How Should We Teach Our Children to Write? Cursive First, Print Later!

By Samuel L. Blumenfeld

For the last six years or so, I have been lecturing parents at homeschool conferences on how to teach the three R's: reading 'riting, and 'rithmetic. I explain in great detail how to teach children to read phonetically through intensive, systematic phonics. But when it comes to writing, I have to explain to a very skeptical audience why cursive writing should be taught first and print later.

I usually start my lecture by asking the parents if they think that their children ought to be taught to write. I explain that many educators now believe that handwriting is really an obsolete art that has been replaced by the typewriter and word processor, and that it is no longer necessary to teach children to write. They imply that if a child wants to learn to write, he or she can do so without the help of any school instruction.

However, I've yet to meet any parents who have been sold on such daring, but questionable, futurist thinking. They all believe that their children should be taught to write. And, of course, I agree with them. After all, no one knows what needs their children will have for good handwriting twenty years hence. Also, you can't carry a two-thousand-dollar laptop or a typewriter, everywhere you go. The question then becomes: How shall we teach children to write? And my answer is quite dear: Do not teach your child to print by ball-and-stick, or italic, or D'Nealian. Teach your child to write a standard cursive script. And the reason why I can say this with confidence is because that's the way I was taught to write in the first grade in a New York City public school back in 1931 when teachers knew what they were doing.

In those days children were not taught to print. We were all taught cursive right off the bat, and the result is that people of my generation generally have better handwriting than those of recent generations. Apparently, cursive first went out of style in the 1940s when the schools adopted ball-and-stick manuscript to go with the new Dick and Jane look-say reading programs. Ball-and-stick was part of the new progressive reforms of primary education.

But ball-and-stick has produced a handwriting disaster. Why? Because by the time children are introduced to cursive in the third grade, their writing habits are so fixed that they resent having to learn an entirely new way of writing, the teachers do not have the time to supervise the development of a good cursive script, and the students are usually unwilling to take the time and do the practice needed to develop a good cursive handwriting.

The result is that many youngsters continue to print for the rest of their lives, some develop a hybrid handwriting style consisting of a mixture of print and cursive, and some do develop a good cursive because they'd always wanted to write cursive and had been secretly practicing it for years without their teachers' or parents' knowledge.

Apparently, all of those schools that introduce cursive in the second or third grade must believe that it has some value, or else why would they teach it at all? The problem is that by requiring the students to learn ball-and-stick first, they create obstacles to the development of a good cursive script.

The reason for teaching ball-and-stick first, we are told, is because first graders do not have the motor skills or muscular dexterity in their fingers to be able to write cursive at that age. But that argument is totally false. Prior to the 1940s virtually all children in public and private schools were taught cursive in the first grade and virtually all learned to write very nicely. All were trained in penmanship and did the various exercises - the ovals, the rainbows, the ups and downs - that helped us develop good handwriting. We were also taught how to hold the writing instrument (or stylus) correctly, cradled between the thumb and the forefinger (also known as the index finger) with the tip of the writing instrument resting on the long finger next to the forefinger, in a very relaxed position, enabling a writer to write for hours without tiring.

On the other hand, when a child is taught to print first, the writing instrument is held straight up with three or four fingers in a tight grip with much pressure being exerted downward on the paper placed in a straight position. When these children are then taught cursive in the second or third grade, they do not change the way they hold the writing instrument because a motor or muscular habit has been established that is not easy to alter. That is why so many children develop poor cursive scripts because of the way they hold their pens. Children do not easily unlearn bad habits. Which is why I tell parents that there are two very important no-no's in primary education: do not teach anything that later has to be unlearned, and do not let a child develop a bad habit. Instruct the child to do it right from the beginning.

How Cursive Helps Reading

A question most often asked by parents when I assert that cursive should be taught first is: won't learning cursive interfere with learning to read printed words? The answer is: not at all. All of us who learned cursive first had no problem learning to read print. In fact it helped us. How? Well, one of the biggest problems children have when learning to read primary-school print and write in ball-and-stick is that so many letters look alike - such as b's and d's; f's and t's; g's, q's, and p's - that children become confused and make many unnecessary reading errors. In cursive, however, there is a big difference between a b and. a d. In cursive writing, a b starts like an l while a d begins like writing the letter a. In other words, in cursive, children do not confuse b's and d's, because the movements of the hand make it impossible to confuse the two letters. And this knowledge acquired by the hand is transferred to the reading process. Thus, learning to write cursive helps learning to read print.

Another aid to reading is that cursive requires children to write from left to right so that the letters will join with one another in proper sequence. The blending of the sounds is made more apparent by the joining of the letters. In ball-and-stick, some children write the letters backwards, and often the spacing is so erratic that you can't tell where one word ends and another begins. Cursive teaches spatial discipline.

Another important benefit of cursive is that it helps the child learn to spell correctly since the hand acquires knowledge of spelling patterns through hand movements that are used again, and again in spelling. This is the same phenomenon that occurs when pianists or typists learn patterns of hand movements through continued repetition.

Another question often asked by mothers of six-year-olds is what will their children do when asked on a job application to "please print." My answer is that I don't advocate not teaching a child to print, I simply say teach cursive first, print later. Besides, that child will have plenty of time to learn to print between the first grade and applying for a job as a teenager.

The Ease of Cursive

I am often asked: "Isn't cursive harder to learn than print?" No. It's just the opposite. It is difficult, if not unnatural, for children to draw straight lines and perfect circles, which is required in ball-and-stick, when they would much rather be doing curves and curls. In fact, all of cursive consists of only three movements: the undercurve, the over-curve, and the up and down. That's all there is to it.

Another important point is that it takes time and supervision to help a child develop a good cursive script, and one has that time in the first grade, not the third grade. The first-grade child may start out writing in a large scrawl, but in only a matter of weeks, that scrawl will be controlled by those little fingers into a very nice manageable script. Practice makes perfect, and children should be given practice in writing cursive.

If you've wondered why your grandparents usually have better handwriting than you do; well now, you know the answer. If you teach cursive first, you can always develop a good print style later. But if you teach print first, you may never develop a good cursive style. Thus it is absolutely essential to teach cursive first.

