

THE EVOLUTION OF EDUCATION

By Joshua Smith

Most agree that public education is in crisis, while the solutions put forth often just look like more of the same. Big business interests want standards set by industry, they want more testing and to punish schools that can't keep pace. More discipline, competition and homework are called for. It's only natural corporations weigh in on how public education is modeled, since its purpose from the beginning has been to produce skilled workers for them. On the other hand, there are highly respected critics, like John Taylor Gatto and Alfie Kohn, that detail the failure of the entire public education model and call for a new, relevant educational paradigm that empowers students' natural intelligence and promotes opportunities for them to think for themselves.

One superior method of learning that is largely ignored by public education in this country is cooperative team learning. In addition to learning more and better, students gain valuable social skills, have wider circles of friendships and more self confidence than their peers practicing individual learning. The emphasis of public education on individual learning and competition commonly has divisive effects that are a disservice to students and produce unfavorable society-wide consequences.

The value of cooperation is therefore little understood by most of our society. We've been led to believe that the more competitive we are, the more successful we will be in life. Yet when 369 studies done over a ninety-year period that compared competition to cooperation were evaluated, cooperative models outperformed competition 87% of the time.

EDUCATION, JOBS AND ECONOMY

Not just the way subjects are taught, but the subjects that are taught must be examined critically, as well as their actual intent. Public schools advance the notion that good jobs await those that do well in school, providing that income is the sole determinant. With 20% of the unemployed having college degrees and massive under-employment, this notion appears to be ludicrous. If the many

analysts that say our economy is unsustainable and nearing collapse, regardless of the deficit, are correct, then of what value is it to students to learn to be obedient corporate employees? Studies have shown that climate change itself will crash today's global economy. And in any case, how dependable is the current economy if the natural nonrenewable resources it's dependent on are nearing exhaustion, as we know they are? Corporatocracy is more the problem than the solution. The subjects taught now should empower students and inspire them to evolve beyond the current state of the world.

It's no secret that the point of education in this country is about jobs and little else. The more education you receive, the saying goes, the higher the income you can expect to receive. Increasingly, this appears to be more myth than fact and the only thing that's reliably higher is student debt. In some fields, like early childhood development, you can't even make a living wage with a master's degree, assuming you can find a job. It's been reported that this generation is the first to be less educated than those that preceded them. It's harder than ever to get into college and, at the same time, the dropout rate is going up. More testing, more homework and longer school hours are hardly germane to repairing our failed educational system.

For education to be relevant, it must evolve and begin to produce students that can create a truly sustainable culture and economy. The reality of the world today indicates society must become more eco-centric (in unity with nature) and develop an economy based on renewable resources that are stewarded with ecological protocols. This is an evolution in consciousness, facing reality wide awake, bringing back abilities asleep for generations, and encouraging creativity, optimism and authentic intelligence. The very purpose of education at its core must be redefined as increasing numbers of educators have realized and are calling for.

Mahatma Gandhi once said it is not mass production we need, but production by the masses. An ecologically sustainable economy must be a labor-intensive economy in which no one need be left out. The current mainstream economy, being based on profit, looked at efficiency as a way of eliminating labor (jobs) in order to concentrate wealth, whereas a sustainable economy looks at efficiency as a way to reduce the stress and drudgery of labor and thus improve the quality of life of working people. In this new economy, the diversity of jobs and the potential number of new jobs is colossal.

Quiet as it is kept, there is enormous opportunity in small farming as a viable way to make a living. Tens of millions of new small farmers are needed in the U.S. alone.

When corporate industrial farms are compared to small farms, as the U.S. government's agricultural census did in 2006, small farms are rich in potential. The census showed that small

farms yield more per acre whether it's measured in tons, calories or dollars. In addition, they're more efficient in their use of land, water and oil than industrial agriculture.

The new emerging economy can only be eco-agrarian if all of us in this country are going to eat. Mainstream industrial agriculture's dependency on oil and chemicals assures the price of food will just keep on increasing. What's more, it contributes a staggering 20% of human-generated carbon emissions, while organic agriculture instead works with nature's carbon cycle by sequestering carbon in the soil. There is much students need to learn to successfully transition to a functionally sustainable food system that can adequately feed everyone without poisoning the food, the water, the soil, the air and farm workers alike.

