**Handwriting: It Is More Than Meets the Eye**

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Handwriting: a common topic of conversation among teachers, therapists, and parents. When attempting to assess a child's handwriting and legibility skills, the child is typically asked to complete a writing sample, either by copying, self-generation or dictation, and the adult will look at the finished product, as well as the grasp. However, when the task of handwriting is broken apart, we find there are a lot of other skills that contribute to the success writing.

With the increased demands of school beginning in kindergarten, handwriting is often looked upon as a benchmark, among others, for school readiness. More and more, we are finding parents are faced with the challenge of making the choice to start kindergarten or enroll in a pre-K class. Although this decision is based on a variety of components, such as reading skills, socialization, maturity, direction following, and handwriting, our purpose is to dissect the task of handwriting, while giving a few pointers. It should be noted that with the demands in school performance, there is much debate on the overall readiness of children at such a young age, but regardless, it is important to know that a lot more goes into handwriting than what meets the eye! From fine motor control to motor planning, handwriting is a complex task.

**Fine Motor Control:** It goes without saying that overall fine motor strength and control play a key role in handwriting. Having an ideal triad grasp with proper web space opening contributes to a child demonstrating the ability produce smooth movements during handwriting, as well as have the endurance to write for a period of time. If these are not strong enough, a child will compensate with an inappropriate grasp, and will tend to use a thumb wrap on a writing utensil.

These skills can be improved through the completion of fine motor strengthening activities, such as using tongs and tweezers, in-hand manipulation games with small objects, such as pennies, and manipulatives such as small beads, blocks, and pegs.

A well-developed grasp is very important for writing, but is not the only focus for success. Grasp, actually plays a larger role for students who are required to write for longer periods of time and with increased speed.

**Visual Motor:** Visual motor skills include how the hands and eyes work together.  Therefore, a child's vision and hand-eye coordination are very important for handwriting. Paying attention to a child's ability to copy simple strokes or shapes, complete an age-appropriate maze or dot-to-dot, coloring within a designated area, as well as his or her ability to trace letters and shapes are good indicators for visual motor strength or weakness. Asking a child to form a letter, when tracing and copying simple strokes is difficult, will result in poor production.

In addition, children who demonstrate poor visual motor skills will often demonstrate difficulty making their letters fit within a designated space. It is important to pay attention to what is appropriate for a specific age range. For instance, asking a 5-year-old to use notebook paper with ease versus using large, wide-spaced paper.

These skills can be strengthened through practice of mazes and dot-to-dots, completing interlocking puzzles, playing ball catching and target throwing games, as well building with blocks or Legos.

**Motor Planning:** Motor planning is the planning and execution of a series of movements. In handwriting it relates to a child's ability to complete letter formation; how a child organizes his or her thought to letter writing, and then executes it on paper. Children with poor motor planning abilities will often form their letters in segments or broken lines. In addition, some children will have difficult forming letters correctly (from top to bottom). Although it is important to note reversals of letters and numbers, it should be known that reversals are common among young children, and really do not become an area of concern until about age seven.

Motor planning difficulties are often seen in children with Sensory Processing Disorder. Therefore, improving body awareness, proprioception and overall practice with help the brain conceive, plan and execute the steps needed for handwriting.

**Core Stability:** Core stability plays a larger role in so many of our skill areas, and is often overlooked. Having a strong trunk and good shoulder stability with improve the function of the hands. Children who demonstrate poor core stability, often have difficulty sitting for tasks, and during coloring and writing are observed to get most of the movement from the shoulder, not the wrist. A strong core will also help improve attention and focus, which are needed for so many of these complex school tasks.