Also, by concentrating on the development of a good cursive handwriting, you eliminate the nonsense of first starting with ball-and-stick, then moving to slant ball-and-stick, or some other transitional script, finally ending up with cursive. Children will only make the effort to learn one primary way of writing which they will use for the rest of their lives. They don't need to be taught three ways, two of which will be discarded.

Incidentally, I have no objection to children drawing letters on their own when learning the alphabet. But once they start learning to read, formal instruction in cursive should begin.

Cursive Helps the Left-Handed

Also, it may surprise the reader to learn that left-handed children gain special benefits from learning cursive first. When left handed children are taught ball-and-stick first, their tendency is to use the hook position in writing since the stylus is held straight up and the paper is also positioned straight. This means that, as the child proceeds, printing from left to right, the child's arm will cover what has already been written. This can be avoided if the left-handed child learns to write from the bottom up, the way right-handed children write. But this is difficult, if not impossible, to do when printing ball-and-stick.

However, if a left-handed child is taught to write cursive first, he or she must then turn the paper clockwise and must write from the bottom up, since it is impossible to use the hook position if the paper is turned clockwise. Right-handers, of course, turn the paper counter-clockwise. But left-handers are quite capable of developing as good a cursive handwriting as any right-hander by writing from the bottom up. (In fact, the secret of good handwriting may be in the position of the paper.)

All of this must lead to one simple conclusion: teach cursive first and print later, There are few things that help enhance a child's academic self-esteem more than the development of good handwriting. It helps reading, it helps spelling, and because writing is made easy, accurate, and esthetically pleasant, it helps thinking.

As Francis Bacon once said: "Reading maketh a full man. . . and writing an exact man."

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Cursive Alphabet Style Recommended by Dr. Sam Blumenfeld

a.a. Bb- Cc Dd Ee f Dg Hh Di Jj k Il Mm Nn JoPp 29 Rr Ss t Un Vor Hw Lox yy gy

Addendum A

Should people with dysgraphia use cursive writing instead of printing?

For many children with dysgraphia, cursive writing has several advantages. It eliminates the necessity of picking up a pencil and deciding where to replace it after each letter. Each letter starts on the line, thus eliminating another potentially confusing decision for the writer. Cursive also has very few reversible letters, a typical source of trouble for people with dysgraphia. It eliminates word-spacing problems and gives words a flow and rhythm that enhances learning. For children who find it difficult to remember the motor patterns of letter forms, starting with cursive eliminates the traumatic transition from manuscript to cursive writing. Writers in cursive also have more opportunity to distinguish b, d, p, and q because the cursive letter formations for writing each of these letters is so different. (Excerpt from an article on handwriting problems on The *International Dyslexia Association* web site, www.interdys.org. The fact sheet is by Diana Hanbury King and is the summary of work by Ruthmary Deuel, M.D., Betty Sheffield, and Diana Hanbury King.)

ADDENDUM B

From Teaching Language-Deficient Children:
Theory and Application of the Association Method for Multisensory Teaching
by N. Etoile Dubard and Maureen K. Martin
Educators Publishing Service,
Cambridge, Ma. 1994, pp. 47f

Cursive Script

Another distinctive feature is the use of cursive writing from the beginning level and throughout the entire program (McGinnis 1963). The rationale for using cursive writing is that it gives the child a way of knowing that the letters for which he/she learned speech production can be arranged to become a word representing a thing. Manuscript does not offer such a means of informing the child that certain parts form a whole. The normal child's central nervous system adequately processes information so that this awareness exists. In aphasic and other children with language learning disabilities, the processing is not adequate to the task. Almost all of the professional literature related to children with learning difficulties indicates there are common reversals, inversions, and confusions regarding such written patterns as b/d, d./g, m/w, and saw/was, etc. While cursive script may not eliminate all difficulties, it helps reduce them. The fact that some schools for the deaf have employed cursive writing from the beginning of the instructional program indicates that the merits of cursive writing over manuscript have been recognized.

Heyman (1977) promoted cursive writing in this way:

Mastering cursive writing has many benefits for special children. It permits the child to see each word as an integral unit, helps solve spatial problems for students who run all words together, and eliminates serious letter reversal He learns immediately that in cursive writing letters are not isolated, but are always connected to form words. (106)

Stasio (1976) reported these results from a study on severely and profoundly retarded children:

- 1. Children functioning at a severely and profoundly retarded level could use cursive letters more effectively than they could manuscript.
- 2. When using cursive letters, fewer errors were made in right-to-left direction than with printed letters.
- 3. There were fewer errors made in letter reversal among cursive letters than with printed ones. (55)

In relation to his own teaching experiences, Stasio also reported that:

I noticed in printing the letter A, a child must use three different motions as well as relocate the starting point of the printed letter in order to complete it. In cursive writing the A can be formed in one continuous motion. This continuous motion is related to all cursive letters except for the letters t and x, which require the child to remove his pencil from the paper twice. But this does not involve relocating any given point to complete the letter. When writing the printed alphabet, a child has to remove his pencil from the paper and relocate the starting points no less than 55 times. (55)

In a study conducted with profoundly deaf children, Martin (1987) found a significant difference in the children's recognition of cursive letters and words over the same in manuscript.

Serio (1968, 67-68) promoted the use of cursive for these reasons: (1) the rhythm involved in cursive writing lends itself to a more efficient use of movement, (2) proper pacing is aided in the writing of words, (3) a single method approach eliminates the problem of retraining, and (4) the forms of individual letters in cursive writing seem to be more independent of confusion due to directionality. Early (1973, 105) suggested that with the use of cursive writing "the child more readily experiences the total form or shape of a given word as he monitors the kinesthetic feedback from his writing movements."

When implementing the Association Method, the letter formations of cursive script should be as simple as the teacher is able to produce. Simple, clear letter formation which restricts the use of unnecessary loops and carefully avoids fancy letters will reduce the possibility of confusion which might stem from known or undetected visual perceptual differences. Children are taught to read print. The time at which this is begun varies according to their needs and abilities. Concern that the children may encounter difficulty in learning to read manuscript later is unjustified. Many teachers using the procedures have reported that their pupils made transitions from reading cursive to manuscript without any difficulties. Prior to 1925, it was common practice to teach cursive writing exclusively in regular education classrooms. This did not hinder the development of reading manuscript.

