

The Importance of Teaching Handwriting in the 21st Century

In this report, Hanover Research reviews the available literature on the importance of teaching handwriting in the 21st century. The report provides a special focus on cursive handwriting instruction.

Executive Summary

Introduction

As classrooms advance into the 21st century, they may be leaving something behind: pen and paper. The Common Core Standards—released in 2010 and so far adopted by all but five U.S. states¹—have pushed cursive handwriting to the wayside in favor of keyboarding and other tech-based literacy learning. Though the Core allows states to supplement the required curriculum with cursive writing (or to delegate the decision to individual districts), several have reduced such instruction or opted out entirely, citing cursive’s lack of relevance to modern life.

The goal of this report is to examine the relevance of a handwriting curriculum for a 21st classroom. To do so, the report is divided into the following two sections:

- ❖ **Section I: Literature Review – Teaching Handwriting** provides an overview of benefits of teaching handwriting in the 21st century.
- ❖ **Section II: Literature Review – Teaching Cursive** discusses the arguments put forth by the advocates and opponents of teaching cursive in the 21st century classroom.

Key Findings

- ❖ The Common Core standards for English language arts curriculum will no longer explicitly require cursive instruction for elementary school students, setting the stage for a national debate on the importance of handwriting instruction.
- ❖ Experts recommend at least 15 minutes of handwriting instruction each day for students. Research has shown that improved handwriting skills has benefits for cognitive development and motor skills and can lead to improved writing skills and reading comprehension.
- ❖ A survey administered to roughly 150 participants in attendance at the conference “Handwriting in the 21st Century? An Educational Summit” questioned participants about handwriting instruction. According to the findings of the survey, respondents believe that handwriting should be taught through grade five, both cursive and manuscript should be taught, and that handwriting instruction is more important than keyboarding instruction.

¹ “In the States.” 2011. Common Core State Standards Initiative. <http://www.corestandards.org/in-the-states>

- ❖ Opponents of cursive instruction argue that it is no longer relevant in an increasingly digital society, instructional time is better devoted to other classroom subjects that are included on standardized tests, and cursive writing is not necessary for academic achievement.
- ❖ Proponents of cursive instruction, on the other hand, suggest that cursive benefits students' motor skills and cognitive development, is a necessary back-up skill to technology, can boost academic achievement, and aids students with learning disabilities.
- ❖ A review of the literature found that the issue of teaching handwriting—and more specifically, cursive—is being debated in districts and schools across the country. While some districts have dropped cursive from the curriculum entirely, more districts appear ambivalent by simply devoting less and less time to the subject. However, a few districts are actually strengthening their overall handwriting and cursive curriculum. Cursive instruction varied by grade level with a “cursive first” approach beginning in kindergarten in some cases and some schools continuing instruction through grade five.

Section I: Literature Review – Teaching Handwriting

This section provides background on the debate about teaching handwriting in the classroom and discusses the benefits of handwriting instruction for the academic development of children.

Introduction

The Common Core Standards only require manuscript handwriting instruction until the first grade while cursive instruction is not mandated at any grade level. However, states may choose to supplement the content of the Common Core with additional manuscript or cursive instruction, as do Massachusetts and California.² In general, it seems that the time allotted for cursive instruction has been decreasing compared to years ago. Vanderbilt University conducted a national investigation on handwriting instruction in 2007. Based on responses from “a random sampling of about 200 teachers in grades one through three in all 50 states,” the survey revealed several interesting details about handwriting instruction:³

- ❖ **Ninety percent** of the teachers who responded said that their schools **required instruction in handwriting**.
- ❖ Of schools who taught handwriting, **half of second grade teachers and 90 percent of third grade teachers offered instruction in cursive**.
- ❖ On average, teachers are spending about 60 minutes a week, or 15 minutes a day, on cursive instruction—the amount recommended by handwriting experts.

This is contradictory to the notion that cursive is no longer being taught in schools. However, there has been a shift in instruction from an emphasis on teaching form to process and content.⁴

Zaner-Bloser—a publisher of handwriting and other literacy materials—and the American Association of School Administrators (AASA) recently joined forces to organize a conference in Washington, D.C.: “Handwriting in the 21st Century? An Educational Summit.” Educational leaders, educators, and handwriting researchers gathered to debate the importance of handwriting (both print and cursive) in a K-5

