Rethinking Leadership in the Third Millennium

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Abstract

The purpose of this article was to examine some of the practices that have prevented substantive educational change and explore how change can be facilitated. Three factors that prevent meaningful school changes (thinking, beliefs, and the values of schooling) were discussed and analyzed through an educator's lenses. The literature indicates that while school organizations have changed, school leaders are still using leadership and management performance tools of the past and calls for school leaders and other educators to rethink new effective and efficient leadership strategies to improve student achievement and school performance. Strategies to achieve meaningful school change are discussed.

Keywords: rethinking leadership, school performance, student achievement, school optimization, school optimization, schools as systems.

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Schools should be better than they are currently. On that point, almost everyone is in agreement. Beyond that show of unanimity, opinions diverge very quickly. One group goes in search of the cause of the problem. Each part of that group places the blame in a different place. Another group goes off looking for a solution and each faction has its own *panacea du jour* that will set things straight once and for all, in spite of the fact that we all realize there are no easy solutions for our problems. Another group searches for reasons why schooling cannot be improved. The final group's members wring their hands and forecast the end of life as we know it because of the horrible state of schooling.

A considerable proportion of those who are vocal about schools yearn for a return to the good old days. They seem to believe that things were just about perfect when they were in school. Our selective memories do work wonders with our childhood experiences. Yesterday's schools do not hold the solution to the problems of today and tomorrow. How do we know that? Because we still have yesterday's schools operating all around us. Certainly, many of them look different today, with new buildings and a profusion of computers, but the processes of schooling have not changed. Schools are still organized like they have been for the last century or so. School administrators still perform the same kinds of tasks as they did then, and teachers still teach like they were taught. The appearance of change is there. Things do not look or sound the same. We have new words for those old ideas. But the basic unit of school is still the classroom. While it may look different, many of the same pedagogical practices are still being practiced going on there. Until classroom practices and processes change, schooling will not be significantly different, and the results of schooling will not be different.

Purpose of the Article

How can the classroom be changed for the better? School leaders must allow change, encourage it, plan for it, and facilitate it. Everyone involved in schooling must undergo major changes in the thinking, the beliefs, and the values of schooling. The purpose of this article is to examine some of the practices that have prevented substantive educational change and then discuss how change can be facilitated.

A Problem of Thinking

The barriers to improved student achievement and school performance are reflections of the limits set by natural forces that govern individual and organizational performance. These limits are in turn magnified when we operate in poorly designed, low-synergy systems using leadership tools that are inappropriate for the intended job and operating environment (Green, 2003).

Historical Precedents for Leadership

During the early 1900s, most American school buildings were of the little red schoolhouse design. Soon schools were evolving in size and numbers of student enrollments. These changes encouraged educational leaders to search for a state of the art design on which to organize schools. Henry Ford provided just what they needed (Treacy & Wiersema, 1995). A design for mass production, the assembly line, was adapted by educational leaders to address the need of educating an increasing number of students in centralized locations (Senge, 2000). Mechanization with its model of centralized power and control ruled the day (Hock, 1997).

Was this a good choice? Yes. This total commitment to what was then a powerful new design was justified. Mechanization did for American schools what it had done for American industry. At its introduction the average American had a third grade education. This average increased to eight years in a five-year period (Ackoff, 1994). One could argue that the chosen design certainly was not the only contributing factor; however, the experience produced a successful educational product that early into the third millennium we continue to organize our schools using tools designed for assembly line and mass production (Schlechty, 1990). The educators of the early 1900s were using a design of unquestionable sophistication with a performance potential that seemed to have no upper limit. The functional goal of the 1900s educators was not 'effectiveness' as much as it was 'efficiency' (Ackoff, 1994; Schroeder, 1995). The mantra for education was not 'to improve,' but 'to repair.'

School managers were aware that the newly adapted system contained a great deal of unrealized performance potential. Probably the thought of looking for a more sophisticated system did not cross the minds of most people. Managers were hell bent on trying to optimize their new wonder system. They elected to put all their energy into trying to realize the full potential of the new system. This was a worthy choice, as no viable competitor was known to exist.

Optimization

In general, schools became optimized without any fanfare. In the waning years of the 1900s, the public gradually came to the realization that our school systems were optimized (Branson, 1988; Browne, 2002). Although not that unusual, it may seem strange how those educators closest to the problem of proper tool use had the most difficulty seeing what tool to use.

Educational leaders were unaware that school systems for all practical purposes became optimized. Some educators are to this day unaware they are working with optimized systems. Unconsciously they continue using management repair tools to get more performance from an optimized system when leadership improvement tools are needed. What was once a management task of using the right tools has evolved into a situation where educators have a new leadership task and are using the wrong tools.

In systems thinking every system has a performance range. Within this performance range there is a point where the system is producing the most performance/work for the least amount of energy consumed. The system is optimized. In mechanical systems (automobiles for example) once the system exceeds this narrow optimized performance range the system requires ever-increasing amounts of energy per unit for proportionately smaller gains per unit of input. As the system moves beyond this optimized zone it progressively deteriorates (entropy).

This same phenomenon has been observed in human athletics (a biological system). Athletes have been known to refer to this optimization as being in the zone. In humans unlike mechanical and social systems there is a mental or psychological element to this experience. Csikszentmihalyi (1994, p.xi) describes "flow" in psychological terms as the point at which a person is engaged in an activity creating an optimal personal experience. In humans, this optimization is characterized by joy, creativity, and total involvement.

Let us take an automobile example. Suppose an individual has an almost new 1930 Ford Model A, which travels the most miles per gallon of gas at 37 miles per hour. At this speed one can drive it from Florida to California with few mechanical worries knowing they are getting the most performance for the least amount of energy per unit. Now say they get impatient with their speed. As they increase speed they disproportionately increase the energy consumption per mile traveled. They decide to drive the Model A Ford at top speed the entire trip. They put the pedal to the metal. What happens? By pushing the car beyond its zone, costs mount. The car's energy use skyrockets in proportion to the amount of work the car (system) accomplishes. The closer it gets to the system's maximum performance limit, the more chaos is created. This actually accelerates the destruction of the system.

School systems came on line at the same time as the Model A Ford. The choice was either to replace the Model A with a completely new modern car or continue to repair the old design. This is the condition of most schools. Schools have long passed through their performance zone and are now requiring progressively more energy to obtain smaller gains in performance. They are optimized and suffering from the effects of entropy (Capra, 1996). Educators have continued successfully with this optimization process to this day and have in fact, optimized Mr. Ford's system. Educators continue to assume that the optimized education system has unrealized performance potential. They in turn are led to believe that their responsibility is to keep school systems in good repair. This lack of awareness is in no small part due to the cloaking ability of the current system's mental model (Green, 2003; Koffman, 1992).

Repair and Improvement

Confused about the difference between repair and improvement? This difference is the essence of the need for a change in school leadership tools. For the purpose of this paper, repair will refer to efforts made allowing the system to perform up to its design limit. Improvement will refer to the complete replacement of the system's design with a design featuring a higher performance limit (Deming & Ackoff, 1990; Rodríguez & Casas, 2012).

It is easy to be confused about the difference between repair and improvement when one thinks about the performance of a system. Suppose your car has worn out spark plugs and is performing below its design potential. If you replace the old spark plugs with new plugs, the car will function like new. Did you repair it or improve it? It ran better, so it must be improved, right? Or did you repair it allowing the car to perform in a manner consistent with its design potential? For the purposes of this article, the authors will use their operational definition for a system and claim they repaired the car.

Schools are systems. In education it is important to distinguish between the need to repair and the need to improve. Depending on the desired outcome, the choice of leadership tools is critical to success. In some cases, educators are using inappropriately some very powerful leadership tools based on natural forces.

Humans as Tool Users

Humans are tool users. The two are inseparable (Senge, 1994). Even their bodies are tools. Life requires that they either knowingly or unknowingly facilitate energy flow as a prerequisite to living, working, and improving their conditions. Student achievement and school performance are a reflection of the performance potential inherent in the tools provided to school personnel and how they are used. Understanding the capabilities of various tools and their use is at the heart of any learning about individual and organizational performance.

