

Preparing the Learner for the 21st Century

By: Jan Kielven

I try to believe as many as six impossible things before breakfast.

Alice, Alice in Wonderland

Change is a vital and ongoing process in education that is being undertaken in an explicit and intentional way internationally, provincially and at the school board level. Our language is expressing both the desire for and need for evolution in education: ‘second order change’, “21st century learning”, brain-based learning”, “blended learning”, “equity of outcome”, ‘multi-cultural literacy, technological literacy. There is a strong re-emphasis on the teaching of higher order thinking skills, learning skills, social skills, communications skills, creativity, knowledge management, leadership skills, resiliency,... and more.

Each vies for its place in the sun. And while this is so, to its credit, education continues with only minor but significant deviations from its current trajectory. Why, amidst all this change, is this so? Should we not be keeping up? The viral/meme video, *Did You Know; Shift Happens - Globalization; Information Age* (Karl Fisch, 2007) and all its iterations boast well over five million hits. It, like other pressures, implies that radical reform is the only real option. Popular social media tends to define the future as an exponential extension of the past into the future, and so, limits solutions. Such a definition amounts to little more than subjective perceptual data of the present projected forward. Quite simply, we don’t know the future, any more than we were able to anticipate the fall of the Berlin Wall, or the failure of the Y2K virus to manifest for that matter. We still teach math as if there will not be instrumentation that solves not only numeric, but word problems as well. It’s already in place in crude form. Could we have anticipated and prepared for this already as more than just a probability? Probably not. The future, by definition, is unpredictable. Nonetheless there is no scramble to deal with all of the issues social media raises. Instead, we plot a secure reform agenda that moves purposefully forward in measured increments. And we do it well enough to not only improve the quality of student learning and engagement, but do so without destabilizing the entire local and provincial system of education.

It is to our credit that we have chosen the safer path – rather than spending undue time contemplating what the future might be like and trying to address each potential strong trend/variable, we have chosen to create distance from the ‘design back’ paradigm. In its place is terminology such as ‘co-creation’ of curriculum’, ‘coaching’, ‘facilitating’, and ‘empowering’. They suggest the quiet stance of choosing to create the unknown future rather than be driven by it. One way we are doing this is by shifting from ‘all students’ to ‘each student’, by the highly proactive and responsive process of personalization of education. Responsible responsiveness. It harkens back to the advice of Dr. Ferguson to a group of educators three years ago, “Be more proactive, be more flexible, be more understanding”.

As well, we do not have an underlying sense of fear of being overtaken in education by countries formerly thought of as ‘third world’ countries. Globalization hasn’t been painted by educators as a threat but as an opportunity in most quarters.

Yet, a question remains. Is there a way to unify, or refocus and address all the compelling, competing demands created by the exponential growth in knowledge, skill requirements, and social conscience?

On the surface, the logical answer appears to be negative. Content alone has outstripped our capacity to deliver an educational experience that keeps pace of changes in the Canadian landscape, let alone the need to understand ourselves as responsible global citizens. The mandate of education is already bursting at the seams.

Outlier research and explorations are a kaleidoscope of mirrors quietly supporting our new direction. The breakthrough research in areas such as self-organizing systems theory made explicit in the educational research of Sugata Mitra on child-driven education (Mitra, 2010), the explosion of Sir Ken Robinson’s criticism of education on Ted.com ((Robinson, 2009), the proliferation of social and emotional skills websites such as www.CASEL.org, the motivation research of Daniel Pink brilliantly given voice on YouTube by RSA that is just shy of three million hits in six short months (Pink, 2010), the inclusion of students in educational processes they traditionally have been excluded from such as research (Delgado, 2006) and so many more. The conclusions of such research is as a result of having asked different questions than those being asked by mainstream research – it focuses less on the science of teaching and implementation and more on learning. It looks to give voice to the learner in multiple ways. *It does not contradict current research – it complements it.*

Yet, the progress is slow. There are so many competing demands.

The solution would need to be: flexible, insightful, forward thinking, grounded in experiential learning, continuously relevant to students, respectful of current content but not limited by it, and sensitive to the current climate of financial restraint. It would have to be very manageable, tangible, measurable, and most of all, deeply engaging to students. And finally, *it would need to have the capacity to leverage all of the other components and competing demands in education today, and tomorrow for that matter.*

Assessment practice is a critical and fundamental component of education reform. It is part of a complex of inter-related pedagogical practices, all of which rely on a yet deeper skill set.

The solution might lie in a rather unusual and yet very familiar place.

