

Pen2Paper



The Pursuit Of Penmanship

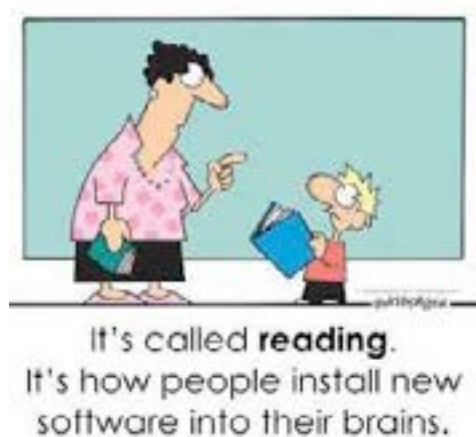
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Handwriting and Evolution

The ability to communicate in a written form is a relatively new development in our human evolution that began with the development of the cuneiform script in Sumer (now in Southern Iraq) approximately 5,500 years ago. Prior to this humans, relied upon verbal and non-verbal forms of communication and it is understood that humans have been using spoken language for more than 35,000 years.

Whereas speech and sight might be seen as innate abilities in humans, writing involves an additional thought process whereby the information that we seek to communicate has to be interpreted and re-communicated using letters or graphemes to represent the sounds for each word. Written communication is not a passive process but requires our understanding and willingness to take action rather than merely absorb information through listening. Verbal and non-verbal forms of communication are present throughout the animal world, but the evolutionary development of written communication signalled a significant change in human brain development, as described by Maryanne Wolf in her book, *Proust and the Squid: the Story and Science of the Reading Brain*;

“The brain became a beehive of activity. A network of processes went to work: the visual and visual association areas responded to visual patterns (or representations); frontal, temporal and parietal areas provided information about the smallest sounds in words....; and finally areas in the temporal and parietal lobes processed meaning, function and connections.”¹



The First Schools of Writing

The development of written communication has traditionally marked the transition in history from 'prehistoric' to 'civilisation' and this period also saw the development of the first schools. The Sumerians established tablet houses that were located in the courtyard of the city temple and its pupils were boys from the wealthiest families. These educational establishments were so named because of the clay tablets



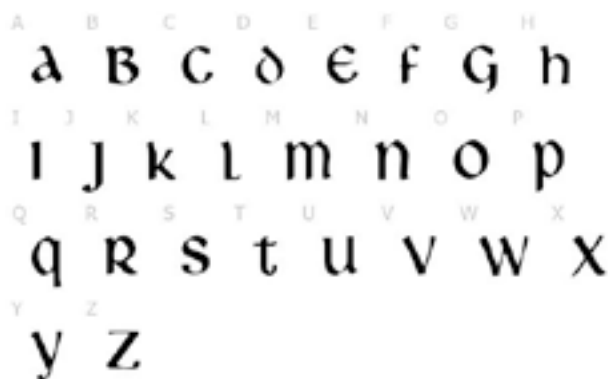
upon which lessons were carefully copied from one half to the other by pupils.

The learning and recitation of these texts was the primary focus of the school day and upon completion of their education, pupils were employed as scribes. In this first example of literacy education, the emphasis on the ability to write as a vehicle for the wealthy to sustain higher status occupations is noteworthy.

Handwriting and Religiosity

The Roman alphabet appeared in 700 BC and travelled widely as the Roman Empire expanded through Europe. As writing instruments and surfaces evolved, so too did the appearance of the written word. Handwriting is associated with words written in a regulated format, making use of a particular style of writing. This emphasis on regulation has existed since the time of the Romans and the early Christian communities.

The traditional appearance of the Roman script was considered too decadent by the early Christians who sought a more humble writing style. By the time of the first scriptoria and libraries in Europe, in the 6th century AD, the monasteries had developed uncial as a script. Uncial related to the inch high guide that was used to regulate the size of the script. All of the letters appeared in the upper case until half-uncial was developed at the start of the 7th century. Half-uncial appears very similar to lower case lettering used today. This style of writing was clearer to read and also brought about clearer spacing between words to make it easier to read.



