The Race to the Top: A Sea Change

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A Change in Beliefs and Action

This period of new higher level standards and more rigorous assessment with student growth expected today requires a goal in which what earlier reform efforts have failed. It requires a paradigm shift in beliefs, actions and skills.

The goal now is to improve the quality of learning for each child, and to close the achievement gap between low income and minorities and relatively wealthy home lives. This is in a new paradigm in which schools are assessed on whether students are learning each year. Today we seek to bring the same high level of learning for all students, under more rigorous standards.

Moving from managing a smooth-running school with independent private practice to common work on learning is a major shift. This thinking underpins *Race to the Top*. National regulations enforced by states require a new belief system and actions of schools. Is this fair? Is this what school should be about? Can this be done on a large scale? Is it a goal, an opportunity, worth trying?

A Change in Mind-Set

Harvard researcher Seymour Sarason noted during an earlier era of school reform that "school change does not take place because thinking has not changed" (1971).

Actions must be coupled with new thinking, Sarason observed, to secure school improvement. Beliefs needn't precede actions, but actions work best when operating within a strong belief system. Changing a belief system is hard.

It may be that the earlier decade of state tests have failed to achieve the promise of improving learning for all students because we've skipped the stage of helping teachers and administrators understand why we have this new means of higher standards and more rigorous assessment. While some have used buzz-words, the deeply held understanding that must accompany change is lacking. The term "paradigm shift" may be tossed around, but not fully understood, certainly not embraced. High level Common Core national standards and more challenging assessments, especially when coupled with educator evaluation which includes test results, constitute a sea change. It's no surprise we have push-back.

A Paradigm Shift

Science historian Thomas Kuhn defined what he saw as a paradigm shift that affects the scientific community when a persistent new finding doesn't conform to commonly accepted scientific models of thinking. This rocks the scientist's world.

In The Structure of Scientific Revolutions (1970), Kuhn notes that in these scientific revolutions a novel theory emerges in thinking, "after a pronounced failure in the normal problem solving activity." The failure of schools is that the old early factory model of the one best way of teaching and learning, with students sitting in rows and the teacher talking at students, with grouping students in a way that limits learning, hasn't served all students well. We must develop understandings with all students. This means learning is guided by a messy classroom, with students processing information, talking with teachers and each other, additional time on learning and a common underlying focus – one developed by the best in curriculum thinking.

We can't blame teachers for some students not learning. But now that common new grade level standards are set, new Educator Evaluation expectations ask that all teachers pay attention to these Standards.

The Standards must frame the curriculum and the classroom learning. This makes the work easier, as Common Core Standards expectations build from year to year. Standards don't constrain and limit what is taught, and can be integrated into what many teachers currently do. This now is expected of each teacher. This is new.

Does this framework of Standards kill creativity? The opposite is true. Inventiveness is required if all students are to learn the new Standards. Sharing ideas and internet sharing generate new learning ideas for teachers and students to enjoy. It's an exciting time. It's a time for collaboration. This may be easiest for newer teachers, who initially in their teaching look to others for ideas, and who in their college and K – 12 experience may have experienced collaborative learning.

Anxiety

Central to the new teacher evaluation piece is that the teacher seek learning on the Common Core standards and pursue professional development to work in ways that help each child learn. Many teachers have been doing this for years. Their state assessment scores often show success. Teachers glow when they see their students' test results of their focused work. Now every teacher is expected to do this.

When test scores are less than good, this can shatter a teacher's self confidence. The good news is that when teachers focus to reach each student on Standards learning, this is most often reflected in higher test scores. Under the new educator evaluation system, expectations are clear, and teachers are empowered to improve their own work, as responsible professionals. The goal is having teachers who come to school happy to help each child learn, shrugging off daily minor challenges with the big picture in mind, and help colleagues solve problems.

Revolution in Thinking in the Professional Community

Thomas Kuhn reports on the major revolutions in science as being shocking at the time. Such revolutions in thinking are now well accepted theories, such as Einstein's theory of relativity, Copernican astronomy, Newton's laws of physics, Roentgen's discovery of the x-ray, and Lavoisier's discovery of oxygen. Roentgen kept seeing a strange blue light in his experiments. This blue light did not conform with accepted thinking in the field. Hence Roentgen's discovery of the x-ray. The theory and practice changed to conform with this discovery. Our blue light in schools is that we are failing too many students.

