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Paradoxes of educational improvement: The Finnish experience

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ABSTRACT

International student assessments have become the most significant pretext for education policy development and large-scale reforms. Finland is an example of a nation that has enjoyed global attention and unexpected credit due to its high performance in all four OECD PISA surveys. This article examines the current education system in Finland through three perspectives. First, the basic Finnish educational landscape since WWII until the 1970s will be briefly described. The article then argues that contemporary educational change in Finland can be divided into three phases and respective logics: (a) challenging the theoretical and methodological foundation of schooling, (b) improving education through networking and self-regulated change, and (c) enhancing efficiency of structures and administration. As a conclusion, this article claims that Finland's educational system can be better understood through paradoxes rather than through the pure logic of change. Futhermore, it concludes that only a few directly transferrable educational ideas from Finland are relevant to the practices of other nations.

INTRODUCTION

The story of Finland is a story of survival. Being a relatively small nation situated between much larger powers of the East and the West has taught Finns to accept existing realities and take a chance with available opportunities. Diplomacy, cooperation and seeking consensus have thus become hallmarks of contemporary Finnish culture. These traits all play an important part also in building an educational system that has enjoyed global attention due to equitable distribution of good teaching and learning throughout the Finland. This article describes how Finland has travelled from a poor agrarian, only modestly educated nation to a modern knowledge society with a well-performing education system.

War poses the most serious imaginable crisis for any democratic nation. Finland was, except a short period of cease-fire, at war from December 1939 to spring 1945. The cost of war to a young, independent nation with a population of less than four million was huge: 90,000 dead and 60,000 permanently injured. In addition, there were 50,000 orphans and 25,000 who were widowed. A peace treaty with the Soviet Union was signed in Moscow on 19th September 1944 but military campaign to remove German troops from Finland continued until April 1945. The conditions accepted by the Finns were severe. Finland had to hand over 12 percent of its territory to the Soviets and to relocate 450,000 people, which was 11 percent of

Finland's total population. The Finnish concessions to the Soviets were estimated to reach seven percent of its GDP. A peninsula near Helsinki had to be rented to the Soviet army as a military base, political prisoners had to be released, and wartime leaders judged in war tribunals. Several political associations became prohibited and the communist party became a legal Finnish political entity. This led to such fundamental political, cultural, and economic changes that some have identified this era as the emergence of a 'Second Republic' in Finland, although the use of that term remains controversial.

Finland had fought for its freedom and survived. The external threat united Finns who still felt the wounds of the previous 1918 civil war. It also created a new political environment that highlighted ideas of equal educational opportunities. The following decades became an era of political instability and economic transformation that influenced social policies and education, as well. Therefore, it is difficult to understand why education has become one of the trademarks of Finland without examining Finnish post-WWII political and social developments. Even among Finns there are those who argue that the search for key success factors in the Finnish educational system has to extend well earlier than 1970, a year often recognized as an historical milestone in Finnish education for reasons explained later in this article.

The Finnish education system's three stages of development are congruent with the nation's economic-development stages after WWII in the following way (Routti&Ylä-Anttila 2006; Sahlberg 2010b):

- Enhancing equal opportunities for education vs. transition from a northern agricultural nation to an industrialized society (1945–);
- Creating a public comprehensive school system vs. a Nordic welfare society with a growing service sector and higher technological level (1965–);
- Improving the quality of basic education and expanding higher education vs. a high-tech internationalized nation (1985–).

The 1950s were already a time of rapid changes in Finnish economic structure, but the 1960s have been characterized as phenomenal by international perspectives (Routti&Ylä-Anttila, 2006; Aho et al., 2006).The decade of the 1960s saw Finnish society, in more general terms, give up its old values, and traditional Finnish institutions began to transform. Public services – especially basic education – were some of the most visible ones. Still, Finland clung to its old established structures and opinions. However, when the time for decisive change arrived, its speed and thoroughness took many Finns by surprise.

FROM PERIPHERY TO LIMELIGHT

The end of the Second World War meant radical changes in Finnish political, social, and economic lives. As a result of its 1944 peace treaty, Finland had to allow communist parties to participate in national politics, handle displacement of hundreds of thousands of Finnish citizens from its lost territories in Karelia and pay heavy war-related compensations to the Soviets.

Education was, again, the main vehicle of social and economic transformation of the post-war era. In 1950, educational opportunities in Finland were unequal in the

sense that only those living in towns or municipalities had, in practice, access to grammar or middle schools. Most young people left school after six years of regular schooling. When private grammar schools were available, pupils could apply to them after four, five, or six years of state-run basic school. In 1950, as an example, just 27 percent of 11-year-old Finns enrolled in grammar schools that consisted of five-year middle school and three-year high-school. An alternative educational path after the compulsory seven years of basic education was so-called civic school that lasted for two or three years if they were offered by Finnish municipalities. This was followed by vocational training and technical education, but only in larger municipalities and towns at that time. In 1950, there were 338 Grammar schools offering further educational opportunities after the six-year basic school in Finland (Kiusmaa, 1982). The Finnish state operated 103 and municipalities ran 18 of these schools. Of the remaining 217 Grammar schools – about two-thirds of all schools – were governed by private citizens or associations. The major burden of the rapid expansion of education following basic schooling was absorbed by these private schools. A significant social innovation in 1950 was issuance of legislation that guaranteed state subsidies to private schools and simultaneously extended the government's hand and control over these schools. This made it possible to respond to the public's growing interest in education by opening new private schools as their financial risks were diminished through state funding.

In the early years after Finland's independence, teaching in primary schools was formal, teacher-centred, and more focused on moral, rather than cognitive, development. Although pedagogical ideas that aimed at social gains and more holistic interpersonal development were known in Finland as early as the 1930s, school education remained rather uninfluenced by them (Koskenniemi, 1944). Three dominant themes in Finnish national education policy between 1945 and 1970 were(Aho et al., 2006):

(a) the structure of the education system would provide access to better and more education for all;

(b) the form and content of curricula would focus on development of individual, holistic personalities of children; and

(c) modernizing teacher education to respond to needs arising from developments (a) and (b).

The vision of Finnish society was built on knowledge and skills; thus, education was seen as a foundation in establishing the future. It had become clear that to become a recognised member in the community of Western democracies and market economies after WWII, Finland needed a better-educated population–this was a vision for the *entire* nation. The national economic structure was in transition from farming and small businesses to industrial and technological production. The new political environment had also activated working-class families who insisted that their children should also have opportunities to benefit from extended public education. The old idea of a comprehensive school that was based on a unified curriculum and accessible for all entered education policy discussions.

The first two decades after WWII were politically turbulent in Finland. The communist party returned to the main stage of daily politics in the first post-war elections in 1944 and identified education as one of their primary strategies to build a Finnish socialist society. In 1948 elections, three political parties received nearly equal seats in the Finnish national Parliament: Social Democrats (50 seats), Agrarian Centre Party (49 seats) and Communists (49 seats). Rebuilding of Finland began; political consensus was a precondition for reforms, including renewing the Finnish educational system. The Conservative Party increased its popularity in the 1950s and became a fourth political force that had to be included in seeking a balance in forthcoming decisions. The political education committees played particularly important roles as the idea of comprehensive basic schooling for all Finnish students was finally realized in early 1970s.

