

Rogers, J. & Case-Smith, J. (2002). Relationships between handwriting and keyboarding performance of sixth-grade students. *American Journal of Occupational Therapy*, 56, 34–39.

Quantitative or Qualitative: Quantitative

Purpose of Study:

- This research examined the relationship between student's handwriting speed and legibility and their keyboarding speed and error rate. The research questions for this study were as follows: 1. Does handwriting speed and legibility relate to keyboarding speed and accuracy? 2. Can handwriting speed and legibility correctly categorize students as slow or fast in keyboarding?

Length of Study:

- Students participated in a standard required keyboarding computer classes taught by one keyboarding instructor
- 30 sessions of 40 minutes for a duration of 12 weeks

Number of Participants (Sample Size): 40 6th grade students

Method Used:

- Group instruction using a textbook on keyboarding and word processing and a self-paced computer instructional program (Mavis Beacon Teaches Typing) published by Mindscape, Inc., 88 Roland Way, Novato, California 94945. In the final 3 weeks of the keyboarding class, language arts assignments were integrated into the program.
- After completing the course, handwriting speed and keyboarding was assessed using a 2-minute sample.

Results:

- Participants mean handwriting speed was 46.3 letters per minute (range = 17–81.5 letters per minute), or 9.3 WPM.
- Participants' mean keyboarding speed after a 30-session keyboarding instruction program was 14.9 WPM (more than 5 WPM more than handwriting) with a range of 6.2 to 33.9 WPM.
- Keyboarding speed correlated with handwriting legibility ($n=38$, $r=.361$, $p=.026$)
- Keyboarding speed correlated with handwriting speed ($n=38$, $r=.342$, $p=.036$)
- Keyboarding speed was moderately correlated with handwriting speed and legibility.
- Legibility and handwriting speed accounted for 13% and 12 % variability in keyboarding speed, respectively.
- Slow and fast keyboarding speed was also predicted by handwriting legibility and speed.
- In conclusion, the low to moderate significant correlations suggest that the two skills have some elements in common (e.g., motor performance), but they may also have elements that differ, e.g. differing levels of motor planning, perceptual-motor skill, visual-motor integration, visual memory, and cognitive processing.
- More so, children with relatively poor handwriting legibility can be effective in keyboarding. Thus, teaching children with poor handwriting to word process may simplify their text production and allow them to concentrate on content and meaning when composing text. Furthermore, it may increase their motivation and engage them in compositional writing.