

# New Horizons

## The Restructuring of Education, the Future of Employment & the Challenge to Education

By Ian Jukes

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### **Synopsis**

Fundamental structural changes are occurring in society. These changes are impacting virtually every aspect of our lives. This presentation will outline the remarkable changes occurring throughout society, with special focus on the impact to the world of work and critical role of education in addressing the central issues. As we head into the new millennium, these changes will lead to a workplace where, for the first time in our history, unskilled labor will no longer be an economic commodity. Education must quickly respond to these changes.

The presentation explores the state of change; discusses the enormous gap between what kids leave school with and what's needed in the world of work; explains why this has happened and what we can do about it; addresses how and why it has or hasn't affected schools; identifies and defines the specific problems we are faced with; outlines what we need to do about it; suggests where we should start, and recommends a 7 stage process that can help get us from here to there. Co-developed with Ted McCain.

### **What's this all about?**

There are fundamental structural changes occurring to our world. As a result, all students need a new set of skills & attributes as they move from school to life. These fundamental structural changes require parallel changes to our education system. Consequently, it's time to address the "R" words.

### **The "R" words!**

Everyone's talking about school reform. Everyone's talking restructuring. For the past several years, education bashing has become a national and international spectator sport. Since everyone has attended school, everyone is an expert on education. And everyone's got an opinion about what's wrong - and some even think they know how to fix it.

### **But I thought we were already reforming!!!!**

Others respond with surprise because they thought we were already doing this.

the amount of testing at all levels, and higher levels of accountability for all. No Child Left Behind (otherwise known as No Child Left Untested) has imposed specific time frames in which significant improvement of test scores will occur (or else!!). In the past few years, there has been a small but steady rise in graduation rates.

Despite all of the rhetoric from mean-spirited, personal agenda politicians and others, and despite the enormous challenges of language, culture, and poverty, we've seen a rise in SAT scores in all sectors of the test sample. Beyond this, AP participation is up - we've continued to bring technology into the schools - we've added a multitude of new test requirements and substantially reduced dropout rates

### **It's a bad rap!**

How can anyone say schools need reforming? The bottom line is that schools today are doing a better job than any time in history (read Gerald Bracey's *Setting the Record Straight: Responses to Misconceptions About Public Education in the United States*) for an eye-opening look at the reality behind the statistics).

Despite great challenges, the group of students attending our schools right now is the brightest and best educated group of students in American history, because over the past few years, schools have been consistently making gradual, incremental improvement to the who, what, when, where, why and how of schools.

### **So what's the problem?**

Unfortunately, our strength is our weakness. We indeed have the best educated, but at the same time, the worst prepared generation. Why? Because we are making gradual incremental changes while at the same time facing the greatest number of social & structural challenges in history. While our schools are changing, the world is changing many times faster

### **A growing gap between where we are and where we need to be**

Although the progress is commendable, we can't just celebrate incremental progress. We must address the growing gap between where our children are & what's needed to succeed in an increasingly interconnected, sophisticated technological world. This gap is widening despite Nation at Risk, SCANS, Goals 2000 and No Child Left Behind, despite the introduction of technology, despite new tests and despite state standards and higher levels of accountability. Cutting to the chase, it's becoming increasingly obvious that despite our very best efforts, we're failing our children

### **Why is this happening?**

attended many years ago. As a result, expectations for education regularly exceed the ability of education to deliver the goods because parents, businesses and communities have very little awareness of what's really happening in our world. We must let the public know what's happening, or run the risk of a continued erosion of confidence in the school system. Because, when you get beyond the rhetoric, the bottom line is that the end product of schools just isn't very marketable. And the great tragedy is that many citizens just can't see this because they're suffering from a potentially terminal case of conceptual & intellectual gridlock.

### **The barrier to meaningful change**

Given current educational structures & mindsets, the rate of improvement can't be any more than incremental. Yet every year the needs to operate in the new world are increasing dramatically. We truly live in a changing world - a world where change is not only the constant, but also where an increasing rate of change is the norm. In such a world - a world that is typically contradictory to the world and times that we grew up in, it's difficult to accept or understand what's needed - that the urgency for change is critical - that just because we're on top doesn't mean we'll always be.

### **It's a different world**

The global game is changing. We suddenly see younger, hungrier faster competitors. It doesn't take a rocket scientist to see how this has affected business. Businesses and business people are now running scared. We face imminent, parallel issues in education even if many people inside and outside the field don't realize it? So how do we deal with the challenges?

