

ONGOING DISCUSSION “THOUGHTPIECE”

FOR OCTOBER 23-24, 2008 DISCUSSIONS

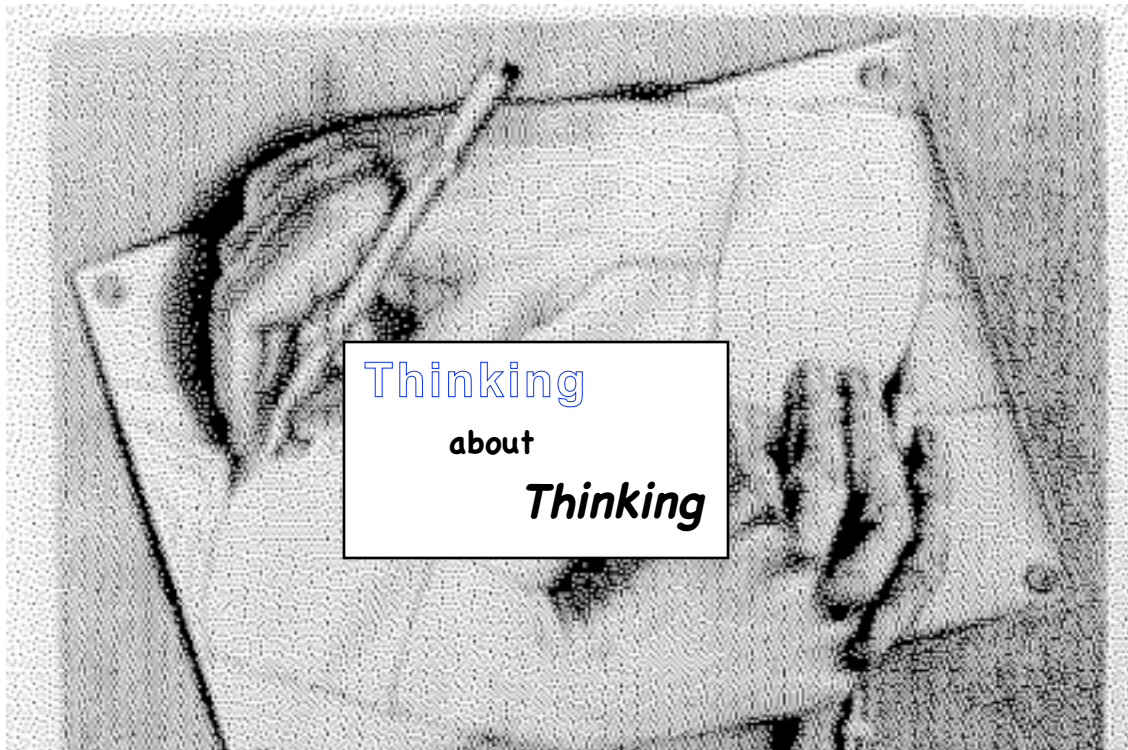
“... the map is not the territory”
Alfred Korzybski

IN SEARCH OF THE 5TH *WHY*?

**A learning journey that started with a different map,
...and ended up uncovering a territory
that our “*thinking maps*” weren’t capturing.**

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October 2008
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To the *In2:InThinking* Network Reader:



... our Problem or Opportunity?

This may seem like a strange issue to raise for a network of individuals already dedicated to "*inthinking*" -- Thinking about Thinking in ways that can enable people to better perceive relationships and interdependencies. Nevertheless, this *thoughtpiece's* hypothesis is that the way we think about the ways we think *is* a problem that, if understood, offers the greatest potential for the organizational changes we mutually desire.

The "problem" is one that locks us into the Escher-like continual re-cycling of *seeing* what we *believe*, and then *believing* what we *see*. My intent, here, is to offer an opportunity to think differently about what we think about that can serve as the entry point for a continuing dialogue on a new website designed to facilitate it.

I hope to engage you in it by telling my own story of a *thinking-about-thinking* journey that took me from considerations of *what* we think and *how* we think to *why* we think. And confirming along the way that "*Before you can change what you do, you have to change how you think. (But) before you can change how you think, you have to change what you believe.*"¹

While the story -- **IN SEARCH OF THE 5TH WHY?** -- will focus on schooling, it may engage your thinking about your own work... regardless of its relationships to education; and interest you in an opportunity to join me in this continuing learning journey-in-progress.

But to do all that...requires first that it "make sense."

¹ Lloyd Dbyns & Clare Crawford-Mason, *Thinking About Quality*.

As I've tried to organize the following story to do that, I kept hearing two voices that seemed to offer conflicting advice. In one ear, "Wired" magazine's Kevin Kelly reminding me that in communicating complex issues "*Content may be King...but Context is the Kingdom.*" And in the other, my wife's perennial admonition -- "*Keep it Simple, Stupid.*"

As a result, you'll find that the length and nature of the introductory section -- WHERE WE'RE GOING... WHERE WE'RE COMING FROM... AND HOW WE INTEND TO GET THERE -- is testament to the complexity of the context.

And because the nature of the content that follows may appear to challenge prevailing assumptions and beliefs, I've addressed that condition in three ways.

First, overall. Recognizing the limitations of the print medium that lock the reader into my order of presentation, this is conceived as a developmental part of a website-accessible body of knowledge which will allow users to create their own order and flow.

Then, through use of *metaphors and analogies*, and application of the principle of "*simplicity on the other side of complexity.*"

- **Metaphors and analogies** - I've learned from experience how hard it is to mount a frontal attack on deeply embedded *assumptions*, and even stronger *beliefs* about what is *true, right, or good*, that permit people to make sense of schools and classrooms. It can raise walls of defensiveness that close down people's capacity to listen and see other possibilities for accomplishing their own objectives.

At the same time, I've found that metaphors can shortcut the process of changing beliefs and assumptions -- still needed as sense-making structures -- by surfacing another body of knowledge that is more accessible but, in the case of schools, also hidden from view. We might think of this knowledge as "the common sense we *know...that we don't know we know.*"

Analogies and metaphors can be helpful bridges to that knowledge. They hook into "old" stored information -- information most people already "know" and accept, but in different contexts. They offer a different way of seeing from the inside out.

They are particularly relevant to the nature of this story because as Daniel Pink has noted:

"A picture is worth a thousand words, but a metaphor is worth a thousand pictures because it explains what's going on in complex circumstances."

And as Joseph Campbell might add:

"If you want to change the world, change the metaphors..."

- **The "*simplicity on the other side of complexity.*"** -- The learnings and thinking informing this journey's story have been products of a *lens* that offered a different way-of-*seeing* and then *understanding* the experiences that shape the *beliefs* that frame our thinking. Consequently, part of the story is devoted to the history and nature of that lens.

In the past, when I've written about or presented the results of what it revealed I've seldom described it out of a fear that it would seem too conceptual and impractical, that it would be perceived as "too simple" by some, and at the same time, "too complex" by others.²

Ironically, what I've discovered since then is that its value is in the way it uses *simplicity* to address *complexity*. It took me a while, but I finally grasped the wisdom of Oliver Wendell Holmes' understanding of "simplicity."

"I would not give a fig for the simplicity this side of complexity, but I would give my life for the simplicity on the other side of complexity."

It captured the difference between the seeming commonsense of "*For every complex situation there is a solution that is simple, direct...and wrong!*" and the simplicity of solutions that are based on

² Actually I had described it in a US Dept. of Education report -- The Communication of Experience: A Guidebook for the Management of Information in the 1980's and used it as part of training for the *Teacher Corps.*)

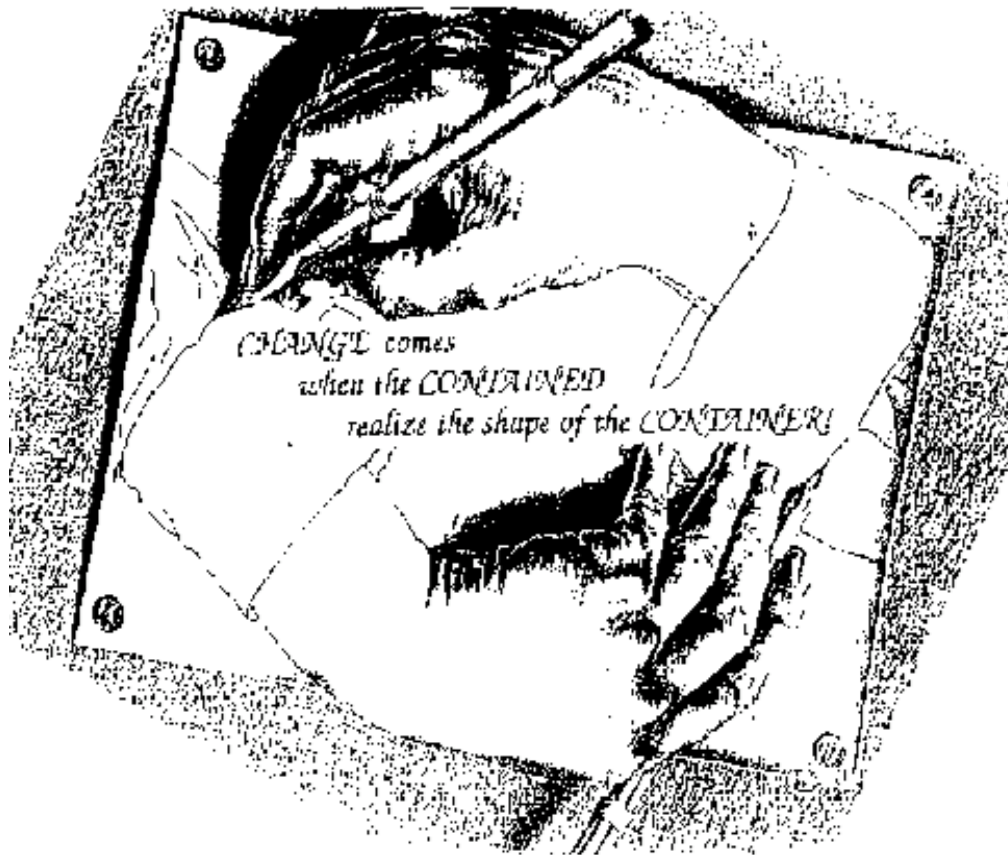
the simple principles or “simple rules” generating the seeming complexity — a basic principle of *Chaos* theory. It is at this level where we’ll find the answers to the 5th *Why* are rooted.

And while this may seem to be a helpful way to address a *perceptual* condition, its scientific base can be found in the *biology* of cognition as articulated by Humberto Maturana.³

• My final intention, in determining the content and flow of the following pages, is to honor two of Einstein’s observations:

“The significant problems we face cannot be solved at the same level of thinking we were at when we created them.” and

“Everything should be made as simple as possible, but not simpler. ... Out of clutter, find simplicity.... From discord, find harmony.. ... In the middle of difficulty lies opportunity.”



Lew Rhodes
October 2008

³ To better understand its value, see: “An Introduction to Maturana’s Biology” by Lloyd Fell and David Russell and “Maturana’s Biology and Some Possible Implications for Education” by Joy Murray. Both in Seized by Agreement, Swamped by Understanding, Lloyd Fell, David Russell & Alan Stewart (eds)

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*One's destination is never a place,
but rather a new way of looking at things."*
Henry Miller

IN SEARCH OF THE 5TH *WHY*?

**A learning journey that started with a different map,
...and ended up uncovering a territory
that our "*thinking maps*" weren't capturing.**

WHERE WE'RE GOING...

WHERE WE'RE COMING FROM...

AND HOW WE INTEND TO GET THERE

WHERE WE'RE GOING...

Why "*Why?*"

Japanese managers have been said to use a *5-Why?* process that responds to Einstein's warning that the way we *understand* a problem significantly limits the nature of solutions we can envision. Starting with what people *think* are current "answers" to *why* a problem exists, they look at its currently accepted "solutions"... and ask *why* those solutions then seem to cause additional problems.

They keep drilling down like that through successively uncovered answers to *why* solutions seem to cause additional problems until they reach a "5th *Why?*" where the answers seem to uncover the embedded roots of the original problem.

Are we there yet?

But how do we know when we've drilled far enough... that we are at the *5th Why?*

When what we see and understand *makes total sense*. It explains both successes and failures – *no exceptions*.

Clearly, the logic of a questioning process that digs down through *effects* to their *causes* (that once also were "effects" of other "causes") makes sense. But there is an inherent danger if we stop questioning because we *think* we're already there.

When things "seem" like they *should* make sense, but still don't, the journey to the next levels must continue. And when it doesn't, a *different* question needs to be asked: *Why* doesn't it make sense? And *Why* should it be so hard to understand that?

Those who need to ask those different questions today include policymakers and leaders investing major resources to inform actions they believe will contribute to *sustainable* solutions that address the scope and nature of what their common sense tells them is "the problem." And when

they don't solve that problem, their only "common sense" answers to "why?" seem to focus on *people* who aren't smart enough or working hard enough.

It seems to have become common sense to "fix blame," rather than "fix the system?" *Why?*

Why this story now?

- The following story attempts to answer those questions by capturing relevant experiences from the learning journey of a life-long *why-asker* (who didn't succumb to the adult world's insistence that he stop doing it at the age of four or five because *they* lacked the time, and often the knowledge, to provide answers.) As it has for others, that question has driven my learning throughout my life and career (and, I fear after I grew up, often made me annoying to others who needed to get on with their daily work.)

Nevertheless, along the way, I've discovered *Why's* primary contribution to thinking: -- "*sense-making.*" For me, that product created a level of understanding that could meaningfully frame and explain the more visible answers to the *what's* and *how's* needed by the people doing the work.

And, as it turned out, when that question failed to generate meaningful answers that made *systemic sense*, it produced warning signals that something might be missing. It often reminded me of Sherlock Holmes situation when he solved one of his most puzzling cases by noting the significance of something that was absent -- a dog not barking. That is, a *natural* event not occurring that should have. And asking *why?*

There seemed to be a hidden thinking problem that was limiting the systemic understanding of the "Blind Men" around the "Elephant" so that they didn't notice there was a natural "system" *already* there that gave meaning to their seemingly-separate parts.

And that led to a realization that in order to "get out of the box" I needed to first go deeper in the box.

WHERE WE'RE COMING FROM...

This is why I chose the "search for *Why?*"

(1) as the format of this *Thoughtpiece* for a group dedicated to "inthinking" -- Thinking about Thinking in ways that can enable people to better perceive relationships and interdependencies. -- the *In2:InThinking Network*. And

(2) to focus the *Thoughtpiece* on education because our society has an undetected "*thinking problem*" when it comes to thinking about -- and making sense of schools. *Common sense no longer seems to work.*

Yet what we accept as "Common Sense" plays a key role in both thinking and "re-thinking." It is a critical component of the problem and the solution. And, paradoxically, as Alfred North Whitehead observed, it most influences thinking when we *don't* think about it.

"Civilization advances by extending the number of important operations we can perform ... without thinking of them."

Thinking about what we don't think about

Addressing the nature of that paradox has determined both the structure and content of story being told here because *Common sense*, and its role in thinking must first *make sense*.

Its importance derives from the fact that *common sense* continues to serve as a rationale for *common practice* (regardless of "What Works" research findings,) And in complex conditions, it remains as the default criterion for deciding *what* to do.

Moreover, we prize leaders who seem to be able to tap this seldom-questioned resource to shape and inform both policy and practice. In education, it seems common sense to

- give parents more choice in picking schools (vouchers),
- give teachers and principals more decision-making flexibility (charters/site-based decision-management),

- reward and/or punish teachers for their effectiveness (merit pay),
- "flatten" the school system (decentralize). -
- throw more *money* at the problem (increase education budgets, pay teachers more, etc.)
- throw more *information* at the problem (collect more information about results, and hold people accountable for what the information reveals, etc.)

But, over time, the hoped-for results of these common sense solutions to what seems at the roots of the "problems," seldom prove to be scaleable and sustainable. They end up with the same "new problem" – what has been "thrown" at the problems doesn't stick. The solutions they generate aren't sustainable. *.Why?*

Lacking seems to be a "common sense of *sustainable* solutions" that might be found by drilling down another level.... IF we felt the need to do that because it made sense.

Why has it been so hard to get to that level of thinking?

That question adds another dimension to the nature of the following story. As I discovered along the way, before we can understand the nature of the "why problem" at the 5th level, we have to deal with thinking's core purpose -- *sense-making* and the role played by *common sense*.

In the early stages of the journey, I hadn't realized that underlying the continually frustrating and fruitless attempts at *systemic* educational change were deep and entangled psychological roots that would guarantee that they would wither on the vine. And they did this by feeding into what have now become commonly-accepted beliefs that the "system" was the *enemy*. Something that had to be "beaten," "flattened," and "worked around" if one were to be personally effective.

As my work continually engaged me with practitioners, policymakers and parents who were trying to "connect the dots," "get-out-of-the-box," "shift their paradigm," they all seemed to be seeking ways to counter a learning disability we shared in common. We can't easily *make sense* of the myriad conditions that children, parents, teachers respond to today, and may not know why it is so hard to do. Thus, because we must act, we find ourselves trying to get our hands around conditions we can't first get our minds' around.

Obviously Making Sense is *necessary*... before we can "change," "fix," "improve," "transform" the system whose "results" we see in the acts of children today we must be able to make sense of them. But why should it be so *hard*?

My search for answers many times took the form of articles and presentations that focused on questions like these:

- Why doesn't *common sense* seem work any more? Why do there seem to be fewer and fewer opportunities for applying the *common sense* of experienced practitioners to the important *work* that schools must do?
- Why should it be so hard to *make sense* of a "known" organization that most have directly experienced, as one observer noted, as "*veterans or victims*?"
- Why do practices, proven effective by sound research, seldom work for long when inserted into the flow of systemic work of schools? Why, in a twist on an old adage, if the "operations are a success," do the "*doctors* (whose capacities the system must sustain) die?"
- Why should it be so hard for the "Blind men" to see the "Elephant" -- the system they interact with each day? As Seymour Sarason once noted after reviewing all the major reform reports:

"When you read the myriad of recommendations these commission reports contain, it becomes clear that they are not informed by any conception of a system. That is a charitable assessment.

...Having read scads of commission reports, I can only conclude that they rest on the invalid assumption that school systems are unique systems . . . those outside the system with responsibility for articulating a program for reform have nothing resembling a holistic conception of the system they seek to influence."

- Why do so many people trying to help schools start by accepting certain conditions of schooling as *natural, intractable* and *unsolvable paradoxes* that just *go-with-the-territory*?

The answer I finally realized was that they did make common sense--- or they wouldn't be supported as common practice. But it was a different form of "common sense."

We accept common sense as what people seem to instinctively know [and therefore seldom think or talk about]. It's a body of theories developed from our experiences of things that work... or *seem* to work. And it is a product of our mind's *sense-making* system.

But there is a category of theory that psychologists call "common sense realism," "natural realism," or "naive realism." These are "*theories that the world is perceived exactly as it is.*" We see it, and therefore believe it. Observable experience tells us it's so. The earth looks flat, it must be. The sun appears to move around the earth therefore the earth must be at the center. When teaching young children these are termed "naive theories," and we expect a child to hold them until taught otherwise.

