



League of Women Voters of Greater Las Cruces

2016 Education Study Committee Report

Question: HOW DO SUCCESSFUL SCHOOL SYSTEMS GOVERN THEIR SYSTEMS? A Comparative Study of New Mexico with other School Systems

Topic of Study Report: Education System of Finland

Person Completing the Study: Jane Asche, Ed.D

Sections of the Study -

1. **GOVERNANCE:** Do they have an appointed national Superintendent or a Secretary of Education? What are the qualifications? Is the appointment a civil service one or a political one? Is there an elected Board or appointed Board or both elected and appointed? How many members does it have? (Pages 2-3)
2. **SCHOOL FINANCE:** How are the schools financed? (Pages 3-4)
3. **CURRICULUM:** Is the curriculum centralized or determined locally? (Pages 4-6)
4. **DEMOGRAPHICS:** What are the demographics of the population? Ethnic breakdown? Poverty? Second language learners? (Pages 6-8)
5. **STUDENT PERFORMANCE:** How does the performance rank nationally and internationally? (Pages 8-9)
6. **ANALYSIS:** What is most notable about this school system? What questions still remain that should be answered? (Pages 9-10)
7. **BIBLIOGRAPHY & APPENDICES** (Page 11-14)

INTRODUCTION

The school system of Finland was once purported to be one of the most mediocre of systems among the 34 OECD (Organization for Economic Cooperation and Development) countries. However the students in Finland have risen to take their place among the top performing countries on the PISA (The Programme for International Student Assessment). The PISA assessment is a worldwide study conducted by the OECD in member and non-member nations of 15-year-old school pupils' scholastic performance on mathematics, science, and reading. It was first performed in 2000 and then repeated every three years. It measures problem solving and

cognition in daily life and is conducted with a view to improving education policies and outcomes by studying those countries that are most successful (Berger, 2014). Finland's success in education grows out of over four decades of effort to carry out serious national education reform. Much of the important policy changes were accomplished in the 1980s and 1990s, but this reform is viewed as a constant work in progress by the Finnish people.

The intent of this LWVGLC Education Study Committee report is to describe the education system of Finland in terms of governance, school finance, curriculum, national demographics, and student performance to make a comparative analysis with the education system in the state of New Mexico. Hopefully, the analysis may be helpful in discovering whether the characteristics of the Finnish system might have implications for improving education outcomes in this state.

GOVERNANCE

In order to understand the structure for the Finnish national education system, it is important to understand how the governance system for the nation is structured. Finland is governed by a president elected every six years and a unicameral Parliament with 200 members elected every four years. The president handles foreign affairs in cooperation with the cabinet, is the Commander in Chief of the armed services, has some decree and appointive powers, approves laws and may call extraordinary parliamentary sessions. The president, after hearing the wishes of parliament, formally nominates the prime minister for parliament to approve by a vote. The prime minister chooses the rest of the cabinet (ministers of government departments and the Chancellor for Justice), which are then formally appointed by the president. These leaders make up the executive branch and parliament constitutes the legislative branch (Kunnat.net, 2016).

Ministry of Education and Culture - One of the cabinet members appointed by the prime minister is the Minister of Education and Culture, so that this position is somewhat similar to the New Mexico Secretary of Education. The Minister of this cabinet position is responsible for matters relating to education, science, culture, youth and sports. The national administration of education and training takes place through a two-tiered structure. The ministry of education and culture, the first tier, is the highest authority and is responsible for all publicly funded education in Finland. The staff of the ministry prepares the educational policy legislation in collaboration with members of parliament, is in charge of seeing that all decisions related to policy are carried out, and manages its share of the national budget. The Minister is assisted by a permanent secretary of education who is a civil servant and is a little farther removed from the impact of the political process to provide continuity to the ministry, which includes five major departments and four administrative units (See Appendix 1 for an organization chart). So the major foci of the ministry, the first tier of the system, is 1) national policy development and 2) management of accountability for the funds that are spent on education.

There are notable checks and balances on all that the Minister of Education does in the execution of the job. Major policy decisions are made and legislation proposed in careful deliberation with the eight major party leaders of the parliament as well as the FNBE.

Finnish National Board of Education - The FNBE (Finnish National Board of Education), the second tier of the national education structure, is a government agency that implements the national education policies handed down from the Ministry of Education for early childhood

education and care up through the end of secondary school. It is subordinate to the Ministry of Education and Culture. The staff manages the five administrative departments of the agency (*See Appendix 2 for the organization chart*). They prepare the national core curricula, oversee requirements for qualifications of educators and various educational certifications, and provide administrative and other services for the education sector. The FNBE also publishes monitoring information on the costs of education, educational institutions, student numbers, applicants and graduates, and is involved in the exchange of international information on education through European networks.

