AN INVESTIGATION OF REASONS FOR FINLAND'S SUCCESS IN PISA

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The educational system of Finland is excellent. There is practically no illiteracy, and every young citizen has a chance of obtaining a University education.

-Frank Fox, 1926

INTRODUCTION

In 1900, Michael Sadler delivered a speech in Guildford, England, which embodies one of the underlying purposes of the field of comparative education: "The practical value of studying… the working of foreign systems of education is that it will result in our being better fitted to study and to understand our own" (Sadler, in Higginson, 1979, p. 50). The field of comparative education, although traceable to the times of Herodotus in Ancient Greece, has recently exploded with the new onslaught of international testing and comparisons (Phillips & Schweisfurth, 2006, p. 27, 1). This new global context of education, with the work of organizations such as the United Nations Educational, Scientific, and Cultural Organization (UNESCO), the Organisation for Economic Cooperation and Development (OECD), and the International Association for the Evaluation of Educational Achievement (IEA) has allowed for educational comparison on an international scale (ibid., p. 1).

The long and developing tradition in the comparative education field of investigating other countries' systems of education, in the hope of eventual "policy transfer," results in the borrowing and lending of educational policy between countries. Noah and Eckstein describe the field as developing in five different stages, although not discretely:

1) Travelers' tales
2) Travelers with a specific educational focus
3) Understanding of other nations, detailed accumulation of information
4) Study of "national character" and role in shaping national systems of education
5) Quantitative research, explanation of educational phenomena (Summarized in Phillips & Schweisfurth, 2006, p. 28).

Comparative education, although quite nebulous in its exact definition, aims, as Sadler stated in 1900, to investigate educational systems not in the "home" context in order to improve the "home" system. The "*copying* or *emulating* successful practice as it is manifest in other countries … has become generally known as 'borrowing'" (ibid., p. 17). Identifying good examples in other education systems implies "that such good practice might be seen as potentially adoptable in (and adaptable to) the 'home' context" (ibid.).

Looking elsewhere occurs commonly when aspiring towards improvement. This can occur on the micro and macro levels. For example, a person undergoing his or her teacher training may use the mentor teacher's positive examples in his or her own teaching. On a wider scale, countries look towards others for good examples. Morris describes this cross-national attraction:

- Country A is an economic basket case (high levels of unemployment and low levels of economic growth) – this is portrayed as largely the result of the educational system which is not producing workers with appropriate skills.
- Country B is economically successful (low levels of unemployment and high levels of ecnomic growth) – this is to a large degree the result of its possessing a well-educated workforce.
- Therefore, if Country A adopts some of the features of the educational system of Country B it will improve the state of Country A's economy (Morris, quoted in Bray, 2004, p. 12, in Ochs & Phillips, 2004, p. 7).

Although rather one-dimensional, Morris's example clearly illustrates the nature and interest of comparative study.

Phillips and Schweisfurth acknowledge the difficult and complex nature of policy transfer (2006, p. 17). The process of policy transfer, which seemingly takes three simple steps, firstly, with the identification of good practice, secondly, the introduction of the policy into the home country, and thirdly, assimilation into the home context, deceivingly

produces problems through its complexity (ibid., p. 18). Sadler, in the same aforementioned speech, also said:

> In studying foreign systems of Education we should not forget that the things outside the schools matter even more than the things inside the schools, and govern and interpret the things inside. We cannot wander at pleasure among the educational systems of the world, like a child strolling through a garden, and pick off a flower from one bush and some leaves from another, and expect that if we stick what we have gathered into the soil at home, we shall have a living plant. A national system of Education is a living thing, the outcome of forgotten struggles and difficulties, and 'of battles long ago.' It has in it some of the secret working of national life (Sadler, in Higginson, 1979, p. 49).

Self-improvement, whether on the micro or macro levels, instinctively involves looking elsewhere for strong examples. While countries have long "borrowed" from each other in terms of science, technology, and agriculture, Sadler's warnings imply a much more complex process of borrowing.

The word "context," in this situation of policy borrowing, needs definition. As a key point for models of policy borrowing, context may include "philosophical, historical, cultural, religious, social, 'national character,' political, economic, demographic, geographical, linguistic, administrative, and technological" features (Ochs & Phillips, 2002, p. 16). These factors also have a complex relationship with each other:

> The contextual factors might also interact with one another and compound influence – as economics impacts politics and *vice versa*. The complexity of these features of context, and their essential interaction, will clearly have an influence on the receptability of ideas from elsewhere (ibid.).

Therefore, "context must be addressed in any discussion of 'cross-national attraction,' in both the 'target' country and in the 'home' country" (ibid., p. 33). Hence, the lending and borrowing of educational policy depend on the context of both the "target" and

"home" countries. The notion of context, especially in terms of the policy borrowing models discussed later in this section, becomes an underlying thread throughout this research project.

Ochs and Phillips describe a spectrum of policy transfer, referring more specifically to the conditions under which countries borrow education policy:

1) Imposed, as under totalitarian or authoritarian rule
2) Required under constraint, as with countries occupied by others
3) Negotiated under constraint, for example, required by bilateral and multilateral agreements
4) Borrowed purposefully, intentionally copied policies observed in other countries
5) Introduced through influence, where countries make policy changes under the general influence of educational ideas (2004, p. 9)

The degree to which countries borrow education policy from other countries varies both in the original intentions as well as the degree to which the policy is borrowed.

Phillips and Ochs have also created a model or, more specifically, suggested a cycle of policy borrowing, which consists of four stages:

1) Cross-national attraction
2) Decision
3) Implementation
4) Internalization/Indigenization (Phillips and Ochs, 2004, p. 779).

The cross-national attraction stage begins with impulses that spawn this attraction, such as internal dissatisfaction, political imperatives, or "negative external evaluation." "Negative external evaluation" often comes from international education surveys such as the OECD's PISA and the IEA's TIMSS (ibid., p. 778). Externalizing potential also sparks cross-national attraction, as countries may have an interest in certain aspects of another country's education system. For example, Country A may admire the teaching

techniques of Country B, or Country X has an interest in the guiding philosophies of Country Y (Phillips & Ochs, 2004, p. 13).

Ochs and Phillips break down the impetus for cross-national attraction even further. They feel that externalizing potential has six foci of educational policy that feed the context of cross-national attraction. They are:

1) Guiding philosophy or ideology of the policy
2) Ambitions and goals of the policy
3) Strategies for policy implementation
4) Enabling structures
5) Educational processes
6) Educational techniques

According to the typology engineered by Ochs and Phillips, these six foci also have a cyclical relationship, much like the phases of policy borrowing as a whole. Therefore, the impetus for cross-national attraction can happen at any time (2002, p. 330). With this typology of cross-national attraction, they hope to generate research involving "*both* the processes *and* the context of 'cross-national attraction' in education systems, which the researcher can use in thinking about the discrete elements of educational policy, their inter-relationship, and necessary conditions for policy transfer" (ibid., p. 328).

