



For Learning,
The Pencil is Mightier than the Keyboard




The Pencil is a Powerful Tool for Learning


What do you believe?




Computers have replaced the need to provide explicit instruction in handwriting.



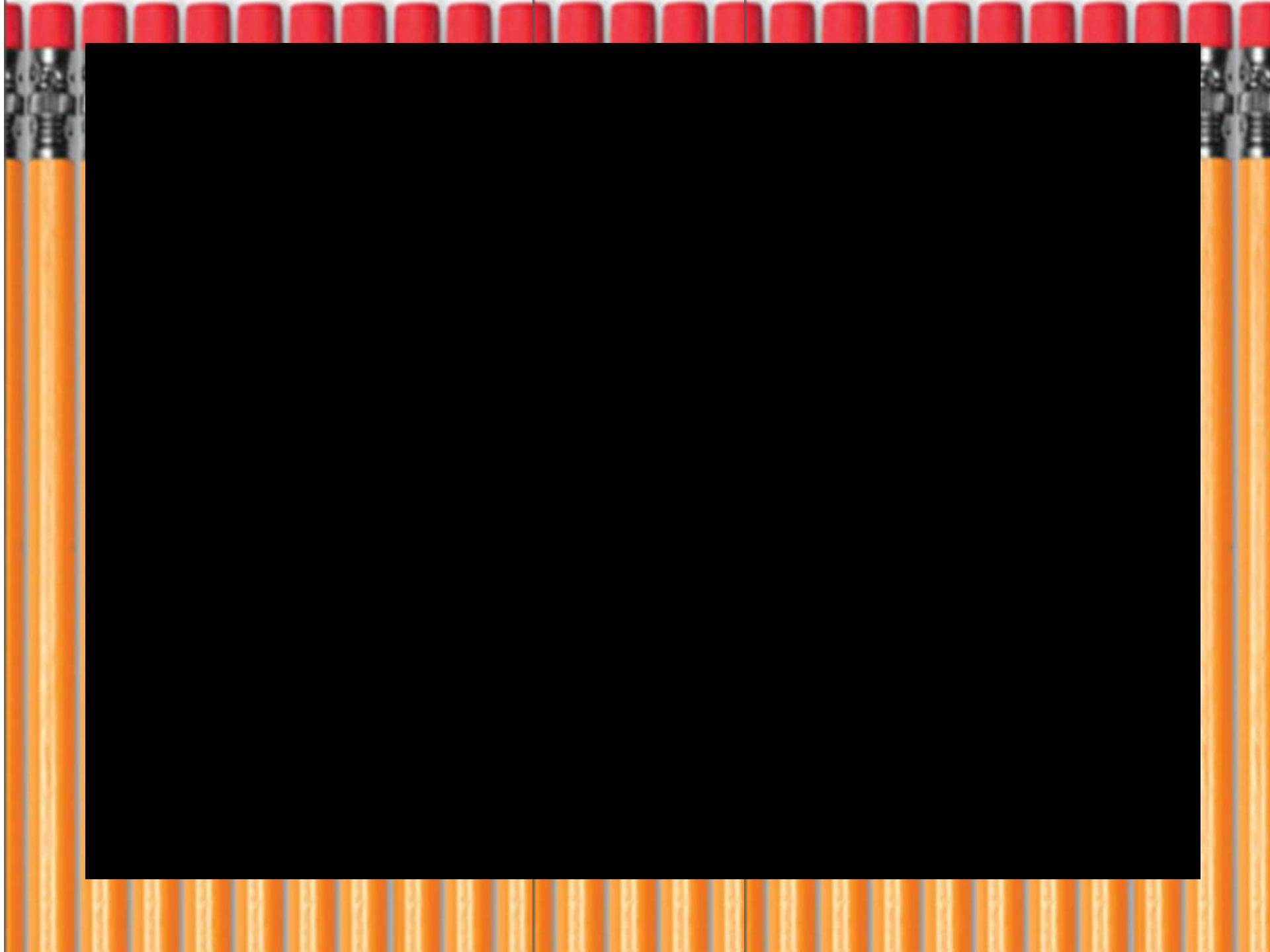
Handwriting is an essential foundational skill for reading.



