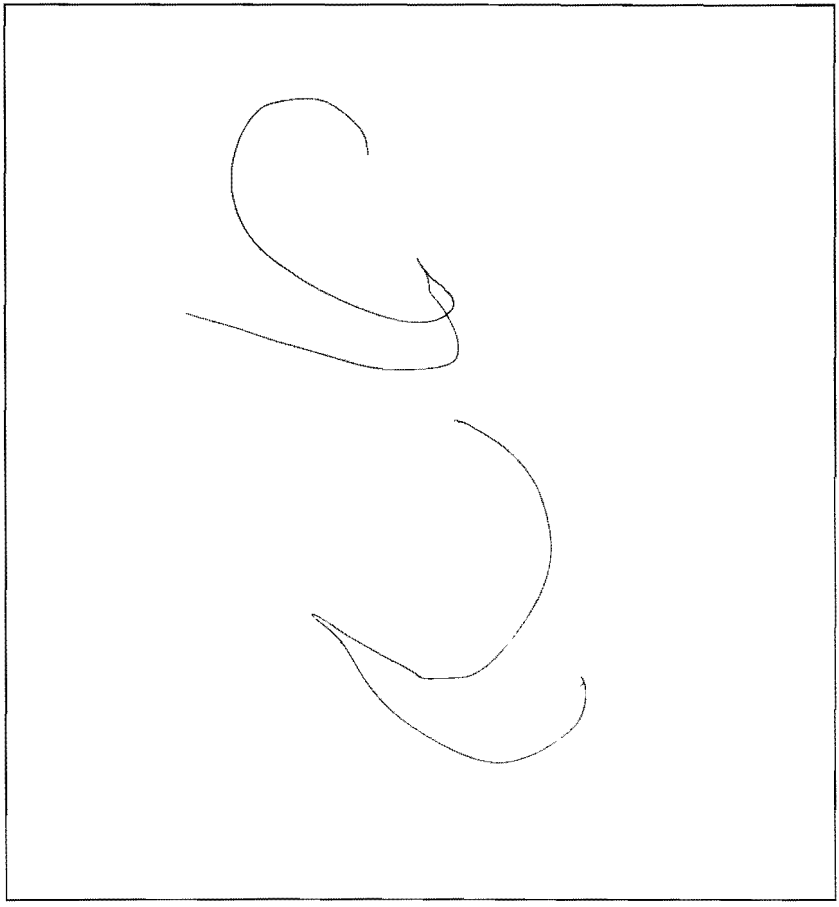


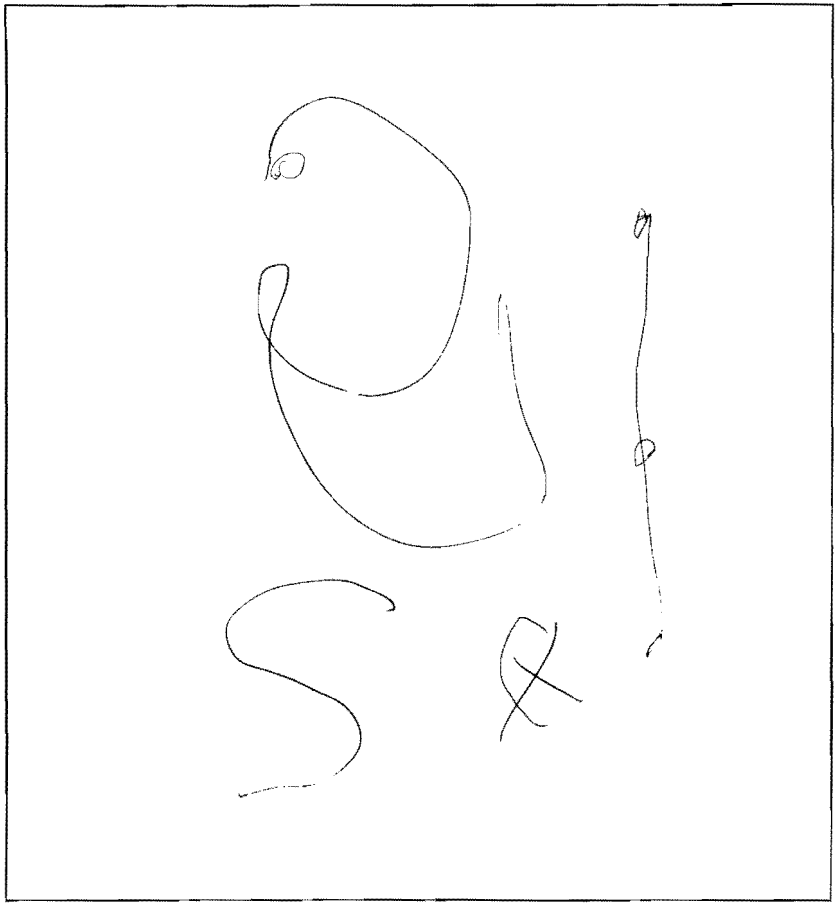
Figure 3–2
In the second one, he begins in the wrong spot.