A plethora of economic benefits and opportunities exist that a new model of education whose values are eco-centric, democratic, egalitarian and benevolent can generate. Children's intelligence should be respected. Let them learn to be participants in democracy. Let them learn the value of cooperation and diversity. Teach them about nature and ecology and let them experience it for themselves. Provide them with the opportunity to work skillfully with their hands as well as their minds. Teach them about that which can enhance the quality of life, like agro-ecology and eco-forestry, about forming democratic worker-owner cooperative businesses. Give them space, as well as support, to explore areas they are attracted to.

INVESTING IN INTELLIGENCE

School should be a place where children learn to love learning. For this to happen, their curiosity must be engaged, they must be encouraged to explore by using their minds. Students should be asked to articulate their own reasoning on various subjects, to understand the reasoning of others, and to question both their own reasoning and that of others. This is how tests should be designed rather than being crammed with information students are expected to memorize that's soon forgotten once the test is over. Instead, let's engage students to speak their own minds. Grading, too, seems to me to support a draconian system rather than benefiting students. There are better ways to assess a student's grasp of a subject and help them improve than shaming them with bad grades.

Education should encourage critical thinking about real issues like climate change, an economy that's harmful to nature and inequitably distributes wealth, sexism, racism, government, war, law, bullying and so on. For every problem, there are many opinions on how they might be best solved. Children deserve to know the critical problems they are heir to and a diversity of views that address them so they can draw their own conclusions and plot their own course.

Democracy should not just be taught. Students should also experience it firsthand. Not a superficial treatment, but a functional, participatory democracy where students can co-create their own education and learn group decision making.

Democracy is meant to be inclusive and cooperation is implicit if it is to fulfill its intended purpose. Where competition leads to conflict and division, cooperation aims for mutually beneficial solutions. As Alfie Kohn says about learning in small groups in contrast to individual learning modes, “The discussion process in cooperative groups promotes the discovery and development of higher quality cognitive strategies for learning than does the individual reasoning found in competitive and individualistic learning situations.”

When Dr. Robert Slavin of Johns Hopkins University researched cooperative learning systems, he found that not only did students perform better scholastically than individual learners, but each member of the group, regardless of their academic level, learned more than they would have individually. An unexpected bi-product of the research was that students from the cooperative learning teams had increased psychological health and more positive relationships with others.

SHAPING MINDS THROUGH EDUCATION

It is very important, I believe, to seriously evaluate the damage public education does to our children so there is no doubt about what must change and why. One of the most articulate and outspoken critics of public education is the highly respected, award-winning educator John Taylor Gatto, a 26-year veteran of teaching in New York public schools. In great detail, Gatto suggests that through tyranny public education molds students so they are unable to think for themselves.

Through the long hours of the school day, students of all ages are bombarded with such a prodigious volume of information (much of it irrelevant or ideological) that the curious mind is suppressed. Conformity becomes the over-arching principle and analysis, questioning, exploring with our minds becomes superficial at best. Rather than allowing for the development of expansive thinking, students’ minds are narrowly focused. The educational model does the thinking for them. In Gatto’s view, it is no accident that dumbness is what public schools teach best. “Mass dumbness is vital to modern society. The dumb person is wonderfully flexible clay for psychological shaping by market research, government policymakers, public-opinion leaders and many other interest groups,” says Gatto. Have we citizens and our children just become a new kind of livestock?

It is a fact that mandatory public schooling in the U.S. is modeled on the 19th century Prussian educational system whose purpose was to weaken democracy and serve the interests of the wealthy elite ruling class. As Johann Gottlieb Fichte, who helped inspire the Prussian educational system

stated, “The schools must fashion the person and fashion him in such a way that he simply cannot will otherwise than what you wish him to will.”

Another highly respected critic of public education, the late Buckminster Fuller, described public education as automation and the capitalist moguls that introduced public education as industrial pirates. Fuller pointed out that the model of education they gave us focused on specialization, ignoring the importance of generalists, the purpose being for students to learn specialized skills of value to big business. In this way, they learn a lot about a little and little about life’s complexities and realities. As a result, those with a diversity of talents and abilities become a rare breed.

