# Teaching Handwriting:

# Research vs. Teacher Practice

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TE 848

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April 24, 2011

## Abstract

This document explores research behind the need to teach handwriting, as well as how to effectively teach handwriting. The author conducted a survey of primary grades teachers to determine current practices in teaching handwriting. Teachers were found to lack sufficient training in teaching handwriting and to spend significantly less time teaching handwriting than is recommended.

**The Importance of Teaching Handwriting**

Handwriting used to be an entire separate subject in most schools, and good penmanship was valued. However, with the increasing use of technology, some wonder if teaching handwriting is even necessary anymore. But handwriting is not simply about having nice, legible writing. "According to Graham (1999a), text production skills of handwriting and spelling accounted for 66% and 41% of the variance in compositional fluency and 25% and 42% of the variance in compositional quality at the primary and intermediate grades, respectively" (Edwards, 2003). The research is clear: handwriting significantly affects the content of writing.

Therefore, if we want our students to be better writers, we must teach handwriting. "In dozens of studies, researchers have found that, done right, early handwriting instruction improves students' writing. Not just its legibility, but its *quantity* and *quality*" (Graham, 2010, p. 49). Writers who struggle with handwriting have to think about what they are writing (content) and how to write it (handwriting). This can lead to writing that is more of a "knowledge-telling process in which writing is treated as a forward-moving, idea-generation activity" (Graham, 2010, p. 50). Because they have to exert so much mental energy in forming the letters, students do not have the thought capacity left over to create more complex writing. Graham stated that if too much thought is put into letter formation, one might lose "the ideas in your working memory about what you're going to say next," (as cited in Viadero, 2001).

The main purpose of teaching handwriting is to help students develop automaticity in letter formation so they do not need to devote time or thought to *how* to

write and can devote all their attention to the actual content of their writing. Automaticity in handwriting also leads to increased speed, which gives students the ability to write more in a given amount of time. It also boosts students' confidence in their writing abilities. "Struggling with handwriting can lead to a self-fulfilling prophecy in which students avoid writing, think of themselves as not being able to write, and fall further and further behind their peers" (Gentry & Graham, 2010, p.10). Thus, it is important to be proactive and begin instruction in handwriting early on to avoid these possible pitfalls related to poor handwriting.

So why should we teach students a particular method of forming letters instead of allowing them to ascertain their own way of writing? Farris warns that, "without being introduced to and given instruction in the basic handwriting skills such as letter formation, alignment, slant, and size, children are left to discover such skills on their own. As such, they develop inappropriate techniques, and legibility suffers" (1991, p. 313-314). Our job as teachers is to equip young writers with an effective and efficient system for forming letters. However, once students have a firm grasp of proper letter formation, slight deviations can actually be helpful in further increasing writing speed without necessarily decreasing legibility (Graham, Beringer & Weintraub, 1998). As the old saying goes, students must learn the rules before they can (appropriately and effectively) break them.

**Slanted or Traditional Manuscript?**

There are two main styles of manuscript handwriting that are taught, D'Nealian, which is slanted, and Zaner-Bloser, which is the traditional "ball and stick" style. There

are many claims floating around that D'Nealian aids in the transition to cursive writing and is superior because its letters can be written in one continuous motion. But is there research to back this up? According to Graham (1993), no: rather, these are claims made by the company that produces D'Nealian. "There has been very little scientific interest in slanted manuscript alphabets and all the studies that *have* examined their effectiveness contained methodological problems" (Graham, 1993, p. 92). While the D'Nealian website claimed that "D'Nealian lowercase letters slide easily into cursive," a study by Farris (1982) actually found that students who were "taught traditional manuscript produced more legible cursive writing that students in the D'Nealian group" after about six months of learning cursive (as cited in Graham, 1993, p. 92). Additionally, Graham (1992) found that approximately 70 percent of the manuscript D'Nealian letters must be modified to form the cursive letter (as cited in Graham, 1993, p. 93). This does not support the suggestion that merely connecting strokes are required to go from manuscript to cursive in D'Nealian-style writing.

