

**Stevenson, N.C., & Just, C. (2014). In early education, why teach handwriting before keyboarding? *Early Childhood Education Journal*, 42, 49-56. doi: 10.1007/s10643-012-0565-2**

**Key Points:**

- This article discusses the benefits of teaching handwriting and keyboarding, and its effects on compositional skills. It does not take a definitive stance on the issue rather presents the benefits of learning both handwriting and keyboarding.
- The authors define motor learning and its overlap in handwriting and keyboarding. They discuss commonalities and the need for motor competency in order to gain skills of handwriting and keyboarding. Handwriting requires more complex motor learning with the integration of visual-perceptual skills and fine motor while keyboarding is less complex needing only linear finger movements to specific keys rather than letter strokes. Both in handwriting and keyboarding, the child receives sensory feedback from touch, kinaesthetic/motor and visual.
- With the development of motor skills, young children motor learning adapts to objects/tools utilized. In both handwriting and keyboarding, these tools include desk/chair, pencil/paper or keyboarding. With keyboarding, appropriate positioning and heights for desks and chairs need to be considered.
- A chart for the stages of handwriting and keyboarding motor learning stages is provided. Handwriting and keyboarding require the same 3 stages (i.e. cognition and use of vision, development of motor performance, and gradual improvement to automatic fluency) however they occur at different times.
- Significance of speed is discussed. In handwriting, speed is part of motor learning that can impact legibility. For keyboarding to be functional, it needs to be at least as fast as the student's handwriting however research shows a low correlation between handwriting speed and keyboarding.
- Structured instruction and when to teach handwriting and keyboarding is discussed. In the research mention, by second grade, students who receive instruction on keyboarding are able to write as fast as their handwriting. In contrast, research has shown that by grade 6, students who receive keyboarding instruction can type faster than writing.
- Advantage of keyboarding is that errors have less to do with legibility of work.
- Teacher knowledge and the use of occupational therapy consultation are also discussed.