dots and have him trace it as we said it aloud (see Figure 3–5). His progress after having done both skywriting and tracing the dots can be seen in Figures 3–6, 3–7, and 3–8.

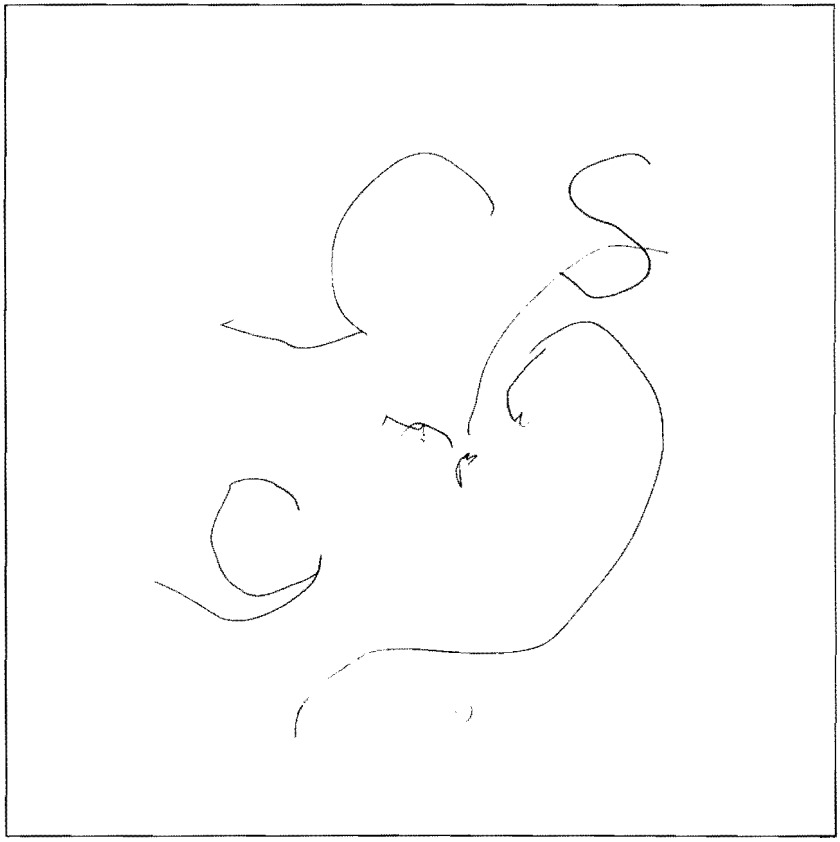
As you can see from the copies of our work, Joey sometimes would begin to write *S* incorrectly, so he would cross it out. Sometimes his *S* would look more like a *C* with a tail of a kite attached to it, but eventually he reached a point where he could write it correctly on his own three out of four times. Now, whenever he starts to write *S* backward, which is not often, I say, "Say it out loud as you write it, Joey, and you'll write it right." He does, and he does.

Figure 3–3
More false starts attempting *S*.



