

Learning Redefined

When old words die out on the tongue, new melodies break forth from the heart; and where the old tracks are lost, new country is revealed with its wonders.

Rabindranath Tagore

Image is everything; until we change our vision of something, to revision, which means to look at with “fresh eyes,” our responding to the stimulus will not change. Reform is not possible without revision. The metaphors harbored within our minds determine our methods and even our materials. Until we change those operating metaphors that guide our behavior, we cannot reform our methods. We can change the meanings of our words, their interpretations, their connotations, in order to reveal a new country with its wonders.

This paper attempts, through quotes and brief essays, to inspire and inform conversation about the redefinition of learning. The way we presently learn is challenged by the increasing dynamic complexity of the times. The image that worked in past decades, to some degree at least, will not suffice for tomorrow’s predicaments and opportunities. Unless we redefine it, we will continue teaching in the same ways and learning the same lessons. We will therefore continue getting the same results.

Learning is who we are. We are specialists in learning. Other animals can learn, but like the giraffe that has specialized in eating leaves from high in the trees, we stand head and shoulders above all other learners. We have even evolved art, language, and culture to help us learn.

How we define learning, then, becomes integral to the definition of ourselves. If our focus is the learning of our duties, then we become duty-bound. If our focus is learning our tribal connections, then we become parochial to the extreme. Learning is so much a part of our environment that, just as water is to fish, it is hard for us to envision it and realize its affects.

As a college professor, my biggest concern is the definition of learning in my students. So many come to me with the attitude of “Just tell me what you want me to know.” And they think they are being good students with that approach. After all, they have good grades to show for it. They have learned to be the passive recipients of transmitted

knowledge. They don't understand that the democratic spirit within them has been crippled by their own schooling.

I fear this attitude of passive learning more than ordinary incapability. That can be dealt with much more easily. But the harbored image of learning as the passive reception of transferred information is scary. The image guides students to not think about what they are learning. Thinking, by the light of that guiding image, is not only unnecessary but disruptive. A nation of citizens who believe that learning is a passive activity, something akin to television watching, will not have a future as a democracy. Citizens who have the habit and capability of thinking for themselves are a condition for the maintenance and development of democracy.

Some good people have noticed that our students lack critical thinking skills, so curriculum has been designed to remedy the problem. But the curriculum is handicapped by the present dominating definition of learning. Thinking, especially critical thinking, is not a collection of skills. It is both a habit and an emergent, holistic capability. Thinking is, most importantly, an action, a construction, a statement of interest and concern on the part of the learner. It is the personal contribution of the learner to the learning. Passive learning therefore suppresses thinking, by systemically saying that thinking is both unnecessary and disruptive to the curriculum as designed and implemented.

My syllabi point out that the only way a student can get an A in one of my courses is by creating a project that is both germane to the subject and one that expresses and informs their initiative. They can attend every class, do all the homework, and ace every test, but without that project the highest grade they can get is a B. For me, the grade of A denotes excellence and that can only be achieved by the engagement of personal interest and initiative. But our students have been taught otherwise.

Learning as a passive activity is the prevailing image of the process in American society today. That image has systemic and pernicious affects that, left to molder and fester, will rot away our substance and potential. We have the task to redefine learning, to give it a more robust, individualistic, and, most importantly, active image. Learning is a personal construction or it is a hand-me-down. And people who become addicted to hand-outs will not have the initiative and integrity to fend for themselves. They will not be the citizens necessary for a democracy.

We need a serious and intense conversation in this country. What is our definition of learning and what is our schooling doing to promote or disrupt that definition? The nature of the process determines, to a great degree, the nature of the product. That product is nothing less than ourselves, our habits and capabilities, and, most importantly, our responsibilities. Students who do not perceive and understand the responsibility for their own learning will have that responsibility assumed by others.

The students who come to me harboring the image of learning as the passive reception of my teaching scare me because they are too easy to teach what some authority wants them to learn. But the democratic spirit is still alive and well within them. Most come around to the challenge to find and define themselves and what they care enough about to contribute, to themselves, to the subject, and to the rest of us. They want to engage their initiative and, ultimately, their responsibility, because they do believe in their uniqueness and that they have something special to contribute.