The second phase of policy borrowing, decision, has four types of decision-making:

a) Theoretical
b) Realistic or Practical
c) "Quick Fix"
d) "Phony" (ibid., p. 780).

Theoretical decision-making occurs when governments make decisions on policies so abstract that they cannot easily find effective implementation within the education system. Realistic or practical decision-making isolates measures already successful in

another country or education system, which does not have the constraints of contextual factors. "Quick fix" borrowing occurs in times of "immediate political necessity," for example, after the fall of Communism in Eastern Europe in 1989 (ibid.). The "phony" type of decision-making refers to interest in external education systems by politicians for immediate political impact (ibid.).

Although the implementation stage does not require much explanation, the internalization/indigenization phase necessitates clarification. Phillips and Ochs also refer to this stage as the "domestication" of education policy (2004, p. 780). The borrowed policy becomes internalized in four steps:

a) The impact on the existing system, where the educational policy makers juxtapose their goals with the current structure of their education system
b) The absorption of external features, where close examination of the extent of absorption of external features becomes necessary
c) Synthesis, the step where the borrowed policy becomes part of the context of the borrower country's education system
d) Evaluation, where policy makers review whether the education system has successfully implemented the policy (ibid., p. 781)

This process, not a linear but rather a cyclical one, implies that policy borrowing does not occur as a one-off process, instead as a continuum of cross-national attraction. Once properly indigenized, the cross-national attraction may begin again, sparking a new cycle of policy borrowing (ibid.). This educational interest seemingly never ends: it continues as countries, politics, society, and education systems grow and evolve.

In addition to this process of policy borrowing, Phillips and Ochs also discuss the filters involved in the policy borrowing process, which distort and alter the original educational policy. The "borrowed policy" goes through various stages before the policy becomes properly "lent." These filters or lenses distort the original policy in four phases:

1) Interpretation
2) Transmission
3) Reception
4) Implementation (Phillips & Ochs, 2004, p. 16)

The first stage, interpretation, acknowledges how different actors in education construe educational occurrences. The context of the actors in education, in addition to their experiences and strengths, plays a role in their interpretation of educational practices (Ochs and Phillips, 2004, p. 16). Transmission, the second phase, marks when the actors in education have finished their interpretations of an educational practice and then "filter the policy through the lens of their own agendas and expectations" (ibid., p. 17). The third stage, reception, occurs when the educational policymakers, who interpreted the original practice and then filtered it again through their own perspectives, pass it through another lens. With this lens, the individuals and institutions examine the practice and see if it will function for their purposes (ibid.). Finally, the last stage of implementation can also act as a filter. Although the practitioners, through their own examination in stage three, distorted the original practice for their purposes, the final phase of implementation further distorts the original "image." The concrete process of applying an educational practice can further distort the original policy (ibid.). In the end, the borrowing country can have a very different educational practice from that originally borrowed.

Although the entirety of the policy borrowing cycle does not directly concern this specific study, a thorough discussion of it took place in order to position cross-national attraction in its full context within the policy borrowing cycle. The first stage of policy borrowing, cross-national attraction, most closely pertains to this study. This illustrates the complexity of the policy borrowing process and the intricacies involved just in the first stage, cross-national attraction.

After all the discussion of policy borrowing, one must ask, what is the importance of educational policy borrowing? How does the cross-national attraction and eventual policy transfer have importance for educational policy makers? This brings us back to the original point made by Sadler, and Bray's starting point for educational policy borrowing. Sadler said we study other systems of education to improve our own, and Bray said one country has the ability to improve its own shortcomings by adopting the virtues of another. Despite the cyclical phases and the distorting lenses, an education system can adopt policy from another.

However, problems do exist in this process of policy borrowing. These exernal factors and "battles long ago" make the adaptation of an education system difficult. One must wonder if cross-national attraction has successfully spawned implementation of an educational practice. For example, Ochs, as discussed at length in Chapter One, investigates a case of successful policy borrowing, where a London borough internalized and indigenized the educational practices of Switzerland and Germany into its own system. For a more historical example, one must look to the case of the Japanese education system. This rare, "unambiguous" example of policy borrowing comes from not one but two cases of educational policy borrowing. Under the Meiji era, between 1868 and 1912, Japan borrowed the then-admired Prussian education system, then again borrowed the educational structure of the United States after the Second World War (Phillips & Ochs, 2004, p. 775). Even today, Japanese children wear Prussian-style uniforms to school, and the current students also use terminology such as "junior high school," much like their counterparts in America (ibid.).

International tests of attainment have the potential to provide even more concrete, unambiguous evidence of transferable educational policies and practices. The aforementioned five stages of comparative education formulated by Noah and Eckstein describe the evolution of the comparative education field. A century after Sadler's speech, the comparative education field grew and developed from travelers' tales of education in other countries to an international industry. The OECD created a survey called the Programme for International Student Assessment, or PISA. The first administration of PISA, exactly one hundred years after Sadler's speech, has undoubtedly changed the face of education, placing it in a more political, global context. However, other international educational surveys existed before PISA. Before PISA, the IEA, headquartered in The Netherlands, conducted surveys in mathematics, science, and reading achievement. IEA, established in 1967, believes education must take into account not only inputs into education, but also observe outputs as well (Retrieved 12 February 2008, http://www.iea.nl/brief_history_of_iea.html). IEA views "the world as a natural educational laboratory, where different school systems experiment in different ways to obtain optimal results in the education of their youth" (ibid.). The organization began studies with the First International Mathematics Study (FIMS) in 1964 (ibid.). Over the years, IEA has generated many studies involving different subject matter and grade levels. Most notably, in the 1980s, it surveyed both mathematics and science in the Second International Mathematics Study (SIMS) and the Second International Science Study (SISS) (ibid.).

In 1995, the IEA conducted one of its most visible surveys, the Trends in International Mathematics and Science Survey, or TIMSS, which involved forty-five

countries and approximately 500,000 students. In that study, the IEA aimed to measure mathematics and science achievement and "identify the major in-school and out-of-school determinants of the educational outcomes" (Retrieved 12 February 2008, http://www.iea.nl/brief_history_of_iea.html). TIMSS was the largest educational survey to date. The IEA repeated administration of TIMSS in 2003, expanding the number of countries to fifty, many coming from countries in Africa and the Middle East, and participating in international educational assessments for the first time (ibid.). In 2007, the IEA produced yet another round of TIMSS, this time with sixty participating countries (ibid.).

TIMSS measures mathematical and scientific knowledge at the fourth and eighth year of compulsory schooling (Retrieved 5 November 2008, http://www.timss.org/). After its first administration in 1995, the IEA has conducted the study every four years (ibid.). The sampled students answer questions covered within the mathematics and science curricula at their grade levels. Experts from various countries collaborate to collate curricular matter from all around the world in order to create the assessment material (ibid.). TIMSS seeks to measure curricula in schools around the world on three levels: the intended curriculum, the implemented curriculum, and the achieved curriculum. TIMSS has expanded from small, separate studies of mathematics and science achievement to a large, multi-country survey with a large range of participants.

