The Cognitive Value of Writing Shorthand

by Carmel Taylor

As a teenager learning shorthand in secondary school, my class eagerly prepared for, and nervously undertook, speed and theory examinations set by the Commercial Education Society of Australia. Although we sat our own internal examinations, our teacher, in her wisdom, understood the importance and influence of an accreditation from such an external body as we completed our resumés and looked towards employment applications or further study. I counted the days until the results of these examinations arrived!

Back then, I recall being intrigued by the challenge of each new aspect of shorthand theory and how it could contribute to the goal of keeping up with a speaker. How satisfying it was to be able to actually use this theory and those shortforms and phrases in sentences after the time spent memorizing them.

Shorthand has been very good to me. After finishing my commercial education at business college and then university, I secured positions as a stenographer and personal assistant, before being approached to teach shorthand in a secondary college – something I dreamed about whilst learning shorthand myself.

Over recent years I have been extremely excited, but not actually surprised, to learn how researchers have now connected stenography to brain health in older people. Several complex cognitive processes come into play when we learn and write shorthand.

When initially learning the various aspects of shorthand theory and shortforms, as well as understanding the theory, we practice the outlines through repetition, or deliberate practice[[1]](#footnote-1) as it is known. Deliberate practice embeds the knowledge and activity into the explicit (long-term) memory and allows for automaticity – applying the knowledge without reflection. For my students I used the analogy of them walking home from school, as they had done many times, and always arriving at the correct home. Why? Because they have done this activity repeatedly, leading to automaticity.

We then come to decision making. Decision making, or problem solving, occurs when we hear words or phrases and refer to the information in the explicit memory to decide which part of theory applies to how this will be written as an outline. This is akin to using our own internal high-speed search engine. The quicker these decisions can be made, the faster we write: ‘the speed is in the brain’.[[2]](#footnote-2)

Meanwhile, concurrently with these decisions being made, we are storing a series of words or phrases, as we hear them, in the working (short term) memory so they can be processed next.

The final activity as part of this process is to write the outlines on paper. This requires dexterity, precision, spatial organisation and a degree of speed. If outlines are not written clearly and proportionally to each other it could result in an indecipherable transcription.

No wonder then that, in this age of extended longevity, thoughts have turned to how shorthand can assist our brains to maintain the level of fitness required to keep pace with the healthy body. We know that shorthand, through the above cognitive processes, challenges the brain. These challenges can lead to neuroplasticity[[3]](#footnote-3) of the brain which in turn can assist dementia prevention. Given the correct conditions neuroplasticity can continue to take place at any age.

The members of Minden Stenography Club, one of the many stenography clubs in Germany, embarked on an exercise to give credence to concept of shorthand assisting mental agility. Over several years members were the subjects of tests by the Coppenbrugge Hospital’s Gerontology Department. When the experiment commenced the subjects were aged between 62 and 73. Results showed they experienced either improved memories or no deterioration in memory as the project progressed, in spite of their ageing. They wrote shorthand on a regular basis, this being based on the adage “Use it or Lose it”. The project was termed “Shorthand Against Dementia” or “Shorthand Against Forgetting” and hence this has become the name of many courses for teaching and revising shorthand throughout Germany and Switzerland.

In Pasadena at the California Institute of Technology, scientists have taken the opportunity to study the difference in the development of neural circuits of expert stenographers, who are members of the Japanese Association of Stenography, compared to those of the non-expert brain.[[4]](#footnote-4)

Maintaining their shorthand skills in a social setting is the aim of a number of organisations internationally. The Swiss Stenographers Association has an arm known as the Veterans Association. Not only do they write shorthand, and enter competitions as an option, but they interact through social functions. The Shorthand Writers of Maine in USA meet monthly. A number of members in their 80s and 90s are retired teachers, stenographers and court reporters. The common thread throughout all these associations is the aim to combine their love of the skill of shorthand with the concept of challenging their brains, all in a social situation – these are the essential elements referred to in any literature on maintaining a healthy ageing brain and assisting dementia-prevention.

George Walk, Dean of Teachers College, Temple University, Philadelphia wrote a paper in 1926 discussing the benefits of shorthand. Whilst his comments were not focused on the benefits of shorthand for a healthy ageing brain, he did nonetheless analyse the cultural and disciplinary benefits for learning shorthand.

“It is the judgement of the writer that shorthand taught and learned under favorable circumstances makes a very significant contribution to the student’s thinking powers.”[[5]](#footnote-5)

So we see that ‘shorthand for the brain’ is not new.

Further reading:

<http://www.steno.ch/0/index.php>

<https://www.dewezet.de/region/hameln_artikel,-mit-steno-gegen-die-demenz-_arid,544301.html>

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1. <http://www.apa.org/education/k12/practice-acquisition.aspx> [↑](#footnote-ref-1)
2. Shorthand Professor Waldir Cury. <http://www.taquigrafia.emfoco.nom.br/articles_in_english/the_stenographic_brain.pdf> [↑](#footnote-ref-2)
3. The brain’s ability to reorganize itself by forming new neural connections throughout life. [↑](#footnote-ref-3)
4. <https://onlinelibrary.wiley.com/doi/full/10.1002/brb3.333> [↑](#footnote-ref-4)
5. P29, Walk, George Everett “A Neglected Factor in Education” New York The Gregg Publishing Company, 1926 [↑](#footnote-ref-5)