

Education: What Works

If anything is constant in public education, it is the endless cycle of reform and innovation that in turn generates endless theories and educational jargon. Heated conflicts exist over how to teach everything from reading to algebra. In the past, when our public schools were mostly local affairs, the debate was more localized. Today, state legislatures and even Congress take part in the battles, which can occasionally become the single most important issue in statewide elections.

Parents are usually not interested in the politics of education; they want to know what works! They realize that their children have one opportunity to become an educated person and those inappropriate educational ends or methods will permanently shape their children's lives. Here we will focus on answers to the question, "What works in education?" Some of the answers will come from a compilation of research done by the Department of Education under William Bennett in the 1980's.

Education should be about two tasks, building the intellect and instilling virtue. Regarding the intellect, the following words of Jacques Barzun serve us well:

[I]t is intelligence stored up and made into habits of discipline, signs and symbols of meaning, chains of reasoning and spurs to emotions—a shorthand (and a wireless) by which the mind can skip connectives, recognize ability, and communicate truth. Intellect is at once a body of common knowledge and the channels through which the right particle of it can be brought to bear quickly, without the effort of redemonstration, on the matter in hand.[{1}](#)

Many have recognized the fact that parents are the first and most important teachers of their children. Christian parents should seek to begin their children's education as early as

possible. To that end, John Amos Comenius wrote in his work *The Great Didactic* that,

If we want to educate a person in virtue we must polish him at a tender age. And if someone is to advance toward wisdom he must be opened up for it in the first years of his life when his industriousness is still burning, his mind is malleable, and his memory still strong.[{2}](#)

What can parents do? To begin with, the more book-friendly parents can make a home the better. Parents should read to their young children and let their children read to them. Asking in-depth questions about what is being read will boost comprehension skills, vocabulary, and general knowledge. Keep a consistent family routine for meals, bedtime and homework. Both parents should model the importance of a life of the mind. One of the best ways of doing this is to limit mindless entertainment like television. For, in order for our children to become mature handlers of the Word (2 Timothy 2:15), they must become competent readers.

Next we will look at the way parents and teachers can partner together to educate our children.

The Parent Teacher Partnership

It is extremely important that both teacher and parents convey high expectations to students regarding academic performance. Studies have shown that low expectations on the part of teachers can become self-fulfilling prophecies for their students. These students are often seated far from the teacher, receiving less direct instruction and attention. Parents need to work with teachers who have failed to expect good work from their children. This requires frequent communication with the teacher, as well as the student. If a parent perceives that a teacher may have “given up” on their child, a meeting with everyone involved, including a school

counselor, should be called immediately. If the situation is allowed to continue, your child may find himself hopelessly behind.

Sometimes parents demand too much of their children, resulting in anxiety and low self-confidence, but it is far more common for parents not to expect reasonably high standards for their children's academic work.

A corollary to setting high expectations for students is helping them to make a healthy connection between ability and effort. When students are young they equate effort with ability. In other words, if they work hard and do well, they assume that they have a high level of ability. Failure means that they did not try hard enough, something that they can personally overcome on the next assignment. Later, students learn that ability and effort are not the same. Some students need to work much harder at certain things in order to do as well as others. As a result, students might try to mask what they perceive to be low ability by turning in tests early even though they are hastily finished or by choosing not to participate in class discussions. High levels of effort come to represent low ability. As a result many students fail to work to their potential. Believing that they lack ability, they eventually lose hope for academic success.

Underachievement becomes a response to the possibility that they may be low ability students. Teachers and parents must intervene before these patterns become fixed. By setting high standards and insisting on consistent, diligent work, parents and teachers can work together to build confidence that can become the foundation for future effort. In some cases, parents may need to help their children crawl before they can walk. They may have to supervise homework efforts minute by minute until the student begins to see a connection between the work invested and its resulting success.

Some general rules for successful study include: convince your

child not to cram or try to accomplish large amounts of work in one sitting, help them to weigh the importance of an assignment by developing a system of schoolwork triage, and help your student to identify the standards necessary to succeed. Parents and students should work together to find a strategy that yields the best results.