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ADDENDUM C

What is it about Cursive? by Randy Nelson of *Peterson Directed Handwriting*

If you are 7 or 8 years old you are probably experimenting with cursive handwriting. Most second graders would gladly give their bubble gum to a "big kid" who would show them how to do it. What is it about cursive that is so compelling for children? Why does a toddler, still shaky with walking, insist on crawling up the stairs?

The two questions really are related. Cursive handwriting offers the same irresistible challenge to a grade school child as the stairs offer to our crawler.

Actually, the challenge of cursive writing continues to entice people well beyond those early years. And, that motor-learning challenge is probably the most important reason *FLUENT* cursive handwriting should be an important objective in our grade schools. The brain responds to the movement challenge by changing the way it is processing the symbols. When *FLUENCY* is not an objective for the instruction the important challenge is lost.

Are school policy makers right? Are handwriting lessons no longer deserving of priority in the school curriculum? That opinion prevails because so many teachers, particularly at intermediate levels, say time spent on handwriting makes no visible difference on student homework papers and book reports. But, policy makers fail to ask if that observation is the result of teaching methods prescribed in a handwriting program.

Handwriting instruction was relegated to the curriculum closet because major publishing companies offering handwriting programs on which teachers depend, eliminated fluency as an objective. Those publishers put forth a multitude of programs based upon a strategy that has been failing consistently for decades. Trace & Copy activities on the pages of a workbook do not include a challenge to move fluently. The programs rarely refer to fluency or explain how a teacher could measure it. They do not suggest that fluency, the desired end result of instruction, should be measured and tracked as evidence of learning.

At some point each parent and teacher will need to decide on a course of action. Our students are expected to be able to use handwriting every day. Here is some food for thought from someone who has spent over twenty years as a handwriting specialist while doing research on teaching techniques for handwriting skills.

Cursive handwriting offers huge advantages over print writing for practical communication. However, this is only true when a person has learned the skills necessary to use it easily. This means it is more accurate to say that it **should** offer great advantages. It fits the way our muscles work for fluent handwriting – and fluency should be the real objective, no matter what the style of letterform.

A Bit of History

When the tools for writing were pointed nibs affixed to the end of sticks or feathers cut to become quill pens, the cursive advantage was actually a necessity. These tools readily produced blotches instead of strokes when a little downward pressure was applied. Cursive shapes were produced by sliding the pen sideways. Our cursive alphabets were an ingenious design allowing us to take advantage of the tools of the time. Without them our Nation's effort to educate the masses might well have failed.

However, each student had to develop a certain degree of physical skill to use the tools with any success. The invention of the pencil changed things dramatically. Inkwells, blotters and nib pens disappeared and the effort for physical skill development was pretty much forgotten as teachers discovered that the pencil allowed kids to function with little physical training. The advantage of the fluency challenge slipped away, along with the physical skill needed for fluency, as the penmanship effort was slowly eliminated from the school curriculum.

The print alphabets were introduced in our schools after the pencil was available. At the time, it was decided that the shapes of print letters, very much like those blocks of type used by printers, offered an advantage for learning to read. There was no clear consensus and the print/cursive argument lasted for many years. Eventually, more schools had adopted the print alphabet for introducing symbolic language.

Children seemed to have no trouble learning to draw print letters with the pencil, a task that would have been impossible with a nib pen. All of the movements used were downward - a direct route to blotch city. And, children could draw legible letters with little need for good position skills that are very important for fluency. Because fluency was no longer an objective, education never saw the debilitating effects caused by the lack of physical skill instruction.

Does Cursive Offer an Advantage Today?

Student interest aside, are there good reasons to teach cursive today? There are a number of reading specialists who are now convinced that **cursive should be taught in the beginning**. They believe that it offers advantages over print writing for reading skill development. However, they and most of the publishers of handwriting books, do not give much attention to fluency as an objective. They simply provide a means for allowing children to learn how to draw letters. Physical training is not really considered so they have not noticed the brain research focused on physical learning.

Which is it, print or cursive?

An understanding of the actual difference between print and cursive will be helpful. It is not what most people think - joining versus not joining. The difference between cursive and print styles lies in the **movements used to create the forms** (start point and directionality). The difference between the two lies in the production *process*. Look more closely at adult handwriting product that is produced rapidly, and you will see that many people who use print letters are joining many of them. It's just easier to slide and join when you are paying more attention to word selection than you are to shaping letters.

The decision you face is not really a simple choice of letter shape. What we want and need is fluency. We want our child to be able to use handwriting as a tool - put thoughts on paper quickly and easily. What you really need to decide is which *process* will best equip your student to put thoughts on paper easily.

Ask the MD or hospital administrator where audits of unreadable patient files and prescriptions present a serious problem. Legibility is very important. The need for legibility inserts a blockade to increasing the production rate. Poor physical position habits cause control issues that affect legibility no matter what alphabet is used by the writer. The position skills that are not necessary for using print at the entry level would be necessary to learn to produce cursive forms with smooth movements.

A Process for Fluent Legibility

Fluent handwriting is accomplished with a special kind of movement controlled mostly by an internal model residing in the brain. While visual feedback, an external mechanism, does play a part, it is not the main character. As movement patterns for letters and words are internalized, the writer relies less on the external system and fluency improves. In essence, the motor system automates the movement process needed to produce words, phrases and sentences on paper.

The fact is, there must be a lateral movement between letters because our language moves from left to right. When the pen is touching the page it causes a stroke no matter what the "style" of letter. When we write fluently we tend to eliminate lifts - the style of letter has little to do with it. Joined print can be difficult to read because print letters are not designed for joining. The extra strokes detract from legibility. With cursive forms, designed for joining, the lateral strokes enhance legibility.

Joining is the "nonvisual advantage" of the cursive style. It lends well to more fluent production because there is less demand for visual feedback to control spacing and size. With practice, responsibility for these qualities of legibility is transferred to the internal model and its special fluent movement.

