# System Coherence and Deep Learning

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Education Experts Michael Fullan and Joanne Quinn Refine Their Method and Expand Their Reach



Photo by Bradley Slade

Michael Fullan and Joanne Quinn pack the house. Together they lead New Pedagogies for Deep Learning and are worldwide authorities on educational reform—rock stars both. That is why their recent visit as guests of the BYU—Public School Partnership drew many attendees from each school district. In a daylong event, they electrified the room, presenting research-backed approaches to help schools transform learning and bring success to every student. Fullan and Quinn's approach—aligning vision across districts, making schools relevant and engaging in a changing world, and empowering states, districts, and schools to do what they do best in education—has been years in the making in terms of research and modeling. Schools across the globe have adopted Fullan-Quinn's methods, which continue to adapt to changing world conditions in practical, realistic ways that deepen learning and improve outcomes for all students. Fullan and Quinn graciously shared this article with McKay Today.

We are thrilled to be working with the BYU-Public School Partnership in 2020 to help build coherence and deep learning across the state. For the past two years we have been working with parts of the system, and we now see that the system is poised to proceed more comprehensively to improve learning within and across schools and districts and in relation to state policy for achieving equity, excellence, and well-being for all students.

We will work together with educators, students, and communities to develop and integrate three themes that are critical for system success: coherence, deep learning, and tri-level coordination (school, district, and state). We have been working on all three of these themes with education jurisdictions around the world in a process that we characterize as "bottom up and middle out." We have found that 80 percent of our best ideas come from "leading practitioners," and we have leveraged these best ideas to build strong theories about what works best.

## **Coherence Making**

After working with schools and districts for some 20 years, we began to formulate and test what we called "coherence"— something that distinguished the most effective school systems from others. Most districts seemed to work on vision, alignment, and aspirations for all students but did not have a systematic way of going about making it happen. What was missing, we said, was coherence, defined as "the shared depth of understanding about the nature of the work." We asked ourselves what was the smallest number of key components that would be needed for success and

that could serve to focus and leverage what would be needed for system-wide success, whether there were five, 50, or several hundred schools. We then developed the model and presented it in our book *Coherence: The Right Drivers in Action for Schools, Districts, and Systems* (2016). The core model is presented in figure 1.

We showed that there were four key components of successful systems: (1) focusing direction, (2) developing collaborative cultures, (3) having strong pedagogy that we called "deep learning," and (4) securing accountability. We provided many examples from successful schools and districts and showed that they did not follow the model in a linear fashion but rather chunked elements in cohesion. For example, focusing moral purpose and collaboration often went together; so did collaboration and pedagogy. And securing accountability was typically in relation to focus, teamwork, and use of data.



Figure 1. Coherence Model (Fullan and Quinn, 2016)

We have to say that the book became wildly popular. Study groups became ubiquitous. People told us that the idea and components of coherence were "right on" and provided the answer. Before long, however, people began to say that coherence was perhaps the solution but asked, "How in the world do you obtain it in practice?" We began to refine the ideas: first with a *Taking Action Guide* (2016), which contained 33 practical protocols to help schools and districts take action, and then by refining our workshops to focus on coherence making—noting that it required a process that was never-ending (people came and went, policies changed, others got new ideas, and so on). Above all, it called for new leadership— formal and informal—in which lead learners modeled self-learning and helped others learn. More districts began to succeed.

We noticed, however, that people were not going "deep enough" in either learning goals or pedagogy. This led in 2015 to our foray into "new pedagogies for deep learning" (NPDL).

## Deep Learning

As we worked on coherence in 2014, it was becoming more and more clear that something was happening that was calling into question the relevance and nature of traditional schooling in relation to the evolution of schooling. More and more students were finding schooling boring or alienating. Various studies that we viewed showed only about one-quarter of students viewed school as worthwhile. More telling was the change in environment or context that showed the growing deterioration of climate and rapidly developing inequality gaps between the rich and the poor. The world and society itself were deteriorating at faster and faster rates. Schools were not to blame, but the question of what should be the role of schools in failing societies came to the fore.

