[Journal of the Simplified Spelling Society, 19, 1995/2 pp22–25 in printed version]

# Handwriting, and its Relationship to Spelling

# **Patrick Groff**

Patrick Groff is professor of education emeritus at San Diego (California, USA) State University.

#### Introduction

The need for spelling reform has long been based on the assumption that changing the spelling of words, so as to make them more predictable will simplify the task people have in learning to spell. Thus students and adults would make significantly fewer spelling errors in writing to others.

The logical advantages of simplified spelling are readily apparent from a rational perspective. This also has been confirmed experimentally.

Many experimental studies show that words spelled predictably — whose spellings are based on reliable, invariant speech sound to letter relationships (e.g., "must"), are easier for students to learn than words based on morphological information (e.g. sign" vs. "signature"), or on visual information (e.g. "street" could be spelt "streat" or "strete"). (Martlew, 1992; Waters, et al., 1988). Thus, commonly, the inability of students to process words phonologically affects their spelling growth negatively (Martlew, 1992). Simplified spelling is linked to the phonological awareness of students.

## The Handwriting Factor

Spelling reformers may well consider the effects of illegible handwriting. If a word is not written legibly, of course, it cannot be read, even the its spelling has been appropriately simplified. Predictable spellings could thus go for naught.

It is often found that essays written in legible handwriting are assigned higher marks than illegible ones (Chase, 1986; Markham, 1976). Teachers trying to read illegibly written essays immediately expect less content quality in them than they may actually contain.

#### **On Handwriting Instruction**

Confusing the relationship of handwriting proficiency and spelling ability is the fact that empirical investigations comparing the handwriting development of children receiving traditional, incidental, or whole language instruction has not been conducted" (Graham, 1992, p. 4).

Whole Language, a relatively new development, claims that students learn to read and write best in school in the same way they learned to speak at home as preschoolers. Thus, in Whole Language classes, little or no direct and systematic instruction in handwriting is provided.

By contrast, experimental evidence indicates that teaching handwriting in a direct and systematic way during a regular period brings on the greatest legibility in students' handwriting (Wood et al. 1987). Explicit drill by children on remedying their incorrectly written letter forms will double the number of legible letters they can handwrite (Mabee, 1988).

Systematic directing of pupils to copy letters (e.g., Manning, 1989), and to learn the rules of letter formulation (Koenke, 1986; Meulenbroek & Van Galen, 1990) develops more legibility in students' handwriting.

On the other hand, no significant differences are noted between poor spellers and good ones in the speed at which they handwrite (Martlew, 1992). Children who write higher quality compositions do not handwrite significantly faster than do pupils whose compositions are of lesser quality (Hamstra-Bletz & Blote, 1993; Rubin & Henderson, 1982).

Emphasizing legible handwriting as children spell words produces higher scores, in both spelling and handwriting, than otherwise are attainable (Thompson, 1942). This integration of spelling and handwriting instruction does not inevitably indicate, however, as Whole Language educators contend, that direct and systematic instruction therefore must be abandoned.

The style that children use to handwrite, whether *cursive* or *manuscript*, does not significantly affect their spelling scores (Askov & Peck, 1982; Byers, 1963; Varty, 1938). Therefore, students' poor manuscript handwriting earlier on is not a good predictor of their later skill in cursive handwriting (Armitage & Ratlaff, 1985). Other However, children taught an "italic" handwriting style are discovered to deviate 50 % less from the letter forms they are taught to use than do pupils taught cursive style (Askov & Peck, 1982).

#### The Whole Language Approach

In the now highly regarded Whole Language classrooms in English-speaking countries around the world, children often receive only indirect, unsystematic, and incidental handwriting instruction. Students here are encouraged to "invent" the shapes of the letters they handwrite. Pupils thus are "empowered" to eventually "discover" for themselves, using their peculiarly individual learning "styles" and pace of learning, how to handwrite letters in the conventional way. Since there are no objective standards of handwriting legibility set in Whole Language classrooms, however, it is unknown precisely how successful the Whole Language approach actually is in this respect.