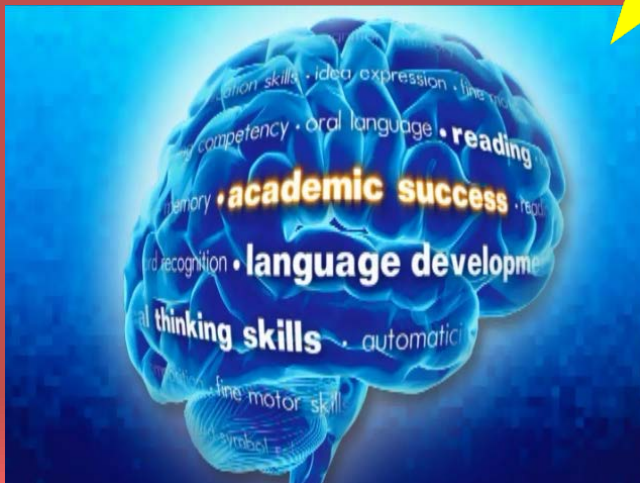
Explicit handwriting instruction improves written expression.



Handwriting instruction does not fit into the 21st classroom.

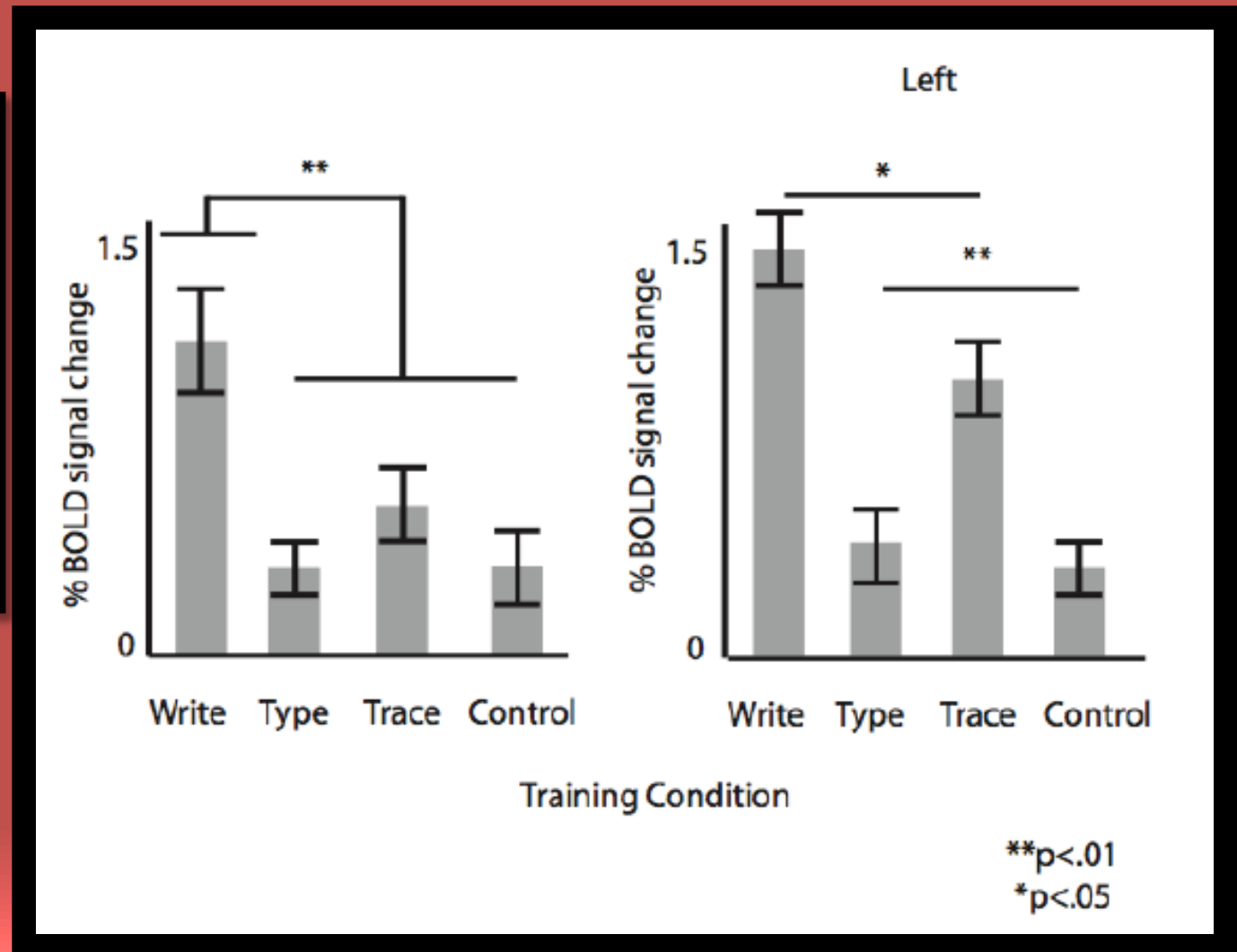
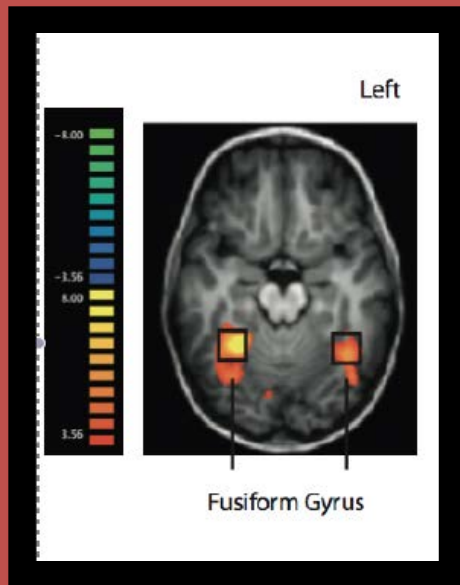


