



Contents

Preface	v
1. Cognitive Process-Based Education	1
2. Teaching Kids to Walk and Talk	15
3. What Can't You Teach?	35
4. Twelve Cognitive Processes That Underlie Learning	45
5. Real-Life Learning Projects Considered	57
6. A Socratic Dialogue	73
7. Knowledge-Based Education vs. Process-Based Education	75
8. New Curricula for a New Way of Teaching	89
9. How to Teach the Twelve Cognitive Processes That Underlie Learning	109
10. Defining Intelligence	137
11. Restructuring the University	157

12. How Not to Teach	171
13. How the Best Universities Inadvertently Ruin Our Schools	183
14. What Can We Do About It?	205
Notes	221
About the Author	223

© Hawker Brownlow Education

students are confused and less certain than they were before
students think about the stories the teacher tells

Helping students observe and copy good behavior:

students think about how the teacher is behaving and wonder
about whether copying this behavior would be a good idea
students think about what works and what doesn't in the adult
world
students look at what the teacher does and see how they can
imitate it in a way that is consonant with who they are

Making students respect their advisors:

students believe that their teacher is not a phony, so they can
take what is said seriously
students believe that their teacher is their personal mentor
students trust their teacher's advice
students understand what you tell if you constantly demonstrate
the value of what you tell them

Teaching students how and when to take action:

students think about what it means to put oneself on the line for
one's own beliefs
students understand how to begin a process

Teaching students to be good critics of their own work:

students look more carefully at the work that they themselves
have produced
students trust their own intuitions

Teaching students their place in the world and how to succeed
in that world:

students understand where they fit in the world in which they live
students understand how to get ahead in the world in which
they live
students understand the roles of those around them



What Can't You Teach?

Nothing in education is so astonishing as the amount of ignorance it accumulates in the form of inert facts.

—Henry B. Adams

When children are born, they come with distinct personalities. Ask any mother of a second child. “It even behaved differently in the womb,” she will say. One kid is aggressive while the other is contemplative. One kid is constantly talking while the other hardly says a word. One kid is shy while the other is outgoing.

Often, when we think about teaching and learning, we have the idea that if we want someone to do something, or know something, or behave in a certain way, all we have to do is teach it to them. So we teach kids to appreciate music, when they may have no interest in, or inclinations toward, music at all, or to act in the class play, when they are simply bad at acting, or to throw a baseball when they simply can't do it and don't care. Often, but not always, we are forgiving of the differences between people and their individual talents, and we acknowledge that she is tone deaf, or he will always throw poorly, and we give up.

Small children are like sponges. They ask questions constantly and, if they have reasonable parents, get answers. The belief system that children adopt is usually quite similar to that of their parents. They don't decide to try out a different religion at age 5; they do what they have always known. They eat what they were fed and they like to go to places they have been taken. Parents influence every aspect of a child's belief system. Because of that, we have the sense that we can teach children anything, but this gets less true as they get older. The Jesuits have a saying about teaching a child before he is 7 and thus producing the man he will become. There is some truth to this. If you really learn honesty when you are 5, it is unlikely you will become a crook. Your subconscious wouldn't permit it.

Why do we have such a failed system? Could it be the policies of presidents like Clinton, who pursued a policy of never offending the teachers unions by doing anything threatening to them, like changing the curriculum?

Or, could it be that people such as this writer define education in terms of random facts they wished everyone knew? The problem is not that people don't know who Thomas Jefferson was. If citizens knew who he was, would that mean that they could think clearly and not be influenced by all the special interests who were trying to tell them what to think? If they knew who George Washington was, what exactly would they know about him? That he could never tell a lie? This is obviously untrue, and many have written about what a good liar he actually was. That he was a brilliant general? There is lots of evidence against that. That he owned 300 slaves? This is not usually mentioned. That he married a rich woman probably so he could get her land? Historians discuss this. Schools never do. Nevertheless, people are upset because our students don't know our national myths and some random facts.

The real issue in the healthcare debate is that the general public can't think clearly. That would have a simple explanation. The schools don't even try to teach people to think clearly.

I mentioned President Clinton above, but really all U.S. presidents are culpable. It may not be their fault. Certainly they are given terrible information.

Lamar Alexander, former Secretary of Education (under George H.W. Bush) was speaking in the U.S. Senate recently on restoring teaching history to its "rightful place" and making sure that history was part of the NCLB act. Here is a quote from him from 2006:

Just one example of how far we are from helping our children learn what they need to know. The fourth grade national report card test asked students to identify the following passage, "We hold these truths to be self-evident that all men are created equal, that they are endowed by their Creator with certain unalienable rights, that among these are Life, Liberty, and the Pursuit of Happiness." Students were given four choices: Constitution, Mayflower Compact, Declaration of Independence, and Articles of Confederation. Less than

half the students answered correctly that that came from the Declaration of Independence. Another question said, “Imagine that you landed in Philadelphia in the summer of 1776. Describe an important event that is happening there.” Nearly half the students couldn’t answer the question correctly that the Declaration of Independence was being signed.

Politicians never seem to get it about education. What history do students “need to know”? None, actually, unless they plan on being historians, or maybe senators. Now I realize this is a radical point of view, but history is not something anyone needs to know.

Why not?

Because knowing what happened in Philadelphia in 1776 does not in fact make you a better citizen, no matter what Alexander says. Random historical “facts” do not make one a critical thinker about history nor do they promote clear thinking about current political issues. Such “facts” are almost always used by politicians to justify whatever it is they already believe. Understanding how human events typically flow is, in fact, quite valuable, but that has more to do with understanding human nature and prior circumstances than it does with memorizing facts that politicians deem important to know. A good citizen would be one who carefully considered the issues when voting. That would mean being able to diagnose problems and evaluate proposed solutions. But that would produce a citizenry that could ask hard questions of politicians, which is probably not what these politicians are aiming for.

In 1776 we had a bunch of politicians who, if the present set are any example, surely were voting for their own special interests. The fact that we, as a country, feel the need to make them into folk heroes does not make it one bit more likely they were any better or worse than the current people who govern us. What Alexander is really arguing for is more indoctrination—more informing students what to think instead of teaching them how to think.

It would be nice if one simply could point a finger and say it is all the politicians’ fault. They really don’t want people to think all that clearly. But politicians are only part of the problem.

Recently, a report was issued about the teaching of mathematics, stating: