

UNDERSTANDING EDUCATION'S "WORK"

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"I need an article," the editor said, "on public education, or a major issue challenging public education, with ramifications for higher education."

My first response was not too productive. Higher education itself, I thought, provided the major challenge to educational reform. But, on the other hand, this was a situation which if overcome could empower education with means to address most of its other challenges. How could higher education, so used to providing schools with "solutions" to its problems, understand how it was contributing to the problems?

Some background is in order. I became an On The Horizon Editorial Board member several years ago because I shared it's view that practitioners in K-12 and higher education needed to be part of the same world and, in particular, to share scanning data on what that world's future might be like. I have worked in both worlds, and while I still believe that the two groups co-habit the same physical reality, their organizational worlds are so different that communication and understanding between them has become increasingly difficult. Even worse, it has become counter-productive in that many of their ideas for helping schools which may seem sensible from the perspective of a college campus end up making school's attempts to improve more difficult.

My work in both settings has helped me realize how much the daily work of practitioners in these two different worlds is shaped by two different paradigms. We seldom question, or even note, differences between these two mental models because two seemingly-related processes seem to be taking place within each of them -- an individual student, "learning," and an adult, "teaching." If the processes are similar, we naturally assume that what works in one setting should work in the other. But although the nature of these common processes may not differ, two factors in the work setting that provides their context significantly influence the extent of their success. These are the purposes to which the organization aligns its structure and the role of the workers within it.

As work settings, one institution -- K-12, organizes its resources to produce "learning" by the student; while the other, higher education, organizes its resources to produce "knowledge" by the faculty. These different "products" shape the culture and resulting structures of the two organizations. In one, teaching is the core work process; in the other it is research.

This by itself might not even be considered a problem unless one structure was used as a model for the way the other was "supposed to be." This would be the case if, for example, the "academic" model of isolated practitioners with greater loyalty to a discipline than to the teaching *system* (the organization) of which they are part

was believed to be appropriate for schools. And it seems increasingly clear that this is what has happened. When one understands the differences between the two systems as systems of work it is easy to see why reforms conceptualized in academe continually bounce off a work process they never were designed to fit, and thus seldom can be sustained. One unfortunate consequence for K-12 education: continuing frustration with "those people" in schools who "won't" change, and increasing blame for their not "learning" from their "teachers" in higher education.

What then do the two institutional systems look like as *work systems*? What are the systemic connections between the work done by the *student*, by the *teacher*, and by the *institution* whose work is intended to support the work of the other two?

Learning as a work process

New knowledge from cognitive science about the nature of human learning provides scientific support for what philosophers and good teachers have known for centuries. *Learning* is a process managed (both consciously and unconsciously) by the learner. (Unfortunately, we also use the term to denote a result of that process.) The products of that process, as with other biological processes, become stored capacities. Testing, for example, seeks indicators that the learner has the capacity to do, think, or feel something similar again.

In this work process, the student is a major co-producer of the "product," and also a primary user. His or her responsibilities for co-production increase as they mature. By the time students enter higher education, learning is assumed to be largely their responsibility.

Teaching as a work process

Teaching is a managed work process that provides the environment for the work of learning to take place. In higher education, teaching can be, and has been, dealt with as an individual rather than an organizational process because so much of the responsibility has shifted by that age to the learner as co-producer.

In K-12 however, the task is more complex. Disciplinary content and the capacity to use it have to be concurrently developed within, and by, the learner. To do this in a way that responds appropriately to the needs of each individual, requires a coordinated effort in which everyone who influences the learning environment shares responsibility for the results. In this system, "teaching" is a core work process for which the system is accountable.

Unfortunately, without that understanding, only the most visible actor in that process--the teacher--has been held accountable for the consequences of all the others' decisions. It has been easy to assume that the person (teacher) and the

process (teaching) are one and the same, especially with higher education's *isolated practitioner* teaching model held up as appropriate for schools.

Schooling as a work process

At this organizational level the differing needs of the two work worlds become most evident. One management process must support *interdependence*, while the other believes it must support *independence*. But it is the latter model that pervades both settings.

In higher education, external connectedness is valued more than internal, as can be seen in the ways Internet and Bitnet have been used. Moreover, when it is assumed that the teacher controls, and therefore is totally accountable for, the teaching process then the only way to improve it is to "fix" people.

On the other hand, when interdependence provides a platform for work, processes can be improved and people can grow along with them. This can be seen in other human service institutions in society today. Strengthening interdependence within these organizations is usually seen as a key to organizational effectiveness and results. This management of interactions is the *work* of the organization, and understanding the interdependence between its work roles means that organizational relationships can be designed to enable the system to be more than the sum of its parts.

Stressing the differences between these two systems should not be read as a criticism of higher education's teaching model, only as a way to communicate its inappropriateness as a work model for schools,¹ and its use as an unquestioned model by those in higher education who prepare school practitioners and try to help them improve. Both have a significant effect on the public's understanding of what school's must and can do.