After Joey could write *S* with some confidence, he had more interest in other letters and in writing. One day Joey had a renewed interest in *Skalor Smells* and decided that he wanted to write *SMELLY*. (Figure 3–9). His first attempt at *S* is a rather primitive one, which he could see for himself. The corrected one is next to it. His *M* is a series of jagged peaks and valleys. His *E* is a bit disconnected, but still recognizable. Running out of room at the right side of the paper (which happens to him a lot), Joey wrote a nice *L*, which he had to squeeze in between the *E* and the *M*. His second L appears below the first. The *Y*, a rather forced, strangled affair, is

Figure 3–4
More attempts at *S*.

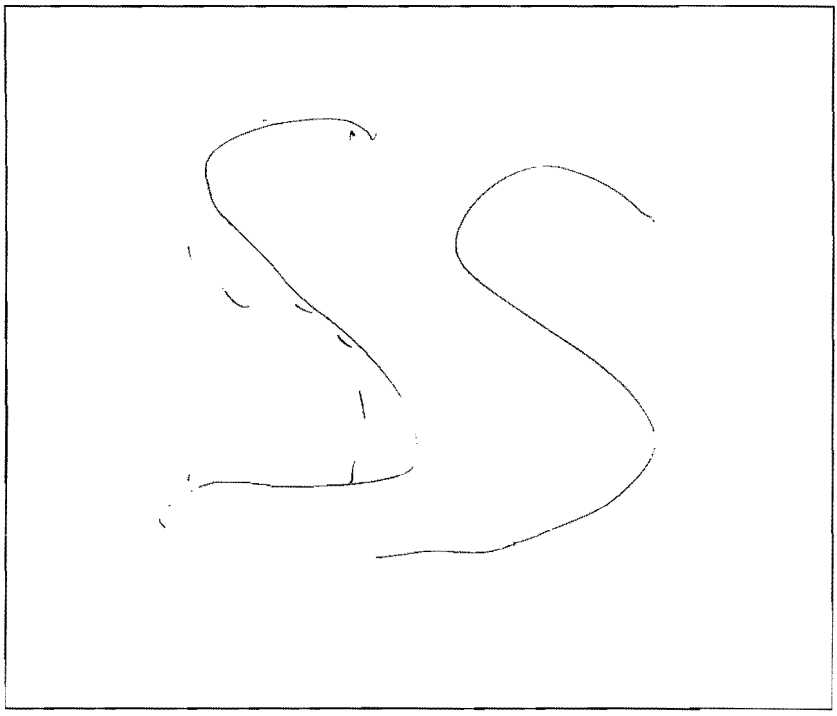


below the second *L*. Joey and I are probably the only two people in the world who would recognize these markings as the word *SMELLY*, but to us they represented a triumph. (The creature on the left side of the paper is Joey's self-portrait.)

The second attempt at *SMELLY* began with Joey writing his famous backward *S* (Figure 3–10). He immediately recognized it as wrong and began again. His *M* is much better this time, but he still ran out of room on the page. He wrote the *E* and finished the word writing the letters in order—*L L Y*—but they go from right to left.

His next attempt (Figure 3–11) is even more recognizable, but his spacing problems are obvious. In the next example (Figure 3–12), he finally wrote all the letters to *SMELLY* in order from left to

