

# **Handwriting, and its Relationship to Spelling.**

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## **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 though it's 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 & Ratzlaff, 1985). 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 (Meulenbroek & Van Galen, 1990).

### **The Decline of Handwriting.**

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 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 Meulenbroek 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 Wittrock (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 handwriting 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 tho 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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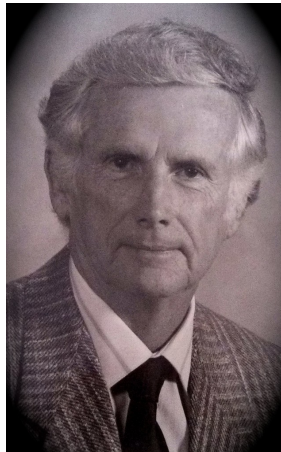
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I found Dr. Groff's paper on "Handwriting, and its Relationship to Spelling" to be most interesting because of the way he documents the whole-language movement's responsibility for the current decline in handwriting legibility and fluency.

My personal experience of 21 years in public school classrooms confirms Mr. Groff's contention. I was an elementary bilingual teacher when our district removed the handwriting and spelling books from the classroom, about 25 years ago. My district at the time of this writing still does not have any direct instruction handwriting or spelling program. I have been told that there is no need for a separate handwriting or spelling books since both subjects are embedded in the curriculum. I have yet to see any evidence that that contention is true since all the children coming to me for tutoring from many different schools show very little evidence of having received any direct instruction in manuscript or cursive handwriting. I give every student coming to me for tutoring an alphabet writing legibility and fluency assessment. I also often make video clips of their grip and letter writing performance. The results are nothing less than shocking.

I began my education in southern Indiana in first grade in 1953. I received systematic cursive handwriting instruction from the first through the seventh grade. It would be interesting to trace the decline in handwriting instruction from that date to today.

To help parents and teachers interested in improving their handwriting instruction, I have published two free programs: *Shortcut to Manuscript* and *Direct Path to Cursive*. They are available in free pdf format on the Handwriting Page of my website, [www.donpotter.net](http://www.donpotter.net).



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