There is surprising evidence indicating that the motor challenge presented by learning a joined handwriting process, actually helps the brain learn how to get its various structures to work together more efficiently.

Another simple advantage also makes sense. Six controlled movements in different directions are required to produce legible lowercase print forms. The lowercase cursive alphabet is produced with just three movements. Wouldn't you think that three would be easier to control than six?

There is one fact that educators and parents should recognize. A child who learns how to use the internal control system effectively will have a powerful advantage when it comes to using our symbolic language as a tool for learning. The right kind of handwriting lesson offers the kind of motor-learning activity that stimulates the brain to build pathways for better reading, writing and yes, even keyboarding.

Fluency is the real need. When choosing materials for teaching, look at the *process*. How does the program help you to teach fluency? If lessons consist of *trace and copy* on student pages, **fluency is not addressed.**

If your child is not reading as well as you would like, teach fluency using handwriting lessons designed for that goal. You will be surprised how easy it is. Contact the author toll free at: 1-800-541-6328, or by email to <mrpencil@peterson-handwriting.com>. References:

(From Endangered Minds) Dr. Jerre Levy to Dr. Healy: "I suspect that the normal human brains are built to be challenged and it is only in the face of an adequate challenge that normal bihemispheric brain operations are engaged." Dr. Levy goes on to say: "...children need a linguistic (auditory) environment that is coordinated with the visual environment they are experiencing."

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Find much more information, at www.peterson-handwriting.com.

ADDENDUM D

"Manuscript Versus Cursive Handwriting"

Most children first learn to print, and only at age seven or eight are they introduced to cursive script. Considering how infrequently students actually write, the neurological encoding of the writing task is undoubtedly fragile, subject to breakdown or significant loss. We may predict, therefore, that some college writers will have regressed to an earlier stage of writing production, a stage characterized by exclusive or primary use of printed letters. Other, more capable writers will use only cursive because it allows them to generate ideas more quickly in written forms. Still other students will switch between these forms of handwriting, perhaps to adjust speed of text production or merely as an uncontrolled means of generating text.

My prediction about the use of manuscript or cursive establishes that speed of text production would match writing ability: the faster a student writes, the more likely it is that the student writes well. In other words, the less capable writers will favor manuscript for its relatively low speed of production. In neurological terms, their prose is interrupted by the time it takes to lift a pen from the page, whereas in cursive the tracing of letters is more continuous. The variable pace of text production determines the writer's congruence with the relatively fast speed of ideation, a speed that normally adjusts to the quick production of speech. The use of manuscript or the incompetent use of cursive becomes a serious disadvantage for the less capable writer, who not only struggles to generate written form but must also compensate for differences in fast ideation speed versus slow production speed. (62)

From Physical Eloquence and the Biology of Writing (1990) by Robert Ochsner.

Handwriting Is on the Wall

Excerpt from an article by Margaret Webb Pressler Washington Post Staff Writer, Wed. Oct. 11, 2006

The loss of handwriting also may be a cognitive opportunity missed. The neurological process that directs thought, through fingers, into written symbols is a highly sophisticated one. Several academic studies have found that good handwriting skills at a young age can help children express their thoughts better – a lifelong benefit. Children who don't learn correct technique find it harder to write by hand, so they avoid it. Schools that do teach handwriting often stop after third grade – right after kids learn cursive. By the time computers are more widely used in classrooms for writing, perhaps in fourth or fifth grade, many children already have decided they don't like to write.

In one of the studies, Vanderbilt University professor Steve Graham, who studies the acquisition of writing, experimented with a group of first-graders in Prince George's County who could write only 10 to 12 letters per minute. The kids were given 15 minutes of handwriting instruction three times a week. After nine weeks, they had doubled their writing speed and their expressed thoughts were more complex. He also found corresponding increases in their sentence construction skills.

But Graham worries that students who remain printers, rather than writing in cursive, need more time to take notes or write essays for the SAT. Teachers may say they don't deduct for bad handwriting in class, but research tells another story, he said.

When adults are given the same composition written in good handwriting and poor handwriting, "they still give lower grades for ideation and quality of writing if the text is less legible," he said.

Indeed, the SAT essays written in cursive had slightly higher average scores than those written in print, according to the College Board.

Article accessed on November 19, 2011 at: http://www.washingtonpost.com/wp-dyn/content/article/2006/10/10/AR2006101001475.html

Note by Internet Publisher: Donald L. Potter

February 24, 2006 - Odessa, TX,

Having successfully taught Dr. Samuel Blumenfeld's intensive phonics program, Blumenfeld's *Alpha-Phonics*, and his excellent companion cursive handwriting program in *How to Tutor*, I can testify to the practical wisdom of his essay "Cursive First."

I was taught cursive handwriting in first grade by Mrs. Pearl Monroe at the Cass Union Elementary School in southern Indiana back in 1953. She was also my father's first-grade teacher. She carefully taught us how to hold our pen correctly and write with a light grip and good flowing motion that made writing a most pleasant activity. I never used manuscript until I was required to teach it when I began teaching second grade in 1990. All of my high school and college notes are in highly legible cursive and written with a fountain pen. I used to joke about how everyone had a lump on their finger because they gripped the pen as if it were going to get away from them. I have always been able to write for hours without tiring.

When I taught second-grade bilingual, I always taught my students to write cursive using Sam's program, which is practically identical to the one I learned in first-grade. My students loved learning to write cursive. I wrote no manuscript on the blackboard. I teach cursive from the chalk or marker board **without** the use of workbooks.

For more valuable essays by Dr. Samuel Blumenfeld, visit the Education Page of my web site, www.donpotter.net. Also visit the new "Samuel L. Blumenfeld's Alpha-Phonics Reading Clinic:" http://donpotter.net/reading-clinic.html

You can purchase Blumenfeld's *Alpha-Phonics* from The Chalcedon Foundation.

I have taught the *Herman Dyslexia* method, which insists that cursive handwriting is a very helpful in curing or preventing dyslexia.