Years ago, Dr. Barrie Bennet, addressing teachers in instructional intelligence, stated that research indicated that the skill set teachers lacked most was the capacity to ask questions well enough to give depth or breadth to the curriculum and the skills required to master it. That is not surprising. The science and art of asking questions is not as simple as it might appear. Inquiry and assessment practice is only as strong as the questions asked. (Kielven, 2004)

A quick Google of the topic draws forth literally hundreds of academic sites. Should you try to piece together the taxonomies of asking questions, it would take days and weeks and more. Amazon generates over thousands of hits as well. Developmentally sound questioning pedagogies have the capacity to clarify, uncover, assess, project, uncover recursive structures, classify, reflect, probe assumptions, demand higher order thinking skills in context, elaborate. It allows for divergence, critical thinking, creativity, and brings curriculum to life to name a few of it's capacities. It is a bridge between the known and the unknown, and so, is an inroad to all content and skills in a way that engages, challenges, and empowers the student.

Yes, we've done it before. We are doing it now. It didn't fail. It never really got far enough off the ground to support systemic change. Bloom's taxonomy began the process and Literacy moved it further, but its larger potential remains untapped. Its resurgence in collaborative inquiry and coaching models speaks to its power both in leadership development and the classroom. Well done, it is also the most 'democratic' of pedagogies as it allows for staff and student voice to engage in the challenge of co-construction of learning with safety while not inhibiting individuality and creativity. It invites. It suggests, but never explicitly exposes and

so, is perhaps the ‘sexiest’ of the pedagogies for learning. It applies equally to staff as student well being as I does to curriculum.

What if “Asking Questions” was a major unit in all faculties of education and education degree programs? What if each educator had a strong repertoire of questioning taxonomies in hand? *What if we knew what questions students were asking?* What if we responded to these together? These are all outcomes that populate the scholastic literature on inquiry based education! It is a road with no easy answers, and so, more readily eroded by time, funding, energy and other barriers.

Asking questions isn’t about wanton undirected inquiry; it’s about the authentic questioning and learning of a classroom community connected to a networked world through the vehicle of structures, partnerships and curriculum. It’s about ensuring the fidelity of all education reform currently under way. The quality of the questions not only determines the quality of the answers, but more importantly determines the parameters of the inquiry. *Each search provides a point of intervention in the act of learning.*

As educators, we may not know all the answers, but each student, through skilled inquiry, can learn how to search for his/her own answers and to ask the relevant questions that will create and unfold the future through them. Let’s ensure they, too, know how to ask the questions that need to be asked as well!

Here’s a little fable you might enjoy on inquiry as a means of thinking outside the box. It is one that has been retold in many forms across many continents, and yet, still fascinates and applies:

Once upon a time... An elderly lady decided to go on a safari. She took along her faithful little hound named Yorkie, along for the company.

One day the little hound started to chase butterflies and before long, Yorkie discovered that he was lost. Wandering about, he noticed a leopard heading rapidly toward him with the intention of having lunch.

He asked himself, "What shall I do?" Noticing some bones on the ground close by, he immediately settled down to chew on the bones with his back to the approaching leopard. Just as

the leopard was about to leap the hound exclaimed loudly, "Boy, that was one delicious leopard! I wonder if there are any more around here?"

Hearing this, the young leopard halted in his attack in mid-strike, a look of terror came over him and he slinked away into the trees. "Whew!" said the leopard, "That was close! That dog nearly had me!"

Meanwhile, a monkey who had been watching the whole scene from a nearby tree, figured that he could put this knowledge to good use and trade it for protection from the leopard. So he darted off. Now, the old hound saw the monkey heading after the leopard with great speed, and wondered, "What might monkey be up to?" Something must be up.

The monkey soon caught up with the leopard, spilled the beans and struck a deal for himself with the leopard.

The young leopard was furious at being made a fool of and said, "Here, monkey, hop on my back and see what's going to happen to that conniving canine!"

Now, Yorkie saw the leopard coming with the monkey on his back and thought, "What am I going to do now?", but instead of running, the dog sat down with his back to his attackers, and just when they got close enough to hear him, he said...

"Where's that blasted monkey? I sent him off an hour ago to bring me another leopard!"

A learning organisation sees the environment as messy, complex and volatile. It picks and chooses its way attempting to use certain events as catalysts for action, turn constraints into opportunities, and blunt or minimise the impositions that do not make sense...because they know that that is the only way to survive and prosper in a complex environment. Michael Fullan (*Change Forces*)

And, finally, a simple question: *If we think we have the answers already, what need is there for questions?*

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