



# The Value of Lifelong Learning



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**T**he previous two essays have laid out the arguments for investing in education and following new career paths, supported by solid data, research, and interviews. One might expect that, as an economist, I would follow suit with an extended investigation of the return on investment of education, replete with detailed charts and tables, and an alphabet soup of equations. Normally, this would be the case. But for this year's essay, I decided to take the path less travelled—or, at least, the one less travelled by policy-wonk economists—and offer my own views about the value of education, in the formal sense, certainly, but more importantly, as the foundation of lifelong learning.

Education doesn't stop at the last final exam. The arc of one's life, and indeed one's career, is determined by how we continue to learn. To believe that the course of university study arms us with the tools to fully participate in adult life without constant update is to make a critical mistake. Our formal education prepares us with many mechanisms with which to approach life in the "real world." Some of these are practical skills, some

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are the intellectual preparedness to take on a new job or career, and some appear to have no impact, other than to have offered some diversion during college or high school. But even the lessons that do not appear to have a pragmatic purpose are vital to our success in later life. They teach us to see the world differently and thus view obstacles from several perspectives and approach them from different angles. They're important because they teach us how to think, not what to memorize. And that is key if we are to push ourselves to continue learning and be open to new ideas.

Even in a profession as seemingly mundane as economics, the field is always changing. I once was speaking to a group that included students of a former professor of mine. I flattered my former teacher that he'd taught me "everything I know" about the day's topic. He retorted that he hoped that wasn't true; he'd be alarmed if I'd failed to learn anything new on the subject in the intervening 25 years.

Of course, he was right, and neither I nor any other economist would claim that we've learned everything and can give up studying. New models, data, and methods of analysis are constantly emerging. The most skilled economists are those who can adapt to new ideas and new ways of thinking, because no one—not economists, not computer programmers, not teachers—will be doing the exact same job in five years' time, let alone 30. Indeed, the term "creative destruction"—the idea that progress by its very nature destroys economic structures as innovation makes old models obsolete—was coined by an economist. Like everyone else, we must adapt to the changing world in which we operate.

The groundwork for evolving along with one's profession is not laid in the rote learning of new technologies or equations, but in the critical thinking imparted by those lessons seemingly unrelated to the practicalities of our chosen trades. Perhaps a physicist doesn't draw a direct link between her English classes and life in the lab. Maybe a computer programmer fails to find the connection between philosophy and coding. But all learning is a part of our intellectual and professional success. These disciplines, often considered the "soft" studies are anything but, and they foster the ability to think strategically, to parse ideas, and to question embedded hierarchies that make the mind agile enough to not only adapt to technological advances, but also to embrace new thinking.



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*"Indeed, the term 'creative destruction'—the idea that progress by its very nature destroys economic structures as innovation makes old models obsolete—was coined by an economist."*

This is not a novel idea. The concept of well-rounded learning harkens back to classical antiquity, when education in seven liberal arts was considered essential for a truly educated mind. Those same subjects were vital to the Medieval founders of the modern university system, who grouped those disciplines under the auspices of the trivium—grammar, logic, and rhetoric, used to sharpen critical-thinking skills—and the quadrivium—arithmetic, geometry, astronomy, and music, whose foundation was the study of numbers. It was believed that the knowledge of these arts laid the groundwork for all areas of study and the pursuit of each aided in the mastery of the others. This is more than high-minded pedantic philosophy: modern science has borne this theory out again and again. The seven arts were eventually joined by an expanded roster of subjects, but the fundamental theory that a full educational offering strengthens the intellect remained. That’s why, as an economics major, I was expected to take language, history, and science classes, or why the math majors had to fulfill humanities and social sciences requirements.

The message in this is not that one should rush out and take an astronomy class—though that may be beneficial, and undoubtedly fun. As it happens, I did take astronomy classes as a student at Berkeley, and I can attest that they were both beneficial—I learned methods of investigation and ways of thinking that were different from those in my economics and political science classes—and very enjoyable. The point is that the mind is sharpened by education and experiences outside our own spheres of familiarity. The more adaptable we become, the more open we are to new ideas and perspectives. We have the great benefit of living in an incredibly diverse country, populated by people with different cultures, experiences, and backgrounds from our own. To some extent, we are living in our own university. One of the most important aspects of lifelong learning, and one of the greatest benefits of exercising the mind, is that it fosters creativity. As the president of the Federal Reserve Bank of San Francisco, I would be remiss if I did not point out not only the vast array of industries that call the Twelfth District home, but the central role innovation has played in them, from technology and biotech to agriculture and financial services. Innovation comes from inspiration and invention, but also in combining existing ideas in new and creative ways. Learning about other cultures and societies can foster that kind of creative process, and it is clear to me that the Twelfth District is a hub of innovation in large part because of its diversity, and that we continue to draw talent here for the same reason.

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The pursuit of lifelong learning takes more than preparedness, more than intellectual curiosity, and more than critical thinking...it also takes willingness and fearlessness. The former Federal Reserve Chair Ben Bernanke once spoke of his own experience leaving academia for public service and noted that once we have settled into our comfort zones, or managed to tick those myriad accomplishments off the to-do list, it's time to take on new challenges.

He's right, and in whatever profession we've chosen, it is up to us to continue to challenge ourselves and make learning a part of our everyday lives. I would add my own advice that failure is an inevitable part of life and most often a prelude to success. Rome wasn't built in a day and neither was the iPad, space shuttle, or modern medical treatments. There were countless failures and missteps along the way, and those provided their own form of learning.

In excelling in whatever it is we do, we wade into uncharted waters. But if we've done it right, we know that we have been equipped with the ability to navigate our way with the critical thinking gleaned by our education; the adaptation founded on the ability to think differently; the ability not just to learn from mistakes, but to bounce back when we make them; and our willingness to keep learning. All of this is lifelong learning, and none of us can succeed without it. ■

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