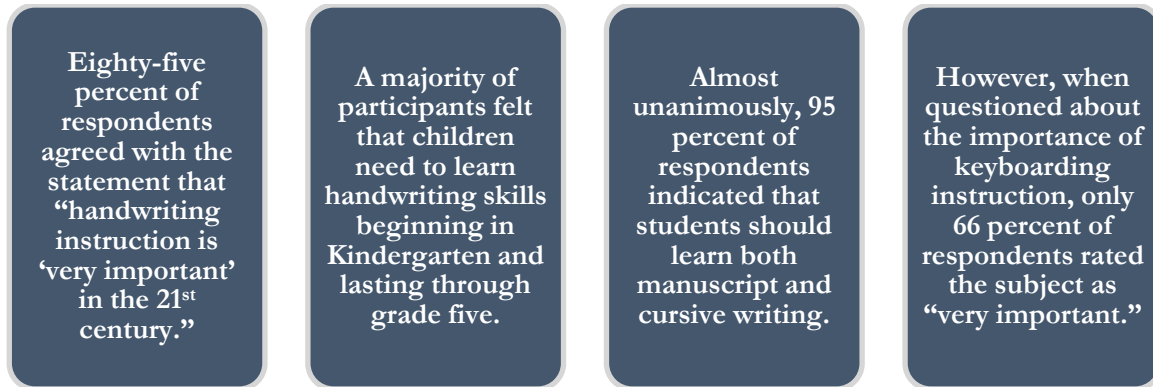
² “Handwriting in the 21st Century? Research Shows Why Handwriting Belongs in Today’s Classroom: A Summary of Research Presented at Handwriting in the 21st Century? An Educational Summit.” 2012. Saperstein Associates, p. 2. http://act.zaner-bloser.com/v2/files/H2948_HW21Summit_white_paper.pdf

³ Downs, M. “Schools Debate: Is Cursive Writing Worth Teaching?” *USA Today*, Jan. 23, 2009. http://www.usatoday.com/news/education/2009-01-23-cursive-handwriting_N.htm (Adapted)

⁴ Ibid.

curriculum. The following figure highlights the findings of a survey administered to the roughly 150 participants at the close of conference.⁵

Figure 1: Handwriting in the 21st Century? An Educational Summit Survey



Source: Handwriting in the 21st Century? An Educational Summit, Washington, D.C.

The findings of this survey verify that the presentations throughout the duration of the summit managed to solidify the opinions of attendees as to the importance of manuscript and cursive writing in the 21st century. According to the survey findings, respondents believe that handwriting should be taught **through grade five** and that **handwriting instruction was more important than keyboarding instruction.**

The Benefits of Formal Handwriting Instruction

Stylistically, handwriting refers to both print and cursive styles of writing. According to one expert, "handwriting is a complex human activity that entails an intricate blend of cognitive, kinesthetic, and perceptual-motor components" and as such researchers generally agree that students require formal instruction in order to acquire the skills necessary to write legibly and fluently.⁶ According to an expert in educational psychology from the University of Washington, **handwriting instruction benefits students' cognitive development as well as motor functioning.**⁷ For example, some of the motor and cognitive tasks associated with handwriting are the following:⁸

- ❖ Ideation
- ❖ Text production
- ❖ Punctuation
- ❖ Planning
- ❖ Spelling
- ❖ Grammar

⁵ "Researchers Discuss Impact of Handwriting Instruction on Children at Handwriting Educational Summit in Washington, D.C." Zaner-Bloser and American Association of School Administrators, Jan. 26, 2012. http://act.zaner-bloser.com/v2/files/summit_press_release.pdf

⁶ Rosenblaum, S., Weiss, P., and Parush, S. 2003. "Product and Process Evaluation of Handwriting Difficulties." *Educational Psychology Review*, 15:1, p. 41.

⁷ Zubrzycki, J. "Summit to Make a Case for Teaching Handwriting." *Education Week*, Jan 23, 2012. http://www.edweek.org/ew/articles/2012/01/25/18handwriting_ep.h31.html?qs=cursive

⁸ Rosenblaum, S., Weiss, P., and Parush, S. Op. cit., pp. 41-42.

- ❖ Self-monitoring
- ❖ Orthographic-motor integration
- ❖ Evaluation

In terms of students' cognitive development, evidence-based research has shown that handwriting skills can:⁹

- ❖ Increase brain activation
- ❖ Impact performance across all academic subjects
- ❖ Provide a foundation for higher-order skills
- ❖ Influence reading, writing, language, and critical thinking

Research has proven that there is a positive correlation between better handwriting skills and increased **academic performance in reading and writing**. When students spend less time concentrating on the basics of letter formation, “students can better focus on the planning and thought organization that is required for effective composition.”¹⁰ When handwriting becomes automatic in this way, students are able to use higher-order and creative thinking processes for idea production rather than text composition.¹¹ Some students may be able to provide the answer verbally to an assignment while those with handwriting difficulties will not be able to put those same thoughts to paper.¹²

In addition to aiding the writing process, the act of putting pen to paper helps students to “absorb knowledge” in a way that visual or audio learning cannot.¹³ Handwriting instruction aids in reading fluency development in this way by “activating visual perception of letters” and increasing “accuracy and speed for recognizing” these same letters.¹⁴ Poor handwriting can also frequently lead to spelling difficulties.¹⁵

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Students who are not proficient in handwriting may be as high as 25 to 33 percent of the student population.¹⁶ As a result of handwriting difficulties, research shows that students who are not proficient in handwriting produce poorer quality compositions both in terms of length and

⁹ “Handwriting in the 21st Century? Research Shows Why Handwriting...” Op. cit., p. 2.

