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PARADOXES IN THE PRESENT PARADIGM

"What we need when confronting a problem or a predicament is not a quick action based upon a glimpse, but rather a careful consideration of all the issues involved, no matter how paradoxical or absurd.

Such a process can lead to a new perspective on the nature of genuine leadership. "Doing" should follow thinking, even though that thinking may make us uncomfortable because it is riddled with so many paradoxes and dilemmas."

Richard Farson
Management of the Absurd
1996

A.   Paradoxes (and the questions they raise)

> "The opposite of an ordinary fact is a lie. But the opposite of one profound truth may be another profound truth."
> *Neils Bohr*

Today's critics accurately focus their anger at lack of change in the basic workings of schools, but they are completely wrong about the reason. They believe that educators *won't* change, the sad truth is they *can't*. With a work setting so fragmented that new knowledge about what really works falls through the "cracks" between isolated practitioners, whatever the organization may learn from its attempts to improve and "change" cannot be sustained.

This is only one of the *paradoxes* -- situations that seem opposed to common sense -- that run throughout education in America today. Most paradoxical of all may be that many of them are not seen as paradoxes, but seem to be accepted as the way schools are supposed to be.

Outside of education, organizational observers have noted that paradoxes are not problems, but dilemmas that may be masking hidden truths about what is going on. Today's school leaders are not alone in confronting these fundamental dilemmas. From Einstein on down these experts have pointed out that conditions like these seldom can be solved or managed away from "within-the-box." They require re-thinking beyond the edge of conventional wisdom. And because the ways we think are shaped by what we believe, they most often require challenging underlying beliefs. Peter Drucker calls this a "*what to do*" dilemma.

> "…previously-successful organizations find themselves stagnating and frustrated, in trouble and, often, in a seemingly unmanageable crisis.… And it happens just as often in public sector organizations as businesses." People blame sluggishness, complacency, arrogance, mammoth bureaucracies. But "the root cause of nearly every one of these crises is not that things are being done poorly. It is not even that the wrong things are being done. Indeed, in most cases, the *right* things are being done -- but fruitlessly.
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> What accounts for this apparent paradox? The assumptions on which the organization has been built and is being run no longer fit reality. These are 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. …They are what I call a company's *theory of the business*."
>
> Peter F. Drucker, "The Theory of the Business"

Questioning basic assumptions underlying modern society's ways of organizing and taking effective actions has become a universal survival requirement. But questioning seldom-surfaced assumptions and beliefs is not an accustomed, nor easy response as Charles Handy notes in *The Age of Unreason:*

> "Information, knowledge, and understanding form a hierarchy. …Information is *descriptive;* it is contained in answers to questions that begin with such words as *what, which, who, how many, and where.* Knowledge is *instructive;* it is conveyed by answers to *how-to* questions. Understanding is *explanatory;* it is transmitted by answers to *why* questions.
>
> …One can survive without understanding, but not thrive. Without understanding one cannot control causes; only treat effects, suppress symptoms. With understanding one can *design and create the future."*
>
> *Russell Ackoff, 1984*

"We are all the prisoners of our past… "It is hard to think of things except in the way we have always thought of them. But that way solves no problems and seldom changes anything. It is certainly no way to deal with discontinuity. We must accustom ourselves to asking, "Why?" of what already is and, "Why not?" to any possible reframing. It can become a useful game."

As long as education's paradoxes remain unexplored -- i.e., without understanding the assumptions and beliefs upon which the differing views are based -- there is little chance that today's schools can take advantage of the present knowledge and understandings of learning, teaching and effective management that can support practices that do make sense, and which are readily applicable to conditions in American education today.

As Drucker and Handy suggest, making sense of what is happening to, and within, America's schools can begin by questioning paradoxes such as those that follow which have been accepted as part of education. We must ask *"Why?"*; and then to take advantage of today's available knowledge and tools, begin to explore *"Why Not?"*

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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? Seymour Sarason noted this condition in 1990:

> "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. . . . 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."
>
> The Predictable Failure of Educational Reform:
> Can We Change Course Before Its Too Late?

And those within the system seem to fare as poorly. A meeting of national reform projects that met in 1990 to assess their relatively slow progress at meaningful improvement complained that "Everything seems connected to everything else, and little of it to learning." There was general recognition of the need to have a common framework and vocabulary for understanding schools, but they clearly had little sense of how all those mutually influencing "connections" fit coherently inside of a bounded, manageable system.

