

# The Pencil Revolution

By Bill N. Lacy

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*This satirical essay appeared in the “My Turn” section of Time Magazine sometime during the early 1990’s when the computer craze was hitting the nation’s institutes of learning. How ironic its implications are today now that mental math skills and estimation are being stressed to dominate over algorithmic computation in standards based curricula. Perhaps THE PENCIL and not the calculator (i.e., a hand held computer) is to blame for the demise of number sense!* (Italicized comments by Judy Wheeler, mathematics consultant for the Berrien County Intermediate School District in Michigan.)

Doubtless the most important development of the age has been the introduction of the “personal” or “home” pencil, which has prompted a series of changes we call “The Pencil Revolution.” When pencils appeared, few accurately predicted the great impact they would have. Originally thick and bulnt, it was not until the arrival of the user-friendly pencils, accompanied by a sharpener, that they were taken advantage of on a widespread basis.

At first, pencils were employed only in commerce – creating price tags was an early application – but soon people discovered other uses. The legal profession was able to quadruple its business when one attorney invented the written contract.

It was not long thereafter that the introduction of pencils in higher education was witnessed, and universities found themselves facing the demand for the new equipment. There was considerable debate about the pencil’s importance. “Just because they have a pencil doesn’t mean a lot of education is going on,” was a common sentiment. Eventually, though, the great schools fell into line. Many date the turning point to the 14<sup>th</sup> Convention of Deans, Scholars and Scribes in 1248, when Dean Niccolo of Padua removed a pencil from his cloak during a feast and used it to record the address of Claude of Navarre, a friend of the University of Paris dean. The crowd was awestruck, and the

moment is remembered not merely for what it did for the pencil, but for bringing a lot of convention business to Padua.

**Memory:** In the aftermath of that event, several pacesetting schools began providing the cream of their incoming classes with personal pencils. The University of Wittenberg conducted a famous three year study of the effect of pencil ownership on study habits, social interaction and general academic achievement. The results surprised even the most ardent pencil advocates: students who owned pencils were able to compute numbers and process words far more quickly than their pencil-less peers. Several students were able to multiply two three-digit numbers in less than 30 seconds. The greatest impact came in memory tests. Students who were told a story and then asked questions about it answered fewer correctly than those who were able to use pencils to write the story down and look up the answers. In the wake of these findings, the Lisbon Chamber of Commerce entered into an agreement with several universities to help pay the costs of building special pencil work stations and developing networks for students who had become pencil literate.

With the expanded market, the pencil industry flourished. In the so-called Lead Valley of the Ruhr, pencil companies multiplied. Among, the most important developments was the affixing of a rubber pellet to the pencil’s flat

end, inaugurating the era of the portable, correctable pencil. Also notable was the introduction of color with the red pencil. Before long, compatible industries sprang up, and the manufacture of pencil cases, rulers and software – paper and parchment – began in earnest.

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Games, schoolwork,  
taxes, love letters,  
shopping and art – you  
can do it all with a  
pencil.

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Once pencils became prevalent in schools, many conscientious parents concluded that home pencils should be purchased to ensure that their children would remain up to date. But the huge number of products and their own lack of hands-on pencil experience made many of them anxious. “I dunno,” sighed one man from Cracow. “I got to the store and ask for a ‘Number Two Lead Pencil.’ I never used those words in my life! I bought the thing and, three months later, my kid comes home and tells me everybody’s into graphite.”

Others experienced alienation. “I was taught to count on my fingers,” one mother said. Another complained, “I don’t know why my kid needs a pencil to learn French. We *are* French.”

Perhaps the fiercest controversy blew up when it was learned that the pencil, ostensibly purchased for educational purposes, ended up

being used for games. The greatest concern was raised by the Society of Royal Tutors, who worried that children who excessively sat alone playing with pencils would not develop sufficient social or intellectual skills. "Doodling," said one scholar, "is not going to help anyone find a new rout to India." Eventually, interactive pencil games were invented, including tic-tac-toe and hangman.

As with all developments, some saw in the change the seeds of disaster. Many were hurting economically. "It has hit us particularly hard," said Clement of Saxony, executive director of the Orators, Storytellers and Town-Criers Guild. "Today, everybody wants stuff written down. But I think it's a fad. No one's about to throw away thousands of years or oral tradition. " Others predicted that the widespread use of the pencil would begin a shift from an agrarian, feudal economy to one organized around industrial capitalism. "There will be more clerks and accountants, stuck in cities with no connection to nature,," Aloysius the Red wrote. "Soon the world will be filled with nothing but a bunch of bleedin' pencil pushers."

**Future:** Other ills were recognized. Physicians in Madrid treated pencil-related ailments, including bloodshot eyes, backache and writer's cramp. Additionally, European police officials began trading tips on how to recognize forgery, and national-security advisers everywhere re-examined their procedures in light of the Naples incident. In that affair, a group of high-school students with a pencil wrote orders from the duke to his captain, ordering the Army to attack Florence. Several skirmishes occurred before the prank was discovered.

New applications appeared daily; people used pencils for shopping, banking and writing notes for

bulletin boards. Ads for pencil camps appeared in the back pages of Sunday-magazine sections. "The Pencil is where the future is," said a pert eight-year old girl in one of the ads. "Math, literature, foreign languages, even art – you can do it all with a pencil."

In the end, the world came to accept the pencil, even to assume that civilized life could not be lived without it. But historians marveled at the amount of time wasted worrying about this labor-saving device instead of pausing to consider which tasks really needed doing and which did not.