Classroom Environment

The amount of class time spent on instruction has an obvious influence on student achievement. Unfortunately, studies show that in elementary classrooms actual “time on task,” time focused on academic subjects, ranges from 50 percent to 90 percent of a given school day. This is so proportioned because of tasks imposed on the classroom teacher by those outside of the schools. But it can also be an indication of poor classroom management. What does a well-managed classroom look like?

First, class work is carefully planned, including content, presentation time, and instructional activities. Good teachers set and communicate clear expectations to the students so that they know what is required to succeed. They also make sure that content is sequenced so that it builds in a logical and consistent fashion and that students know where they are heading and how to get there.^{3} A good teacher will also check students for comprehension often and give them multiple opportunities to practice what they have learned. This common sense approach to classroom management is called direct instruction, and research indicates that it has been found to help young and disadvantaged students learn basic skills and older, higher ability students to tackle more complex material.^{4}

Since the more time that is focused on a topic naturally results in greater learning, the way that a teacher utilizes homework is also important. Research shows that although homework is beneficial for all students, it is even more

significant for those with low and medium abilities. In fact, average students who do three to five hours of homework a week, begin to receive grades equal to those of high-ability students who do no homework at all.[{5}](#) It has been found that Japanese students spend about twice as much time studying outside of school as American students.[{6}](#)

However, not every type of homework is helpful. All of us can remember doing homework that seemed like an afterthought. Homework needs to be well planned to be effective. It should relate directly to what is happening in the classroom and be treated as an integral part of instruction by the teacher. This means that teachers should take time to evaluate the assignments and count the grade. Assignments should be analytical rather than standard work sheets, and they should encourage students to think more deeply about the material. Homework encourages students to follow directions, to make comparisons, to raise questions, and to develop responsibility and self-discipline.[{7}](#)

Student assessment is another key factor to effective schooling. Teachers should evaluate students often in order to detect if the material is being covered too quickly or too slowly. Assessment should be done often and by various means. Teachers should use essays, tests, homework, quizzes (both verbal and written), as well as group projects to measure student progress. Students benefit from immediate feedback so that they can correct ineffective study habits or arrange for special tutoring

Teaching Methods

You wouldn't think that how we teach children to read would be very controversial. It is! The ongoing battle between whole-language advocates and those who recommend systematic, structured phonics instruction is a heated and often strident one. The two methods stand on very different theoretical foundations and thus emphasize different activities for

children. Both use phonics and both advocate early, intensive reading by children. But whole-language promoters argue that learning to read and write are natural skills that can be acquired as easily as learning to talk. Just immerse children in words and good books, and they will eventually make sense of it all. Phonics advocates argue that reading is not a natural skill, and that children need intensive and comprehensive phonics training to succeed. They add that a high level of illiteracy, even in the U.S. where the written word is universally found, refutes the notion that language skill acquisition is automatic.

Jeanne Chall, long time professor at the Harvard Graduate School of Education argued that research has established that reading is essentially a phonemic activity; children must know the relationship between sounds and letters. If children have not mastered this basic information, they cannot learn to read. Research has also demonstrated that teaching phonics benefits all children, particularly those who are at risk. Focusing on phonics does not deaden a child's desire to read, in fact, whole language is hurting children by not providing them with the tools necessary to read.[\[8\]](#) Although whole language advocates argue that invented spelling, which calls upon students to apply phonics knowledge, actually forces students to think more deeply about phonics, others are not convinced of its effectiveness.

Our question is, "What really works?" Research by Steven A. Stahl and Patricia Miller concluded, "We have no evidence showing that whole language programs produce effects that are stronger than existing basal programs, and potentially may produce lower effects."[\[9\]](#) Even stalwarts of whole language are moving towards a more comprehensive phonics curriculum.

Similar arguments have arisen over the use of calculators in early math instruction. Although many math teachers advocate early classroom use, the public is not so sure. One survey found that 80 percent of math teachers are in favor of early

use, but only 10 percent of the public agrees. Although the final word on early calculator use is still out, research does support the use of manipulatives in teaching young children math. Using objects to represent mathematical values helps students to understand abstract ideas quicker.