Even the US Department of Education conceded in July 1991:
> "Agreeing on a set of measures to describe the health of the education system requires broad consensus on how the various pieces of the system fit together. That consensus is elusive and certainly does not exist at

present. The greatest obstacle…(is) the lack of agreement on a conceptual model of an optimally functioning education system."

One of the most interesting dimensions of this paradox is that the only system that is called a "system" -- a school district -- seems to be the one that is most difficult to understand <u>as</u> a system.

Why is there no common understanding of the educational "system" that has provided the organizational frame around the early learning experiences of most Americans?

PARADOX: MANY LEADERS APPEAR TO BE DOING "RIGHT THINGS," BUT IN "WRONG WAYS."

Today's leaders and managers do many "right things" in ways that make them seem incompetent. *Dilbert's* current popularity seems to support Drucker's observations of leaders who seem to end up doing many things "fruitlessly."

- *Why* are people all across society laughing at *Dilbert's* portrayal of organizational leaders?

- *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?

Is there something missing between <u>theory</u> and <u>practice</u>; between developing <u>policies for all</u> and implementing <u>practices for each</u>; between "<u>talking-the-talk</u>" and "<u>walking-the-walk</u>.?"

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. Since the Sputnik era of the 60's this has been a recurring pattern.

- *Why* can't proven better practices be sustained and spread -- and especially in the school system in which they are piloted?

- *Why* can't other schools in other settings learn from them?

- With all the funding that government, foundations, and now the private sector have been putting into teacher development for over thirty years, *why* hasn't anything significantly changed?

Why can't a system focused on learning …seem to learn?

PARADOX: IN GENERAL, TECHNOLOGY IN SCHOOLS IS SEEN AS A NECESSARY, BUT COSTLY, <u>END</u> IN ITSELF, SELDOM AS A VALUE-ENHANCING STRATEGIC <u>MEANS</u> 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.

In fact, schools are the only organized work settings in society where available technologies -- tools that enhance and extend what people can do -- are <u>not</u> applied to:
    -- increase their "workers'" productivity;
    -- provide overall organizational value that justifies its costs;

--   enable an operating infrastructure which supports the varied human roles and relationships that contribute to results.

• *Why* does the public expect technology to be applied differently in schools as opposed to other work organizations? For example, why is the availability of technology in schools largely dependent upon gifts, grants, and volunteer help -- and not part of the bottom-line operating infrastructure? *Why* would this be accepted in schools and not, for instance, in hospitals?

• *Why*, in other organizations, are the tools fundamental to conduct of the core, or primary, work of the organization part of *every* site involved in that work? In education, *why* does this seem to apply more to administrative offices than classrooms?

• *Why* would teachers be the only professionals in modern society to not welcome and demand tools that can provide them with "the power to be their best?" Teachers have as much, or more, education than peers in other public and private sector institutions; they are driven by a commitment to children that helps them endure conditions that would not be tolerated by other professionals; and many of them are technologically-literate outside the workplace.

Why wouldn't teachers actively seek out technology as a way to increase their impact on the children whose lives they touch?

PARADOX: *MODERN AMERICA HAS BECOME A <u>FEEDBACK-DRIVEN SOCIETY</u>. ON A DAILY BASIS, POLICYMAKERS ADJUST THEIR STRATEGIES BASED UPON YESTERDAY'S POLLS; PEOPLE BUY OR SELL STOCKS DEPENDING UPON REPORTS OF MARKET TRENDS; MODERN BUSINESSES CONTINUALLY GATHER DATA THAT ALLOWS THEM TO "WORK SMARTER."*

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.

In other human service work settings feedback of immediate data drives their work processes. The actions of medical personnel for example are determined by their continuing analysis of "vital signs" data. These are compared to established standards for health in order to identify where an individual's problems may exist, and then used to assess the effects of treatments. On-going collection of this vital data takes precedence over the organization's other accountability requirements.

• *Why* should schools be a work setting where the "vital signs" indicating what a student knows, and can do with that knowledge, is not available to the practitioner in time for use in their "treatments?"

• *Why* isn't this critical feedback from the interactions of the instructional process made available for identifying where to focus instruction next, and to continually adjust that instruction based upon actual results?

• *Why* is the gathering and feedback of instructional results driven instead by less frequent requirements for making judgments and comparisons, or determining the accountability of the larger organization?

What have we assumed about the work of teaching that makes it appear as if teachers do not need continual feedback about the effects of their actions?

