

The One Thing! ...a simple proposal.

The guru of paradigm-shifting, Joel Barker -- to help people understand the profound differences a different lens or paradigm could make -- usually asks the "impossibility question:"

"What one thing is impossible to do today, which if it could be done, would fundamentally change your organization for the better?"

For instance, what if I could call upon the ghosts of Copernicus and Galileo and ask them that same one question?

"If anything were 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 described the way things actually were?"

I would imagine that, with the benefit of hindsight, they would tell me that they would have liked to have been able to take people to the surface of the sun. There they would tell them to look up and see how the planets actually moved. Now they would no longer be a conflict between what people could see with their own eyes and the new, hard-to-envision ideas from science about the actual nature of their world. From that time on, understanding of possible actions would be developed by looking through the same lens. And it would be a lens grounded from personal experience reinforced by scientific fact.

We face the need for a similar paradigm shift today in education. It's significance will be as profound as Copernicus', however we don't have 200 years to wait for it to evolve.

So if we were to ask ourselves the same questions --

"If anything were possible, what one thing might we do that could convince everyone that what we observe as a school district already is a system within which all its parts have natural relationships to a common "fact" [or knowledge-based] centerpoint?"

What might convince everyone that what cognitive science is learning about the functioning of the brain and mind provides a common factor we don't get to vote on, but whose acceptance makes it possible to understand 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 my imagined ancient scientists: We would like everyone to be able to stand at the "center" of the educational system -- a human brain -- and look out at the surrounding real world that it *interacts* with as it develops the capacities of its mind through the process we call *learning*.

From what cognitive science has already provided about how that brain and mind "learns" from these experiences, we have sufficient "facts" that make it possible to describe the *common learning capacities* that schools must develop in *all* children.

Using this individual learning process model as its center, we can provide a lens that would allow people's daily actions to be based on what they understand about the *nature* of learning and the systems we create to develop it. And because they can "see" new relationships between familiar occurrences, they can begin to think about new, more effective ways to get where they need to go.

Is that possible? It eventually worked for Copernicus. Mankind now accepts Copernicus' framework for understanding -- a perspective that once produced evidence that was counter-intuitive and counter-cultural. How did society override those barriers? And why did it take so long?

- First it was seeded largely from the experience of those whose *work* depended on it - e.g. some farmers, explorers or astronomers - who used the new information and found it helped them to be more effective in what they had to do.
- Then it achieved additional credence from those in authority who saw in the experiences of the

initial believers that it might lead to greater productivity and societal success.

- Finally, their support for the expansion of these new experiences began to provide a sufficient base for the rest of society to feel safe enough to experiment until they developed enough positive results to accept this new way of understanding as an unquestioned belief.

These lessons from the past about paradigm shifting may be useful today. As with the earth-centered view of the solar system, mankind's beliefs about learning and the "systems" that support it are deeply embedded in the culture and mindsets that frame what we believe and do in schools. Moreover, until now there has been no "reason" to change them. They seemed to explain why some things worked (for some,) and we could explain away any deviations. And there was no proof compelling enough to convince us that the old choices could no longer get us "where we want to go."

So it is "simple." We have "only" to initiate a process that will enable people the world over to override what they "know" and "believe" so they can *develop new knowledge* about the nature of learning and about the organizations they create to develop that learning.

It would seem that, with one exception, the "post-Copernican" developmental sequence may be relevant:

- First, individuals -- who could be more effective in their current work if they operated from a base of knowledge from cognitive science -- have to be put in settings where that is a realistic choice. These settings must support development of their knowledge of *how* to be effective, and must provide ways for the work experiences and their consequences on the working environment to be perceived.
- Then the effects of those combined experiences on the effectiveness of the overall organizational system of work have to feed the knowledge of leaders and policy-makers in society who can understand their meaning in terms of the "successes" for which they are accountable (e.g., productivity, equal opportunity, gap closing, bar raising, etc.) They, too, must be able to draw conclusions about "realistic choices" for attaining their, and society's, ends.
- Finally the influence of those same leaders must be harnessed to provide the credence the public will need to question what they already "know" and believe about schools.

The one exception to processes involved in prior paradigm shifts is that this can't happen in a linear, top-down, time sequence. Society no longer can afford the time; and even if it could, what we are learning about the workings of the human mind suggests possibilities and strategies to short-cut the process.

So our task is not only simple, its clear. At a time when schools have neither the capacity, nor the societal support, to "fix" themselves, we have to develop and initiate processes that support capacity development as a practically *simultaneous, inside-out, knowledge-development* process.

We have to change everyone's mental model of schooling, but fortunately, we now can use the "simple rules" imposed by what we already know about how the human mind works as it processes information to solve problems that get in the way of *making a difference*.

- First individuals must have a compelling reason to change the way they look at, and understand, learning, teaching and schooling.
- Then driven by the motivating power of understanding *why* new alternatives may be necessary, they need to have the means and support to work within that new paradigm.
- Finally, they need processes to derive from that work experience the necessary knowledge and culture to sustain that way of functioning for all students