The FNBE is managed by a board that oversees the agency. The board consists of 13 members elected for 4 year terms. The members of the board represent political decision makers, education institutions, local education authorities, teachers, and social partners such as the teacher's trade union, labor unions, and health, cultural and business organizations. Each of the major political parties in parliament and each one of the partner groups chose the person who will represent their interests on the board in overseeing the agency and the Ministry of Education and Culture officially approves the appointments. None are elected by the public in general. So a broad diverse group of stakeholders guide decision making about implementation of policy relative to all levels of education except higher education, which is the responsibility of the Ministry of Culture and Education. (Finnish National Board of Education website , 2016; Ylilehto, 2016).

In both tiers of the education structure, direction is given in broad areas with the specifics determined at the municipality and individual school level as can be seen in the discussion of curriculum and student evaluation in following sections of this report. In the final analysis, decision making on a day to day basis is highly decentralized with decision makers at the national level focusing on the development of broad guidelines and adequate funding to achieve the major national goals.

SCHOOL FINANCE

Most education and training is publicly funded. There are no tuition fees at any level of education. Parents of newborn babies are given a "maternity package" of three books, one for each parent, and a baby book for the child, to encourage reading. Families have access to universal free daycare for children from age eight months to five years and a year of preschool/kindergarten at age six. Above a certain income level, these services are still available, but depending on the income level, families may pay up to 200 euros per month. Early childhood education is not mandatory in Finland, but is used by almost everyone (Odena, 2012).

In basic education (grades 1 to 9) school materials, daily lunch, and transportation are provided free of charge. In upper secondary education (grades 10-12) students pay for their books and transport. In addition, there is a well-developed system of study grants and loans. Financial aid can be awarded for full-time study in upper secondary and higher education for books, housing, and transportation. Money is never a reason for students to not be able to have access to education all the way through to the highest levels of education (Finnish Education System website. 2016.) The finances come from the national government and the Finnish pay very high taxes by US standards (approximately 60% of their income), but Finnish parents seem happy to pay these taxes because they know that their children all have access to a very good education if

they choose to apply themselves. In total, 98 % of the costs of education in Finland, including all levels, are covered by the government (Darling-Hammond, 2010).

CURRICULUM

Providing equal opportunities for all citizens to high quality education and training is the long-term objective of the Finnish Education Policy. As noted earlier, the Ministry of Culture and Education prepares the legislation and requirements to support the education sector in cooperation with parliament. The FNBE decides on the national objectives for education, the time allocation for compulsory and optional subjects in basic and general upper secondary education as well as the common core subjects and their scope in vocational education and training. The core curricula also includes basic education in the arts and preparatory education for immigrants. The national-level core curricula and qualification requirements serve as norms not only for the education objectives and core contents but also provide the basic principles for cooperation with homes as well as the objectives for student welfare services.

The aim is to develop the national core curricula and to coordinate them so that they create a progressive continuum in a coherent way and a strong basis for lifelong learning. Education providers and schools draw up their own local curricula in keeping with the broad guidelines of the national curricula. In higher education the universities and polytechnics have autonomy with regard to the contents of their study programs (FNBE website, 2016).

The national core curriculum was developed in two stages of reform between 1972 and 1982, which resulted in a common curriculum throughout the entire system through the end of high school (upper secondary school). More reform in the 1990s ended the prior highly regulated system of curriculum management laid out in a 700+ page document. "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 the 1990s reform was on science, technology and innovation, leading to an emphasis on teaching students how to think creatively and manage their own learning (Darling-Hammond, 2010, p. 169.)"

The curriculum is laid out for the various stages of education along a continuum of age groups although the system is highly permeable and the age at which a given student enters the next stage may vary by a year or so. The stages are as follows:

Early Childhood Education and Care - starts at birth and covers until the end of the fifth year. The focus is on developing the cooperation and communication skills necessary to prepare young children for lifelong learning and to increasingly learn how to act independently to take care of themselves and care for others. The overarching goal is that they become productive, active citizens in society. Families are provided with healthcare and dental services during this time and through to the end of basic education at the end of 9th grade (Nikko, 2006).