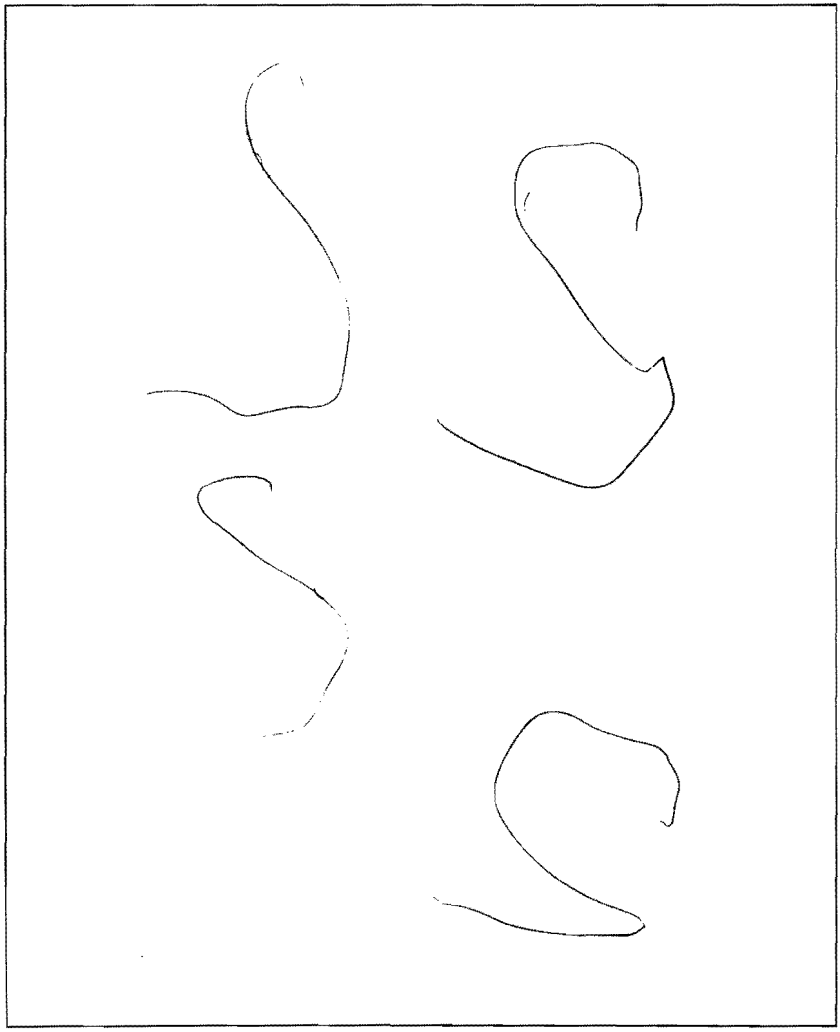
Figure 3–5
Tracing the dots after skywriting.



right, the only glitch being an extra "arm" on the *E*. The last attempt (Figure 3–13) looks fine except for a slightly deformed *Y*. That "text" was displayed proudly on his parents' refrigerator for many weeks.

I took the time to relate this rather involved anecdote because it reinforced what Frank Vellutino had said about learning more from tutoring one student than from anything available in professional journals. From Joey I learned several things. First, from watching him struggle to articulate thoughts he clearly had but could not find the words to express, I knew that he had extreme linguistic recall difficulties. I also found out the hard way that O-G methods were by themselves inadequate, as were practices based on whole language assumptions of language acquisition. No matter how fascinating, books and an intense desire to read and write would not be enough to provide him with the phonological keys necessary for literacy. Intriguing stories alone do not provide sufficient clues for children

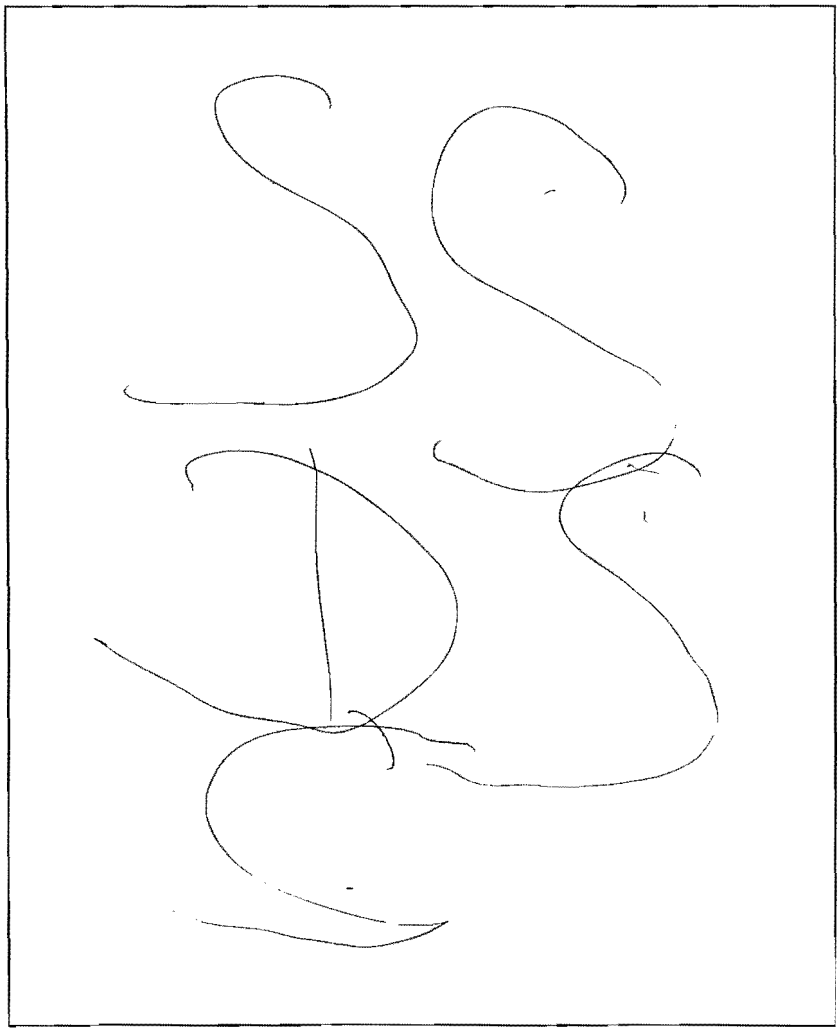
Figure 3–6
Still some errors, but getting better.