Three politically oriented education committees are worth mentioning at this point. First, in June 1945, the Government established the Primary School Curriculum Committee to renew curricula in primary education. The secretary of that committee was Professor *Matti Koskenniemi* (1908-2001) who had, a few years earlier, written a seminal book on *Primary School Didactics* (Koskenniemi, 1944). Through his contributions, the perspective on curriculum in Finland shifted from focusing on syllabi (the German concept of *lehrplan*) to describing educational objectives, process of education, and evaluation. There are several reasons why this committee has a central place in the history of Finnish education. First, the committee devoted special attention to formulating new objectives for education: school should aim at educating young people with individual, holistic personalities,possessing intrinsic motivation for further education. The content of education that would lead to this general aim was grouped in five thematic, cross-curricular areas that later became a model for the Comprehensive School Curriculum Committee in 1970. Second, curriculum reform was based on the idea of experimentation in 300 field schools and 1000 teachers. In this way, research became part of education policy-making. Third, a corollary of the previous two reasons, the quality of the committee's work was regarded as exceptionally high. The Final Memorandum of the committee published in 1952 has merit in its systematic formulation of educational objectives, broad child-centred perspective in developing holistic personalities, in its modern presentation and richness of educational content, and emphasizing the importance of a social dimension in education. Significant 1952 milestones in the post-war history of Finland were realized: hosting the Summer Olympics in Helsinki, coronation of Ms. Armi Kuusela as the first-ever Miss Universe, and completion of all previously agreed upon Soviet Union war compensations. Perhaps it is sufficient also to append to Finland's 1952 milestones the new internationally comparable curriculum for Finland's primary school system.

Second, the Education System Committee that launched its work in 1946 to establish regulations for compulsory education and a common framework of principles for how different parts of the education system should become interlinked. The committee included representatives of all leading political parties at that time. Less than two years after commencing its work, this committee developed a proposal that the basis of the Finnish educational system should be an eight-year compulsory basic school that would be common to all children regardless of their social-economic situation. This school system avoided tracking to 'academic'

subjects for more able students and ‘vocational’ studies for those preferring to learn manual skills, as existed in the then-current parallel education system. However, the committee still thought that only those students who had learned foreign languages during basic school would be allowed to enter ‘gymnasium’ – which represented the only pathway to higher education. The idea of the comprehensive school was clearly formulated, but due to bitter criticism by universities and the Grammar School Teachers Union, this suggestion was not acted upon. However, it stimulated further debate within Finnish society about social justice and equal educational opportunities, which, two decades later, became realized and subsequently consolidated as key tenets in Finnish education policy.

Development of different sectors of education continued in the 1950s. The baby boom after WWII led to rapid expansion in the number of schools. The new law stipulated that compulsory education consisted of six-year primary school and a two-year civic school for those who did not advance further to Grammar schools. The new curriculum launched in1950 began to change work and life in schools. Vocational education became part of the education sector. The dream of common schooling for all was alive, but, in practice, parallel structures remained. Therefore, the School Program Committee was established in 1956 to unify the Finnish education system and bring coherence to changes in various sub-sectors of education.

The work of this committee was built on analysis of international education policies more than ever before. Particularly significant was observing that Nordic countries shared much in common regarding their education policies at that time. Increasing focus on equality of educational opportunities, as was then happening in England and the US, became a central theme in the committee’s strategic thinking. During 1956 to 1959, when this politically broad-based committee conducted almost 200 meetings, was a particularly turbulent time: global economic recession, tough political conflicts domestically and with the Soviets and the launch of Sputnik by the Russians that soon impacted on educational reforms around the world. Nevertheless, the work of this committee became a cornerstone in the history of educational reforms in Finland.

Committee recommendations were published in the summer of 1959. The committee suggested that future compulsory education in Finland should be based on a nine-year municipal comprehensive school with the following structure:

- first four grades would be common to all pupils;
- grades five and six would constitute a middle school where pupils could choose to focus on either practical subjects or foreign languages;
- grades seven to nine would have three streams: vocational and practical orientation,average stream with one foreign language, or advanced stream with two foreign languages.

The committee was unable to move further in suggesting more unity in compulsory education than those proposals. This advocated system would, however, gradually merge private grammar and public civic schools into a new municipal structure and diminish the role of the previous private schools. Indeed, strong disagreement arose within the committee about main policy principles. However, this committee

significantly initiated deep, unique debate about core values in education in Finnish society. The key question was: Is it possible, in principle, that all children can be educated and attain similar learning goals? Answers to this question created divided opinions even within some families. Universities typically doubted this, primary school teachers believed in it. At that time, Finland had no choice but to accept the proposition that anyone could learn – if given adequate opportunities and support – foreign languages and advance higher in education than previously conceived. It was more difficult at that time to acknowledge that the then-current educational architecture that maintained and actually increased inequality in Finnish society was unable, in the long run, to ensure that Finland would actually become a knowledge society as envisaged at that time.

The proposal of the School Program Committee was further elaborated by the National Board of General Education in the early 1960s and then finally taken to Parliament on the 22nd November 1963. As predicted, the ensuing debate was harsh. Gloomy visions of Finland's future were painted if the new ideas of education were approved: declining level of knowledge, waste of existing national talent and becoming left behind in the international economic race. In the final vote, the proposal for the new educational system in Finland was supported – 123 in favour and 68 against. The early hours after this historic result were disturbed by the Chairman's announcement that John F. Kennedy was assassinated in Dallas, Texas. At that moment, the seeds of future education activities based on social justice and equal educational opportunities in Finland were planted.

It would be inappropriate to claim that the birth of the new Finnish comprehensive school system that has become frequently identified as the reason for Finland's educational fame today was created by politicians and authorities alone. Several individuals, both from academia and school practitioners left a mark in the process of defining a new school system. Particularly significant was the role played by some of the civil society organisations since the end of WWII. It is beyond the scope of this article to conduct deeper analysis of the influence that many of these groups exerted on Finnish educational reform. A good example of civil society involvement in education policy development is the Finnish Primary School Teachers Association (FPSTA). As early as 1946, FPSTA had expressed its support of the idea of unified basic school. In the mid-1950s, the association published its own education development programme accompanied by a detailed, well-argued description of a unified, comprehensive school system. What was unusual in this proposed programme was that, unlike appeals of union-like teacher associations, it was progressive and future-oriented. It was widely supported by the FPSTA,representing nearly 90 percent of all Finnish teachers at that time. The development of that proposed programme required five years and stimulated a national discussion that clearly focused on the need to enhance equality and social justice in Finnish society through a unified education system. Perhaps most importantly, publishing this programme was a clear sign that schools and teachers were ready for radical change.

THREE PHASES OF EDUCATIONAL CHANGE

Since the 1970s the main focus of educational change in Finland has been on comprehensive school reform. Even today, research on educational change, school improvement, and school effectiveness is internationally at a very modest level. There is much more analytical and research work conducted regarding educational policies at different phases of history and educational reform.

