In his thought-provoking book *The Wisdom of Crowds*, James Surowiecki (2004) outlines the case for why the many can be smarter than the few. He cites, as an example, the global response to the SARS (Severe Acute Respiratory Syndrome) epidemic that can be held out as a model of efficiency and success. The discovery of the SARS virus was, as Surowiecki describes it, a remarkable feat. As with any remarkable feat, our immediate question is who did it? As it turns out, that is an impossible question to answer. It took a combined effort from labs all over the world. Ultimately, no single person discovered the cause of SARS. The World Health Organization (WHO) attributes the discovery of the virus to a group of labs working collectively. Any one of those labs working on its own might have taken months or years to identify the virus but together they did it in just a few weeks. What makes the collaboration especially noteworthy is that no one was officially in charge of it. Although the WHO orchestrated the creation of the network of labs, there was no central dictate telling each lab what to do. Surowiecki states:

The collaborative nature of the project gave each lab the freedom to focus on what it believed to be the most promising lines of investigation, and to play to its particular analytical strengths, while also allowing the labs to reap the benefits – in real time – of each other’s data and analyses. And the result was that this cobbled-together multinational alliance found an answer to its problem as quickly and efficiently as any top-down organization could have.

The *Wisdom of Crowds* - and the case of SARS specifically - points to the promise and potential of collaborative mechanisms, like networks, for taking up problems of practice, whether in health or in education. Of course, the concept of doing things together certainly is not new. The educational landscape is littered with an alphabet soup of collaborative initiatives – NLCs (networked learning communities), PLCs (professional learning communities), IKCs (innovative knowledge communities), COPs (communities of practice), etc. From our perspective, what the collaborative initiative is called does not matter. What does matter is implementation. While working together sounds like a good idea, learning communities often do not actually change classroom practice and improve student achievement. Over the last several years we have been involved in a development and research program trying to understand the extent to which learning communities are beneficial or not, and to identify the critical aspects of those learning communities that do make a difference. What we have found is that under the right conditions, the many can indeed be smarter than the few and networks can be powerful organizational forms for school improvement.

The concept of networks is broad and we have not been focused on networks in general. The particular kind of networks that we are interested in - Networked Learning Communities (NLCs) - are groups of schools working together in intentional ways. Specifically, an NLC is a network of within-school professional learning communities. Our take has been about fostering the kinds of within-school learning communities that are strong and impactful by building strong networks across schools. Figure 1 shows our research-informed thinking about the relationship between the within-school and between-school (networked) learning communities. The idea is that significant changes in student learning, engagement and success depend on deep and sustained changes in the practices in classrooms and schools, and that these changes will emerge from the teacher learning (professional knowledge creation and sharing) that occurs through interaction within and across schools in networks. What this means is that it is learning and the creation of new knowledge that leads to deep conceptual changes and new ways of working in schools and classrooms.

The figure highlights three clusters of enablers or enabling practices, that lead to this knowledge creation and sharing: the practice of establishing and supporting clear and defensible learning foci for students, teachers and leaders; the practice of collaborative inquiry that challenges thinking and practice; and the practice of instructional leadership (both formal and informal). The black arrows (both the solid and the broken ones) represent the relationship between these enablers and both the school and the network. The solid arrows link the school and the enablers. The broken arrows link the network and the enablers. The message we are conveying is that while the network does its work in terms of building capacity in these enabling practices, it is the school, which is the locus of the kind of professional learning that can change thinking and practice. This means that the network does not bypass the school. It works by strengthening the within-school learning community to ensure that schools have a clear and defensible learning focus, skills for collaborative inquiry and leadership (formal and informal) to influence professional learning. The model suggests that schools that are exhibiting these enablers at the school level can spread their practices by being part of a networked learning community. The
idea is that schools can upload their individual ideas and practices into the network, which can be collectively considered, shaped and refined, and can spread to other sites and strengthen the entire networked learning community. In addition, individual schools can download ideas and practices from the network to support knowledge creation and sharing at the school level.

We know that the quality of classroom practice is the strongest predictor of student learning and achievement. We also know that classroom practice does not change in the areas in which it needs to until the understanding that is the foundation of the practice changes. That is why professional development activities that target the so-called high-yield strategies at the level of practice have limited success when it comes to implementation. Practice is the visible face of understanding. Changing practices means changing understanding. A clear and defensible learning focus, collaborative inquiry that challenges thinking and practice, and instructional leadership (formal and informal) enable the kind of professional learning that targets understanding and the knowledge that is the precursor to changed practice. The work of the network is to build capacity in those three enablers.