School leaders are currently using 'hand me down' performance tools to improve schools. They have been used and passed down from leader to leader over the decades. Rethinking the appropriateness of performance tools for the purposes of school improvement is long overdue.

Energy Wasters

Tools are neither good nor bad. Tools may or may not be effective/efficient depending on the task and the conditions under which the tools are applied. It would be absurd to use a screwdriver to hammer a large nail into a thick oak plank. It may be possible to accomplish the job but the energy cost would be high. This is a case where the choice to use an excellent tool inappropriately results in a waste of limited energy. Leadership performance tools are most effective when they leverage human energy, not when they waste human energy and reduce productivity.

Unfortunately, the bad news is that many current leadership tools are no longer the best choices for improving individual and organizational performance. In fact, some are very costly

as they reduce performance even when used as directed. The good news is that new, more powerful leadership tools are now available for free.

Complementary Actions

If leaders want to improve individual and organizational performance, they must take complementary actions. There are many excellent leadership tools appropriate for carrying out the school leadership/management tasks; however, leaders need to stop using some old leadership tools and at the same time start using other high leverage leadership tools.

Suppose an individual decides to improve their health. They started eating nutritionally sound meals and walking two miles each day. In general, we would all agree with the approach to improving their personal health; however, at the same time they continued a long-term heavy smoking habit. For best results the individual needs to take complementary actions. Continuing to be a heavy smoker is counterproductive to their intent and reduces the impact of the positive benefits to their system.

This is analogous to the condition of schools. To meet optimum improvement levels, leaders need to quit using some inappropriate "energy wasting" tools that tear down schools and at the same time start using other tools that facilitate energy flow.

Energy Wasting Tools

Great amounts of energy are wasted when leaders apply tools, based on the products of analysis, to optimize systems for the purposes of improvement. The waste of energy is compounded when competent teachers are placed in autocratic systems.

Analytical Tools

Analytical tools include job descriptions, competency lists, performance appraisal instruments, practices and programs (used for staff development/improvement content), school improvement plans, problem solving strategies, supervision strategies, and static organization charts. During the life of the current education system, educators have created these and a host of other analytical management tools all designed to repair dysfunctional school systems. These tools are effective only if the intent is to repair the existing system, allowing it to perform optimally within its design limits. These same tools become energy wasters if they are intended to improve an existing system beyond its performance design limits. Analysis destroys a system's essential nature (Ackoff, 2003).

Ackoff (2003) contends that characteristics of proper uses for analytical tools include the following:

- Using products of analysis to manage people/organization performance.
- Relying on staff development based on analytical products.
- Featuring practices and programs for staff development content.
- Applying a pattern of management and supervision to maintain/improve performance.

- Assuming individuals and organizations operate in stable environments.
- Believing analytical tools can be effectively used for improvement.

Analytical tools and solutions are all products of the application of analysis (Deming & Ackoff, 1990). In analysis, the manager breaks down the problem into small manageable parts and works on the identified parts. If we think about it, 100 percent of the practices in schools in the early years of the third millennium operate exclusively on the analytical model. Almost every single practice and program was born as a result of analysis.

Management development programs are all products of breaking down a known task or problem and creating an antidote (staff development) to the identified concern or problem. Principal and teacher staff development programs are products of analysis (Collins, 1997). An analyst's task is to break down a specific task (whole), into teachable parts (practices – skills, competencies, dimensions, behaviors, etc.). It is assumed that analyzed practices can be identified, taught, and replicated by staff developers. Of course, this is not true, but it sounds rational.

An analysis is a fixed product of one point in time, but school environments are constantly changing. Practices and programs become outdated quickly and need to be updated frequently. Staff development is the key to maintaining analytical performance tools at some level of usefulness. Staff development is based upon analysis of a constant environment and content is designed accordingly.

There are more problems with using just the analytical model. Not only is the environment changing, but also the rate of change is accelerating. The accelerated rate of change in schools does not allow schools enough time to effectively update their analytical products and provide staff development for personnel. Because funds are always limited, the process of updating practices and programs is always playing catch up for expressed needs. Updating and training requires time and funds. The cycle is endless, and schools, as they say, are always "a day late and a dollar short."