After the comprehensive school reform in the 1970s, educational change in Finland can be described in terms of three phases (Sahlberg, 2009):

(a) rethinking the theoretical and methodological foundations of schooling (1980s),

(b) improving through networking and self-regulated change (1990s), and

(c) efficiency of structures and administration (2000 – present).

This process is illustrated in Figure 1. Each phase conveys a certain policy logic and theory of action-in-practice. The first phase followed structural reform of the school system; its main attention was on conceptions of knowledge and learning in school practice. The second phase emerged from liberalisation of Finnish education governance; it was characterised by self-directed networking of schools and individuals. The third, ongoing phase was initiated by a need to raise productivity in the public sector and was accelerated by publication of the initial OECD PISA results in December 2001. This ongoing phase of educational change focuses on reforming structures and administration of education and is careful to avoid disturbing the sensitive balance of a well-performing education system.

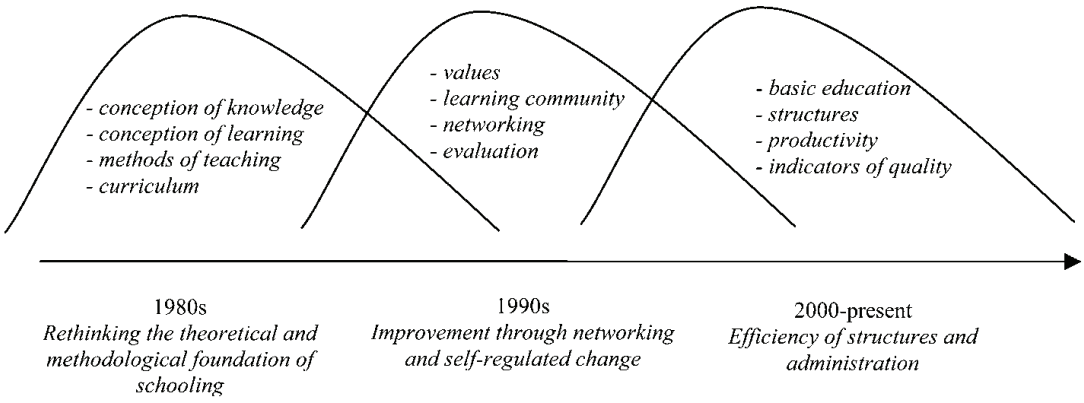


Figure 1. Three phases of educational change in Finland since the 1970s

Phase 1: Rethinking the theoretical and methodological foundation of schooling (1980s)

Several research and development projects launched within the new comprehensive school system in the late 1970s and early 1980s led to criticism of then-current pedagogical practices in Finnish schools. The new schools system was launched with philosophical and educational assumptions that insisted that the role of public education must be to educate critical and independent-thinking citizens. One of the main themes of school development then was that realisation of a more dynamic conception of knowledge as a result of teaching would lead

to meaningful learning and understanding (Aho, 1996). A significant driver of this change was emerging information and communication technologies in schools. Some feared, quite correctly, that expansion of using computers in education would lead to problems caused by isolated knowledge and unnecessary information made available by educational facilities and technological determinism.

Technological development concurred with the revolution in learning sciences. Dominance of cognitive psychology, constructivist theories of learning, and new neurosciences attracted Finnish educational researchers to analyse conceptions of knowledge and learning in schools. Several influential and easy-to-read booklets were published and made available to schools. These included *Conception of Knowledge* (Voutilainen et al., 1989*), Conception of Learning* (Lehtinen et al., 1989) and *About the possibilities of school change* (Miettinen, 1990). Due to these resources, *conception of knowledge, learning and their consequences to teachers' work in school* were commonly requested themes for teacher in-service training and school improvement until the close of the 1990s.

From an international perspective, this first phase of educational change in Finland was exceptional. At the same time as Finnish teachers were exploring the theoretical foundations of knowledge and learning and redesigning their school curricula to be congruent with them, their peers in England, Germany, France and the United States struggled with increased school inspection, controversial teaching standards, and competition that often demoralised teachers who were forced to leave their profession (Hargreaves & Shirley, 2009; Sahlberg, 2010a). In England and the United States, for example, deeper analysis of school knowledge and implications of new research on learning remained mainly as issues within academic communities, or reached only a limited number of school practitioners. Perhaps it is due to these philosophical aspects of educational change that Finland remained immune to the winds of market-driven education policy changes that arose in many other OECD countries in the 1990s.

There is surprisingly little reliable research on how this first phase of educational change actually affected Finnish schools. Reflection by one of the key figures in Finland of that time, Lehtinen (2004, p. 54), was cautiously reserved:

> Discussion on conceptions of knowledge and learning has clearly affected how teachers talk about learning and teaching. Earlier discourse that was characterised by traditional values of socialisation and teaching of facts and automated ideals of mastery has been replaced by understanding, critical thinking, problem solving and learning how to learn. Expanding the conceptions of knowledge and learning was also reflected in implementation of the new curriculum in mid-1990s at all levels of schooling, and also in the national curriculum reforms in this new decade.

This phase of educational change in Finland has been characterised as a time of challenging conventional beliefs, search for innovation, and increasing trust in schools and their abilities to find the best ways to raise the quality of student learning. There were also some who thought that this was deliberately so, due to the serious economic crisis that led to heavy budget cuts in the Finnish education sector. Municipalities were given freedom to decide where the savings were to be made. During tighter budgets, schools had to decide what was truly important in their work. Ethical discussions guided these decisions. Deeper understanding of

knowledge and learning in schools also strengthened schools' moral foundations. A recent evaluation of education in Finnish basic schools concluded that "teachers consciously pay attention to diversifying teaching and learning environments. Teachers think that the use of versatile teaching methods is important both to planning and classroom work." (Atjonen et al., 2008, p. 197). This suggests that schools have made progress in teaching and learning.

Phase 2: Improvement through networking and self-regulated change (1990s)

The National Curriculum Reform of 1994 is often regarded as the major educational reform in Finland, along with the previous Comprehensive School Reform of the 1970s. The main vehicle of change was the active role of municipalities and schools in curriculum design and implementation of related changes. Schools were encouraged to collaborate with other schools and also to network with parents, businesses, and third-sector associations. At the level of central administration, this new collaborative and self-directed movement culminated in the Aquarium Project, a development platform enabling all Finnish schools, principals, and teachers to network with others (Hellström, 2004). The aim of the Aquarium Project was to transform schools into active learning communities. According to Hellström (2004, p. 179), this project was "a unique self-directed school improvement network that was open to all active educators." As a form of practice, this was previously unheard of in Finnish educational administration and only rarely found elsewhere.

The Aquarium Project offered schools a new context for improvement – something that combined traditional community work and modern *Facebook* interactions. Research has shown that school improvement through networking and self-regulation has positively impacted on the engagement level of schools in development (Hellström, 2004). Particularly important has been the notion that the majority of schools involved in this initiative reported that during the time of economic downturn and decreasing resources teachers believed that they had succeeded in improving their schools. The project also stimulated research activity among principals and teachers who pursued advanced educational studies in universities.