Charlemagne, in the late 8th century, as ruler of most of Europe sought to standardise handwriting with the appointment of an English monk whose responsibility was ensuring the exclusive use of uncial for all copied texts, using the large letters at the start of sentences and lower case letters throughout. By 900 AD, the Gothic style of script had evolved, particularly in Germany. Its advantages included the narrowness of the letters, allowing more words per page.

Handwriting and the Printing Press

The invention of the printing press in the 1450s changed the nature of the handwritten word forever. Within the monastic community there was a real concern that readers would be at the mercy of the machinist operating the press and so all manner of inconsistencies could appear in the texts as opposed to the regulatory



uniform approach of texts produced in the scriptoria. Trithemius, a 15th century monk explained;

“However well we behave, however fruitfully we teach, all that would be lost to oblivion if the work of the scribe did not record them in letters. It is scribes who lend strength to words, memory to things, vigour to time..... The printed book is a thing of paper and in a short time will decay entirely.”²

image of printing press



Whilst handwriting in ‘perfect’ form as Trithemius envisioned it, may have been a goal in order to show dedication to God, it is important to remember that the printing press shifted control of publication away from the monasteries (and therefore the Church) and this would have struck fear amongst the clergy, worried for the morality of their congregations.

Within 50 years of the invention of the printing press, more than 15 million books had been printed and this shift changed the perception of handwriting to a vehicle for self-expression on the part of the writer. Anne Trubek, notes that the same is true today in our perception of the computer;

“Conventional wisdom holds that computers are devoid of emotion and personality, and handwriting is the province of intimacy, originality and authenticity.”³

As printing techniques evolved, so too did a wider range of handwriting styles. The flowery scripts that appeared in the 16th century were in part due to the invention of copper plate engraving. As this process allowed for more intricate text styles, they became more popular in handwritten texts as well. It was at this time that handwriting began to develop into a form of self-expression and symbol of status. By the mid-18th century, the first schools of penmanship had been established. These

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establishments trained men as copyists of important legal documents, perhaps the most famous example of this is seen in the American Declaration of Independence from 1776.

Handwriting and Social Status

The introduction of compulsory schooling in North America and England took place in the 19th century. Before this time, the skill of reading was often passed from one generation to the next within families. It would be quite usual for girls and women to be able to read, in addition to families who were not wealthy enough to afford a formal private education. Writing however, was a skill reserved for the wealthy and those who received a formal education and just as the Sumerians thousands of years previously, the ability to write and the style in which writing was produced became synonymous with a person's wealth and status.

In her book, *Handwriting in America: A Cultural History*, Tamara Plakins Thornton identifies that handwriting historically was not concerned with teaching everyone to write in an identical fashion but about learning a writing style that was appropriate to your social position. In a time when the rise of the printing press was depersonalising the written word; differing writing styles enabled the reader to ascertain the standing of the author immediately, which was not possible with the printed word.

“The appropriate degree of authority granted to the handwritten word, to literacy in the largest sense, was inscribed into the very words themselves, guaranteeing that literacy would carry neither socially promiscuous meanings nor culturally disruptive uses.”⁴

In his review of Thornton's book, Dyas A Lawson explains that if you wanted to get some of your ideas published, and were of a lowly station in life, they would be reproduced by hand by someone who would choose a suitable script to match your station and make it clear to the reader that your ideas were not to be taken seriously.⁵

During the Victorian era, handwriting developed into a reflection of the character of the writer and the belief was held that both should be developed together. The penmanship manuals of this time focused not just on the angle of the pen and page but also how the person sat and how his muscles should be developed and built to optimise his writing position and style.

image of hand tied to enable perfect hand position for handwriting



The Fluency versus Legibility Debate

With the development of a range of handwriting styles, came a rising tension between those who believed that the decorative and consistent appearance of handwriting was most important and those who believed that its speed and legibility were the priority; it was a debate about style over practicality with two emerging experts, Platt Rogers Spencer and Austin Palmer.