Our schooling hasn't killed our spirit yet, but it has been working at it, daily, hundreds of days a year, in millions of classrooms across the land for many decades now. The task to redefine learning, and thus the nature of our schooling, will determine who we will become. Hopefully, the following quotes and essay vignettes will help us investigate the image of learning, to turn it this way and that in order to better understand its affects in order to develop a more powerful definition of learning.

It is the unfortunate dilemma that initiative and training are both necessary [for the healthy educational process] and that training is apt to kill initiative.

-Alfred North Whitehead

The cardinal element of learning redefined is a focus on bringing a balance between training and initiative into the educational process. Initiative is a cardinal concern because without it much of what we desire is not possible, such as life-long, self-directed learners, such as critical thinking, such as character and responsibility. Initiative—within both our teachers and our students—is essential to the necessary redefinition of learning. Initiative is at the heart of active learning.

The image of training, however, has crowded out the importance of initiative in our schooling—just as Alfred North Whitehead feared way back in 1916. Training, because it is more easily measured and supervised, has pushed initiative out of the educational dynamic. Training fits in with the socialistic design of our schools. Initiative is disruptive and derailing to the prediction and control machinations of our educational system.

Training is, as Whitehead understood, necessary. However, if distilled to a lethal dose, training will suppress imagination and responsibility. It will generate passive learners.

Two negatives result:

- both society and individuals lose potential,
- students resent and resist a process that suppresses their initiative.

The initiative of teachers is systematically suppressed by the top-down, measurement-fixated mandates of what is in essence a socialistic system. The initiative of students is suppressed by the ubiquitous tests (that measure training) and the coverage-fixation that suppresses conversation and, ultimately, student engagement.

Initiative is how we get a sense of movement and momentum in our lives. It is how we feel like we have traction, that we are getting somewhere. Initiative is the constructive energy that expresses who we are and what we want to become. It also establishes the parameters of our responsibility.

As Adolph Eichmann maintained, people who are not allowed to have initiative in certain areas cannot be held responsible for those areas. We hanged him anyway, but he had an argument.

All thought is a feat of association: having what's in front of you bring up something in your mind that you almost didn't know you knew. Putting this and that together. That click.

-Robert Frost

In order to construct an association, a learner must have the energy of initiative. Thinking is a personal act, one that develops from the desires for understanding, ownership, and self-expression. Thinking is always an adjustment to the situation, in the perspective, in the approach, in the understanding. It is the click that changes the picture.

Training can inform the act of thinking, but it can also discourage it by persistently implying that it is unnecessary. When that happens, schooling becomes a process where students are not challenged to construct associations. They are instead fed a steady stream of disconnected knowledge bits. As initiative is crowded out of the educational process, so is thinking.

Training, as *The Oxford Universal Dictionary* informs us, is etymologically related to the locomotive device that drags things down a laid-out track:

from the Latin *trahere*, to draw, drag. To draw or pull along after one; to drag, haul, trail.

The locus of control in training is the curriculum (a sputum-sounding disease-looking word related to the circular track around which Roman chariots raced.). The curriculum (or track) is pulled by assessment strategies, or locomotive (locus of motives?).

Some years ago I attended a workshop on “calibrated curriculum.” The premise was that a truly well-constructed curriculum would guarantee specific (and I mean specific) learning outcomes. We spent a weekend calibrating curriculum, laying out the track so well that no student’s learning could deviate from the design or be derailed by even their own hesitations or resistance. They would be “trained” whether they liked it or not.

Initiative, on the other hand, recognizes that the locus of control—of whether learning occurs and how it develops—resides in the learner. Initiative is integral to the constructive nature of the educational process. It comes from different and antithetical origins:

from the Latin *instiare*, to begin. To begin, commence, enter upon; to introduce, set going, originate. Initiative is the function, power, or faculty of beginning or originating something.

The energy of initiative is at the core of all effective teaching and worthwhile learning. It is a cardinal strength. Without its confident and vigorous presence, the development of other strengths is not possible. It is the energy behind the construction of associations indicated by Frost.