But for adults, on the other hand, the "teaching" [or unlearning] task is much harder because the roots of "common sense realism" go much deeper and, through experience, have become entwined with other observable conditions that we "saw" because we believed. Cognitive science has provided new terms - "mental models," "paradigms" - to confirm the old belief that our minds program themselves by a self-fulfilling cycle of "*seeing what we believe and believing what we then see.*"

Therefore our understanding of what we "see" when we look at classrooms and schools is framed by "common sense beliefs" created from prior observations. For example:

- First, we see a single teacher acting in an isolated classroom setting and conclude that what we see happening is the *teaching process*. The teaching process is what we see the teacher doing. The person and the process are the same.

- Then we leave the classroom, and "see" that the classroom interactions of teaching and learning take place in a *school building* -- a manageable "system" created with the expectation that it can support and sustain that teacher's management of those learning interactions. Now it appears as if the building and the system that contains and continually influences the quality of teaching and learning are the same. We conclude that the building must be the sustainable container for the teaching process.

- As a consequence of accepting the building as "the system," we believe that systemic change must be directed at creating more strong, self-contained units like this. When we do, we have "changed the *system*."

- It also seems like common sense to hold accountable the two individuals we've been observing -- a *teacher* accountable for the outcomes of a complex *teaching process*, and a *principal* accountable for the *system of related support* that is expected to meet the unique teaching needs of *each teacher*. And, because that *makes sense* to us, we then provide rewards and punishments based upon those expectations. Then when teachers and principals suggest that they are being held accountable for outcomes they don't totally "control," we blame them for being "defensive" and "unchangeable." And develop programs to "fix" them.

This is one of those paradigm paradoxes at the core of every failed attempt to "fix" schools. Just as the earth looks flat and it seems that the sun revolves around the earth, when you look into classrooms it does *seem* that teachers "cause" learning. And when you look at schools it seems obvious that "all" a teacher might need to cause learning can be found there.

But do teachers cause learning? Do building principal's cause teaching? Do acorns cause oak trees? No! Acorns, teachers, and principals are each critically necessary, but not sufficient, contributors to the final result. In each case, the other influences must come from the environment -- the immediate system of influences on the teacher/tree and the developing seed/learner.

But because of our "common sense theories," when we look at the conditions and problems of schools today, we have trouble "seeing" the actual scope and nature of that immediate environment. It *seems* to make sense that the "immediate "system of influences is the school building because of its physical proximity to the classroom. Yet we continually fail to sustain effective changes in that environment when building leadership changes, or to spread [or scale-up] that effective model to

other buildings in its own district. Our common sense answer (since our minds are pre-programmed for sense-making, and they must create connections between effects and their “causes”) is that the problem is “out there” in the school district -- outside what we’ve perceived as “the system.”

That conclusion, unfortunately, keeps us from recognizing (1) the scope and nature of the school district “tree” as the *smallest bounded unit* that can support and sustain the system’s required processes; and (2) that within that system, those processes are the acts of *interdependent* people. In American education, the school district is the “container” that can, and must, frame that focused interdependence.

Missing that understanding, we will continue to confuse *individuals* with the interdependent acts of individuals -- the *processes* that must support their work.

Is this Education’s problem alone?

The challenge of overriding the seeming knowledge created by “Common-Sense Realism” is not education’s alone.

As we know from *Copernicus’* and *Galileo’s* unfortunate experiences, alternative explanations for *why* things happen have a difficult time breaking through the “maps” developed from what people think they “know” because they observed it.

Usually there is no real pressure on them to change their view. For example, before *Copernicus*, daily work still could be done, people could get from here to there even if they believed the earth was flat and also the center of the universe. They may not have accomplished their tasks as effectively as they could have, but they still could use their “common sense” to get much of the work done. The only ones who would have had to take the new theory seriously would have been those whose task accomplishment required it. For example, had NASA existed then -- using “common-sense”-based pre-Copernican maps -- they could do everything “right.” They could have the best-trained astronauts and the latest equipment, but would seldom get where they intended to go.

Something about that seemed to resonate with today’s conditions. And my interest led to a chapter - PARADOXES IN THE PRESENT PARADIGM in the AASA Planning paper, Connecting Leadership to Learning (1997) that homed in on this particular set of paradoxes that did not make sense to me:

Paradox: *Advocates for “systemic change” in education can’t agree on the system they are trying to change.* “Systemic” changes are those that are then sustained as part of the regular ways a system continues to function. Advocates for these needed changes in the ways schools operate however can’t seem to define the *operating system* in which these changes can be embedded as standard practice. What is the bounded, manageable “system” that can best sustain change? *Why* can’t those within the educational system, or those outside it who most want to change it, seem to find it?

Paradox: *Many leaders appear to be doing “right things,” but in “wrong ways.”* *Why* is there a huge gap between what well-intentioned people mean when they talk about “quality,” “organizational transformation,” “worker empowerment” -- and what actually happens in the daily work at those same organizations?

Paradox: *The operation is a success, but the doctor dies!* New ideas, approaches, methods, and tools proved successful in one place tend to disappear when their champions leave. When they are subsequently “disseminated” as models, and “installed” in other settings, they seldom engender system-wide support necessary to take hold. *Why?*

Paradox: *In general, technology in schools is seen as a necessary, but costly, end in itself, seldom as a value-enhancing strategic means to enable other changes.*

Technology receives frequent mention in national reform or restructuring reports and initiatives. Most often it is portrayed as an *end* in itself -- one of several needed changes to be brought into schools that will require a restructuring of that environment to make it “fit.” Yet, strangely, few if any of the national efforts aimed at systemic restructuring of that work setting suggest use of information technologies as strategic tools to help support the realignment and reconnecting of the roles and relationships that are the essence of that new structure. *Why?*

Paradox: *Modern America has become a feedback-driven society. On a daily basis, policymakers adjust their strategies based upon yesterday's polls; people buy or sell stocks depending upon daily reports of market trends; modern businesses continually gather data that allows them to "work smarter."*

The thinking behind the current testing craze is driven by this "policymakers" need. *But the continual, daily decisions teachers and other educators make in response to children's needs remain starved for this type of vital, immediate feedback information. Why don't they connect?*

Paradox: Many of the paradoxes that seem to abound in education are not seen as paradoxes... just as the way things are.

Why should there be so many paradoxes in American education?

The answer, I found, by looking more deeply at the nature of these those puzzling, seemingly illogical, conundrums we call "paradoxes."

[1] They appear when we can't *make sense* of what we experience in our lives.

[2] Their solutions usually involve finding something within the situation that isn't being accounted for -- an unknown logical *X-Factor*.

Finding that would require, as the following sections describe, using our *Why-* drill to bore down through *Theory...* to *Principles...* to *Practice...* to the *X-* factor's *biological* roots.

The Traveler as context

As the nature of the above discussions suggest, the journey from which this story emerged was embedded in a career that had placed this traveler in direct and continuing contact with two worlds -- one of *theory*, the other, *practice*, -- and within them two classes of practitioners that supposedly had little in common.

- In one was a world of daily, disconnected practice that still comprises the "work" of schools. Here were my *action heroes* -- people (and I don't mean just teachers) who went to work each day in school systems "hoping" their personal efforts would in some way *make a difference for children*. Many years ago when Stanford's Larry Cuban was a superintendent, he aptly described the unrealistic nature of this universal, and strangely accepted daily experience: *"Teaching is impossible, yet teachers teach. Expected to give individual attention to EACH child, the teacher knows that it can't be done."*

He might also have added: *"School system leadership is impossible. Expected to address the needs of EVERY child, the superintendent knows that it can't be done."*

- The other world housed my *thinking heroes* -- a supposedly "impractical" world of folk whose schooling "worksite" was "20,000 feet" above the others enabling them to "see" contexts, and big pictures and patterns within them that others on the ground usually have neither the time, scope of experience nor perspective to see.

Included in this world for me were Drucker, Deming, Sarason, Senge, Wheatley, Ackoff, and others. For me, what really made these people different was that, unlike the "Blind Men" around the "Elephant," they were "elephant"-see-ers who *intuitively* accepted that organizations were *already* connected systems regardless of how fragmented they looked on the surface. This was the given, profoundly-embedded "5th Why" that served as the given frame of their "mental models."

Some of my deepest learnings from these "*thinking heroes*" and conceptual mentors had come from direct interactions that seem now like *Forest Gump* moments. -- among them:

...with Marshall McLuhan over beer in Detroit.

...with Buckminster Fuller over lunch in Denver.

...with W. Edwards Deming in his kitchen as he made corn soup.

And I must add one “meta-hero” – Seymour Sarason – who a decade and a half ago⁴ as he described the “regularities” of schools as seen through the eyes of a Martian in a space capsule hovering over a school and who could only see, and try to make sense of, people’s visible actions, provided the role model for my current 9-yr, “20,000 ft. feedback” relationship with the school district whose experiences provide the on-the-ground reality that has been the testbed for the “simple rules” this story focuses on.

- As I went back and forth between these two worlds over the years, I eventually began to notice many of the same behaviors in each when they tried to think about and deal with the complex dynamics of schooling. I had especially seen the fires go out behind the eyes of both teachers and administrators as their best intentions still didn’t make the differences they were supposed to as they tried to navigate through the strange paradoxes and seemingly intractable conditions that plague public education.

In many cases, because they were navigating *without a map*, caring committed individuals were apparently bumping into “something” that eventually left them so bruised that it drove them from the setting where they thought they could most effectively fulfill their personal commitment to make a difference. And ironically, some (like me at times) moved into positions in higher education, or associations, or as consultants where they thought their *ways-of-thinking*, alone, could help other people deal with whatever it was that their own *actions* never could when they were on the front-lines.

Nevertheless, in both camps were people, like me, who

- were frustrated with the results and processes of schools, and the finger-pointing assumptions about their causes;
 - wanted to do *something now* about the ways school’s “work” for *all* children not just some;
 - were even more discouraged by a history of attempts to do that which only produced things that “worked”...*but not for long*.
 - And who now might be ready to step out-of-the-box that bounded their way of thinking about the work of schooling.
- But to do that, it seemed to me, also required asking a different question: *Why has it been so hard to find a way to do it?*

Why, when everyone wants at the end of the day to *make a difference for children* in both today’s schools and tomorrow’s, does it continue to seem impossible to integrate into sustainable common practice the *common sense* of effective practitioners and the growing base of *common knowledge* offered by research-based principles?

This “why?” question, as noted above seemed to be “different”, and since one indicator we’re not yet at the 5th level of sense-making is when things still don’t make sense, this question seemed to stand in the way of reaching it.

Helping to think about *Why* has it been so hard to ask that question is one of the purposes of this *Thoughtpiece*...because as long as it remained unasked, it remains unanswered.

The influence of Maps and of Deming’s in particular

I learned about the power of “maps” from two experiences – one at the beginning of my career, and one much later with Dr. Deming.

- It was the last week of my military “career” as a junior officer on the intelligence staff of the Commander-in-Chief, Pacific and I was leaving to go to graduate school. I regularly briefed the admirals and generals on what was happening where. My particular part was related to what NSA

⁴ Sarason, The Predictable Failure of Educational Reform: Can We Change Course Before Its Too Late?, 1990

does today -- interpreting electronic intercepts. And since I knew it was my last time, I took a risk that went beyond the "data."

First I pulled out a wall-size map of Asia and the Pacific on which I had marked locations of all the intercepts we had noted the past year. On this standard Mercator projection-type map they appeared as random events. Then I pulled out another large map -- this time a Polar projection -- with the same points marked on it. But now they fell into a straight line ending up in Kamchatka. I suggested what it eventually turned out to be -- the track of a long-range missile test range.

Apparently changing the reference point from which a perception of reality is drawn (from equator to pole) doesn't change that territorial reality, but it can allow "dots" to connect in ways that couldn't be "seen" before. Anyway, with learnings from that experience buried someplace in my mind, years later I was in the office of the Rochester, NY superintendent of schools. He gestured to a large wall chart of the school district (in a typical "pyramid" format) and lamented that it wasn't large enough for the most important people -- teachers and children -- to be included,...or if they were, they'd be lost way down at the "bottom."

As I processed the experience later I realized he was pointing to the "map" that is used, and universally accepted, as the unquestioned frame for organizational problem-solving. But it did not seem to adequately portray the "territory" in a way that would make practical sense for understanding the nature of effective solutions.

Recalling my Navy learning, I asked what was the "reference-point" for the relationships that this pyramid-like map portrayed? What might be understood if a "map" could be drawn in which relationships were defined by a different reference point? The reality of that territory wouldn't change, but what "dots" might it now connect?

That started me thinking first about what the reference point was for our present organizational "maps," and what would happen if, as with a polar projection, we looked at the same elements in relationship to something else -- like a student, or a "customer." The "pyramid" organization chart was (like the mercator map) a valid way to portray the organizational world... but only for some things. Just as one can't see the straight line that is the shortest distance between two points on a mercator map (it shows up as an arc), the pyramid map makes it difficult to "see" the "straight-line" logic of effective, responsive strategies needed to produce results.

As with geographic maps, our organizational maps had a common reference point that served as its organizing principle. The pyramid's actual reference point for determining the relationships among its parts was "inputs" or resources that were to be transformed by the organization's decisions into "outcomes" or results.

What each downward level on the chart indicated was the quantity of resources handled by that level's decisions. (Traditional trickle-down]. But the lines connecting those boxes -- portraying connecting relationships between *decision-makers* -- soon became the structure of human relationships that had to support the effective use of those resources.

It's still a great *quantitative* map... that only seems to run into problems when one's concern shifts to issues of *quality* -- which is determined by the appropriateness of a product or result to a customer or client's need. One cannot see on it how the "boxes" relate to each other in terms of this different criterion for success.

The point of this history is that the product of that learning experience was the development of the "simple" tool, described later, that captures that different perspective, and is based on "simple" natural rules that seem to drive human problem-solving, and which has shaped my thinking and work from that time on. It has served me as a strategic plotboard for understanding and integrating the separate theories-of-change we usually have for individuals and organizations, and then for figuring out ways to capitalize on it.

- W. Edwards Deming' way of "mapping" reality also had a unique influence on this learning journey. His "map" played a significant role in shaping the way I "see" and "think" about organizations, and my direct and "indirect" interactions with him informed the continuing journey.

Deming had a unique sense of the *natural territory* that underlies the actions of people and organizations. When he found that it didn't match the "maps" they used to navigate through it, he spent much of his life challenging people to do something about it.

With a "profoundly"-embedded lens grounded in a single view of people in organizations It made it easy for *him* to see what didn't fit. With a coherent sense of what's "right," it's easier to see what's wrong. That's where his *14 Points* came from. ...and that's what they resonated with many of us. We knew they were wrong too, but accepted them as the way things are... and he continually asked us *why?*

His questions challenged assumptions and beliefs about the scope and nature of how people work alone and together, and frequently opened gaps between what our hearts and guts tell us is *right/true*, and what our mind tells us really *isn't possible*. And in doing that, he gave us "permission" to also ask *why*.

For many like me, he raised epiphany-producing questions that set us off on our own journeys to find meaningful answers. Journeys that changed, and for some consumed, the rest of their professional, and sometimes personal, lives.

Clare Crawford-Mason and Lloyd Dobyns got it right when they noted in Thinking About Quality - *- Deming's concepts are about people making people think*" As some of the following snapshots suggest, what he did for me was offer opportunities to not only think differently, but to think *about* thinking differently.

It started in 1983 when, with my own learning journey driven by a sense that something was wrong – things didn't fit -- I became aware of Deming when I read a Washington Post interview with him -- "If Americans Don't Want to Listen to Me, It's Their Funeral."

Q: What do you think it is that blocks an attitude of looking towards people as a resource, to this people approach?

Deming: A lot of nonsense. People approach? I don't know what the hell you mean.

Q: I mean that everybody has to be involved. Feel they have a stake.

Deming: The workers have always been involved. The only ones that have been involved. That's the problem!

"The only ones?" Did this make sense? Was he looking at the same organizations the rest of us were? ⁵

• Soon after that I had an opportunity to explore Deming's ideas with Myron Tribus at MIT. At the airport that evening, as I reflected on the day, my "takeaway" thoughts took the form of "A Fable for our Time." Years later, he recalled it in his paper -- The Quality Imperative In The New Economic Era

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August 1985

CONCLUSION - A PARABLE

I am indebted to Lewis A. Rhodes for this little story.

"Once upon a time there was a captain of a ship who carried cargo between San Francisco and Tokyo. He followed a straight line on the map, as shown below. (a Mercator projection)

⁵ Years later I would find this resonated with the common sense that emerges from system leaders accountable for efficiency and effectiveness of organizations as a whole – world class CEO's, such as Charles Garfield, who point to their organization's *moments-of-truth* where all of the system's thinking and actions are at the mercy of the interactions between the last person on the line and the "customer." "*The total enterprise is represented at the point and moment of service (provider not just a link at end of chain) In that one act or series of acts the total/ whole is represented -- much like a hologram. The quality of that act is in its responsivity.*"—Charles Garfield

One day a passenger by the name of Deming came aboard and said, "Captain, why don't you follow a route like this?" and he drew a curved line as shown in the next figure. (a Polar projection)

The Captain was not amused. He said, "Look here. I do not have time to follow such a route. I do not have the fuel. My customers are waiting. Everyone knows the shortest distance between two points is a straight line. I tell my men to keep the compass heading right on Tokyo. A straight line means a good bottom line."

Dr. Deming got off the boat in Tokyo and he began to teach the Japanese captains how to navigate. They followed the "less-straight" route. After a while the American captain noticed that his competitors were offering lower rates and faster service. He became quite agitated and when in Tokyo harbor he demanded to inspect the other ships. He found to his amazement that they had the same power plant, the same hull design, the same amount of cargo space. The only thing he noticed was that the crew seemed to be going about their work with a certain confidence. "That's it," he said, "it's cultural."

The one thing the Captain did not examine was the image of the world that was in the other Captain's head and on the *charts* from which they continually navigated. He did not recognize that with a different map, the earth did not change, you just see and think about things differently

Too many managers still operate from the premises of the flat earth society. The techniques are there to be used. They are simple, probably simpler than many of the methods now in use. They are easy to learn. All it takes is to abandon the idea that the Earth is flat."

.....

Dialogues with Deming that informed the journey

Thinking and spoken discourse are the same thing, except that what we call thinking is, precisely, the inward dialogue carried on by the mind with itself without spoken sound.

*** Plato (428 BC - 348 BC)

With W. Edwards Deming I had unique opportunities to experience the dual truth of Plato's observation. While I was fortunate enough to have interacted personally in direct *spoken* dialogues with him during the later years of his life, it was *the internal dialogues* stimulated by his ideas and ways of delivering them that in the end were the most powerful. The products of the internal dialogue generated by his questions many times surfaced in some 24 articles and videos developed to share the answers that seemed to make sense to me.

