

# Connecting the dots between handwriting and high scores

by **Donna Krache**, CNN

(CNN) Penmanship. To grown-ups, the word conjures up memories of coarse



sheets of paper with solid and dotted lines - and a pencil so big that you had to practically balance it on your shoulder to practice writing your letters.

For some of today's elementary school kids, there won't be any memories of penmanship class. With classroom time at a premium and the common use of the keyboard, some school districts are abandoning handwriting as part of the curriculum.

But **Dr. Laura Dinehart** says not so fast.

Dinehart, an assistant professor at the Florida International University School of Education, was examining data collected on 1,000 second-graders and comparing it with information collected when they were in pre-kindergarten. She and her research team expected to find that early number skills might predict math achievement and that early language skills might predict who would be better readers in second grade. But they were surprised to find that a 4-year-old's fine motor writing skill - the ability to form letters, numbers and shapes - was an indicator of stronger academic achievement later on.

What's just as surprising, says Dinehart, is that the **academic achievement by those with better penmanship is seen in both reading and math, and it's reflected in both teachers' grades and standardized test scores.**

Students who received good handwriting grades in pre-K had an overall "B" average in second grade. Their standardized tests scored above average in both math and reading. By contrast, pre-kindergarten students who did poorly on fine motor writing tasks had an overall "C" average and below-average test scores in second grade.

So what does it all mean?

Dinehart said, "We're glad we found this link and think it's important. It needs to be looked at in greater depth: What is it about writing that's predicting later achievement?" Her findings, she says, are raising lots of new questions. She acknowledges that some will say this is about teacher perception that a child who has good handwriting is a smart child. But, she asks, is there some mechanical connection between fine motor skills and how the brain works? She points out that there is research that shows that kids who physically write letters more easily recognize those letters, compared with kids who use keyboards. "Schools have started to drop handwriting from curriculum, and we don't know that that is beneficial," Dinehart said. "We might have jumped the gun on this."

Regardless of where the findings lead, Dinehart says that it's important for preschoolers to spend time practicing handwriting because it's a very specific motor skill. She encourages parents to provide opportunities for their kids to write with crayons, markers and pencils, and to write with them, just as they read to their kids and count with them. "What we do know is that kids with greater experiences in early childhood do better later on, and writing can't be discounted from that," Dinehart said.