Preschool/Kindergarten - is provided at the age of six and there is great emphasis on creative play, cooperative hands-on learning, and learning about physical and mental health (eating properly, keeping clean, communication skills, social awareness, empathy, and self-reflection). It is not focused on academic learning. School readiness in Finland means that the schools are

ready to begin academics studies in first grade by starting wherever each child is in his or her development (Odena, 2012; Sahlberg, 2015).

Basic Education - is compulsory and starts at age seven and is the beginning of serious formal education. It includes grades 1 to 9 and ends at approximately fifteen years of age. This stage of education is mandatory for all children. Primary school is grades 1 to 6 and lower secondary (middle school) is grades 7-9. There is no tracking by ability groups throughout these nine years. All children must study at least three languages. Finnish is required and two other languages may be selected, with most students choosing Swedish and English. Formal studies in mathematics, science and social studies are also included. Also there is lots of emphasis on music, the creative arts, and cooperative sports. More than 99% of the students successfully complete the basic education level (Darling-Hammond, 2010).

Upper Secondary Education - begins at age 16 and generally takes three years to complete at the age of 18. At this point students may choose voluntarily to go on to what we would call high school. Almost all students do and they are able to choose voluntarily whether they want to pursue a strictly academic track of studies, known as general education, or a vocational track. Approximately 40% of the basic education students go into the vocational track. They may change tracks during this period if they wish just as students in the general education track can switch to a vocational track during the three years of high school. The vocational students have strong enough academic preparation that many qualify for higher education on the "matriculation exam" which is the only national standardized test that the students take in their entire education up through secondary school. This test is taken at the end of high school and is the required prerequisite for entering the tuition free universities. In the vocational track students may participate in apprenticeship training or gain additional work experience to gain special vocational certifications as well as enter the polytechnic institutes (known as universities of applied sciences). Over 93% complete the secondary school education. Of these graduates, 66% enroll in universities or the polytechnic institutes. Many of the 6.5% who do not complete secondary school enroll in training programs in the arts, crafts and trades (Sahlberg, 2016).

Higher Education - Upon graduating from the secondary school (high school), the general education students as well as vocational students may go on to the institutions of higher learning for a bachelor's degree. Those in the general education track normally finish the bachelor's degree in three years at one of the universities if attending as a full time student. Vocational students who go on to one of the polytechnic institutes usually spend two years in secondary education (high school) and take three and a half to four years to finish the bachelor's degree. The polytechnic curriculums have a heavy focus on the sciences, mathematics, and technology while the regular university curriculums focus more on the humanities and the arts.

Once a student earns a bachelor's degree, they are qualified to go on to earning a two year master's degree at the universities or a master's degree at the polytechnic institute (universities of applied sciences) in one to one and a half years, which is a terminal higher education degree in the polytechnic institutes. Only the regular universities offer a licentiate degree (like a specialist degree in the US) or a doctoral degree which is usually a doctor of philosophy (PhD.).

Students Who Want To Be Teachers - must finish a bachelor's degree in a university and then apply to the two year master's program in education before they can become fully licensed as teachers. During this five year process, they are given lots of experience in actual classrooms

with master teachers. Teachers must be the best and brightest graduates to be admitted to the master's in education program. Students must be in the top 10% of their class in the bachelor's program to apply and then only 10 to 15% of the applicants are admitted in any given year. During the master's degree program, students studying to enter the teaching profession are not only provided with tuition and books, but also housing and a living stipend. Once in the classroom as a licensed teacher they are paid very good salaries and are as respected as a doctor or engineer in the Finnish society. Once accepted into the profession few teachers leave it (Sahlberg, 2015).

Adult Learning - A great variety of adult education programs are provided by the government for very nominal fees to help adults continue their learning and development, consistent with the Finnish philosophy of supporting lifelong learning (Sahlberg, 2015). [See Appendix 3 for an organizational chart of the Finnish Education System from birth to graduate education.]

DEMOGRAPHICS

An argument is often posed by those who critique the Finnish reforms that these reforms are easily possible in a country that has such a homogenous population and a common spoken language. However the culture and languages in Finland are more diverse than some might think. This is due in part to their being controlled at various points in their history by first Sweden and then Russia as well as the fact that the country has been a refuge for immigrants who are seeking political asylum, especially in recent years starting in the year 2000.

In an attempt to make a comparison between Finland and the state of New Mexico, a number of demographic characteristics of the two government entities is provided in the chart on page 7. One can see that the geographic territory of Finland is only slightly smaller than the state of New Mexico. However the total population of Finland is over two and a half times greater than New Mexico. The Finnish population is 85% urban while the population of New Mexico is a little over 77% urban. So Finnish policy supports a considerably larger population which is slightly more urban and covering a fairly similar geographic territory in square miles.