- Our direct interactions started in his kitchen and, at one point, included a 1-1/2 hour video-taped dialogue about how his ideas were taking root in education at that time.

That first direct interaction started in his living room as I, along with two GM executives, a quality consultant and a retired school superintendent tried to use his "*organization-as-a system*" diagram to explain the educational system. But none of us could answer his simple question: "*What is its single aim?*" Why couldn't we?

After a while he shook his head and left them to their fruitless endeavor and retired to his kitchen. Over the years I often recalled that event as I participated in meetings and online discussions that attempted to answer that same "simple" question: What is the single purpose of the "system" we create and call "education?"

I came away wondering why should it be so hard to identify the system's purpose – the "aim" of all its components, the focal point of all its connecting relationships?

- Over the subsequent years he offered me opportunities to participate in and observe his 4-day seminars where I found myself noting less of what he was saying, but rather how people reacted to it, and why. And to develop a video – Dr. Deming Talks to Educators.

- But it wasn't till some years later as reflected on what I had observed people learning from him that I realized that the power of his "teaching" was not just in direct interactive dialogues, but in the internal dialogues that emerged from the nature of the questions he asked which couldn't be answered without rethinking beliefs and assumptions.

- That I wasn't the only one in which he generated internal dialogues begin to become apparent in 1990 in responses to two articles I wrote that first introduced Deming to AASA readers. As I reflected on it in an article later:

"At 5:45 pm, Monday, February 4, 1991, I was half-way out the door heading home when the office phone rang. "You don't know me" the voice said. "I'm a middle school civics teacher in Sioux City. I read your Deming articles," he continued, "and I want you to know that for me Deming is the last great leader of the Enlightenment. . . he's provided the final, and missing, element of natural law."

Normally a comment like that would have surprised me. But this was one more of a series of unanticipated reactions evoked by an article I had written six months earlier about the acknowledged founder of the quality movement, W. Edwards Deming. What was going on? For example,

"For an administrator who just 'hung it up' after 29 years of trying to influence public education, I found Deming's words a breath of fresh air . . . you struck a responsive chord and heartened me."

The most frequent reaction, however, was

". . . I thought I was the only one who saw possibilities for schools!"

My internal dialogues

More and more, I found my own "Why?" questioning focusing less on what he was saying, and more on *why?* . Why would things make sense to him, and not to others? How did he make sense? To paraphrase one of his favorite questions: "*How did he know?*" I sensed that my first hunch may have been right when I wrote "*Fable for our Times*". It was all about the "mental model" or "map" that framed his thinking.

During that time, the "map" that had emerged from my Navy experience (and which will be described later) unconsciously had become my lens for understanding "the territory" and I found it offered a common context for my dialogues with Deming. I sensed that it matched his *Profound Knowledge* but couldn't exactly tell how. (For one attempt, see the [Profound Knowledge School](http://www.newhorizons.org/article_rhodes1.html) www.newhorizons.org/article_rhodes1.html)

Where did the questions come from? One clue: his most "profound" knowledge seemed to surface in the questions he repeatedly asked others in response to questions put to him.

"By What Method?" When he heard noble goals and purposes being espoused.

"How could they know?" When he heard people being blamed.

"Why don't you just stop doing it?" when people explained "why" they do what they do.

They emerged naturally from his way-of-seeing and understanding the world - the deep, "profoundly-embedded" beliefs that shaped the lens of his "map" – his mental model. At one point, asked to surface the connected concepts within that paradigm, he termed it a connected system of profound (or deep) knowledge. No capital letters. It was later that others would attempt to portray and teach it as four systemically-connected components of a "System of Profound Knowledge." That this didn't quite capture Deming's sense of the whole might explain why, in 2003, The Deming Institute's conference agenda intentionally focused on why "*we find that many people seem to understand the theory, at least well enough to tell it to others, but don't seem able to put it to use.*"

- Two of his seemingly counter-intuitive observations directly shaped the way I "see" and think about organizations. I resonated to them but didn't know why.

What would one have to believe to declare "*The workers have always been involved. The only ones that have been involved. That's the problem!*"

And "*System Leaders work on the system, not in it.*"

My experiences in subsequent years began to demonstrate that almost all organizational leadership problems emerged as consequences of not having beliefs that would make sense of

those as *both/and* “truths.” And this would be compounded by not knowing what to do about it even if you did.

What I discovered (and will describe later) is that knowing how to integrate the complementarity of both those truths is the missing answer to today’s “*By what method?*” question.

The missing maps

“Underscoring the whole problem may be a missing perspective, the lack of any feeling for the whole on the part of the so-called professional manager.”

“The Missing Perspective”, *In Search of Excellence*,
Peters and Waterman, 1982

But how can you work on a system you don’t see? Doesn’t there need to be a way of seeing, and then understanding, an organization in which these two truths co-existed and made sense? Don’t we need a common framework for understanding the thinking and actions of both an organization as a whole, and at the same time, each of the people in it?

And here is where the truth of “The Map is not the Territory” plays out. The organization we think we see on the organizational chart “maps” we use for planning strategies and tactical operations in no way reflects the actual territory we must navigate. A territory that has natural conditions one can’t “control,” but which are driven by principles that can “influence” them.

CEO’s of World Class organizations seem to start with an understanding of that natural system as an asset, and use those assets to drive the journey. (See “Is There a Standard for Meeting Standards?”⁶)

- Because of these questions, nine years ago I took advantage of an opportunity to get inside the “heads” of a “system”, and watch it do the continual “work” of responding simultaneously and systemically to both the *needs* that society says must be addressed and the *needs* that each child brings to school each day.

It provided a unique dimension of knowledge as I observed the interactions at the moments-of-truth where Deming’s ideas translated into practice. As an example, in 1997 I had developed the checklist below that related the core belief of Deming’s *Profound Knowledge* to schools: i.e., that an organization is a *purpose-driven system of interdependent human beings, intrinsically-driven to want to make a little more of a difference in the world tomorrow than they did today.* (www.newhorizons.org/article_rhodes1.html)

Little did I know then that, as we’ll see in section 4. *Catching Them Doing Something Right* -- I would soon find one that seemed to reflect all of the dimensions of the Checklist on the next page I had offered.

⁶ Chosen by *Education Week* in 2007 for inclusion in *The Last Word* -- its compilation of the “Best Commentary in American Education” over the past 25 years.

The Profound Knowledge Checklist.

How would you know--by looking at its schools--whether a community operated from a base of *Profound Knowledge*

- There would be *common theories* about the nature of human learning, and the nature of people's work in organizations, that framed and focused everyone's actions. These theories-- sometimes expressed through visions and missions-- would underlie both policies and practices. Everyone would know *Why* things happened the way they did in the schools.

- You would see people -- both children and adults -- seeking to experience or re-experience one of life's natural "highs"-- the internal sense of *joy* often associated with productive accomplishment, such as:
 - knowing you are doing your best
 - learning something new on your own
 - solving a problem or overcoming a challenge
 - knowing that you contributed by helping
 - knowing that you are part of something important
 - feeling supported or acknowledged by others.

- Practitioners would be working in a *system* purposefully structured to connect them to each other for effective accomplishment of their work. They would be able to take advantage of the interdependence within that work.

- They would have access to information and knowledge developed from that work which could be applied to continually improving it.

- The school system and community would be learning from those improvements and would have ways to integrate those learnings into new policies and structures that shape the ways-they-do-business.

The Traveler today...

In2:In's August newsletter, as a way of introducing me, linked to a "self-portrait" that originally had been developed in 2005 in response to a series of focusing questions for the *Collective Wisdom Initiative*. You may find it helpful in that it captures, in a different format, several of the key concepts that will be presented here. <http://www.collectivewisdominitiative.org/files_people/Rhodes_Lew.htm>

I'll duplicate here only my response to its last question because of its connection to the invitation this *Thoughtpiece* offers to join in this learning journey.

How would you like to be available to others in this field?

I would like to establish some mutually meaningful connections with some thinking partners who might want to interact with me because they see possible meaning and value in the products of my experience, and who might, from their perspectives, help me better understand these experiences.

I have two things to share:

- 1) The "simple tool" based on the "simple rules" I referred to as my driving question that I believe can help others develop the capacity to see and understand a differently-aligned world of their work.
- 2) My continuing learnings from the systemic actions of a large system for the past 5-6 (now 9) years that I feel have implications for leadership in education (and actually all organizations.) Many of them fill in the age-old gap between strategy and tactics, and between strategic thinking and strategic acting.

I most want to interact around my "thoughts-in-progress" because when I look back at my 5-years (now 9) of documented observations, it becomes clear (and humbling) that (a) the system was acting as if they already had the framed understanding "my lens" offered, and (b) without my lens, they were developing the necessary sense of the "whole elephant" and its internal interrelationships out of their own experiences. But it was taking a long time.

And more astounding for me, they were connecting theory and practice and putting into action concepts and strategies that I had been writing about, and fruitlessly advocating, for 20 or more years. They all had fit into the reality template in my mind but not, until now apparently, the minds of others.

So why now...and here? I have some definite "answers" for those questions, and would love sharing them with others interested in exploring their implications.

A means to do that - a new website *Sabusense.com* -- will be described in section 7 of this paper.

HOW WE INTEND TO GET THERE

Here's a brief overview of the sections that follow.

2. THE SEARCH FOR THE *TERRITORY* BEGINS... (pg. 19)

The search for the thinking-influencing 5th *Why* begins by drilling down through *Theory...* to *Principles...* to *Practice...* to uncover an X-factor's *biological* roots. Along the way, we look at

- differences between "maps" and "territories"
- Breaking the *Brain/Mind* Connection.
- Organizational learning disabilities
- *Work* as Knowledge-Creation and Management, ...and the *Mind* as the Workplace

3. MAKING SENSE THROUGH A SYSTEMIC LEADERSHIP & MANAGEMENT LENS (pg. 24)

- This section explores the Core Principles ground into the "lens" through which we will make new "sense" of those mind-numbing paradoxes that currently serve as the context for school leadership and management.
- See how the principles connect in practice
- And consider the values this way of "seeing" can contribute to "thinking" about the "work" of individuals in organizations.

4. CATCHING THEM DOING SOMETHING RIGHT (pg. 34)

• An opportunity opens up to be an embedded learner in a major US school system – the Montgomery County MD Public Schools (MCPS) -- (140,000 students, 199 schools, 11,500 teachers) In that role, I soon found that the lens offered a way for me to watch simultaneously *what* they were learning and *how* they were learning it as individuals and as a system. Then to use it as a personal knowledge base to back map or dig down to ask *why* it was happening here, and *how* other school systems could generate the same types of learning?

5. WHAT CAN BE SEEN? (pg. 36)

Answers to those questions are presented as some of the *learning* and *thinking* products of that process. These are intended to be the catalysts for the continued thinking and learning dialogues that the *sabuse.com* website will support. These are in the format of:

- *New understandings* that emerged from the way-of-thinking the lens supported,
- the types of *questions* they raise for planning and operations. Question's that not only make *theoretical* sense (but for which there may not have been practical answers), but questions informed by the knowledge that practical answers can be "seen" and understood in the nine-year MCPS journey.
- Indicators of where one might look in the *MCPS experiences* to see how this thinking plays out in practice.

6. WHAT WOULD _____ SEE? (pg. 53)

This section asks the question:

What would theorists and practitioners -- whose ways-of-thinking were already framed by a mental model structured by the same simple principles embedded in the lens – see in what the lens reveals about the ways that the MCPS has been functioning systemically for the past nine years?

(Theorists and observers such as Drucker, Senge, Wheatley, Deming, Covey, Jim Collins, John Kotter, Tom Friedman, Joe Jaworski, Robert Quinn. And practitioners who have the experience-based wisdom developed from the system leadership role of CEO, like) Jeffery Immelt, Jonathan

Tisch, Robert Forest-CEO Corning, Jim Sinegal-Costco's CEO, Thomas Stewart, Craig Barrett–Intel CEO, Greg Merton.)

7. JOINING THE JOURNEY (pg. 55)

For those who want to think further about the implications of this way-of-thinking about the work of people in organizations, an opportunity is presented to join in this journey-in-progress through a new website – *Sabusense.com*.

2

THE SEARCH FOR THE *TERRITORY* BEGINS...

“A new paradigm involves an X-factor – a principle that was present all along but unknown to us. It includes the old as a partial truth, one aspect of *How Things Work*, while allowing for things to work in other ways as well.”

Marilyn Ferguson

This story of a *thinking-about-thinking* journey took me from considerations of what we think and how we think to *why* we think. And along the way validated the idea that “*Before you can change what you do, you have to change how you think. (But) before you can change how you think, you have to change what you believe.*”

But to get to this fundamental core that shapes our thinking would require drilling down through *Theory... to Principles... to Practice...* to uncover the X- factor’s *biological* roots.

Drilling down through *Theory*:**Why is a new map important?**

My Navy-generated epiphany about the relationship of maps and territories made it easier to accept Korzybski and Senge’s reminder that “the map is not the territory.” It made sense to me, but still I lacked sufficient examples other people could get their hands and minds around.

This is not a newly discovered need as the decade-old quotes below indicate. The question is why it seems so hard to draw a map that reflects the natural conditions of a territory of which we are part.

....America already knows enough to fundamentally change the ways schools function, ...the problem instead is that our society needs to look at its schools through a *different lens*. “Without a sense of the *whole*, we end up with what has become a familiar cycle of patchwork improvement and disappointment.”

Using What We Have to Get the Schools We Need:
A Productivity Focus for American Education.
Consortium on Productivity in the Schools, 1996

“The most critical challenge is to place learning at the center of all reform efforts--not just improved learning for students, but also for the system as a whole and for those who work in it.

For if the adults are not themselves learners, and if the system does not continually assess and learn from practice, then there appears little hope of significantly improving opportunities for all our youth to achieve to the new standards.

For this to happen, however, requires a fundamental change in orientation ...to one in which all work is designed and evaluated with an express goal of enhancing capacity to improve student learning.

...impact on improved learning will depend upon what happens within the system itself. Our data suggest that what is needed is a coherent and strategic approach to capacity building. ...one that takes into account the needs and goals of the individual learner, school, and district, and state, not just for the immediate initiative, but for the long term.

Only in this way can systemic reform’s promise of “top-down support for bottom-up “reform be fully realized.”

⁷ Lloyd Dobyns & Clare Crawford-Mason, *Thinking About Quality*.

“Building Capacity for Education Reform,”
 Consortium for Policy Research in Education (CPRE).
 O’Day, Goertz, & Floden
 December 1995

The idea that “*the map isn’t the territory*,” is essentially a *thinking* problem since, in Senge’s terms, “maps” are the mental models we use to frame and make sense of the world around us. But how do maps and territories differ?

A *territory* has unchanging features. In geography, these are *natural* conditions that will be encountered and can’t be ignored. They provide the context for the journey. (The things we keep bumping into if even if we think we have no way to deal with them.) Whether or not they are considered positive or negative may depend upon whether they are recognized and used to further that journey.

Maps are created from assumptions and beliefs about those *natural* features. These maps represent what we *think* we see, or have the knowledge to see, there. On these maps we “draw lines” to connect what we believe are the territory’s unchanging elements and their requirements. In our worksettings we then build organizational “pathways” of relationships and information flow to sustain the interactive requirements of the traffic that must navigate the territory.

These “maps” become the plot boards for organizational problem-solving. Paper versions called organization charts can be found in every organization. Their ubiquitousness derives from their pre-existence as an embedded mental model in everyone’s *mind*.

What should we “know” about them?

- **The “organizational maps” we use to plan and support the work seldom reflect the nature and needs of the territory.**

Continuous indicators from both research and management theory suggest that this map doesn’t portray the nature and interrelationships of the system’s *work*. And our personal experience continually reminds us of the gap.⁸

Yet tinkering with the map by flattening it, turning it upside down, or making its own “boxes” autonomous doesn’t seem to work. Advocates of “top-down” or “bottom-up” change strategies don’t seem to notice that (except on their paper maps) *systems* don’t have “tops” and “bottoms.” They have “insides” and “outsides.”

Apparently this “map” is not the same as the *territory*. But how can we see the natural features of that territory in a way that can enable us to develop organizational maps that will enable us to use what is *inside* to get where we want to go *outside*?

- **Maps have X-factors (“...a principle that was present all along but unknown to us.”) For Copernicus that was the Sun.**

It’s the premise of this journey to the *5th-Why?* that it is at that deep level where the paradox-busting *X-factors* live. And it’s here where answers can be found to both Copernicus’ “map/territory” problem, and to Joel Barker’s paradigm-creating “*One-Thing*” question (“*What one thing is impossible to understand and do today, which if it could be understood and done would fundamentally change your organization for the better?*”).

For example, if we could call upon the ghosts of Copernicus and Galileo and ask them their relevant version of that *impossibility* question:

“If anything had been possible, was there any one thing you could have done when you were alive that could have convinced everyone that your way of understanding the nature of the solar system actually described the way things were?”

...they might, with the benefit of hindsight, tell us that they would have liked to have been able to take people to the surface of the sun. There, from that previously unavailable perspective of reality -- at the center of the *natural system* -- they would tell them to look up and see how the

⁸ As part of the *Truth and Consequences Test* (to be accessible at the website) participants are asked to assess the extent to which their organization charts reflect the way the work is done. No one believes that to be true.

planets actually fit and moved.

Now there would no longer be the "Common-Sense Realism" conflict between what people could see with their own eyes and the new ideas from science about the true nature of their world. From that time on, the products of both personal experience and research would be developed by looking through the same mental lens --- one ground from a common *belief* about reality at it's center.

There's an obvious similarity to Copernicus' dilemma and ours today except that schools don't have 200 years to wait for a new "worldview" to develop. So, what if we were to ask ourselves the same question: --

If anything were possible, what one thing might we do that could convince everyone that what we are observing swirling around and within the "system" we call schooling is already a system that has natural relationships to a common "fact" [or knowledge-based] center point?

Might we see relationships that we currently can't see, and therefore use, as we make sense of what we deal with each day?

Our answer might be similar to that of Copernicus': We would like everyone to be able to stand at the "center" of the educational system -- a child's *brain* and *mind* -- and look out at the surrounding real world that it interacts with as it develops its capacity through a pre-wired process we call *learning*.

From this shared common perspective could develop the "Common-Sense Realism" necessary to support a *new common sense of common practice*. Most important however, it could offer a "logic model" or leadership and management frame for understanding education's "*theory-of-the-business*."

As Drucker so accurately foresaw,

"when previously successful organizations are facing a 'what to do' dilemma... (and) find themselves 'stagnating and frustrated, in trouble and, often, in a seemingly unmanageable crisis,' the root cause of the apparent paradox is that the assumptions... that shape any organization's behavior, dictate its decisions about what to do and what not to do, and define what the organization considers meaningful results ... no longer fit reality.

...what underlies the current malaise of so many large and successful organizations worldwide is that their theory of the business no longer works. ...Whenever a big organization gets into trouble--and especially if it has been successful for many years--people blame sluggishness, complacency, arrogance, mammoth bureaucracies. A plausible explanation? Yes. But rarely the relevant or correct one."