Analytical products are designed for stable environments. In order to efficiently implement analytical products, managers blindly assume three things. First, they assume all employees with the same job title have the same responsibilities. Second, they assume employee performance is unrelated to the unique work environment of the individual. Finally, managers assume that employees work in stable environments. In general, schools are anything but stable (factory like). In addition, principals, teachers, and students are assumed to be uniform in their nature. These assumptions are severely flawed but essential if analytical products are to appear rational (Senge, 2000). Even an excellent analysis is flawed. If it were possible for an analysis to be perfect, it would only be good for the day on which it was conducted based on findings for that point in time.

Analytical information does not and cannot inform us how to improve the system's performance beyond its design limits. For example, a school improvement plan is an oxymoron. The plan is based on analysis of school products at a single point in time. It cannot focus performance efforts beyond the original design capability. Why? When the process of analysis is applied to a system the products of the process can be used to create powerful diagnostic tools. There is an unseen down side to this process. Products of the analytical process lose their ability

to facilitate energy flow. These products become nearly useless when used inappropriately as improvement tools.

Analysis is the world's most powerful repair tool, not an improvement tool. The appropriate application of the products of analysis for purposes of improvement may be the single greatest thinking error made by most current school leaders.

High Leverage Leadership Tools

Natural forces govern all processes in the universe. These include biological, chemical, mechanical, physical, quantum, and social processes. Organizations came into existence when it was learned two or more persons cooperating could potentially accomplish more work than two or more persons working alone. Humans discovered synergy, a natural force, before they discovered fire. Synergy is the driving force behind increased performance (Covey, 1989).

Schools are living synergistic social systems and subject to these natural forces. Whether leaders are aware or unaware of their existence, natural forces govern individual and school performance. When leaders make choices consistent with natural forces, performance is facilitated. In turn, choices not aligned with these forces reduce performance. Being aware of these natural forces provides leaders access to powerful new leadership improvement tools. It has always been this way. This is not new.

Natural Forces Tools

Natural forces tools include natural laws that govern organizational performance. These also include mental models used by leaders at every level (student, parent, teacher, principal, etc.), practical knowledge of how systems work, practical knowledge of how structure design influences individual/organizational performance and the impact of various environments on learning as related to performance (de Gues, 1997).

De Gues (1997) explains that natural forces tools are based on the following understandings and actions:

- Using natural forces that govern individual and organization performance.
- Relying on learning.
- Featuring natural laws, mental models, systems thinking, and structure design.
- Applying a pattern of leadership at all levels.
- Being aware that natural forces operate in stable and unstable environments.
- Recognizing natural forces can be effectively used as tools to facilitate improved performance.

Natural law. Natural laws govern the behavior of all energy (material and non-material) in the universe (Smith, 1994). These laws operate consistently, but operate relative to the environment that contains them. Smith states that Natural laws have discipline and built-in-consequences if violated. Natural laws are not made by humans - they are a part of nature. All systems are governed by natural laws, including mechanical, biological, and social systems (schools, for our purposes).

The performance of all systems is contingent on energy flow, which operates within the limits set by natural laws. By operating consistently with natural laws, the school leader can improve a school system's performance and, conversely, can reduce the system's performance by violating these laws (Smith, 1994).

The key to performance is to *know*, to be aware of these natural laws and operate from this state of knowing. If an individual was to climb up to the roof of a house and step off, what would happen? They would fall to the ground. The natural law in this case is gravity, and the discipline would be the impact of the individual's body hitting the ground. Consider what would happen if an individual cupped their hands and moved their arms up and down as fast as they could and then stepped off the roof. Again, they would fall to the ground. What if they could speak five languages and were a powerful political leader? They would still fall to the ground.

Are there ways to use gravity to our advantage? Yes. Think about using falling water to generate electricity. Gravity may be one of the first natural laws humans become familiar with. Just observe a toddler. Human beings can learn whatever they need in nature because they are part of nature. People are part of creation that lives by the same laws as all of nature (Schaef, 1995).