¹ It is one of those "elephant in the living room" secrets that this model doesn't work well for colleges either. The president of a Midwestern state university recently complained that it served as the fundamental barrier to his organization's effectiveness. As "system leader," his job required him to operate an institution as a system that could fulfill society's expectations for it. But to do this required ways to transform a "culture of independent entrepreneurs working in tightly-defined silos competing ferociously with all the other silos" -- isolated practitioners with greater loyalty to a discipline than to the system supporting the work of teaching (the organization) of which they are part.

Unfortunately, in the clash between work process and culture on his campus, he was fighting against a more basic drive lower on Maslow's hierarchy -- *personal survival*. How can a concern for quality of results - i.e., in terms of student learning - counter the consequences of the publish or perish culture in which one is evaluated by peers for promotion and tenure; and where one is hired for the next job on the basis of publications rather than reputation as a good teacher?

Help Wanted: System Leaders for the work of schooling

As new understandings of the nature of schooling as a holistic, inter-connected process develop, leadership and leadership development become critical areas of need. When one looks at the attrition rate among good school superintendents -- the CEOs of school systems -- who possess and many times exceed all the leadership characteristics required of transformational leaders in the public or private sector today, it is apparent that there is a disconnect between perceptions of the nature of the system leader's job and what it actually requires.

This became most clear for me this past summer at a workshop we conducted - "School Districts as Collaborative Knowledge-Building Organizations." Near the end, one of America's most significant cognitive researchers was asked how she could spare the time to come to a small meeting of school leaders when the week before she had just received a large multi-year grant that had to be organized.

"Superintendent's are a "mystery" to me," she replied. She had never understood *how* and *why* they do what they do. "In fact," she said, "the whole human support system in schools still is a mystery to me." Somewhere, she felt, there must be "another plane, which we're not seeing" -- where things are handled "systemically" and "simultaneously" - where, as in other organizations there is a structure connecting what happens at the "bottom" and the "top" as part of a meaningful "whole."

She was not alone in her frustration. Her comment resonated with one's I had heard from John Goodlad, Ted Sizer and others who have had new designs for how schooling *should* be but started with assumptions that they were dealing with "systems of schools" as opposed to "school systems." To many of them, superintendents were also a mystery and were seen as "controllers" who get in the way of what everyone "knows" has to happen with and for children.

At that point, in an attempt to identify that "other plane," one superintendent told her to visualize superintendents "as *jugglers* whose role is to keep a number of balls in the air, and every little while someone keeps coming in and adds a new one." (One wag noted that sometimes its not a ball, but a chainsaw.)

That simple metaphor, based upon what the job sometimes feels like, provided an important beginning insight for all of us about the nature of system leadership -- the "work" required of superintendents and other CEO's. For instance, when you are juggling, no single ball can have priority -- not even the chainsaw. The first priority is to keep the overall process going -- moving through a transparent medium, *time*.

Keeping all the balls in the air is the nature of the "work;" and its highly dependent upon a sense of relationships among the parts in time and space. The

juggler leads a system of components whose aim is to survive as a system. Once it stops it no longer exists. Continuing existence is sustained by maintaining alignment and relationships among parts; by providing just the right amount of momentum to the individual components to keep the system moving through time; and by maintaining constant awareness of factors *outside* the system that could unbalance it and, where necessary, taking actions to avoid them.

We found this metaphorical view of the system leader's work particularly helpful for explaining some of the paradoxes on the current educational scene. In addition, it sparked another useful metaphor that contributed to our understanding. It became clear that time, thought of as a constantly flowing *river*, is the medium through which leaders must navigate their organizations. Much like McLuhan's fish, who "assumed" water and thus never really gave much thought to the medium through which they swam through life, we may have had little reason to address the nature of the what is required to move entire, connected organizations through this medium.

Until now leaders have found it too difficult to get their heads above water high enough to see the wakes they leave, and to understand the ways actions are connected in time. But with new tools from systems thinking and total quality management this is changing. These provide ways to "see" relationships in time, and for the schools' work to be understood and managed as connected, interdependent, and varying over time.

Communication across paradigms

Can the two worlds -- the parallel universes of k-12 and higher education -- communicate? They must.

Several years ago an ABC network special on American Productivity claimed that we tend to "fix blame" instead of fixing organizations when we don't know how the organization's work is done. Could this be why schools presently find themselves blamed for being "unfixable?" Could the real problem lie, as the ABC special suggests, in our society's misunderstanding of the work educators in both K-12 and higher education do everyday? ?

Until now we have been running schools much as a society with little understanding of anatomy and physiology would run hospitals. We operated largely on empirical, infrequently questioned assumptions about the nature of the "organism" at the center of our efforts. This is no longer tolerable. Now that cognitive science is helping us understand how the natural work of learning takes place, higher education could, and must, play an important role in re-educating the public, and the professions, concerning how this changes the "work" of teaching and schooling. Today school's need a champion outside themselves to take on the leadership of a societal learning process -- one which learns about learning.

Higher education could fulfill this “teaching” role if it can meet the primary requirement for good teaching -- *first understand*.

