

Transformation of Learning in Rural Mexico:

A Personal Reflection

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In November, 2010, I spent several days in Mexico. The focus of my visit was a broad-based learning initiative addressed to middle-grades students in rural Mexico—the Program for the Improvement of Education Achievement in Mexico (PEMLE). PEMLE is an outgrowth of an earlier middle-grades initiative, dating back to 1996, initially called simply Post-Primary, and later MAPCP (*Aprendizaje por Cuarta Propia*, or the Methodology for Independent Learning), now often referred to as the Learning Community Model.¹ The host for my visit was Santiago Rincón Gallardo, a doctoral student at the Harvard Graduate School of Education, who was among the original group of designers and organizers of the Learning Community, led by Gabriel Cámara Cervera, and is currently involved in the design and implementation of PEMLE. Prior to my visit I knew only the barest outlines of the work that Santiago and his colleagues had done, and I had little appreciation of the implications of that work for broader issues of the large-scale improvement of learning. I was also drawn to the work because of a long-standing interest in the conditions of learning for adolescents, where I have argued, the failures of traditional schooling in American society are most apparent and costly to both young people and society at large.²

The essential challenge presented by PEMLE is a familiar one in the troubled history of educational innovation: How to take a powerful model of learning, developed by a strong and committed group of educators, from a significant number of sites (about 400 schools) where it has demonstrated success with highly committed network of practitioners and move it to a much larger number of sites where the conditions may or may not be favorable to its success. In this case, PEMLE will take the Learning Community pedagogy from a few hundred schools with a core group of about 70 network leaders to more than 7,000 of Mexico's lowest-performing schools in 31 states, and eventually to more than 30,000 low-performing schools in the total population of more than 130,000 schools. The conditions under which this transformation will occur are daunting. While Mexico is a predominantly urbanized country, with one-third of its population in its three major cities, it has a large number of very small rural communities.³ This problem is compounded by the fact that the pedagogy of the Learning Community Model is, in its basic theory and practice, completely at odds with traditional teaching and learning practices, not simply in Mexico but in the vast majority of schools serving adolescents. It

¹ Gabriel Camara Cervera, *Learning for Life in Mexican Rural Communities* (Consejo Naional de Fomento Educativo, 2003).

² Richard Elmore, "Schooling Adolescents," in Richard Lerner and Laurence Steinberg, eds, *Handbook of Adolescent Psychology*, Volume 2, Contextual Influences on Adolescent Development, 3rd Edition, New York: Wiley, 2009, pp. 193-227.

³ Santiago Rincon Gallardo, "Some Fundamental Aspects of the Program for the Improvement of Educational Achievement in Mexico," notes, 2010.

would be hard to imagine a more daunting set of circumstances for large-scale transformation of learning. But I have gotten ahead of myself.

Learning About The Learning Community Model: The Professor Becomes a Student

On a sunny November morning, I found myself sitting at a simple table on the dusty front steps of a two-room rural school being taught geometry by María Cruz, a thirteen-year-old student from the tiny community of Santa Rosa, one hundred kilometers or so from the nearest city, Zacatecas, in central Mexico. María is one of twelve students in her school. María explained to me, through our interpreter, that the problem she had chosen for me was an “easy” one, because she was unsure of how much I could remember from my experience with geometry. She presented me with a circle that had four smaller circles inscribed inside it, and she asked me how I would compute the area inside the larger circle that was not included in the four smaller circles, given the radii of the circles. She said I would be required to “explain the steps” I would go through in solving the problem, and explain my work at each step. When I said I would begin by calculating the area of the large circle, she asked, “why would you start there, rather than with the smaller circles?” In each step, as I offered my path through the problem, she asked me to defend my decisions and discuss alternatives. Eventually, after much discussion, I “solved” the problem and proudly offered my answer. María gave me a cautious nod, and then said, “but we are not quite finished.” She pointed to the pi symbol in my formula for the area of a circle, and she said, “can you explain what that symbol means and where it comes from.” A long pause ensued, while I scrambled through my geometry. I said weakly, “it stands for a number, which is something like 3.14.” “No,” she said with a more insistent tone, “I want you to tell me where it *comes* from.” For the next ten minutes or so, she led me through a detailed discussion of the derivation of pi, including a proof of why it has a constant value for all circles. María had managed, with the wit and wile of an experienced teacher, to find a place in my learning where recall had replaced understanding (if the understanding was ever there in the first place) and get me to demonstrate, with her guidance, that I knew something important.

While María and I were at work on my problem, students and adults were working in pairs and small groups around us; sometimes the adults were playing the role of teachers, sometimes they were playing, as I was, the role of the student, with students playing the role of teachers. It gradually occurred to me that in this model the labels “student” and “teacher” didn’t make much sense, which is why participants in the process refer to the person directing the learning as a “tutor,” whether they are nominally a “student” or a “teacher.” The basic idea here was to scramble the roles of teacher and student in such a way that learning became the common property of all parties to the work, and anyone who had knowledge that someone else might not have become the person who would tutor, and anyone who wanted access to that knowledge became the learner.