It is beyond the scope of this article to analyze in detail the emergent questions, but we saw a small but growing interest in redefining the purpose of schools. As usual, we wanted to work with practitioners to flesh out and help develop new solutions. The form it took was to identify the Six Global Competencies (the Six Cs, to be precise) and the corresponding pedagogical and organizational attributes for supporting the development of a new form of learning. We partnered with sets of schools in eight countries to codevelop the details.

We can say that the whole enterprise has moved quickly at an increasing rate from 2015 to the present. We have documented and published the nature of this work in two books: *Deep Learning: Engage the World,* 

Change the World (https://www.amazon.com/Deep-Learning-Engage-World-Change/dp/1506368581#ace-g6570352880) (2018) and Dive into Deep Learning: Tools for Engagement (https://www.amazon.com/Dive-Into-Deep-Learning-Engagement/dp/1544361378/ref=sr\_1\_2?

dchild=1&keywords=Dive+into+Deep+Learning%3A+Tools+for+Engagement&qid=1594828464&s=books&sr=1-2) (2020).

Our model for deep learning is relatively succinct, given the comprehensiveness and depth of the solution. The focus on deep learning, per se, is the Six Global Competencies that prepare learners to be good at learning and good at life (see figure 2).

### **DEFINING THE SIX GLOBAL COMPETENCIES**FOR DEEP LEARNING



#### Characte

Proactive stance toward life and learning to learn Grit, tenacity, perseverance, and resilience Empathy, compassion, and integrity in action



#### Citizenship

A global perspective

Commitment to human equity and well-being through empathy and compassion for diverse values and worldviews

Genuine interest in human and environmental sustainability Solving ambiguous and complex problems in the real world to benefit citizens



#### Collaboration

Working interdependently as a team Interpersonal and team-related skills Social, emotional, and intercultural skills Managing team dynamics and challenges



#### Communication

Communication design for audience and impact
Message advocates a purpose and makes an impact
Reflection to further develop and improve communication
Voice and identity expressed to advance humanity



#### Creativity

Economic and social entrepreneurialism
Asking the right inquiry questions
Pursuing and expressing novel ideas and solutions
Leadership to turn ideas into action



#### **Critical Thinking**

Evaluating information and arguments Making connections and identifying patterns Meaningful knowledge construction Experimenting, reflecting, and taking action on ideas in the real world

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Figure 2. Defining the Six Global Competencies (Fullan, Quinn, and McEachen, 2018)

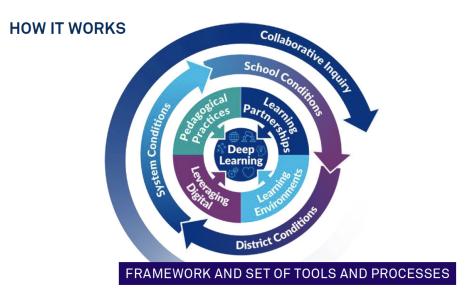


Figure 3. Deep-Learning Framework (Fullan, Quinn, and McEachen, 2018)

Four of the Cs (collaboration, communication, creativity, and critical thinking) had been known as 21st-century skills but had not been advanced on any scale. When we added character and citizenship, the Six Cs in concert were seen as an essential set. To support the Six Cs, we developed a model to design deep learning that consists of four elements (pedagogy, partnerships, environment, and leveraging digital) and three components of the infrastructure (school, district, and system conditions). The entire model is displayed in figure 3.

The model in action, and some of the results obtained so far, are contained in our two books. One of the districts that has joined the global partnership and that is implementing the deep-learning model is Alpine School District, Utah's largest district.