Likewise, students learn science best when they are able to do experiments on personal predictions regarding natural phenomenon. Students often reject textbook and lecture material for what they consider to be common sense. Only when they are confronted with actual experimental data do they shed themselves of incorrect assumptions.

Finally let's look at how overall school organization affects learning.

School Organization

Schools benefit greatly from having a strong educational leader, usually the principal, who focuses continually on improving the educational program of the school. This doesn't seem too controversial. Unfortunately, many principals are either not equipped to perform this role or are not expected to. In order to be an educational leader, a principal must have thought carefully and deeply about what it means to be an educated person, and to have developed a clear vision for implementing his or her plan. Some principals haven't had the academic experience to prepare them for this role. Too many have come from a physical education background and coaching duties, which may be a plus when it comes to discipline problems, but not very helpful in constructing an overall vision for academic excellence.

The educational leader should also enjoy a high degree of autonomy in building his or her program. This includes the hiring and firing of teachers and unrestricted communication with parents. Success is often determined by how well parents and teachers can be motivated towards the principal's vision.

Unfortunately, this is much easier to do in private schools than in public ones.

A safe and orderly school environment is necessary for learning to occur. Nevertheless, many schools do not enjoy this basic requirement for success. This problem not only impacts inner city schools, which fight the multiple problems related to poverty and highly bureaucratic administrations. Rural schools can suffer from poor discipline and a lack of consistent policies as well. Realistically, even in generally good schools, a single teacher can diminish the educational experience of his or her class by refusing to, or not even desiring to, maintain order. This is where a strong principal can step in and make a difference.

A teaching staff is most effective when they share high morale, agree that students need grounding in the basics of each subject, and hold students to high standards. Teacher collegiality, the sharing of problems and solutions with one another in a professional atmosphere, is another indication of an effective teaching staff. Unfortunately, many teachers operate without the benefit of peer input. Collegiality seems to occur more often at the elementary school level than in our high schools.

Schools that test their students for the purpose of offering remedial help tend to be more effective, as are those that encourage their students to take more advanced academic courses.

Just knowing what an effective school looks like is only part of the battle for better schools. The challenge is to change poorly performing schools into effective ones. Research shows that effective schools tend to have a much higher degree of autonomy than ineffective ones; something found far more often in private schools than in public schools. Unfortunately, our public school bureaucracy doesn't appear to be moving in the right direction.

Notes

1. Jacques Barzun, *The House of Intellect*, (Harper & Row: New York, 1959), 4.
2. *What Works: Research About Teaching and Learning*, U.S. Department of Education, 1986, 6.
3. Ibid., 34.
4. Ibid., 35.
5. Ibid., 41.
6. Ibid.
7. Ibid., 42.
8. "Whole Language in the 90's," *Update, Association for Supervision and Curriculum Development*, Vol 35 #9, 1993.
9. Arthur Ellis & Jeffrey Fouts, *Research on Educational Innovations*, Princeton, NJ: Eye On Education, 46.

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Rousseau: An Interesting Madman

Popular song lyrics often have a way of reflecting what many people think, but rarely articulate. Recently, a song with a catchy tune and lots of airtime verbalized a way of thinking about God that is quite popular. The song, *What God Said* by a group called the Uninvited begins with the lyrics, "I talked to God and God said 'Hey! I've got a lot of things to say; write it down this very day and spread the word in every way.'" This is a remarkably evangelistic idea in this day of absolute tolerance for other people's beliefs. However, this god who has revealed himself to the songwriter doesn't expect much from the listener. According to the first verse we are to

floss between each meal, drive with both hands on the wheel, and not be too sexually aggressive on the first date. In the second verse god wants us to ride bikes more, feed the birds, and clean up after our pets.

The third verse gets a little more interesting. God supposedly reveals that humans killed his only son and that his creation is undone, but that he can't help everyone. These obvious references to the incarnation of Christ and the Fall of Adam set up the listener for the solution to mankind's situation which, according to the song, is to "start with the basics—just be nice and see if that makes things all right." The chorus drives home this theology by repeating often that "I talked to God and God said nothing special, I talked to God and God said nothing that we shouldn't already know, shouldn't already know."