I would like to note that Sam's *Alpha-Phonics* program is excellent for practicing cursive handwriting because the students practice writing the same strokes repeatedly until they become automated thanks to the fact that the program is organized largely by spelling-families. Even if a child learned to read with another phonics program, *Alpha-Phonics* would be a good follow-up for both spelling and cursive handwriting practice.

The *Peterson Handwriting Company* has a fine cursive handwriting program that pays particular attention to handwriting fluency: www.peterson-handwriting.com

Historical Note: Manuscript (Ball & Stick) handwriting was brought to the United States from England in 1922 by Marjorie Wise, a specialist in teaching manuscript handwriting who taught at Columbia Teachers College. She was the first to teach that ball-and-stick should be taught before cursive. It took several years for her method to spread throughout the whole country. Mr. Blumenfeld (1931) and I (1953) both were still taught cursive first. (Don Potter).

Addendum B added 9/3/06, Addendum C added 1/2/07, Addendum D added 10/8/09.

The Cursive Road to Reading and Spelling

The Cursive Cure for ADHD

October 8, 2009

Starting with the 2009-2010 school year, I have expanded and enriched my tutoring instruction to focus on intensive cursive handwriting with phonics. I call the program, *The Cursive Road to Reading and Spelling*. The subtitle indicates my belief that we can help kids reduce their ADD and ADHD with cursive handwriting instruction. The result of the program with students with severe ADHD was so successful that I am using it this year (2010-11). I am also using it again in 2011-2012.

I want to acknowledge debt to Jeanette Farmer for her *Retrain the Brain* program that alerted me to the importance of the old Palmer handwriting exercises for curing ADHD and enabling students to overcome problems with focusing their attention, that were hampering their learning. Everyone interested in a non-drug cure for ADHD should visit her website: www.retrainthebrain.com.

My program teaches students correct grip and optimum cursive letter formation for more fluent (legible and fast) word transcription so they can maximize their learning experience. I use ideas from *Peterson Directed Handwriting* and the old *Palmer* method to facilitate the students acquisition of the A Beka cursive handwriting skills mandated by the Odessa Christian School where I am the Spanish and remedial reading teacher. I use the Zaner-Bloser terminology: Undercurve, Downcurve, Overcurve, Slant.

The backbone of the program is Samuel L. Blumenfeld's *Alpha-Phonics* programs which provides me with 3,033 different words and 723 sentences presented in a graded progression emphasizing spelling patterns. The program is intensive because the students need significant practice opportunities in order to fully automate the handwriting process.

Recently, I reread the following important email Mr. Blumenfeld sent me on October 23, 2005

Dear Don,

I'm delighted by the success you are having with the mother of the 7th grade boy. I strongly recommend teaching her cursive writing as soon as possible. She will have no problem distinguishing b's and d's in cursive. Also, cursive teaches directional discipline so that she will read w-a-s from left to right because that is the way the letters are connected.

Do not underestimate the effectiveness of teaching cursive as a means of teaching reading.

Sam

This page revised 1/5/2013.

Notes on Cursive Handwriting from The Gillingham Manual

I was trained early in my career as a teacher with the *Herman Dyslexia Method*, an Orton-Gillingham Method. Recently I decided to investigate the Orton-Gillingham Method further by reading the 1997 revision of *The Gillingham Manual:Remedial Training for Children with Specific Disability in Reading, Spelling, and Penmanship – 8th edition. I also took the excellent "Introductory Course" by Educational Publishing Services. Below are some important notes from the <i>Gillingham Manual*. Donald Potter, 3/4/12.

Cursive writing is the preferred form. It helps to reduce the likelihood of letter reversals. Production is quicker and copying from the board is easier since each letter is liked to the next one. ... The primary purpose of handwriting is to establish and reinforce automaticity of letter formation. (36)

Schools that begin teaching manuscript and change to cursive in the second or third grades cause irreparable harm. Dr. Orton repeatedly asserted that the impressions made on nerve tissue are never wholly eradicated. They are only whitewashed over. They linger on, confusing later impressions. This change in penmanship may often be seen in high school papers, where the manuscript form asserts itself in the middle of cursive words. (36)

His greatest help in studying a difficult word is to associate the *names* of the letters in correct order with their kinesthetic records as his hand forms them and his voice speaks them one by one. (37)

We continue to emphasize that an act is not properly learned as long as it requires visual supervision. A good rower can row just as well in the dark: her eyes merely direct her course, not the dip or pull of the oars. Knitting is not mastered as long as one must watch the needle draw the stitch through. A really skilled knitter can watch television while doing simple knitting. In the same way the writer's thoughts should not be hampered by attention to the form of the letters. ... A large number of halting writers have difficulty in reading and spelling as well. We have seen that poor spelling is often due to making one letter when another is intended; there is insecure linkage between kinesthetic and visual or auditor memory. While laying special stress upon the kinesthetic and visual or auditory memory, we can also be forming associations with visual and auditory records. While the student is copying the letter from the way it looks in her memory, she is sometimes asked to say its name, or at other times its sound, just as in the Association drill for spelling. Most of the copying and dictation exercises should be done without looking at the pencil while writing. (282)

There is much controversy over whether students should be taught to write using print or cursive – to much for us to address here. However, the case for cursive is strong.

There is no reason why cursive writing should not be taught from the beginning to all students. However, in the case of dyslexics there are several reasons for insisting on cursive. To begin with, in cursive writing there is no question as to where each letter begins – it begins on the line The confusion with forms is not merely a left and right reversal as b/d and p/q; it is also up and down reversals as with m/w and u/n; hence the uncertainty as to whether a letter begins at the top or the bottom. Second, spelling is fixed more firmly in the mind if the word is formed in a continuous movement rather than a series of separate strokes with the pencil lifted off the paper between each one. (Diana Hanbury King, Writing Skills for the Adolescent. Cambridge, MA: Educators Publishing Service Inc., 1985, p. 3)

Extracts with Special Reference to Cursive Handwriting from Betty Sheffield's 1996 Annals of Dyslexia article:

Handwriting: A Neglected Cornerstone of Literacy

[My comments are in brackets. Don Potter, 3/4/12]

This paper discusses the necessity for teaching children to have readable automatic handwriting. ... It is argued here that automatic legible writing is an essential basis for written expression.