like Joey, who loved the books but could not read a word. (His four-year-old brother, by the way, *is* learning to read just by being exposed to books he likes.)

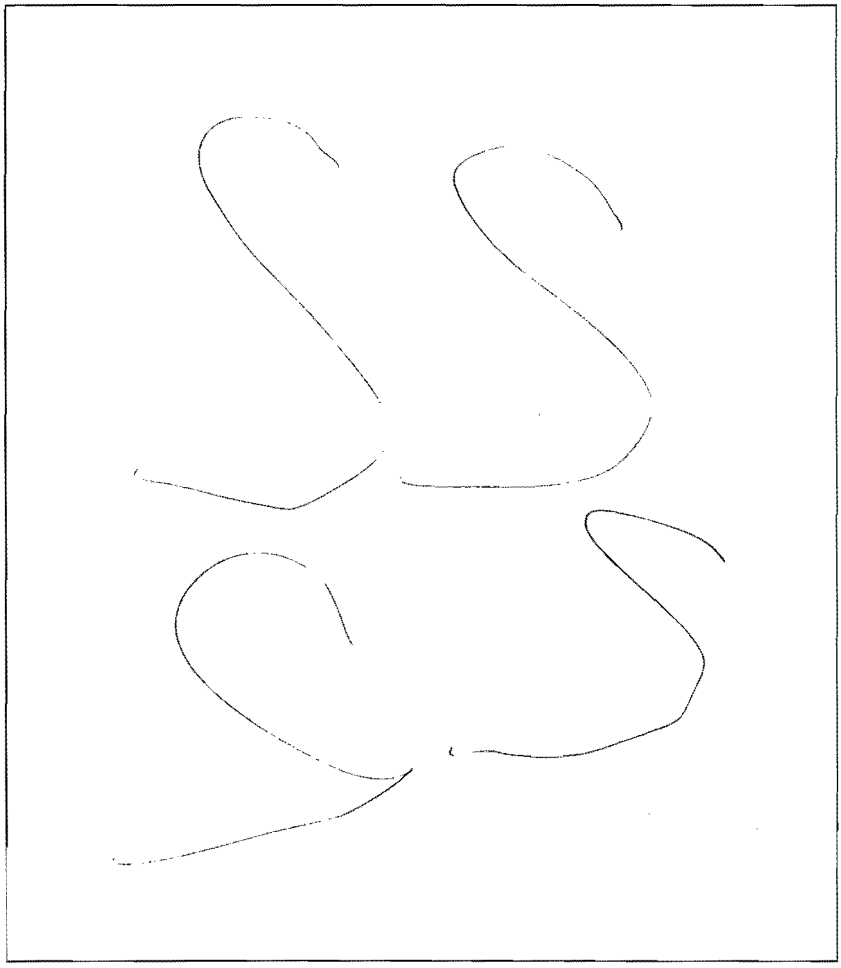
Similarly, programmed lessons and out-of-context instruction, however well prepared and presented, are not enough because the child is not engaged in the learning. Joey did not *care* that /a/ is the

Figure 3–7
Getting better.