This rigorous focus in education on specialists rather than generalists could have a profound impact on our children’s future in a world that is rapidly overheating from climate change. The massive extinctions resulting from global catastrophes that occasionally occurred over hundreds of millions of years on Earth also had species that survived. We now know that the species most susceptible to extinction are those that are specialists. Those that survive must be adaptable, flexible. They are the generalists. Generalists are creative problem solvers that have a variety of skills rather than merely one. For example, they may be able to grow a garden and build a house, as well as use their minds abstractly. We are here today because our ancestors could evolve. We won’t be here tomorrow if we cling to the status quo. It’s time to awaken the sleeping genes of the generalist and encourage it’s re-emergence through education.

From the time of the first humans, we have lived on Earth as a generalist species and a social species, having survived a host of challenges including an ice age. Although the generalist still sleeps in our DNA, we are a specialist society today. We are also a stratified society with numerous serious internal conflicts. Our strengths in creating a sustainable quality of life within our environment are obscured and ignored by public education to the detriment of our children and future generations.

EDUCATION BY STRATIFICATION

The individualistic teaching methods practiced today also undermine the social fabric by keeping students apart by minimizing inter-social relationships and communication. Division is further emphasized by constant testing and grading. Students fear someone will beat them, be better than they are, that they will be singled out as losers. One would assume from public education there’s no place in society for equality. It’s all about winning and losing, about beating the other guy. Promoting competition simply encourages intolerance toward one another. Is it any wonder there’s

an epidemic of bullying, of violence on campus, even mass murder of students by students? There are simply too many losers, too many outcasts. Those with the highest grades and the successful athletes are at the top of the pyramid. Yet even some eggheads can find themselves social pariahs and some jocks will be falling behind academically. Those few near the top of the pyramid often deduce they are superior to others, while the majority are left struggling to find their self confidence, indeed even self acceptance.

After the tragic murder-suicides at Columbine High School in Littleton, Colorado, students talked about the hatred of those considered different. Where intolerance of diverse interests, values and lifestyles generated much conflict and divisions on campus. Adults, on the other hand, focused on gun control, campus security and blamed bad parenting, the internet, video games and media. Reasonable as the adults concerns are, they apparently saw no connection to the educational model imposed on our children, the discord that competition and the resulting stratification of students engenders.

We humans evolved as social animals. We would likely not be here today if that were not the case. The more group cooperation, the better the quality of life for the entire group. Sadly, the institutionalized stratification in public education tears at the tapestry that binds communities together. Anthropologists studying aboriginal cultures discovered that the higher the level of synergy in a culture, the lower were conflict and stress. This emphasis on cooperation produces greater unity, whereas competition produces intolerance, conflict, even violence.

In contemporary times, when two scholars, Henry Carcux and Peter McLaren, researched public education today, they concluded that it plays a central role in creating a social system of privilege. Public education benefits the ruling class by creating a malleable electorate, a subservient labor class and obsessive consumers. Apathy is favored, dissent punished in our schools. The students from the best funded schools in upper-class neighborhoods are those most likely to end up in the highest part of the economic class pyramid.

The convention of forcing children to sit in classrooms hours on end, forbidden to talk to their peers all around them is abnormal. Add boring subject matter and many normal kids start to fidget, they need to move around, they need to escape the oppression. If ordinary discipline is not enough to break them, these perfectly normal children are drugged to help them conform. The pharmaceutical industry may applaud this practice, but is it ethical to drug children into submission rather than act to correct a flawed system?

A NEW PARADIGM

Never before has it been more important to build an evolutionary model of education and a movement to propel us away from today's public system as it is. We are entering a cataclysmic period of change on a scale humans have never experienced. To maintain the educational status quo can only lead to massive suffering without the opportunity to change or adapt to emerging circumstances. We act in bad faith toward our children and future generations if we don't remove the wizards behind the curtain.

