

Franklin Jr./Sr High School Reading Article

“How Writing by Hand Makes Kids Smarter”

THE WEEK

Reading Strategy for the Article: Students will take turns reading aloud. Mark the text and write in the margins as you read. 1130L

Instructions: COMPLETE ALL QUESTIONS AND WRITE NOTES in the margin box. This requires reading of the article more than once.

Step 1: Skim the article using these symbols as you read:

(+) agree, (-) disagree, (*) important, (!) surprising, (?) wondering

Step 2: Number the paragraphs. **Read** the article **carefully** and **make notes in the margin**.

Notes should include:

- Comments that show that you **understand** the article. A summary or statement of the main idea of important sections may serve this purpose.
- Questions you have that show what you are **wondering** about as you read
- Notes that differentiate between **fact** and **opinion**.
- Observations about how the **writer's strategies** (organization, word choice, perspective, support) and choices affect the article.

Step 3: A final quick read noting anything you may have missed during the first two reads.

Your margin notes will be assessed by your teacher along with your answers to the questions.

How Writing by Hand Makes Kids Smarter

With the ubiquity of keyboards large and small, neither children nor adults need to write much of anything by hand. That's a big problem, [says Gwendolyn Bounds in *The Wall Street Journal*](#). Study after study suggests that handwriting is important for brain development and cognition — helping kids hone fine motor skills and learn to express and generate ideas. Yet the time devoted to teaching penmanship in most grade schools has shrunk to just one hour a week. Is it time to break out the legal pad? Here's a look at how the brain and penmanship interact:

Writing by hand can get ideas out faster

University of Wisconsin psychologist Virginia Berninger tested students in grades 2, 4, and 6, and found that they not only wrote faster by hand than by keyboard — but also generated more ideas when composing essays in longhand. In other research, Berninger shows that the sequential finger movements required to write by hand activate brain regions involved with thought, language, and short-term memory.

Writing increases neural activity

A recent Indiana University study had one group of children practice printing letters by hand while a second group just looked at examples of A's, B's, and C's. Then, both groups of kids entered a functional MRI (disguised as a "spaceship") that scanned their brains as the researchers showed them letters. The neural activity in the first group was far more advanced and "adult-like," researchers found.

Good handwriting makes you seem smarter

Handwriting also affects other people's perceptions of adults and children. Several studies have shown that the same mediocre essay will score much higher if written with good penmanship and much lower if written out in poor handwriting, says Vanderbilt University education professor Steve Graham. "There is a reader effect that is insidious," he says. "People judge the quality

Notes on my thoughts, reactions and questions as I read.

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of your ideas based on your handwriting." And the consequences are real: On standardized tests with handwritten sections, like the SAT, an essay deemed illegible gets a big zero.

This isn't only an English-language phenomenon

Chinese and Japanese youths are suffering from "character amnesia," [says AFP's Judith Evans](#). They can't remember how to create letters, thanks to computers and text messaging. In China, the problem is so prevalent, there's a word for it: "Tibiwangzi", or "take pen, forget character." "It's like you're forgetting your culture," says Zeng Ming, 22. So closely are Chinese writing and reading linked in the brain, says Hong Kong University linguist Siok Wai Ting, that China's reading ability as a nation could suffer.

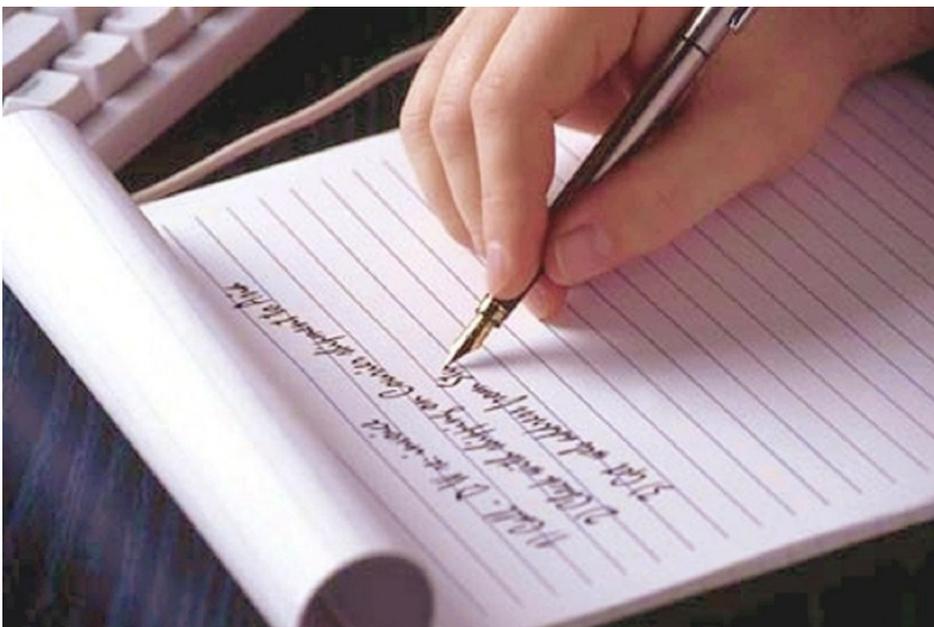
New technology is part of the solution

New touch-screen phones and tablets, like the iPhone and iPad, are providing a countervailing force, translating handwriting into digital letter forms or making writing practice fun (a \$1.99 iPhone app called "abc PocketPhonics" rewards kids with "[cheering pencils](#)"). In Japan, an iPhone game called kanji kentei — a character quiz with 12 levels — has [become a hit](#) with all age groups.

Science may just be catching up with common sense

[Heather Horn in *The Atlantic Wire* says](#) that while all this research is fascinating, it mostly shows that "scientists are finally beginning to explore what writers have long suspected." She notes a [1985 article in the *Paris Review*](#) in which the interviewer asks novelist Robert Stone if he mostly types his manuscripts. His reply: "Yes, until something becomes elusive. Then I write in longhand in order to be precise. On a typewriter or word processor you can rush something that shouldn't be rushed — you can lose nuance, richness, lucidity. The pen compels lucidity."

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Comprehension Questions— you may answer in phrases.

1. List two ways that handwriting is important to brain development.
2. How much time is currently spent in penmanship in schools?
3. What conclusions did Virginia Berninger make regarding handwriting in her study with students in grades 2, 4, and 6?
4. What does ubiquity mean as used in the article?
5. What does the word mediocre mean as used in the article?
6. What does the word insidious mean as used in the article?

Answer the following questions in one or more complete sentences.

1. Give an example from the article that illustrates how handwriting affects other people's perceptions of you.
2. Author Robert Stone says that he mostly types his manuscripts. When does he write in longhand. What does he suggest a writer can lose when you rush with typing?
3. Based on the research, should Franklin Junior Senior High School spend less time typing papers and more time writing them out by hand? Support your answer with at least 3 reasons.