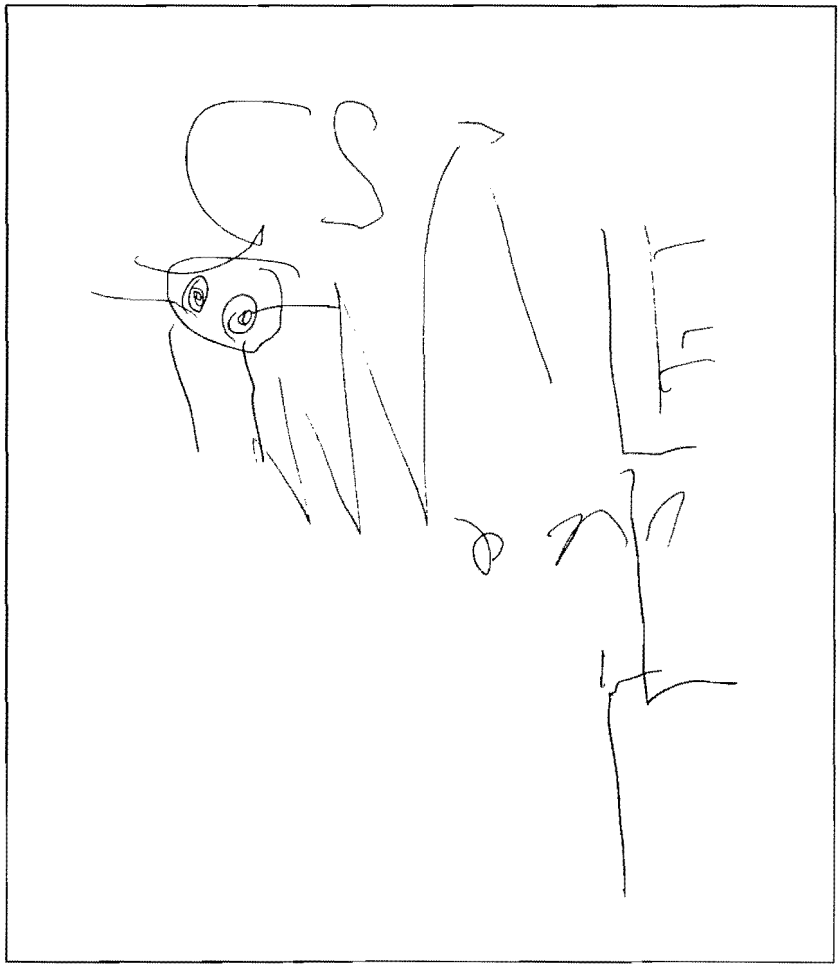
sound in *apple* because he is not particularly interested in apples. He *wanted* to learn *S*, however, because it would help him write about smelly Skalor. He subsequently learned *T* rather easily because it was the first letter in Transformers and in Teenage Mutant Ninja Turtles. Incidentally, the first time he remembered to say the *tee* in *teenage*

Figure 3–8
Now he begins in the right spot.