At the beginning of 1997, there were more than 1000 projects in 700 schools and 163 municipalities within the Aquarium Project. The project was in accord with new ideas of decentralisation, increased school autonomy, and stronger school identity in the 1990s. As a strategy for school improvement, this project stressed shared responsibility in schools, individualisation, and collaborative efforts to enhance the quality of learning. In this sense, the Aquarium Project incorporated features consistent with neo-liberal education policies. Occasionally, these characteristics were seen as signals of increased competition among schools in the education sector. It is true that school choice put schools in competitive situations,however,the school improvement network transformed bold competition to mutual striving for better schools. The strong social aspect of the Aquarium Project valued sharing of ideas and solving problems together, thus preventing schools from viewing each other as competitors. In this respect, the project relied on earlier values of equal educational opportunities and social responsibility, rather than competition and accountability. Perhaps this political duality served as the Achilles' heel of the Aquarium Project. The project was terminated by a political decision in early 1999.

Phase 3: Efficiency of structures and administration (2000 – present)

The first OECD PISA results published on 4th December 2001 took everyone by surprise. In all three academic domains –mathematics, science, and reading literacy – Finland was among the highest performing nations in this survey. Earlier student performance gaps with Japan, Korea and Hong Kong were closed (Hautamäki et al., 2008; Välijärvi et al., 2007).Unlike in many other high-performing nations, Finns seemed to learn primarily in their schools the knowledge and skills they demonstrated in these tests: private tutoring,after-school classes and amount of homework assigned to pupils in basic school are among the lowest in the developed countries (OECD, 2001; 2004; 2007; 2010). International rankings based on average test scores often detract from other important findings that PISA data reveal: relative variation of educational performance between different parts of Finland, including student achievement in rural and urban schools, has been exceptionally small (Välijärvi, 2008).

First reactions after the first PISA results within the education community were confusing. The world media wanted to know the secret of good Finnish education. Several hundred official delegations toured around Finland to learn how schools operate and how teachers teach. Questions from the foreign visitors regarding the "Finnish miracle" of PISA were often such that Finns themselves were not prepared to respond with reliable answers. The next two OECD PISA cycles in 2003 and 2006 advanced Finland's reputation even further, thus elevating the interest of world media in Finnish education.

What PISA surveys, in general, have revealed is that education policies based on the ideal of equal educational opportunities that have brought teachers to the core of educational change positively impact on the quality of education systems (OECD, 2007). Further analysis of PISA data indicates (Välijärvi, 2008) that factors related to domicile and geography play significant roles in explaining variations of assessed student learning and their further career paths, as well. A trend is now apparent that variation in student performance caused by geographic and social factors is increasing (Sahlberg, 2009; Välijärvi, 2008).There is also increasing scepticism among teachers and researchers in Finland, as well, regarding limitations that international student assessments impose on their definition of student performance.

Combining OECD PISA results with other global education indicators and national surveys of people's satisfaction of schools, it is safe to conclude that Finland's education system is in very good condition. This is obviously a challenge to Finnish education policy makers and to the school-improvement community. After all, it is difficult to improve a system that is already performing well. There was still considerable sustained Finnish criticism of comprehensive schools at the turn of the millennium, but it rapidly diminished in early 2002 as the international fame of Finnish education grew. One of the main claims by educational critics was that comprehensive schools, by definition, have reduced the level of knowledge and skills of young Finns. In this new situation, it was difficult to find arguments for change; consequently, rather conservative and modest educational policy ideas arose. Earlier big ideas were split into several small, isolated projects that did not challenge the status quo of current Finnish education.

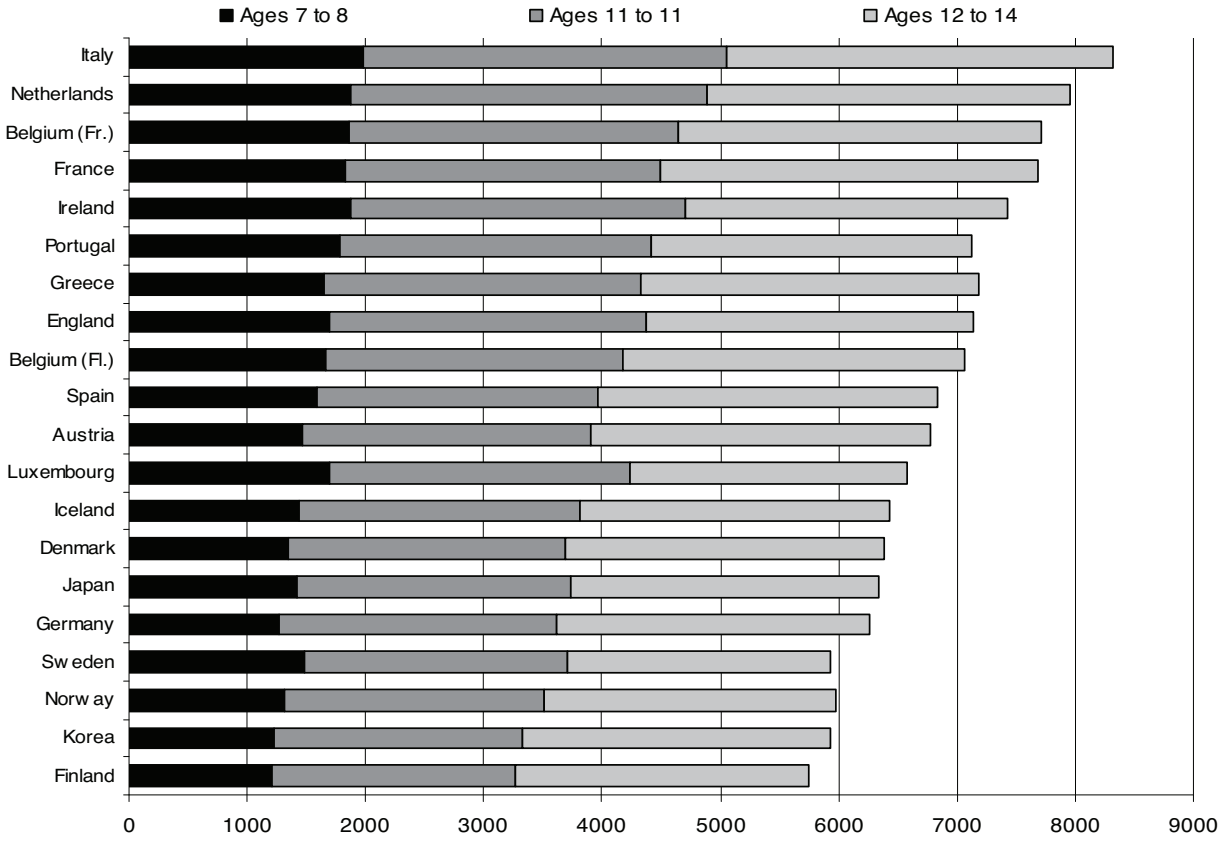
The central administration has gradually tightened its grip on schools. There is still autonomy in municipalities, but the pace of pedagogical development in schools has been declining since the 1990s. One indication of this is the strengthened role of the Ministry of Education in steering implementation of general policies of efficiency and productivity. At the school level the situation may be different. Depending on the financial situation of the municipality, their schools may be able to continue development work without support or guidance from above. As resources become scarce, however, the focus of educational change shifts from *pedagogy to administration*. If the key driver of school improvement is to increase productivity, it may jeopardise the moral purpose of education. In the current situation it is difficult to grasp a vision of education that previously had served as the emotional driving force and source of inspiration for educational development. The common comprehensive school for all Finns represented such a vision. Now the main logic of development is based on rationalism, efficiency, and productivity and thus an inspiring Big Idea for education is missing.