¹⁰ Ibid., p. 3.

¹¹ Rosenblum, S., Weiss, P., and Parush, S. Op. cit., p. 42.

¹² Cahill, S. 2009. “Where Does Handwriting Fit in? Strategies to Support Academic Achievement.” *Intervention in School and Clinic*, 44:4, p. 223.

¹³ Albright, M. “In Computer Age, What About Handwriting?” *Houma Today*, Jan. 7, 2012.

<http://www.houmatoday.com/article/20120107/ARTICLES/120109727/1211/news01?p=2&tc=pg>

¹⁴ “Handwriting in the 21st Century? Research Shows Why Handwriting...” Op. cit., p. 4.

¹⁵ Ibid.

¹⁶ Ibid., p. 2.

content.¹⁷ Thus, handwriting is an important tool for both the *quality* and *quantity* of students' composition. Given the importance of handwriting for a student's academic success and the fact that **a child's fine motor skills associated with handwriting are not fully developed until age 10, handwriting instruction should continue well beyond the early childhood years.**¹⁸

¹⁷ Pressler, M. "The Handwriting Is on the Wall." *The Washington Post*, Oct. 11, 2006.

<http://www.washingtonpost.com/wp-dyn/content/article/2006/10/10/AR2006101001475.html>

¹⁸ "Handwriting in the 21st Century? Research Shows Why Handwriting..." Op. cit. p. 5.

Section II: Literature Review – Teaching Cursive

This section focuses specifically on the role of teaching cursive in the 21st century classroom. The arguments against teaching cursive are weighed against the arguments in favor of teaching cursive.

Opponents of Cursive Writing

The Rise of Technology

Opponents argue that cursive writing is not a 21st century skill. As social interactions become more digitally-centric, the need for pen-to-paper correspondence is waning, while keyboarding has become an increasingly central skill. Beyond the prevalence of e-mail and texting, everyday transactions are also heavily tech-based: online banking and financial management, for instance, have rendered snail mail and check-writing largely obsolete. Even the need for handwritten signatures has been decreasing as electronic signatures have become increasingly common.¹⁹

The Importance of Other Classroom Subjects

Opponents also suggest that teaching cursive is a waste of valuable classroom time. Though districts may elect to provide cursive writing instruction, some argue that it is a waste of time to teach a subject that is no longer a part of standardized state assessments. Since the common core has deemed cursive to be an optional skill, opponents of formal cursive instruction argue that it is more important to focus on broader communication skills such as grammar, writing skills, and sentence structure.²⁰

Cursive is Not Required for Academic Success

Finally, children can get by in the real world without cursive. Though proponents of cursive instruction note that a legible signature may be necessary for adulthood, there does not appear to be a great need for more extensive proficiency. Even higher-level standardized assessments—such as the ACT—typically do not require students to use cursive for written portions of the test.²¹ In fact, in 2007 only 15 percent of students

¹⁹ Bowie, L. “Debate on Whether Cursive Writing Should Still be Taught.” *The Baltimore Sun*, Nov. 26, 2011.
http://articles.baltimoresun.com/2011-11-26/news/bs-md-cursive-20111126_1_cursive-typing-baltimore-city-schools

²⁰ Godar, B. “The Write Way: Cursive in Classrooms Up for Debate.” *Education Week*, Jan. 6, 2012.
http://www.edweek.org/ew/articles/2012/01/06/17mct_mncursive.h31.html?qs=cursive

²¹ Zezima, K. “The Case for Cursive.” *The New York Times*, Apr. 27, 2011.
http://www.nytimes.com/2011/04/28/us/28cursive.html?_r=1&adxnnl=1&adxnnlx=1329768192-8RoVpZ7dZixXDYIpXdAq0w

who took the SAT chose to write the essay portion in cursive.²² Therefore, it does not make sense to spend such a large amount of class time teaching a skill that students are not going to use nor do they appear to need.

Proponents of Cursive Writing

While some proponents may lament the decline of cursive for its beauty as a lost art, the role handwriting can play in a person's self-definition, and the place cursive holds historically and culturally in the United States, there are also some practical and scientifically-based arguments for keeping cursive in the curriculum.