### **How are others dealing with the challenges?**

Elsewhere, they're changing their schools. They're going to longer school days and longer school years. They're developing a differentiated curriculum. They're informing with the intent of cultivating higher levels of parental, institutional, community & national expectations, while also working toward higher levels of involvement & commitment by each of these groups to education.

### **How has this affected our schools?**

It's pretty much same old, same old. We have essentially the same school day/year that we did 70 years ago. Our students attend school literally half the time that children do in many countries outside of Canada and the US. Our children take half the math & science that the rest of globe taking. And while many recognize the need for change, they can't or won't do it - in large part due to the restraints of institutions, traditions & habits.

else's job to change. As a result, the gap between our children's needs & adults desire to maintain status quo of educational & institutional heritage continues to grow. It's seen as someone else's problem

### **A recent Gallup poll brings this home**

Participants were asked: "Do schools need fundamental changes in what we teach, how we teach & how we assess children?"

81% of those polled responded yes, while 78% responded that no significant changes were needed to their children's school(s). This is terminal yabbutism - everybody else but me needs to change.

In the same poll, educators were asked: "Do the classes & courses that we teach need fundamental change in what we teach, how we teach & how we assess students?"

91% of teachers polled said yes, while 88% responded that no changes were needed to their classroom. Yabbut, it's someone else's problem.

### **What's the bottom line?**

We continue to have a desire/ expectation to be the best, but at the same time, we continue to do the same old things we always have. And this just has to stop. We must get dead serious about understanding the consequences of continued inaction over these issues. We must avoid being Yabutters at all cost.

### **Getting beyond Yabbut**

To get there, we must start by think about own kids and our hopes for their future. To get there we have to differentiate between our institutional & occupational biases & the needs of our children. When things are examined from this perspective. We often begin to look at issues differently.

### **Let's start by defining the problems**

There are a multitude of issues

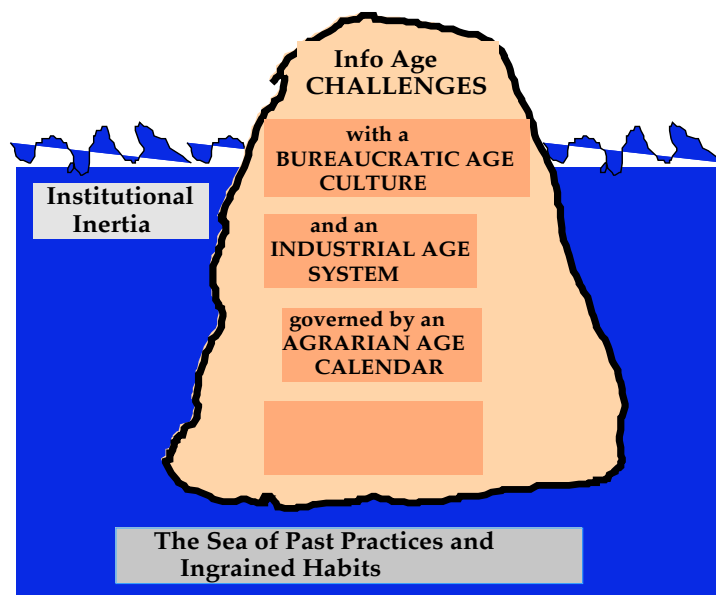
- no agreement on what the focus should be
- multiple priorities
- a Yabbut mentality
- TTWWADI (the invocation of "That's the way we've always done it")
- a lack of relevancy of curriculum
- a hardening of categories
- the lack of personal discipline

English, the Classics and languages. Parents want successful, happy young adults who are incredibly successful. The community wants world-class schools with no additional taxes. Educators want people who look at world just like they do. And the government wants educated citizens without having to pay for them. All want education to be dynamic while at the same time want to produce the kind of graduates that honor the imagined perfection of Father Knows Best 50's values & mindsets.

### **This is educational schizophrenia**

You can't make kids ready to challenge in the 21st century while still honoring the fantasy family values of mid 20th Century. If you do, it leads to an educational system with rules & expectations very different from what's happening elsewhere in our increasingly global world. This explains the widening gap between where we are and where we need to be.

Dr. Bill Spady wrote a marvelous, must buy book entitled *Paradigm Lost: Reclaiming America's Educational Future*. In it, he talks about defining the obstacles between here and there. To do this, he suggests we need to understand the educational iceberg. (the following figure is copied with permission from Bill Spady.