This idea, namely that any revelation from God would consist primarily of common sense notions, is a product of the Enlightenment and found an extraordinary voice in the philosopher Jean-Jacques Rousseau. Rousseau argued that all one needs to know about God has been revealed in nature or in one's own conscience. Rousseau is often called the father of the French revolution, a movement that exalted the worship of reason and attempted to purge the clergy and Christianity from French culture. Although Rousseau wasn't around for the bloodshed of the revolution itself, his idea of a natural theology helped to provide a framework for rejecting special revelation and the organized church.

Few people in history have caused such a wide spectrum of responses to their ideas. At his death, Rousseau's burial site became a place of pilgrimage. George Sand referred to him as "Saint Rousseau," Shelly called him a "sublime genius," and Schiller, a "Christ-like soul for whom only Heaven's angels are fit company."[\[1\]](#) However, others had a different perspective. His one and only true love, Sophie d'Houdetot, referred to him as an "interesting madman." Diderot, a long

time acquaintance, summed him up as “deceitful, vain as Satan, ungrateful, cruel, hypocritical and full of malice.”^{2} In addition to anything else that might be said about Rousseau, he was at least an expert at being a celebrity. He was a masterful self-promoter who knew how to violate public norms just enough to stay in the public eye.

Interestingly enough, Rousseau’s ideas have actually had greater and longer impact outside of France. Two centuries later, his natural theology plays a significant role in determining our society’s view of human nature as well as how we educate our children. Thus it is important to consider the thoughts of Rousseau and see how they impact our culture today, especially in the realm of education.

Rousseau’s Natural Theology

To begin our examination of the thoughts of Jean-Jacques Rousseau and his impact on our view of human nature and education, we will turn our attention to the foundational thoughts of his natural theology.

Rousseau often claims in his writings that all he seeks is the truth, and he is very confident that he knows it when he sees it. Being a child of the Enlightenment, Rousseau begins with the Cartesian assumption that he exists and that the universe is real. He then decides that the first cause of all activity is a will, rather than matter itself. He states, “I believe therefore that a will moves the universe and animates nature. This is my first dogma, or my first article of faith.”^{3} He then argues that this “will” that moves matter is also intelligent. Finally, Rousseau writes that “This ‘being’ which wills and is powerful, this being active in itself, this being, whatever it may be, which moves the universe and orders all things, I call *God*.”^{4} So far, so good, but according to Rousseau, to guess the purpose of this being or to ask questions beyond immediate necessity would be foolish and

harmful. Rousseau writes "But as soon as I want to contemplate Him in Himself, as soon as I want to find out where He is, what He is, what His substance is, He escapes me, and my clouded mind no longer perceives anything."[\[5\]](#)

The problem with Rousseau's view of God is that we can know so little of Him. Rousseau rejects special revelation and argues that it is only by observing nature and looking inward that we can perceive anything at all about the Creator. Rousseau perceives from nature that the earth was made for humans and that humanity is to have dominion over it. He also argues that humanity will naturally worship the Creator, stating, "I do not need to be taught this worship; it is dictated to me by nature itself."[\[6\]](#) In Rousseau's opinion, to seek any other source than nature for how to worship God would be to seek man's opinion and authority, both of which are rejected as destructive.

Rousseau believes that humans are autonomous creatures, and that humanity is free to do evil, but that doing evil detracts from satisfaction with oneself. Rousseau thanks God for making him in His image so that he can be free, good, and happy like God.[\[7\]](#) Death is merely the remedy of the evils that we do. As he puts it, "nature did not want you to suffer forever."[\[8\]](#)

Rousseau is clear about the source of evil. He writes, "Man, seek the author of evil no longer. It is yourself. No evil exists other than that which you do or suffer, and both come to you from yourself. . . .Take away the work of man, and everything is good."[\[9\]](#) It is reason that will lead us to the "good." A divine instinct has been placed in our conscience that allows us to judge what is good and bad. The question remains that if each person possesses this divine instinct to know the good, why do so many not follow it? Rousseau's answer is that our conscience speaks to us in "nature's voice" and that our education in civil man's prejudices causes us to forget how to hear it.[\[10\]](#) So the battle against evil is not a spiritual one, but one of educational methods and content.