After students have developed mastery on a given topic, they give a public demonstration of their learning. A student in Santa Rosa gave a mathematics demonstration on the

afternoon of my visit. The demonstration begins with an explanation of the topic, and then proceeds through an explanation of the steps the student went through to arrive at a solution, with a discussion of the tutor's role in the learning process, and the detours and blind alleys that the student explored in getting to a solution. Then the demonstration concludes with questions from the assembled audience, that includes other students, adult tutors, and community members and parents (the men arrived on horseback).

These, then, are the central practices of the Learning Community Model: Students choose a learning project from an array of curriculum materials and begin an individual line of inquiry; adult tutors, who are trained by a network of other tutors and network leaders, work with students in areas where they have expertise; students prepare a formal response to the inquiry project they have chosen, and, after they have demonstrated mastery, they present it in a formal exhibition to fellow students, tutors, and parents. When they have developed mastery in a given area, students play the role of tutor to other students who are undertaking inquiry in the same area. Students learn both the content they study and the practice of tutorials. Over time, the learning of the students and tutors, coupled with the training that tutors receive in the broader network, becomes a fund of knowledge available to tutors and students in other schools in the network. Learning is disciplined throughout by norms of mastery: "The pedagogical contract between the teacher and the student is that the teacher will offer only those texts and topics that he/she has demonstrated mastery of and the student will choose (from) among those his/her preferred choice."⁴

As a learner, with María Cruz as my tutor, I found myself in an unusual situation. It was clear that I was engaged with someone who had mastered a practice. She was not bashful about stopping me when I moved from one step of the problem to another to ask for a clarification of why I made the decision I had made. Her manner was polite, respectful, but not overly impressed by my knowledge of geometry and every-vigilant for weak logic and ambiguous terminology. Her questions were clear and highly-focused. She did not share my enthusiasm for having gotten the "right" answer. She was more interested in what I didn't know, or couldn't readily recover from my prior knowledge. More importantly, she didn't "teach" me a method for solving the problem, she coached me through a process of thinking about the problem, and diagnosed a critical weakness in my background knowledge. I felt that I was in the hands of an expert.

From its inception, the Learning Community Model was based on a social network model, rather than a formal hierarchy. The work focused on *Telesecundarias*, tiny rural schools, like María's, scattered across isolated areas of Mexico. The original idea behind the *Telesecundarias* was to provide access to a national curriculum for rural middle grades students through televised lessons and curriculum materials distributed by the state. The *Telesecundarias* were staffed by graduates of local colleges with no special orientation to teaching; students would sit through a televised lesson, and then work independently on the topic of lesson with the provided materials. The Learning Community Model grew up as a response to the low quality of instruction and learning in the *Telesecundarias*. The basic idea was a radical one, owing much to the teachings of Ivan Illich: If there is a

⁴ Ibid.

shortage of well-trained, knowledgeable teachers, then why not make everyone a well-trained, knowledgeable teacher by giving everyone access to a fund of knowledge and everyone the responsibility to tutor someone else. This seeming disregard for the conventional distinction between teacher and student troubles many people, but it is the core idea behind the Learning Community Model practice. The practice has expanded to several hundred rural schools from 1996 to the present, through the establishment of social networks, first, by training network leaders, virtually all of whom have been tutors in schools, who would train local people to serve as tutors. The basic structure, in keeping with the pedagogical theory, is extremely flat: as people gain experience in the tutorial practice, they gain additional responsibility in carrying the practice to others. There are now some 400 network leaders working with 1000 tutors in 3000 schools. The practice mirrors the pedagogy by modeling the tutorial relationship, in the way María Cruz modeled the practice with me.

Can students be “trusted” to manage their own learning? Don’t adolescents need more adult direction and discipline than the tutorial model provides? How can we be assured that students are learning the “right” things in a context where the relationships between “student” and “teacher” are deliberately scrambled? When all this networked activity is occurring in hundreds of rural settings, who is keeping track of the overall quality and impact of the teaching and learning? These and many other questions bubble up around the practice. What’s remarkable about the extended network of people involved in this practice is that they have relatively straightforward answers to these questions, and they seem to have been successful in addressing them frontally.

