

## **That's why hand-writing still matters!**

On our site we feature an article called Hand-writing must stay! In this article we present several reasons why we should keep on teaching handwriting. Next to that we added an extensive list for further reading.

Cause:

Due to the advancement of technology:

- a. there's less focus on the education of handwriting
- b. it is questioned if it is still necessary to educate handwriting
- c. so called Steve Jobs-schools are announced
- d. children who have problems with mastering handwriting are often steered towards using the computer.
- e. the reason why we should learn how to write by hand is often lost due to unprofessional communication or the lack of information.

Explanation:

We welcome the use of technology when it's used, primarily, to improve and to support the personal and cognitive development of a child.

In the following topics we will expand on:

- 1 The mechanical aspect of handwriting
- 2 The neurological aspects
- 3 The improvement of spatial orientation
- 4 The psychological arguments
- 5 The impact on social interaction
- 6 Practical arguments
- 7 Esthetics
- 8 Historical arguments
- 9 Therapeutic arguments
- 10 The supportive role when learning how to read

In the appendix of this article you will find an extensive list of sources and scientific studies. The numbers between the brackets in that list refer to the topic number. The topics are more often related than separated topics that's why you will find overlap between them.

### **The mechanical aspect of handwriting**

Handwriting is one of the most difficult abilities we teach to our children. It requires to a good coordination of your body. A precise coordination between eyes, brains and all your muscles from the neck to the fingers. A hand alone consists of 29 joints and 35 muscles; a fine piece of mechanics! This complex action depends on a lot of practice. The development of fine motor skills takes years. While writing your whole body is involved in the process. Handwriting positively affects the development of fine and gross motor skills.

### **The Neurological aspects**

While writing several areas of the brain are connected: through contact with , the direction of and the pressure of the pen messages are sent to the brain. The repeating process of handwriting integrates motoric connections in the brain.

The cooperation of the left and right part of the brain is stimulated and maintained by among other things offering paper-based bimanual exercises.

Brain Development, -activity and function are improved. Think of spatial visualization ability and the ability of visual discrimination.

Also higher cognitive levels (thinking, language, memory) can be activated by the effects of the process of learning to write by hand.

“When a pupil is able to learn handwriting quickly and automatically, he or she is able to write down his or her thoughts before they are faded away. The maximum capacity of the brain is used in a proper and better way for creating sentences and ideas. If you have to reflect on how you're writing, cognitive sources are left unused”.

Handwriting helps memorizing the forms of letters. The visual identification of graphical shapes is supported by the writing movement.

### **The improvement of spatial orientation**

By learning how to write a pupil also learns how to arrange the available space in a proper way. He/she learns to estimate distances and spacing of letters, words and lines.

Learning to write by hand supports the concept of direction : up, down, to the right, to the left, higher, lower, etc.. Understanding the difference between a long letter (k, j) and a short letter (a, n) is also learnt.

### **The psychological arguments**

He or she who writes develops discipline is intrinsically. He/she learns that if you want to achieve anything you will have to work for it. Concentration is improved and along with it thinking and the level of intelligence. It brings order, peace and space in the minds of 'overactive' children. Being able to write stimulates self-confidence. Handwriting is a physical activity and therefore more in connection with our feelings. Being in motion yourself connects you with your emotions much faster than words.

### **The impact on social interaction**

Writing is and always has been a means of communication. Messages can be transferred without the messenger being present. The push for being able to communicate with symbols was the first step towards the development of handwriting. Being able to communicate by letter makes it more easy to function in society. We learn to how to take into account other people. Is he or she able to read my writings? How do I present myself? A handwritten letter shows interest in the receiver. Proper handwriting education stimulates the upbringing of children to engaged citizens. “A lot of people will alienate themselves from the handwriting culture due to the extensive use of moving and/or animated media. Particularly due to this form of illiteracy they will find themselves at the dark side of our knowledge based society... Children will be considered a failure or handicapped when they're not able to write by hand.”

Not so long ago the social identity of the writer was defined by his handwriting and not the content of the text.