As he explains it, the winds of change push the tip of the iceberg - the Information Age challenges. But while we focus on the apparent issues above the surface, the institutional inertia found in the sea of past practices and ingrained habits, the bureaucratic culture, our Industrial Age delivery system and our

## **Melting the iceberg**

Understanding Sea of Past Practices & Ingrained Habits gives us a snapshot of current mental models and the challenges we face as we consider where we are now and where we should be going?

## **International tests**

In *Setting the Record Straight*, Gerald Bracey suggests that international tests are literally the tip of iceberg because they are just superficial indicators of the problem because they are limited to Math & Science. That other comparisons that highlight the increasing gap in other disciplines are non-existent or non-quantifiable.

## **The gap in Science & Math**

While some of the problem stems from the fact that certain concepts are introduced to our students at a different ages than students elsewhere in the world (read later here than there) the cold hard facts are that our students don't take as much Science and Math as European & Asian students, starting in elementary schools where little Science is taught. Elsewhere, Science is a core area as early as grade 1, and it is integrated throughout the elementary curriculum and then accelerated greatly in high school.

## **Why is this happening?**

Despite a stronger focus on Math & Science after Sputnik, the gap is still increasing. In part this is because we have grown accustomed to levels of performance that are satisfactory to us but far short internationally. Because of the difficulty to do this easily, there is a tendency to compare only to ourselves or be yabbuters as to why we compare so badly. It's easy to justify how we did or didn't do. These performances are not bad if we're willing to accept mediocrity, but we are a long way from being world class academically. And unfortunately, this statement applies not just to Math & Science. What we don't measure are things that are difficult to assess because of cross-cultural or other variables. Amongst others, we have different values about such things as:

- length of the school day/year
- the extent to which we train and upgrade our teaching staff
- curriculum content
- parental involvement in the learning process
- beliefs about what it means to be educated
- acceptable behavior & discipline by students

## **What do we do about it?**

We must identify what's needed to close international gap. But even if we put

success in real world. If we want to compete, we must expand the capacity of schools to provide relevant instructional time in all subject areas and at all grade levels. We must commit to our students doing far more homework. We must ensure that all parents are far more actively engaged in the learning process. Beyond this, we must also address several myths that cloud the discussions.

### **Addressing the myth of funding levels**

It's an absolute falsehood that the US spends more than other nations on our schools. This is only true if spending for K-12 & higher education is included. For K-12, we spend less than 7 other countries on both a per capita & total basis. But some people just don't get it. In a time of increased tax cuts, funding for education is being reduced. It is absolutely shortsighted not to spend money on education - our pensions, culture - yes, even the future success of this country depend on it. We live in strange times in a strange land. We think nothing of spending huge amounts of money on athletes, industry bailouts, weapons, security, and political witch-hunts, but we don't seem interested in spending money on our children and their schools. Students are our most important natural resource - schools are our farms of the future. They produce our most valuable new crops - which is thinking minds. If you think education is expensive, try ignorance.

### **Addressing the myths of state standards**

Most tests used today tap only a small fraction of what students actually learn. Most of them measure very little of what life requires students to actually do with what they learn, yet testing persists because we are in the Golden Age of Accountability.

As Bill Spady says in *Paradigm Lost*, increasingly, we're judging teachers by undefined & uninterpretable test-score results. Students *achieve* in many places and at many times during their schools years. Yet in many cases, teachers' and administrators' jobs are at stake unless students pass tests at a prescribed level on a specific date. In order to "succeed" teachers are narrowing down their instructional approaches, abandoning the curriculum (as flawed as it is) and teaching to the test. Just ask the folks in Texas what TASS and TAKS has done to schools.

This of course is being done to help students achieve high scores on a limited range of content & skills. This is all based on the faulty assumption operating in that we know how good each student is or isn't *because their scores tell us*. We take these scores, numbers that nobody can explain in terms of concrete competence or performance, and assume that they are a better indicator of our students' abilities than would be a transcript of their documented competences tasks and projects

Yet these scores have become the fool's gold. We have told parents and the public for so long that scores and grades have meaning, that they now believe us. Here is a scenario copied with permission from Bill Spady's *Paradigm Lost*, 1997:

*So, folks, your son's achievement is 86. Please don't ask, "Eighty-six of what?" Just accept it - like millions of other American parents do. And remember: these scores got us through the Cold War in one piece, and the colleges need them. Otherwise they wouldn't know who's smart enough to understand their professors. Why with a 70 you can get into a community college and with an 80 you can get into a four-year college. So 86 is pretty good - just four points shy of being gifted material, because you need a 90 to get into that program. But a 95 will get you into the door of just about anyplace you can imagine - except the Information Age. The testing and school reform boys haven't got that one figured out yet.*

What education leaders haven't done is compel their communities and colleagues to address the following twelve questions (Spady, 1998a). If they did, the dialogue surrounding educational reform would be profoundly more enlightened and future-focused.