IEA also assesses reading skills. Its assessments of reading literacy started in 1970, and in 1991 it conducted the Reading Literacy Study (Retrieved 5 November 2008, http://www.iea.nl/brief_history_of_iea.html). The Reading Literacy Study evolved into the Progress in Reading Literacy Survey (PIRLS), initiated in 2001, which measures the

reading levels of pupils in thirty-five countries, and forty in 2006 (Retrieved 12 February 2008, http://www.iea.nl/brief_history_of_iea.html). PIRLS, generated at a five-year cycle, measures achievement in reading literacy in order to provide benchmarks for measurement, and uses three main foci: comprehension, purposes for reading, and attitudes towards reading (ibid.). These new participants in the IEA studies mark a new wave of countries participating in international assessments. While the original participants came from traditionally wealthier countries, the new countries have more modest economic situations and different social and political contexts (ibid.). The participation of such countries indicates the widening of the international education context, both in terms of international comparison and in the increased participation of countries in these surveys.

While the IEA quietly produced various educational studies over the years, the OECD instigated a more high-profile survey. In 2000, the OECD surveyed students from around the world with PISA. The OECD, principally an economic organization, initiated the survey at the request of its member countries. Despite the existence of IEA surveys such as TIMSS, PISA made a huge impact in the educational world, the political world, and in the media. PISA, the Programme for International Student Assessment, took a different approach from its counterparts in the IEA, by reinventing the notion of literacy. This self-described "innovative" approach "is concerned with the capacity of students to extrapolate from what they have learned and to analyse and reason as they pose, solve and interpret problems in a variety of situations" (OECD, 2007, p. 3). This "forward looking" approach measures the ability of "young people to use their knowledge and skills in a variety of real-life situations, rather than merely on [*sic*] the extent to which

they have mastered the school curriculum" (OECD, n.d., p. 6). PISA, therefore, does not use curricula from various countries as testing material; rather, it assesses the students' ability to *use* the knowledge gained in schools. PISA uses the testing age of fifteen in order to measure "how far students approaching the end of compulsory education have acquired some of the knowledge and skills essential for full participation in the knowledge society" (ibid., p. 4). PISA has helped redefine educational goals by assessing "what students can do with what they learn at school and not merely whether they can reproduce what they have learned" (ibid.).

PISA's new concept of literacy breaks down into a rubric, allocating students into six categories, measured on a scale. For example, the 2006 survey, which focused on scientific literacy, used this rubric to distrubute the participating students into the six scales for science:

Level	**Percentage of students able to perform at level**	**Description of what students can do at specific level**
6	1.3% of students from OECD countries can perform at Level 6	"Students can consistently identify, explain and apply scientific knowledge and knowledge about science in a variety of complex life situations. They can link different information sources and explanations and use evidence from those sources to justify decisions. They clearly and consistently demonstrate advanced scientific thinking and reasoning, and they demonstrate willingness to use their scientific understanding in support of solutions to unfamiliar scientific and technological situations. Students at this level can use scientific knowledge and develop arguments in support of recommendations and decisions that centre on personal, socio-economic, or global situations."
5	9% of students from OECD countries can perform at Level 5	"Students can identify the scientific components of many complex life situations, apply both scientific concepts and knowledge about science to these situations, and can compare, select and evaluate appropriate scientific evidence for responding to life

		situations. Students at this level can use well-developed inquiry abilities, link knowledge appropriately and bring critical insights to situations. They can construct explanations based on evidence and arguments based on their critical analysis."
4	29.3% of students from OECD countries can perform at Level 4	"Students can work effectively with situations and issues that may involve explicit phenomena requiring them to make inferences about the role of science or technology. They can select and integrate explanations from different disciplines of science or technology and link those explanations directly to aspects of life situations. Students at this level can reflect on their actions and they can communicate decisions using scientific knowledge and evidence."
3	56.7% of students from OECD countries can perform at Level 3	"Students can identify clearly described scientific issues in a range of contexts. They can select facts and knowledge to explain phenomena and apply simple models or inquiry strategies. Students at this level can interpret and use scientific concepts from different disciplines and can apply them directly. They can develop short statements using facts and make decisions based on scientific knowledge."
2	80.8% of students from OECD countries can perform at Level 2	"Students have adequate scientific knowledge to provide possible explanations in familiar contexts or draw conclusions based on simple investigations. They are capable of direct reasoning and making literal interpretations of the results of scientific inquiry or technological problem solving."
1	94.8% of students from OECD countries can perform at Level 1	"Students have such a limited scientific knowledge that it can only be applied to a few, familiar situations. They can present scientific explanations that are obvious and follow explicitly from given evidence."

(OECD, 2007, p. 14)

International education surveys have placed the spotlight on countries with high educational performance. PISA especially, with only three rounds thus far, has had a huge impact in the educational world. Finland, traditionally not an avid participant in IEA studies, has attracted much attention due to its performance in PISA. The top performance of Finland in all three administrations of PISA, and on all assessed literacy areas, has given the country new status as a global leader in education. The equity of

education and consistency across the PISA surveys in Finland coupled with its high performance makes the country even more alluring to those seeking educational models. In other words, Finland's performance in PISA has created an educational frenzy manifest in considerable attraction to the Finnish education system. Finland's performance in PISA has already taken a conspicuous position in examples of cross-national attraction, since it provides a good educational example from which other countries can learn (Phillips & Ochs, 2004, p. 773).

This attraction to Finnish education, although quite compelling, does not mark the first time where a country became the focus of educational cross-national attraction. Many other cases of cross-national attraction exist, despite the fact that "educationists in 'target' countries often react with skepticism to the outside interest expressed in their home systems" (Phillips, 1989, p. 271). For example, Japan, as stated previously, originally borrowed Western models before its education system became the educational envy of many countries in the 1980s. Cummings attributes this to the publication of *A Nation at Risk* in 1983, the Japanese economic boom, and US economic decline around the same time (1989, p. 293-294). An American report attributed this to the "superior quality of [the Japanese] labour force, and especially the work ethic and intellectual capabilities of the average participant" (ibid., p. 294). The "negative external evaluation" of this situation created an impetus to visit Japan. Thus, this established an "educational pilgrimage" of Americans to Japan (ibid.). These pilgrimages by American educational scholars resulted in ascertaining the salient cultural characteristics of the Japanese system, such as the "education mother" and high competition (together with the apparent downside of elevated suicide rates among high school students) (ibid., p. 297). They also

determined the strengths of the system, for example, integrated science and mathematics, and a sequential curriculum (ibid., p. 299).

Ichikawa responds to Cummings's article and demystifies the characteristics of Japanese education as perceived by the American researchers (1989, p. 304-307). The juxtaposition of the articles illustrates the different perceptions of an education system from the "home" country and the observing country. Phillips cites a Japanese periodical at the time that found the interest baffling, since the Japanese looked to other countries for models of creativity in schools (1989, p. 271). Furthermore, both authors discuss the difficulty of a Japan-to-US "borrowing" situation. Cummings states, "Despite the rising American interest in Japanese education we have yet to see a significant impact on the way Americans solve their educational problems" (1989, p. 301). Ichikawa comments on his statement: "I agree that the United States will encounter difficulties in borrowing ideas and practices from Japan without modification" (1989, p. 304). Although the interest on the part of the US in Japan would allow for educational improvement, Cummings, at the time, did not see any. Ichikawa acknowledges the difficulty in borrowing Japanese practice, especially without modification and indigenization into the home context.