Although Rousseau thought he was saving God from the rationalists, mankind is left to discern good and evil with only nature as its measuring rod, and education as its savior.

A Philosophy of Education

Whether you agree with his ideas or not, Rousseau was an intellectual force of such magnitude that his ideas still impact our thinking about human nature and the educational process two centuries later. His work *Emile* compares to Plato's *Republic* in its remarkable breadth. Not only does the book describe a pedagogical method for training children to become practically perfect adults, but he also builds in it an impressive philosophical foundation for his educational goals. *Emile* is a very detailed account of how Rousseau would raise a young lad (Emile) to adulthood, as well as a description of the perfect wife for his charge. Along the way, Rousseau proposes his natural theology which finds ardent followers all over the world today.

Although *Emile* was written in the suburbs of Paris, Rousseau's greatest impact on educational practice has actually been outside of France.[\[11\]](#) French educators have been decidedly non-Romantic when it comes to early childhood education. Rousseau had a great deal of influence on the inventor of the Kindergarten, Friedrich Froebel, as well as the educational Romantics Johann Pestalozzi and Johann Herbart. These three educators' names are engraved on the Horace Mann building on the campus of Teachers College, Columbia University. Columbia has been, and continues to be, at the center of educational reform in America, and happens to have been the home of John Dewey, America's premier progressive thinker and educational philosopher. Dewey and William Heard Kilpatrick further secularized and applied the thinking of Froebel, Pestalozzi, and Herbart, and thus Rousseau.

The common bond that connects these educators is a Romantic

view of human nature. Besides a general faith in the goodness of all humanity, there are two other Romantic fallacies that are particularly dangerous when carried to extremes. The first is what is called the doctrine of developmentalism, or natural tempo, which states that bookish knowledge should not be introduced at an early age.[{12}](#) Second is the notion of holistic learning, which holds that natural or lifelike, thematic methods of instruction are always superior.[{13}](#) Both ideas tend to be anti-fact oriented and regard the systematic instruction of any material at an early age harmful. This has had a profound effect on how we teach reading in this country. The ongoing battle between whole- language methods and the use of systematic phonics centers on this issue. When the Romantic view prevails, which it often does in our elementary schools, systematic phonics disappears.

Rousseau's theology and educational methods are tightly bound together. He argues against the biblical view that humanity is fallen and needs a redeemer. He believes that our reason and intellect are fully capable of discerning what is right and wrong without the need of special revelation or the indwelling of the Holy Spirit. As a result, Rousseau argues that a proper education is man's only hope for knowing what limited truth is available.

Rousseau and Childhood Education

An interesting aspect of Rousseau's child-raising techniques is his reliance on *things* to constrain and train a child rather than people. Rousseau rightfully asserts that education begins at birth, a very modern concept. However, in his mind early education should consist mainly of allowing as much freedom as possible for the child. Rebellion against people is to be avoided at all costs because it could cause an early end to a student's education and result in a wicked child. He puts it this way: "As long as children find resistance only in things and never in wills, they will become neither rebellious

nor irascible and will preserve their health better.”{14} Rousseau believed that a teacher or parent should never lecture or sermonize. Experience, interaction with things, is a far more effective teacher. This dependence on experience is at the core of modern progressive education as well.

As a result, Rousseau was remarkably hostile towards books and traditional education’s dependency on them. From the very beginning of *Emile*, he is adamant that books should play little or no part in the young man’s education. He claims that, “I take away the instruments of their greatest misery—that is books. Reading is the plague of childhood and almost the only occupation we know how to give it. At twelve, Emile will hardly know what a book is.”{15} At one point Rousseau simply says, “I hate books. They only teach one to talk about what one does not know.”{16}

A corollary aspect of this negative view of books is Rousseau’s belief that children should never be forced to memorize anything. He even suggests that an effort be made to keep their vocabulary simple prior to their ability to read. This antagonism towards books and facts fits well with Rousseau’s notion that people “always try to teach children what they would learn much better by themselves.”{17}

He also believed that children should never memorize what they can not put to immediate use. Rousseau acknowledged that children memorize easily, but felt that they are incapable of judgment and do not have what he calls true memory. He argued that children are unable to learn two languages prior to the age of twelve, a belief that has been refuted by recent research.