Kuhn reports that with new observations that see a failure in the traditional theory and practice, the scientific community as a whole begins to recognize that the traditional theory fails to solve basic problems. Schools by their structure of the factory system structure of the 1900's sifted out the poorly performing students. As late as the 1960's lower performing students were shunted to low level classes and often left school before graduation. Traditional school hasn't solved the problem of all students learning well. Kuhn states that the core of the crisis is there's a breakdown of solving the problems within the old paradigm. For schools, these are our students who "drop out," fight school by becoming "behavior problems" – often through lack of engagement in class work – do poorly on assignments because they don't know how to do better, and act out their frustration with not being able to learn. These problems exist in every school. State tests have brought the learning issue to the forefront. Now we are asked to address this issue, to pay attention, and better help these students.

The new paradigm of focus on learning replaces the bureaucratic school structure of following old rules of conformity. This change is hard to adjust to. With years of experience under the old organization and emphasis on the status quo of management, school people are understandably disoriented—even face a crisis – by the change to emphasize all students learning well. The achievement gap widens with more rigorous tests if thinking and practice don't change for more struggling students.

We haven't explained this bigger picture well to school people. While some veteran teachers see the need for the change to help each child learn at high levels, and sharpen their skills to do this, many veteran

teachers – those long schooled in the earlier structure and look to students as categories not capable of improving – may have a hard time accepting the changes. Demographic need not be destiny. We haven't effectively presented this in a way that all teachers can understand the major shift of moving to a different way of thinking about school and a different way of working, a different way of serving students who depend upon teachers to learn.

Kuhn reports that years of experience under the old paradigm causes difficulty in making a conversion to the new way of thinking. Because scientists are trained to work under one paradigm, the scientist who creates a new paradigm is young or new to the field. Think Steve Jobs, Bill Gates, Mark Zuckerberg. These young men didn't know it couldn't be done.

Kuhn states,

> Almost always the men (sic) who achieve these fundamental inventions of a new paradigm have been either very young or very new to the field whose paradigm they change . . . (O)bviously these are those who, being little committed by prior practice to the traditional rules of normal science, are particularly likely to see that those rules no longer define a playable game and to conceive another set that can replace them (Kuhn, p. 90).

We take a new look at school. The individual must change to adopt the new paradigm, Kuhn states. State and federal regulations require changes. What's fair for teachers? What's fair for students? Can our schools survive and fairly implement with integrity the new changes?

Kuhn reports the scientist receives a narrow and rigid education, to equip him (sic) for puzzle-solving within the tradition the textbooks define. The scientist is not prepared when crises are generated. Kuhn states, "(T)he scientist is not, of course, equally well prepared . . . (S)o long as somebody appears with a new candidate for paradigm, the loss due to rigidity accrues only to the individual" (Kuhn, p. 166).

Veteran teachers find their long-held beliefs and actions challenged. How can people change a long-held belief system? Not a few teachers retire when new teaching methods and regulations counter and

threaten their long-held beliefs and practice, as it is difficult for older scientists. *Race to the Top* is a seismic culture shift. Teachers' worlds have been shaken.

Kuhn observes:

> The transfer of allegiance from paradigm to paradigm is a conversion experience that cannot be forced. Though some scientists, particularly the older and more experienced ones, may resist indefinitely, most of them can be reached in one way or another. Conversions will occur a few at a time, until, after the last hold-outs are gone, the whole profession will again be practicing under a single, but now different, paradigm (Kuhn, pp 151,152).

We now have new teachers now coming in to teaching who had state tests as students themselves. We now have a generation of teachers for whom state tests – once not accepted by teachers – are the norm. Standards learning has been part of many new teachers' school life.

In addition, many veteran teachers intuitively understand this new paradigm. We have many skillful experienced teachers who take each child under their wing and develop learning. These are our silent saints, who spend time working with individuals, who put their heart and soul into their teaching. They understand their content well, and impart this to their students. They're good colleagues. We treasure these teachers. They're known in their school. They're remembered by their students. These teachers live in their students' hearts and minds. We need more such teachers.

A Change in Teacher Evaluation as Part of the New Paradigm

The new Educator Evaluation system under *Race to the Top* is at its best a fair one, setting out clear areas for proficiency. Four categories are clearly defined. The model is based on mutually agreed-upon areas for growth with one's evaluator. The process is based on "self-directed growth," with the teacher collecting evidence of growth. This can counteract burn-out, long an enemy of learning. But teachers wither under a lower than expected evaluation of their work. Self-confidence, which we need to do our job well, is shaken. Teachers fear bias in evaluation of their work.

