The New York Times

The Two Codes Your Kids Need to Know

The College Board came up with a surprising conclusion about keys to success for college and life.

By Thomas L. Friedman
Opinion Columnist

Feb. 12, 2019

A few years ago, the leaders of the College Board, the folks who administer the SAT college entrance exam, asked themselves a radical question: Of all the skills and knowledge that we test young people for that we know are correlated with success in college and in life, which is the most important? Their answer: the ability to master "two codes" — *computer science and the U.S. Constitution.*

Since then they've been adapting the SATs and the College Board's Advanced Placement program to inspire and measure knowledge of both. Since the two people who led this move — David Coleman, president of the College Board, and Stefanie Sanford, its chief of global policy — happen to be people I've long enjoyed batting around ideas with, and since I thought a lot of students, parents and employers would be interested in their answer, I asked them to *please show their work:* "Why these two codes?"

Their short answer was that if you want to be an empowered citizen in our democracy — able to not only navigate society and its institutions but also to improve and shape them, and not just be shaped by them — you need to know how the code of the U.S. Constitution works. And if you want to be an empowered and adaptive worker or artist or writer or scientist or teacher — and be able to shape the world around you, and not just be shaped by it — you need to know how computers work and how to shape them.

With computing, the internet, big data and artificial intelligence now the essential building blocks of almost every industry, any young person who can master the principles and basic coding techniques that drive computers and other devices "will be more prepared for nearly every job," Coleman and Sanford said in a joint statement explaining their initiative. "At the same time, the Constitution forms the foundational code that gives shape to America and defines our essential liberties — it is the indispensable guide to our lives as productive citizens."

So rather than have SAT exams and Advanced Placement courses based on things that you cram for and forget, they are shifting them, where they can, to promote the "two codes."

In 2016, the College Board completely revamped its approach to A.P. computer science courses and exams. In the original Computer Science course, which focused heavily on programming in Java, nearly 80 percent of students were men. And a large majority were white and Asian, said Coleman. What that said to women and underrepresented minorities was, "How would you like to learn the advanced grammar of a language that you aren't interested in?"

Turned out that was not very welcoming. So, explained Coleman, they decided to "change the invitation" to their new Computer Science Principles course by starting with the question: What is it that you'd like to do in the world? Music? Art? Science? Business? Great! Then come build an app in the furtherance of that interest and learn the principles of computer science, not just coding, Coleman said. "Learn to be a shaper of your environment, not just a victim of it."

The new course debuted in 2016. Enrollment was the largest for a new course in the history of Advanced Placement, with just over 44,000 students nationwide.

Two years later The Christian Science Monitor reported, "More high school students than ever are taking the College Board's Advanced Placement (A.P.) computer science exams, and those taking them are increasingly female and people of color."

Indeed, the story added, "the College Board reports that from 2017 to 2018 female, African-American and Hispanic students were among the fastest growing demographics of A.P. computer science test-takers, with increases in exam participation of 39 percent, 44 percent and 41 percent, respectively. … For context, in 2007, fewer than 3,000 high school girls took the A.P. Computer Science A exam; in 2018, more than 15,000 completed it."

The A.P. U.S. Government and Politics course also was reworked. At a time when we have a president who doesn't act as if he's read the Constitution — and we have a growing perception and reality that college campuses are no longer venues for the free exchange of ideas and real debate of consequential issues — Coleman and Sanford concluded that it was essential that every student entering college actually have command of the First Amendment, *which enshrines five freedoms, not just freedom of speech.*

Every student needs to understand that, as Coleman put it, "our country was argued into existence — and that is the first thing that binds us — but also has some of the tensions that divide us. So we thought, 'What can we do to help replace the jeering with productive conversation?'"

It had to start in high school, said Sanford, who is leading the "two codes" initiative. "Think of how much more ready you are to participate in college and society with an understanding of the five freedoms that the First Amendment protects — of speech, assembly, petition, press and

religion. The First Amendment lays the foundation for a mature community of conversation and ideas — built on the right and even obligation to speak up and, when needed, to protest, but not to interrupt and prevent others from speaking."

This becomes particularly important, she noted, "when technology and democracy are thought of as in conflict, but are actually both essential" and need to work in tandem.

One must observe only how Facebook was abused in the 2016 election to see that two of the greatest strengths of America — innovation and free speech — have been weaponized. If they are not harmonized, well, *Houston, we have a problem.*

So the new A.P. government course is built on an in-depth look at 15 Supreme Court cases as well as nine foundational documents that every young American should know. It shows how the words of the Constitution give rise to the structures of our government.

Besides revamping the government course and the exam on that subject, Coleman and Sanford in 2014 made a staple of the regular SAT a long reading comprehension passage from one of the founding documents, such as the Constitution, or another important piece of democracy, like a great presidential speech. That said to students and teachers something the SAT had never dared say before: Some content is disproportionately more powerful and important, and if you prepare for it you will be rewarded on the SAT.

Sanford grew up in Texas and was deeply affected as a kid watching video of the African-American congresswoman Barbara Jordan arguing the case against Richard Nixon in Watergate. What she remembered most, said Sanford, was how Jordan's power "emanated from her command of the Constitution.

"Understanding how government works is the essence of power. To be a strong citizen, you need to know how the structures of our government work and how to operate within them."

Kids are getting it: An A.P. U.S. Government and Politics class at Hightstown High School in New Jersey was credited in a Senate committee report with contributing content to a bill, the Civil Rights Cold Case Records Collection Act, which was signed into law last month.

Sanford cites it as a great example of her mantra: "'Knowledge, skills and agency' — kids learn things, learn how to do things and then discover that they can use all that to make a difference in the world."

The Times is committed to publishing a diversity of letters to the editor. We'd like to hear what you think about this or any of our articles. Here are some tips. And here's our email: letters@nytimes.com.

Follow The New York Times Opinion section on Facebook, Twitter (@NYTopinion) and Instagram.

Thomas L. Friedman is the foreign affairs Op-Ed columnist. He joined the paper in 1981, and has won three Pulitzer Prizes. He is the author of seven books, including "From Beirut to Jerusalem," which won the National Book Award. @tomfriedman • Facebook

READ 913 COMMENTS

Was reading this article a valuable use of your time?