- Spencerian Approach – Spencer was known as the father of American handwriting and his style of handwriting was taught extensively from the 1860s to the 1920s in the United States. He recommended daily handwriting practice for 6 to 12 hours as a way of ensuring that a person could become more respected and genteel.

Image of spencerian script



Palmer Method – Palmer believed that the industrial age required a more robust handwriting style that could be written plainly and at speed. His style was more vertical than Spencer's which he considered too ornate for the business world that relied upon clear written communication. His view superseded Spencer's approach and by 1912, more than a million copies of his handwriting books had been sold. His method remained popular until the introduction of the 'ball and stick' method of teaching handwriting in the 1940s, which refers to the introduction of teaching manuscript printed letters to children first, before the introduction of cursive or joined up handwriting two or three years later.

Image of Palmer script



Handwriting Instruction Today

Since the 1940s children in Britain as well as the United States have been taught to form and master printed letters (manuscript) before learning how to join their letters in a cursive script two or three years later. In Britain, the cursive handwriting is not as prescriptive in style as is seen in North America and some European countries. An advantage for children learning to print letters before joining them lies in the relationship between learning to read and learning to write; reading books are printed in manuscript and therefore cursive writing may be more difficult for children to understand.

Children are also encouraged to write on vertical surfaces, such as whiteboards (interactive or wipe-clean) or even tracing letters in the air as this can help with keeping their hand in the optimum neutral position. It seems that utilising a wide range of writing surfaces and media encourage children to experiment and gain confidence whilst developing their fine motor skills. Fluency seems to win over legibility for the youngest children; it is more important for them to learn the correct shapes and movements of the arm required to make the shapes before it can become legible. As muscle memory is developed, fluency increases alongside confidence as the child has been able to master the technique without worrying about a perfect outcome.

image of child tracing letters on an ipad



The Pros and Cons of Cursive and Manuscript Instruction

Just as there has been fierce debate over fluency and legibility, discussion is now dominated by conflicting views over which style of script should be taught first or if indeed, the teaching of cursive handwriting should be relegated to the educational archives.

The arguments in favour of teaching manuscript or printed letters first include;

- The correlation between reading the printed word and being able to recreate it
- Printed words and letters surround us, especially in this technological age

- Teaching letters or graphemes supports the teaching of sounds or phonemes and vice versa

The arguments in favour of teaching cursive or joined up letters first include;

- If a word is written in its entirety rather than as separate printed letters, this can assist pupils' reading as they can think of the word as a whole rather than individual component parts.
- Habits learned whilst printing letters must be unlearned for joined up script; such as holding the pen too tightly, pressing too hard on the page and having to change the body position.
- Cursive or joined up writing is much quicker than printing in addition to teaching children how to appropriately space words on a page.

In the United States, a fierce debate has erupted over plans to phase out the mandatory teaching of cursive script. The Common Core Standards for Education are an attempt to ensure consistency across the classrooms of America. First established in 2009, the CCS have in 2013 removed compulsory teaching of cursive handwriting which had only been receiving an average of 10 minutes of teaching time each day in the average school. Whilst 45 of the American states have signed up to the CCS, at least 7 of these states have proposed measures to keep cursive handwriting on the curriculum.

There is a sense with which cursive script in America is a sign of national identity and history; the Declaration of Independence was written in cursive script and whilst it is available to read online, there is a concern that a generation of pupils will be unable to access the text without being able to read cursive script. If this principle is expanded to all handwritten historical documents, even personal family writings may become inaccessible to the next generation. Jean Leising, the Republican Senator who introduced the Bill in Indiana which seeks to protect the teaching of cursive handwriting is also concerned about personal identity and security;

“If you can't write in cursive, how are you going to sign a legal document?”⁶

Whilst Randall Wallace, a specialist in reading and writing skills from Missouri University highlights;

“It has always seemed ironic that, even after we sign a document, we have to print our signature underneath it for clarity.”⁷

Technology and Handwriting

In 1874, the Remington Arms Company introduced the first typewriter. In addition to it being difficult to operate as the user was unable to see the text being produced, it was rejected by the business community who were unwilling to accept typed documents as authentic over handwritten pages. By the 1890s sufficient



modifications to the design had been made so as to woo the business and social user and they were commonplace by the turn of the century.