Developmental Skills

First, cursive helps to develop motor skills. A 2011 *New York Times* article quoted a pediatric occupational therapist, who argued that cursive helps hone “dexterity ... [and] fluidity.”²³ In California, where the cursive debate has also gotten serious media play, proponents highlight cursive as central to motor skill development. One California news article cited a teacher who has her third-graders draw cursive letters in the air to reinforce a fluidity of movement.²⁴

Additionally, cursive writing has important implications for students' neurological development and processes. Not only does cursive **activate areas of the brain that are not affected by keyboarding**, but it also “helps children develop skills in reading, spelling, composition, memory and critical thinking.”²⁵

A Necessary, Basic Skill

Proponents of cursive writing argue that legible handwriting is still a modern necessity. Several sources note that printed handwriting is easier to forge, for instance, putting students at a greater risk of identity theft in adulthood.²⁶ Not only that, according to some experts, “about 50 percent of students naturally will be able to write faster and neater in cursive.”²⁷ Students should be taught cursive so they are given the option to write in the style that will be more convenient and appropriate for them.

²² Ibid.

²³ Ibid.

²⁴ Benefield, K. “Is the Writing on the Wall for Cursive Instruction?” *The Press Democrat*, Dec. 3, 2011. <http://www.pressdemocrat.com/article/20111203/articles/111209819?p=1&tc=pg>

²⁵ Slape, L. “Cursive Giving Way to Other Pursuits as Educators Debate Its Value.” *The Daily News*, Feb. 4, 2012. http://tdn.com/news/local/cursive-giving-way-to-other-pursuits-as-educators-debate-its/article_c0302938-4f94-11e1-af3a-0019bb2963f4.html

²⁶ Zezima, K. “The Case for Cursive.” Op. cit.

²⁷ Turner, B. “Teachers, Experts Stress Importance of Cursive.” *The Daily News*, Sept. 18, 2011. <http://galvestondailynews.com/story/258830>

Cursive is a useful back-up skill for cases when technology may not be available. Proponents argue that while digital technology may ultimately render old-school handwriting obsolete, students may need something to fall back on—some job applications may require candidates to write more than a line or two. Similarly, students unable to read cursive may be at a disadvantage if they need to reference documents produced in a pre-technological era such as the Declaration of Independence.²⁸ Students may also need to read cursive if a teacher provides handwritten feedback.²⁹

Academic Achievement

Proponents argue that cursive can be a valuable means of establishing students' connections between writing and reading. The California news article cited previously, for example, noted that “moving from block printing to cursive is analogous to the way a student learns to read by sounding out a word before moving on to speaking in a flow.”³⁰

Legible or illegible handwriting can also affect academic success in a scientifically measureable way. While teachers may claim that essays are not graded based on handwriting style, research has revealed otherwise. When presented with the exact same piece of writing, one written neatly and one written poorly, teachers “still give lower grades for ideation and quality of writing if the text is less legible.”³¹ For example, in one study where compositions were rated purely for content, poor handwriting “can drop scores as low as the 16th percentile while a very legible hand can propel the same concepts to the 86th percentile.”³² When it comes to cursive, the College Board reported that the 2007 SAT essays written in cursive received “slightly higher average scores than those written in print.”³³ Evidently, cursive writing has clear implications for academic success.

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Students with Learning Disabilities

Proponents of teaching cursive in the classroom argue that cursive writing is beneficial for students with learning disabilities. One recent article highlighted

²⁸ Zezima, K. “The Case for Cursive.” Op. cit.

²⁹ Driscoll, J. “School Districts Decide Whether or Not to Teach Cursive Writing.” *Gloucester County Times*, Nov. 27, 2011. http://www.nj.com/gloucester-county/index.ssf/2011/11/school_districts_decide_whe.html

³⁰ Benefield, K. “Is the Writing on the Wall for Cursive Instruction?” Op. cit.

³¹ Pressler, M. “The Handwriting Is on the Wall.” *The Washington Post*, Oct. 11, 2006.

<http://www.washingtonpost.com/wp-dyn/content/article/2006/10/10/AR2006101001475.html>

³² Simpson, K. “Colorado Schools are Beginning to Write off Cursive Handwriting.” *The Denver Post*, Mar. 27, 2011. http://www.denverpost.com/news/ci_17710389

³³ Pressler, M. “The Handwriting Is on the Wall.” Op. cit.

Camperdown Academy, in Greenville, S.C., which uses cursive handwriting to aid dyslexic children in learning to read. The “built-in mechanics” of cursive help to solidify word-order comprehension.³⁴

Caveat

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³⁴ “Schools Debate Cursive Handwriting Instruction Nationwide.” *Huffington Post*, Mar. 30, 2011.
http://www.huffingtonpost.com/2011/03/30/cursive-handwriting-instr_n_842069.html