Comments



Writing letters helps children learn letter names.

Karin Harman James- Department of Psychology and Brain Sciences-
Indiana University



Handwriting Helps Written Expression



- Students wrote longer essays and had faster word production when handwriting as compared to keyboarding. (Berninger, 2008)
- More ideas were expressed and more complete sentences were produced in students utilizing handwriting as compared to keyboarding. (Berninger, Abbott, Augsburger, & Garcia, 2009)

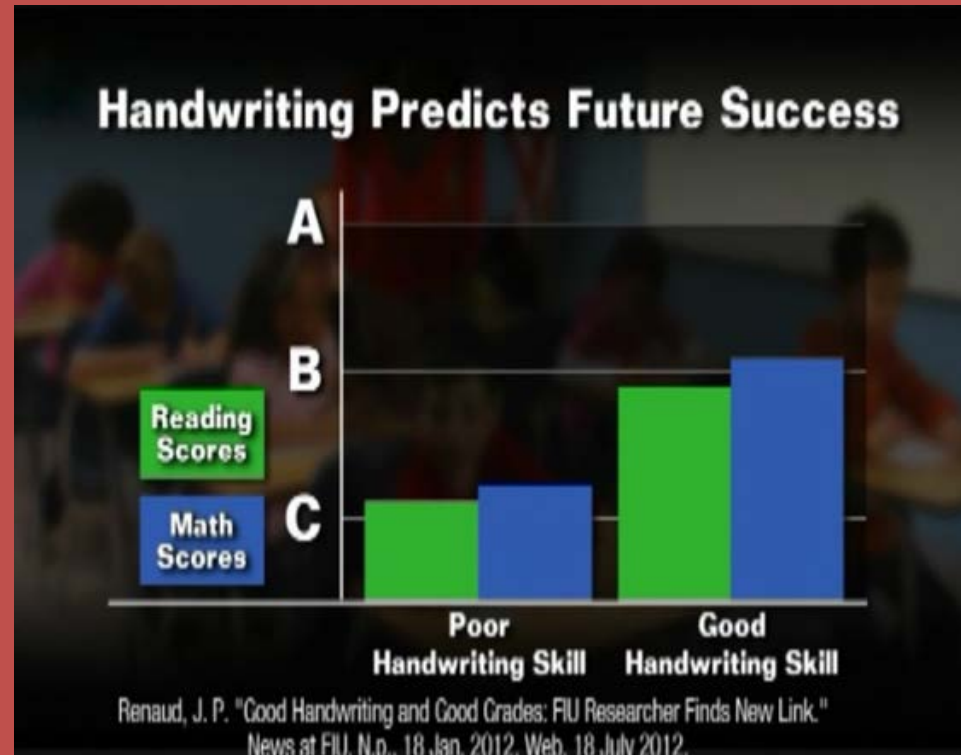
Handwriting Helps Written Expression

"The orthographic-motor skills involved in handwriting have a significant effect on students' ability to generate written text." (D. Jones and C. Christensen)

"Devotion of ... working memory to control lower-level processing, such as handwriting, leaves little working memory capacity left for ... written expression."
(Gathercole et al.)