As for racial and ethnic diversity these figures are very hard to compare. In New Mexico the Annie Casey Foundation Kids Count Database and the US Census Bureau provides a very accurate picture for New Mexico children. Finland does not keep data on its residents by race or ethnic group. It simply tracks the country of origin of residents, which implies a certain degree of ethnic makeup in the general population. The immigrant population represents approximately 40 countries. In many of the urban schools as many as 40 languages are spoken by the children as their mother tongue; so there are many children for whom Finnish is a second language. In the largest and most diverse school system in New Mexico, the Albuquerque Public Schools, approximately 36 languages are spoken by the students as their mother tongue. While the percentage of foreign born and immigrant students in Finland is about half that of the state of New Mexico, the actual numbers are about the same in Finland because the population is much larger. It would appear that Finland and New Mexico deal with a great deal of diversity in their schools.

Demographic	Finland		New Mexico		
Land in Square Miles	117,942 Sq. Mi. ₄		121,697 Sq. Mi. ₁		
Total Population	5.5 Million ₄		2.1 Million ₁		
Race & Ethnicity of Population/Students	Finland tracks Population by Country of Origin ₄		US Census for NM (Age 0 - 19) ₃		
	Finland	89%	Hispanic	58.8%	
	Sweden	5.3%	Non-Hispanic White	25.1%	
	Russia	1.3%	Alaskan & Native American	11.5%	
	Estonia	0.8%	Asian	1.3%	
	Somali	0.3%	African American	2.0%	
	Iraq	0.2%	Other	1.3%	
	China	0.2%	Note: the category other includes very small percentages of immigrants from many countries and mixtures of racial or ethnic groups.		
	Iran	0.2%			
	Thailand	0.1%			
	Vietnam	0.1%			
	Turkey	0.1%			
	Spain	0.1%			
	Germany	0.1%			
	Poland	0.1%			
	France	0.1%			
	Plus 25 other countries	2.3%			
	% of Population which is Foreign Born	5.5% ₂		10% ₂	
	% Children in Immigrant Families	11% ₂		21% ₂	
Children in Poverty	5.3% ₂		30% ₃		
Second Language Learners	57,000 students (2012-2013) ₅		59,000 students (2012-2013) ₆		
Number of Languages Spoken in Urban Schools	Up to 40 Languages in some urban schools (Population 85% urban) ₄		36 Languages in most diverse NM School System (APS - Albuquerque) ₁		

Sources:

1 US Census Data Center, 2015.

2 UNICEF, 2016.

3 Kids Count Data Center, 2015.

4 Statistics Finland. 2012.

5 http://www.oph.fi/download/170048_key_figures_on_early_childhood_and_basic_education_in_finland.pdf

6 Colorín colorado. (2016). www.colorincolorado.org/ell-basics/resources-state/new-mexico..

Finally one of the great differences between the two entities which has implications for education outcomes is that child poverty in Finland is only one sixth the rate of child poverty in New Mexico. This has not always been the case. The steady investment in education over more than four decades has paid off, according to some analysts, in Finland becoming one of the world's most economically competitive countries in the world, with the smallest gap in income inequality (OECD, 2016).

STUDENT PERFORMANCE

There are few international student assessment tests that focus on subjects other than reading, mathematics, and science. Mathematics is often used as a proxy for general academic educational performance. The studies available that Finland has participated in are:

- IEA (International Association for the Evaluation of Educational Achievement) with studies in mathematics, science and reading starting in the 1960s with 4th graders, 8th graders, and 12th graders and international civic and citizenship studies (ICCS) in 1999 and 2009 with 8th graders;
- SIMS (Second International Mathematics Studies) starting in 1981 with 8th graders in 20 nations;
- PIRLS (Performance in Reading Literacy Studies) a subset of IEA with 4th and 8th graders;
- TIMSS (Trends in Mathematics and Sciences Repeat Studies) a subset of IEA, in 1999 and 2011 with 4th and 8th graders; and
- PISA (Programme for International Student Assessment) surveys in reading, science and mathematics given every 3 years with 15 year olds since the year 2000.

While the philosophical ground work for reform of the Finnish Education system was laid in the three decades of the 1960s, 70s, and 80s, the payoff for the investment in research, experimentation and funding priorities really began in the late 1980's and 90s. For many years Finnish students were at best average overall on tests of international achievement. By the late 1980s and early 1990s the 4th graders were high performers in science and 3rd and 8th graders were top performers in reading literacy.