Figure 1

Clear and Defensible Learning Focus for Students, Teachers and Leaders
For a long time educators have engaged in school improvement that is “a mile wide and an inch deep.” This kind of school improvement agenda often has little impact because it is not focused enough. Research shows that this is why most professional learning communities do not really translate into changed classroom practice and improved student learning. Establishing a focus means identifying an urgent student learning need, and - especially important - recognizing that this student learning need is an indicator of a teacher learning need. If students have difficulty making inferences from text as a key dimension of reading comprehension, it is important to recognize that this is likely because teachers have difficulty teaching inference. It is only reasonable to expect changes in students’ understanding and practice of making inferences after teachers build an enhanced understanding for themselves, and then teach accordingly. This is an example of focus. A focus, by definition, is narrow. Choosing a focus does not mean that you do not care about other things. It is simply about moving something urgent to the foreground, recognizing that everything in the background is still there. A focus is not a focus for life. It is selected because there is evidence that it is an urgent student (and therefore teacher) learning need, and once there is evidence to move on, you move on. Having this kind of clear and defensible learning focus for students and staff is necessary for the kind of professional learning that is the precursor to changes in practice and ultimately, to changes in student achievement. A common learning focus is the glue that binds schools together in a network, as they work to deepen their understanding and change their practices in an area of need.

Collaborative Inquiry that Challenges Thinking and Practice
Collaborative inquiry involves two components – collaboration (working together) and inquiry (a search for deep understanding). Neither of these are simple concepts. Collaboration is what most people think about as the purpose of networks. Collaboration is why you would want to bring people together. However, not all collaborations are equal, and working together for the sake of working together is not enough to move improvement forward. For collaboration to be an enabler of the kind of meaningful professional learning that can impact on practice, it needs to be more than just an inventory of group-based activities that someone hopes will make a difference. Practitioners need to be able to work together in a way that makes their knowledge accessible and explicit, and then subject it to scrutiny and challenge in an evidence-driven sense. That is, they need to practice inquiry together. Inquiry is about a need to know or a search for deep understanding. The practice of inquiry promotes the challenge and reconstruction of professional knowledge based on a body of evidence. Real inquiry is extremely difficult. Human beings are predisposed to preserve existing understandings of the world and they attempt to make new things familiar by transforming them into something that is consistent with what they already believe or know. Inquiry actually means working against this propensity, as deep understanding is not simply about confirming what people think they know, but rather about changing what people think and know. Thus, collaborative inquiry that challenges thinking and practice involves people working together in meaningful ways to deepen understanding and challenge what they already know and do.
Formal and Informal Instructional Leaders

It is not surprising that the kind of leadership that is an enabler of focused professional learning is instructional leadership (leadership related to curriculum, teaching and learning), both formal and informal. Formal leadership is leadership by virtue of role and position. Formal leaders take responsibility for and monitor the network learning focus in the school, and work to engage the whole school in the process. They protect the focus when other initiatives are being encouraged, and provide time and resources for staff to participate in focused professional learning. In addition to this, formal leaders create the conditions to realize the potential of informal leaders. Informal leadership has great promise because it is defined not by formal role or position, but by activity or expertise, either related to the focus (e.g., expert in what it means to learn and teach inference) or to change management (e.g., influential and respected by staff). Informal leaders do things like lead training sessions and participate in collaborative groups designed to deepen professional knowledge and to share learning in specific domains that are relevant to the school focus.

Keeping the Main Thing the Main Thing

As we mentioned at the beginning, networked learning communities are not an end in themselves. They provide the vehicle for having ongoing conversations in which colleagues intentionally identify issues of concern, challenge beliefs and practices, stimulate new ideas, formulate solutions, plan changes and start over again in this cycle of inquiry, always in pursuit of the best and most efficient mechanisms to help their students learn. Working in networked learning communities is not always comfortable. It means being open to new ideas, living with ambiguity, creating solutions that go beyond what anyone has done before and then testing how well they work and what else is required. The goal is always the same, more and better learning for the students in these classrooms in these schools. However, not just any learning – targeted valued learning that these students need and that requires new learning on the part of their teachers to maximize the impact of the teaching and learning practices that occur in these classrooms. This challenging task depends on the support and vision provided by focused instructional leaders, both formal and informal.

1Surowiecki, J. (2004). The wisdom of crowds: Why the many are smarter than the few. London: Abacus.