Recently in the guest viewpoint segment of my local newspaper a 13-year-old seventh grader named Sage Fox wrote an articulate fourteen-paragraph statement about how students know they are being burdened with climate change and feel betrayed by adults. She started out by pointing out how our lifestyles are creating climate change and the consequences of it. Then she declares, "Wake up! This is a threat to all children, to all people, and to civilization itself, not to mention all of the species that will be lost. This is the world you are handing us. Don't think your children don't know about this. What we are wondering is why adults aren't taking action if they love us so much." It's time we love our children enough to care about their future, a part of which is ours as well. The time to act is now, not tomorrow. It's time to gather together to initiate change in our own lifestyle, and those of society that guarantee a tragic future. Rather than revolution, what's needed now is evolution.

An evolutionary educational model must provide students with a realistic picture of the present environmental, economic and political problems with a critical eye. From the time children first start school and throughout their schooling, they should be learning about basic ecology, not just in class, but equally in nature. The most effective way children learn to appreciate and value nature is by being free to experience it without the imposition of adult structure. Students should also be introduced to design systems for creating eco-centric communities, economies, and infrastructure necessary to put the brakes on climate change.

TRUTH IN EDUCATION AND THE COMMON GOOD

Often to understand some of the flaws in public education we must look at its omissions. For example, one high school textbook, *American History: A Survey*, published in 1987 and authored by three respected historians, wrote, "For thousands of centuries – centuries in which human races were evolving, forming communities, and building the beginnings of national civilizations in Africa, Asia, and Europe – the continents we know as the Americas stood empty of mankind and its works." The textbook goes on to say the story of migrants from Europe to the New World "is the

story of the creation of a civilization where none existed.” Of course nothing could be further from the truth, and yet this is what our children are taught. In authentic history, it is not at all clear cut who were civilized and who were the savages when the so-called Old World collided with the new.

Let’s teach our children well, help them to understand the value of truth and equality because without it law and economics become unjust and skewed toward those regarded as superior. Without political, economic and social equality, democracy becomes at best a façade, at worst a fraud. Education should be responsible enough to teach our children truth, rather than fiction, particularly that most relevant to their own lives. Anything less is duplicity.

Where benevolence becomes a fundamental value, cooperation can flourish. When we all are invested in the common good, everyone benefits. It is not some dry academic version of human behavior our children should be taught, but simple virtues like goodwill and kindness. Where benevolence thrives, fear, stress, distrust, defensiveness and reaction are reduced, and our environment is a more peaceful, a more comfortable place to live. Many have argued that it is the quality of our interpersonal relationships that define true wealth rather than the accumulation of lifeless objects. Rather than mindless consumers, the 21st century needs people who value others and the planet.

BODY/MIND EDUCATION

Students, like the rest of us, have a body as well as a brain. Where the body and mind together can be engaged in learning, lessons are more deeply absorbed and integrated than those studied in the classroom alone. In real life we often must deal with situations where we need to use both our mind and our body, even the work we do may require it. Take learning to grow our own food for example, we can absorb a lot in the classroom, but it doesn’t become real until we actually work in the garden or orchard. After experiencing it physically, classroom lessons have a greater reality to us, we’ve engaged muscle and bones in the soil, planted the seed, tended the plants. The intellect alone cannot truly understand it except by doing it.

The physical health of growing bodies should also be a concern of education. Sports can help develop healthy bodies, but their win-lose emphasis excludes more students than it includes. Those who are not particularly athletic or that lack a competitive spirit can be shamed out of participation. Football may build strong bodies, but it also can do them harm. High school football accidents can and do cause permanent injuries, even death. The best athletes often receive deferential treatment by their school, as if they are more special than other students. To maintain this status means they must continue to win. When research psychologists Bruce Ogilvie and Thomas Turtko

administered personality profiles to fifteen thousand athletes, they deduced that in order to maintain superiority over their competitors the best athletes commonly lacked “kindness, sympathy and unselfishness.” When competing against a friend, they would rather lose the friendship than lose the competition. This may explain the behavior of Denver Bronco fans when they won the championship back around the turn of the century, when in their joyful exuberance they rioted in the streets of Denver, turning over cars and burning them, breaking out storefront windows, gangs of fans attacking those of the losing team. These are not attitudes or behaviors I want to see cultivated in our young.