Prior to that age, Emile is allowed to read only one book, *Robinson Crusoe*. Why *Crusoe*? Because Rousseau wants Emile to see himself as Crusoe, totally dependent upon himself for all of his needs. Emile is to imitate Crusoe’s experience, allowing necessity to determine what needs to be learned and

accomplished. Rousseau's hostility towards books and facts continues to impact educational theory today. There is a strong and growing sentiment in our elementary schools to remove the shackles of book knowledge and memorization and to replace them with something called the "tool" model of learning.

Rousseau's Philosophy and Modern "Tools"

Rousseau argued against too much bookish knowledge and for natural experiences to inform young minds. Today, something called the "tool" model carries on this tradition. It is argued that knowledge is increasing so rapidly that spending time to stockpile it or to study it in books results in information that is soon outdated. We need to give our students the "tools" of learning, and then they can find the requisite facts, as they become necessary to their experience.

Two important assumptions are foundational to this argument. First, that the "tools" of learning can be acquired in a content neutral environment without referring to specific information or facts. And secondly, that an extremely child-centered, experience driven curriculum is always superior to a direct instruction, content oriented approach.

The "tool" model argues that "love of learning" and "critical thinking skills" are more important to understanding, let's say chemistry, than are the facts about chemistry itself. Some argue that facts would only slow them down. Unfortunately, research in the real world does not support this view of learning. Citing numerous studies, E.D. Hirsch contends that learning new ideas is built upon previously acquired knowledge. He calls this database of information "intellectual capital" and just as it takes money to make money, a knowledge framework is necessary to incorporate new knowledge. To stress "critical thinking" prior to the acquisition of knowledge actually reduces a child's capacity to think critically.[\[18\]](#)

Students who lack intellectual capital must go through a strenuous process just to catch up with what well-educated children already know. If children attempt to do algebra without knowing their multiplication tables, they spend a large amount of time and energy doing simple calculations. This distracts and frustrates children and makes learning higher math much more difficult. The same could be said for history students who never learn names and dates.

The second idea is that students should learn via natural experience within a distinctly passive curriculum. While there is wisdom in letting nature set as many of the limits as possible for a child—experience is probably the most powerful teaching method—Rousseau and progressive educational theory go too far in asserting that a teacher should never preach or sermonize to a child. At an early age, children can learn from verbal instruction, especially if it occurs along with significant learning experiences. In fact, certain kinds of learning often contradict one's experience. The teaching of morality and democratic behavior involves teaching principles that cannot be experienced immediately, and virtually everything that parents or teachers tell children about sexual behavior has religious foundations based on assumptions about human nature.

The bottom line seems to be that if higher math, morality, and civilized behavior could be learned from simply interacting with nature, Rousseau's system would be more appealing. However, his version of the naturalistic fallacy—assuming that everything that is natural is right—would not serve our students well. Rousseau's observations about the student-teacher relationship fall short first because of his overly optimistic view of human nature and because we believe that there is truth to convey to the next generation that cannot be experienced within nature alone.

Notes

1. Paul Johnson, *Intellectuals*, (New York: Harper & Row, 1988), 27.
2. Ibid.
3. Ibid., 273.
4. Ibid., 277.
5. Ibid.
6. Ibid., 278.
7. Ibid., 281.
8. Ibid.
9. Ibid., 282.
10. Ibid., 291.
11. E.D. Hirsch, Jr., *The Schools We Need & Why We Don't Have Them* (New York: Doubleday, 1996), 81.
12. Ibid., 84.
13. Ibid.
14. Jean-Jacques Rousseau, *Emile or On Education*, trans. Alan Bloom (Basic Books, 1979), 66.
15. Ibid., 116.
16. Ibid., 184.
17. Ibid., 78.
18. Hirsch, 66.