FOUR PARADOXES OF FINNISH EDUCATION

In many ways, Finland is a nation of strange paradoxes. Home of the leading telecommunication industry and one of the highest mobile phone densities, Finland is also known for its less-talkative people. Known as reserved men and women who prefer isolation rather than social interaction, Finns love to dance the tango and even select a national tango queen and king annually. Furthermore, in its tough, northern climate, Finns rank among the world's happiest people living in the most prosperous nation. Finnish *sisu*, a cultural trademark that refers to a principle of sticking with and not giving up whatever one is aiming at, coexists with calmness and tenderness. Indeed, paradoxes are more helpful than pure logic in understanding some of the key features of Finnish education.

First paradox: Less is more. The Finnish experience challenges the typical logic of educational development that tries to fix lower-than-expected student performance by increasing the length of education and duration of teaching. For example, when students are not learning enough mathematics, a common cure is a revised curriculum with more hours of classroom instruction. This also requires in most education systems more teaching time for teachers. Two international indicators provide a vivid picture of national variance in how much students are exposed to instruction and how long teachers spend time in their classrooms. Figure 2 *(see page 14)* shows the total number of intended instruction hours in public institutions between the ages of 7 and 14 in some OECD countries in 2008.

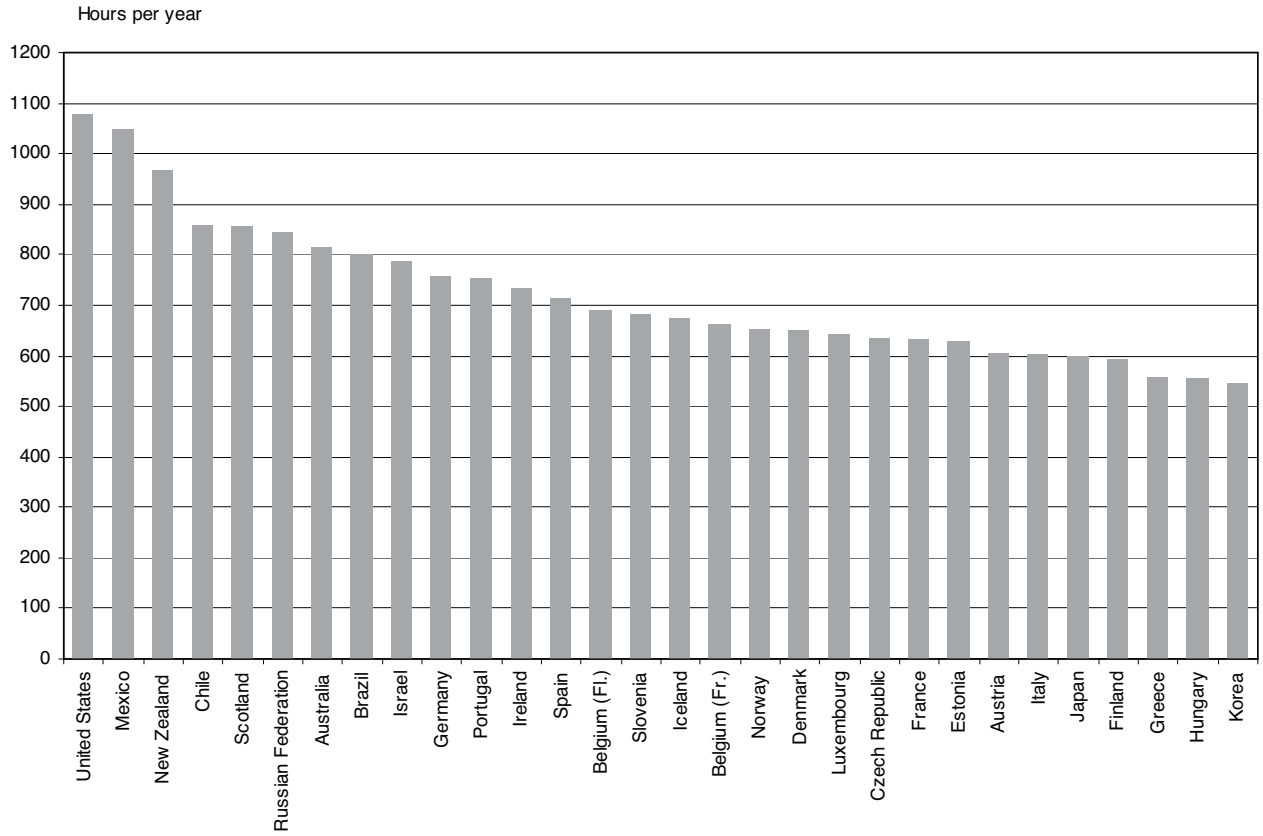
Figure 2. Total intended instruction hours in public institutions between student ages of 7 and 14 in 2008(OECD, 2010)



There appears to be very little correlation between intended instruction hours in public education and resulting student performance, as assessed by the OECD PISA survey (Sahlberg, 2007). Interestingly, high performing nations in all academic domains included in PISA rely less on formal teaching time as a driver of student learning (Finland, Korea, Japan), whereas nations with much lower levels of academic achievement (Italy, Portugal and Greece) require significantly more formal instruction for their students. When these differences are converted into school years, Italian 15-year olds, for example, have attended three years more schooling than have their Finnish peers. Moreover, in Finland, children start school at the age of seven and in Italy many at the age of five, which adds even more formal learning time for them. According to the OECD PISA database, Finnish 15-year-old students spend less time on homework than do any of their peers in other nations.

Another way to illustrate the *quantity versus quality paradox* is to examine how teachers spend their working time across the nations. Again, variance among countries is significant, as shown in Figure 3. In lower secondary schools, on average, Finnish teachers teach about 600 hours, i.e. 800 lessons of 45 minutes, annually. This corresponds to four teaching lessons daily. In Scotland, for example, average annual teaching time in lower secondary grades is 855 hours, which, in turn, equals six daily classroom lessons of 45 minutes. Lower teaching hours provide teachers more opportunities to engage in school improvement, curriculum planning, and personal professional development during their working hours.