There are ancient physical practices that benefit both mind and body. The smooth, fluid, dance-like movements of Chinese Tai Chi can be practiced successfully by just about anyone. In addition to improving balance and coordination, Tai Chi has been shown to boost the immune system and lower high blood pressure. Hatha Yoga, of East Indian origin, is another ancient physical practice with health benefits. Studies of Hatha Yoga suggest it can reduce cholesterol and high blood pressure, as well as offer pain relief from carpal tunnel syndrome. Practitioners report big improvements in flexibility, stamina and energy balance.

Both Hatha Yoga and Tai Chi also promote the ability of the mind to focus and increase awareness in the present. As greater awareness develops, the practitioner becomes increasingly conscious of their own internal mental process, they become more enabled to distinguish between Pavlovian conditioned responses and those that are authentically their own. Thus they contribute to a healthier body and a more liberated mind. Psychotherapeutic goals often focus on increasing awareness as a means to restore mental health.

Another ancient practice that has spread exponentially in the U.S. in the last few decades is sitting meditation. Amazingly, a large and growing body of scientific research indicates that although meditation is sedentary it can have a host of physiological benefits as well as psychological rewards. Preliminary research suggests meditation may offer significant relief from chronic pain, hypertension, irritable bowel syndrome, high cholesterol, psoriasis, depression and anxiety. Numerous studies also show superior heart and lung functions in meditators when compared to non-meditators, as well as an enhanced immune system.

The body of evidence regarding the psychological advantages meditation provides are truly astounding. Practitioners often experienced heightened feelings of joy and happiness, increased self acceptance, self confidence and self control. They were more positive, tolerant and compassionate. Accompanying this display of emotional stability, meditators additionally expressed feeling more vital, feeling actually rejuvenated. Perhaps the biggest surprise uncovered by studies of meditation

is that when as little as one percent of an urban population practices meditation, crime and illness in the city declines. Other benefits of meditation, while propitious to all of us, are particularly relevant for students. These include an improved ability to learn and to solve problems, perception and memory are heightened, creativity is increased, reaction time is faster, and meditators are overall more resilient to stress and adversity.

Unfortunately, some people react badly to meditation. For this reason, students should be able to choose it or not at their own discretion and must be able to stop meditating whenever they choose to. There is an indication that in at least some of these cases, adverse effects from meditation occur when it brings long buried traumas unexpectedly to the surface. Various forms of child abuse, of rejection or abandonment so painful they had to be suppressed can apparently be exposed during meditation, resulting in reliving the original trauma again. Distressing as this may be, given the right kind of support it's possible such emotional injuries might be healed once they are uncovered. Meditation should be a voluntary part of the curriculum after students have been informed of its potential benefits and liabilities. In addition, counseling and, if necessary, therapy should be readily available for students that may have a negative reaction.

CHILDREN AND POVERTY

By the year 2007, over 14 million children in the U.S. suffered from hunger (this could be a conservative estimate). Between 2007 and 2010, child hunger in this country increased by 750,000 more children. Children that suffer from hunger obviously receive inadequate nutrition and that leads to serious health issues. Hunger is also relevant to education since even poor children must go to school. In addition to a more compromised immune system, these children typically suffer learning disorders, impaired cognitive functions, hyperactivity, anxiety and increased levels of aggression. The U.S. juvenile justice system incarcerates more children under 18 years of age than any other country and the poor are common fodder for the system. We should ask ourselves how it is that a country that prides itself on being the best in the world can produce so many child victims of poverty and then punish these children as if that were a credible solution to their plight. Education should be strongly focused on ending poverty, hunger and draconian laws.

TOO MUCH SCHOOLING

John Gatto argues U.S. children suffer from too much schooling, and provides us with some comparisons of performances by nations with shorter school years. In Sweden, for example, children don't enter school until the age of seven. While American students have a twelve-year

school system, Swedish schooling is just nine years. Yet Swedish students are superior scholastically in almost every way. Belgian students, with the shortest school year in the world, outperform Israeli students who have one of the longest school years. A recent TV program discussed an academic exam where students from Belgium competed with American students. Although Belgium chose average students from an average high school, the Americans were selected from among the highest achieving students from the leading academic high school in the country. To the shock of the American students and school officials alike, Belgium's average students outperformed them. It should be obvious that increasing the time spent in school significantly overvalues its educational benefits.

