Steady Work: How Finland Is Building a Strong Teaching and Learning System

Linda Darling-Hammond

Finland offers an example of how a nation built a comprehensive "teaching and learning system" that has raised achievement and closed achievement gaps.

The aim [of Finnish education policy] is a coherent policy geared to educational equity and a high level of education among the population as a whole. The principle of lifelong learning entails that everyone has sufficient learning skills and opportunities to develop their knowledge and skills in different learning environments throughout their lifespan.

— Government of Finland, Ministry of Education

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It is exhausting even to recount the struggles for equitable funding in American schools, much less to be engaged in the struggles, year after year, or – much more debilitating – to be a parent or student who is subject day by day, week by week to the aggressive neglect often fostered in dysfunctional, under-resourced schools.

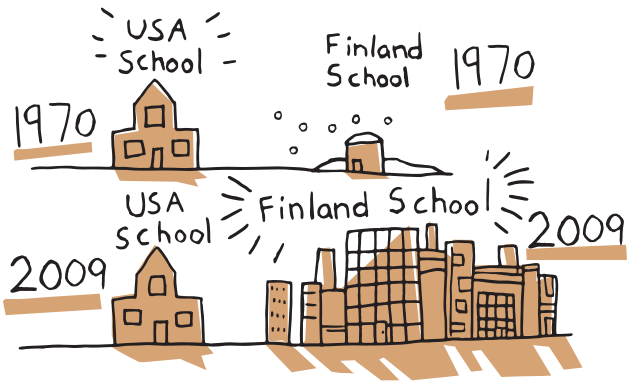
One wonders what we might accomplish as a nation if we could finally set aside what appears to be our de facto commitment to inequality, so profoundly at odds with our rhetoric of equity, and put the millions of dollars spent continually arguing and litigating into building a high-quality education system for all children. To imagine how that might be done, one can look at nations that started with very little and purposefully built highly productive and equitable systems, sometimes almost from scratch, in the space of only two to three decades.

In this article, I briefly describe how one nation – Finland– built a strong educational system nearly from the ground up. Finland was not succeeding educationally in the 1970s, when the U.S. was the unquestioned education leader in the world. Yet it created a productive teaching and learning system by expanding access while investing purposefully in ambitious educational goals using strategic approaches to build teaching capacity.

I use the term "teaching and learning system" advisedly to describe a set of elements that, when well designed and connected, reliably support all students in their learning. These elements ensure that students routinely encounter well-prepared teachers who are working in concert around a thoughtful, high-quality curriculum, supported

by appropriate materials and assessments – and that these elements of the system help students, teachers, leaders, and the system as a whole continue to learn and improve.

While Finland continues to experience problems and challenges, it has created a much more consistently high-quality education system for all of its students than has the United States. And while no system from afar can be transported wholesale into another context, there is much to learn from the experiences of those who have addressed problems we encounter. A sage person once noted that while it is useful to learn from one's own mistakes and experiences, it is even wiser to learn from those of others. This story is offered with that goal in mind.



The Finnish Success Story

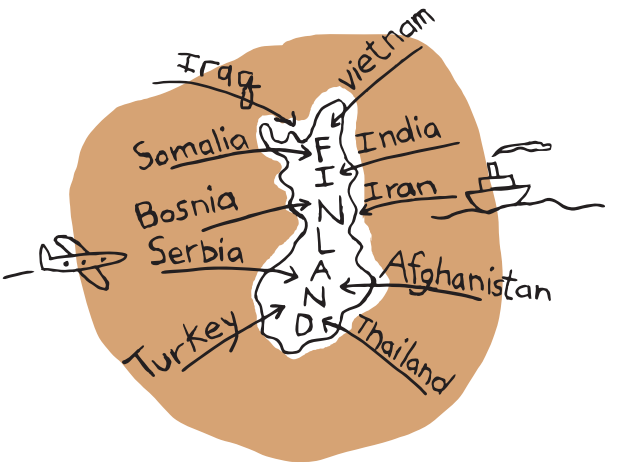
Finland has been a poster child for school improvement since it rapidly climbed to the top of the international rankings after emerging from the Soviet Union's shadow. Once poorly ranked educationally, with a turgid bureaucratic system that produced low-quality education and large inequalities, it now ranks first among all the Organization for Economic Cooperation and Development (OECD) nations on the Programme for International Student Assessment (PISA) assessments in mathematics, science, and reading. The country also boasts a highly equitable distribution of achievement, even for its growing share of immigrant students (NCES 2007).