It is clear, moreover, that handwriting skill in Whole Language classes is not thought of as having much importance. Children here are invited, not required, to handwrite legibly, Whole Language experts relate, since handwriting skills in their view pale next to the substances that written compositions carry (Graves, 1983). This advice obviously assumes that Whole Language teachers will not allow illegible handwriting of students to affect the way they evaluate students' compositions (as opposed to the way traditional teachers are so influenced).

It is not known at this point, however, exactly what percent of teachers accept this advice about legible handwriting, i.e., what proportion are "exclusive" whole language teachers. Bridge and Hiebert (1985) reported that in the first-grade classes in USA they inspected ten years ago, the most common writing activity that teachers here reported they carried out was handwriting instruction of isolated letters and words. These researchers found that these "children spend very little time in writing activities" (p. 169). Therefore, "a great gap exists between writing practices in the schools and the practices that (Whole Language) researchers and theorists in the field recommend." (p. 170).

I observe from my regular visits to elementary schools in the USA that in the past ten years the gap on handwriting legibility, is closing rapidly in favor of the Whole Language position. This is a period in which Whole Language has become mandated by many state departments of education.

Whole Language authorities may be properly alarmed at the lack of students' opportunities to write that Bridge and Hiebert's (1985) found. But there is no convincing evidence that the Whole Language practice of simply allowing first-grade children to "discover" how letters are formed, that is, to self-instruct themselves on this, is the preferable way to develop handwriting legibility (Graham, 1992).

It is likely, then, that the teachers in Bridge and Heibert's (1985) study reflected the finding that poor handwriters are so taken up with the extraordinary effort it takes them to produce legible script that they have little mental energy left over to devote to the content of what they write. Helping young children to master the writing of letters, done best in a direct and systematic way, thus will allow them to direct more intellectual power toward the communication of their ideas (Muelenbroek & Van Galen, 1990).

The de-emphasis of formal teaching and testing of handwriting in Whole Language classes during the past decade is only the latest evidence of educators' longtime progressive disinclination to view it as a school subject of consequence. In 1900, handwriting still formed one of the classic three Rs. Instruction in penmanship was as integral to classroom studies as was reading and arithmetic (Eaton, 1985).

By the early 1930's, handwriting often was taught incidentally, as part of written composition and spelling activities. Thereafter," systematic and handwriting instruction became largely relegated to the early years of school" (Flood et al., 1991). In grades four and beyond very little instruction in handwriting of any kind was given.

By the 1960's, 30 % of U. S. elementary schools had no formal handwriting programs. No separate period for handwriting instruction was set aside in 50 % of these schools (Petty, 1982). Since then, "handwriting has not received much attention in either teacher training programs or in field settings" (Graham, 1986a). Very few countries at present have a national handwriting instruction policy (Husen & Postlethwaite, 1985).

Traverse (1983, p. 399) notes that handwriting "was a matter of declining interest to research workers during the first quarter of this century." Thus, studies such as that by Muelenbroek and Van Galen (1990) have become increasingly rare. For any educator who is curious, these researchers provide information about the speed at which elementary school students write separate letters, about visual perceptions and motor processes involved in handwriting, and about the implications of these factors for classroom practices. Handwriting instruction "usually has been based on personal opinions and tradition rather than research findings" (Manning, 1988, p. 14). It is less likely that empirical findings on it are put to use in today's predominantly Whole Language classrooms.

This waning interest is reflected by the little or no attention given the subject in contemporary encyclopedias of educational research. There is no reference to handwriting in these volumes by Alkin (1992) nor by Whittrock (1986). *The Handbook of Research on Teaching the English Language Arts* (Flood, et al., 1991) devotes a half page of its 843 pages to the subject. The *International Encyclopedia of Education* (Husen & Postlethwaite, 1985) gives only a page and a half of its 7307 pages to handwriting.

Now some educators view handwriting as a communication anachronism, which they believe it is best to avoid. Computers, word processors, and their printers have technologically displaced handwriting to a great extent. Articles in educational journals counsel teachers to avoid handwriting altogether (Bing, 1988). Teachers are advised to replace hand-writing instruction to students who write illegibly with instructions on how to use typewriters, computer, word processors, oral reports and tape recorders, and dictation to a "buddy" who knows how to handwrite in a readable fashion.