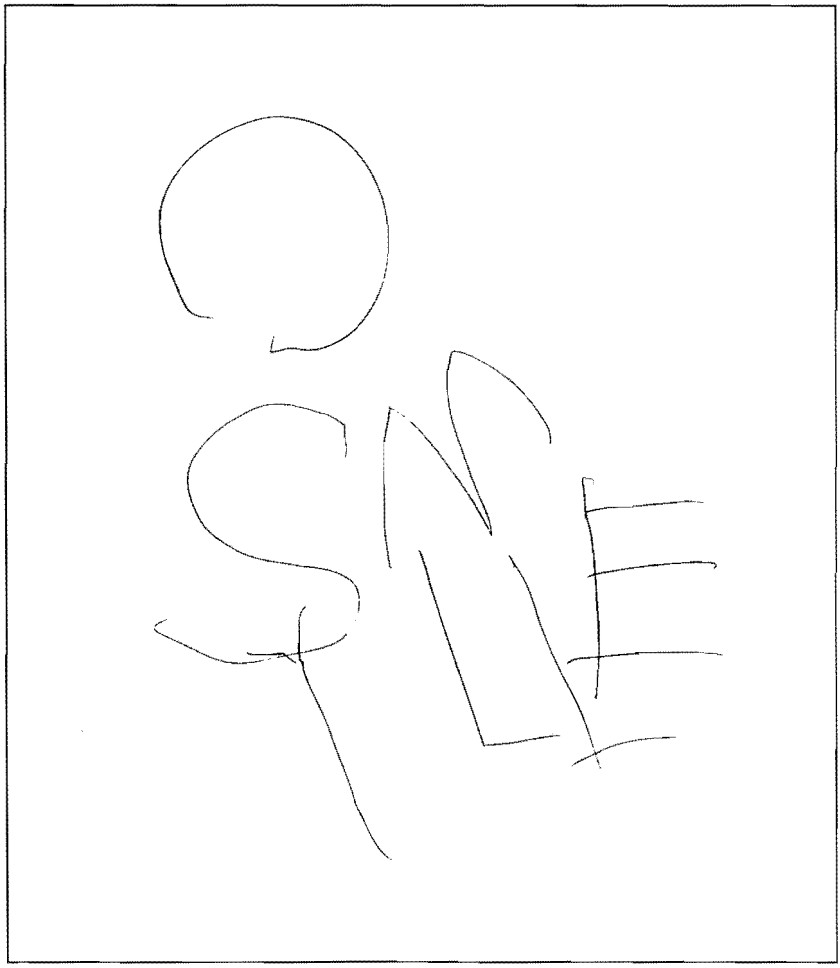
was through a multisensory, associative link: his mother had to pantomime the act of drinking tea out of a cup. This way of learning is consistent with what Vygotsky writes in *Mind in Society* regarding human beings' penchant for building monuments to remember events or tying knots in handkerchiefs as reminders: "The very essence of human memory consists in the fact that human beings actively remember with the help of signs" (1978, 51).

Figure 3–9
Joey's first attempt to write *SMELLY*.



What I learned, and am learning, from Joey is that when he learns, it seems to be through an individualized combination of multisensory techniques, such as skywriting and auditory and visual association, coupled with an intense interest in what the symbols stand for—in this case, the infamous Skalor. I should qualify my conclusions here by pointing out that they are based on my experience as one tutor working with one student. However, there

Figure 3–10
Second attempt at SMELLY.



does seem to be a need for *both* meaning-based and multisensory instruction, not perhaps for all children, but certainly for learning disabled ones.

A successful educator who seems also to have used different pathways to learning is Paulo Freire, often cited for his liberatory learning methods, but not often recognized as a teacher who combined his politically based pedagogy with a highly structured, explicit approach similar to that used in the O-G methodology. As

Figure 3–11
Getting better. The spacing is off.

Figure 3–12
Still trying. Too many "arms" on *E*.