In a recent analysis of educational reform policies in Finland, Pasi Sahlberg (2009) describes how since the 1970s Finland has changed its traditional education system "into a model of a modern, publicly financed education system with widespread equity, good quality, large participation – all of this at reasonable cost" (p. 2). In addition to the gains in measured achievement, there have been huge gains in educational attainment at the upper secondary and college levels. More than 99 percent of students now successfully complete compulsory basic education, and about 90 percent complete upper secondary school (Statistics Finland 2009). Two-thirds of these graduates enroll in universities or professionally oriented polytechnic schools. And over 50 percent of the Finnish adult population participates in adult-education programs. Ninety-eight percent of the costs of education at all levels are covered by government, rather than by private sources (NCES 2007).

Although there was a sizable achievement gap among students in

the 1970s, strongly correlated to socio-economic status, this gap has been progressively reduced as a result of curriculum reforms starting in the 1980s – and continued to grow smaller and smaller in the 2000, 2003, and 2006 PISA assessments. By 2006, Finland's between-school variance on the PISA science scale was only 5 percent, whereas the average between-school variance in other OECD nations was about 33 percent (Sahlberg 2009; NCES 2007). Large between-school variation is generally related to social inequality, including both the differences in achievement across neighborhoods differentiated by wealth and the extent to which schools are funded and organized to reduce or expand inequalities.

Not only is there little variation in achievement across Finnish schools, the overall variation in achievement among Finnish students is also smaller than that of nearly all the other OECD countries. This is true despite the fact that immigration from nations with lower levels of education has increased sharply in recent years, and there is more linguistic and cultural diversity for schools to contend with. Although most immigrants are still from places like Sweden, the most rapidly growing newcomer groups since 1990 have been from Afghanistan, Bosnia, India, Iran, Iraq, Serbia, Somalia, Thailand, Turkey, and Vietnam; new immigrants speak more than sixty languages. Yet, achievement has been climbing in Finland and growing more equitable, even as it has been declining in some other OECD nations.

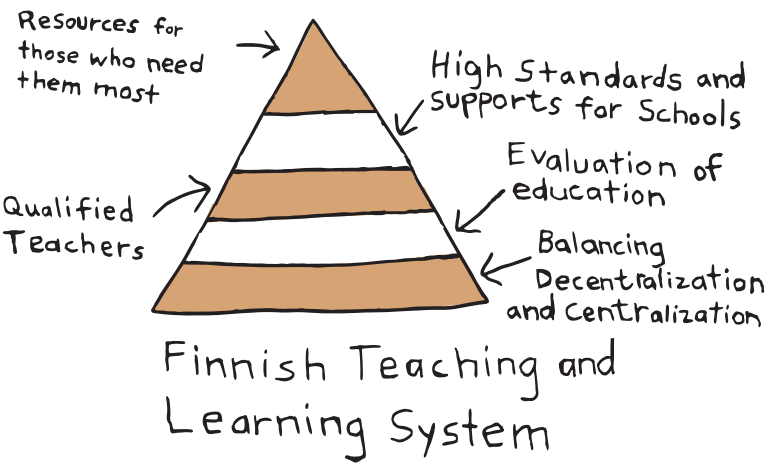


Strategies for Reform

Because of these trends, many people have turned to Finland for clues to educational transformation. As one analyst notes:

> Most visitors to Finland discover elegant school buildings filled with calm children and highly educated teachers. They also recognize the large autonomy that schools enjoy; little interference by the central education administration in schools' everyday lives, systematic methods to address problems in the lives of students, and targeted professional help for those in need. (Sahlberg 2009, p. 7)

However, less visible forces account for the more tangible evidence visitors may see. Leaders in Finland attribute these gains to their intensive investments in teacher education – all teachers receive three years of high-quality graduate-level preparation, completely at state expense – plus a major



overhaul of the curriculum and assessment system designed to ensure access to a "thinking curriculum" for all students. A recent analysis of the Finnish system summarized its core principles as follows (Laukkanen 2008; see also Buchberger & Buchberger 2003):

- Resources for those who need them most
- High standards and supports for special needs
- Qualified teachers
- Evaluation of education
- Balancing decentralization and centralization

The process of change has been almost the reverse of the progression of policies in the United States. Over the past forty years, Finland has shifted from a highly centralized system emphasizing external testing to a more localized system in which highly trained teachers design curriculum around the very lean national standards. This new system is implemented through equitable funding and extensive preparation for all teachers. The logic of the system is that investments in the capacity of local teachers and schools to meet the needs of all students, coupled with thoughtful guidance about goals, can unleash the benefits of local creativity in the cause of common, equitable outcomes.