- Exactly what, in precise words, does this test "measure"?
- Exactly what, in precise words, does this test *not* "measure"?
- Exactly what, in precise words, does this test *not* "measure" that is essential to students' success in the Information Age?
- Why don't we measure and report that instead?
- What exactly does a particular student's test score "mean"?
- Is this one test score the student's total learning and achievement?
- Which score clearly indicates that the student is "competent"?
- Does one point less indicate "incompetence"?
- What does this test or a given test score "prove" about the student, the school, or the district?
- What exactly does this test score indicate about the student that needs to be improved?
- What exactly does this test score indicate about the school or district that needs to be improved?
- What does this test score indicate about a student's learning that her or his teachers don't already know?

### **The Lack of Curricular Relevancy**

Combined with this is the lack of curricular relevancy, which is more critical than lack of capacity. What's learned & how it's learned has little connection to what's needed after school, especially for the new workplace. This is because the curriculum continues to be highly theoretical in nature. Elsewhere, tests measure

increasingly see a more application-based curricula because it's understood that applied is a higher order thinking skill that recall of theory, because you can't apply something until you understand the theory.

Business trends and the changing job market tell us that we must address this lack of relevancy, but in most schools, it's business as usual for teachers & workers. We essentially have the same schools we've had for more than 50 years, and thus the gap continues to grow.

Our schools are an extension of our beliefs, values and priorities. Here the system tries to be all things to all people. We're academic as well as social, emotional, athletic and psychological institutions. Elsewhere, schools are primarily institutions of learning that focus on doing a few things well rather than a lot of things poorly.

Even if we narrow the focus to just the academic aspect of schools, we see that there is a tale of two visions. Here, the primary academic purpose of schools continues to be to prepare students for college (even though only about 30% of today's students will actually get a college degree) not to develop series of relevant skills to be used in workplace & society. Elsewhere, it's understood that there are 2 primary purposes - academic & the world of beyond school.

It's time for us to re-think things. First, we must re-define & expand what being educated means. It cannot begin and end with the traditional intellectual abilities, basic literacy & cultural understanding. It has to move well beyond this to the skills relevant to the world of work.

The Instant Messenger generation lives in a different world. It's a culture that is fundamentally different than the one we grew up in. Moreover, they will operate in a workplace & society that will be radically different from that of 20, 40 or 60 years ago. Yet today's curriculum is essentially the same as that of American schools in the '30s.

At the same time, the world has changed. The skill levels needed for today's workplace are higher & different from those traditionally taught; as well as being higher & different from those required by universities. Yet schools continue to maintain primary focus on higher education above all else

### **What should students learn?**

This is a big problem! Let the yabbut begin!! Schools, business, parents - everyone wants something different for and from students. Readiness for college was the benchmark for most educational decisions & definition of success for over 50

post-secondary education in the past. This is also a fundamentally different set of skills than we now teach

### **It's time to sound the alarm**

In examining current trends, the results should be alarming. The energy of the new Internet economy is misleading. Increasingly we have two societies in this country because of the growing income gap between the have & have-nots. Despite the new economy, for the first time in history the standard of living for most Americans is declining. Many of the low skill jobs are going elsewhere, leaving more low skill workers competing for fewer jobs. The result is that we have a choice - high skills, or low wages? -

### **What are we going to do about it?**

To address these issues, we must focus more on our children's future, not our past or present. We need to take a comprehensive & systematic approach if we are to move from where things are to where we need to be. What's needed now? What will be needed in future?

To begin with we must acknowledge the magnitude of task. This is not just about math & science scores. It's about a commitment to teaching all of the attributes our students need to function in a technology & information -based society. A far broader set of actions is required.

### **Defining what's needed**

We must start by identifying the attributes of the 21st century learner plus the levels of competency that are needed. Learning no longer just at the comprehension level, but at the application level. Addressing this all starts with the curriculum.

### **Restructuring curriculum**

What must we teach? To understand this, we must start by doing what urban anthropologist Jennifer James calls "thinking in future tense" - what skills will be needed in the future? What language skills? What math skills? What science skills? What expanded list of new basics needed to prepare our children for the world that awaits them?