PARADOX: *MANY OF THE PARADOXES THAT SEEM TO ABOUND IN EDUCATION ARE <u>NOT</u> SEEN AS PARADOXES... JUST AS THE WAY THINGS <u>ARE</u>.*

Why should there be so many paradoxes in American education?

B. Paradigms (and the questions they *don't* raise)

Something about the lens through which our society looks at schools contributes to these seeming paradoxes and to a growing sense that something is "wrong." It also makes it difficult to agree on just what that is.

For some today the problem is that schools are doing things "differently," for others that they are still doing things the "same." Some say the problem is that the schools' "products" don't have the skills society needs for a productive workforce (such as teamwork and problem-solving.) Others, see those same skills as barriers to learning the "basic content" of the 3-R's. For some the school is too controlling -- e.g., using grades to compare and punish; for others it is too loose -- unable to enforce discipline.

These disagreements are most disconcerting for some because many elements of America's schools still work well and produce good results. *"If it ain't broke,"* they feel, *"don't fix it."* On the other hand the public feels overwhelmed by increasing evidence of children lacking skills needed to cope in the modern world, children in distress, and children growing up with values and behaviors that threaten personal and community survival. Out of frustration generated by piecemeal attempts to help those children, some conclude that *radical* change is the only answer. "The old system must be destroyed before it harms more children."

But what and where is that "old system?" Broken or not, something about the lens that society uses to look at and understand schools serves as a blinder to understanding where to focus efforts to create changes that can be sustained.

<u>The power of the paradigm</u>

In the early 1990's, Kenneth G. Wilson, Nobel Prize winner in physics, and later co-author of <u>Redesigning Education</u> [1994,] was asked by the State of Ohio to study its educational problems. From his "outsider's perspective, he was able to see several significant paradoxes:

> "The research that I studied paints a far grimmer picture of United States education than I was aware of.
>
> Firstly, it showed that money alone cannot solve our problems. …some of the deep problems which afflict financially-strapped inner city schools are also found in Ivy League science departments, as well as in private schools educating the sons and daughters of billionaires. …these problems include the poor quality of texts and materials, the fast pace of the curriculum, the hopelessly inadequate advanced planning and preparation for classroom instruction, and inadequate assessment.
>
> But the real shock, for me, was to learn that the problems of educational reform have no known solution, for any price, despite centuries of thought.
>
> …Fortunately, I find the situation in current education can be characterized not as a hopeless mess, but rather as an outdated paradigm of schooling and school reform, just as *Copernicus* found that the earth-centered Ptolemaic model of the solar system was inadequate."

Wilson's citing of Copernicus is particularly relevant, for in many ways the accumulating paradoxes within schooling's present paradigm seem similar to those described by Copernicus in 1543:

> "... it is as though an artist were to gather the hands, feet, head and other members for his images from diverse models, each part excellently drawn, but not related to a single body, and since they in no way match each other, the result would be a monster rather than a man."

As Wilson and Drucker suggest, and Copernicus demonstrated, when something seems wrong with the picture maybe the problem is with the frame. Today these frames, often called paradigms or mental models, have become the subject of increased study because they are a paradox in

themselves. They have a powerful influence on actions, yet remain an invisible component of the ways we think. And that is the way it is supposed to be. A paradigm is a lens that allows us to make sense of what we experience seemingly "without thinking." This lens -- ground from our solid beliefs, and the assumptions that rise out of them -- makes it easier to solve problems in less time.

We don't require "new data" since we automatically draw upon what has been stored in our experience-based beliefs. This valuable short-cut, however, tends to limit us to seeing what we believe and believing what we see.

Copernicus' "new paradigm" for the solar system was not fully accepted at first because most people's lives or work did not depend upon it. Without a compelling reason to question fundamental beliefs, they could live with the paradoxes. But imagine, if you will, NASA with all of it present know-how, technology, and personnel trying to operate with the pre-Copernican mental model of the solar system. *They would do everything right, but seldom get where they wanted to go…and they wouldn't necessarily know why.* There is something about that predicament that feels familiar.

Maybe Wilson and Drucker are right about an out-dated paradigm or "theory of the business" serving as a blinder that prevents this generation from seeing the "system" that has been there all the time. If that is true and, as this paper suggests, the local school district is that fundamental unit for sustainable change, then systemic improvements would not have to wait until a "new" system is built. They could start with the system's components already in place, but not systemically connected. Increasing that system's capacity would initially involve understanding, creating, and sustaining connections so that a dysfunctional system could become functional.