Meanwhile, the U.S. has been imposing more external testing – often exacerbating differential access to curriculum – while creating more inequitable conditions in local schools. Resources for children and schools in the form of both overall funding and the presence of trained, experienced teachers have become more disparate in many states, thus undermining the capacity of schools to meet the outcomes that are, ostensibly, sought.

Finnish policy analyst Sahlberg (2009) notes that Finland has taken a very different path. He identifies a set of global reforms, undertaken especially in the Anglo-Saxon countries, that Finland has not adopted, including

standardization of curriculum enforced by frequent external tests; narrowing of the curriculum to basic skills in reading and mathematics; reduced used of innovative teaching strategies; adoption of educational ideas from external sources, rather than development of local internal capacity for innovation and problem solving; and adoption of high-stakes accountability policies, featuring rewards and sanctions for students, teachers, and schools. By contrast, he suggests:

> Finnish education policies are a result of four decades of systematic, mostly intentional, development that has created a culture of diversity, trust, and respect within Finnish society, in general, and within its education system, in particular. … Education sector development has been grounded on equal opportunities for all, equitable distribution of resources rather than competition, intensive early interventions for prevention, and building gradual trust among education practitioners, especially teachers. (p. 10)

Equity in opportunity to learn is supported in many ways, in addition to basic funding. Finnish schools are generally small (fewer than 300 pupils), with relatively small class sizes (in the twenties), and are uniformly well equipped. The notion of caring for students educationally and personally is a central principle in the schools. All students receive a free meal daily, as well as free healthcare, transportation, learning materials, and counseling in their schools, so that the foundations for learning are in place (Sahlberg 2007). Beyond that, access to quality curriculum and teachers has become a central aspect of Finnish educational policy.

Improving Curriculum Content and Access

Beginning in the 1970s, Finland launched reforms to equalize educational opportunity by eliminating the practice of separating students into very different tracks based on their test scores, along with the examinations previously used to enforce it. This occurred in two stages between 1972 and 1982, and a common curriculum was developed throughout the entire system through the end of high school. These changes were intended to equalize educational outcomes and provide more open access to higher education (Eckstein & Noah 1993). During this time, social supports for children and families were also enacted, including health and dental care, special education services, and transportation to schools.

By the late 1970s, investment in teachers was an additional focus. Teacher education was improved and extended. Policy-makers decided that if they invested in very skillful teachers, they could allow local schools more autonomy to make decisions about what and how to teach – a reaction against the oppressive, centralized system they sought to overhaul.

This bet seems to have paid off. By the mid-1990s, the country had ended the highly regulated system of curriculum management (reflected

in older curriculum guides that had exceeded 700 pages of prescriptions). The current national core curriculum is a much leaner document – featuring fewer than ten pages of guidance for all of mathematics, for example – which guides teachers in collectively developing local curriculum and assessments. The focus of 1990s curriculum reforms was on science, technology, and innovation, leading to an emphasis on teaching students how to think creatively and manage their own learning. As Sahlberg (2009) notes:

> Rapid emergence of innovation-driven businesses in the mid-1990s introduced creative problem-solving and innovative cross-curricular projects and teaching methods to schools. Some leading Finnish companies, such as Nokia, reminded education policy-makers of the importance of keeping teaching and learning creative and open to new ideas, rather than fixing them to predetermined standards and accountability through national testing. (p. 20)

Indeed, there are no external standardized tests used to rank students or schools in Finland, and most teacher feedback to students is in narrative form, emphasizing descriptions of their learning progress and areas for growth (Sahlberg 2007). As is the case with the National Assessment of Educational Progress (NAEP) exams in the United States, samples of students are evaluated on open-ended assessments at the end of the second and ninth grades to inform curriculum and school investments. The focus is on using information to drive learning and problem solving, rather than punishments.

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Finland maintains one exam prior to attending university: the matriculation exam, organized and evaluated by a Matriculation Exam Board appointed by the Finnish Ministry of Education. While not required for graduation or entry into a university, it is a common practice for students to take this set of four open-ended exams, emphasizing problem solving, analysis, and writing. Teachers use official guidelines to grade the matriculation exams locally, and samples of the grades are reexamined by professional raters hired by the Matriculation Exam Board. Although it is counterintuitive to those accustomed to external testing as a means of accountability, Finland's use of school-based, student-centered, open-ended tasks embedded in the curriculum is often touted as an important reason for the nation's success on the international exams (Lavonen 2008; FNBE 2007).