Handwriting and Academic Success

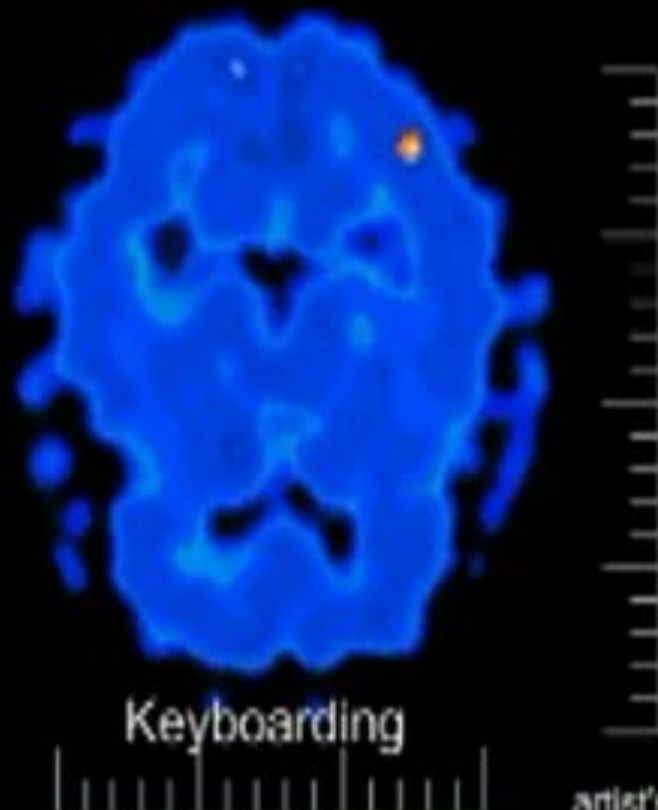


- Brain Imaging (fMRI's) have shown that the serial finger movement (of handwriting) activates regions in the brain associated with cognitive, metacognitive, and language processes in writers. (Richards, Berninger & Stock, 2009)

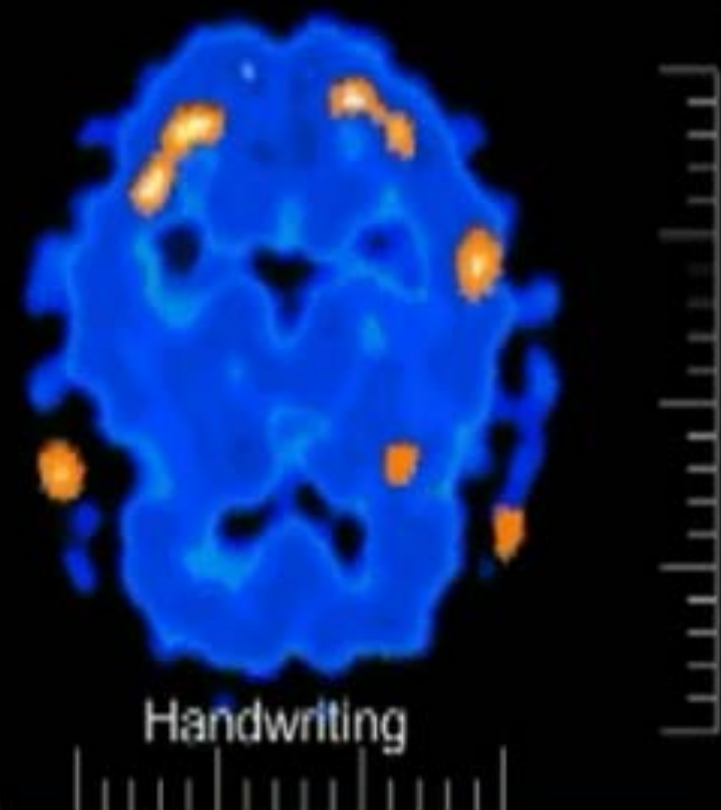
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artist's dramatization



HEALTH & WELLNESS

PERSONAL JOURNAL.

A Treatment for Heart Patients Out of Thin Air

HEART BEAT D3

Doctors raise concerns about a device that zaps tumors with electrical jolts — D2
Do products that claim to cut cellphone radiation really work? — ACHES & CLAIMS D4

Tuesday, October 5, 2010 D1

THE WALL STREET JOURNAL.

