

# WHY GENERAL KNOWLEDGE SHOULD BE A GOAL OF EDUCATION IN DEMOCRACY

by E.D. Hirsch, Jr.

I was once asked, "Why should scores go up on standardized tests in Core Knowledge schools if the tests aren't tied to the Core Knowledge curriculum?" The reasons can be summarized in three statements that scientists have confirmed.

First, *knowledge makes you smarter*. I have a soft spot for Bill Gates because he has correctly told our youth that wide reading and general knowledge are critical to competence. You could say that Bill Gates is independent-minded, has higher-order accessing skills, is a critical thinker, engages in metacognition, and exhibits the various creative competencies that some people say are much more important than just knowing a bunch of facts.

**1. MORE KNOWLEDGE MAKES YOU SMARTER.**

But it happens that Bill Gates knows a lot of facts. He reads a lot, and always has. Cognitive psychologists tell us that if competent people like Gates didn't know a lot of facts they couldn't be critical, creative, independent thinkers. The research literature is very clear on this point: highly skilled intellectual competence comes after, not before, you know a lot of "mere facts." First facts, then facility. It's the only way for us to get deep understanding and attain all those higher-order thinking skills so widely praised by educational experts and so wrongly contrasted with "mere facts."

Psychologists have discovered that knowing more makes you better able to learn new things, and better able to think critically. That fact has immense implications for public schooling in a democracy. But why does more knowledge make you smarter? Canadian researcher Keith Stanovich has shown that when two people have the same level and kind of IQ, the person who has more general knowledge will learn faster and function more competently than the person who has less general knowledge. That experiment has a particular relevance to American schools because we Americans tend to assume that academic competence is mainly a product of innate ability, as compared with effort and knowledge. It's consoling to insist that all children do have some type of high intelligence, but, in the end, such an emphasis is misleading,

because it overstates the importance of intelligence in schooling.

Innate talent is important, but our overemphasis on intelligence is a peculiarly American prejudice that stems from the origins of our culture in the 19th century Romantic movement. Harold Stevenson and others have shown that the Asian view emphasizing knowledge and effort is the more accurate view. We place so much stress on innate talent because we have been brought up on the romantic idea that the aim of education is to follow "nature." Notice that "nature" has the same root as "innate." But psychologists have shown that the average differences in innate abilities are far less pronounced than the average differences in achieved abilities produced by knowledge and effort. Creativity is not spontaneous, as the romantics thought, but requires long study and mastery-knowledge. Even the most talented person needs about ten years of effort to reach an expert level, and creativity usually takes even longer. For instance, scientists have shown that having a genius for mental arithmetic is based less on innate talent than on knowledge and intensive practice. Knowledge and practice: these are the things that make you smart.

**2. MORE GENERAL KNOWLEDGE MAKES YOU MORE GENERALLY COMPETENT IN THE TASKS OF LIFE.**

Why do experts learn new things faster and better than novices? Not because experts have more innate talent, but because they know more. What they know has become second nature to them, and frees their minds to focus on higher-level aspects of a problem. In a famous experiment, the Dutch psychologist de Groot showed that chess experts have no more innate mental ability on average than novices do, but are able to solve chess problems faster and better because their knowledge has become so integrated and "chunked" that their conscious minds can focus on just key features. Edison's comment that "Genius is one percent inspiration and ninety-nine percent perspiration" holds even for the most talented.

This leads to point two: *the more broad general knowledge you have, the more broadly competent you become in dealing with the tasks of life.*

The biggest factor in student achievement is teacher quality. And what is the single most consistent predictor of teacher quality leading to student achievement? It's the score that a teacher made on the verbal SAT test. A person's score on the verbal SAT rises dramatically as soon as a person knows more words. The verbal SAT is nothing more than a

vocabulary test. Don't jump to the conclusion that high SAT scores mean that a person is innately smart. The verbal SAT does not tell you how innately smart you are. Absolutely not. It tells you how many words you know.

Correctly filling the blank in questions such as "X is to Y as P is to BLANK" depends less on brains than simply to knowing the meaning of X, Y, and P, and the realities those words represent. So a test like the SAT is not just a test of words, because words stand for things, and for knowledge of things. The verbal SAT is a test of general knowledge.

That explains the findings about student achievement and the teacher's verbal SAT. You tend to be a good teacher if you tend to be a generally competent person, and you tend to be a generally competent person if you have a lot of general knowledge. What is true for teachers is also true for their students. Knowledge makes them more competent, too. I'll give one further example of this connection between general knowledge and general skill. The armed forces give every recruit a test called the Armed Forces Qualification Test. Like the SAT, it's not an IQ test, but a test of general knowledge. Given to millions of people, this test has offered scientists a huge field of research. There are several studies on the question: Does a higher score on that general knowledge test make you a more competent soldier? The answer is emphatically yes, whether the soldier's job is in electronics, or in just being a foot soldier. General knowledge makes you more competent on average no matter what job you do, whether it's being a clerk, a mechanic, or a platoon leader.

There's an economic twist to this story. That same test was used in sociological study called "The Longitudinal Study of Youth." This ongoing study has found that general knowledge correlates with annual income regardless of which racial or ethnic group you come from. So the more you know, the better you do in life. This has enormous implications for social justice and education. Knowledge makes people competent regardless of race, class, or ethnicity. It is the great social equalizer.

This brings me to my last point: *Giving everybody more knowledge makes everybody more competent, and creates a more just society.* Since knowledge is the great equalizer, schools have a huge opportunity and responsibility to provide more equal life chances for all students, no matter where they come from.

**3. GIVING EVERYBODY MORE GENERAL KNOWLEDGE MAKES EVERYBODY MORE COMPETENT, AND THEREFORE CREATES A MORE JUST SOCIETY.**