Guaranteed tenure – long a tradition under the teacher tenure system – itself is challenged. The rock of job security has been pulled out from under teachers. Teachers rightfully feel that as learning expectations have been ratcheted up, they're now also more severely evaluated. Schools must work harder to support teachers with this dramatic shift.

Another Planet

What was seen by scientists under the old paradigm is disrupted in a paradigm shift.

In adopting a new paradigm, Kuhn states that the scientist must learn to accept new assumptions, rules of behavior, values and relationships. The world view changes with a paradigm shift.

> "When paradigms change, the world itself changes with them. . . what were ducks in the scientist's world before the revolution are rabbits afterward. It is rather as if the professional community had been suddenly transported to another planet where familiar objects are seen in a different light and are joined by unfamiliar ones as well" (Kuhn, pp. 111, 112).

The traditional rules of work that the scientist has been trained to pursue changes. He or she must then be helped to see things in a different way, "not as counter-instances, but as different . . . Therefore, at times of a revolution . . . the scientist's perception of his environment must be re-educated – in some familiar situations he must learn to see a new gestalt. After he has done so, his work will seem, here and there, incommensurable with the one inhabited before."

We do know that when teachers focus on needed standards learning and effectively engage their students in this learning, this is reflected in strong test scores. From this, teachers gain confidence in their ability and become more effective teachers. We see this in pockets. We have research that shows what can improve student learning.

Under the new paradigm, "Ducks become rabbits," states Kuhn. The days of the silent classroom is of the past. Now a learning classroom has a feel of energy, students are talking, on task, desks are scattered, the

teacher moves around. Differentiation and active learning are now expected. We now are happy when we walk into a classroom where we see students working on varied projects and can't find the teacher, who may be in a corner helping an individual child. Earlier, students sitting quietly in rows with the teacher at the front talking at students was expected. School now looks different, and is measured differently.

Future Promise, An Act of Faith

A new paradigm is accepted when the community shifts to embrace it, states Kuhn. Individual reasons motivate adoption. Kuhn notes that a convert to the new paradigm must act even in defiance of evidence. What causes conversions to the new paradigm in the absence of hard evidence, when a new paradigm replaces the old one?

There are arguments other than the ability to solve problems that appeal to the individual's sense of the appropriate, notes Kuhn. Will improved assessment results mean higher levels of learning, and improve the lives and enhance prospects for our students' futures? This may or may not happen, but it's the best we have today.

This is a national experiment, an act of faith. Do we have a better approach? The new paradigm, says Kuhn, does not solve all the problems, nor does it convince a community that it can do this. Much study, testing, observation and experimentation is needed to test the fit, Kuhn reports. We must give the new paradigm a chance. With rival paradigms, the choice must be based on faith.

Kuhn states:

> "(The scientist's) decision must be based less on past achievement than on future promise. The man (sic) who embraces a new paradigm at an early stage must often do so in defiance of evidence . . . A decision of that kind can only be made on faith . . . Something must make at least a few scientists feel that the new proposal is on the right track, and sometimes it is only personal and inarticulate considerations that can do that (Kuhn, p. 158).

How does large scale professional thinking change? "Paradigm shifts are built more on questions of values than on observable proof . . . the issue is which paradigm should in the future guide research on problems" (Kuhn, p. 157). Those who pick up the new paradigm and proceed under it then "will develop it to the point where hardheaded arguments can be produced and multiplied." No single argument will persuade all to convert. "Rather than a single group conversion, what occurs is an increasing shift in the distribution of professional allegiance" (Kuhn p. 151).

We can't say we didn't see this train coming. But we're ready for it. We can either jump off or leap onto the train. It's a values issue.

Pieces and supports for the new regulations have long been in place. Ways to assist struggling students are in practice. Many teachers collaborate on learning. Teachers know differentiated instruction, personalized learning, extended time on learning, and project-based learning; research supports their effectiveness. Teachers study new standards and test results. Teachers seek help for struggling students. The internet brings vast resources to classrooms. We have the tools.

Do we have the belief system of the new paradigm to guide us through the choppy seas to improve the quality of learning for each student?

References

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