- **Maps can be re-drawn to reflect the centrality of the territory's X-factor.** Today, cognitive science makes it possible to take a Copernican journey inside people's heads. And to use that knowledge to create a "*map of the Territory*" that can better serve the needs of those who must navigate through education's confusing waters.

The lens described in the next sections offers a way of seeing and understanding this "given" natural territory by aligning organizational relationships and roles to a common *brain*-based center point where the processing of experiences begin the journey that transforms them into knowledge.

HOW DEEP INTO THEORY TO DRILL?

Breaking the Brain/Mind Connection. The commonsense practices of an organization's common work must be rooted in a "theory of the business" that reflects the reality to which they respond. Today's pressing needs to systemically "restructure" the functional relationships of our schools' work therefore depends upon a capacity to build from the natural relationships already embedded in the "territory" of the system -- but which, like the elephant's blind men, we have been unable to "see" and make functional. That capacity would enable a work system to support "doing what comes naturally."

So how deep must we drill to find that theory's common core? Here, the journey towards understanding may get rough for we must disconnect the *yin/yang* of "brain" and "mind" in our own minds. Two analogies may help separate these two intertwined dimensions.

- We're all born with a common set of "organs" – each a *biological* engine that serves to process something necessary for individual survival as a total being – lungs/air, heart/blood, stomach/food... and the brain – information. At this "simple" level of thinking we are dealing with the common level of *biological* wiring that makes it possible for the lungs to support the interactive exchanges with the air around us to access what we need to survive, or what the heart similarly does to support the exchanges of nutrients in the blood stream. Similarly, here, we are dealing with the *brain*-embedded processes that drive the *exchanges of information* needed for survival.

- Or if you prefer a more mechanical analogy, the brain's embedded information-exchange process offers what, in a computer, would be called a hardwired OS [*Operating System*]. Like the "never-stop-running" *Energizer Bunny*, it serves as a continually cycling pump that supports the "trial and error" information-giving and -getting interactions that the *mind's sense*- and *meaning*-making software then processes.

In other words, what our *mind's* "software" helps us *learn* is first driven by, and depends on, the product's of the *interactive exchanges of information* that are our *brains'* support.

The function of the *mind's* "software" is to make sense of the "data" continually fed it by the *brain*. This sense-, or meaning-making mind also plays a reciprocal role at times acting like a polarized filter that simultaneously separates the data coming in from experience into answers to two questions: *What does it mean? What do I mean?*

(As we'll see later, this has implications for knowledge management strategies that make it possible for organizations and individuals in them to be "asking the right questions," and then supporting their capacity to find their answers appropriate to their conditions.)

Cognitive Biology For simplicity, the theory and principles embedded in this approach purposefully stay in the realm of *cognitive biology*. For the past decade or so, *neurobiology* and *cognitive psychology* have contributed knowledge essential for the improvement of teaching and learning under the umbrella of "brain-based learning. But the levels and diversity of this psychosocial knowledge has been expanding so rapidly that it is difficult to translate it into effective sustainable practice for all children.

However, beneath those neurological and psychological understandings lies a field of more accessible and translatable knowledge from *cognitive biology* about the brain. This is the simple level of functioning as a biological process that converts information from external experiences into useful internal nutrients the mind needs for growth.

It's at this level where we can identify the "simple rules" and principles that enable the brain to serve as the engine driving the exchanges of information the body system needs to develop the capacities to solve the problems of continual growth and survival.

Here, Harvard social-biologist E.O Wilson⁹ points the way:

"The natural sciences have lacked a theory.

Education as a natural science has functioned relatively theory-free, relying instead on assumptions and beliefs generalized from direct observation, much as people in the hard sciences theorized that the earth was the center of the solar system.

Theory comes from the next level -- to understand culture, you have to understand mind, to understand mind, you have to understand the biology of the brain."

George Locke Land went deeper when he noted how *psychological* processes are extensions of *biological* processes:

In essence, the destiny of a cell, and a human is to reach out and to affect the environment . . . The single process of Nature that unites the behavior of all things is the process of Growth.

As are organizational processes:

⁹ E.O Wilson, Consilience: The Unity of Knowledge

“Continuous improvement processes are an organization's way of modeling natural human behavior.”¹⁰

A simple cell and an individual human learn and grow in similar ways, he suggested. Each acts, then takes in and processes the environment's response to that act in a way that produces learning and growth, and then acts again. This single cyclical process unites the behavior of all living things. And, I propose, is the *natural* process that has been operationalized in the management concept of *PDSA* (Plan, Do, Study, Act.)

This extends Land's perception one step further to suggest that *organizational processes* also are extensions of this same *biological* drive to learn and grow through cycles of *interactions* that bring in new *information*.¹¹

The X-factor

This common nature of biological, psychological, and organizational growth (learning), we propose, is the *X-factor*.

Through the lens described, and then applied, in the next sections it becomes the missing common denominator for understanding and solving the continual problems and paradoxes of schooling. We will see that at the simplest level of “meaning” all living things seem to be pre-wired to *make a difference*. At personal and organizational levels, learning and growth are processes that begin with *purposeful action* and end with *purposeful action*. In between they create changes in capacity through interaction of new “*information*” with that previously stored.

And we will have an opportunity to consider whether this simple level of understanding of the nature of the core work that schools exist to support meets Drucker's criterion for a *Theory-of-the-Business* for schooling.

DRILLING DOWN TO PRINCIPLES:

Work as Knowledge-Creation and Management, ...and the Mind as the Workplace

Leading and managing the Work: While it makes sense to think about *leading* and *managing* in terms of the work that teachers, administrators and others do in the workplaces the system provides, this drilling down suggests that the actual worksite is deeper.

The acts of educators as they *respond* directly or indirectly to the learning needs of children is the visible work of schooling. The actual work, however, is invisible -- taking place in educators' minds as they determine the most appropriate responses within the range of resources they have.

The *workplace* of schooling, therefore, can be found in the minds of educational practitioners. Behind each work action lies (conscious or unconscious) human thought, driven by each person's search for *meaning* through *making a difference*.

Any permanent changes in schools can only come from changes in that “workplace”-- where personal and organizational routines are stored in the form of beliefs, assumptions, and knowledge of previously-effective strategies. For a “theory of change” to address sustainable systemic change, it must first understand that “workplace” at the *biological* level.

This is one need that this tool fulfills because on traditional organizational “maps,” no matter how the “dots” are connected, these already-running biological “programs” are not perceivable as resources to be tapped *as part of* the organization's work. With this alternative lens, however, one might see how:

¹⁰ Grow or Die: The Unifying Principle of Transformation, George T. Lock Land, Random House, 1973

¹¹ “Organizations are created when people must cooperatively assume roles and play out role relationships in order to transform inputs into outputs. Since cooperation is limited by people's limited capacity to process *information*, people seek ways of arranging themselves and the tools of production so that they can overcome, at least to some extent, their bounded rationality. A particular organizational form can be evaluated by its ability to help people achieve, despite bounded rationality, goals and objectives in an *effective* and *efficient* manner.” (Weick and McDaniel “How Professional Organizations Work: Implications for School Organization & Management” in *Schooling for Tomorrow*, Sergiovanni & Moore, Allyn and Bacon, 1989)

- Organized education's three "managed" *work* processes – learning, teaching, and schooling have a common nature with certain common needs embedded in it.

- *Learning* is the product of what happens in the minds of children. *Teaching* is the product of what happens in the minds of adults — and the biological nature of common wiring in their brains shapes both products

- At the center of each work process are individual purpose-driven, cognitive beings whose brains and minds continually process information and experience to determine actions that will achieve their (and the organization's) ends.

- Choosing cognitive biology's understanding of the brain as the level for understanding the *territory* of schooling makes it possible to have a *coherent framework* for addressing the systemic tasks of leadership and management. For example,

- If information is the nutrient that the brain processes.

- then *Information exchanges* can form the "scaffolds" around which relationships form and then, through continual mutually reinforcing exchanges, can be sustained.

- Moreover, the system's effectiveness can be seen and understood as a function of the *connecting relationships* among its parts. The system 's success then can be optimized by the nature and frequency of the information exchanges that these relationships support.

- New organizational structures can be developed around the scaffolds that support continual learning from work.

These can be the criteria for assessing the *Systemic Leadership's* accountability.

3

"If you want to teach people a new way of thinking, don't bother trying to teach them.

Instead, give them a tool, the use of which will lead to new ways of thinking."

Buckminster Fuller

MAKING SENSE THROUGH A SYSTEMIC LEADERSHIP & MANAGEMENT LENS

WHAT A SYSTEMIC LEADERSHIP & MANAGEMENT LENS CAN CONTRIBUTE TO *THINKING*

- **Makes Relationship-“seeing” possible**

As a “*system-seeing*” tool, this lens, in effect, serves as an organizational MRI scanner that sees through practices to the “simple” biological “rules” underlying them at the core level where *knowledge* created by the brain’s pre-wired *learning* process begins.

It offers a way to understand, first, how everyone is biologically wired to “make a difference” ...and for those in education it’s with *children*. Then, with that central purpose, how the universal *brain*-driven need for information becomes the definer of *relationships* needed for exchanging it, and how these soon become the formal and informal organizational structures needed to sustain those working relationships among interdependent *roles* the system’s work requires.

Because it offers this different view of how work roles *relate*, it can frame a *shared understanding* of relationships that can support *collaborative actions* that weren’t perceived possible before.

- **Addresses the “Either/Or” “learning disability”**

It offers a way to better understand the pervasive “learning disability” at the root of schooling’s most limiting paradoxes. The system “blindness” caused by the age-old “Either-Or” problem of how to see the *forest and the trees* at the same time. Without a way to address the “Both/And” condition of “complementarity,” as Quantum physicists term it, we often end up focusing our thoughts and resulting efforts on “fixing” *people or the system*, but not both at the same time. It provides a way to see through what Senge aptly describes as the complex interrelationships of *forests and trees* by building from the simple, *natural principles* about how trees *grow*.

“...the art (of seeing the Forest and the Trees) lies in seeing through the complexity to the underlying structures generating change.

...it means organizing complexity into a coherent story that illuminates the cause of problems and how they can be remedied in enduring ways. ...

What we most need are ways to know what is important and what is not important, what variables to focus on and which to pay less attention to.”

- **Addresses Learning as *capacity*, not *product***

As a way to portray and question education’s *Theory-of-the-Business*,” its value comes from its core belief: that “learning,” as a process, is an individual *capacity*, not a *product*. The system’s work then can be seen as the development of *each child’s learning capacities* through the types of *interactions* it makes it possible for him/her to engage in.

While it is not unique to focus on children's *learning* as the purpose for education, here, the *learning* that serves at the focusing center of this map is the process of learning, not its *products*.

- **Portrays the “system” as an information-creation and exchange process.**

The values of this perspective for strategic leadership and management in schooling are a function of this fundamental nature.

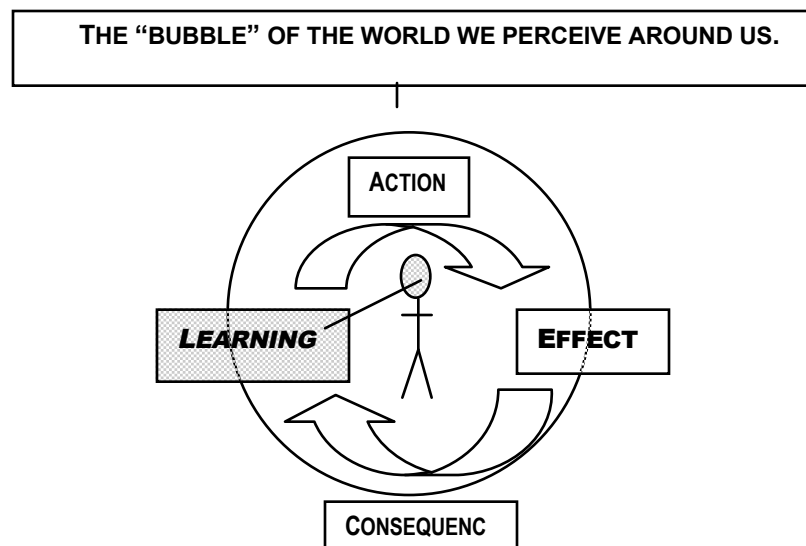
- It offers a “simple” structure to see through and address the complexities of current information-driven standards, testing, and accountability strategies that are based on learning-as-product.
- It is rooted in the *core principles of interaction* that actually drive children's learning, and
- which also drive the actions of teachers, parents, and others whose personal success and satisfaction is measured by their effects on these individual children.
- And therefore it is coherent and systemically holistic, not only in scope, but also in depth.

CORE PRINCIPLES GROUND INTO THE LENS

One of *cognitive biology's* core principles stands at the center of the “world view” this “territorial map” portrays.

In our minds, we each stand at the center of an “environment “in which we try to *make a difference*.”

And our brains are *biologically* pre-wired to make that possible. The brain provides the OS or “Operating System” that develops and supports the *psychological* “software” of the mind.



- The continual loop nature of the thinking this common wiring supports is sometimes called “*problem-solving*,” “*trial and error*,” or in quality management “*PDSA-(Plan, Do, Study, Act.)*”
- As noted earlier, this *brain*, like other body organs, continually produces something essential to the body's survival – *information*. It serves not just as an “engine” continually gathering in and initially processing information, but also as an “information pump” that continually seeks *social* connections from which to access information that can contribute to personal and organizational

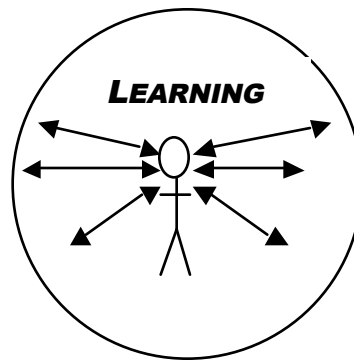
meaning. And some of the most powerful information is about our own meaning taken in through these interactive social connections with others.

- This continually cycling “loop” serves as the initial “programmer” for the software that the mind will continue to develop. This is because the *mind*, trying to make its job easier, stores some of the information coming in from the brain’s information-processing cycle in *beliefs* and *assumption* (and “paradigms”) so that it doesn’t have to deal with it each time. This, then, can make it harder when a belief-window it creates becomes a “*seeing-what-we-believe*” filtering barrier to noticing all of what’s actually going on “*out there*.”

In this “simple” model, this *first belief* about the *brain-as-information-processor* becomes the 5th *Why* answer we are searching for. The organizing principle -- or as Joel Barker puts it, “*The One Thing*” -- that is the center point of a new sense-making paradigm. Once accepted, it shapes the boundary for a mental model that frames thinking, and becomes the common reference point for making sense of what can be seen within it. And can be seen as the common root of later processes we call learning, Continual Improvement, and PDSA.

As an example, once one accepts that first belief about this “given” nature of the territory that is the “workplace of schooling,” then its three “work processes” -- *learning*, *teaching* and schooling -- can be aligned to it.

- **Learning can be understood as a product of interaction.**



If each child’s learning is a product of his/her *interactions*, and the most significant *inter-actors* are the “first-responders” -- those adults who care about them -- e.g., teachers and parents, then

- **Teaching can be understood as a process of providing the *opportunities* for those *interactions*, and access to the *information that informs* them.**

The *quality* of learning, then, is a function of the *frequency* and *relevance* of those interactions.

- **Schooling** -- The effectiveness of these caring adults depends to a large extent on the *information and support* that enables them to make decisions and take actions that are *individually responsive to that child’s needs and requirements*.

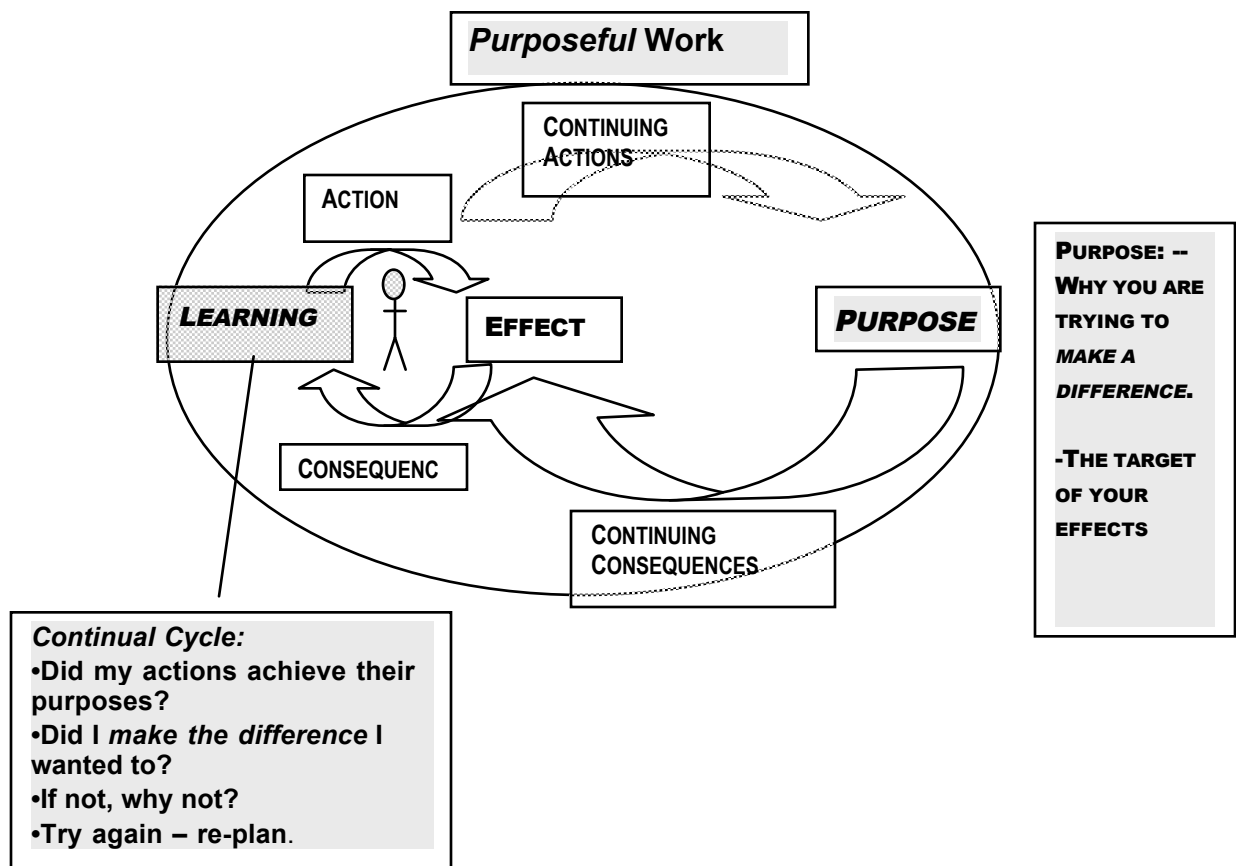
School system leadership and management can be understood as an integrated learning management process which creates and sustains the core *interactions* that support and inform the school’s work of managing the *interactions* each child’s individual learning process requires.