Figure 3. Total average teaching hours per year in lower secondary education in 2008 (OECD, 2010)

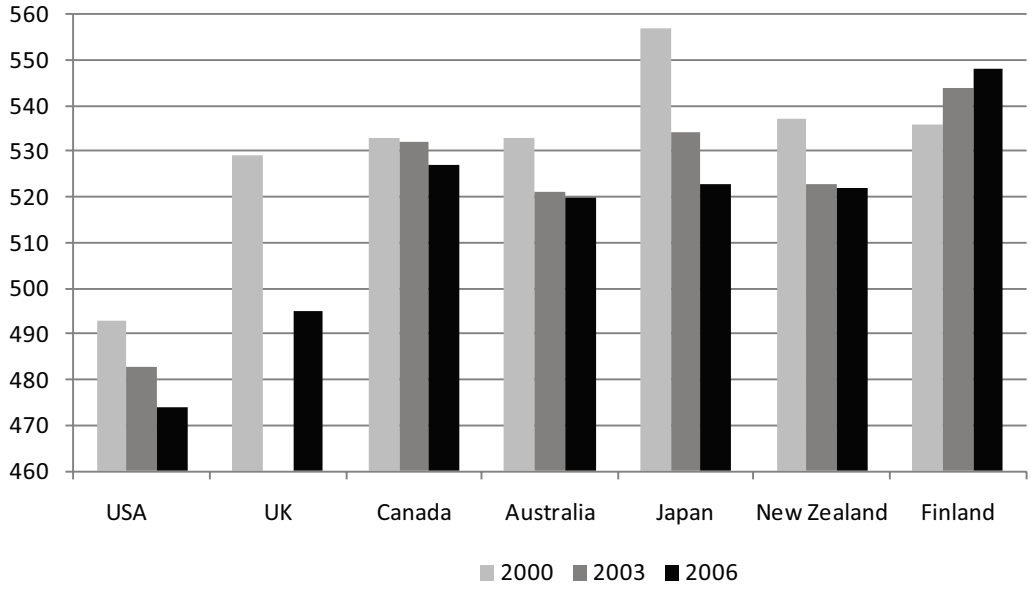


Second paradox: Better learning with less testing.The global educational reform movement includes an assumption that more frequent external testing is a prerequisite to improving the quality of education. Test-based accountability policies have increased the frequency of standardised external testing in many school systems around the world (Hargreaves &Shirley, 2009; Sahlberg, 2010a). Judging the annual progress of students and school performance improvements is almost without exception based on these external test results. A fair question is:

> Are those education systems where test-based accountability has been oneof the main drivers of educational change showing progress in international comparisons?

Using the OECD PISA database to construct such a comparison, a suggestive answer emerges. Most notably, the United States, England, New Zealand and some parts of Canada and Australia can be used as benchmarks. Figure 4 demonstrates how 15-year old student average performance in mathematics in three 2000-2006 OECD PISA surveys has changed in these countries as compared to Finland's performance.

Figure 4. Finnish 15-year old students' performance in mathematics in three 2000 – 06 OECD PISA surveys in selected OECD countries (OECD, 2001; 2003; 2007; Sahlberg, 2010b)



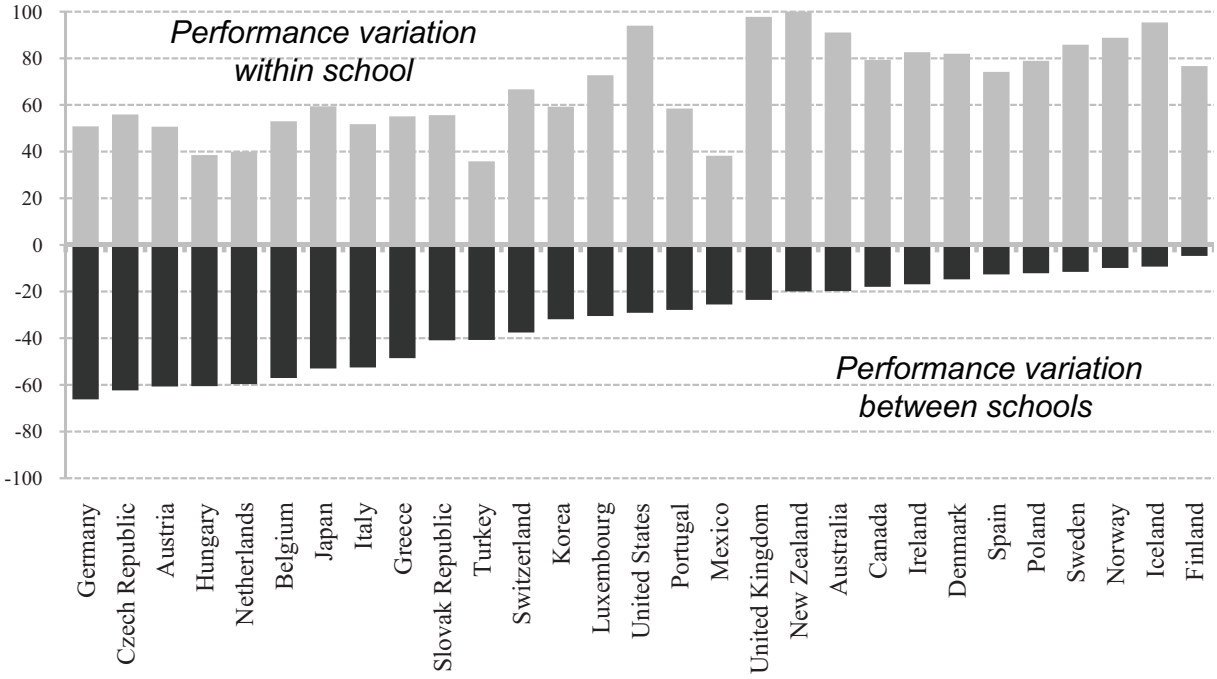
The trend of students' performance in mathematics in all strong-accountability-policy nations is similar – in decline. The situation does not change if we look at students' performance in science or in reading literacy. Stronger school accountability with intensified standardised testing became common policy options in these nations in the 1990s, whereas education policies in Finland at that time emphasised a school-based curriculum, trust-based educational leadership, and school collaboration through networking. Finland has, unlike any other nation contained in Figure 4, been able to improve its average performance from its already high level in 2000. Although this does not constitute evidence of the failure of testing-driven educational reform policies per se, it suggests that frequent standardised student testing is not a necessary condition for improving the quality of education.

Third paradox: More equity through diversity. The main policy principle of Finland's Comprehensive School Reform of the1970s was to provide equal educational opportunities for all (Aho et al., 2006). This also included the idea that student achievement should be evenly distributed across the social groups and geographic regions. It is true that Finland long remained ethnically homogeneous. However, since it joined the European Union, cultural diversification has been rapid. Especially in larger cities there are districts and schools where the proportion of first and second generation immigrant population reaches one-quarter of their population. Finnish schools have had to adapt to this changing situation within a very short time. As a consequence some jurisdictions are introducing limits to the proportion of immigrant students attending each school to avoid segregation. For example, in the City of Espoo there are schools with over 40 percent immigrant student populations while some schools have practically none. City authorities believe that more even distribution of immigrant students in their schools would

benefit both students and schools. However, school principals are doubtful of such forceful policies and their impact on communities.