England and Germany also form another classic example of cross-national attraction. Karl Heinz Gruber and Andrew Pollard, however, take a different perspective on this matter and account for the attraction, or lack thereof, towards British primary schools from their continental admirers, namely Germany and Austria. Gruber praises the philosophy of the child-centered primary school and the autonomy behind the school administration (1989, p. 363). He wonders why continental European countries do not

look towards British primary schools as good models of early childhood education (ibid.). He cites three reasons why they have overlooked the example of Britain:

1) Governments overlooked primary school reform in German-speaking countries due to energies devoted elsewhere
2) The admirable autonomy of the British schools does not translate well into the tradition of "standardization and uniformity" of school culture in Germany and Austria. The school-to-school variations in British primary schools "are appreciated with difficulty"
3) German-speaking countries tend to concentrate their educational energies on theoretical research, while British educationists analyze real-school processes (1989, p. 363-364).

Gruber asserts that the "silent revolution" of British primary education has remained the object of admiration of experts (ibid., p. 364).

Pollard, in response, feels the German and Austrian perspective on primary schools represents a degree of "idealistic romanticism" (1989 p. 365). Pollard feels that the autonomy of schools that should, according to Gruber, allure continental admirers also has downsides: large variations in school quality and then limitation of central governments to intervene with failing schools (ibid.). As a result, Pollard supported the Education Act of 1988, which implemented a National Curriculum in Britain. Gruber's three assertions about the overlooked British example come under scrutiny from Pollard. He agrees with the first point, but feels that the second point does not ring true in his opinion. He believes that continental European teachers also have encouragement to assert their individuality (ibid., p. 366). On the third point, Pollard agrees with Gruber, as he "note[s] with great sadness" that the "abstract and detached work which Gruber portrays was left behind some time ago by most educationalists in Britain" (ibid., p. 366). The analysis of these two articles raises two interesting points. First it illustrates how cross-national attraction can go both ways. Phillips accounts for English attraction to

Germany (2000, p. 297-307; 2000, p. 49-62), while Gruber describes attraction from Germany and Austria to England. Secondly, this raises the issue of the cycles of cross-national attraction. The articles, published in 1989, praise a British system characterized by autonomy and decentralization. However, the reforms of 1988 created a more centralized system. Pollard presciently writes, "Perhaps in 2007 … Karl Heinz Gruber will be led to wonder why we too failed to appreciate some of the finest qualities and achievements of British primary education" (ibid., p. 367). In other words, almost twenty years after publication, does the same admiration of British primary schooling still ring true, or does Britian regret the educational reforms of the late 1980s?

These examples of cross-national attraction provide a good base for the exploration of Finland as the "new" target for policy borrowing. Pollard astutely wondered if, in the future, the same attraction from Germany and Austria to British primary schools would exist (1989, p. 367). Clearly, however, Finland has taken over the position of educational admiration because of PISA. As long as Finland maintains the level of performance in PISA, the education system will continue to attract other countries seeking the reasons behind PISA success and improvement of the "home" system. This attraction to Finland because of PISA, now a clearly established phenomenon, addresses the issue of the possibility of policy borrowing from the Finnish context. As discussed at length in Chapters Four and Five, the Finns perceive this interest in their education system with some bemusement:

> The outstanding success of Finnish students in PISA has been a great joy but at the same time a somewhat puzzling experience to all those responsible for and making decisions about education in Finland. At a single stroke, PISA has transformed our conceptions of the quality of the work done at our comprehensive school and of the foundations it has laid for Finland's future civilisation and

> development of knowledge (Välijärvi, Linnakylä, Kupari, Renikainen, Arffman, 2002, p. 3; Välijärvi, Linnakylä, Kupari, Renikainen, Sulkunen, Törnroos, Arffman, 2007, p. 3).

Finland traditionally looked towards other countries for educational examples, first Germany, then later, Sweden (Välijärvi, Linnakylä, Kupari, Renikainen, Arffman, 2002, p. 3). In fact, a Finnish adage says, "In reforming school, Finland makes exactly the same mistakes as Sweden. Only it happens ten years later" (ibid.). The new international attention, a change from looking elsewhere for educational examples, has made Finland *the* educational example for other countries. Hence, this attention has prompted the Finns to look inwards and investigate the perceived exemplary characteristics within the home education system (ibid.).

The case of Finland in PISA and the subsequent interest in the education system require re-examination of Sadler's speech, where he warns that the exploration of foreign systems of education needs to take into account that external factors influence the characteristics of the education system (Sadler, in Higginson, 1979, p. 49). In other words, in addition to the structure and governance of the Finnish education system one must delve into the "things outside the school" and find the factors that positively influence the current education system.

This study uses PISA and the cross-national attraction it has inspired as a catalyst for further investigation into the Finnish education system. It principally focuses on the perceptions of Finnish educational stakeholders of this attraction and the characteristics of Finland and Finnish education that caused such attraction. The study also delves into the context of Finland, by exploring its history, society, politics, religion, and culture, and looks at how these factors affect and explain the education system which has been so

prominently successful in terms of PISA outcomes. Comparativists across time, from Sadler onwards, have advised taking context into account when exploring cross-national attraction and policy borrowing. Therefore, this study takes into careful consideration the contextual factors influencing the Finnish education system. Through interviews with educational actors in Finland, it investigates the reasons behind Finnish success in PISA and the factors within the Finnish context that have arguably contributed to the outcomes.

This study, therefore, explores:

- Cross-national attraction and educational policy borrowing
- The OECD, its origins, its background, and role in creating PISA
- PISA in terms of background, structure, and execution
- PISA outcomes of all participating countries
- PISA outcomes in terms of Finland and the Nordic countries
- Criticisms of PISA
- School effectiveness
- Educational research methodology in terms of this particular qualitative study
- Finland's historical background
- Finland's politics, religion, and society
- Finland's languages
- Finland's context within the Nordic countries
- The Finnish education system
- Education in Finland in the Swedish language
- Teacher training in Finland
- Results and discussion of interviews with:
    - Finnish education ministers
    - Head teachers and teachers from Finnish schools
    - Professors of education from Finnish universities, accountable for the implementation of PISA in Finland
    - OECD officers responsible for PISA

Throughout the investigation and exploration of the aforemetentioned topics, this study addresses the following research question and two sub-questions:

- In light of the results of the OECD's PISA surveys, how can we explain the phenomenon of Finland's educational success?
    - What are the perceptions of Finland's education officials, PISA test administrators, heads of schools, and teachers of this success and how do they explain the outcomes?
    - Which external factors, historical, social, political, and cultural, influence the success of Finland in PISA?