CONNECTING THE PRINCIPLES TO PRACTICE:

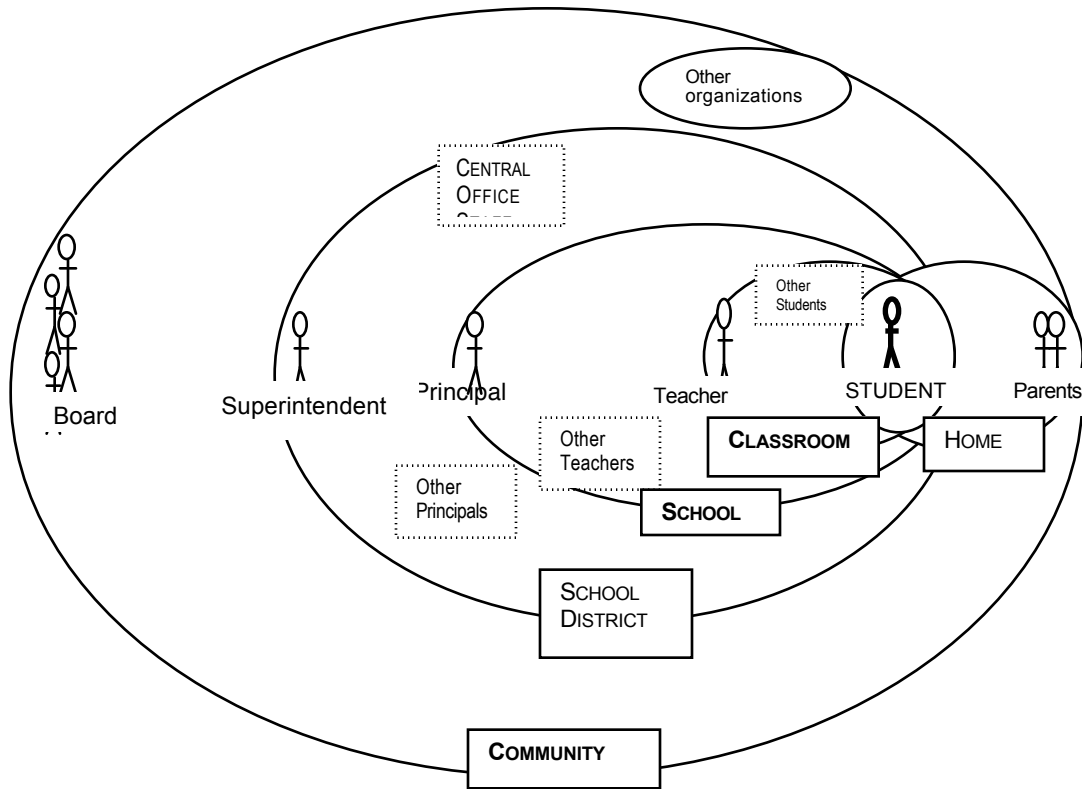
Taking the Knowledge-creating and -using Mind to Work

This operating “program” is *always running* beneath the primary *mental* workplace regardless of the different *physical* workspaces in which it takes place such as classrooms, buildings, or districts. But at work another factor comes into play.

In those purposeful workspaces, as we focus on a *task* or *job*, we now slip over to the side of the bubble and engage the “OS's” (Operating System's) common programming to accomplish the *purposes* of our work. The interactive dynamics and requirements of this cyclical mental process remains the same, however – *to reach out, act, learn as quickly as possible from the consequences fed back, and act again.*



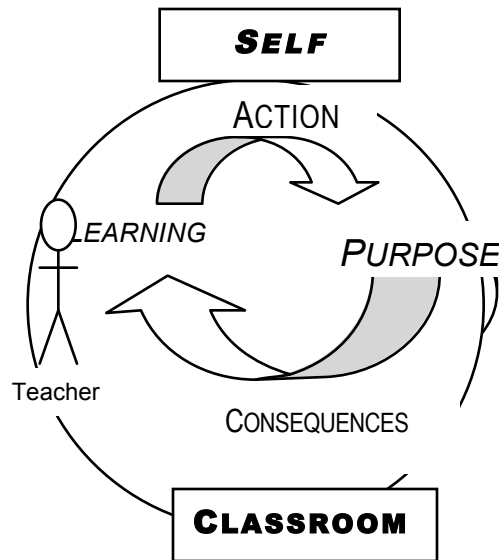
This, then, serves as a basic shell that can be used to frame thinking about how mental and physical “workspaces” align to a child’s learning. Note: By changing the reference point of this “map” of the organizational “territory,” the fundamental relationships among all the *jobs* and *roles* have not changed. If you turn this 90° you can still draw a “pyramid-like map” branching from what now appears as a “top” and “bottom.”



Seems simple, but the nature of the continually running knowledge-creating process each person brings to work creates two problem conditions .

1. Duality: “I am my work”/ I perform the System’s work.

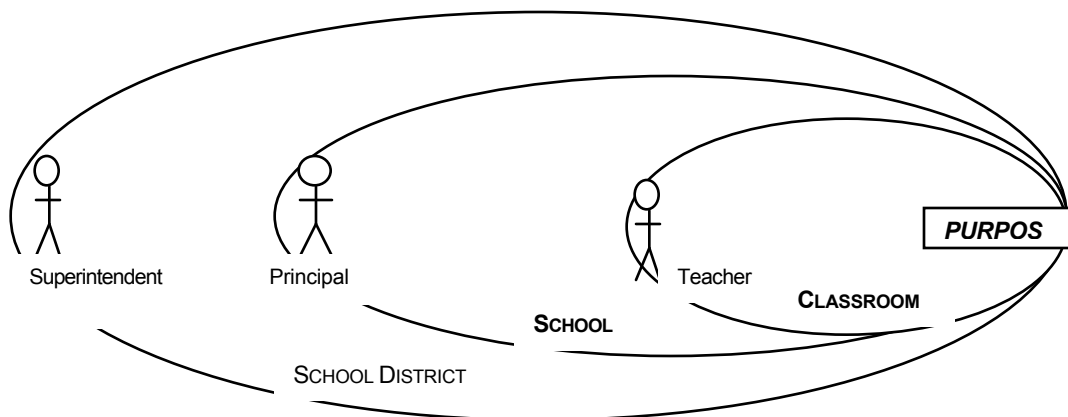
Often a *duality* condition occurs, as the outer boundary of the self in the mind simultaneously overlaps the outer boundary of the physical work setting. We may begin to think of ourselves as *our work* because our personal sense of meaning and fit at work must usually (and unfortunately) be found within the confines of that physical space.



This consequences of this duality surface (as we shall see) when the “job” one is held accountable for performing bumps up against the “role” that the contextual conditions of one’s place in the system-of-work first requires them to respond to.

2. Interdependent Autonomy

The second problem is created because now one’s supposedly autonomous organizational *workplace* is often “inside” of *someone else’s* whose *relationship* to you is defined by that same common end purpose.



And now they have a “problem.” Their capacity to make a personal difference through *their* work requires that *first* you can make a difference in yours.

These people, doing their individual *work* in these simultaneous mental and organizational “spaces”, comprise the “territory” that our organizational “maps” can’t quite capture through the “top-down” or “bottom-up” job pyramids that presently serve as organizational maps.

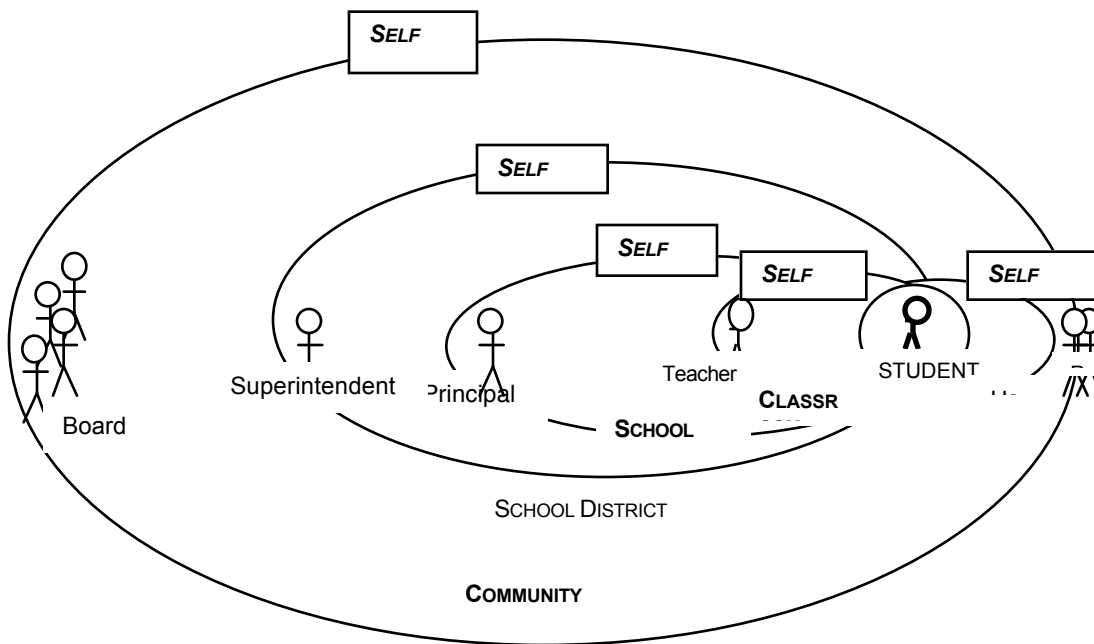
What seems to be missing to complement the *Job*-displaying “Organizational Chart” is a *Role Map* that aligns the roles that must be performed in a system of interdependent functions.

The Understanding underlying a Role map

With brains and minds pre-programmed to simultaneously seek *meaning*, two forms of meaning must be taken into account – *personal* and *organizational* – and how together they influence each individual action.

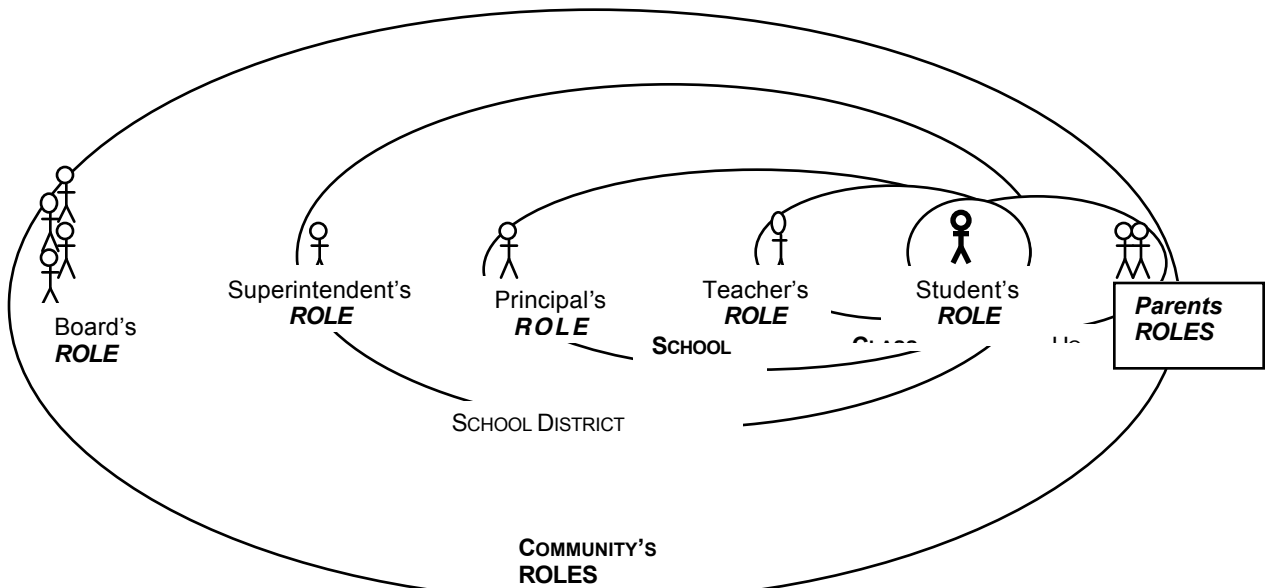
Personal meaning

When thinking about the *personal meaning* of actions by individuals and organizations, each circle represents a *mindset* within which one continually determines how to *make a difference*.



Organizational meaning

When the shell is used to think about the systemic meaning of decisions we are now looking through the lens of a *role map*. We see people's functional roles in the system as opposed to their individual *jobs*. These are roles that must be performed regardless of who is in the job.



- When used as a “personal” map, it can (like a traditional organization chart) still address the system’s need to determine “jobs” that perform the work tasks that need to be done and where. These determine what the system sets *competency* standards for, hires for, supervises, and evaluates.

- When used as a “role map,” it portrays the roles (regardless of individual *competencies*) that comprise the system’s *capacity* to accomplish its purposes, and sustain itself. These “Roles” are determined by the priority of demands the immediate context places on the work to be performed. Roles are usually *responsive* in nature and played out within constraints of limited *time* and *information*. People often have to work around the system and develop “informal systems” to meet these role demands.

Because the role map portrays a more *natural* alignment of “jobs” it makes it possible to “see” the connectedness of the system’s sustained “roles” (where the dots need to be connected), and the need to build on these links to develop processes that support the disconnected “jobs” many people currently are held accountable for performing.

It also offers a more appropriate template for envisioning the ideal structure of a system’s work that must be sustained.

Navigating from a Map of the Territory

This way of mapping the territory can be used to raise questions about how *each* person in the system can get personal meaning, joy, and satisfaction from accomplishing the purposes of their work. And, at the same time the other “map” raises questions about how the “system” can organize and support that same satisfying work as part of accomplishing the *system’s* purpose.

Like the screen of a radar scope or MRI, this offers a way of seeing and understanding the “given” natural *territory* on which we create and sustain schools.

Using this alignment as a strategic *lens* offers a way of seeing and understanding the “given” natural *territory* that can:

-- capture the "particle and wave" *duality* of its nature. It can, at one time represent the world from each individual's view of his/her "job;" and, at another time, the organization's view of that individual's interrelated "role" as the whole organization accomplishes its purposes

-- suggest why individuals within organizations may act as they do, and

-- indicate possibilities for using those *natural* processes to accomplish *both* individual *and* organizational purposes.

As a research tool, this view enables one to apply a core principle of human development -- *catch-them-doing-something-right* -- and then use it as a resource to build on. "*Right*," in this case being the tapping of *natural* thinking processes in one's work.

In the next sections, -- *CATCH THEM DOING SOMETHING RIGHT* and *WHAT CAN BE SEEN?*--we'll ask those questions, and use this way-of-thinking to understand how a major school system has been asking and answering them.

"The best sign of intelligence is the ability to hold good, but contradictory ideas in one's head at the same time. Character is to act on two good contradictory ideas."

-James Champy

4.

*"One's destination is never a place,
but rather a new way of looking at things."
Henry Miller*

CATCHING THEM DOING SOMETHING RIGHT...**A "Worker-Lurker" Learner**

Through the confluence of a number of disconnected¹² events in 1998 I had a unique opportunity to play a role as an embedded learner in a major US school system as it began to transform itself from the inside out.

In 1998 the Montgomery County MD Public Schools (MCPS) hired a new superintendent. (I reside in that community.) Among his first major actions was the convening of a multi-dimensional planning group involving both internal and external stakeholders who were charged to develop a *Call to Action* that would subsequently serve as the framework for the subsequent 9-years of strategic and operational planning.

I had recently retired but my work with the National Alliance for Business' *Baldrige-in-Education* project and the American Association of Administrators *Quality Schools Network* led to a role for me on the planning team. Here, the values of the embedded "lens" I brought to the task began to surface in my contributions to the thinking that began to shape the work. Afterwards, I was asked to continue to capture what I was "seeing" through it in *20,000 ft. Memos* to some of the senior staff. I didn't immediately realize at the time that I was taking on a feedback role that was different from anything I had ever seen or personally experienced in education or research. (We sometimes would refer to it as a *worker/lurker*.) It was a role that depended upon trust, and some degree of confidentiality to maintain it, and which because it was atypical would be hard to explain to others.

Soon, the superintendent invited me to sit in on his executive and leadership team meetings as well as any others I found relevant. (Since that time, my *20,000 ft.* feedback role has occasionally extended to Board members, union presidents, Business Roundtable members, and staff through out the central office. A fuller description of the role and many of its *20,000 ft.* products will be accessible through the website)

In that role, I soon found that the lens offered a way for me to watch simultaneously *what* they were learning and *how* they were learning it as individuals and as a system. Then to use it as a personal knowledge base to back map or dig down to ask *why* it was happening here, and *how* other school systems could generate the same types of learning?

Of most value, I found, was that it enabled me to "*catch them doing something right*."¹³

Understanding backwards

John Dewey wrote "really great theory should always be embedded in practice. It should focus on the most challenging difficulties that people are encountering in practical settings. And it has to be tested by the extent to which it actually offers people's effectiveness in those practical settings." Traditionally we start at the theory end and try to understand *practices* through *theories* that seem to explain them – that answer "why" they should work.

¹² Unless one believes in *synchronicity*

¹³ In "child" development there's a core principle of "*catching them doing something right*" ...and then using these positive assets as the *natural* base from which to launch engaged learning. When applied to "organizational" development it's called *appreciative inquiry*, and similarly uses an organization's strengths as the intrinsic base for change. Unfortunately, we have not figured out how to translate this assets-based approach to *natural* growth and development of individuals and organizations into the everyday operational processes that become the ways-we-do-business.

Instead, I found myself using the way-of-thinking the lens supported to turn that learning process around and use *practice* to understand the “why?” of *theories*. Specifically to explore through a different lens a nine-year base of on-the-ground increasingly effective systemic practices that knowledgeable outside observers had deemed “miraculous” in their scope, nature, and capacity to improve achievement for all children.¹⁴

These groups with a common interest in systemic reform had recognized that something unexpected was happening in this district and engaged in documenting MCPS’ *what’s* and *how’s* with the intention of distilling the principles that have made these possible so this “knowledge” can be transferred to others with similar and even more pressing needs.

For that purpose, they have produced significant case studies, and benchmark reports that have effectively captured the *what’s* and *how’s*... but when recommending what others needed to do, something seemed to be missing. They had yet to find a “why” that made coherent sense of those “*What’s*” and “*How’s*.” They were benchmarking everything except *how they think...and why they think that way*.

What might we find if we back-mapped from the acknowledged new and better behaviors to the thinking that supported it? Then looked at the experiences from which that different thinking developed, and once again went back to who or what was providing those experiences and why? What might we learn about the system leader’s role?

A general story of what I was “seeing” and learning as a consequence of asking those questions can be found in an article “Systemic Learning and Acting: An up-close observer finds a Maryland school district behaving as if were a system.”¹⁵ (Interestingly, its working title was “If the organization is the learner, who is the teacher?”)