Initiative cannot be dragged forth by training. It must emerge of its own volition. We can establish conditions that encourage that emergence, but we cannot make it happen. When we intentionally ignore that bothersome truth, we neglect the heart of education.

The philosophy of the schoolroom in one generation will be the philosophy of government in the next.

-Abraham Lincoln

The ideal of democracy is continuously taught in American schools. But it is taught through lecture, workbooks, homework, and the occasional (usually canned) discussion. It is not modeled. The habits of democratic thinking are suppressed by the designs of our schooling. The conditions underlying the way we school our children are antithetical to the emergence of democratic habits and responsibilities. Present schooling suppresses both teacher and student initiative, although initiative is at the core of both individuality and responsibility.

There is little about the structure of our schools that promotes and extends the democratic way of life. The process in our schools is actually socialistic in philosophy, based on the “scientific management” of a human endeavor, with methodologies of prediction and control so beloved by the former Soviet Union.

The systemic ramifications of this reality could be severe. If Lincoln is correct and the philosophy of the schoolroom in one generation is the philosophy of government in the next, then we have good reason to fear for the future of our democracy. We are not establishing the conditions for a democratic citizenry in the future.

Those who work—learn.

-Dennis Wong

Work, however, is not so easily defined. It goes beyond labor. Simple attendance, seat work, and successful passing of exams are insufficient. Whitehead feared, justifiably, that training would crowd out initiative in the process, because it lends itself easily to measurement and supervision. And that has happened in our schooling, especially in our public schools.

That is why teachers often find themselves teaching skills that should have been learned years before. The students have had the training, but little opportunity to make the

learning their own through their initiative. They have had neither the challenges nor the opportunities to think about their learning, to construct their own information. Personal initiative is a cardinal component of constructive learning.

Without initiative on the part of the learner, learning is passive. Initiative is necessary for active learning. Work occurs when learners engage—through their initiative—their thinking, their interests, their imagination, their ownership, and their responsibility in their own learning. That is when they really learn by the best definition of learning.

Learning without thought is labor lost.

-Confucius

Capability comes not from memorization and tests, but from the accomplishment of significant tasks. The word “significant” is important: students who are not engaged with their learning will perhaps comply with the demands of schooling but they will not commit their interest and initiative—their ownership. They will not think about what they are learning; it will therefore not become part of their developing intellect.

Learning must have true significance to learners in some emotionally important way if they are to learn effectively. Unless the learning process engages the thinking of learners, the labor is lost. Or worse, the students learn that learning is the passive reception of transmitted knowledge—that need not be thought about.

When the workload of the class is light, kids are willing to do some thinking, to take time to figure things out; when the workload is heavy the “I don’t get it” begins to sound, the thinking stops, they expect us to show them everything.

-John Holt

Thinking is an emergent phenomenon subject to interactive conditions. A sense of hurry, and the need for coverage or certainty suppresses thinking. Expertism also squelches thinking. As Holt pointed out, the students expect the resident expert to provide the answers when the coverage is heavy. Thinking requires a relaxed atmosphere, or at least one not crippled by anxiety.

When we push for critical thinking, we have to allow the construction, guided by interest, pulled by curiosity, and carried by conversation and reflection, to develop at its natural pace. To think critically means, in essence, to perceive the significant within situations, and that takes not only developed intellects but time and opportunity for conjecture. Thinking is an often messy gathering of hunches, knowledge, intuitions, considerations, and assumptions that require sifting in search of the significant and meaningful. It rarely takes off in a quick flowing jump when the starter pistol barks.

As Holt commented in regard to the constantly pushing curriculum: “Thus one ironical consequence of the drive for so-called higher standards in schools is that the children are too busy to think.” Learning redefined recognizes the need for thinking, and demands learning environments that encourages time and opportunities for thinking.

Learning does not mean acquiring more information but expanding the ability to produce the results we truly want in life.