### **Practical arguments**

Handwriting make mankind independent of electricity. Our autonomy is kept safe and we don't become a slave of technology. Handwriting is a practical basic skill, which serves every other skill in a supportive role. Good handwriting education improves school grades in a considerable way.

Quickly writing down an address, a short note to be put in someones mailbox, compiling a shopping list, writing a short note: being able to write quickly and readable is very convenient at these moments. Properly developed fine motor skills lead to the right handling of different kinds of tools. Think of a dentist or a surgeon.

The invention of the automobile didn't keep us from walking. A pen is more affordable than an iPad.

### **Esthetics**

From scribble to calligraphy

The refinement of control of the fine motor skills gives the opportunity to creative outbursts of culture. Writing by hand makes thoughts concrete and it can add beauty to it. The power of shaping thing in an artistic way is only seen in humans. A polished handwriting is a sight for sore eyes and creating a beautiful line brings much satisfaction.

Like Ballet is an esthetic way of dancing, is calligraphy an esthetic way of writing. Not so long ago, every form of handwriting was considered as the esthetic embodiment of the collective nature of the social, occupational or gender group using it exclusively.

### **Historical arguments**

Throughout human history mankind left markings behind, created tracks, put up warning signs and has drawn holy symbols. This development of writing we also see in children growing up: it draws tracks in the sand with sticks, leaves marks where it has been, creates tablets of clay and spontaneously all sorts of forms arise with all sorts of materials. If we do not teach the children handwriting we would deny them the last step in fine motor skills, brain and personal development.

### **Therapeutic arguments**

Handwriting has it's own unique motion. Emotions influence our way of moving. Graphologists en handwriting educators are able to perceive blockades in the stream of movements by observing handwriting.

With handwriting movement therapy a.o. personal rhythm is recovered and self consciousness regained. In children's handwriting problems can be noticed before children get stuck. Even together with and after a psychological examination the handwriting therapist can add a valuable contribution.

Manual labor proves to be good for a human. It can activate the reward center in the brain.

### **The supportive role when learning to read**

Writing by hand benefits learning to read because shapes of letter are recognized much earlier compared to when you type a letter on a keyboard. The motor memory supports the visual memory.

#### Statements in summary

One who does not learn how to write by hand will not evolve in an optimal way

One who does not learn how to write fails at many discipline

Due to lacking knowledge of teachers the education of handwriting starts too soon leading to cramps and deformation.

By writing by hand man learns how to use the available space and material efficiently.

If we denied children the education of handwriting, we would deny them the opportunity of writing ambition and performing at a higher level of thinking: this all what makes us human!

Handwriting is important for physical and mental health

The evolution of technology (e.g. a laptop) can be highly beneficial for children with learning and/or motor skill disabilities, but technology should never be or can be the substitute for the movement of writing.

A person skilled in handwriting has more possibilities to get a job and is way cheaper for society when it comes to welfare payments and medical costs.

We as humans are able to control our own motor skills and technique.

We must have them both at our disposal independently!

Translated by Annelies Hulzinga

#### Literature/research

- Met 'bundel' wordt bedoeld een deel uit de serie: "Over kinderhandschrift, schrijfopvoeding en schrijfonderwijs gesproken" van D. Schermer.

- De cijfers tussen haakjes corresponderen met de nummering van bovenstaande aspecten / argumenten.

Zie bij [www.handschriftontwikkeling.nl](http://www.handschriftontwikkeling.nl), onder Artikelen: Schrijven moet blijven!, 2008

Zie bij [www.handschriftontwikkeling.nl](http://www.handschriftontwikkeling.nl), onder Artikelen: Waarom kan en mag typen schrijven niet vervangen?, 2010

The Vanguard: Edda Manley – Report on handwriting in the 21st century, 2012(1, 2)

Bundel 7, hfdst. 3: Schrijven versterkt het lezen, Jean-Luc Velay & Marieke Longcamp, 2005 (10)

Bundel 8, hfdst. 6: Opvallende ontwikkeling en leerstoornissen in het schriftbeeld - Renate Joos, 2007 (5)

Bundel 8, hfdst. 3: Het verband tussen pen, pengreep, het schrijfresultaat en het individu - R. Sassoon, 2007 (6)