The advance of electronic communications may be on the side of such advice. But so far, the effects on writing compositions on the computer have been disappointing. Of 17 studies that Reay (1989) reviewed, only 7 found significantly greater quality in compositions written with the computer.

#### Assessment of Handwriting

Paralleling the overall disinterest among educators in handwriting has been their increased resistance to measuring, in an objective way, students' mastery of it. Only a few schools today evaluate handwriting in a formal manner, with established standardized handwriting scales (Petty, 1982). School districts in the USA no longer require that the legibility of their teachers' handwriting meet a standard level (Groff, 1975).

This avoidance of accountability for how legibly students and teachers can handwrite is defended by Whole Language educators, who feel legibility is of little importance. Also, the results of standardized test results in handwriting would prove embarrassing. Between World War I and 1964, sixth grade American children's handwriting legibility had declined two full school years (Groff, 1964). If such a remarkable falloff had taken place in other school subjects, there doubtless would have been large-scale cries of alarm.

Despite the rejection of them in general by modern educators, there still remain available for sale standardized handwriting tests of a recommendable quality (Graham, 1986a; Graham 1986b; Graham et al., 1989; Phelps et al., 1985).

#### A Handwriting Miscellany

There is considerable modern information about handwriting that, even the ignored by most educators, may yet be of some interest to spelling reformers. Among the factors that have been discovered to affect handwriting legibility (and thus spelling and written composition scores) is that boys for some unexplained reason typically handwrite less legibly than do girls (Graham, 1986a; Wood et al., 1987).

Then, altho intelligence does not correlate significantly with handwriting ability, children with the highest IQs modify letter shapes more eccentrically when handwriting than do children with lower IQs (Askov & Peck, 1982). Children with lower handwriting legibility show less preference for personal style (Hamstra-Bletz & Blote, 1993). Their mental efforts apparently are so taken up with trying to write legibly that they have little or no energy left available for experimenting with style characteristics. In contrast, one-third of students can use a personalized style, and yet can handwrite legibly (Askov & Peck, 1982).

Left-handed children handwrite just as legibly as do right-handed ones (Groff, 1964). For years, teachers were told wrongly that they should expect left-handers' legibility to be inferior. Teaching the new slanted manuscript style letter forms (called "D'Nealian" does not make students' transition to cursive writing easier than otherwise (Graham, 1992). There is continuing disagreement, tho, as to whether children handwrite more legibly with ballpoint pens or pencils (Manning, 1988). Children definitely write more legibly when given paper with large spaces between the lines than with smaller spaces (Manning, 1988).

#### Discussion

Electronic devices, such as computers, into which one types or speaks messages, may at some point in the future do away with the need to teach students to handwrite legibly enough that their formations of words are readable by others. Spelling reformers can look forward to this day as much as anyone else. Nonetheless, in the foreseeable future there is justification for teaching students, in a direct and systematic manner, to handwrite legibly.

Unfortunately, then, the demise of formal handwriting instruction, urged on by the Whole Language movement, may become a self-fulfilling prophesy — if the movement retains its powerful attraction to educators. Whole Language's eagerness to eliminate the formal teaching of handwriting may have jumped the gun on the electronic revolution, by graduating students with illegible handwriting without waiting until there are sufficient available electronic communication devices to compensate adequately for this handwriting disability. They fail to consider seriously enough the potentially disastrous practical consequences to the nation, or to the English-speaking world, of widespread illegible handwriting.

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Dr. Patrick J. Groff, born January 30, 1923, passed away April 2, 2014.

# **Note from Internet Publisher: Donald L. Potter**

June 6, 2021

### **Fountain Pens**

Groff suggests that research does not indicate whether kids write better with **ball point** pens or **pencils**. In my experience, kids definitely write much better with pencil because the rolling ball detracts from the pupils' ability to control the writing instrument. What Groff did not address, that I consider exceedingly interesting, and not unimportant, is the fact that my students write much better with **fountain pens** than either pencils or ball point pens. For one thing, the fountain pen simply does not write if the grip is not pretty well correct. Much writing today by contemporary students who have received no handwriting instruction due to lack of instruction, plain and simple.