-Peter Senge

Students now learn the basic lesson that learning is “bulimic learning,” where they may learn the curricular stuff, but retain it only long enough to pass yet another test—and then regurgitate it from their minds. Bulimic learning is why university professors find themselves repeating the lessons of a fifth-grade teacher. The students have literally not “really heard” these words before. They have not intellectually digested the material. The students resist and disgorge the information because they know the learning is not expanding their ability to produce the results they truly want in their lives.

Bulimic learning is not only a waste of everyone’s time and effort, it is a systemic disorder that will eventually drain this nation of intellectual substance. The absence of intellect in our students is alarming. And lack of intellect translates into lack of curiosity and engagement. Why be curious and engage your efforts if you don’t have a scaffold of understanding with which to make meaning of the new learning? A nation, especially a democracy, depends upon the developed intellects of its citizens.

Senge’s definition of learning helps us recognize and reorganize our values. What are the results we truly want in life? The simple accruing of information is not learning, unless you wish to be a professional Jeopardy contestant. Learning is increasing our capability to be effective at what we believe to be worthwhile accomplishments.

I teach history to smart students at a good college, who, it is often said, know less when they graduate from secondary school than their counterparts of years past. In fact, I think they have more knowledge. But they can do less.

-Carol Gluck

Bulimic assessment strategies—the constant and systematic measurement of short-term memory acquisition—is the root cause of why we have so many students who resist and resent the educational process, who dropout or withhold commitment, who are in need of remediation. An essential characteristic of systemic learning is that students develop their capacity for production, for the construction of thoughtful, responsible, imaginative, and

effective projects. Systemic—as opposed to bulimic—learning needs to be an essential component of learning redefined.

In a redefinition of learning, we will need to balance (though not eradicate) bulimic assessment strategies with systemic assessment. Otherwise, we will have the absurdity that the author Susan Ohanian pointed out some years ago. The state of New York had over 1,800 different reading assessment levels, and students could pass all of those but still be unable to read, because reading is a holistic, emergent capability.

We need to redefine learning because we need students who can do more.

God sends threads to webs begun.

-a wise old teacher

That image, of threads moving toward evolving webs, illustrates intellectual development. The job of a teacher is to help students design and construct their webs of understanding, their intellects. The necessary threads will then, with the help of student interest and initiative, accumulate to elaborate and nourish the evolving intellects. Learning as it is now defined and practiced in our schooling rarely nourishes intellectual development.

Learning redefined should move toward a more constructionist perspective. The job of a teacher is to establish the conditions conducive to the emergence of student-constructed learning (as opposed to manipulatively transmitted and passively received) in classrooms. Teachers should develop the interactive conditions in the student/teacher relationship that are conducive to the development of initiative, since initiative is essential for the construction of learning.

*Learning is a genuine **making**, an act of gathering and forming, by persistence and struggle. Each act of learning reorganizes reality, each is an act of creation.*

-Louise Cowan

What does learning do, anyway? This is an important question to ask. It is, as Cowan indicates, the making of something, but the making of what? The quick answer is that learning makes intelligence, the capacity, as Howard Gardner tells us, to solve problems and fashion products. Bear in mind that wisdom is the product of intelligence. Learning informs and expands our intelligence. What else does learning do—other than improve intelligence?

Learning can entertain us, perhaps, but is there not exercise of the mind in the entertaining? Or perhaps learning can give us a temporary escape into a different reality,

which can solve problems, to some degree for some time, perhaps until we are better ready to deal with them. We are specialists in learning for a reason, because it expands our intelligence.

But this thought is key: Learning is essentially constructed by learners, not transferred by teachers. As Donald Block said:

Learning is not a spectator sport.

Teachers, however, are the leaders of the mind's activities in their classrooms. The working relationships they forge, or fail to forge, with their students determine the presence and effectiveness of the learning environment. The importance of teaching to our intelligence as individuals, as a culture, is rarely considered. If it were, we would channel our resources to their education and support.

Among the features of brain-based learning are active uncertainty or the tolerance for ambiguity; problem solving; questioning; and patterning by drawing relationships through the use of metaphor, similes, and demonstrations.