A Dialysis Treatment

HEALTH & WELLNESS

THE WALL STREET JOURNAL.

How Handwriting Boosts Brainpower

Need a Penmanship Tune-Up?

Most of us learned to print in early grade school, graduating soon after morphing into something less than legible. Handwriting practice, our school offering lessons in a cursive script.

from the 50th percentile to the 84th percentile, what had pen-

Repetitive manipulation of the thumb and fingers in the handwriting process helps activate the left brain, which manages functions such as planning, monitoring, organizing and revising – skills critical to educational achievement and self-management.

"some parents say... waste a minute on this," says Linda Boldt, the school's head of learning skills. Recent research illustrates how writing by hand engages the brain in learning. During a study at Indiana University,

In a study, the scans showed writing by hand, the scans showed heightened brain activity in a key area, circled on the image at right, indicating learning took place.

likely to be depressed. And home dialysis is significantly cheaper than being treated in a clinic or hospital.

Please turn to the next page

crossing boundaries," once and included two on celebrity news and entertainment site hollywoodlife.com. Beyond identifying personality traits through handwriting, called graphology, some doctors treating neuro-

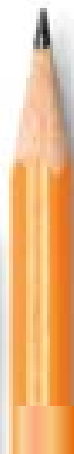
Even legible handwriting has ramifications, says Steve Graham, professor of education at Vanderbilt University. He cites several studies indicating that good handwriting can take a generic classroom test score


"Children will be using technology unlike I did, and it's important for teachers to be familiar with it," says Kay Crocker, the school's lead kindergarten teacher. Regardless of the input method, she says, "You still need to be able to write, and someone needs to be able to read it."



Zaner-Bloser

**1 minute-
Who was the most influential
person in your life?**



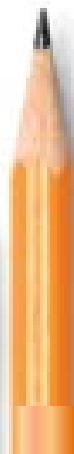


Zaner-Bloser

1 minutes-

Non-dominate Hand

Describe the best day of your life.





Zaner-Bloser

**Why is handwriting instruction
still important?**





Handwriting Instruction is Important

✓ **Students still need to know how to write by hand.**

National Handwriting Survey

(Graham, Harris, Mason, Fink-Chorzempa, Moran, Saddler)

- Only 39% said students' handwriting was adequate.
- 80% said students needed more time to complete assignments due to slow handwriting.
- 68% said inferior handwriting had a negative impact on writing quality.

Handwriting Instruction is Important?

✓ **Good Handwriting makes a good impression.**

Handwriting is often a criteria used to judge a person's intelligence and level of education. -Bob Schlagal

✓ **Students with good handwriting score better on tests.**

Neatly handwritten essays receive significantly higher scores on standardized writing assessments.-

(Chase, 1986; Briggs, 1980; Hughes, Keeling, & Tucker, 1983)



Handwriting Instruction is Important

The act of handwriting improves spelling word learning.

- The motor act of producing a word by handwriting results in tactile sensations in the brain that helps create an envelope that links letters into a single written word unit. (Richards, Berninger, & Fayol, 2009)



Manuscript vs. Cursive

Karin Harman James- Department of Psychology and Brain Sciences-
Indiana University

Preliminary Study of College Student

- Looked at note taking from a lecture.
 - 3 groups
 - Printing
 - Cursive
 - Keyboarding
 - Quiz After





Manuscript vs. Cursive

Preliminary Results

- Cursive and printing notes by hand have the same direct recall ability and inference abilities immediately after lecture.
- Keyboarding - only direct recall. Students who took notes by hand demonstrated the ability to infer.
- Cursive writers recalled more information one week later.



Handwriting Instruction is Important

KANSAS HANDWRITING CURRICULAR STANDARDS

August 2013

The Kansas State Board of Education believes that cursive handwriting as a student skill still holds an important place in the instructional practice of every school's curriculum and can be integrated in multiple content areas. Research supports the role that handwriting instruction plays in the cognitive development of children and this activity is even more important in an increasingly digital environment. The Board strongly encourages educators to ensure that all students can write legibly in cursive and comprehend text written in this manner.



Kansas Success Stories



How do I find the time?