To the question of whether students can be “trusted” to manage their own learning, they respond that student choice is a fundamental motivation to engage in learning, and that the choices students make are shaped by the personal relationships they develop with adults and other students. The purpose of learning, in this model, is secondarily to “cover” the curriculum, and more fundamentally to develop the inquiry, dialogue, and discourse skills that allow one to take control of one’s own learning in the context of a supportive community. The idea that adolescents are inherently undisciplined and unable to make decisions without detailed adult guidance and control is treated as a fundamental misconception by practitioners of the Learning Community. Adolescents act responsibly, they argue, when they are given responsibilities and when they are asked to publicly demonstrate what they have learned. The Learning Community Model turns the issue of whether students are learning the “right” things on its head; students make choices from the curriculum and tutorial resources they have access to; if they are not making the “right” choices then the resources should be changed or broadened. Issues of quality and performance in the social network of tutors and students is fundamentally a matter of lateral accountability in the Learning Community Model. Network members account to each other for the learning that occurs in the network through the principle of mastery and demonstrations of learning; if they get these relationships right, then the learning should be transparent and accessible to anyone who is willing to take the trouble to inquire. Whether this model of accountability comports with government policy is another matter, as we shall see.

The Problem of Scale

The Mexican national government has big plans for the Learning Community Model. PEMLE will initially take the practice from 400 schools to more than 7,000, and eventually, with varying degrees of intensity to more than 30,000 schools, all among the lowest performing schools in Mexico. In the process, the network's practices will move outward from the familiar territory of rural middle grades schools into a more diverse portfolio of urban and rural schools at different grade levels. More importantly, with PEMLE, the Learning Community Model will be moving out of a network of schools that have voluntarily opted into the practice and into a collection of schools that are being required to adopt the practice by virtue of their status as low-performing schools. Any serious student of large scale improvement would say, based on existing experience across many settings, that the likelihood of accomplishing this dramatic shift in scale while at the same time insuring the integrity of the model is very small. Over several days of interacting with people around PEMLE at all levels, from the Ministerial level through the state and local government level, into the network level, and down to the school level, I found myself increasingly intrigued with the problem presented by PEMLE.

My first instinct is that taking a powerful practice to scale requires a deep understanding of what makes the practice powerful in its original form. In speaking with network leaders, tutors, and students I came to understand the Learning Community Model as composed of four basic components:

- (1) A pedagogical model. Learning the practice is fundamental to making the model work and to adapting it to the wide variety of contexts in which it will have to function. Unlike many innovations, the practice here is blessedly simple. It involves teaching people basic inquiry skills, exposing them to a body of knowledge they can use to shape their practice, and providing them with ample opportunities to practice in the presence of people who are, however minimally, more accomplished than they are. The problems at this level are more likely to originate in the cultural biases that adults bring to the education of adolescents than in learning the practice. Initial experience suggests that after adults try the tutorial practice, their resistance tends to weaken and their preconceptions about what adolescents are capable doing shift markedly. The problem here is how to get large numbers of people to do the work in settings where they can appreciate both its requirements as a practice and where they can observe its effect on students.
- (2) A network of learners. The Learning Community Model has grown as a practice largely because it has engaged an ever-growing number of people in a common learning project connected through a social network. The fundamental conditions that enable learning in this network are twofold: (1) people work in face-to-face relationships with other people who are, on some dimension, more knowledgeable than they are about the work at hand, with the expectation that they themselves will assume the same role *vis a vis* others; and (2) knowledge moves through the network through a reliance on public discourse about the learning, which, in turn reinforces accountability for quality among members of the network. The implication here is obvious, but a little scary. The model cannot be “bureaucratized” or “systematized” in the usual way that governments try to

- bring successful practices to scale; to do so would surely kill the practice. The problem here is how to build the social network model out, through successive stages, into self-reproducing networks based on face-to-face relationships and public discourse. The PEMLE strategy includes reference to increasing scale through the building of “nodes”—collegial teams distributed through the states—that will carry the work into schools. This idea is consistent with the core practices of the Learning Community Model, but the actual practice within these nodes and how it will carry the work to schools are still underspecified.
- (3) An R&D organization. The successes of the Learning Community Model thusfar have been built on a rather skimpy foundation of curriculum and instructional technology. The tutorial system is still heavily dependent on the curricular materials from the original *Telesecundarias*, which were built for an entirely different purpose in an entirely different era. The network leaders and tutors are beginning to bring new knowledge and materials into the network from their own practice and their own learning, but that process needs infrastructure and support to meet not only the challenges of scale but also the challenges of keeping up with the demands of increasingly ambitious learners. The national government is embarked on an ambitious strategy to construct a nationwide general purpose fiber optic network. Building a networked system of learners of the sort required by PEMLE will precipitate demands for direct connections among schools and individuals, unmediated by complex bureaucratic structures, and will also precipitate demands for high quality learning materials and curricular support. PEMLE would be an ideal setting to experiment with various open-access models for sharing curriculum materials and inquiry tasks through the network of schools, tutors, and students. In the absence of serious attention to the quantity, quality, and accessibility of high quality curriculum materials, PEMLE could slide into mediocrity.
- (4) A social movement. In addition to being a pedagogical model, a learning network, and an incipient research and development enterprise, the Learning Community Model is, at its core, a social movement. Meeting with network leaders, local tutors, and students reminds me of some of the more powerful community organizing groups I have worked with in the U.S. The Industrial Areas Foundation comes readily to mind. The distinguishing feature of social movements as a force for social innovation is that they operate in fundamentally different ways from public agencies: They rely on affiliation with well-formed and well-articulated purpose, rather than bureaucratic structures to hold the organization together. They work against certain fundamental patterns of culture and practice in mainstream, established organizations and they take a large part of their reinforcement from fundamentally changing the values and practices of established institutions. And, most importantly, they rely on a common narrative—a shared story about who they are and where they are going—to guide their work, rather than hierarchical systems of control. PEMLE without the most salient features of the Learning Community Model as a social movement will quickly devolve into just another bureaucratic “project.” Thusfar the work of the Learning Community Model has been given a sheltered status within the government that protects it from being incorporated into the mainstream bureaucratic structure. As the visibility of the work increases, the pressure to