Although I started out thinking I was catching them “doing something right”, I found it more important to recognize that I was “catching them doing something *natural*.” Something that the individually-embedded OS (Operating System) of the brain was driving. Something that people “wanted” to do. Something that had an “effect” and/or “made a difference.” And that was continually self-adjusting based on the degree of their success.

And when these were aligned organizationally, the system was demonstrating the same characteristics. An organization with the capacity to do what it “wanted” to do, and to have their “intended” “effects”/“results,” and which could continually improve.

The next section -- WHAT CAN BE SEEN?-- will focus on specific learnings from that process that make new “sense” of those mind-numbing paradoxes that currently serve as the oppressive context for school leadership and management. It is intended to provide the seeds for a re-thinking process that I hope this thoughtpiece and the new website will stimulate.

We will use this differently-framed knowledge to explore *New Understandings* that emerge and the *questions* they raise. Question’s that not only make *theoretical* sense (but for which there may not seem to be practical answers), but questions informed by the knowledge that practical systemic answers can be “seen” in the 9-year journey of the MCPS.

And in the section that follows it -- WHAT WOULD ____ SEE? -- we will compare the “doing something systemically right” picture as filtered through the simple rules or principles ground into the lens, with the body of principles developed by observers of effective organizations such as Peter Drucker, Jim Collins, Peter Senge, Russell Ackoff, and Deming.

How do this school district’s on-the-ground *practices* fit the *theories* of those who “know” that organizations are already systems?

What are the implications for educational leadership and urban education of this body of thinking that is not generally accepted as totally applicable to the work of schooling?

¹⁴ Among them, the Gates, Stupski, and Panasonic foundations, APQC and the Harvard Schools of Business and Education.)

¹⁵ [file:///http://www.aasa.org/publications/saarticledetail.cfm?ItemNumber=2919&snItemNumber=950&tnItemNumber=951](http://www.aasa.org/publications/saarticledetail.cfm?ItemNumber=2919&snItemNumber=950&tnItemNumber=951)

5

WHAT CAN BE SEEN?

“You can see an awful lot by watching” -- Yogi Berra

**“I never predict. I just look out the window and see what’s visible—but not yet seen.
... I look for things that have already happened, and have not yet had consequences
... and I foresee them.” – Peter Drucker**

“It’s very difficult to forecast, particularly when the future is involved.” -- Yogi Berra

Section 3 presented the nature of a *Systemic Leadership & Management Lens* that could

- Make *Relationship-“seeing”* possible
- Address the “*Either/Or*” learning disability
- Address Learning as *capacity*, not *product*. and
- portray the an organization’s system of work as an *information-creation and exchange process*.

Section 4 then described the nature of the process in which that lens was used over nine-years to probe and understand how and why a large, major school system was transforming itself from the inside out.

This section - WHAT CAN BE SEEN? — begins to present some of the *learning* and *thinking* products of that process. These are intended to be the catalysts for the continued thinking and learning dialogues that the *sabusense.com* website will support. These are in the format of:

- *New understandings* that emerged from the way-of-thinking the lens supported,
- the types of *questions* they raise for planning and operations. Question’s that not only make *theoretical* sense (but for which there may not have been practical answers), but questions informed by the knowledge that practical answers can be “seen” and understood in the nine-year MCPS journey.
- Indicators of where one might look in the *MCPS experiences* to see how this thinking plays out in practice. There will be some overlap as we scan the same “elephant” to learn from how it responded to different issues and conditions.

Examples of several of them on the following list are included here. The rest will be accessible through the website. And can be the focal point for a blogged discussion. Each represents only the peak of a knowledge iceberg that will be searchable in depth on the website, and which will link to the 9-year knowledge base developed from my observations, as well as the formal reports of the outside researcher groups that have been engaged in learning from the district. Of most importance, each will be the focal point for a discussion blog.

To use this section as a thinking tool, consider how the possibly different insights and questions relate to your own organization’s work. Our hope is to have the website offer a forum for sharing your own thoughts and insights.

(INCLUDED HERE:)

New Understanding: The Complementarity of Policy and Practice

New Understanding: Decision-making relationships

New Understanding: A needed Role map

New Understanding: The X-factor at work

New Understanding: The Zen of data-driven decision-making

(TO BE ACCESSIBLE AT THE WEBSITE:)

***New Understanding: If the organization is the learner, who is the teacher?
The 3M's and 3R's of a Teaching Organization***

New Understanding: The district as Bathtub-- the unit-of-sustainable change

New Understanding: Leadership's System-seeing Connection

New Understanding: Time as a constant, not a variable

New Understanding: Schooling as Knowledge Management.

New Understanding: Vision as the light at this end of the tunnel

New Understanding: Keeping the Elephant on the Table

New Understanding: Technology as strategic tool

New Understanding: Bridging the Paradigm Gap

New Understanding: Systemic Governance

New Understanding: "Make a Difference"

New Understanding: The "Teachable Moment"

New Understanding: Accountability/Responsibility

New Understanding: The gap gap

NEW UNDERSTANDING: THE COMPLEMENTARITY OF POLICY AND PRACTICE

Why should it be so hard to *simultaneously* see the forest and the trees, ...the elephant and its parts. ...light as particles and/or waves, ...and more urgently, organizations and the people who create them to accomplish their purposes?

Quantum Physicists have helped us understand the perceptual problem that hinders our thinking -- a condition they call *Complementarity* or *Duality*, and illustrate with the *wave-particle* duality of light. Light has no ultimate singular reality, it can be understood to be a *wave* or a *particle*, depending on the purposes and tools of observer. But in either case, use of the knowledge requires that light's already present *both/and* nature has to be *believed* by those who had been locked into an *either/or* mindset.

In organizations this same condition plays out at several levels when we have to "see" and understand the focus of our efforts as an organizational "wave" or a bunch of individual people - "particles." And we have no way to think about them together in terms of their actual *both/and* condition in reality. Without that, it's difficult to understand how the success of the "wave" is a product of the "potentials" already embedded in each "particle."

This is an age-old "problem" for which this modified Sistine Chapel ceiling may serve as metaphor.



This centuries-old picture of the "accepted" relationship between God and Man suggests we're dealing with two universal critical, and related, conditions.

- First, the fundamental difference in the nature of the purposes driving the daily actions of those at the two ends of people-serving institutions. Some are accountable for what happens to *all*, others to *each*.
- And then, notice the small, disconnecting gap between the two fingers. Critics sometimes expect that somehow policies will miraculously flow smoothly across that gap to emerge as practices at the other end. (The late John Gardner termed this a "*Penny Gumball Machine*" belief -- i.e., a coin inserted at the top produces gumballs at the bottom.)

Usually we don't have opportunities to think much about the *each* or *all* nature of the purposes to which daily decisions in school systems respond, especially when those who have to deal with the needs of *each* child, and those who have to deal with the needs of *every child*, work in relative isolation from each other.

But even when we do think we know that this condition exists, we still have trouble figuring out what to do about it -- e.g., what has to happen within the organization to convert the "all-ness" of *curriculum* to the "each-ness" of *instruction*.

The only thing manageable seems to be to take them on one-at-a-time on an *either-or* basis. Why? Because, on a practical level, we "know" we don't have the time and resources to deal with them both at the same time, even though *at some level* we feel they are inseparable sides of the same problem.

As an invisible consequence, a school *system* ends up trying to manage two relatively disconnected "systems" without ways to connect their accountabilities and responsibilities as part of work.

This duality (as Michelangelo suggests) is a universal condition that, over the ages, has been "felt" more than understood. That may be why we find it more easily expressed through other "ways-of-seeing" such as art or metaphors that link new information to what is already "known" and accepted. Among them, the story of the "*Blind Men and the Elephant*," the picture that is at first glance a vase, but then instead maybe it's two faces; or the *Forest and Trees* paradox.

And tangibly, we find the effects of this perceptual disability surfacing regularly in the pendulum swings between "centralization" and "decentralization" in organizations.

Actually I like the *Forest and Trees* metaphor for understanding the complex interrelationships of this condition better than quantum physics' *particles and waves* because it deals with a *living system* of natural *systems*. In a *natural system* its parts are functionally-connected for the system's survival. In *ecological systems* (as in the *Forest and Trees*) the connections are necessary to sustain that survival.

For me the Sufi *Blind men and the Elephant* metaphor captures so well the holistic nature of the problem of organization-fixing. And even more now since recently discovering that the Sufi had another saying that goes to the nature of the "blindness" of those who can only see tangible "parts.":

You think you understand one.

You think you understand two, because one and one make two.

But, you must also understand "and".

Peter Senge addressed this "seeing" disability when he wrote about "*The Art of Seeing the Forest and the Trees*."

"...the art lies in seeing through the complexity to the underlying structures generating change.

...it means organizing complexity into a coherent story that illuminates the cause of problems and how they can be remedied in enduring ways.

...What we most need are ways to know what is important and what is not important, what variables to focus on and which to pay less attention to."

Using Senge's metaphor, here's one way to think of it:

<p><i>In the FOREST.....</i> where <i>people</i> <u>are accountable for:</u></p>	<p><i>are the TREES</i> where <i>people</i> <u>are accountable for:</u></p>
Curriculum _____	Instruction _____
Tests that collect data about conditions that the <i>system</i> must respond to	Tests that collect data about an <i>individual's</i> condition that the school <i>staff</i> must respond to
Efficiency - Doing things right _____	Effectiveness ----Doing the right things _____
Quantity - <u>Equity for ALL</u> _____	Quality - <u>Excellence for EACH</u> _____
Equal opportunity _____	Equal access _____
Standards for the <u>cures</u>: Identifying criteria for the "ends" of the instructional process for <u>every</u> student:	Standards for the <u>symptoms</u>: Identifying criteria for areas of student need in order to determine the "beginning" of the process for <u>each</u> student
Explicit knowledge base of what works for <i>all</i> _____	Tacit knowledge base of what works in particular situations _____
Problem anticipation _____	Problem solving _____
Sustaining <i>Just-in-Case</i> resources _____	Sustaining <i>Just-in-time</i> responsiveness _____
They search for ways to fix things for "someday... when there will be enough...." _____	They search for ways to fix things today with time and resources available! _____

Yet **both** "systems" are *simultaneously responsible* for the quality of children's learning **today!**



QUESTIONS TO THINK ABOUT:

- Who then is accountable for creating and sustaining the *connected system* that can enable them to fulfill that shared responsibility *every day? ... and by what method?*

- If you prefer *waves and particles* rather than *forests and trees*, what happens when some *particles* (leaders, administrators) are also perceived to be accountable for the actions of the *wave*?

This means that each of them (as a *particle*) must make a difference in the actions of the wave. They do this by making a difference in *other particles capacities* to make a difference themselves.

Do they need a frame within which to see those relationships? How can the *Both/and* nature of the lens' dual view offer it?

- What are the *products* of the "Forest's" efforts and how can they be measured? When we attempt to measure the results at the "Tree's" end and attribute it the "Forest," it's hard to find measurable connections. This is because the "Forest's" products, in the form of "programs/projects" and "processes, are intertwined by the system's common need, in the end, to make a difference for "each tree."

- How can they be aligned so that the "forest's" programs/projects and processes all support the work of the "trees?"

For example, usually programs and projects serve as containers for attempts to make a difference for "trees." But they generally fail to meet the needs of every "tree" because those who manage the "Forest" have not been held accountable for producing another "product." This would be *regular processes* that enable *every* program and project to respond to the needs of their intended "trees."

- It is these processes that can maintain continual informed interaction to bridge the gap between the two "systems."

- And, ironically, they need to be embedded in the part of the system that most people without thinking hate – the central office "bureaucracy."

WHERE ANSWERS TO THESE QUESTIONS CAN BE FOUND IN MCPS:

- How did MCPS bridge the gap noted between the two "fingers" of Policy and Practice in a way that supports "*regular processes* that enable *every* program and project to respond to the needs of their intended "trees?"

They've done this by developing a sustainable *scaffold* of processes that fit both definitions of *Scaffold:"

1. a temporary structure for holding workman and materials during the repair of a building

2. In learning, a temporary support supporting a new behavior that fades out as the new ways of acting become internalized and natural. For example, training wheels, or an adult running alongside, as a child learns to balance and ride a two-wheel bicycle.)

What started out as *Working on the Work* initiatives have been coming together as a *strategic management* process that can support the *tactical problem-solving* needs at the varying levels of the district's work.

- Because a "learning organization" is first an organization of individual learners who learn through trial and error interaction, its work must be structured to accommodate that *natural* trial and error process. But schools are organizations where "errors" can impact children?

How did MCPS build-in ways to monitor those "errors" and quickly modify course?

How was the "virtual cycle" used as a change strategy to develop commitment and support.

NEW UNDERSTANDING: DECISION-MAKING RELATIONSHIPS

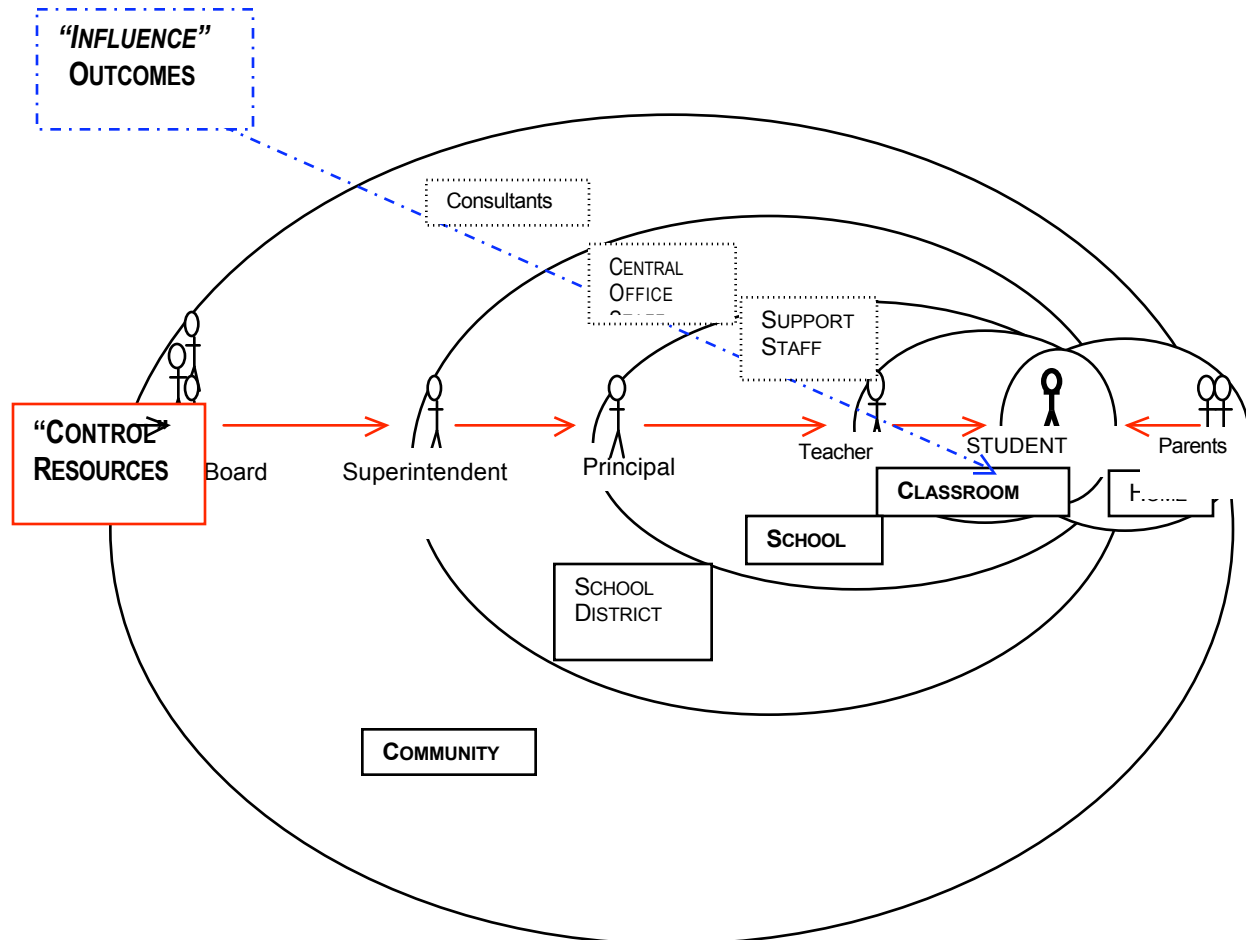
Decisions often are considered evidence of “power” based upon the cause-effect assumption that control of *means* determines *ends*. With this lens, however, it’s possible to differentiate between *Power over...* and *Power to...*

- Arrayed on the horizontal “Control Resources” line are those who, through their decisions, “control,” and are *accountable* for, the *resources* that are the “inputs” to the system’s decisions.

You also can see the *overlapping* nature of what people usually are held *individually* accountable for and (as we shall see) raise different questions about how that can be possible. And, if not, what then they can be accountable for.

- On the diagonal “Influence Outcomes” line are those whose organizational *roles* can only *influence* the system’s “outcomes.” They have a *Power to...*influence results, but not *Power over...*the decisions that create those results. This means they can’t *make a difference* for children except by first being accountable for *making a difference* for those whose role is to continually solve problems and make decisions on the horizontal line.

Together, it becomes possible to think about how to collaboratively share *responsibility* for *outcomes* by functionally aligning and connecting individual *accountabilities*.



QUESTIONS TO THINK ABOUT:

- “Structure in living systems means the basic interrelationships that control behavior. ...In human systems, structure includes how people make decisions – the “operating policies” whereby we translate perceptions, goals, rules and norms into actions.” Peter M. Senge, The Fifth Discipline.

How does this perspective help understand the current structure of functional and dysfunctional interrelationships that influence what people make decisions about, and how they make them?

- The daily work of those whose *jobs* on the horizontal line require them to make responsible decisions about resources, must have at the same time a response-ability to continually solve the problems of responding to the present needs and requirements of those in their “circles of accountability.” What information and support must they have from those on the diagonal line who *share responsibility* for the results of that problem-solving process?
- Understanding that everyone in the “system” has a mind pre-wired to *learn from interaction*, it becomes a little easier to see how the system has the potential to influence those that manage the immediate environment within which that mind at its center interacts and learns. And where the opportunities to create and support that interaction may be.
- Using the lens to understand the *yin/yang* of accountability/responsibility, note that accountability for the individual focuses on *internal* effectiveness – their control over their own behavior. What they do with what they have. For the *system*, accountability focuses on the processes that enable its parts to do that as part of the work of achieving the outcomes they are mutually responsible for.
- If the shared common drive of those on the horizontal line is to *make a difference for students* ...and know it, what information do they need that helps them understand the *direct* differences they make on the others who also directly make a difference for children? How can this information be generated and feedback as part of work?
- Think about most current efforts to develop “accountability systems.” They seem to be based on a forensic approach that analyzes the end products of events to produce information that can help understand what and why they are as they are. As the popularity of the *CSI* TV series suggests, it seems like a rational approach to problem-solving when you don’t understand or have access to the “causes” of the “effects” being measured.