Chapter One, which focuses on the contextual background of the study, investigates the OECD and PISA in full detail as well as discussing criticisms of the survey. The chapter also explores school effectiveness, since this project generally assumes that high PISA outcomes relate to school effectiveness, and vice versa. Finland's performance in PISA has resulted in interest in the Finnish system; therefore, the chapter discusses cross-national attraction and educational policy transfer possibilities.

Chapter Two focuses on the background of Finland. It discusses Finnish history from antiquity to the present, in addition to its languages, society, politics, and religion. Finland's relationship with the Nordic countries and the Nordic Council also comes under discussion, as does the Finnish concept of *sisu,* which plays a significant role in Finnish culture and society. The chapter also explores the education system of Finland, its structure and history, including education for Swedish-speaking Finns and teacher training.

Chapter Three, the methodology chapter, reiterates the research questions for the project before discussing the conceptual framework of the study. Comparative education methods are also discussed, as are the factors of language and travel in this type of research. Research approach and data collection for the project are also covered, in terms

of observation and interview techniques, sampling, and access to participants. Finally, the chapter discusses limitations, bias, and ethical issues.

Chapter Four discusses the interview results from the perspective of the Finnish education system on three levels: education ministers, head teachers, and classroom teachers. All groups provided their opinions on the strengths and weaknesses of the education system, their reactions to PISA, the cultural transferability of the Finnish education system, Finland's performance in PISA in comparision to Asian and Scandinavian countries, and the reactions to education in two languages in Finland.

Chapter Five follows a similar format to chapter Four, except that it utilizes the viewpoints on Finnish education from an education policy standpoint. The opinions of Finnish educationists, professors of education in Finnish universities, are used, as well as interview data from members of the OECD responsible for PISA.

The results of surveys such as TIMSS and PISA have increased the visibility of education in political decision-making and have concretely displayed educational results through the highly visible rankings. This new influx of quantitative surveys has impacted, not just the stakeholders in education and the educational world, but also politicians, the press, and the general public. PISA and TIMSS have placed education in a more noticeable arena, in addition to providing a catalyst for discussion and debate about education in general. These surveys have provided the public with a concrete background for educational evaluation and a language in which many can discuss education. From the mass media to private homes, the successes and failures of education systems have come under discussion. These surveys also help education

ministers and politicians, by providing a clear and unbiased view of education systems, both at home and abroad.

PISA and the IEA assessments have in essence created an educational Olympics. Previous to these assessments, most could only speculate about the best features of education systems, and which countries had the most successfully educated citizens. In terms of the visibility of education, the possibility to see strengths and weaknesses within a system, and the observability of successful systems, the quantitative, international assessments have made a significant contribution to the field of education. PISA, TIMSS, and PIRLS, large, sweeping educational surveys, also serve as a catalyst for basing further research. Seeking the reasons behind the outcomes in such studies or comparing in-depth a few educational systems can stem from these international surveys, providing a different, more qualitative viewpoint on educational matters. The advent of these studies has expanded the possibilities for educational policy borrowing, stemming from the attraction some countries exhibit towards "enviable" education systems. A relatively recent phenomenon, such international surveys will surely change the future of education.

Sadler, whose speech in 1900 so presciently addressed issues in comparative education today, stressed that one studies other systems of education in order to improve the system within the home country, but also adds a caveat to this statement, stating that the external factors affect an education system more than internal features. Sadler's perceptive remarks at the beginning of the last century still ring true today. The field of comparative education, much more developed at this time, can still learn lessons from the past. While one studies foreign systems of education partly in order to improve one's

own, the interlocking external factors make direct implementation of features of another education system extremely difficult. In the case of Finland, the positive reinforcement the country received from PISA has initiated a new worldwide fascination. PISA has quite possibly revolutionized education by placing it in a global context. Finland's performance in PISA has signaled a successful education system, now with many admirers. However, one must keep in mind Sadler's comments, since the features of the Finnish education system, so intertwined with external factors, may inhibit direct implementation of the successful features of the system. Finland does, however, provide a good educational role model for other countries. If considering contextual factors, Finland can indeed provide information for educational policy borrowing, but only if properly "indigenized" for the borrowing country. Nevertheless, one can view the Finnish education system with high regard and respect, since the Finns overcame a tumultuous history to reign now as one of the world's leaders in education.

CHAPTER ONE:
BACKGROUND AND CONTEXT

Introduction

The OECD's PISA surveys have created a sensation in both the educational and political worlds. The thrice-administered tests, in 2000, 2003, and 2006, revealed Finland as the top performer. Triggering global curiosity, the PISA tests have placed Finland on the itinerary of those wishing to discover the influences behind educational success. Finland shared the top spots with educational powerhouses such as South Korea and Japan. Finland outscored even its Nordic neighbors.

Finland's performance in PISA has created a great attraction to the country's education system. The Introduction discussed at length policy borrowing and its models and typologies. This chapter begins with a deeper investigation of cross-national attraction and policy borrowing, as to provide the base from which this study emerges. The exploration also incorporates discussion of the immense attraction to Finland due to PISA success, from many admiring countries.

In order to investigate the strength of Finland in PISA, we must also explore the tests themselves, their aims and goals, as well as the criticism and praise of the project. Furthermore, we must delve into the OECD, the phenomenon of Finland in PISA, and the interest this has triggered in its educational system. Finland in PISA raises also questions of school effectiveness, also discussed in this chapter. Furthermore, we must consider the external factors, whether historical, political, or socio-economic, that influence Finland's success in education.

Policy Borrowing and Cross-National Attraction

In the early nineteenth century, Marc-Antoine Jullien generated a series of questions in order to identify "good educational practice" and aid in its "transfer to other systems" (Phillips, 1989, p. 267). Jullien sparked an educational interest in other countries that continues to this day. Continuing along this vein, Sadler stated that studying other systems of education creates a better understanding of the home system, but warned that when investigating another education system, it becomes necessary to take into account the societal and cultural factors of the country (1979, p. 50). Halls takes it a step further, by stating, "The grafting of features of another educational system into a different cultural context, like transplants of the heart, is a difficult and sometimes unsuccessful operation" (1970, p. 163).

In fact, when attributing success in education many have the tendency to credit individuals, "their psychologies and pedagogies, rather than … phenomena characterized as social, cultural, institutional or historical" (Simola, 2005, p. 455). "Schooling is not confined to pedagogy, didactics or subject matter … it also, even mainly, incorporates social, cultural, institutional and historical issues (ibid., p. 456-467). Simola also believes "a comparative study in education purporting to be something more than a mode of educational governance should be a historical journey" (ibid., p. 457). Often interest in another country baffles the subjects of observation. "In fact, educationists in 'target' countries often react with skepticism to the outside interest expressed in their home systems" (Phillips, 1989, p. 271). Phillips cites the example of the Japanese system, which gathers interest for its high achievement, yet looks to other countries in order to seek out examples on creativity (ibid.).