Bundel 16, hfdst. 18: Dertienjarige jongen met dysgrafie, T.L. Hopkins: 13-jarige met dysgrafie, 2004 (1, 2, 6)

Bundel 18, hfdst. 2: The Hand: How It's Use Shapes The Brain, Frank Wilson 1998 (2)

Bundel 18, hfdst. 2: Handwriting – Path to Literacy?, Jeannette Farmer, 1999 (4)

Bundel 19, hfdst. 3: De functie van het brein bij het leren schrijven, T. Danielsen, 1984 (2)

Bundel 19, hfdst. 12: Schrijfontwikkeling, vaardigheid en interventie, K. Feder, 2007 (2)

Bundel 24, hfdst. 10: Hoe schrijven het brein traint, Gwendolyn Bounds, 2010 (2)

Bundel 23, hfdst. 5 : Historische schrijverschillen tussen jongens en meisjes, T. Plakins Thornton, 1996(5,6,7)

Bundel 23, hfdst. 7: Schrijfopvoeding en mensvorming, Dr. G. Rahn, 1961, (7, 9)

Bundel 26, hfdst. 4: De vele gezondheidsvoordelen van goed handschrift, J. Deardorff, 2011 (2, 4)

Bundel 26, hfdst. 2: De voordelen van cursief schrift, S. Blumenfeld, 2005 (3, 10)

Bundel 27, hfdst. 5: Waarom scholen schrijfonderwijs moeten geven, zelfs als typen nuttig is, K. Stokes, 2011 (2)

Bundel 27, hfdst. 9: Kunst van schrijven op punt van wederopleving , J. Hoermann, 2011 (2)

Bundel 27, hfdst. 10: Intelligentie en de kunst van cursief schrijven, dr. D. Sortino, 2011 (2, 10)

Bundel 28, hfdst. 12: Kinderen leren schrijven en het verband met de ontwikkeling van ruimtelijk bewustzijn bij het kind, A. Mc. Allen, 1977 (3)

Bundel 28, hfdst. 17: Schrijven en het brein: Neurowetenschap toont de wegen naar leren, Judy Willis 2011 (2)

Bundel 29, hfdst. 4: Het schrijven van kinderen verbeteren? Verwaarloos hun handschrift niet, Steve Graham, 2009/2010 (2, 5)

Bundel 29, hfdst. 6: Schrijven moet blijven, D. Schermer, 2006 (2, 10, 4)

Bundel 30, hfdst. 9: Waarom lopend schrift aanleren?, Iris Hatfield (2, 3, 4, 6, 10)

Bundel 30, hfdst.12: Waarom schrijven op school belangrijk is, Linda Green, 2012 (2, 5)

Bundel 31, hfdst.11: De verloren kunst, L.Rivkin, 2012 (1, 2, 4,)

Bundel 31, hfdst.18: Het nieuwste over de twee(!) basisschriften, Ines Grämiger, 2012 (2)

Bundel 32. hfdst. 1: Why You Learn More Effectively by Writing Than Typing, Melanie Pinola,, 2011 (1, 2, 4, 10)

SPH Nieuwsbrief, pg. 27, krantenartikel (2012) uit Canada: Karin Harman James, (2)

Idem pg. 28, ,, ,, ,, ,, ,, ,, : Virginia Berninger, (2)

Idem : Katja Feder, (2)

Van pen naar toets?, José Riepstra, 2012

Evidence Statement 'Motorische schrijfproblemen bij kinderen', A. Overvelde e.a., p.10, 2011 (10)

Acta Psychol: The influence of writing practice on letter recognition in preschool children, J.L. Velay en M. Longcamp, 2005 (2, 10)

The Vanguard, jan-mrt.:Waarom lopend schrift aanleren, Iris Hatfield 2012 (10, 6, 3, 1,2)

Naar school; psychologie van 3 tot 8', dr. Ewald Vervaet, 2007 ( 1, 3, 6, 10) [www.shodo.nl](http://www.shodo.nl)

Grapho-Therapeutics, Pen and Pencil Therapy, P. de Sainte Colombe, 1<sup>ste</sup> druk 1966, 10e dr. 1988 (9)

Vier! Dec. 2010, pg. 45: 'Lifting depression', Kelly Lambert (1, 2, 9) neurowetenschapper

Het maakbare brein, Margriet Sitskoorn, Bert Bakker/ Amsterdam, 2007 (2, 9)

'Visie VLSM', zie [www.schrijvenvlsm.nl](http://www.schrijvenvlsm.nl)) Handschrift ..., onbelangrijk?