THREE REASONS HANDWRITING MUST BE CAREFULLY TAUGHT TO ALL CHILDREN:

- 1. Handwriting allows access to kinesthetic memory, our earliest, strongest, and most reliable memory channel.
- 2. Serviceable handwriting needs to be at a spontaneous level so that a student is free to concentrate on spelling, and to focus on higher-level thought and written expressing.
- 3. Teachers judge and grade students based on appearance of their work, and the world judges adults on the quality of their handwriting.

LACK OF PREPARATION OF TEACHERS

Phelps and Stemple believe that many teachers in the early grade pay little attention to handwriting because they themselves have been given little training in methods of teaching it. The curricula in our schools are so packed with requirements that it is often difficult to include the basics. Although the time required for teaching handwriting is not so great, it has to be incorporated regularly into a class schedule. Novice teachers, if they teach the mechanics of writing at all, are often thrown upon the resource of using publishers' copybooks. They expect children to copy, self-teach, and internalize the material. And yet, without direct teaching, the attempt to learn writing often ends in disaster. Any 1st grade child can find and lock onto endless ineffective ways of scribbling around the same letter. Many cases of apparent dysgraphia are the result of inadequate teaching. [All the students coming to me for tutoring have received inadequate instruction in handwriting. I simply ask them to write the alphabet from a to z as fast as they can. Many third graders can barely manage 20 to 30 letters per minute! They have poor letter strokes and low legibility. I NEVER use copybooks to teach handwriting. I teach each cursive stroke directly from the chalkboard, and then show how to form and connect the letters. Fortunately, I was taught cursive-first in first-grade back in Indiana in 1953 by a highly trained and competent teacher, who was still teaching cursive-first! I simply taught what I was taught. Most students and teachers today are not so fortunate. I am also fortunate to teach at an elementary school that teaches fluent-cursive first from kindergarten up.]

BENEFITS AND DRAWBACKS OF USING MANUSCRIPT AS A FIRST WRITING SYSTEM

In America, teaching manuscript as opposed to cursive is a product of this century. ... Reading specialist, Marjorie Wise, in 1922, brought print script to America where it was eagerly adopted and called manuscript. To American teachers, letters in books appeared to share a closer visual connection to manuscript than to cursive print. Although Wise later recognized and regretted the reversal errors that resulted from teaching manuscript, she was too late to halt its widespread use.

Children attending schools using manuscript must be taught as thoroughly and carefully as possible. Carelessly taught manuscript presents students with a high potential for inappropriate learning. [I taught Romalda Spalding's manuscript handwriting method one year, but went back to teaching cursive. It is a good method, if one is unfortunate enough to have to teach manuscript.] Reversals that do not exist in cursive may be practiced and overlearned in manuscript writing. According to Allston and Taylor, "Practice makes permanent." To unlearn errors is always more difficult than to start fresh at the beginning. The early effects of casual teaching may always remain, like radio static, to disturb future progress.

Some of the most obvious arguments against using manuscript to teach beginning writers should be explored. A glaring problem with learning manuscript letters is that, even when correctly formed, they begin in so many different locations. On primary paper we teach that an "l" starts at the top line, and "i" starts at the middle line, an "f" starts in the space between the top and the middle line, and an "n" and an "h" start in different places and are visually distinguished only by a short length of line. An unmonitored child can find numerous other places to begin a letter. In spelling and expressing writing, a child is forced to lift his or her pencil and make a decision of where to set it down again before writing each letter. Often children avoid analysis by starting at the base line for all letters and stroking away from their bodies. Again, an unmonitored child may have several ways of writing the same letter. For a dyslexic child in particular, the act of writing manuscript may become a series of letter-by-letter decision about where to begin. This delicatessen of motor forms may make a later switch into cursive overwhelming. [I have been appalled to see students write i, l, and other manuscript letters starting on the base line. They will form the b and d both starting with a line. I see this all the time. I assume they have received NO directed handwriting instruction and were left unmonitored to create their own manuscript strokes. One student brought me his cursive work, which was pretty lame: an old photocopy of the *Pledge to the Allegiance* in D'Nealian with no explanations of the strokes. I asked him to write the alphabet in cursive, but he was totally lost. The assignment was perfunctorily given simply to fool the principal into thinking the teacher was teaching some cursive. This is typical and lamentable.]

For teachers who need specific direction in teaching of manuscript writing, there are excellent multisensory programs that deal with the subject in great detail [Two programs are mentioned; among them, I taught the Spalding *Writing Road to Reading*.] These programs are designed to minimize reversals, making kinesthetic patterns of reversible letters as distinctive as possible, and to make those patterns as close to the motion of later cursive as possible. ... Jumping too quickly into lots of letters is often a mistake. The gradual addition of letters is often a safer route to mastery. Continued brief daily practice, even after apparent mastery, is important. Of course, this concern applies as well to teaching of cursive.

BENEFITS AND DRAWBACKS OF USING CURSIVE AS A FIRST WRITING SYSTEM

When school districts or local schools have the option of beginning the use of cursive in first grade, many future difficulties are avoided. Until 1922, cursive writing was the form of writing taught in American schools. The original work of Anna Gillingham and Bessie Stillman recommended the teaching of cursive writing (1960). [The 1997, 8th edition of *The Gillingham Manual*, published by EPS, continues to recommend beginning with cursive.] Many contemporary multisensory teaching authorities also prefer to teach cursive writing in first grade. [The Odessa Christian School in Odessa, TX, where I teach Spanish and Remedial Reading, begins cursive handwriting in kindergarten. The enormous benefits are plain to see in every paper that the students write.]

There are numerous reasons for a return to the use of cursive in the first grade.