The Finnish National Board of Education describes the approaches used for curriculum and assessment on its Web site (FNBE 2007). The national core curriculum provides teachers with recommended assessment criteria for

specific grades in each subject and in the overall final assessment of student progress each year. Local schools and teachers then use those guidelines to craft a more detailed curriculum and set of learning outcomes at each school, as well as approaches to assessing benchmarks in the curriculum. According to the FNBE, the main purpose of assessing students is to guide and encourage students' own reflection and self-assessment. Consequently, ongoing feedback from the teacher is very important. Teachers give students formative and summative reports both through verbal and narrative feedback.

Inquiry is a major focus of learning in Finland, and assessment is used to cultivate students' active learning skills by asking open-ended questions and helping students address these problems. In a Finnish classroom, it is rare to see a teacher standing at the front of a classroom lecturing students for fifty minutes. Instead, students are likely to determine their own weekly targets with their teachers in specific subject areas and choose the tasks they will work on at their own pace. In a typical classroom, students are likely to be walking around, rotating through workshops or gathering information, asking questions of their teacher, and working with other students in small groups. They may be completing independent or group projects or writing articles for their own magazine. The cultivation of independence and active learning allows students to develop metacognitive skills that help them to frame, tackle, and solve problems; evaluate and improve their own work; and guide their learning processes in productive ways (Lavonen 2008).

An orientation to well-grounded experimentation, reflection, and improvement as a dynamic cycle for individual and organizational learning characterizes what students are asked to do in their inquiry-based lessons, what teachers are asked to do in their professional problem-solving and curriculum development, and what schools are asked to do in their drive for continual progress. Sahlberg (2007) notes: "A typical feature of teaching and learning in Finland is encouraging teachers and students to try new ideas and methods, learn about and through innovations, and cultivate creativity in schools, while respecting schools' pedagogic legacies" (p. 152).

Improving Teaching

Greater investments in teacher education began in the 1970s with expectations that teachers would move from three-year normal school programs to four-to-five-year programs of study. During the 1990s, the country overhauled preparation once again to focus more on teaching diverse learners for higher-order skills like problem solving and critical thinking in research-based master's degree programs. Ian Westbury and colleagues (2005) suggest that preparing teachers for a research-based profession has been the central idea of teacher education developments in Finland.

Prospective teachers are competitively selected from the pool of college graduates – only 15 percent of those who apply are admitted (Buchberger & Buchberger 2003) – and receive a three-year, graduate-level teacher-preparation program, entirely free of charge and with a living stipend. Unlike the U.S., where teachers either go into

debt to prepare for a profession that will pay them poorly or enter with little or no training, Finland – like other Scandinavian countries – made the decision to invest in a uniformly well-prepared teaching force by recruiting top candidates and paying them to go to school. Slots in teacher training programs are highly coveted and shortages are virtually unheard of.

Teachers' preparation includes both extensive coursework on how to teach – with a strong emphasis on using research based on state-of-the-art practice – and at least a full year of clinical experience in a school associated with the university. These model schools are intended to develop and model innovative practices, as well as to foster research on learning and teaching. Teachers are trained in research methods so that they can "contribute to an increase of the problem-solving capacity of the education system" (Buchberger & Buchberger 2003, p. 10).

Teacher training emphasizes learning how to teach students who learn in different ways, including those with special needs. The egalitarian Finns reasoned that if teachers learn to help students who struggle, they will be able to teach all students more effectively and, indeed, leave no child behind.