Since the year 2000, the most commonly used measure of student performance for comparing students from different countries is PISA surveys, which include all 34 OECD countries as well as others ranging in total number, including the OECD countries, from 43 in the year 2000 to 65 countries in 2012, the last tri-annual study for which scores are available. Finnish students were top performers in science and mathematics from 2000 to 2012 although the scores dropped a few points on the 600 point scale between 2006 to 2012: in science (9 points), reading (11 points) and mathematics (7 points). It is important to note that PISA scores are distributed on a bell curve and countries that have emulated Finland's education reforms are gaining on the Finnish students in their performance. Scores for students in countries like the US that have invested heavily in the high stakes standardized testing systems that are part of the GERM (Global Education Reform Movement) have been steadily declining on the PISA surveys.

One last comparison is offered here. In 2009, Finnish 8th graders were tied with Danish 8th graders as the world top performers in ICCS (International Civic and Citizenship Studies), a

subset of IEA tests. Additionally, Finland has the lowest achievement gap in the world. In other words, almost all Finnish students are achieving at relatively high levels. The investment of Finland in equal education opportunities for all students has paid off very well in terms of levels of achievement and rising economic competitiveness of Finland in the global market place, which is rated at the top by the World Forum Foundation (Salhberg. 2015).

ANALYSIS

Reflecting on the governance of the Finnish education system in comparison with the education system in the state of New Mexico, the role of the 13 members of the board of directors of the FNBE agency is somewhat similar to the 10 education commissioners in the state of New Mexico except for the fact that the Finnish board members are not elected. They are instead appointed through a very careful process in which a consensual role is played by all stakeholder groups: major political parties, teachers, businesses, parents and their social partner organizations. The FNBE civil servants play a role similar to the NM Public Education Department employees in seeing that the laws regarding education are effectively implemented. However, the Finnish board of directors have authority to oversee their work, while the NM elected education commissioners have little authority over the NM Department of Education.

The Finnish Minister of Education and Culture carries out a role similar to the secretary of education in the state of NM and is appointed by the prime minister of Finland just like the NM state governor appoints the secretary of education. However, once again this appointment by the prime minister is made in close consultation with the members of parliament making sure that there is strong consensus on the person who will guide education policy and work with legislators to prepare legislation that represents the consensus of parliament. What is notable is that in these ways, those who are responsible for developing and implementing education policies are much more in touch with the will of the people than persons in similar roles in the state of NM.

In the area of school finance, the funding of education and childcare from the birth of the child to their entry into the workforce is the top priority of the parliament and considered the country's best investment in a secure economic future. This commitment to fully funding education came at a time in their history when the country was on the edge of bankruptcy after the breakup of the Soviet Union in the 90s. Today Finland is considered one of the most economically competitive countries in the OECD. The amazing thing is that their average cost per pupil expenditure is less than the US overall average, which means it is less than NM as well since NM per pupil cost is very close to the US average (Salhberg, 2015; US Census, 2015). What is notable is that Finland's lower cost per pupil is possible because they do not invest in any of the multi-million dollar high stakes testing programs and much of their education innovations are borrowed from the research of higher education institutions in other countries, especially those in the US.

With regard to curriculum in Finland, except for a limited amount of very broad goals and content specified at the national level, most of the curriculum for meeting those goals is developed at the local municipality and school level; so there is a balance between central and decentralized control with the greater emphasis on local control. Assessment of student learning is designed by cooperative peer teaching teams within the schools. This is very unlike NM where the curriculum is determined in a fair amount of detail by the state adopted common core curriculum and assessment is highly standardized by the administrative contracts with the

Pearson Education Management and Publishing Company in London. In Finland even the textbooks are chosen locally with input from parents and community members working within the broad guidelines from the FNBE. What is notable about this decentralization of curriculum is that it works well since Finland's teachers are the best of the higher education graduates and they have a rigorous background both in specific subject areas and pedagogy. Additionally, the philosophy with regard to student hours in the classroom is that less is more. Students spend the least amount of hours in instruction of any country and teachers spend four hours of their day working together on planning instruction and assessment strategies specific to student needs.

In terms of the demographics of Finland versus NM, It would appear at first glance that Finland has less diversity based on percentages. However, since Finland has a population about two and a half times larger than New Mexico the two entities have about the same number of children in their school systems that are second language learners and the diversity of mother tongues spoken in the largest urban area schools is about the same (see table on page7). What is notable is the challenges of diversity seem pretty similar, so this would not be a reason to think that what works in Finland would not work in the state of New Mexico.