incorporate the practice into mainstream institutions will increase. The remedy for this pressure will not be popular with mainstream institutions: Part of the narrative of the social movement will have to become a deliberate statement of the reasons why the work has to continue through social networks rather than through hierarchical structures. The political power of social movements ultimately depends on their ability to use their broad base to mobilize support for their mission, and to deflect opposition.

Finally, the pressure to vastly increase the scale of the Learning Community Model through PEMLE comes from a growing realization in the national government that Mexico faces a crisis of quality in its schools. The introduction of a national testing system has focused public debate on issues of teacher quality and student performance. The Mexican government has initiated a number of international partnerships designed to connect its education system with expertise around school improvement. PEMLE currently has high visibility in Mexico as a promising path into significant improvements in the quality of learning for students and teachers. But the focus on national testing can also bring irreparable harm to the work of PEMLE. Mexico, as in the U.S., has launched its national testing program without deep consideration of what the tests actually measure and whether rewarding and punishing schools based on their test performance is actually a defensible theory of school improvement. The success of PEMLE, as an improvement strategy, will require a thoughtful approach to assessment that considers measures of quality as well as measures of performance, attention to the social and cultural purposes of learning as well as the instrumental purposes, and a willingness to subject the test-and-punish theory of accountability to the same standards of effectiveness as alternative theories of accountability and improvement.

Since my return from Mexico, I have thought many times about my geometry lesson with María Cruz in Santa Rosa. I am currently spending at least two, sometimes three, days a week visiting classrooms in American schools as part of my work on school improvement. Since my lesson with María, I have probably visited between forty and fifty classrooms in ten schools, mostly urban, mostly low-performing. The people in these schools are working hard. They are trying to do what they think people in positions of power and authority want them to do—whether they think it is the right thing to do or not. In the classrooms I visit, I cannot hear students when they speak (I cannot remember the last time I heard a student speak clearly and audibly in an American public school classroom). I routinely observe teachers talking over the top of students when the students are trying to explain what they know. I routinely hear teachers finishing students' sentences and "explaining" assignments to students before the students have had an opportunity to think about them. I routinely see "Do Nows" on the board in the front of classrooms that have no relationship to the content being taught in the class and no explanation for why the work is being done. I see academic tasks that require students to fill in worksheets with prompts that are drawn directly from released items on state tests. I see students reading texts that have been chopped into discrete chunks and packaged into thick textbooks, rather than choosing what to read and explaining why. I see students writing paragraphs to a formula that they will never use again once they have answered the open response questions on the state test. I have observed teachers in teams talking about student performance on discrete assessment items without reference to the knowledge domain

that the items are designed to measure. María is my constant companion in these classrooms these days. She reminds me of how much our well-intentioned work is *disabling* a generation of American students around the fundamental work of learning to learn.

As I observe these things, which have now become the staple of “school improvement practice” in American schools, Maíia is a vivid presence—her confidence and poise as a tutor, her wry commentary on my shaky grasp of the origins of pi, her relationships with her tutors and the other eleven students in her school, her strong voice, her level gaze and eye contact when she speaks to adults, her quiet courage and joy as a learner. I also think about the proud parents assembled in the dusty front yard of a tiny two-room school in the middle of nowhere, with pickup trucks and horses tethered nearby, listening to one of their children speak as an expert about a complex math problem, with pride and a bit of incomprehension that this could be happening to their child. When I think about María, I think, “someone had the audacity to believe that this thirteen-year-old girl could take control of her own learning and someone tried to figure out how to make that happen, not just for María but for hundreds of other young people like her, and, more audaciously, for the adults whom María looks to for guidance in her learning.” That’s something worth thinking about.