-Renate and Geoffrey Caine

As we redefine learning, we will incorporate the work of cognitive psychologists and neuro-scientists in their research on the brain. The brain dislikes lecture but loves projects. It resents and resists prediction and control machinations, finding them boring, insulting, and meaningless. It prefers real problems and authentic projects. The brain wants to engage, exercise, and inform its initiative.

Thinking and knowing are an interdependent dynamic. The health of either is dependent upon the growth of the other. Without co-evolutionary development of thinking and knowing, the necessary balance between tension and resolution—the rhythm between confusion (the new, disorder) and comprehension (the old, order)—is disrupted. This is what Whitehead understood when he warned us not to let training crowd out initiative.

It is thinking that breathes life into knowing while the gaining of knowledge keeps thinking from stewing within itself. Acquired knowledge provides thought with new foundations from which to expand. But it is thinking that gives learning its aliveness with the energy of initiative. Thinking constructs new understandings from the acquisition of new knowledge, for, as knowledge is born it must be fused into the developing intellect; otherwise, the brain discards it.

Brain-based education calls for curriculum that incorporates understanding of the necessary rhythm between knowing and thinking. It demands that we redefine learning. The brain resents and resists passive learning. It knows that active learning is essential to its growth and development.

Brain-based education also calls for increased recognition of the central role that teachers play in establishing learning environments. Teachers who have their initiative suppressed,

their judgment disrespected, and their experience disregarded by the educational system will not be able to convey the model of capable and responsible individuality so essential to a democracy.

The guiding assumption is that reflective teachers deserve the opportunity to select from a repertoire of ideas rather than accept and duplicate a single pattern.

-Judy Eby

Research increasingly indicates that the teacher in the classroom is the key factor in the learning process. Teaching and learning are relationship-dependent products. Good learning environments can neither be compelled nor cajoled. They are forged by the interaction of the teachers and students. The emotional intelligence of the teacher in the classroom is the key variable. His or her initiative, compassion, persistence, dedication, imagination, consistency, flexibility, creativity, empathy, thinking, and, especially, courage determine whether learning occurs.

The fast-growing movement of reflective teaching is a hopeful sign that we are moving toward teacher-driven education. One of its foundational assumptions is that successful teachers tend to be reflective practitioners rather than followers of expert-derived formulas.

The very notion of reflective teaching philosophically advocates teacher autonomy. It frees teachers from the trap of merely being part of the educational assembly-line. It chooses to focus more on understanding the nature of learning, rather than the constant, counterproductive search for that non-existent magical method of instruction which cures all of our pedagogical ills.

Reflective teaching asks for teacher initiative, and the resulting judgment and responsibility. Most importantly, it trusts our teachers. It relies on their integrity as practitioners of a very important endeavor. A democracy that cannot depend upon the integrity of its teachers is doomed from the start. A democracy that does not depend upon the integrity of its teachers, and instead places its trust in prediction and control machinations, is practicing socialism, and is also doomed.

What we do as teachers is orchestrate the dialogue moving from one side of the room to the other . . . The teacher reads the qualitative cues of the situation as it unfolds and thinks on her feet, in many cases like a stand-up comedian. Reflection is not absent, theory is not irrelevant, even research conclusions might be considered, but they provide guidance, not direction.

They are more in the background than the forefront of the action.

-Eliot Eisner

In order to revitalize ourselves we need to develop practices that inspire intrinsic motivation and construct learning communities. The image of teaching provided by Eisner is much closer to the kind of educational practice we will need for educating students capable of dealing with the dynamically complex challenges of the future. This is what good teachers do.

The tasks are clear:

We must fundamentally alter the philosophical assumptions presently underlying educational practice.

We need to construct new operating metaphors—that are more organic and less mechanistic—for visualizing the educational endeavor.

We must wean ourselves away from the compulsion to instruct for the easily measurable and apparently predictable and design learning environments that encourage the emergence of thinking, ownership, initiative, responsibility, and maturation.

It is time American education realized that there is no such thing as “scientific instruction.” As Barzun and Eisner (among others) have been trying to tell us for years, teaching is more of an improvisational art than a “scientifically rational” endeavor.