Traditional manuscript, such as Zaner-Bloser, has other benefits that seem to outweigh D'Nealian's unsubstantiated claims. The majority of students come to school already knowing, to varying degrees, how to write. The vast majority of the time, these students have learned to write in traditional, block-style lettering. Therefore, to require them to write in a slanted manuscript would require another transition, or relearning how to write (Graham, 1993, p. 95). Additionally, it may be more developmentally appropriate for young children to learn a traditional-style manuscript precisely because its letters do not require one continuous stroke. "Slanted and continuous stoke letters may require a greater degree of fine-motor control than the letters in the Zaner-Bloser alphabet

without the continuous stroke option" (Graham, 1993, p. 94). Lastly, the majority of print a student will be exposed to in school and in life is more similar to a traditional manuscript. Students are much less frequently exposed to slanted manuscripts, to the degree that "even the publishers [of slanted manuscript programs] use traditional manuscript in student workbooks" (Graham, 1993, p. 95).

**How to Teach Handwriting**

Edwards (2003) stated that, "To write a letter, a child must attach a verbal label (name) to a letter form; have an accurate, precise representation of the letter form in memory; and be able to access that letter in memory and retrieve it." The following are tips to effectively teach handwriting:

- Teach handwriting for short 10-15 minute periods on most, if not all, days of the week, with a total of about 50-100 minutes of instruction per week (Graham, 2010, p. 50).
- Teach students to verbally and visually identify letters (Edwards, 2003).
- Introduce easier-to-form letters first, and teach similarly formed letters together (Gentry & Graham, 2010, p.5).
- Do not teach easily confused letters, such as *p* and *q,* at the same time (Gentry & Graham, 2010, p. 5).
- Encourage students to use a comfortable, effective grip (such as the tripod grip) when holding their writing utensil (Graham, 2010, p. 53).
- Provide students with lined writing paper (Beringer, Rutberg, Abbott, Garcia, Anderson-Youngstrom & Brooks, 2006, as cited in Cahill, 2009, p. 224).

- Model proper technique in letter formation for students (Edwards, 2003).
- Give students practice copying "letters that [are] marked with arrow cues" (Edwards, 2003).
- Have students self-assess their handwriting by circling their best-formed letters (Graham, 2010, p. 52).

## Method

### Overview of Survey

The teaching of handwriting has changed largely over the past few decades, and a recent study indicated that 80% of teachers had little or no preservice training in teaching handwriting (Graham, Harris, Fink-Chorzempa, Saddler, Moran, Adkins, & Mason, 2004, as cited in Graham & Harris, 2005). To find out more about educators' current practices, training, and opinions regarding teaching handwriting, I conducted an online survey consisting of seven multiple-choice questions. The survey was conducted voluntarily and anonymously so as not to influence responses. Questions included:

- What grade level do you teach?
- How much time do you spend teaching handwriting each week?
- How many students in your class struggle with handwriting?
- Do you believe handwriting affects the content of a student's writing?
- What training (if any) have you received in how to teach handwriting?
- Do you feel prepared to effectively teach handwriting?
- Do you believe students should learn D'Nealian or Zaner-Bloser manuscript? Why?