- 1. The act of writing is a kinesthetic, not a visual, process. A teacher might expect confusion on the part of a child starting with cursive writing, but in practice there are none. Children can easily learn cursive letters were there is a symbol that they read (visual) and a symbol that they write (kinesthetic). Early et al. (1976) demonstrated that, at the end of the 1st grade year, a matched set of children who were taught beginning cursive surpassed in reading and spelling a control group taught manuscript. [My private tutoring confirms the benefits of cursive-first, as do my experiences at a cursive-first school.]
- 2. The lack of reversals constitutes a major argument for using cursive in 1st grade. If a child has a clear idea of a "b" and knows its sound, he may occasionally flip the letter in reading, but he should have a strong conceptual base in writing that does not reverse "b" and "d." In contrast, a student who has confusion in writing manuscript coupled with a visual confusion in reading may still be reversing letters at age forty.
- 3. In cursive writing, children are taught to begin all lower case letters on the writing line, which spares them from continual choices about where to place the pencil for each letter. A teacher must be wary of the commercial cursive systems on the market: some present inconsistent places to begin letters just as manuscript writing does. One important virtue of most Orton-Gillingham systems and certain other programs such as the Laubach program is that all lower-case cursive letters begin with an approach stroke on the main writing line.
- 4. Cursive writing makes a clear division of word from word easier to attain. First grade teachers, dealing with manuscript, are familiar with the problem of helping children remember to put two fingers of the nonwriting hand to mark off spaces between each successive word division. Cursive provides a natural division between words. Teaching spacing between words becomes easier.
- 5. A major argument in favor of teaching children cursive first is that it frees them from the traumatic shift from manuscript to cursive in 2nd and 3rd grade. When children's first writing is cursive, there is no extra training necessary for that distressing moment when they are on the edge of mastering print and must abandon that form and learn cursive. A child who begins in cursive runs no risk of maturing into an adult whose embarrassing potpourri of cursive and manuscript sets him apart as uneducated and careless.

DYSLEXIC CHILDREN AND CHILDREN WITH LD

Dyslexic children and those diagnosed as learning-disabled need even more special attention paid to their learning of handwriting. For a dyslexic child, the struggle to deal with production of unreliable letter forms overloads a short-term memory system that is already in trouble. The older a student dyslexic student becomes, the more his or her warfare with inadequate handwriting adds an unnecessary burden to the task of written expression. The struggle with forms and spelling of words stands in the way of the ability to remember a thread of thought long enough to capture it on paper.

I continually hear the common misconception that dyslexic individuals see backwards in some abnormal fashion. On the contrary, the vision of a dyslexic child operates much the same as everyone else's does. An intelligent child can see that the manuscript letters "b" and "d" and "p" and "g are the same symbol. Inadequate visual memory and sense of directionality confuse the orientation of those letters and accurate duplication of others. Of course, lack of adequate direct teaching compounds the difficulty of the task.

Graham (1990) demonstrates that, in these children, an essential basis for written expressive language is handwriting that is automatic, legible, and fast enough to keep up with a student's thoughts.

CONCLUSION

Time for direct teaching of handwriting needs to be built into busy school schedules. Too many students are kept from a successful school experience by inadequate handwriting. ... If a school system has a choice, starting children with some form of cursive writing seems to cause students less difficulty.... Too many students are handicapped in their work in high school and college by handwriting that is slow and illegible. [My college professors told me that my cursive handwriting was 100% legible, and often said they would just as well have my handwritten work instead of a typed document. I learned cursive-first in 1953 and never thought of printing anything until I became a full time teacher in 1990, when I was required to teach manuscript to second-grade bilingual students the first half of the school year. It is worth becoming a member of the *International Dys*lexia Association just to get full access to the Annals of Dyslexia. There was a time when the educational practices of today's Ortin-Gillingham practitioners were common practice in the classrooms of America. I would suggest that every elementary teacher in America consider incorporating Ortin-Gillingham practices into their regular classrooms in order to improve the overall education of American children. The universal return to cursive-first would be a good first step that would be of great benefit to all students, regular or dyslexic.]

Strengthening the Mind's Eye

The case for continued handwriting instructing in the 21th Century

by Virginia Wise Berninger

"If it's not tested, it doesn't get taught" is the prevailing belief that guides many educators' practice of only teaching skills that are addressed in the latest governing standards. Most states have now adopted the Common Core State Standards (CCSS), which don't cover handwriting or spelling. Consequently, some states and school districts have stopped—or will stop— teaching these skills, which support the composing process. Although the CCSS specify desired goals at specific grade levels, the standards do not offer a plan for reaching those goals that takes into account the scope and sequence of developmentally appropriate curriculum and teaching practices. Even though handwriting is not specifically covered in the CCSS, handwriting instruction and mastery of the practice help students meet the standards that are included.

Handwriting 101

Handwriting is the use of the hand to produce units of written language— single letters, written words, sentences, and text—to express ideas and thinking. Handwriting instruction remains important, despite present-day doubts about its continued significance in the technology age. Through handwriting students fine-tune several motor skills: planning handwriting movements, controlling them during letter production, and executing them.

Contrary to popular belief, handwriting is not merely a motor skill; it is also a written language skill. The following non-motor mental processes are also involved:

- Working memory, a temporary memory system for storing and processing letter forms in the "mind's eye." That is, our eyes provide a window through which the written language we read and write enters our mind, which in turn has an inner "eye" for viewing and analyzing letters and written words as we read and write.
- Naming letters, which helps find the letter form in long-term memory and then write it.
- Planning to form letters before the motor system writes them.
- Incoming visual and touch sensory information as letters produced are viewed and hands and fingers move.
- The orthographic loop of working memory, which integrates the letters and written words in the mind's eye with the sequential hand and finger movements during writing.

Multiple dimensions of handwriting are also instructionally relevant. To begin with, letters should be formed legibly so that others can identify them. Spatial arrangement on, above, or below a resting line on lined paper can also affect legibility. In addition, letters should be formed automatically (effortlessly and quickly) so that the writer's limited working memory resources are free to focus on generating ideas, choosing words, constructing sentences, and adapting the text to the audience. Finally, proportionality of component strokes that differentiate a given letter from others needs to be obtained, unless using a keyboard. For example, printed n and h are differentiated only by height of the left stroke.

Why Handwriting Is Still Important

Brain research has revealed the importance of handwriting. Karin James and Thea Atwood at Indiana University showed that handwriting leads to better perception of letters in reading than does keyboarding. Forming letters might help create the letter form in the mind's eye better than does selecting them by key press.