With regard to student performance, there is no question that Finnish students outperform US students according to the data supplied on international assessment tests. What is notable is that there are so few Finnish students living in poverty compared to New Mexico students, 5.3% versus 30% according to UNICEF data and Finnish and US bureaus of data. Years of research indicates that poverty is the single factor that is most highly correlated with low student academic outcomes in the US (Berliner, 2012). What is notable is that this low child poverty rate has not always been the case in Finland. According to Pasi Sahlberg, it is the direct result of government policy and a Finnish education system that prepares students for work and careers.

Several notable cultural beliefs or values that set Finland apart in this steady progression of improved student outcomes are: 1) extraordinary investment in teacher preparation and support, 2) resources for education as the top national financial priority, 3) equality of educational opportunities for all children, 4) changes in education, economic and social policy organized in tandem in ways that increase the impact on education outcomes, and 5) the commitment of the parliament to promote collaboration rather than competition among the political parties. Legislation at the national level is not finalized until there has been enough time for thorough empirical study and discussion among key political parties to reach consensus on what the policy decisions should be. This is quite remarkable as the unique history of the country has resulted in many parties with strong membership in the Social Democratic Party, Agrarian Centre Party, Communist Party, and Conservative Party, all of which have definite philosophical differences.

A major question remains to be answered: Is it possible to inspire such a cultural shift in the state of New Mexico? Some would say no, but amazingly a major project is underway at this very time to plan an education framework for the state of New Mexico that incorporates many of the Finnish principles and values. It is an effort that involves broad based collaboration among major education stakeholder groups: institutions of higher education, school administrators, the regional education resource centers, school board members, teachers, parents, students and New Mexico senators who are committed to effective educational change. The initiative is known as the SUN Project (Somos Unidos para Los Niños - *Ensuring a bright future for Children*) and the hope is that the plan will be ready to present at the 2019 New Mexico legislative session.

BIBLIOGRAPHY

Berger, Kathleen. (2014). *Invitation to The Life Span* (second ed.). Worth Publishers. Duffield, UK. ISBN 978-1-4641-7205-2.

Berliner, David. (2012). *David Berliner on Inequality, Poverty and the Widening Education Gap*. <http://www.schoolsmatter.info/2012/10/david-berliner-on-inequality-poverty.ht>

Colorín colorado. (2016). www.colorincolorado.org/ell-basics/resources-state/new-mexico.

Darling-Hammond, Linda. (2010). *The flat world and education: How America's commitment to equity will determine our future*. Teachers College Press, Columbia University. New York, NY. ISBN 978-0-8077-4962-3.

FNBE website. (2016). http://www.oph.fi/about_fnbe/task_services_and_organization

Finnish Education System website. (2016). http://www.oph.fi/english/education_system

Kids Count Data Center. 2015. <http://www.datacenter.kidscount.org/>

Kunnat.net. (2016). "Kaupunkien ja kuntien lukumaara". Retrieved 2016-04-29.

Niikko, Anneli. ((2006). *Finnish Daycare: Caring, education and instruction*. In *Nordic Childhoods and Early Education: Philosophy, Research, Policy and Practice in Denmark, Finland, Iceland, Norway and Sweden, Series: International Perspectives on Educational Policy Research*. Information Age Publishing, Inc. Charlotte, NC.

Odena, Pepa. (2012). "Finland early childhood education." Xtec.es. Retrieved 2012-06-27.

OECD. (2016). <http://www.oecd.org>

Sahlberg, Pasi. 2015. *Finnish Lessons 2.0: What can the world learn from educational change in finland?* (second ed.) Teachers College Press/Columbia University: New York, NY. ISBN 978-0-8077-5585-3.

Statistics Finland. 2012. http://www.stat.fi/til/vaerak/2012/01/vaerak_2012_01_2013-09-27_tie_001_en.html

UNICEF. 2016. <https://www.unicefusa.org>

US Census Data Center. 2015. Online resouces:
<http://census.gov/library/publications.html>
<https://www.census.gov/quickfacts/table/PST045215/00>
http://factfinder.census.gov/bkmk/table/1.0/en/ACS/08_3YR/B16001/9700000US3500060

Ylilehto, Hannu. 2016. *Telephone interviews and email communications during the month of June* with the Mr. Ylilehto, the Director of Information for the National Finnish Board of Education: Helsinki, Finland.