Scaffolded Instruction

- Model-
- Practice
- Apply and Evaluate

10- 15 minutes a day
distributed or
blocked practice

Visual , Auditory & Kinesthetic Learners



Step 1: Model

Building Imagery mental & motor image

1. **Talk** about the strokes.
2. **Model and Say** the stroke description
3. **Skywrite** to establish motor image

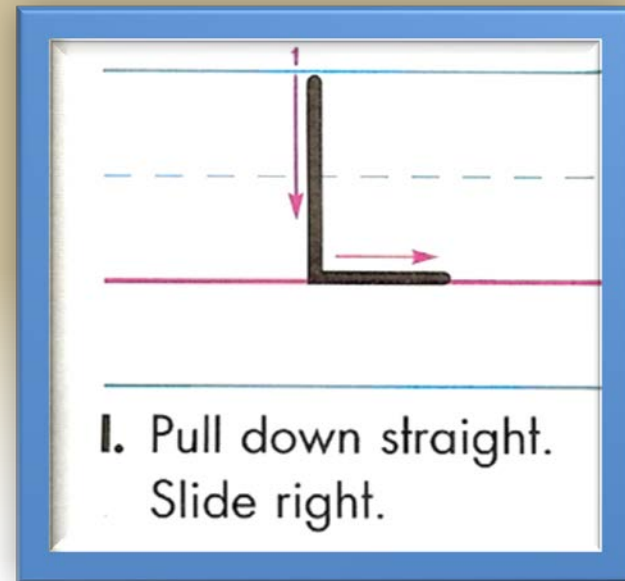
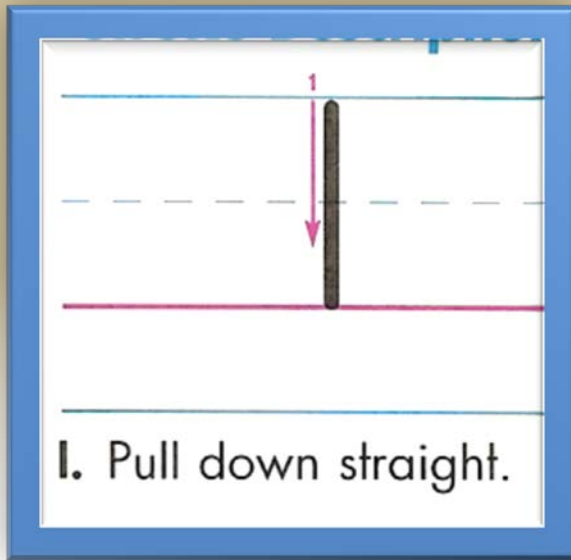
Teaching the Letters: Building Imagery

The purpose of the first step in teaching each letter is to help the students develop a clear **mental image** of the letter to be written. Appropriate questions about the letter help the students develop the image. The teacher is then asked to model, or demonstrate, the letter on the chalkboard, on large chart paper, or in the air, giving attention to the letter and its description, to establish **motor image**.