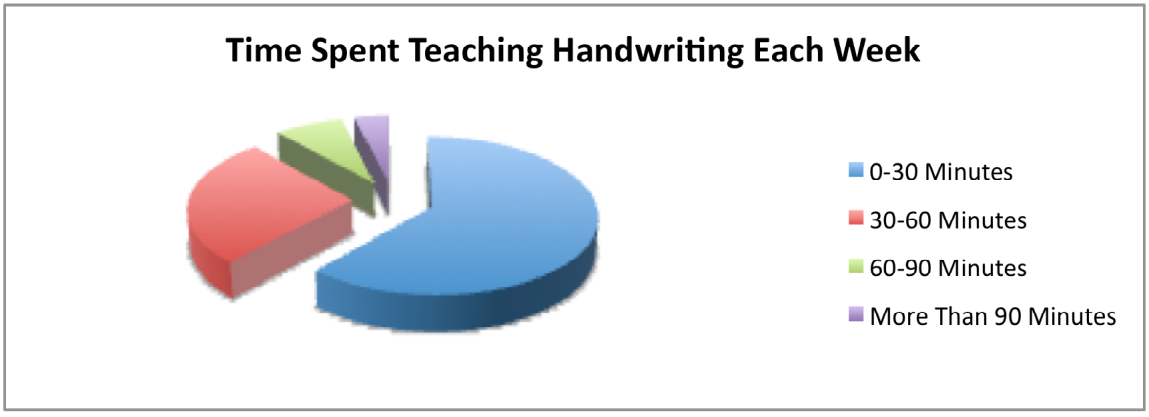
## Participants

Participants were made up of a diverse group of 26 licensed teachers. The teachers ranged from teaching preschool (4 and 5-year-olds) up to Grade 2 (7 and 8-year-olds). They worked at a large, private international school in Asia that employed an American-style curriculum and taught D'Nealian-style manuscript writing. Class sizes varied from 15-20 students. The teachers were of varying nationalities and were trained all over the world. They had widely varying years of experience in teaching.

## Results

As shown in the Figure 1, the majority of the study participants (62%) reported that they spent 0-30 minutes per week teaching handwriting, which is an average of 0-6 minutes per day. Approximately one quarter of the participants (27%) reportedly spent 30-60 minutes per week teaching handwriting, an average of 6-10 minutes per day.

**Figure 1**



The next question participants answered was how many students in their class struggle with handwriting. This was not a statistic I encountered in my research, and I was curious to find out how many students have greater than average needs in handwriting. Half of the teachers surveyed reported that 3-5 students in their class struggle with handwriting, while 31% responded that 0-2 students struggle with handwriting. Only 19% of teachers stated that 6 or more students in their class struggle with handwriting.

Research indicates that a student's handwriting ability does affect the content of his or her writing (Edwards, 2003; Graham, 2010). When surveyed, 65% of teachers believed that handwriting ability affects content, while 35% responded that it does not.

Teachers were also asked what training they had received in teaching handwriting. They were able to check as many boxes as were applicable, or no boxes if they had received no training. Results are demonstrated in Figure 2. The most common training teachers received was through advice from colleagues, and the second most common avenue for training was through professional development. Three teachers (12%) indicated that they had received no training. One teacher (4%) selected "Other" and indicated that he or she had only received training through his or her own "professional reading". As a follow up to the question on what training they had received in teaching handwriting, teachers were asked whether they felt as though they had received sufficient training to be able to effectively teach handwriting to their students. A majority of 62% of respondents replied that they did feel adequately prepared to effectively teach handwriting. 38% of survey participants replied that they did not feel

prepared to effectively teach handwriting and would appreciate more training.