The Finnish education system follows the principle of inclusiveness regarding the treatment of students with differing characteristics and needs. Students are placed in regular schools unless there is a specific reason to do otherwise (Välijärvi& Sahlberg, 2008). Therefore, in a typical Finnish classroom, one finds teachers teaching different abilities, interests and ethnicities, often with the help of assistant teachers. The increased diversity in Finnish schools also suggests that variance in student performance within schools may increase. Cultural heterogeneity in Finnish society would suggest that variance in student learning among schools may become wider. However, as shown in Figure 5, very high overall student performance in science (and in mathematics and reading literacy) is evenly distributed throughout schools across Finland.

Figure 5. National student performance variance within and between schools in science in the 2006 PISA cycle (Sahlberg, 2010)



The equitable Finnish education system is a result of systematic attention to early intervention and close interplay between education and other sectors in Finnish society. It is difficult to understand how the level of student performance has continuously increased and student performance variance has decreased, while Finnish society has become more culturally diverse and socially complex. In other words, Finland has attained success in building increased equity through diversity.

Fourth paradox: The better secondary-school graduates are, the more likely they will become teachers. Teaching as a profession is closely tied to the Finnish national culture. It is no wonder, then, that teachers and teaching are

highly regarded in Finland. The Finnish media regularly report results of opinion polls that document favourite professions among general upper-secondary school graduates. Surprisingly, among young Finns, *teaching* is consistently rated as the most admired profession, leading ratings of medical doctors, architects, and lawyers (*Helsingin Sanomat,* 2004). Teaching is congruent with core social values of Finns: social justice, caring for others, and happiness. Teaching is also regarded as an independent profession that enjoys public respect and praise. It is particularly popular among young women – more than 80 percent of those accepted for study in primary teacher education programmes are talented women.

Indeed, teachers are admired individuals in Finnish society. In a national survey, about 1,300 adult Finns (ages 15 to 74) were asked if their spouse's profession had influenced their decision to commit to a relationship with them *(Helsingin Sanomat,* 2008). Interviewees were asked to select five professions from a list of 30 that would be preferred for a selected partner or spouse. The findings were rather surprising. Finnish males viewed a teacher as the most desired spouse, ranked just ahead of a nurse, medical doctor, or architect. Women, in turn, admire only a medical doctor and a veterinarian ahead of a teacher as the profession of their ideal husband. In the entire sample, 35 percent rated a teacher among the top five preferred professions for their ideal spouse. Apparently, only medical doctors are more sought in Finnish mating markets than are teachers. This clearly documents both the high professional and social status teachers have attained in Finland – in and out of schools.

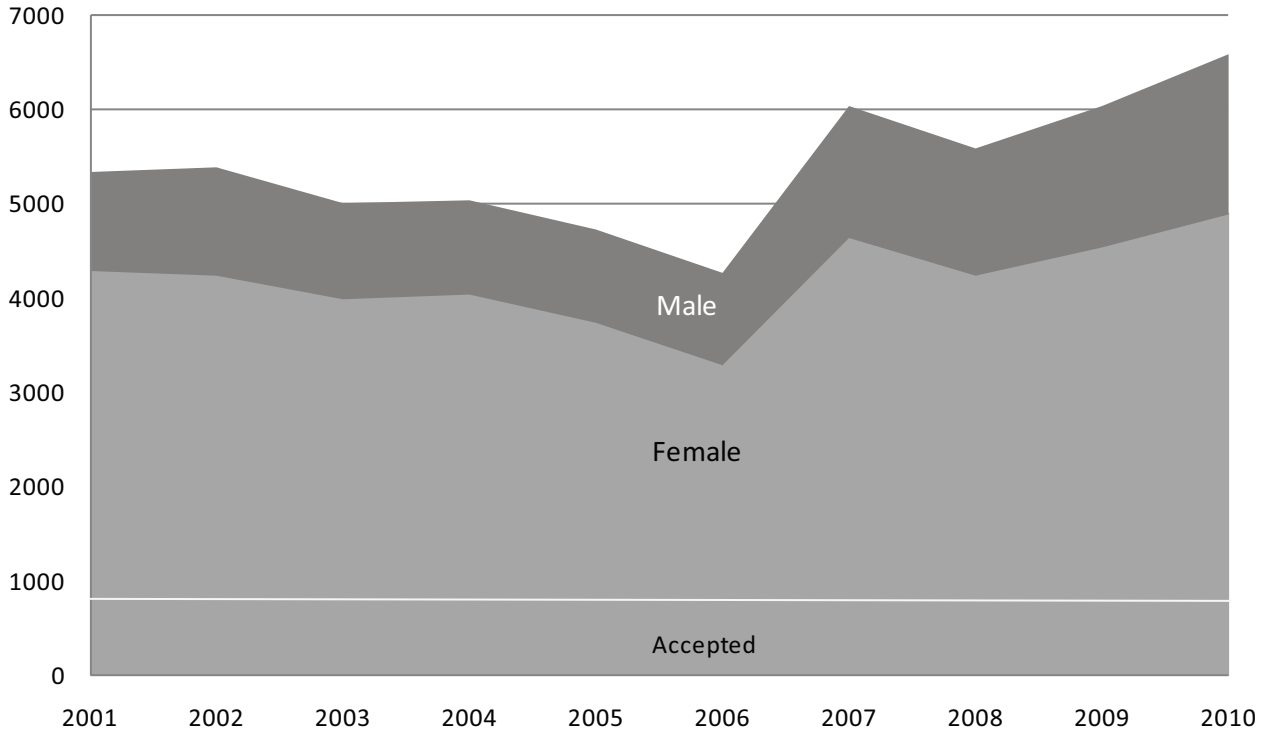
Only Finland's best and brightest are able to fulfil those professional dreams, however. Each spring, thousands of Finnish general upper secondary school graduates submit applications to Departments of Teacher Education within eight Finnish universities, including many of the most talented, creative, and motivated Finnish youngsters. Thus, becoming a primary school teacher in Finland is highly competitive. It is normally insufficient to complete general upper secondary school successfully and pass a rigorous Matriculation Examination (an external upper secondary school graduation exam). Successful candidates must also possess the highest scores, positive personalities, and excellent interpersonal skills. Annually, only about one of every 10 of such students will be accepted to prepare to become a teacher in Finnish primary schools, as shown in Figure 6. The total number of applicants in all five categories of Finnish teacher education programmes is about 20,000 each year.

Selection of primary school teacher education candidates consists of two phases: First, a group of applicants is selected, based on (a) their Matriculation Examination scores, (b) the Upper Secondary School Diploma issued by their school, and (c) relevant records of each student's out-of-school accomplishments, and a common exam based on appropriate literature. The second selection phase consists of personal interview where candidates are asked, among other things, to explain why they have decided to become teachers. (Sahlberg, 2011)

As these two selection phases suggest, access to Finnish teacher education is highly selective; only the most capable candidates are admitted. Normally, at least some prior experience in teaching or working with children is required. The Departments of Teacher Education within Finnish Universities accept annually about 700 new students to primary teacher education programmes. Figure 6 summarizes the trend in total annual applicants since 2001, disaggregated by gender.