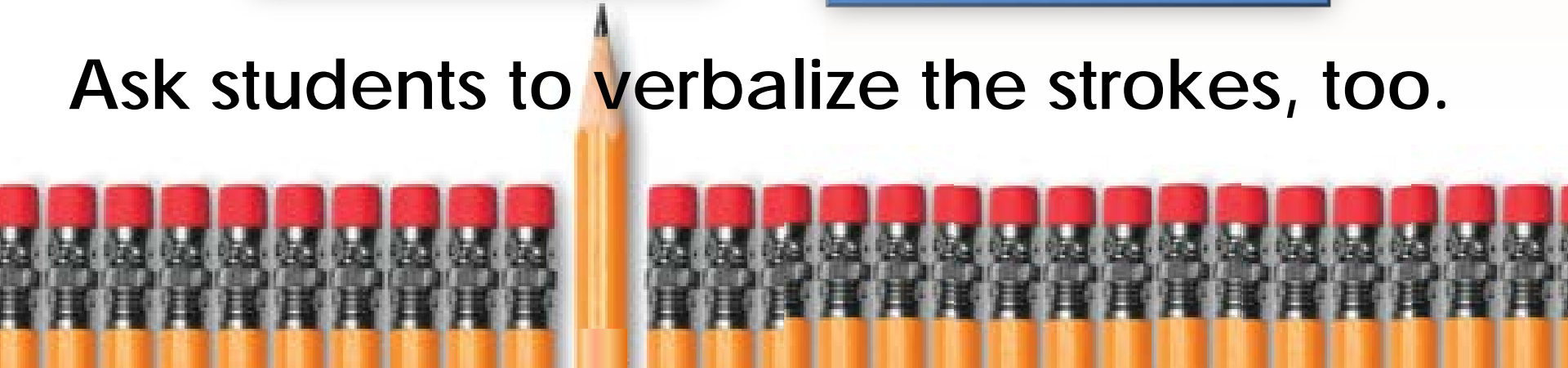


Step 1: Model

Visual – Auditory- Kinesthetic

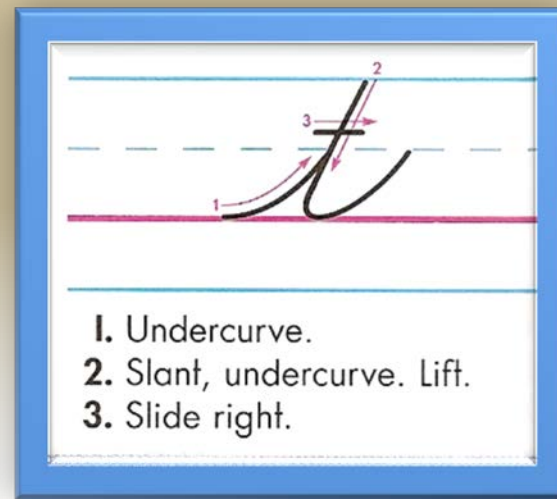
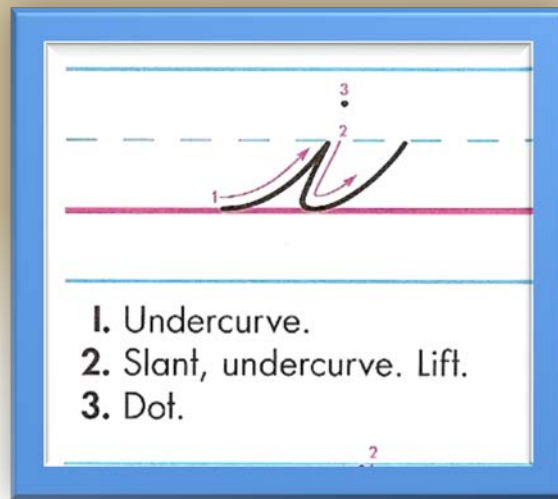


Ask students to verbalize the strokes, too.



Step 1: Model

Visual – Auditory- Kinesthetic



Ask students to verbalize the strokes, too.



Establish Motor Image



Step 2: Practice

1. **Remind** students about the 3 P's
2. **Ask** student to trace the shaded letters
3. **Tell** students to stop and check.

Handwriting practice worksheet for the letter 'L'. The top section features a decorative border of autumn leaves and two boxes showing the stroke order for writing the letter 'L'. Below this, the worksheet is divided into two columns. Each column has a 'Trace and write.' section with a row of dashed 'L's for tracing on lined paper, followed by two rows of empty lines for independent practice. The left column includes the words 'leaf' and 'like' for tracing, while the right column includes 'Lola' and 'Luke'. At the bottom, there are 'Stroke descriptions to guide letter formation at home:' for both 'I' and 'L'. The 'I' description is 'I. Pull down straight.' and the 'L' description is 'I. Pull down straight. Slide right.' A 'Stop and Check' box at the bottom right instructs students to 'Circle your best I.' and 'Circle your best L.' The page number '50' is visible in the bottom left corner.



Step 3: Apply and Evaluate

1. **Remind** students about the importance of legibility
2. **Ask** student to finish the page and to stop and check
3. **Tell** students to evaluate

Write the words.

lemon lake live love

Write the sentence.

Look at my letters.

On Your Own Write words to finish the sentence.

My letters are

Circle your best letter that has a **l** line.





Zaner-Bloser


Questions




What do you believe?




Computers have not replaced the need to provide explicit instruction in handwriting.



Handwriting is an essential foundational skill for reading.



Explicit handwriting instruction improves written expression.



Handwriting instruction is still relevant even in the 21st classroom.

What researchers say.....

“When we teach and value handwriting, we are sending a message to students and parents that we value legibility, attention to details, neatness, correctness, and excellence.”

R. Routman, *Literacy at the Crossroads*



The Pencil Wins.

Handwriting is important!



The Pencil is a Powerful Tool for Learning

Thank You !!!!