Ways to improve core strength include completing activities in the [net swing](http://r20.rs6.net/tn.jsp?f=0015qpMUkFKsHqUk5Qa2mgnJr3XoZ3mzkOnHCWpZfW1OoGcUIUk9MDqEgPMIFbm3ydA89GfD44I8QLKAISw2cXv8-9XuZKIIFK8-zfpMOz-LrlILvt3DWUjW_F1ZJVVAJmycZTazpM51FYdGHkFJD2SFqYFGTaZC5tBQSSjzdCLL6Ut67VN5JlwAq7aQtT3p4N6DY7uY5ymZcp_EG4NPAW65PbObOmfehykH09Y0fzz-4DaSW8oHCOGy1PBgua6lb6YypcxQx8ZatQCYasIg4UhtPLn7FjqqquZSSBYle17Pn2SalHjfqlFqSdLOeyrigDFY3BOeK3zzmg9QZObbuIUEg==&c=4CA6CdZPWZtY_mRWttr35ZRS7Zf-2Ruw_gVB-2vs-l8gQPbVR28saQ==&ch=u7WnfRSSoqFIccYuQdP6hLPWxl2k893qaGRSxsb7ZcJXfVtYpl4a3A==), on a [bolster swing](http://r20.rs6.net/tn.jsp?f=0015qpMUkFKsHqUk5Qa2mgnJr3XoZ3mzkOnHCWpZfW1OoGcUIUk9MDqEuTG1apwaS25G2oj3k4zFJZJLIoIJ2gO4FvQ1EQ0DK86akJYgqoHEdygU-nMHFCTUCpFYAjWyoyjfyEJbZ2eu_VU5LfxJmFyCtO016WcgLgkaxi1e1CbDObvmxGLB54Ye8KVgQ9D_KOGLTJq5jD9MUGEDms7gWIGDwPdSkTxQCJ3CcLj5iyUifCuw8unP0LVxE2MmFoh_9ruG76_b5wCF6oPb3Yl2EfL4n30brW-F7sEgIicQPA-StauWiwZj_dvQ1O0OnwXhGmJOJ6O1GtrPHlVs7h9d167oswY6cwzq_u-&c=4CA6CdZPWZtY_mRWttr35ZRS7Zf-2Ruw_gVB-2vs-l8gQPbVR28saQ==&ch=u7WnfRSSoqFIccYuQdP6hLPWxl2k893qaGRSxsb7ZcJXfVtYpl4a3A==), or [platform swing](http://r20.rs6.net/tn.jsp?f=0015qpMUkFKsHqUk5Qa2mgnJr3XoZ3mzkOnHCWpZfW1OoGcUIUk9MDqEgPMIFbm3ydAr_80CWhbnfM-_g4lgQ3X7mjDOe7l-wXMobRqdw53Zk4z7rusKtgreR4upUxYAo-d0yTOJmc0QZo8EMQIb0lg3o9bhtVy5-dxvV3LsIA6YUL6-V7XHvXzQfubuALAQs57AJJbbEPlxAFcPVXmlLq74ertdT3PAgsrIEemTi2yTZsxfuOeZ8XW90V9fPBUxb5Fs5AMHq5N4yGMwJ6GFjTCbSujVKqDnJ9MXRuTUStl8uCRr-_6ukLOtOD1LmZ4hpYYV2YEGoOH9oaY_inmdqsCsw==&c=4CA6CdZPWZtY_mRWttr35ZRS7Zf-2Ruw_gVB-2vs-l8gQPbVR28saQ==&ch=u7WnfRSSoqFIccYuQdP6hLPWxl2k893qaGRSxsb7ZcJXfVtYpl4a3A==). Having children do animal walks (crab, bear, etc.) and wheelbarrow walking during transitions, especially in the home, therapy ball exercises, and using a t-stool during activities.

**Bilateral Coordination:** Using both sides of the body together, either in alternating movements (walking), both sides doing the same or different thing, such as cutting is bilateral coordination. A child's ability to cross mid-line with ease also plays a role in bilateral coordination. In regards to handwriting, bilateral coordination is noted by having the non-dominant hand hold and stabilize the paper during writing. Crossing midline refinement is needed in order to have children move from the left to right progression on the paper. Children who lack these skills are often seen to switch the writing utensil from one hand to the other during writing activities.

Bilateral coordination skills can be improved with playing on playground equipment, playing clapping games, Simon Says, or dancing. In addition, bike riding, jumping jacks, and musical instrument playing are all skills that demonstrate strong bilateral coordination.

**Attention and Direction Following:** In any complex skill, attention and direction following skills play an important role. If a child demonstrates difficulty sitting and attending for less stressful tasks, such as circle time, it is likely that sitting for activities that require more attention and focus will be difficult for the child. Therefore, providing directions in a simple manner will be beneficial. Children need to be able to sit and attend for handwriting, and those children who struggle with following simple verbal directions, will likely struggle to follow class instruction for writing.

Working on strategies to improve attention and focus from a sensory standpoint could be beneficial. Some children perform tabletop tasks with adaptations such as weighted items, the Miracle Belt, or sitting disks.

It is easy to see how complex the task of handwriting is for all children. However, working to strengthen all the areas will help make the task of writing easier for our younger children. Handwriting is not only a grasp with the end product of a letter on a piece of paper. Now is time to work on 'building' some strong writers, making the school experience better for all...students, teachers, and parents!

Taken from Southpaw Enterprises Pawprint Newsletter February 2015