Thinking Outside the Box

Teachers can and should be more productive (and better paid).

By Frederick M. Hess

In the years between 2001 and 2003, under heavy competitive pressure from United Parcel Service and Federal Express, the US Postal Service trimmed its workforce by 39,000 employees. The cuts were made possible not by reducing service, but by substituting technology in areas where people were performing either routine tasks or roles that automated machines could handle more efficiently.

While economists have long recognized that the potential for growth in productivity is more limited in service sector industries, like education, than in manufacturing or retail, even the service sector has witnessed productivity gains of about 1% a year during the past three decades.

Public schools, by contrast, have steadily *added* to the ranks of teachers and reduced class sizes, even as they have made ever-larger investments in new technologies. Traditionalists insist that it is impossible to educate children more efficiently, as there is no way technology can be substituted for anything that educators do.

They are wrong, however. Used wisely, information technology has the capacity to help schools become dramatically more effective. Modern information technology offers a wealth of straightforward, time-tested ways to make data widely and instantly available, allowing educators to spend less time on trivia.

Historically, teachers have been expected to take on a wide range of responsibilities. Each is expected to design lesson plans, lecture, run class discussions, grade essays and exams, mentor colleagues, supervise homeroom, and patrol the schoolyard. The job description of a teacher today is pretty similar to that of a teacher in 1950.

In medicine, by contrast, progress has been marked by specialization. Doctors with different types of training have taken on more precisely-defined roles, while less expensive professionals like registered nurses and physical therapists are now performing tasks that don't require a doctor's training.

Similarly, 16-year-old volunteers using handheld scanners are able to track medical supplies and hospital inventory with a precision that would have been unimaginable in even the best-managed enterprise just two decades ago.

Imagine a hospital with no nurses or physician's assistants or physical therapists, where doctors performed every task. A slew of additional doctors would be required, each with less time to devote to any particular specialty, and costs would skyrocket.

How can technology enable teachers to specialize in the same manner as, say, doctors, and use their time more productively? Let's consider one classroom example.

Teachers know it is useful to have students write on a regular basis. When I taught high school social studies, like so many of my colleagues, I required students to write at least three pages a week commenting on class readings and discussions.

The problem was that, at a minimum, this meant my 150 students would turn in 450 pages a week of writing. A teacher who reads, marks, and comments on each student's weekly work in just five minutes will spend more than 12 hours a week simply providing feedback on such writing assignments. The result is often that teachers provide limited feedback, read student work sporadically, or (most commonly) assign less writing than might be ideal.

Once, such compromises were unavoidable. Today, however, there is essay-grading software, commercially available from companies like Vantage Learning or the Educational Testing Service, which can quickly and efficiently analyze pieces of writing on dimensions such as sentence construction, language, and mechanics.

Several of these programs match the scores given by expert human raters more than 90% of the time, which is actually *higher* in some cases than the rate of agreement among multiple human readers.

Clearly, technological tools cannot imitate the full range of skills a teacher brings to reading a student's essay. However, assessment software can replicate the routine elements of evaluation, providing more complete feedback on the essentials, while freeing up teachers to make fuller use of their expertise.

Current reform efforts assume that teachers need to perform all the duties and tasks now in place. Helping teachers become more effective thus requires shrinking the number of students they must teach.

However, if the teacher's role were retooled so that scarce resources like time and expertise were used more carefully, teachers could spend more time on the areas where they add value, even while working with larger classes of students.

We continue blithely to operate schools in a fashion that was outdated in the 1970s and that today would be deemed irresponsible in a toothpaste factory. Rather than demand that education dollars be invested with particular care, we pour money into technology with little thought as to how these tools might be used most sensibly.

Using new technological tools to relieve educators of routine functions will help them focus on those roles that add substantial value ─ enhancing their contribution, making the organization more productive, and thereby increasing both the benefit to the customer and the resources available to reward employees.

(Adapted with permission of the American Enterprise Institute for Public Policy Research, Washington, DC. Dr. Hess is the author of **Tough Love for Schools.)**