But there seems to be a flaw in that rationality. And it’s caused by the *yin/yang* nature of the “means/end” relationship. While its obvious that the results being measured and then used by most accountability systems have *causes*, the prevailing assumption in schooling is that the “means” to the student learning “ends” is an individual practitioner who then can be rewarded, punished, or “fixed.”

Where this logic fails is when the ends/results are the product of the decisions of more than that individual at the end of the process.

And in schooling, they are the *product*, not *sum*, of the system’s core work processes.

WHERE ANSWERS TO THESE QUESTIONS CAN BE FOUND IN MCPS:

The idea of “shared accountability” had been planted during the priority setting of the *Call to Action*, and the growing comfort working in processes with others who, in effect, “shared responsibility” for the district’s overall results has framed and supported a way of thinking that has enabled them to rethink the ways they gather, analyze, store and exchange “data” and experiential information.

The story of this development,¹⁶ as recently been documented by the Gates/Stupski foundations, noted that:

“Accountability at MCPS has evolved into a web of interconnected systems designed to support high quality instruction and student outcomes. It has done this by creating a sense of shared responsibility for high

¹⁶ See also, Rhodes, Lenses and Gauges, 11/20/2000; and Information Management in the System of Shared Accountability-Responsibility, May 2001

expectations, clear targets and professional standards. It has been supported through creating effective interactions between all stakeholder groups. It has defined the roles, tools and strategies needed to organize the improvement process and to manage the data flow.”

NEW UNDERSTANDING: A NEEDED ROLE MAP

Regardless of the “sector” we work in, when we go to work each day we encounter a tension between the “job” we were hired and are held accountable for, and the “role” that in-the-moment conditions call for. Most powerful is that latter requirement because the roles we play at work are defined not only by that system of forces to which we must respond, but also by our internal values, strengths and commitments. What we *want* to do.

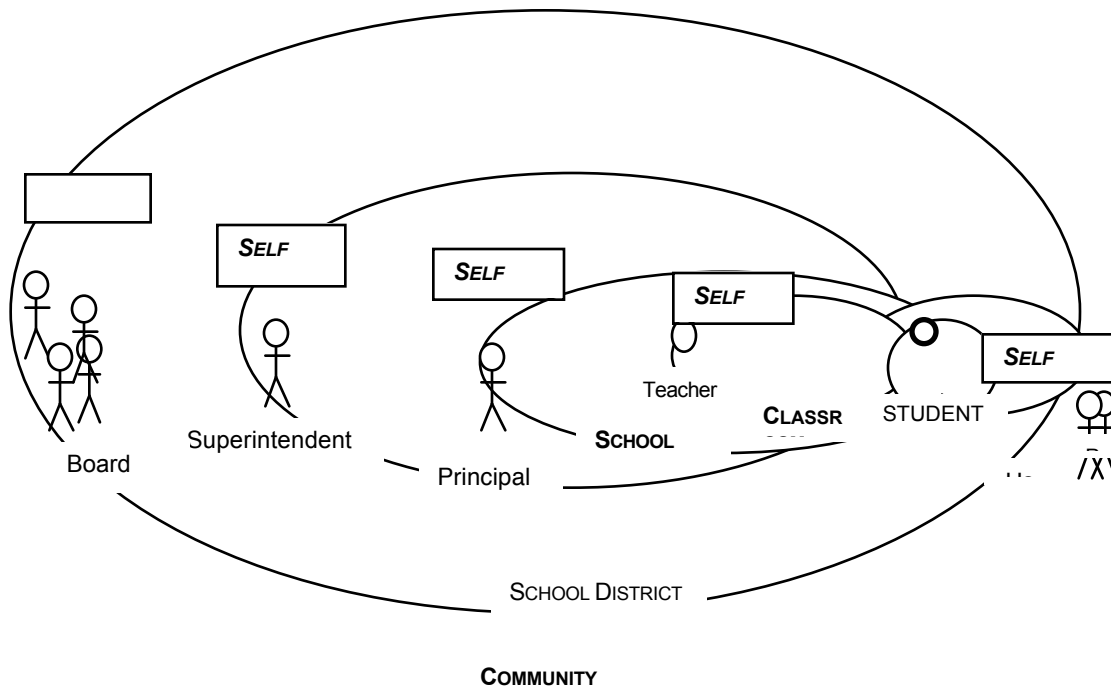
In schooling, everyone gets caught in the seemingly-opposing pulls of these two needs – teachers, board members, principals and district leaders. The way we have understood the problem has limited our solutions to ways that align to the job standards of *individuals*, not to the roles the *system’s* performance requires regardless of who is in them.

Unfortunately, organization charts display *jobs*, not the roles the people in it must responsively fill if the *system* is to do *its* job. Here’s how the lens can support thinking about a more natural alignment of the “jobs” required to support the system “roles” that must be played regardless of who is in them.

.....

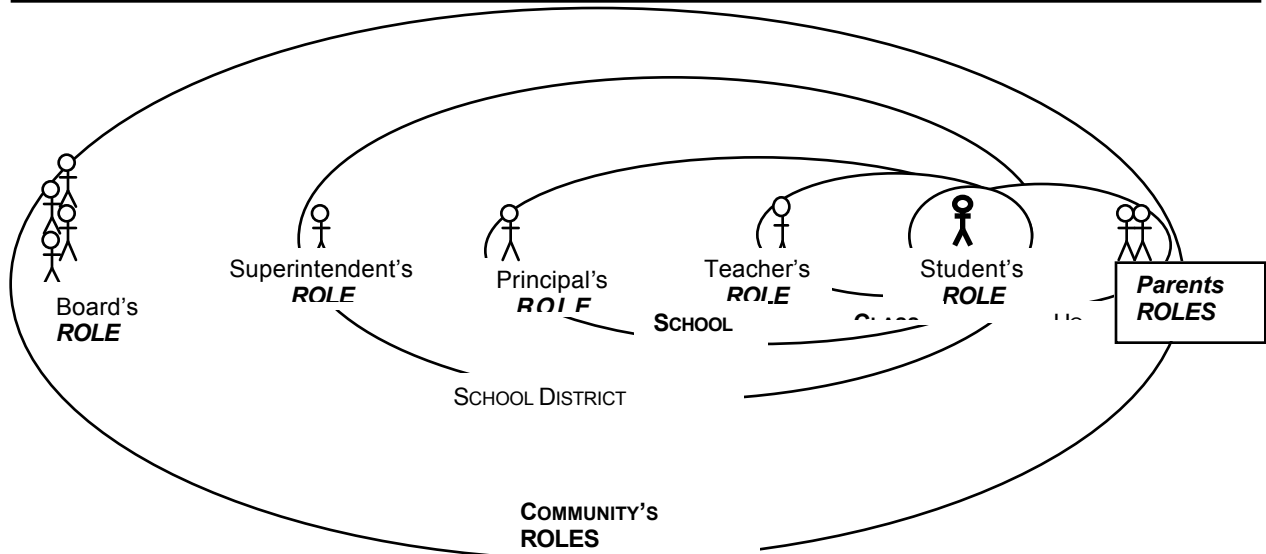
With brains and minds pre-programmed to seek *meaning*, two forms of meaning must be taken into account – *personal* and *organizational* – and how together they influence each individual action.

Personal meaning
 When thinking about the *personal meaning* of actions by individuals and organizations, each circle represents a *mindset* within which one continually determines how to *make a difference*.



Organizational meaning

When the shell is used to think about the systemic meaning of decisions we are now looking through the lens of a *role map*. We see people's functional *roles* in the system as opposed to their individual *jobs*. These are roles that *must* be performed regardless of who is in the job.



- When used as a “personal” map, it can (like a traditional organization chart) still address the system’s need to determine “jobs” that perform the work tasks that need to be done and where. These determine what the system sets *competency* standards for, hires for, supervises, and evaluates.

- When used as a “role map,” it portrays the *roles* (regardless of individual *competencies*) that comprise the system’s *capacity* to accomplish its purposes, and sustain itself. These “Roles” are determined by the priority of *demands* the immediate context places on the work to be performed. Roles are usually *responsive* in nature and played out within constraints of limited *time* and *information*.

Because the role map portrays a more *natural* alignment of “jobs” it makes it possible to “see” the connectedness of the system’s sustained “roles” (where the dots need to be connected), and the need to build on these links to support the disconnected “jobs” many people currently are held accountable for performing.

It also offers a more appropriate template for envisioning the “structure” of work before “restructuring” it. In many ways it offers leaders a missing dimension of “Vision.” Everyone knows about the importance of vision as the attracting “light at the end of the tunnel.” This provides a *vision* of the present system as the light at this end of the tunnel – the starting point for any change. And it’s a picture in which everyone can find their place.

That’s important because to perform your *job* you need to know what to do and how to do it. To perform your *role* effectively you need to know the fit and interdependence of your job and all the others in the system. And have ways to tap into it.

QUESTIONS TO THINK ABOUT:

If one “map” can be used to raise questions about how *each* person in the system can get personal meaning, joy, and satisfaction from accomplishing the purposes of their work... and the other “map” can be used to raise questions about how the “*system*” can organize and support that same satisfying work as part of accomplishing the *system’s* purpose:

- *How can the answers be integrated into systemic operational strategies so that the system's daily work accomplishes both?*
- *Who in the system is accountable for supporting the common, problem-solving nature of responsive roles? Where in the system does the process support come from?*

Another way to think about “jobs” and “roles:”

Jobs are systematic requirements – they encompass the tasks that the nature of the *work* requires. In one sense they are *externally*-driven by the needs of the system's work. And systematic processes to reward and punish “performance” may seem like logical motivators.

Roles are systemic requirements – what the *context* of the work demands must be dealt with (often first.) To a great extent, they are *internally*-driven – by will, and capacity.

What *systematic* processes might meet the need to *systemically* engage *will* with *way*? That is, support the needs of individuals to make a difference through their work. Or, as Joel Barker once characterized it – to connect “promises with pathways.”

WHERE ANSWERS TO THESE QUESTIONS CAN BE FOUND IN MCPS:

Without using this term, MCPS has been creating the functional components of a “*Role Support System*” that is serving as the scaffold for their work at all level of the system. Its common nature is that of a *collaborative problem-solving process*.

The mutual understanding emerging from this process has eroded the traditional barriers to trust and communication between policymakers and staff, and between unions and management. Today, at their Board meetings Board members often sound like union leaders in their concern for needs of staff. And Union leaders sound like Board members in their concerns for the needs of other dimensions of the system. Moreover, the presidents of the three employee unions are part of the districts management team.

The major story of how this larger process developed from some initial experiences with Interest-based bargaining, and how it has become a major tactical support strategy will be accessible at the website.

NEW UNDERSTANDING: THE X-FACTOR AT WORK

How can it be possible that there is a flaw in the core theory of the “work” we see taking place in schools every day?

As veterans or victims of almost universal schooling experiences, how can we not understand what the work of learning and teaching is about? Or is that the problem? Have these experiences left us with flawed beliefs? Is this what Peter Drucker was describing when he said:

“when previously successful organizations are facing a ‘what to do’ dilemma... (and) find themselves ‘stagnating and frustrated, in trouble and, often, in a seemingly unmanageable crisis,’ the root cause of the apparent paradox is that the assumptions... that shape any organization’s behavior, dictate its decisions about what to do and what not to do, and define what the organization considers meaningful results ... no longer fit reality.”

Peter Senge¹⁷ describes that reality.

“ We are failing our children. ...Many confronting the deeper nature of our problems cry out that the solution lies in “fixing education.” But you cannot “fix” a structure that was never designed for learning in the first place.”

How can that be true? Senge goes on to cite the consequences of this “design error” for children and the adults they become.

“The young child learns very quickly that school is not about *learning*. School is about avoiding mistakes. School is about gaining approval and avoiding disapproval. These are the same lessons the first time worker learns. Don’t screw up, do what you’re told, if something is screwed up make sure you don’t get blamed, at all costs look good.

This profound mismatch between our intrinsic drive to *learn* and our institutions’ drive to control thwarts the continual unfolding of our natural curiosity, capacity for invention, love of experimentation, sense of wonder, sense of connection.

At some level, the scars are equally severe for those who “succeed” in the “education” system as for those who fail. The “winners” have so much vested in what they know and in “being right” that they become, as Harvard’s Chris Argyris puts it, “smart people who cannot *learn*.”

They populate the highest ranks of our organizations and reinforce the predominant norms of looking good, being right, and staying in control. The “losers,” and evidence suggests that in their own minds these are really the vast majority of young people, simply become lifelong failures, labeled by society and themselves as not able.”

As suggested earlier in this paper, we are caught up in an Escher-like cycle of that locks us into endlessly believing what we see and then seeing what we believe in schools. The way-of-seeing offered by this lens if applied to the “seemingly unmanageable crises” Drucker cites and the “designs” we accept whose consequences Senge cites may help to question the assumptions at their roots. For example:

- At the center of this worldview is a simple level of understanding of the *brain* managing a *biological* process of interactive exchanges that converts information from external experiences into useful internal nutrients the *mind* needs for growth.

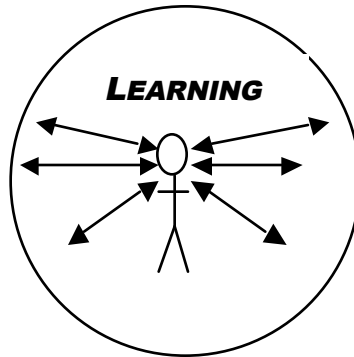
Once one can accept that “simple” truth, then the “rest of the educational story” also is simple and has to do with how those essential interactions are supported.

- With a child’s mind pre-wired to *learn from interaction* at its center, it becomes a little easier to see how the “system” influences those that manage the immediate environment with which that mind interacts and learns.

Once one accepts that first belief about this “given” nature of the territory that is the workplace of schooling, then its three “work processes” can be aligned to it.

¹⁷ Foreword to *HOW YOUR CHILD IS SMART* by Dawna Markova (1992)

Learning can be understood as a product of interaction.



Teaching – If each child’s learning is a product of his/her *interactions*, and the most significant *inter-actors* are those adults who care about them -- teachers and parents – then...

Teaching is a process of providing the opportunities for those interactions, and access to the information that informs them.

The *quality* of learning can be understood as a function of the *frequency* and *relevance* of those interactions. (While this is not new information to anyone close to teaching -- effective teaching has always been a process based upon managing interactions appropriate to the needs of *each* child -- it points to the flaw in education’s current “Theory-of-the-Business” which doesn’t believe it is possible.)

Consider that, in *any* field of human endeavor, it is *informed interaction* between the “worker” and the object of the work that engages the human mind’s natural trial and error way of solving problems and achieving purposes. At the “end” of that process, the “quality of results” -- the match between intentions and outcomes, between needs and results -- is directly dependent upon the frequency of that interaction and its appropriateness. And “appropriateness” is shaped by the knowledge that informs it.

Industry calls that critical, quality-producing interaction the “*moment-of-truth*” -- the choices made by the last person on the “line” that fulfill or diminish all those decisions from “above” that went before. In medicine they call this type of informed interaction “sound diagnostic/prescriptive” health care. In education, it’s known as the common sense essence of good “teaching.” But it is not the common sense of common practice.

Schooling -- The effectiveness of these caring adults depends to a large extent on the *information and support* that enables them to make decisions and take actions that are *individually responsive to that child’s needs and requirements*.

-- *School system leadership and management* creates and sustains the *interactions* that support and inform the work that supports the *interactions* each child’s individual learning process requires.

• But wait...if it is really that simple, why haven’t knowledgeable advocates of *brain-based learning* been able to integrate new knowledge of the human *mind’s* inner workings into practice?

They already “know” that:

- Knowledge is *constructed* from the inside, not just “inserted” by external sources.
- Starting in the womb and continuing throughout the life span, our mind seeks *meaning* out of the *challenges* we confront.
- It strives simultaneously to understand the world and ourselves from our *interactions* with the surrounding environment.

- It takes in information and *connect it to what is already known* as we construct new knowledge and skills.
- By testing these *new capacities* through *continuing interaction*, it increases the capacity to act intelligently and solve problems.

With that essential core of knowledge, why should it be so hard to find meaningful ways to integrate it into the instructional process at a scale that makes a difference?

What this lens reveals is the paradox created when one tries to apply this critical knowledge about human learning to children, ...but not to the adults who interact with them.

“*Brain-based Learning*” has been addressed as an “instructional” concern. It’s been difficult to see it also as a condition of *everyone’s “work.”* But as the Harvard Business School’s Shoshana Zuboff notes, the nature of today’s work requires that workers be learners, and managers teachers in the sense that they must create settings in which the worker can learn from his/her work.

QUESTIONS TO THINK ABOUT:

- What does the system have to have in place in terms of roles -- and relationships among those roles -- to ensure that each child is plugged into that basic connecting infrastructure? This is no more than what we expect when we enter a hospital to ensure that diagnosis and prescription responds to one’s individual needs and not those of others in your same age cohort or in the same “ward.”
- Who are the people who right now can fill those roles and relationships in the school life and its related surroundings?

WHERE ANSWERS TO THESE QUESTIONS CAN BE FOUND IN MCPS:

Through this lens its possible to understand how MCPS has aligned itself through processes that help them ask the right questions, and then support finding the appropriate answers to them at each level.

This is most evident in the ways they’ve used what is thought of as the “Baldrige” process to create a common language and culture for thinking about continually improving their work. Among the stories that will be accessible about their approach, is one about how one elementary principal merged the arts with quality tools as a way to develop students’ sense of efficacy as they co-managed and took responsibility for their own learning.

The assets/strengths they relied on by engaging in the arts merged with the *co-managed* learning-teaching model emerging from the Baldrige involvement.

If learning is product of interaction, here we could see how student’s can directly experience “making a difference” in something, and continually improving their capacity to do it.

And when observers began to think this was a model for “arts integration,” and the state called it a model for arts integration, the principal quickly pointed out that “*This wasn’t about “arts integration” -- it was a “management model” for all instruction.*”

[See also -- MAKING SENSE OF THE BALDRIGE -- A View from 20,000 feet)

New Understanding: The Zen of data-driven decision-making

“Leaders of the past needed to know how to *tell*.
Leaders of the future will need to know how to *ask*. ” Peter Drucker

Schools across the country are diverting their critical resources of teaching time, focus and resources to collect “data” to respond to the questions of policymakers and others outside the classroom. The pushback that NCLB has encountered is a consequence of that externally-driven question answering process.

These “outside” learning requirements are driven by needs to make appropriate, large-scale personnel and resource decisions that must support effective teaching and learning in classrooms, buildings, or districts. Because of their quantitative dimensions these decisions are “risky.” So, as society tries to respond to today’s changing educational conditions, the collection of data to feed their learnings have become the focus of major unquestioned, institutionalized processes such as *testing, assessment, supervision, evaluation, and accountability* with major information and reporting “systems” constructed to meet these “external” needs. Without these, they feel they have no valid ways to get information they can trust.