**Figure 2**

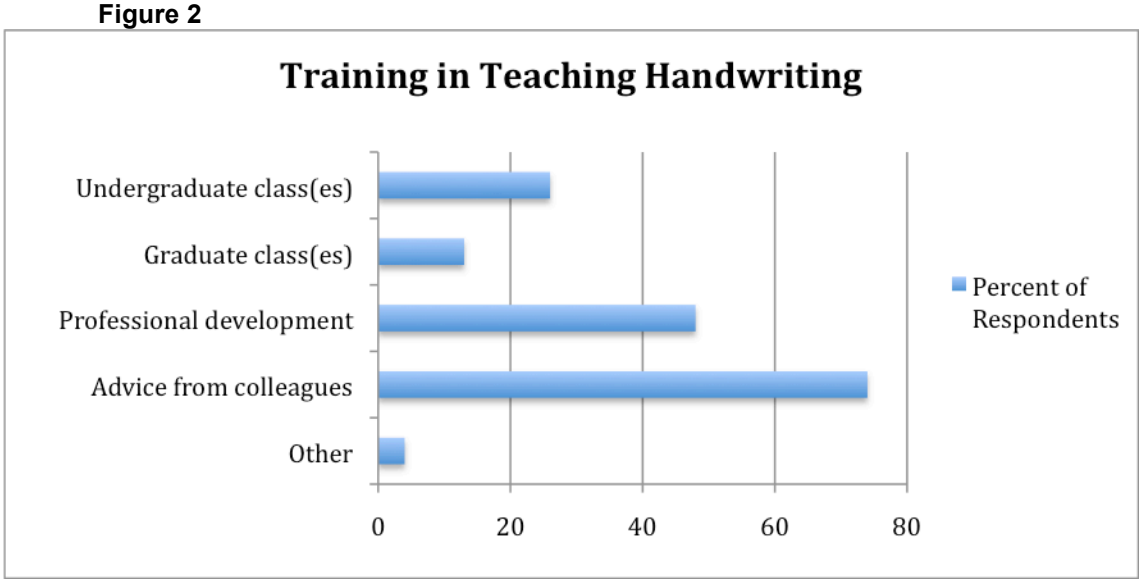
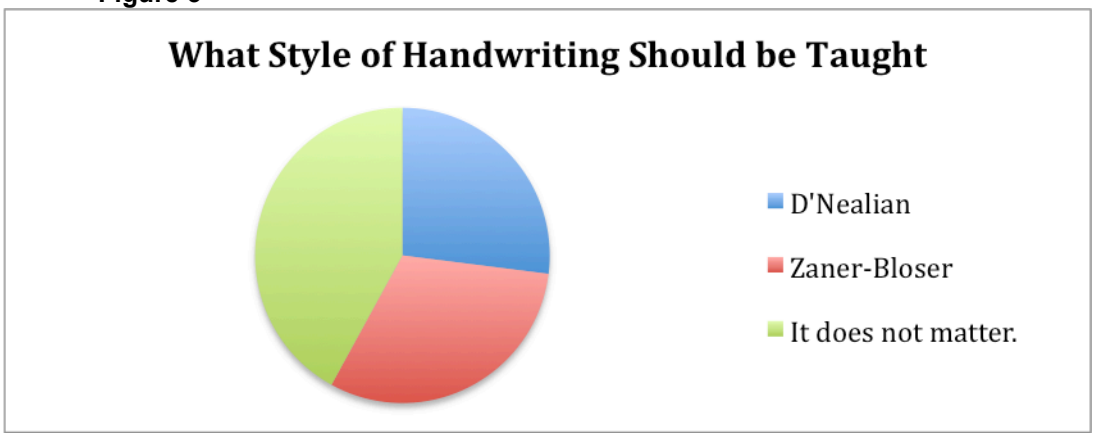



Figure 3 demonstrates teachers' responses to the question of whether they believed students should be taught D'Nealian (slanted) or Zaner-Bloser (traditional) manuscript. While the school at which survey participants presently taught used D'Nealian-style handwriting, only 27% of teachers stated that students should learn D'Nealian. A slightly higher 31% responded that students should learn Zaner-Bloser. The greatest response, though still not significantly higher than the others, was that it did not matter which they learned, at 42%. The reason that was repeatedly cited for teaching D'Nealian was that it makes the transition to cursive writing easier. The reasons cited for teaching Zaner-Bloser were that younger students find D'Nealian too "confusing", Zaner-Bloser is more developmentally appropriate, and students are surrounded by Zaner-Bloser style print in their environment.

**Figure 3**




## Discussion

Half of study participants responded that 3-5 students in their class struggle with handwriting, and an additional 19% responded that 6 or more students struggle with handwriting. This suggests that handwriting is a widespread concern in the primary grades, and may be impeding a large portion of students from meeting their potential in writing.

Despite handwriting being a common problem for beginning writers, the survey suggested that teachers receive little training in effective methods for teaching handwriting. The majority of respondents indicated that the training they had received was through informal advice from colleagues, and 12% stated that they had received no training whatsoever. This lack of training is also supported in the response that 35% of teachers did not believe handwriting ability even affects writing content, which is not consistent with research (Edwards, 2003; Graham, 2010). Additionally, 38% of survey participants responded that they did not feel adequately prepared to effectively teach handwriting and would appreciate more training. All of this data points to a great need

for further training in teaching handwriting.

Another concerning result of the study was that study participants were found, on average, to spend significantly less time teaching handwriting than is recommended. The majority (62%) of respondents indicated that they spent 0-30 minutes per week teaching handwriting, while research recommends 50-100 minutes per week (Graham, 2010). Perhaps increasing the amount of time spent teaching handwriting could improve the content of students' writing, as well as their handwriting.

**Conclusion**

Research has found that handwriting can significantly affect the content of students' writing. However, survey results suggested that teachers are not spending enough time teaching handwriting each week, nor are they being sufficiently trained in how to effectively teach handwriting.

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