The subject of policy borrowing generates much debate. Since the time of Jullien, the "attitudes to the feasibility of educational policy borrowing have ranged from scornful dismissal to enthusiastic advocacy" (Phillips, 2006, p. 551). Many have used the foreign model to exemplify a successful education system and to warn against change. The same country can also come as a positive or a negative illustration of an education system, as in the case of Germany (ibid., p. 551-552). Phillips raises a central question: "Can country *x* solve its educational problems by adopting policy or practice deemed to be successful in country *y*? And if so, how is such policy or practice transferred and implemented?" (ibid., p. 553).

Nevertheless, examining cross-national attraction does prove useful, for it aids explanation on "why things are as they are in the 'home' country by means of comparison with conditions 'elsewhere' and helps identify the lessons that might be learnt for the development of policy 'at home'" (Ochs & Phillips, 2002, p. 326). Also, as Sadler stated, "The practical value of studying … the working of foreign systems of education is that it will result in our being better fitted to study and to understand our own" (Sadler, in Higginson, 1979, p. 50). In order to study education systems cross-nationally, we must take into account two different methods, "one to study the society, and one to study the education system itself" (Ochs & Phillips, 2002, p. 327).

PISA has generated great amounts of interest in the Finnish education system. "Finland has recently been basking in educational glory… The recent PISA 2000 project in particular turned Finnish comprehensive schooling into a success story" (Simola, 2005, p. 456). According to Phillips and Ochs, this sudden attraction can stem from "negative external evaluation" (2003, p. 3). In other words, the countries with weak scores in tests

such as PISA will look towards high scoring countries, such as Finland, in order to investigate the strengths of their education systems. Hopefully those interested in Finland will implement Finnish educational characteristics for the right reasons, and will not, for example, look for a "quick fix" for solving their own internal problems (Phillips & Ochs, 2003, p. 6). Sometimes careless policy borrowing can cause dangerous outcomes. As previously stated, policy borrowers must take into account the cultural, societal, geographical, and political influences, among others, of the home country. For example, Moehlman stressed the importance of observing an education system with two lenses, one to study the society and one to monitor the education system (Ochs & Phillips, 2002, p. 327). Furthermore, Phillips states "it is only through analysis and understanding of the roots that feed educational systems that we can arrive at a proper understanding of why things are as they are and avoid the pitfalls of too great a concentration on description and measurement of perceived outcomes" (Phillips, 1989, p. 269). We must hope that this new interest in Finland will spark multi-disciplinary study of the country and proper, careful implementation of successful Finnish policies, adapted and "indigenized" for the borrower.

Before PISA, little interest surrounded the Finnish education system. In fact, in the Second International Mathematics Study (SIMS), Finland ranked only average among the eighteen participating countries (Sahlberg, 2007, p. 160). In the 1999 repeat of the Third International Mathematics and Science Study (TIMSS-R), 38 countries participated, and Finland ranked only slightly above average (ibid., p. 161). However, owing to its performance in PISA, Finland's education system has become a popular travel destination for educational policymakers, teachers, researchers, and the like,

observing how Finland created a high-performing education system while maintaining its commitment to the welfare state (ibid.). The educational achievements of Finland, especially taken into account with its financial struggles of the 1990s, are worthy of praise. "The overall social and economic progress has often been judged as indicating that a relatively small, peripheral nation can transform its economy and education system into a showcase knowledge society only if policies are right and if sufficient hard work supports the intended visions" (ibid.). International surveys such as PISA have become one of the biggest reasons for educational change in recent years, triggering an "educational pilgrimage," as seen in the case of Finland (ibid., p. 163). In fact, "several countries changed the direction of their education reforms by borrowing education policies and practice from well-performing nations (ibid.).

Finland's success in all three administrations of PISA has sparked interest among educationists and the mass media. As a result of the aforementioned "negative external evaluation" and sheer interest in Finland's educational success, widespread press coverage has accompanied PISA. The UK press has produced articles with titles such as "Flying Finns. What Britain can learn from the world's best schools," "Reach for the Finnish line: What can the UK learn from Finland's school success story?" and "Inside the best school in the world" (Crace, 2003, p. 2; Mansell, 2005, p. 18; Duvall Smith, 2005, p. 23). Crace cites how Finnish schools receive visitors from all over the world, including Korea, Germany, Central Europe, Ireland, Canada, South America and China (Crace, 2003, p. 2). He also finds that "They are running things [educationally] in a way that seems blindingly obvious to them, and the main source of amazement is that so many others have failed to see things their way." (ibid.) However, he also warns of the cultural

differences among countries. “Finland does have its natural advantages. With a population of just under 6m, its education system is relatively small and easy to manage” (ibid.). Mansell also addresses the issue of policy borrowing. He writes, “Could our pupils benefit from a sprinkling of the Finnish magic dust? Or does Finland’s education success, achieved against the backdrop of a society very different from our own, actually offer very few lessons for our schools?” (2005, p. 18). Both of these journalists question the transferability of aspects of the Finnish education system to the United Kingdom.

Around the time of Finland’s European Union Presidency in 2006, *The Economist* published a piece entitled “In Praise of Finland”:

> In Finland now, everything is all right. Fifteen years after one of the worst recessions any European country has seen, triggered by the collapse of the Soviet Union, Finns are not exactly merry (that would hardly suit the national temperament), but they are content. Their small country (5m people) is at or near the top of most league tables: first in the World Economic Forum's list of most competitive countries, and second in its business-competitiveness index; first in the OECD's world ranking of educational performance; second-highest share of R&D spending in the European Union. The country is reversing its demographic decline: its fertility rate is one of the highest in Europe. A Finnish group even won this year's Eurovision song contest (6 July 2006, Retrieved 6 September 2007, economist.com).

This article not only commends Finland’s education system, but also other aspects such as its economic achievement. In response to the release of PISA data, *The Economist* published an article called “Educational Standards Compared: Britain Scores.” Although in praise of the UK’s performance on the 2000 PISA survey, it mentions that Finland “won the whole tournament” and also suggests that Britain can aspire to Finland’s small

gap between their high achievers and low achievers (6 December 2001, Retrieved 6 September 2007, economist.com).

Following the same vein of "negative external evaluation," *The Economist* printed another piece, "Back to School: Some Remedial Lessons are Needed for European Leaders." This article states "Europe is failing its students" (23 March 2006, Retrieved 6 September 2007, economist.com) and mentions that European educational institutions find themselves falling behind their American and Asian counterparts (ibid.). Citing PISA to illustrate the decline, *The Economist* describes the decline of European education, with Finland as an exception to the trend. The article mentions that most European countries have a larger gap between their weak and strong students than the United States, traditionally a country with a large distribution between the two. Even though the article admits Finland's faults in education in the 1960s, today's Finland "has the best schools in the world. Finnish 15-year-olds have the highest level of mathematical skills, scientific knowledge and reading literacy of any rich industrialised country" (ibid.). In order to achieve this, Finland had to make reforms, including allowing more responsibility and independence for its teachers. The Finnish education system also has no streaming, no selection, and few national assessments. The article has these words of advice: "European governments should go back to school. In Finland" (ibid.).