### **The expanded basics**

We need to move beyond traditional math to the new basics. Applied mathematics - the application of statistics, logic, probability - the use of measurement systems, statistical numerical controls

We need to move beyond traditional language areas to technical reading & technical writing - speaking & listening - applied reasoning skills - all must be learned at the application level

Beyond this are the new life and workplace basics - interpersonal communications skills - critical thinking skills - human relations skills - time & stress management, organizational & personal skills. All of these skills (and many more) are needed to be an effective citizen, a lifelong learner & a family member. To do this, there's a need to fundamentally restructure education.

### **Why do we need to do this?**

Because test scores are just a symptom of a much deeper problem. Despite new standards, technology, new tests, and new strategies - the gap between what students leave our schools with & the world outside school continues to grow. It's not just that things have changed - things continue to change - and at a faster and faster pace. As a result, the world is a moving target world that is not standing still.

We're not alone in struggling to improve our schools. Elsewhere in the world, educational institutions continue to be reformed & restructured to reflect changing nature of global competition to reflect the new reality of technology driven global economy. In many industrialized countries, learning is about more than just intellectual development because, by itself intellectual development doesn't prepare kids for the world they must live in. Schools must be about more than just being intellectually capable - now they must have a relevancy to the world of work. This is not an either/or situation

Beyond higher education everyone needs goals. We mustn't give up dream of being good citizens, life-long learners and family members. But if that's all they have, increasingly our children will still be functionally unemployable in the new economy because their basic skill levels will still be too low.

### **Where do we start?**

We must focus on the needs of our children. We have to stop the finger pointing - we must stop trying to blame others - we can't continue to be Yabbutts!!! Reforms must relate to needs of children not just needs of adults. Typically resistance to changing anything that threatens institutional rules or organizational structures already in place.

Are we willing to look at:

- school calendars?

- academic programs
- school schedules?
- athletic programs?
- vacation schedules?
- contracts, seniority, organization?
- funding levels?
- personal accountability?

Our role is central in success/failure of children. We must all take responsibility for this. To do this, an understanding of the current state of things is essential. We must all commit to re-examine our own practices. This is a critical step if we're to move schools toward 21<sup>st</sup> Century relevancy. But to do this will require more than just lip service.

### **Where & how do we begin?**

We need to create new schools for this new world. Schools that will see the end of the assembly line model of learning and traditional departments, schedules and structures. We must focus on unified, integrated continuum of instruction instead of separate courses. We must focus on practical applications that are relevant to the workplace and acknowledge that learning practical applications isn't mutually exclusive to theoretical studies.

### **Dealing with the discipline issue**

There is general agreement that we've got major problems. Although this is, in large part, a reflection of society at large, schools tend to get much of the blame. Because our students lack discipline, there's far too much time spent baby-sitting & managing student behavior. If we are to move forward, schools require well-disciplined students who respect authority

This is everyone's problem! Parents call for increased discipline, but are often also the first to complain when it's their kid that's in trouble. Others say we can solve the problem by reducing class size. Although this might help, it's not just about class size. To address the issue, we must create an environment & structures that support qualities of respect & self-discipline in & out of school. To do this, we must address the root cause, not just the symptoms.

### **What is the answer to the discipline problem?**

As we continue to reinforce the schools of our youth, the primary focus remains on content and information recall. Therefore, most of the time is spent teaching to the test, with a focus on T<sup>3</sup> - (teaching it, testing it and then turfing it) because we have a curriculum to cover. This is an approach that is so boring that inevitably,

but on cultivating engaging methodology with focus on learning not just teaching

### **Managing the change**

If we are going to address the issues in time, we are going to have to take our communities through a critical, multi-stage process. We must:

#### **1) Create awareness**

The driving force must come from a sense of unhappiness with current schools. This must not just from parents but also from educators, public, business, government & students. Unfortunately, only a vague and generic dissatisfaction exists. While many believe schools are failing and need to change, there is little consensus of how they need to change and what needs to be done to make this happen.

If we are going to start things moving, we must communicate what's really happening out there globally and what's at stake for our children if we don't change. In particular, we must build an awareness of the different requirements needed for higher education as opposed to life and entry level employment.

#### **How do you do this???**

The starting point is to educate your communities by regularly providing information to parents, senior citizens, the workplace, seniors, childless couples, young families and the community at large about the changing nature of work; the skills that are needed to be successful; about the increasing inability of our children to compete; and particularly, about the lack of relevancy & readiness for workplace. Make raising awareness of the changing nature of the world an everyday part of the ongoing curriculum. Encourage business leaders & employers to bring forward education issues related to the need to upgrade & expand curriculum in schools. Create partnerships by working with the business community, educational leaders, the media and politicians to develop ongoing awareness. Find a common ground of understanding about where we are & where we should be heading.