QUESTIONS TO THINK ABOUT:

With the current popularity of *information explosions, information superhighways, knowledge management, and learning organizations*, it becomes important to consider the particular power of one type of information. Modern America has become a feedback-driven society. On a daily basis, political candidates adjust their strategies depending on the previous night's polls; economists rise and fall based on their interpretation of monthly economic feedback; modern managers constantly scan their operations to gather the data to “work smarter.”

Educators, too, as feedback-driven practitioners, have similar needs for continuous self-correction, and for support to modify and adjust their actions. Unlike the rest of society however, their organizations lack adequate means to generate, make accessible, and use functionally that critical form of information.

Why?

WHERE ANSWERS TO THESE QUESTIONS CAN BE FOUND IN MCPS:

There is something Zen (or Akido)-like in what MCPS did. They turned the data-sucking force coming at them by taking control of the questions.

This switched the extrinsic accountability question from “*Did they do what they said they’d do?*” to the intrinsic: “*Did we do what we said we’d do?*”.... and if not “*How do we improve the doing?*”

In a very short time, people at all levels of the system seem to have accepted the principle that the school system’s ongoing improvement efforts are designed to address *Four Essential Questions* that are driven by *student performance data*, but which are intended to develop understanding of why there may be gaps, and then what to do about it.

1. What do *students* need to know and be able to do?
2. How will we know they have learned it?
3. What will we do when they haven’t?
4. What will we do when they already know it?

This core of common understanding has effectively brought “continual improvement” out of the realm of a external strategy --to be *deployed down* the system -- and made it an intrinsic part of the district’s work from classroom to boardroom.

This common language and base of knowledge now supports a common way of understanding, not just how to “improve” the district’s work, but the management of that *work* itself – which is *instruction*.

The rapid acceptance of this thinking framework may be explained by the fact that people are intrinsically wired to learn from their own actions, and these questions focus that learning. That’s why the *PDSA* concept has become part of the common language used from the classroom to the boardroom. Interestingly, they keep calling *PDSA* a concept they learned from Baldrige, ...but the Baldrige people say they got it from Deming, ...who said he got it from a mathematician named Shewhart... who claims he got it from John Dewey — the father of *learning-from-experience*.

Also, if one believes that the most meaningful “answers” have to be informed by those closest to the work, then MCPS’s experiences so far illustrate how a central organization’s *power* lies in structuring and extending the organization’s common questions, and providing common access to the “data” needed to develop situationally-appropriate answers.

This is the essential ingredient that the *Baldrige*–related planning process created. Along with its tools like the *PDSA* that served as a question-driving engine.

For MCPS taking control of the “data” has become a key learning organization strategy. They are accomplishing this by institutionalizing the questions in processes. They have creatively developed or adapted tools and processes that can generate the data and information people need to answer them. And the consequence seems to be the desired results-producing changes in sustainable practice.

(see also –

LEARNING FROM *TEACHING*: The MCPS as a *System of Learners*),

Essential Questions + 4

and *Systemic Governance* section.)

(To be continued at website)

6.

WHAT WOULD ____ SEE?

***“Leaders of the past needed to know how to tell.
Leaders of the future will need to know how to ask.” Peter Drucker***

This section asks the question:

What would theorists and practitioners -- whose ways-of-thinking were *already* framed by a mental model structured by the same simple principles embedded in the lens -- see in what the lens reveals about the ways that the MCPS has been functioning systemically for the past nine years?

To answer that question, we will take excerpts from writings and interviews of theorists and practitioners that reflect how they see the world and use them as screens for looking at what this school system has been doing. These include:

- Theorists and observers such as Drucker, Senge, Wheatley, Deming, Covey, Jim Collins, John Kotter, Tom Friedman, Joe Jaworski, Robert Quinn. And
- Practitioners who have the experience-based wisdom developed from the system leadership role of CEO, like Jeffery Immelt, Jonathan Tisch, Robert Forest-CEO Corning, Jim Sinegal-Costco's CEO, Thomas Stewart, Craig Barrett-Intel CEO, Greg Merton.)

This section has a threefold rationale:

- First, to show that our society already knows enough to transform America's schools IF it could see the ways that the work of school systems was the *same*, not different, from the work of the organizations of other sectors.
- Second, to empower these thinkers “followers” -- who already accept their holistic ways of thinking and understanding -- with the knowledge that it is *possible* to connect that thinking to holistic, practical systemic actions in the organizations called schools. And
- Third, I believe that many of the most important “customers” for this “knowledge” may be CEO's in the private sector. This view is supported by Joe Jaworski's beliefs that the organizations of the private sector can, and must, play a leading role in the needed transformation of all of society's organizations; and that the CEO who has transformed his or her own organization can play a key role in the transformation of others. They can play a key role in shaping the community understanding required to support sustained systemic leadership of schools.

We'll use Jim Collins as one example here. The rest will be accessible at the website.

Mentioned earlier was the wisdom of the Sufi - the ancient people whose parable “*The Blind Men and the Elephant*” captures so well the holistic nature of the problem of organization-fixing -- who also had another saying that goes to the nature of the “blindness” of those whose understanding of the whole is comprised of the “sum” of its parts.

*You think you understand one.
You think you understand two, because one and one make two.
But, you must also understand "and".*

Centuries later management researcher, author of “*Good to Great*” and “*Built to Last*” (BTL) would frustratingly discover the same thing.

“I’ll tell you the one thing I have been incredibly frustrated with, though. Probably the thing that is most -- what I’ve had to most hammer into people, what people don’t get as easily -- is that the BTL ideas are very much about the “And.”

One of the things that really has frustrated me has been peoples’ perception that BTL is about preservation, conservation, stasis, stability. To be built to last, you have to be built to change. And we always said that. If you read chapter four, where we introduce the most important law of physics to come from this book, the most important chapter of this book. Preserve the core and stimulate progress. You can have the most deeply cherished and meaningful core ideology, but if it just sits still or refuses to change, the world will pass it by.

And we even talk about IBM in its time of trouble. We believe IBM began to lose its stature in the early ‘90s in part because it lost sight of this difference that you need both sides of the coin. The crucial thing is that you need -- hand-in-hand with that preserving of the core --is this absolutely relentless, pounding, ferocious, neurotic, passionate drive for progress.

They’re anything but stasis. I’ll share with you a very interesting little thing. Turns out when you study religious institutions, there’s a very interesting thing, say a theological seminary. You ask yourself the question, which theological seminaries are better able to change? It turns out that it’s the conservative ones. You ask yourself, why is that? It’s because they have such clarity of their conservative values that they’re more easily able to change all their practices. Because they’re very clear about their values as an anchor point.

So, if you were to say what I have learned since BTL, it’s that people didn’t get the “and.” People will say, “Well you know, it’s a new world that’s changing, you have really be able to embrace change.” And I’m like, “funny, we wrote six chapters on that. I don’t understand.”

It’s preserve the core and stimulate progress.

What preserve the core/stimulate progress does is create an institutional set of processes that map to a very, very deep primal human distinction: our need to believe and our need to create.”

The “Strategic *Management* process” we’ve observed functioning in MCPS is all about the “ands” that connect the work that takes place in school systems. The seemingly-disconnected work of students, teachers, principals, service staff, central staff, superintendents, and board members.

And it seems to be built from the two common principles that Jim Collins finds driving “Great” individuals and organizations – they are *internally driven* and *externally aware*. The sustainable set of institutional processes they’ve created are driven by their beliefs in the possibilities of children learning. They continually ask, and know the answers to three questions:

1-What is really driving us internally? (This lens suggests that the core drive is to *make a difference* – individually and organizationally.)

2. What is the truth about the outside world? – How does it operate? And how is it changing? (Look at the opportunities for *interactions* they have regularized to keep this truth current.)

3. Where the two intersect, what can we uniquely do? (What processes regularly bring current awareness to the collaborative problem-solving table in ways that engage their internal drives? Here’s where the role support scaffolding plays its most critical role.)

(To be continued at website)

***“To raise new questions, new possibilities,
...to regard old problems from a new angle
... marks real advances in science.***

Albert Einstein

7

Joining the Learning Journey

Ironically, the journey this story has attempted to capture has its own *yin/yang* paradox. On the one hand it's fed my own biological/psychological need to experience the *Ah-ha's* Deming rightly labeled the “joy of learning.” But, on the other, along with them came the *Oh-no's* created by the frustration of seeing what could be possible now without having to wait until there was more funding, more perfect teachers, and more time.

And as I suggested at the beginning, it can get lonely at *20,000 feet* learning alone, and I had concluded that I needed *thinking partners*. Having reached the “territory” I was seeking, the task now was to better “map” it. To develop maps that fit the territory by tapping into the daily work experiences of others and making sense of them through this lens.

Actually, I knew from my experiences over the years that I really wasn't alone. There were effective leaders and others “out there” who (as the superintendent wrote to me in 1991) thought they were the “*only one(s) who saw the possibilities.*” But if the path to *thinking* differently required *believing* differently... and belief change was a product of *learning from experience*, then there had to be a more effective way to surface those experience-based learnings so others might learn from them.

This is especially important in education because the experiences that generate the knowledge of “system leadership” have been limited to the few who “rise” to those positions. Most of us experience our containing systems as the Elephant's Blind Men did – through our contacts with its parts. And in education this generated a vicious cycle. We keep throwing out the babies with the bathtub.

Consider: Today, the need to “do something” about the needs of children, especially in large, urban areas, has boiled to the top of the social and political agendas. And with it, the almost total frustration with educational practitioners who *don't* change. But consider what may be the primary reason why they *can't*.

The shelf-life of a superintendent/CEO is now around 3 years. Hired for their *vision*, they are fired when they can't quickly translate it into action. And every time one leaves, the vision of the “bathtub” – the containing system that framed their thinking and actions – goes with him or her. Deming was right about the role and importance of the “system leader” and the need for “continuity of leadership.”

Yet, what I was “seeing” happening in a large, major school system – and which I knew was happening to some extent in other places -- suggested that we already “know” enough to address that condition... but don't always know we know it.

That's when I decided to create a space for thinking partners who also want to accelerate this learning journey so that *all* schools can tap into their inherent *natural* potentials to make the differences in the lives of children that they both need and want to. Therefore, earlier this year I reserved a space on the web – ***sabusense.com*** – and if you've read this far, and are old enough, you may be interested in why I chose “Sabu” to be the metaphorical guide at this point in this sense-making journey.

One purpose of this site is to help those who can't *make sense* of the myriad conditions that children, parents, teachers respond to today, and may not know why it is so hard to do. They struggle to get their minds' around them...because they must act.

And to do this they try to *get-out-of-the-box...*,
...shift their paradigm...
 and ... *Connect the dots...*

For those who are seeking understanding of that nature we are offering the possibility of "connecting-the-dots" by *Making Sense... Sabu's way.*

Who was Sabu?

A fictional character with a unique way of making sense of whole "elephants."

Unlike the "Blind men" in the Sufi parable, he could see the whole elephant, and had enough experience with it to know how to make it work with limited resources -- only a light prompt with a small stick and the "food and water" the elephant needs to maintain its capacity to survive.

This was because Sabu was a prime example of what W. Edwards Deming termed a *system leader* and what modern organizations call a *CEO*.

Best known as the "Elephant Boy" in a series of 1930's films, Sabu was a "leader" of elephants who had a simple way to make sense of the elephants he led that gave him a distinct advantage over the six individuals we know from the famous "*Blind Men and The Elephant*" parable.

Specifically, his beliefs and assumptions about those elephants were based on what he had learned from his *direct experiences* with elephants.

Therefore, Sabu's leadership role was "simpler." The elephant/system he saw was the one he had to deal with. He never questioned that he was always dealing with a *whole elephant*, because he had no choice. It was always a single bounded entity (we might describe today as a "coherent system") whose parts and processes were connected (even if he couldn't see how.)

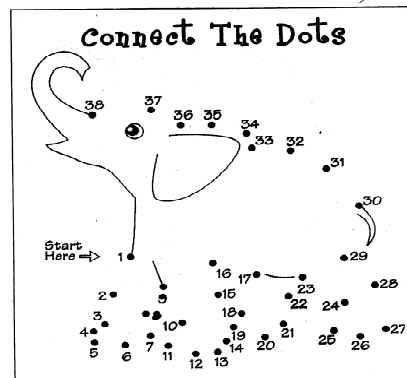
To him "*everything's-connected-to-everything-else*" was not an expression of frustration, but a fact. While an understanding of what we today call "Systems Thinking" and "System Dynamics" might in the end enhance his work, he always had to deal with a "whole elephant." The "elephant" was the fundamental unit-of-management he could affect and change. The only one within which growth and development could take place... if he could discover how to facilitate it externally.

On the other hand, the *Blind Men's* assumptions about the shape and nature of the same elephant, were obviously, limited by their blindness (or actually their "blinders"). They had no way to step away, as *Sabu* could do, to see and experience the "whole elephant" as containing boundary of their "system."

Therefore the focus for their personal understanding had to be on the "part" for which their work made them *hands-on* accountable. The smart ones may have intuited (usually from their largely negative experiences) that there was a "system" out there that seemed to constrain their effectiveness, but the focused blinders of their daily work requirements didn't allow much time to understand it. And their experiences most likely taught them that they lacked the authority and resources to fix it anyway.

Sabu's advantages:

- Planning of any trips he had to take always started with the "system" as a *given*, not a future state.
- He recognized (having learned it from experience) that the elephant had a *mind of its own* – that was naturally "programmed" to help it survive.



- He figured out (again from experience) that his “leadership” role involved linking the naturally-driven will and capabilities of the elephant to the work he wanted the elephant to do.

Sabu’s disadvantages:

But he still wasn’t seeing the “whole elephant.”

Both *Sabu* and the *Blindmen* -- like their fictional peers the *Tin Man*, *Lion*, and *Scarecrow* -- were missing something important. They lacked a *CTscan* of an elephant that could have helped them understand its internal connectedness. Intuiting the *everything’s-connected-to-everything-else* connectedness of an organism or organization is not the same as understanding the *nature* of that connectedness, and then how it enables the “whole” to survive.

And this is where I am now. I have a site and some initial intentions for its design (below.)

For those who want to think further about the implications of this way-of-thinking for the work of people in organizations along with me, I’d like to invite you to join in on this journey-in-progress.

Purposes: I would like this site to (1) introduce the different *way-of-thinking* that the lens supports, (2) then serve as a container for developing understanding of this alternative to the hierarchical pyramid as a way to picture an organization as a work setting. And (3) develop understanding o its consequences for the seemingly intractable problems of present-day schooling (and other organizations).

What I’d like it to offer:

- Initially present the logic and nature of this lens as a logic model or paradigm – A way to see human “systems” (individual and social) *doing what comes naturally* -- and the *new questions*, and *new possibilities* that emerge from it.
- Provide access to articles and writings and research that “makes sense” from this same perspective.
- Support a blog dialogue for each of the *New Understanding* thinking products identified in section 5, as well as other current issues and relevant events that might be understood differently when viewed through the lens.
- Provide links to relevant sites or articles. Especially those by observers of effective organizations such as Drucker, Jim Collins, etc. whose simple rules or principles for framing their understanding match those ground into the lens.

As this effort roles out over next few months, I’d like your reactions. In particular, I need to understand the meaning of the way-of-thinking presented in this *Thinkpiece* for you.

- 1) In what ways does it contribute to understanding *why* things have worked or not worked for you?
- 2) What possibilities for actions that might not have seen before did it help evoke?
- 3) What experiences have you had that might help people begin to draw organizational *maps* that reflect the *territory*?

Lew Rhodes
October 2008

“...America already knows enough to fundamentally change the ways schools function. The problem, instead, ... is that our society needs to look at its schools through a *different lens*. ...Without a sense of the *whole*, we end up with what has become a familiar cycle of patchwork improvement and disappointment.”

Using What We Have to Get the Schools We Need:
A Productivity Focus for American Education,
(The Consortium on Productivity in the Schools, 1996)

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Lewis A. Rhodes' career as association executive, consultant to federal and state government, director of national projects for foundations and government, private sector consultant, and as university faculty member has centered on problems that arise when people try to work together effectively in organizations. In recent years his efforts have focused on issues of systemic leadership and management for schools and other community human service organizations.

Currently he is a principal of *SABU, Inc.*, offering *thinking partnerships* that deal with problems of organizations as coherent, connected systems. This work integrates principles of *collaborative knowledge-building* and *quality management* with *information technologies* to develop sustainable infrastructures that can support schools as they transform from organizations of *natural* learners into *natural* learning organizations.

- In April 2007, his 1993 article "**Is There a Standard for Meeting Standards?**" was included in [The Last Word: The Best Commentary and Controversy in Education](#) co-published by Education Week Press and Jossey-Bass.

- He was a member of the 1996 Board of Examiners for the Malcolm Baldrige National Quality Award; and worked with W. Edwards Deming to develop the *AASA Total Quality Network*. He served as an active participant in the transnational *21st Century Learning Initiative*, and on the Board of the *Pioneering Partners Foundation*. Currently, he is a member of the Editorial Advisory Board for the higher education futures journal, *On the Horizon*.

- As Associate Executive Director, Instructional Leadership and Technology for the American Association of School Administrators, he provided leadership in systemic issues related to learning and instruction culminating in [Connecting Leadership & Learning](#), a major strategy paper for AASA's *Center for Connected Learning*; and the video and publication [Schools That Make Sense](#) -- which presented a new paradigm for systemic school system change that linked the continuous knowledge-building needs of students and adults in schools.

At AASA, he helped develop the highly successful series of workshops on [District Leadership for Site-Based Decision Making](#) with the collaboration of the National Education Association and the American Federation of Teachers; led development of the vertical [Instructional Leadership Team](#) training program that was implemented in Iowa and later in Illinois and Massachusetts with support from the Motorola Corporation; conducted a research study for NSF -- [Education's Connectivity Crisis](#) -- documenting the roles information technology can play in re-aligning and reconnecting isolated knowledge-workers at all levels of school operation; and developed the Aspen Institute invitational seminar - [Learning, Technology, and Systemic Change: Seeking New Connections](#), co-sponsored with Northern Telecom Integrated Community Networks Group, which explored and began mapping a new conceptual model of the community-as-system.

- Prior to AASA his efforts -- as Assistant Director at the Association for Supervision and Curriculum Development (ASCD), a faculty member at Central Michigan University and the University of Nebraska, and project director for several national research, training and technical assistance programs -- similarly focused on problems of communications and management in education and other human services. During the 1960's he directed the Ford Foundation's *National Project for the Improvement of Instruction by Television*. In the early 1980's he developed the US Department of Education's *Project BEST* (Basic Educational Skills Through Technology).

- He has served as consultant to the U.S. Department of Education, Secretary of Health and Human Services, National Institute on Drug Abuse, National Endowments for the Arts and for the Humanities, as well as numerous state and local education agencies.

- His experience as an organizational development consultant in the private sector includes Director, Communications and Training for Applied Management Sciences, Silver Spring, MD (1976-83); Coordinator of Corporate Communications Metropolitan Group Companies, Washington, D.C. & Minneapolis, MN(1975-76); Vice President, E.F. Shelley & Company, Inc. Washington, DC & New York, (1968-75).