Similar articles appear in US periodicals. *The New York Times*, for example, has published articles such as "Finland Again Ranks First Among Global Competitors," and "Educators Flocking to Finland, Land of Literate Children" (Wright, 2005; Alvarez, 2004; Retrieved 24 October 2005, http://select.nytimes.com/). *The Washington Post* published "Focus on Schools Helps Finns Build a Showcase Nation" (Kaiser, 2005,

Retrieved 24 October 2005, http://www.washingtonpost.com/). *Teacher Newsmagazine* declared, "Finland's education system is tops: Here's why" (Lombardi, 2005, Retrieved 24 October 2005, http://www.bctf.ca/ezine/archive/2004-2005/2005-03/support/31Finland.html). Interest in Finland's education due to its PISA success has received very wide publicity and has triggered much discussion in many realms.

The New York Times also published some articles along the lines of "negative external evaluation," an impetus for cross-national attraction. In 2000, Schemo wrote, "Worldwide Survey Finds U.S. Students Are Not Keeping Up" (Retrieved 24 October 2005, http://select.nytimes.com/). The next year, she reported, "U.S. Students Are Middling On Test Given In 32 Nations" (2001, ibid.). Furthermore, Norris published, "U.S. Students Fare Badly in International Survey of Math Skills" (2004, Retrieved 24 October 2005, http://select.nytimes.com/). All of these examples from the mass media illustrate the immense interest in Finland due both to its success in PISA and to the unsatisfactory performance of countries such as the US and the UK. Nevertheless, some of these articles warn that, despite all of the interest, the successful features of Finnish education may not transfer to the countries investigating the Finnish success.

Around the world, periodical articles address this negative external evaluation due to PISA as well as offering praise for Finland. An article entitled "Functional Illiteracy" criticizes Switzerland for its high levels of illiteracy and decrease of funding for education. The author compares Switzerland's low PISA scores with the high scores of Finland, Japan, Korea, New Zealand, and Canada (Retrieved 6 September 2007, http://www.thesop.org/index.php?id=2685). *Scotland on Sunday* scoffs at the goal of the Scottish government to have the best education system by 2020. Even though the

Scottish Executive tried to extol Scotland's one-place advance in science in the 2003 PISA survey, the article cites the decrease in both mathematics and reading literacy (Retrieved 6 September 2007, http://scotlandonsunday.scotsman.com/education.cfm?id=1336712006). The *Japan Times*, although acknowledging Japan's highly regarded education system, suggests the Japanese system can improve, as Finland scored higher in PISA. Sawa mentions how Finland provides free education, and how "additional education budgets are allocated in some areas plagued by social problems such as unemployment to help prevent gaps in income and the parental enthusiasm for children's education from contributing to regional differences in scholastic abilities" (Retrieved 6 September 2007, http://search.japantimes.co.jp/cgi-bin/eo20060912ts.html). Even a country that scores high in PISA, it seems, can look to Finland as a good model for education.

High-scoring Australia even found some "negative external evaluation" from PISA, as the disparity between high-achieving and low-achieving students in PISA worries its government (20 November 2006, Retrieved 7 September 2007, http://www.theage.com.au/news/education-news/act-boldly-for-a-fair-go/2006/11/17/1163266781081.html). Similarly, Australia realized that its private school spending exceeds that of most OECD countries, with the exceptions of the United States and Korea, and PISA indicated a high influence of socio-economic background on PISA scores (17 January 2007, Retrieved 7 September 2007, http://www.news.com.au/couriermail/story/0,23739,21073067-953,00.html). However, Australia's high scores did garner some praise within the country. The article, "Teens Top Five out of 41 Countries" cites a strong performance in PISA. It also states that

socio-economic background has less influence in Australia than other countries, and that Australia has high equity and high quality (7 October 2006, Retrieved 6 September 2007, http://www.smh.com.au/news/national/teens-in-top-five-out-of-41-countries/2006/10/06/1159641533684.html). PISA reinforces good education systems as well. The education minister of Brunei paid a visit to Finland and met with his Finnish counterpart. The minister from Brunei expressed an interest due to PISA and admired "great emphasis placed on health education, the environment and the community as well as the high importance placed on the welfare and health development of the children" (Retrieved 7 September 2007, http://www.brudirect.com/DailyInfo/News/Archive/May07/110507/nite11.htm). The minister found that Finnish children receive instruction in environmental issues and hopes children in Brunei will also do so someday, therefore finding the Finnish model a good template for his future reforms (ibid.).

Germany's reaction to its PISA outcomes has become a classic example of "negative external evaluation." This *PISA-Schock*, which occurred after Germany scored below the OECD average in the 2000 survey, has had much the same impact as Sputnik or *A Nation at Risk* (Ertl, 2006, p, 619-621). In fact, Karl Heinz Gruber believes the *PISA-Schock,* resulting after the 2000 results, eclipses the impact of *A Nation at Risk* (Gruber, 2006, p. 195). He cites how the *Bundestag* held special "PISA sessions" in order to discuss PISA-triggered, educational worries, and how PISA marks different educational eras with BP (Before PISA) and AP (After PISA), much like BC and AD also denote a significant change in temporal measurement and history (ibid.).

The media reaction to PISA, especially after the release of the 2000 scores, illustrated "how calmly Finland dealt with its champion status" and "how deep the German *PISA-Schock* went" (Gruber, 2006, p. 196). The German performance In PISA 2000 contradicted "the German and international expectations of a nation with a high standard of living and a school system which had enjoyed a high international reputation since the nineteenth century (ibid.). The PISA performance illustrated the disparities in performance among PISA literacy levels and the varied educational achievement across Germany's *Länder* (ibid.). In addition, Germans found that socio-economic background, immigration, and the tripartite system held positions as strong factors affecting educational success (Ertl, p. 623). In fact, Germany had the highest rate of social inequality in education, even more than the United States (Gruber, 2006, p. 203). On a more positive note, this *PISA-Schock* triggered the unilateral decision by the federal government, in addition to the *Länder*, to agree to educational reforms and national standards. Previously, they were at a standoff (Ertl, 2006, p. 622-624). The great "taboo" subject of German education, the *Gesamtschule,* or comprehensive school, however, still remains untouched (Gruber, 2006, p. 205-206). Despite great disparities in educational attainment, socio-economic disparity, and the low educational attainment of immigrants, the tripartite system still remains intact (ibid.). The *PISA-Schock*, however, did prompt the German curricula towards a more practical focus. The formerly respected German system admitted to its ossification and began looking outwards, generating comparative research, in order to improve. The Germans especially look to Finland and Sweden as successful models of good education (Ertl, 2006, p. 627-629). PISA triggered a "mass pilgrimage" to Finland from German politicians and educational authorities who

viewed Finland as the promised land (Gruber, 2006, p. 203). Despite these positive reforms, they do not address the socio-economic problems and subsequent educational inequalities in the country, instead focusing on the future increase of PISA outcomes (Ertl, 2006, p. 630).

