EDUCATION WEEK
Published Online: August 27, 2013
Published in Print: August 28, 2013, as **Think Education Is Like Medicine? Think Again**.

Why Education Is Not Like Medicine

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There are three bad ideas popular among education writers in the United States right now. First is the idea that American public education should learn from the medical profession. Second is the idea that better skills are the route to higher income. And third is the instructional core, an idea that teaching consists of three elements—teacher, student, and content. For each of these ideas, there is a better way that will set us on a more constructive path.

Take the idea that American education should learn from the medical profession. This is appealing because over the last hundred years, doctors—bolstered with rigorous medical education, high professional standards, scientific research, and a growing arsenal of powerful drugs—have shown amazing results in healing sick people. It seems logical that if we brought all the same elements to bear on teaching, we could produce similarly impressive results. Indeed, the extensive training of physicians is a useful model, but there's a problem. Education is not like medicine.

In medicine, a doctor treats one patient at a time for a physical or psychological malady. Educators, on the other hand, see large numbers of students all at once, for an extended period of time.

Doctors work mainly in the realm of the biological and chemical. Educators work mainly in the realm of behavior and attitudes.

If we want to compare education to medicine, we should look instead at the field of public health. Teaching children and adolescents is akin to what a community health professional faces in trying to get people to brush their teeth, eat less junk food, and exercise more. While this comparison is more apt, it is less appealing since the United States has epidemic rates of preventable diseases stemming from our poor habits regarding diet and exercise.

Public health in America is a disaster, no doubt for a host of complex reasons that go well beyond anything public health professionals have or have not done. Much like education. But the comparison that we continue to make is with medicine per se, which causes problems.

For example, unlike medicine, effective teaching cannot be discerned strictly on the basis of scientific studies. The more we insist that it can—and we insist a great deal—the more we deny teachers the crucial element of judgment. It would be wonderful if effective teaching could be defined by research-based standards of practice written in a manual. But that, to use our public-health analogy, would be like writing a manual for the best way to run an anti-obesity campaign for any town large or small, rich or poor. In public health and in public education, context matters a lot.

—Nip Rogers

The second bad idea is a belief that better skills will lead to higher income. This idea is appealing because it promises to reward students and schools that shift from a traditional focus on recall and procedural learning to creative thinking and collaboration. The problem is that it is based on an incomplete analysis of labor markets. The analysis goes like this: Fifty years ago, there were lots of well-paying, low-skill jobs in the automobile, mining, and steel industries. Now those jobs are gone and high-paying jobs in the new knowledge economy require a highly skilled workforce.

Here's the part of the analysis that's left out: Fifty years ago, a robust labor movement ensured that low-skill jobs in the automobile, mining, and steel industries provided decent wages, benefits, and working conditions. The low-skill jobs that have replaced them in the service sector (retail clerks, food-service workers) are not unionized, and many corporations are savaging attempts at labor organization. For that reason, wages, benefits, and working conditions are deplorable.

"In public health and in public education, context matters a lot."

The path to higher income for many is not better skills; it's a union card. Our focus on better skills for better earning potential is a bad idea because it's making for a lot of angry teenagers graduating from high school and young people in their early 20s graduating from college who **find the jobs they were promised just aren't there**. But this doesn't mean we should abandon the idea of teaching for higher-order skills; it just means we need to shift our rationale. We need skills for crucial civic tasks, like organizing peers to stand up to a powerful employer, or lobbying legislators for laws that serve the public good. We need these skills also for the personal fulfillment that comes from an ability to more deeply engage with the world. Citizenship and personal fulfillment are typically the tag-on reasons for school improvement after tough-sounding imperatives like "economic competitiveness." But, in the modern world, that formulation is exactly backwards—citizenship and fulfillment should come first.

The third bad idea is the frequently invoked "instructional core," which says teaching consists essentially of teacher, student, and content. This idea is appealing because it is simple; it suggests a limited number of variables that affect learning. But actually there are thousands—millions—of variables influencing the classroom, like the fight the student had with her mother last night, or the verdict just delivered on a widely televised and racially charged murder trial, or the first warm day of spring, or the classmate in the third row who just made a loud noise, or a dragonfly poised on the window sill.

The problem with the instructional core is that it suggests simple causality between what a teacher

does and what a student learns. This leads to policies that forge an iron link between test scores and everything from student promotion to teacher evaluation. A better model would consist of the student, the student's environment, and the interaction between the two. And the teacher? The teacher is one part of the environment, a part that possesses some fierce intentionality and potentially great agency. A good teacher carefully reads and takes into account all the things going on in a student's environment. A good teacher identifies and organizes materials that are responsive as much to mandated content as the more immediate context of a student's life. A good teacher recognizes that when it comes to teaching and learning, causality is inconveniently complicated.

All three of these bad ideas are reductive. They appeal to us because they take complex phenomena and make them sound simple; they give us the illusion of control. But the fact is that context, complexity, and history are fundamental to our understanding of education. The sooner we recognize that in our conversations about policy and practice, the sooner we will find ourselves on a path to really excellent schools.

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Vol. 33, Issue 02, Pages 28,32