Mental Model

A mental model is an inefficient device one uses to make sense out of a chaotic universe (Green, 2003). Without the use of mental models, one becomes dysfunctional. Humans come hard-wired for certain functions and characteristics. They also come with the capacity to be programmed to learn from experience and the capacity to reprogram them. Mental models determine the way a person thinks about the world. This way of thinking is key to a person's ability to operate efficiently and effectively both individually and collectively.

No mental model is perfect (Koffman, 1992). All mental models currently employed are at the same time more effective and less effective than other mental models that are currently in use or exist as a possibility. The key to individual and organization learning is to constantly replace less effective mental models with more effective mental models. Examples may include moving from over powering competent workers vs. empowering competent workers. Another example is the idea of delegating work methods to competent workers vs. negotiating worker outcomes allowing the competent workers to select work methods.

Living Synergistic Social Systems

There are mechanical systems, biological systems and social systems (Ackoff, 1994). Schools are social systems. They are in fact an extraordinary type of social system described as a

living synergistic social system. A living synergistic system has the ability to create the conditions for its own existence. Like all systems living synergistic social systems cannot be separated into parts and maintain their essential character. Living synergistic social systems are thinking systems. Their ability to facilitate energy flow is a result of all the parts of the system functioning as a whole. Wholeness, thinking, and creativity are all attributes that exist only when all the parts of a living synergistic social system are viable and supportive of each other. Living synergistic social systems are products of the synergy that results from the interactions that create their wholeness. The essential nature and almost all of the value of a living synergistic social system (as with all systems) resides in its synergy-producing interactions and not in its parts (Ackoff, 1994). The attributes of a living synergistic system have great consequences for significantly increasing student achievement. Leaders must focus on the wholeness of the systems they facilitate versus managing the parts of the systems. Managing the parts of a living synergistic system, no matter how well intended, reduces performances.

Structure

Organizations (means) are designed to accomplish tasks (ends) that cannot be performed by one individual. Every organization has an inherent design. In most cases, the designs of existing organizations have evolved over time (de Gues, 1995). Typically, unconscious design choices are primarily responsible for organizations now in place.
Natural forces include natural law, mental models, systems thinking, and structure. These natural forces cannot be separated. It is difficult to tell where one begins and the other ends. This is the nature of wholes. Humans make choices about structures; then these same structures determine the behavior of the humans who work in those structures. Winston Churchill was quoted to say, "First we define our structures, and then they define us."
The structure of an organization is influenced and is a product of all the elements in the organization and the organization's environment interacting. Some examples of the elements are as follow:

- people (and all the things that go with being human)
- the decision-making process, methods of conflict resolution, and competence of workers
- contracts, rules, and hiring practices
- communication methods
- customer needs
- organizational history and environmental demands.

Every element that contributes to an organization has an effect on the organization. Structures can be a product of self-organization and are unique (Pinchot & Pinchot, 1994; Wheatley, 1994). Although organizations can have similar structures, it is easy to see that no two are identical. Structure is more important for organizational success than the differences in individual qualities among various leaders. When placed in the same system (structure), people, however different, tend to produce similar results (Senge, 1990).

New Tools, New Possibilities

Human beings are thinking biological systems (Dewey, 1991). They have replicated this thinking ability in the form of a machine called 'computer'. The creation of the computer (thinking machine) has greatly expanded the number of sophisticated tools available for use. These new tools have allowed us to accomplish things we could only dream about decades ago. The same potential applies to the discovery (in some cases rediscovery) of the natural forces that govern individual and organization performance.

What is one to do when everything has changed? Based on previous studies (Senge, 1990; Wheatley, 1994) here are three suggested actions that will provide schools with necessary changes in system composition and improvement tools:

- Political leaders need to remove statutory laws that support the use of analytical products and autocratic control structures.
- Universities and support agencies need to use their resources to discover and share natural forces that govern individual and organizational performance as related to their environments.
- School leaders need to stop using tools designed to repair optimized systems in ever changing environments when improvement tools are needed.

Above all, school leaders need to operate in the thinking mode. They must be proactive vs. reactive (Covey, 1989). They must always question their practices and examine their structures to see if they are taking contradictory actions. Are they using a screwdriver when a hammer would be more appropriate? They must realize that "We've always done it this way" is not an adequate reason to continue to do it this way. We have a choice.

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