Since the early 1980's, school hours have been increasing for American students, as has homework. The time they spend in structured competitive sports has also grown. The result is, according to research by the University of Michigan's Institute for Social Research, that children are overworked and increasingly exhausted. More and more their profiles resemble those of adult parents working two jobs or lots of overtime to make ends meet. In other words, burnout.

The plight of overburdened students does not appear to concern the interests of big business, who pushed for more homework, greater competition for grades and strict discipline as school doctrine. Groups like the National Association of Manufacturers, the Business Roundtable, and the Committee of Economic Development, comprised of corporate executives, have fought for standardized tests designed by industry and an increased number of tests given, more competition, stricter discipline and punishment of schools with the lowest performance. In our country, the poorer the neighborhood, the smaller the budget per student. Slashing their budgets further for performing lower than their better-funded counterparts suggests a lot of things, but as a way to improve student performance is not one of them.

Among the negative consequences associated with minimal free time for public school children is the irony that reading is going the way of the dinosaurs. Despite vigorous campaigns to interest students in reading books, students apparently don't seem able to find the time. Another victim of the keep-them-too-busy-to-think paradigm is unstructured playtime with children's peers. This engages their ability to think independently as they develop interpersonal social skills and relationships. Similar to the way unstructured time spent in nature promotes a relationship and understanding of the natural world that cannot be taught in the classroom.

FIRST NATION EDUCATION

In many pre-Columbian cultures that lived within today's U.S. borders, children learned by osmosis rather than within prescribed structures. Child neglect was rare in these societies and child abuse, too, was rare, if it existed at all, because their deep dedication to equality and liberty extended to their children. If there was anything they were intolerant of, it was oppression of one over another, and that included children. The least fortunate children had exactly the same opportunities as the most fortunate, as well as equal duties and responsibilities. In this way, skill, genius and leadership emerged naturally regardless of a child's circumstances. In this environment, any and every adult might become a teacher if a child chose them.

Children were present as the adult community went about their daily activities and children mimicked them in their play, in other words, teaching themselves how to be adults. In addition, adults were very responsive to the questions and needs of children regardless of whether they were related or not. As a result, strong bonds of friendship were forged between adults and children, and mentors were all around them. Children learned to develop many skills by choice, those that they felt an attunement with in particular.

To these pre-Columbian peoples, children were free spirits until their rite of passage. In this environment, older children looked after those who were younger without being asked to. They simply modeled their behavior on the egalitarian influences of the adults. There was no bullying, no outcasts. Rather, children learned on their own how to work things out with each other. Instead of corporal punishment for bad behavior, protracted teasing and joking ridicule may have been employed and humiliation soon led to humility. These societies were also scornful of gossip, a typically American habit that's often unfairly hurtful. First Nation people believed that words should not be wasted and those who gossiped or said a lot about nothing lost respect in their community.

History can teach lessons of real value for the present, or it can teach us little or nothing relevant to today. It can be fascinating or mind numbing, depending both on the selected material and the historian who authors it. History can be taught truthfully and candidly or it can, and often has been, taught as untruths with motives of propaganda and patriotism. At no time in history has truth been more important, particularly those truths most applicable to the quality of life today.

EDUCATION WITH LOVE

Let's teach our children well, teach them what they need to know to mitigate and adapt to the dramatic changes now under way, teach them sustainable skills, teach them to find unity in

diversity, teach them to embrace liberty and participate in democracy, teach them to work through conflicts peaceably, teach them how and why to be healthy, teach them to know, love and protect the natural environment. Teach them that everyone is a winner and there are no losers, no one fails.

Teach our children well, teach them about their own native intelligence, teach them that everyone has their own unique abilities, teach them that we are all linked in a tapestry of interrelationships and interdependencies. Teach them how to use their own mind and critical thinking. Love our children well and work for a world where they all can survive.

The author, Joshua Smith, is a parent of adult children. Joshua is an applied ecology designer and a permaculture and eco-forestry instructor. He dropped out of school at 15 and never returned.

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