Teaching is the constructing and melding of temporary webs of connection between developing intellects. It is not the building of permanent architectures, brick by packaged brick, until supposedly firm and stable structures are in place. Learning is too alive and dynamic to be adequately reflected by that image of teaching. Teachers are much closer to improvisational jazz musicians than they are to brick-layers.

We will achieve restructuring (in the purest sense of the word) when we stop seeing the endeavor from a static, linear assembly-line perspective and understand the ebb and flow of symphogenetic education. The best learning is always symphogenetic in its process.

Symphogenesis (from sympho; to fuse together, and genesis; to be born) is related to the concept of symphony. The Oxford English Dictionary defines the symphogenetic process as “the union of previously separate elements.” The term symphogenetic education recognizes that:

The process of teaching and learning is not simply one of assembling skills or data. It is more like a jazz ensemble, where elements emerge idiosyncratically and unpredictably and are then fused into the evolving harmony of the whole.

Symphogenesis indicates a process that can be summed up in the phrase “as they are born they are fused together.” It is a messy, idiosyncratic, emergent, constructive, juicy, and

exhilarating process. It carries the life of the mind toward intellectual, emotional, and spiritual growth.

Symphogenetic education succinctly illustrates the interactive, interweaving relationship between knowing and thinking. It is also a helpful metaphor for imaging the maturational process. Symphogenesis images the developmental process of how both learning and maturation unfold—sometimes in fits and starts—but always by melding the new into the old. Learning changes—occasionally to a transformational degree—old understandings.

As we redefine learning, we will increasingly image it as a symphogenetic process. This will inspire and inform the initiative of both teachers and students. A good conversation is symphogenetic. Good thinking is symphogenetic. Life itself is symphogenetic. We need more of it in our classrooms and schools.

What everyone appears to want for students—a wide array of learning opportunities that engage students in experiencing, creating, and solving real problems, using their own experiences, and working with others—is for some reason denied to teachers when they are learners.

-Ann Lieberman

The redefining of learning must begin with teachers. They model the image of learning that is ingested by students during their schooling. If they see teachers lacking initiative, or with their initiative suppressed by the educational system, then they learn the image of passive learning, or they learn begrudging compliance and maybe even sabotage. They also learn that the judgment and integrity of teachers are not to be trusted. Trust is to be placed in the system of controls, such as research-driven assessments and canned curriculum.

Professional development needs to move away from the “sit and git” image and recognize the need for programs that excite and nourish teacher intellect. As Aristotle said, “Teaching is the highest form of understanding.” Understanding is constructed through conversation and reflection. Teachers can’t sit and git understanding—they must interact and reflect.

Dennis Sparks and Stephanie Hirsh (1997) write:

Many events of the past few years bode well for the field of staff development. Reports issued by governmental bodies, business groups, and various commissions emphasize the central role staff development must play in school reform efforts. In addition, there is greater recognition today at the local, state, and national levels that sustained, high-quality staff development is essential if all students are to achieve at high levels.

At the same time, however, more people are realizing that this professional development must be considerably different than that offered in the past. Soon to be gone forever, we hope, are the days when educators

(usually teachers) sit relatively passively while an “expert” exposes them to new ideas or “trains” them in new practices, and the success of the effort is judged by a “happiness quotient” that measures participants’ satisfaction with the experience and their off-the-cuff assessment regarding its usefulness.

The problem is that there is little support for professional development that helps teachers develop their intellects as teachers. Understanding is an emergent capability, one that must be constructed within the learner; it cannot be handed down by the traditional top-down mindset which presently dominates teacher training. Intellect cannot be developed through passive learning.

Teachers need to demand teacher-training that nourishes their intellects as teachers. They, like their students, have been compelled by our educational system to be passive learners. The challenges of our cultural diversity, turbulent times, and a confusing future demand education for understanding.

Teacher development is the systemic lever that will help us redefine learning, for until teachers model and teach for active learning, passive learning will control our schooling. Teachers have the power to teach for initiative, to turn our nation toward a new, more active, definition of learning; they should be allowed the control necessary for the expression of their initiative and responsibility. That means that we develop teacher intellect and judgment, and, most importantly, teacher autonomy. This would free us from the absurdity of striving to teach democratic values through socialistic methods.