Image of Remington typewriter



The introduction of the typewriter into the workplace altered the focus on speed writing when instructing children. When it was no longer necessary to be able to write fluently and at speed, the focus could return to ensuring children's writing was legible. The office documents that required hasty preparation could now be delegated to the typist. The philosopher, Martin Heidegger suggested that the invention of the typewriter severed the relationship between the writer and his words;

"In handwriting, the relation of Being to man, namely the word, is inscribed in the beings themselves... When writing was withdrawn from the essence; i.e. from the hand, and was transferred to the machine, a transformation occurred in the relation of Being to man."⁸

In the fifty years that followed Heidegger's article, the technological age has relegated the humble typewriter to the antique store with the personal computer, laptop and mobile phone dominating modern communication. A common perception today might be more that teaching everyone to write in the same manner (as traditional cursive handwriting instruction does) removes the sense of the individual from the process; that there is an expectation that 'good' handwriting is about conforming.

Evidence from research conducted by Steve Graham, a professor specialising in handwriting acquisition at Vanderbilt University, suggests that teachers mark more favourably if exam papers are legible. His findings show that if a child scored in the 50th percentile, the quality of the handwriting can benefit or disadvantage a child by as much as 34 percentile points, take a pupil to either the 84th or the 16th percentile for the same answers on the test.⁹

Before schools rush to ditch their exercise books in favour of laptops, a research project at Indiana University, led by neuroscientist, Karin Harman James must be considered. Her findings identified that college students were able to recall more

information a week after it was written, when it was written in joined up script rather than printed or typed. She also identified, with the use of fMRI (brain imaging) technology that notable changes take place in the brain depending on whether preschool aged children are learning letters by writing them or typing them;

“I have found that the brains of children change when they learn letters by printing them, as opposed to typing them. .. When children learn their letters through visual practice, typing, or hearing, they do not show the benefits that are gained in pre-reading skills that happen after printing letters..... for children to have every advantage when they begin to read, they should have a lot of practice in fine motor skills such as printing letters.”¹⁰

A 2008 study published in the Journal of Cognitive Neuroscience concurs; adults learning a foreign language or alphabet are better able to remember the nuances of the characters if they have recreated them by hand rather than observed them on a computer screen.¹¹

Whilst technology might enable us to access and reproduce information at an alarming rate, Sharon Spencer, a Montessori teacher in Charleston reminds her students of the benefit of the humble pen and paper;

“I just tell the children, what if we are on an island and they don't have electricity. One of the ways we communicate is through writing.”¹²

For sceptics still unsure of the power of penmanship in the digital age, consider the research conducted by Randy Gardner, a social scientist, who set out to establish the impact of handwritten Post-It notes placed on office documents. His results showed a 69% response rate when the documents brandished a hand written note compared with just 39% for printed documents with no Post-It.¹³ Whilst there are clear benefits in this digital age to being able to access and reproduce information as quickly as we can speak, the handwritten word will always serve as a reminder of our individuality and our humanity whether we are reminded through the words of Sharon Spencer or Heidegger who challenged what would be accomplished by the unceasing push towards instantaneous communication;

“When the farthest corner of the globe has been conquered technologically and can be exploited economically; when any incident you like, in any place you like, at any time you like, becomes accessible as fast as you like.... Then, yes then, there still looms the spectre over all this uproar the question: what for?- where to?- and what then?”¹⁴



(Endnotes)

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5 See endnote iv

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IMAGES

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(image of uncial script - <http://ifiwewasnowman.files.wordpress.com/2009/12/uncial-script.jpg>)

(image of printing press - http://upload.wikimedia.org/wikipedia/commons/thumb/f/f8/Printer_in_1568-ce.png/220px-Printer_in_1568-ce.png)

(image of hand tied to enable perfect hand position for handwriting – image is halfway down the page - <http://www.paperpenalia.com/history.html>)

(image of spencerian script http://lauradipiazza.files.wordpress.com/2011/12/spencerian_script4.jpg)

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