#### **2) Refocus on adult roles**

Identify the different roles which graduates must be prepared for as citizen, worker, consumer, lifelong learner, effective family member, good user of personal health care & leisure time. Ownership of the responsibility for this must come from everyone - educators, parents, and community.

#### **3) Identify the necessary skills**

Analyze what skills are needed for each role. Strive for general understanding & agreement as to what these skills are. Identify the gap between what we deliver &

#### 4) Determine what's negotiable

What is the community &/or educational personnel willing/unwilling to change?  
Identify the list of negotiables & non-negotiables. And if nothing is negotiable then consider why you are bothering to try to bring about changes?

##### Do the negotiables include:

- taxes?
- the length of school day/year?
- the elimination/combination of disciplines or curriculum areas?
- major change to particular programs?
- a reduction in services in traditional areas?
- certification & tenure of employees?

#### 5) Finding common ground

This is guaranteed to cause angst & discomfort amongst all. Compromise is the critical stage. You can only bring about change if adults will compromise with each other on their roles & responsibilities

#### 6) Develop a plan

After the 5 steps have been completed, development of a plan is a relatively simple but critical task, but if you don't go through 5 steps, there is a tendency to develop a new plan every year. Over the past few years, OBE, Effective Schools, TQM, SBM, standards and many others have become the direction du jour for individual districts. If the attitudes, values & beliefs of community & educational staff have not changed, then plans are pointless. But to do this, we must develop realistic, comprehensive long-range plan focused on fundamental change

#### 7) Implement the reforms

Successful reforms tend to have similar characteristics, with a major emphasis on applied, integrated, relevant curriculum that is differentiated from the skills of traditional theoretical curriculum. This, naturally, has to be combined with massive, ongoing staff development

##### Start by:

Moving away from a primary dependence on paper & pencil tests that characterize the assembly line model of education. Move toward the use of portfolios & authentic assessment to supplement written examination. Modify school calendars & class schedules to meet the learning needs of students. Implement advisor & mentor programs for students. Modify assessment to include attendance, group

much greater extent in the education of their children

### **So what are we waiting for?**

The starting point must be to recognize & internalize all of the things that have been discussed here. If we don't, we won't be able to undertake the change process. We must communicate the cold, hard fact that schools are not as relevant or effective as we've spent the last many years trying to convince communities that they are. We must help others understand that it's a new world out there. And that there's a real danger if we stay the same.

### **Your role is central to this process.**

You have potentially enormous power as a parent and as an educational & community leader. You have the power to bring the new global realities of the workplace to community... but only if you make commitment to do so

### **There's no quick fix!**

We live in a society that is completely focused on instantaneous gratification and a fast-food mentality to dealing with problems. We have a tendency to seek instant gratification, recognition, profit & remediation. Unfortunately, short-term solutions often lead to long term problems. The dogged pursuit of short-term goals & bottom lines has often lead to cultural myopia. It's time for glasses. It's time for meaningful change to take place.

### **It's time to rethink some things:**

- classrooms
- curriculum
- schools
- educational management
- teaching
- learning
- what it means - what it will mean to be educated
- redefine success
- redefine attributes needed for success in workplace
- changes in attitudes
- changes in organizations
- changes in perspectives

As David Thornburg says, we are preparing students for their future not our past.

hands and resign yourself to what is.

*The problem in life is not aiming to high and missing the mark, it's aiming too low and hitting the mark every time*

Michealangelo

We must begin now to rethink & to begin shift from here to there. The reason is simple - our children are 20% of the population, but 100% of the future of this country. They are, in fact, our most valuable natural resources. On a more visceral level, your pension plans, my pension plan depends on how well we do. If we mess up with them, our pension plans will be worthless.

For this reason, what I am advocating is both a personal and professional imperative. The definition of insanity is doing the same things that we've always done, but expecting or wanting or needing completely different results. And if we continue to do what we've always done, we'll get what we've always got. Most people want new result but continue to act in same way. The resources needed to make real change already lie within us.

*The difficulty of life is not the new but giving up the old - the task is not just to see it, the task is to enable it. So before we change what we do, we must change what we think. But before we change what we think, we must change what we*

*believe*

Lora Dobyms & Clare Crawford-Mas

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