C.   Defining the School *System*

But to start we would still have to "see" the elements of the system that is already in place, but in a different way. Copernicus, as we know, addressed this problem by using new scientific knowledge to question deeply-held, seldom-questioned beliefs that had developed from what preceding generations had directly seen and experienced. The most critical of these beliefs dealt with what was at the system's *center*. Accepting this as the sun rather than the earth determined the fundamental scope of what now would be understood as a *solar* system. This determined the outer limits of the system itself -- the boundary of the new paradigm, or mental model for understanding.

This newly framed lens, with the sun as it's reference point, then made it possible to see *different relationships* among its elements. These were relationships that had been their all along, and which had in fact been contributing to some of the paradoxes people had observed and accepted as just the way the universe was.

Similarly today, an understanding of the *system* that is already in place requires that we determine its *scope* (the sustainable boundary of all the elements that connect to its "center",) its *nature* (how it functions <u>as</u> a system) and its *essential properties* (what it can do as a system that its parts cannot.) How would elements that are already there appear to us if the system's center was now understoood as *learning*, not teaching?

Understanding the scope, nature, and essential properties of the fundamental core of schooling's learning-teaching system would seem essential knowledge for those today attempting to "scale-up" and sustain effective educational changes. But, as noted earlier, gaining agreement on what we can "see" before us has not been easy to come by. Two metaphors may help illustrate why it has been so hard to develop this key knowledge.

Elephants and *Automobiles*

As noted earlier, the *Blind Men and The Elephant* metaphor portrays how individuals in touch with different parts of a system could fail to reach agreement on its "scope." In that parable, it is

clear how an outer boundary serves to define the fundamental unit they must address *if* they want something from that system.

But just understanding the "boundary" of the sustainable system would not be sufficient if, for example, they also had to determine how to help it grow new capacities, or to convince it to move to a different place. Now, just understanding the scope of the problem (Its an elephant, stupid!) would not be enough. They would also have to understand its essential nature.

> "...And so these men of Indostan
>   Disputed loud and long,
> Each in his own opinion
>   Exceeding stiff and strong.
> Though each was partly in the right,
>   They all were in the wrong!"
>
> *The Parable of*
> *The Blind Men & The Elephant*

They would have to *believe* that each of the parts they touched were *interconnected*. Even if they weren't quite sure how, they would have to believe that for the whole elephant to move or grow, all of its "parts" would in some way have to be involved.

According to Russell Ackoff, these two elements -- *scope* and *nature* -- contriibute to a system's "*essential properties*."

> "...the essential properties that define any system are properties of the whole which none of the parts have. For example, the essential property of an automobile is that it can take you from one place to another. No single part of an automobile--a wheel, an axle, a carburetor--can do that. Once we take a system apart, it loses that fundamental characteristic. If we were to disassemble a car, even if we kept every single piece, we would no longer have a car.

> Why? *Because the automobile is not the sum of its parts, it is the product of its interactions.*"

<u>The School District's *Essential Properties*</u>

So, too, in our search for the system, the first question to be explored must be -- what are the essential properties of a single, coherent *learning-centered* school district that none of its parts can effectively duplicate? Where, as a product of its *internal interactions*, can a school system "take us" that none of its parts can?

The answers we propose in the following pages have their roots in one place -- the single drive that brings most educators into public education in the first place; and which then frequently contributes to the frustration that drives them out. That purpose: to make a difference in the life of a child. That seems "simple," but unfortunately, what we strive to accomplish for *each* takes on a different dimension when we must also do it for *every*. Now we must be able to ensure that every child has an equal opportunity to be all that he or she can be.

That two-faceted, *single* purpose -- to provide for <u>both</u> *equity* <u>and</u> *excellence* -- is the foundation of American public education. Yet it has become increasingly impossible for isolated educators working in fragemented systems to deal with it as anything but an <u>either</u>-<u>or</u> proposition.

We propose that the capacity to provide for both *equity* and *excellence* is the essential property of the school district or system. This school *system* and local *community* is the minimum unit in which that capacity can be created and sustained in today's society. We also suggest that the present ways we have for understanding that system make it <u>impossible</u> to create and sustain that capacity.

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To understand *why* requires that we probe more deeply the paradox that the only system that is called a "system" -- a school district -- is the one that has been most difficult to understand <u>as</u> a system. In the next section we present some of the factors contributing to that difficulty, and describe their present consequences for the internal connectedness required for providing both equity and excellence.