### One School's Deep-Learning Experience

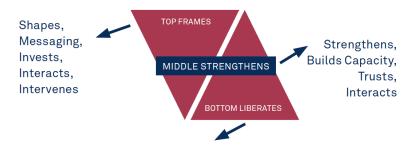
Lindon Elementary is three years into its deep-learning journey. The mission of our school is to seek ways for our students to have relevant learning experiences that incorporate elements of lesson design and expand the knowledge, skills, and dispositions needed for success in the 21st century. Our focus has shifted from learning projects to learning processes, with an emphasis on the Six Global Competencies (Six Cs). Grade-level content has become the vehicle by which students engage with and learn the Six Cs. The results have been extraordinary. Our students are not only learning essential standards but are also learning how to create, engage, and contribute. Our students launched a student-led service initiative called Lindon Gives; so far, we have gathered and donated thousands of pounds of food, 1,500 pairs of shoes, 150 pounds of socks, 600 filled Christmas stockings, and woven grocery bag mats. These items were distributed to those in need in our school, in our community, and in the world. In the Lindon "Garage," students completed 327 passion projects, leveraging digital technologies to showcase their learning in new and powerful ways. Most important, our students believe in making a difference—and they are! —Kate Ross, principal, Lindon Elementary, Lindon, Utah

## Leadership from the Middle

The third component of our system model is "tri-level coordination," involving school and community, district/region, and state levels. We know this model as "leadership from the middle" (district and region), which views system change depending to a large extent on leadership from districts (and, in the case of Utah, from the partnership with Brigham Young University), whereby districts become stronger and take action within and across districts and become more proactive partners upward with the state and downward with schools. The model is displayed in figure 4 and is based on these principles: exploit (in the best sense of that word) upward, liberate downward, and partner laterally and vertically.

#### GENERAL PRINCIPLES

EXPLOIT UPWARD, LIBERATE DOWNWARD, LATERALIZE EVERYWHERE



Liberates as It Interacts Laterally and Vertically

Figure 4. General Principles of System Change (Fullan and Gallagher, 2020)

### Conclusion

In this brief article we have only outlined the main components of the model. In early 2020 we are just beginning the action part, in which we will help lay out the way forward for system coherence within Utah, across districts, and vertically across levels. The theory of action is based on the notion of "connected autonomy," in which each level and unit has degrees of autonomy and is expected to work in partnership with others vertically and horizontally. There is a strong emphasis on outcomes in terms of engagement by all groups, strengthening of leadership, improvement of the teaching profession, and learning by all students.

In a world of vulnerability and growing problems, it is essential that education be mobilized as a positive force for individual and societal improvement.

MICHAEL FULLAN, OC, is the former dean of the Ontario Institute for Studies in Education and professor emeritus of the University of Toronto. He is the coleader of the New Pedagogies for Deep Learning global initiative. Recognized as a worldwide authority on educational reform, he advises policymakers and local leaders in helping to achieve the moral purpose of all children learning. Fullan received the Order of Canada in December 2012. He holds honorary doctorates from several universities around the world.

**JOANNE QUINN** is an international consultant and author on system change, leadership, and learning. As cofounder and global director at New Pedagogies for Deep Learning, she leads a global innovation partnership focused on transforming learning. Quinn has provided leadership at all levels of education as a superintendent, implementation advisor on education reform to the Ontario Ministry of Education, and director of Continuing Education at the University of Toronto.

### Read More Titles from These Authors

Michael Fullan and Joanne Quinn, *Coherence: The Right Drivers in Action for Schools, Districts, and Systems* (Thousand Oaks, CA: Corwin, 2016).

Michael Fullan and Mary Jean Gallagher, *The Devil Is in the Details: System Solutions for Equity, Excellence, and Student Well-Being* (Thousand Oaks, CA: Corwin, 2020).

Michael Fullan, Joanne Quinn, and Eleanor Adam, *The Taking Action Guide to Building Coherence in Schools, Districts, and Systems* (Thousand Oaks, CA: Corwin, 2016).

Michael Fullan, Joanne Quinn, and Joanne McEachen, *Deep Learning: Engage the World, Change the World* (Thousand Oaks, CA: Corwin, 2018).

Joanne Quinn, Joanne McEachen, Michael Fullan, Mag Gardner, and Max Drummy, *Dive into Deep Learning: Tools for Engagement* (Thousand Oaks, CA: Corwin, 2020).

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