Leren schrijven belangrijk in computertijdperk, Miriam van den Brand

### **Sources Hand-writing must stay**

Barkley, R. (1998): ADHD and the Nature of Self Control. In *AHAF Journal*, July-August 1998

Beschel, G. (1993): Beiträge zur Psychologie der Kinder- und Jugendschrift, Hamburg

Coleman, A. (2001): Handwriting – Has it a Future? *The Graphologist*, Vol.19, No.3, Issue 72, Autumn 2001

Cristofanelli, P. (2006): Du und Dein erster Weg durch die Handschrift, Herbolzheim

Dommelen, J. van (1999): Is er nog toekomst voor het schrijven? *Symposium 1999 Jaar van het Handschrift*. Rotterdam, 29 september 1999

- Farmer, J. (1995/1996): Measuring Handwriting to Identify Thinking and Behavioral Styles in Four Quadrants of the Brain. *Journal of the American Society of Professional Graphologists*
- Farmer, J. (1998): Now that Attention Deficit Hyperactivity Disorder has been labelled a self-control issue it's time for old fashioned penmanship training. *AHAF Journal, July-August 1998*
- Farmer, J. (2006): The Graphic Reality of Handwriting and Brain Dominance. *International Graphological Colloquium, Florence, September 2006*
- Gibson, M. (2006): Schrijven en lezen, sneller en beter. *JSW, oktober 2006*
- Hagers, M.(2007): Leer kinderen snel schrijven, daar worden ze beter van. *NRC-Handelsblad, 21-04-2007 n.a.v. Journal of Educational Psychology, Febr. 2007*
- Harris, R.S. (2001): The Handwriting Culture Versus Technology. *The Graphologist, Vol. 19, No.3, Issue 72, Autumn 2001*
- Harrison, Ph. (1985): Helping your Health through Handwriting. San Francisco
- Niemeyer, A. ('07): Onhandige kinderen moeten oefenen. *NRC-Handelsblad, 05-07-07*
- Spear-Swerling, L. (2006): The Importance of Teaching Handwriting. *LD OnLine, augustus 2006*
- Olivaux, R. (1988): Dysgraphie and Grapho-therapy. In: A. Carmi & S. Schneider: Experiencing Graphology. London
- Schermer, D., Schoemaker-Ytsma, A C.M. (2001): Een leesbaar handschrift blijft noodzakelijk. In: D. Schermer & A.C.M. Schoemaker-Ytsma: Sprekend Schrift, Zevenaar/ Nieuwleusen
- Schermer, D., Schoemaker-Ytsma, A.C.M. (2003): Waarom leren we nog schrijven? In: D. Schermer & A.C.M. Schoemaker-Ytsma: Uitgesproken Schrift Zevenaar/Nieuwleusen
- Velay, J.-L., Longcamp, M. (2007): Besser von Hand. *Gehirn & Geist, 3/2007*
- Shanahan, (2006): Schrijfontwikkeling en leesproblemen. *Tijdschrift voor Remedial Teaching. 2006/3*
- Lethaby, W.R.: Writing and Civilisation
- Diringer and David: Writing
- Cox, J. (17.11. 1999): Giving kind the basics for writing. *Denver Newspaper Agency.*

### **Websites**

- Vereniging Leraren Schoonschrijven en Machineschrijven, [www.schrijvenvism.nl](http://www.schrijvenvism.nl)
- Instituut Haenen-van der Hout, [www.schrijfpedagogischehulp.nl](http://www.schrijfpedagogischehulp.nl)
- Platform Handschriftontwikkeling, [www.handschriftontwikkeling.nl](http://www.handschriftontwikkeling.nl)

AS/29.12.2012