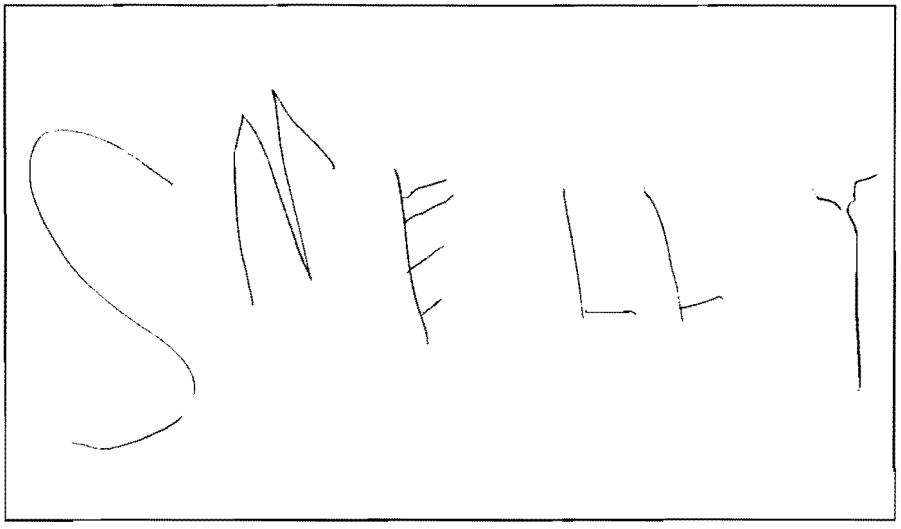
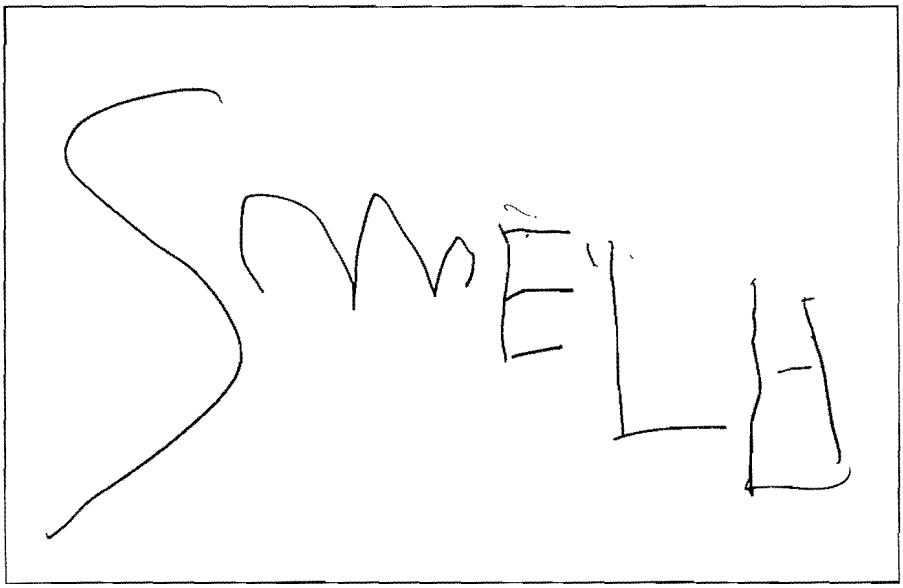


Figure 3–13
Joey's triumphant writing of *SMELLY.*



we have seen, a typical lesson in O-G begins with a review of sound symbols which are written on flash cards called a "card pack." Students are introduced to new words, which they are then asked to use in a series of sentences or in a paragraph. Freire too has exercises in his workbooks that present words such as *hoe, sowing, source,* and *knowledge,* followed by a paragraph and sentences in which the students use those words (Freire and Macedo 1987, 71). Like Orton-Gillingham, Freire uses careful sequencing of words, wall charts, word lists, and direct instruction about syllabification. His "generative words" are carefully chosen not only for their political interest but for the range of phonemes they will provide as a building block toward multisyllabic words. Orton-Gillingham relies on carefully presented "sounding out" techniques. So does Freire. Like Orton-Gillingham, Freire uses flashcards, called "discovery cards," on which are written the high-interest, politically and emotionally charged words that would get his adult students' attention. These words were chosen both for their critical importance *and* for their phonological advantages—they could be broken into phonemes, quite explicitly, and used to build other words in the reading vocabulary of the peasants he studied. In the same way O-G

methods use the visual and other sensory inroads to learning, Freire uses slides and oral discussion to supplement the visual reading. (For a more in-depth discussion of Freire's classroom methods, see Freire and Macedo's *Literacy: Reading the Word and the World.*)

How, then, do theories about reading acquisition and the illustration of a little boy's symbolic mastery of his Transformer villain Skalor impact on college writing teachers? What is suggested is the importance of *both* explicit, multisensory teaching methods *and* engaging, student-centered texts to the learning of LD students. Simply exposing students to "great works" or to provocative political essays and providing opportunities for them to write will likely *not* be enough for LD students to develop sophisticated written discourse. On the other hand, structured grammar and spelling exercises not connected to anything meaningful in the students' lives are likely to be a waste of everyone's time. Joey learns, and probably LD college students learn, when multisensory links and a high interest in the subject combine. Chapter Four gives the perspectives of three LD college students and their stories of how they learn. Chapter Five suggests how writing instructors might develop interesting, multisensory, flexible class sessions and assignments for students who learn differently.