My school district, which I will not name here, has not had a formal handwriting program since about 1995, when they removed the handwriting and spelling books from the classroom. In 2012 the teacher voted to adopt the Zaner-Bloser Handwriting program but the books were never ordered because the Curriculum Directors told the Textbook Department that they had an "Embedded Handwriting Program," which they believed was adequate, eliminating the the expense of a separate stand-alone handwriting program such as Zaner-Bloser.

I was a teacher for the above unmentioned district when the handwriting books were removed from the classrooms due to the influence of the district's Whole Language Initiative. I continued to teach manuscript and cursive with direct instruction. My own *Shortcut to Manuscript* and *Shortcut to Cursive*, which are available for **free** on my website. Students I have taught with my cursive method won national cursive handwriting competition six year in a row.

## **Tutoring Experience**

Over ten years ago, I started testing all my tutoring students' alphabet writing ability. I take two fluency measurements: The first is simply the ability to **write** the alphabet from a to z from memory. The second measure is the ability to **copy** a pangram (sentence with all the letters of the alphabet). I pay particular attention to posture, pencil grip, and letter formation. After giving hundreds of these tests, I can testify that absolutely **none** of the kids coming to me for tutoring show any evidence of formal handwriting instruction. It is painful to watch these students trying to lay down print on paper. It seems that Dr. Groff's prophecy in the last paragraph concerning the results of Whole Language having eliminated formal handwriting instruction has found its fulfillment in my school district - and for the very reasons he mentioned.

## **Observation of Public Handwriting**

I have noticed that good handwriting is so rare among the young adult population today that it is rare to find a citizen under 30 who can write with a correct grip or letter formation. It is so rare that I often find myself complimenting people I see writing with good handwriting skills.

## **New Digital Writing Tables**

There are several digital tables available that reproduce the experience of writing on paper. I have hopes that this will bring in a new era of handwriting. I use a screen saver called *Paperlike* with my iPad, that is a satisfactory solution to the problem of writing on slippery glass. *Remarkable* and other devices now offer wonderful paper writing experience on digital devices.

## **Free Training Videos**

I made the following videos to help teachers overcome the severe liability caused by the failure of many schools of education to train teachers in the skills necessary to teach fluent handwriting.

Here is my Shortcut to Cursive teacher training video.

https://youtu.be/wlwpgNocong

Here is my Shortcut to Manuscript teacher training video.

https://youtu.be/fbFcum8uEPQ

## Poems

On the following pages are some poems I wrote expressing my ardent desire that every student could receive the same excellent, life transforming handwriting instruction I received in the 1950s.

# How do You Measure Administrative Incompetence?

Poetic Reflections on a quote

from The Administrator's Guide to Whole-Language, "In primary school classrooms there is no need to teach handwriting formally."

I hate to admit it, the truth is right there, The kids don't know their letters. They're all up in the air.

They hold the pencil like a screwdriver Turning a screw, Watching their knuckles all turning blue.

Their letters are jumbles like jacks in a box, Tumbling out Without attention or thought.

Since good handwriting's the foundation, Of good reading and spelling, Why was it forsaken without consideration.

Who stole our handwriting books long years ago? From our classroom they took them, And ripped out our soul

I know an example close at hand, It starts at the top, Draw a line in the sand.

The name of a book tells it all very brief, *The Administrator's Guide to Whole-Language*, Make no mistake, that's the thief.

On page forty-eight, you can read it yourself, Just get a copy of the book, Take if off the shelf.

Ask your administrators, look them straight in the face, "What have YOU done with our handwriting books? Can you explain this disgrace?"