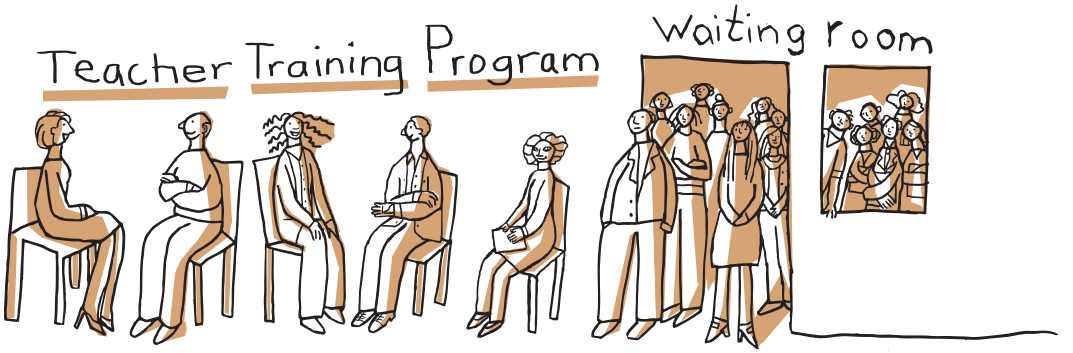
Within these model schools, student teachers participate in problem-solving groups, a common feature in Finnish schools. The problem-solving groups engage in a cycle of planning, action, and reflection/evaluation, which is reinforced throughout the teacher education. This process is, in fact, a model for what teachers will plan for their own students, who are expected to conduct similar kinds of research and inquiry in their own studies. Indeed, the entire system is intended to improve through continual reflection, evaluation, and problem solving, at the level of the classroom, school, municipality, and nation.

Teachers learn how to create challenging curriculum and how to develop and evaluate local performance assessments that engage students in research and inquiry on a regular basis. Teacher

training emphasizes learning how to teach students who learn in different ways, including those with special needs. It includes a strong emphasis on "multiculturality" and the "prevention of learning difficulties and exclusion," as well as on the understanding of learning, thoughtful assessment, and curriculum development (Buchberger & Buchberger 2003). The egalitarian Finns reasoned that if teachers learn to help students who struggle, they will be able to teach all students more effectively and, indeed, leave no child behind.

Most teachers now hold master's degrees in both their content and in education, and they are well prepared to teach diverse learners – including special needs students – for deep understanding and to use formative performance assessments on a regular basis to inform their teaching so it meets students' needs (Laukkanen 2008; Buchberger & Buchberger 2003). Teachers are well trained both in research methods and in pedagogical practice. Consequently, they are sophisticated diagnosticians, and they work together collegially to design instruction that meets the demands of the subject matter as well as the needs of their students.

In Finland, like other high-achieving nations, schools provide time for regular collaboration among teachers on issues of instruction. Teachers in Finnish schools meet at least one afternoon each week to jointly plan and develop curriculum, and schools in the same municipality are encouraged to work together to share materials. Time is also provided for professional development within the teachers' workweek (OECD 2005). As is true in many European and Asian nations, nearly half of teachers' school time is used to hone practice through school-based curriculum work, collective planning, and cooperation with parents, which allows schools and families to work more closely together on behalf of students (Gonnie van Amelsvoort & Scheerens 1996). This



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compares to only three to five hours per week available to most U.S. teachers for lesson planning – conducted independently, without the benefit of colleagues' thinking. The result is that:

> Finnish teachers are conscious, critical consumers of professional development and in-service training services. Just as the professional level of the teaching cadre has increased over the past two decades, so has the quality of teacher professional development support. Most compulsory, traditional in-service training has disappeared. In its place are school- or municipality-based longer-term programs and professional development opportunities. Continuous upgrading of teachers' pedagogical professionalism has become a right rather than an obligation. This shift in teachers' learning conditions and styles often reflects ways that classroom learning is arranged for pupils. As a consequence of strengthened professionalism in schools, it has become understood that teachers and schools are responsible for their own work and also solve most problems rather than shift them elsewhere. Today the Finnish teaching profession is on a par with other professional workers; teachers can diagnose problems in their classrooms and schools, apply evidence-based and often alternative solutions to them and evaluate and analyze the impact of implemented procedures. (Sahlberg 2007, p. 155)

The focus on instruction and the development of professional practice in Finland's approach to organizing the education system has led, according to all reports, to an increased prevalence of effective teaching methods in schools. Furthermore, efforts to enable schools to learn from each other have led to what Michael Fullan (2005) calls "lateral capacity building": the widespread adoption of effective practices and experimentation with innovative approaches across the system, "encouraging teachers and schools to continue to expand their repertoires of teaching methods and individualizing teaching to meet the needs of all students" (Sahlberg 2007, p. 167).

A Finnish official noted this key lesson learned from the reforms that allowed Finland to climb from an inequitable, mediocre education system to the very top of the international rankings:

> Empowerment of the teaching profession produces good results. Professional teachers should have space for innovation, because they should try to find new ways to improve learning. Teachers should not be seen as technicians whose work is to implement strictly dictated syllabi, but rather as professionals who know how to improve learning for all. All this creates a big challenge…that certainly calls for changes in teacher education programs. Teachers are ranked highest in importance, because educational systems work through them. (Laukkanen 2008)

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