Todd Richards and I, both at the University of Washington, found that developing writers with and without handwriting difficulties activated many more brain regions in learning a new letter than in writing a highly practiced letter. They differed significantly in writing familiar letters in brain region where letters and written words are analyzed in the mind. Also, brain activation during serial finger movements as used in handwriting is related not only to handwriting, but also to spelling and composing. Thus, handwriting is important because it:

- 1. Trains the orthographic loop, which supports spelling and composing.
- 2. Facilitates perception of letters, which transfers to reading real words, as shown in both instructional and brain imaging studies.
- 3. Trains serial organization, which pioneer cognitive psychologist Karl Lashley, in 1952, proposed underlies human cognition.

Teaching Handwriting

In the 1960s and 1970s, writing instruction overemphasized handwriting and spelling and neglected composing. In the 1980s and 1990s, process writing introduced composing and neglected handwriting and spelling. Students need all three skills—handwriting, spelling, and composing—to succeed in writing. School psychologist Kristen Begay has offered this research-supported analogy: Handwriting is to written expression of ideas as the paintbrush is to the artist's expression of ideas through painting.

Cross-disciplinary communication and collaboration between occupational therapists and class-room teachers is needed to teach the multiple dimensions of handwriting. For example, occupational therapists have expertise in assessing and teaching motor planning, control, and execution skills. Teachers are skilled in teaching letter formation, assessing response to this instruction, and integrating handwriting, which is both a language skill and a motor skill, with reading and writing activities.

Research indicates that effective writing instruction:

- Is directed at the orthographic loop;
- Provides a visual plan with numbered arrow cues for forming the sequential strokes in each letter form;
- Includes practice in copying letters, writing them from memory, and finding letters in the ordered alphabet series in long-term memory;
- Emphasizes that letters should be both legible (recognized by others) and automatic (written effortlessly);

- Teaches transfer of handwriting to composing;
- Aims instruction at all levels (units) of language close in time so that all the components of working memory perform in synchrony, like the musical instruments in an orchestra; and
- Adds instruction in transcription (handwriting and spelling) to writers' workshops and process approaches to written composition.

Research shows that students who learn from teachers with professional training in handwriting demonstrate more improvement in their handwriting and in transfer to better composing. Thus, professional development for teachers in handwriting instruction might be another key to helping more students master the CCSS in writing.

Print Versus Cursive. Controversy continues over whether one format of writing is better than the other. Beginning writers can learn either format; developing writers show individual differences in which they prefer; and both formats might contribute to writing development, but in different ways. For example printing, which has a manuscript format most like that in books or on monitors, might show the most transfer to reading, but cursive might train executive functions for self-regulation of the writing process. Also, students need to be able to read others' writing which might be in printed, cursive, or mixed formats. Evidence supports teaching both formats of handwriting and then letting each student choose which works best for him or her, as is customary in Australia.

Pen and Paper Versus Keyboarding. Evidence reveals an advantage for handwriting using pen and paper over keyboarding for students in grades 2 to 6 for amount written, rate of word writing, and number of ideas expressed. Handwriting by pen requires writing with a single hand, which activates the opposite side of the brain. Because the fibers that support communication across both sides of the brain don't fully mature until adolescence, there might be an advantage for writing by a single hand early in writing development but not after adolescence. It's not a surprise, then, that the advantage of keyboarding emerges for writers in grades 7 and 8, when neural paths are more likely developed for communication across the two sides of the brain. However, research also shows that generally handwriting is used during the school day and computers are used for homework, suggesting that the role of practice might explain these results. Also, younger children might benefit from explicit keyboarding instruction during the school day. Keep in mind that many other computer tools now exist besides keyboards for producing written language. Despite advances in computer technology, research supports the argument that today's students still need instruction in handwriting for two primary reasons. First, learning to form letters by hand improves perception of letters and contributes to better reading and spelling. Second, automatic letter writing promotes better composing—both amount written and quality of writing.

Schools that have halted or plan to stop handwriting instruction should reconsider. Educators can set up their students for academic success by choosing an instructional program for handwriting that supports Common Core standards, providing adequate professional development for teaching handwriting, and assessing students' development of legible and automatic handwriting.

Handwriting Timeline

With a national goal of preparing students to enter kindergarten ready to learn, more focus needs to be placed on prewriting skills during early childhood. Consider the following developmental stepping-stones for reaching the Common Core Standards for writing.

Preschool Years. Writing begins at about 10 months of age when the infant can grasp a writing tool with his or her first and leave visible traces on paper. The pincer grip develops during the first year of life. Two-year-olds operate a computer using a mouse, with a handgrip guided by the thumb and pointing finger. Preschoolers imitate scribbling, vertical strokes, and horizontal strokes as well as copy lines, circles, and squares. Preschoolers also benefit from play with clay or playdough to develop motor strength, and bead stringing, pegboards, mazes, and puzzles to develop fine motor control

Educators also must monitor oral language development, and if necessary provide early intervention, because many children who have motor or prewriting problems also have oral language deficits.

Kindergarten. Handwriting should be accurate and legible. In instruction, teachers model sequence of motor acts, which children observe and imitate, tracing over letters with the eraser end of a pencil before writing the letter while naming it. Children go on to copy and name letters. Names serve as retrieval cues for letter forms in developing automatic orthographic loop function and are as important as learning sounds associated with the alphabet.

First Grade. The goal is to move beyond drawing letters and to develop automatic letter writing. Educators should teach a consistent plan, with numbered arrow cues to practice each alphabet letter every day (in a different order each day), and teach for transfer so that students can compose writing and share it with peers.

Second and Third Grade. The goals for second- and third-grade handwriting are improved written expression of ideas and development of long-term memory by teaching fast and automatic retrieval of letter forms from the ordered alphabet letters.

Fourth Grade and Beyond. The goal is now periodic tune-ups to review legible and automatic letter formation and to teach strategies for self-monitoring of letter legibility for the various kinds of writing assignments students are given across the curriculum, which often involve integrating writing with reading or listening.

This excellent article was accessed on June 9, 2014 at: http://www.naesp.org/sites/default/files/MJ12%20Berninger.pdf