By Donald L. Potter, 3/8/12. Written in response at the poor handwriting of ALL the students coming to me for tutoring and out of deep appreciation and respect for my elementary teachers in the 1950's who were highly skilled in the fine art of teaching fluent penmanship. *The Administrator's Guide to Whole Language* was written by Gail Herald-Taylor, 1989. I am not joking. Check it out for yourself at the link directly below.

https://archive.org/details/administratorsgu00heal

# **Couplets Dedicated to My New 21-Year-Old Tutoring Student**

I take a young adult and show her how to write, Then throw in some phonics to turn on the light.

To illuminate a thousand words, long hidden from view, And liberate her intellect, in a daring rescue.

So take all your iPads, and IBM's, too. Givum to the monkeys and chimps in the zoo.

I'm tired of you messing with our little kids, Stealing their brains and flipping their lids.

So here's a pencil and piece of paper, too. We'll take back our kids and give you the zoo.

We'll teach them how to read, write, and spell, Gaining knowledge too precious to sell.

And to top it off, we'll throw in cursive. To make sure we're truly subversive,

In our plans to undermine ignorance and crime, Taking literacy to levels sublime.

Don Potter 3/29/2012.

The couplets above were partially motivated by another student coming to me from an elementary school where every student has an iPad, yet the little lad could not write more than six poorly formed letters from memory, nor could he sound out a word as simple as *bag*. I have an iPad, but to teach reading and spelling, nothing can beat a good phonics-first teacher at the chalkboard and attentive students writing at their desks. (This was written before the introduction of the Apple Pencil to be used with the iPad tablet, of which I have both. 4/15/2016. The situation is much improved in 2021 with the introduction of tablets like *Remarkable*, which very close duplicate the experience of writing on paper. I use the *Paperlike* screen protector with my iPad and Pencil.)

# Joy Over Recent Zaner-Bloser Adoption

I was almost in despair Thinking miracles have ceased, With God's power on hold, Nothing left but grief.

But then it happened, Right out of the blue. Zaner-Bloser shows up, And kids get their due.

Let's pray this keeps up, This miracle of old, Where kids learn the basics, Their writing's pure gold.

Now how about spelling, Math algorithms, science & history. Let's take it over the top With poetry and mystery!

Don Potter on 7/4/12. Written upon hearing that the teachers in my district had wisely decided to adopt the Zaner-Bloser handwriting program.

## An Earnest Plea to Curriculum Directors

I know you think you're doing right, Saving lots of money. Buying material for the tests, Thinking handwriting's just baloney.

But cutting-edge cognitive research, Makes it as plain as day, To cut out handwriting instruction, Learning will delay.

Don Potter 10/21/12. Written in response to having my hopes dashed to the ground when I learned that my school district was not going to fund the purchase of the handwriting adoption. Is it not ironic that my district uses cursive with all their dyslexic kids, but denies it to regular students, who also would benefit? Perhaps we would have less dyslexia if everyone learned cursive.

On June 30, 2013, I received distressing news from Zaner-Bloser that my district was not going to fund the purchase of the handwriting books for the year 2013-2014. Let's hope they have a change of mind before schools begins. Can anyone tell me what an "embedded handwriting program is? I haven't found it yet. [Here it is June 6, 2021, and I am still looking in vain for the "embedded handwriting program." The continued poor handwriting of the tutoring students coming to me year after year is reality knocking at the Administration's door, crying for attention.]

Reflections on a recent (8/20/13) spelling workshop where I learned that the only children in my district truly learning cursive are in dyslexia (Take Flight) classes.

It strikes me as odd.

I can't figure it out. Dyslexics learn cursive While Johnny's left out.

If it's good for dyslexics,

As everyone admits. Then teach it to everyone For the full benefit

by Donald Potter, 8/23/13

# **Groff Got it Right**

Don Potter's tribute to a great scholar and friend

Groff got it right. Whole Language got it wrong. What are we going to do? Address it with a yawn?

Young lives are at stake. Doesn't anybody care? Let's attempt a rescue From the Whole Language lair.

Let's pull them from danger, Give them a pencil and pen A piece of paper to express Their rich thoughts within.

Show them the grip That make writing a joy, And proper letter forms To thrill every girl and boy.

Help turn back the tide, That's drowning our youth, Following Groff as he Teaches us the truth.

Don Potter, June 7, 2021