As Joe Frattaroli commented:

It is most satisfying to demonstrate the link between professional development and student outcomes. The investment in quality teaching is the most important investment we can make. All educators need the opportunity for continuous improvement. I believe professional development will be the major educational issue of the 21st century.

The notion of continuous improvement, by the way, does not mean more vigorous polishing of the old methodologies. Improvement, like learning, will have to be redefined. It is not improvement to get better at doing what has not worked before. Continuous improvement, considering today’s challenges and opportunities, is not more training, but professional development that inspires and informs teacher initiative.

The act of redefining our image of learning could save this country from the socialistic designs of its educational system. By bringing in a focus on schools that encourage and inform initiative—in both our teachers and our students—we could revitalize the democratic spirit that is still strong in this country.

I propose a motto for the challenge to bring initiative back into our schools:

God bless the grass that grows through the cement.

-Malvina Reynolds

Education can be a cohesive force in a society, as it was in an earlier America, or it can be a dissolvent force, as it has been in the past half century.

-Max Lerner

The imbalance between initiative and training is not only a cost to the potential and well being of the individual, but to the integrity of our country. Each mindless suppression of initiative in either teachers or students by a training-poisoned system diminishes our strength as a nation. In a world of dynamic complexity and entwined economic and political realities, the commitment and contribution of a nation's citizens are more important than ever before in human history.

We ignore student resistance and resentment to the educational process at our peril. There may be wisdom in their feelings, borne of their perhaps inarticulate and inchoate knowledge that their individuality, and therefore their uniqueness and responsibility, is being attacked by the philosophy, methods, and even the materials of schooling. As the historian Max Lerner's warning points out, we have developed a system that dissolves rather than coheres the structure of ourselves. We need to redefine learning to where initiative, commitment, and, ultimately, responsibility are inspired and informed.

Unless we redefine learning, and thus the very nature of the educational process, we will continue tearing away at the cohesiveness of ourselves as a capable, individualistic, and responsible democratic citizenry.

I believe that the United States could lead the world in achieving an entirely new educational aim: the design and implementation of an education that yields understanding.

-Howard Gardner

Teaching for understanding is crowded out by focus on correct-answer schooling. The systemic result of this dynamic is the corrosion of the learning environment because teachers adopt the attitude of "defensive teaching" while students respond with "defensive learning." Constructivist teaching and learning become increasingly rare. Both teachers and students respond to a schooling environment that crowds out education for understanding with resentment and resistance. They withhold their commitment because the learning environment lacks, in Gardner's phrase, "educational inspiration." It therefore suppresses initiative, and then we puzzle over the lack of commitment and self-directed learners.

A redefinition of learning could help us take that leadership role suggested by Gardner. Learning redefined would have powerful and systemic impacts upon the methods and

materials of our schooling. The process would cleanse itself of the poisons that now generate bulimic learning and curriculum-damaged learners. As we brought concern for initiative back into the process, the development of understanding would naturally follow.

Understanding is a different kind of knowing, one that is more comprehensive of the whole and aware of the interactive variables. It comprehends that reality is not static, that the world is dynamically complex. With learning redefined away from the bulimic, static, and easily-measured image that now defines it, we could not only do more, we could become more, and we would be not only more excited but more responsible in the process.

Conversations are powerful. They can turn us toward different definitions and different pathways. They help us look at complicated matters from different perspectives as we turn them this way and that while striving to construct a new understanding. The redefinition of learning deserves a national conversation, because how we define the process will to a great degree determine the nature of ourselves.

Learning redefined would unleash the potential of a democratic citizenry. The choice is either control or power. The present definition is geared for control of the process, through training and measurement. That control, however, generates suppressed teachers and passive learners. The proposed redefinition promises the power of a committed, dedicated, imaginative, and responsible citizenry, through the inspiring and informing of its initiative.

*Learning is not compulsory.
Neither is survival.*

-Edward Deming

Dennis R. Rader
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