Two phenomena are apparent (Kumpulainen, 2008). The Finnish teaching profession in primary schools is becoming increasingly attractive except for a slight decline in the middle of this decade. The proportion of male primary school teachers remains relatively small. Although the total students who do not complete their primary-school teacher Masters degree programme is small, a relatively larger number of male students appear elsewhere - not as primary-school teachers.

Figure 6. Total annual applicants to Finnish primary school teacher education programmes 2001-10 (Sahlberg, 2011)



Up to the mid-1970s, primary school teachers were prepared in teacher colleges. Lower and upper secondary school subject teachers studied in specific subject-focused departments of Finnish universities. By the end of the 1970s, all teacher education programmes became part of academic higher education and, therefore, reside within universities. Simultaneously, scientific content and educational research advances began to enrich the teacher education curricula. Finnish teacher education has become *research-based,* implying that it must be supported by scientific knowledge and be focused on thinking processes and cognitive skills employed in conducting research (Jakku-Sihvonen & Niemi, 2006; Sahlberg, 2011; Westbury et al., 2005).

A particular principle of Finnish research-based teacher education is systemic integration of scientific educational knowledge, didactics (pedagogical content knowledge), and practice in a manner that enables teachers to enhance their pedagogical thinking, evidence-based decision making, and participation in the scientific community of educators. Consequently, the basic requirement now for permanent employment as a teacher in all Finnish basic and upper secondary schools is possession of a Master's degree.

CONCLUSIONS

In the first decade of the third millennium, Finland has established a global reputation as a model educational nation. There is, indeed, evidence that Finland's education performance has progressed steadily in terms of international comparisons since the early 1980s in many areas. Mobile phone makers, skilled symphony-orchestra conductors and Formula-1 drivers are indicators of what Finnish culture and society—one that values ingenuity, creativity and risk-taking over selfish competition in terms of irrelevant standards – can nurture. The key question is: *Will the Finnish education system continue to serve a model in the future?*

On one hand, Finland's persistent educational leadership since the 1970s, its stable political structure afterwards, and established complementarity among public-policy sectors all suggest that Finnish educational performance will remain strong. On the other hand, PISA survey results, in particular, have created a feeling of complacency among Finnish education policy-makers, politicians, and the public-at-large regarding the status of Finnish education. This may lead to a condition favouring the *status quo*, where education policies and leadership of a high-performing system are motivated by a desire to maintain the current status, rather than exploring what possible futures might require from a reformed Finnish education system. There are those who keep reminding that the current top-ranking position relies to a large extent on good achievement in basic school subjects but that does not indicate development of creativity, tolerance or team skills that are often mentioned as fundamentals in modern innovation society. Moreover, youth in Finland has more passive and distant relations to engagement in civil society compared to most of their peers in OECD countries (Torney-Purta et al., 2001). There is need for further improvement.

Educational change in Finland since the 1970s has been driven by culture and passion in the context of social, political, and economic survival.The lesson from Finland is that technical knowledge or political interests are insufficient to renew society without concurrent emotional engagement. Indeed, global education reforms reveal that too rational an approach regarding change is not effective because renewal requires energy – and energy is driven by emotion. In an era of Big Changes, emotional passion often emerges from crisis – or a quest for survival – as it did in Finland. For these reasons, it is very risky to expect that the Finnish model of education – or any of its system's isolated elements – could be easily transferred to other nations. Indeed, there is not yet any evidence that ideas of the Finnish education system could have been successfully transplanted somewhere else. Nevertheless, Finland serves as an interesting and also paradoxical benchmark for other countries regarding educational improvement.

At the start of the 21st century, Finland has also become a model nation for other reasons: it has been able to build a competitive knowledge economy while maintaining key components of social justice of a Nordic welfare state model. A high-level think tank called the New Club of Paris that considered possible futures for Finland stated that survival is not the impetus for renewal anymore to keep all the good that Finland has been able to build (Ståhle, 2007). In their recommendations to the Finnish Government, they suggested that

> other drivers with emotional effect need to be identified. The question is how to broaden the scale of emotional recognition and exploitation. Instead of survival the driver for change could be a powerful vision, or the Big Dream of Finland. If people do not love the idea, it is futile to publish new strategies. The new strategy with cultural and emotional dimensions should be simple; a couple of words that people can immediately and emotionally relate to. This is currently missing.
>
> (Ståhle, 2007, p. 2)

The spirit of that general recommendation should also be considered regarding Finnish education. The chief instrument that guides Finland's education policies and educational renewal is the *Development Plan for Education and Research for 2007-12* (Ministry of Education, 2007). This is congruent with its former document for 2003-08, and continues earlier social policies and their key principles. These documents emphasise equal educational opportunities, continuous increases in the quality of education, preparation of skilled workers, and developing tertiary education – and especially teachers – as main resources for future education. Furthermore, these documents place strong emphasis on the *complementarity* principle and developing the education system as a whole. All of this also assumes that the Finnish education system will continue to perform well in the coming years. However, there are some trends within the governance of the Finnish education system that provide cause for concern.

First, national education authorities have tightened control over schools and signalled that there is not a high level of confidence in schools' ability to judge what is best for pupils and parents. For example, the new national curriculum of 2004 reduces schools' role in curriculum planning. Second, the governmental *Education Sector Productivity Program for 2006-10* (Ministry of Education, 2005) calls for schools to do more with less and proposes school mergers and increasing class sizes. In some cases, productivity gains are sought by reducing schools' afternoon extra-curricular time, special education and counselling services. This policy may turn out to be harmful for the high social capital of Finnish schools. Finally, there is no clear idea within the Finnish education system of what the future direction of education should be. For example, the *Development Plan for Education and Research* for 2007-12 remains silent about how education should respond to needs expressed in the economic sector to intensify innovation and create new products.

Increasing productivity and improved efficiency lead to financial savings and perhaps temporarily better services but, as Ståhle and Wilenius (2006) point out, in an economic context, the plan's strategy of shrinking budgets will never create sustainable improvements unless there are simultaneous investments in something new. There are enough signals through forecasts of the Finnish economy and society in general to suggest that more investments are needed to create new ideas and innovations both in education and in economic development, and to maintain a high level of social capital that has traditionally served as a driver of strong educational performance (Castells& Himanen, 2002; Routti &Ylä-Anttila, 2006; Ståhle, 2007). Finland was able to benefit from one of the most competitive national economies when competition within its education system was minimized in the 1990s. A component of educational change that creates new ideas and

innovation should provide enough encouragement and support for risk-taking that will enable creativity to flourish in classrooms and schools. This is possible only with continuous renewal of Finnish education, guided by wise educational leadership in close relation to associated public-sector policies. The ironic and paradoxical political and strategic challenge remains: *Which measures should be taken to wake up Finns for future changes?*

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