

Subject Area: English Language Arts, (Handwriting)

Grade Levels: 4-6

Title of Instructional Method:

Using Computer based hand writing exercises (Assistive Technology) to teach handwriting rather than traditional methods

Roberts, Gwenyth I., & Samuels, Marilyn T. (1993). Handwriting remediation: a comparison of computer-based and traditional approaches. *Journal of Educational Research*, 87, 118-127.

Description:

When teaching the subject of handwriting to students, traditional methods can be relied on a great deal. The purpose of this article is to look at how technology can be used to also help teach handwriting successfully using certain exercises.

References:

1. Lally, M. (1982). Computer-assisted handwriting instruction and visual kinesthetic feedback processes. *Applied Research in Mental Retardation*, 3, 397-405.
2. Roberts, Gwenyth I., & Samuels, Marilyn T. (1993). Handwriting remediation: a comparison of computer-based and traditional approaches. *Journal of Educational Research*. 87, 118-125.
3. Sovik, N. (1981). An experimental study of individualized learning/instruction in copying, tracking, and handwriting based on feedback principles. *Perceptual and Motor Skills*, 53, 195-215.

“How-To” Information:

When the subject of handwriting is taught in elementary school it is typically taught through copying, tracing, or using stencils. Students who struggle with handwriting are typically easy to identify. They tend to avoid writing exercises as much as possible and show difficulty with either legibility or speed of writing. The study looks to incorporate technology into the classroom as a possible way to help kids who struggle, succeed in handwriting. Two groups of 18 students, grades 4-6, are put together. One group receives traditional instruction that dealt with exercises such as tracing and copying. The other group used assistive technology. They were given an electronic pen and a tablet. When the student writes on the tablet with the electronic pen, the letter they are writing appears on the computer monitor. If they make an error, a low toned beep will sound, and when they are to make a directional change when writing a letter a high beep will sound. As the student progresses the size of the cursor will shrink to promote better accuracy. The program also keeps track of speed of writing.

Implications for Practice:

- Although in this study, the computer-based instruction worked as well as the traditional methods it has been found in other studies groups receiving instruction with computer-based instruction are superior to traditional and conventional strategies.
- Computer-based exercises can provide a bigger model for students
- As accuracy increases throughout the exercises the model is reduced in size challenging the students
- With such technology it is possible to keep track of each students writing speed, which is another characteristic of handwriting that needs to be worked on.

EIU Candidates:

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