

Handwriting - the research

The Art of Teaching Writing by *Mark Hartley, MBE*

- In general, children who feel good about their handwriting are far more motivated to write. Those who have a negative self-image of themselves as a writer and are resistant to writing usually have poor handwriting they are unhappy with. Students who have illegible handwriting often suffer from frustration, lowered self-esteem and decreased motivation (Cornhill and Case-Smith, 1996).
- As a general rule, children who have attractive, cursive handwriting are better at spelling than children who have untidy handwriting, or those who print.
- Underachievement in writing and all other curriculum areas which involve some form of writing is often the result of poor ability in handwriting often combined with poor layout and organisational skills (there appears to be a far higher prevalence of this amongst boys than girls).
- Pupils will invariably choose an attractive, shiny new reading book rather than a scruffy, creased older book. Their choice has nothing to do with the content of the story, it is simply a response to appearance. In a similar way pupils will feel more motivated to take pride in the appearance, organisation and tidiness of their workbook if it always looks 'as good as new'.
- The essential qualities of good handwriting are fluency, neatness and speed.

Should We Worry About Handwriting? By Alex Quigley

<https://www.theconfidentteacher.com/2021/01/should-we-worry-about-handwriting/>

- When you hear the refrain – 'oh, handwriting doesn't matter – we have laptops, voice recognition technology and more' – you could be forgiven for thinking handwriting doesn't matter, but it does. Lots of research by psychologists builds a clear picture that handwriting matters a great deal to writing and learning. It is much more than neat presentation or the flourish of a signature. Studies with young children have shown that when writing was composed by hand, children generated more words and more quickly, with more ideas, than when typing on a keyboard. Research also indicates that older students are more effective when they make notes by hand, than when they do so on their laptop.
- Writing experts have also shown that handwriting is a crucial foundation for writing success. The 'Writer Effect' reveals that unless handwriting is fluent and automatic, it interferes with the act of skilled writing. Handwriting effort can take up too much mental bandwidth. As a result, spelling slips, punctuation goes awry, and meaning making is compromised. Put simply, the better your handwriting – and the more automatic – the

more you can focus your mental energy on picking the right words, playing with sentence structures, and much more.

- The notion of just ignoring handwriting legibility and going the easy route could actually inhibit more effective methods of writing and learning. Not only is writing foundational for skilled writing, there is a real 'Presentation effect' too. That is to say, the judgements of teachers, and pupils, are influenced by legible handwriting and correct spelling. Potentially, two equally effective pieces of writing could be judged differently by a teacher or an examiner.

Handwriting Matters by David Didau

<https://learningspy.co.uk/writing/handwriting-matters/>

Some years ago, during the interview for a role as Head of English in a secondary school, all the candidates were asked to speak about what we would prioritise if we were to get the job. I have no memory of what I said, but I vividly recall one of the other candidates saying he would focus on improving students' handwriting. My bland inanities resulted in me getting the job; he didn't make the cut and was sent home after lunch. How we laughed.

At the time it struck me that focussing on improving students' handwriting as a secondary English teacher was an absurd waste of time. After all, who cares how neat their handwriting is? Why on earth should it matter? As with many things I used to believe, I have now changed my mind.

The two main arguments in favour of improving students' handwriting are automaticity and legibility.

Automaticity

Essentially, anything that occupies our attention reduces our capacity to think. In *Thinking, Fast and Slow*, Daniel Kahneman discusses the fact that the effort required to maintain a walking speed above 14 minutes a mile makes it almost impossible to perform mental arithmetic. If someone asks us to think about a complex problem when we are walking we will, most probably, stop in order to give the matter our full attention. This is the same logic that leads us [to turn down the volume of our car radio when reverse parking](#); if music is sufficiently loud it occupies too much of our attention to be able to safely complete the manoeuvre.

[According to Nelson Cowan](#), we can only complete a cognitive task if we have sufficient ability to hold onto information as it is processed, and most people are only able to concentrate on

between 3 to 5 'chunks' of information at any one time. When a student is writing, some thought will be given to content, some to style, and some to accuracy. All of this burns through working memory. If students are also having to give conscious attention to process of writing, they will have less attention to attend to more important matters. Children who have to consciously concentrate on any element of their handwriting are unable to give full attention to the other parts of the curriculum content. When automaticity is achieved (that is, producing handwriting without having to think about it), more cognitive 'energy' can go into the other learning processes.

According to [Tucha et al](#), being able to write smoothly using legibly formed, joined up handwriting enables us to write with the least amount of distraction, whereas printing – writing each individual letter separately – leads to a greater portion of our limited working memory reserves being used to concentrate on the process of writing. They say:

The automatic production of strokes, letters and words frees up mental resources for the process of composing or the understanding of the content of texts or lessons. Therefore, the consideration of fluency or automaticity of handwriting in national curricula appears to be necessary if not mandatory. (p. 154)

Legibility

The other reason for focussing on improving students' handwriting is legibility. It should be obvious that if no one can read what you've written, all attempts at automacity are wasted.

It turns out that handwriting casts a [halo effect](#). We tend to assume that people with well-formed, easily legible handwriting are also cleverer. Although handwriting never features in GCSE or A level exam rubrics, the effects of [handwriting bias](#) are well established. When we read the work of students we know, we bring our knowledge of them to the task of assessing their work. If our experience suggests that a student is able, we'll tend to overlook poor handwriting. But, if nothing else is known – as in the case of examiners marking the work of anonymous candidates – we may be biased by students' handwriting. The effects might only be small, but if an examiner assumes a student is brighter they'll look first at the upper bands of a mark scheme, and if they intuitively decide a student is less bright, they'll begin with the lower mark bands.

The difference between being awarded a 4 or a 5 in the new GCSEs could be a little as on mark. It could be that some students will not get the grades they deserve simply because their handwriting isn't up to snuff.