German delegates, along with representatives from other countries, visited Finland after its initial success in PISA. The *Helsingin Sanomat* announced: "Germans Join Queue Examining Finnish School System." Germany's performance heavily contrasted with that of Finland. "Germany… came out of the OECD report with its reputation as an old cultural pillar in ruins, with results that put it at or near the bottom of the pile in all categories" (22 May 2002, Retrieved 20 September 2007, http://www2.hs.fi/english/archive/news.asp?id=20020522IE7). The German Education Minister admitted that the PISA scores came as a "shock," triggering a proposal by the German federal government to spend 4 billion Euros on educational improvement (ibid.). The "negative external evaluation" that characterizes many countries' PISA performances seems to have hit Germany the hardest.

Conversely, the Finns experienced positive external evaluation with PISA. After the release of results from the first PISA survey, the *Helsingin Sanomat,* the largest newspaper in Finland, published an article entitled, "OECD Study: Finnish Teenagers are Best Readers" which also documented high performance in mathematical and scientific literacy (5 December 2001, Retrieved 7 September 2007, http://www2.hs.fi/english/archive/news.asp?id=20011205IE2). Similarly, an article called "Finnish Teens Place Number One in Comparison of Math Skills," referring to performance in the 2003 PISA survey, mentioned that Finnish education officials were

not surprised at the results, much as with the reading literacy scores from the 2000 and 2003 PISA surveys. The education officials of Finland attribute the success to their focus on developing core skills (25 November 2004, Retrieved 7 September 2007, http://www.hs.fi/english/article/1076154634613).

The release of the 2006 results also created media frenzy. Articles in praise of Finland and criticizing home education systems emerged after the release of PISA 2006 outcomes in December of 2007. Even in the third administration of the survey, countries still viewed PISA as providing negative reinforcement to their systems. High-performing countries, however, did acknowledge their successes. Canada published articles commending its performance in PISA. For example, the articles, "Canadians Ace Science Test," and "Canadian Teens Among World's Best in Science," congratulated Canadian performance in PISA (30 November 2007, Retrieved 15 January 2008, http://www.theglobeandmail.com; 5 December 2007, Retrieved 15 January 1008, http://www.ctv.ca/servlet/ArticleNews/story/CTVNews/20071204/pisa_test). Canadian provinces such as Prince Edward Island, which score relatively low compared to other provinces in PISA, acknowledged improvement in the 2006 survey (5 December 2007, Retrieved 15 January 2008, http://www.theguardian.pe.ca/index.cfm?sid=86302&sc=98). Taiwan also praised its performance on PISA, coming fourth in the scientific literacy section (4 December 2007, Retrieved 15 January 2008, http://www.chinapost.com.tw/taiwan/2007/12/03/133350/Students-4th.htm). However, most countries did not applaud their performance in PISA 2006. Norway, for example, did not approve of its performance in that administration of PISA. "Students Not Testing

Well" describes their 29th place rank in scientific literacy (30 November 2007, Retrieved 15 January 2008, http://www.aftenposten.no/english/local/article2129729.ece).

Many countries look towards the educational example of Finland in PISA. The mystery surrounding Finnish performance generates a great deal of cross-national attraction. An Israeli periodical, *Israeli Opinion,* wondered about Finnish success in PISA in the article, "What's Finland's Secret?" (3 December 2007, Retrieved 15 January 2008, http://www.ynetnews.com/articles/0,7340,L-3478376,00.html). This article wonders why Finland scores highest in PISA's scientific literacy survey, while Israeli students finished in 39th place: "In the first place … we have proud Finnish students. In the 39th spot … we have embarrassed Israeli students" (ibid.). Despite lower expenditure on education and less time in school, Finnish students manage to achieve well on PISA (ibid.). Australia also viewed its performance as negative and acknowledged the possibilities of looking towards other countries as an example in the article "Lessons to Learn from the Success of Others" (5 December 2007, Retrieved 15 January 2008, http://www.theaustralian.news.com.au/story/0,25197,22872254-13881,00.html). A Dutch website released "Finns and Koreans Top of the Class" (4 December 2007, Retrieved 15 January 2008, http://www.radionetherlands.nl/currentaffairs/071204-education-finland-korea). Despite high performance in PISA by The Netherlands, the article ranks Dutch pupils in the "second group" behind high-performing Korea and Finland and prescribes more spending on education to aid improvement (ibid.).

British publications included numerous articles relating to PISA 2006, both in criticism of the home system and in praise of others. *The Times* released "British Pupils Falling in World Rankings," citing the decline of UK students in all three literacy areas

measured by PISA. Britain, "eclipsed" educationally by other countries, finds its reputation for world-class education declining (Woolcock & Frean, 2007, p. 13). *The Sunday Times* questioned British pedagogy in the article, "The Three Rs – Really Rotten Results?" (Grimston, 2007, p. 16). The plummeting PISA results contradict the increasing scores in GCSE and A-level, prompting politicians to question the supposed educational improvements (ibid.). Similarly, *The Guardian*'s Education supplement also cited the political tension regarding the UK's decline in PISA (29 November 2007, Retrieved 15 January 2008, http://education.guardian.co.uk/schools/story/0,,2219214,00.html?gusrc=rss&feed=8). *The Guardian* also published the article "UK Plummets in World Rankings for Maths and Reading," where the decrease in PISA scores highlighted the shortchanging of UK students in education (4 December 2007, Retrieved 15 January 2008, http://education.guardian.co.uk/schools/story/0,,2221766,00.html). The "negative external evaluation" for Britain in PISA has prompted the need for educational policy change.

British periodicals also show attraction to the Finnish system. Articles in reaction to the 2006 survey also praise Finland, both in Finnish periodicals and in those in other countries. The BBC's article, "Finland Stays on Top of Global Class," praises the performance of Finland and South Korea on the 2006 survey (4 December 2007, Retrieved 16 January 2008, http://news.bbc.co.uk/1/hi/education/7126562.stm). Reuters also praised Finland's consistent performance on PISA in "Finnish Children Take Top Spot in OECD Science Test" (4 December 2007, Retrieved 16 January 2008, http://uk.reuters.com/article/topNews/idUKL0326720720071204?sp=true). *The*

Economist called Finland "an old star" and praised its "all-round excellence" in education (6 December 2007, Retrieved 16 January 2008, http://www.economist.com/world/international/displaystory.cfm?story_id=10251324).

Finland also reacted to the 2006 survey, noting the high performance of the students. The *Helsingin Sanomat* wrote "Finnish Teens Score High Marks in Latest PISA Study" describing performance in the scientific literacy section of PISA 2006 (Retrieved 16 January 2008, http://www.hs.fi/english/article/Finnish+teens+score+high+marks+in+latest+PISA+study++/1135232232704). It also wrote of Finnish success in reading and mathematical literacy in "Finland Tops PISA in Reading and Mathematics As Well" (Retrieved 16 January 2008, http://www.hs.fi/english/article/Finland+tops+PISA+in+reading+and+mathematics+as+well/1135232308295). However, Finns do criticize PISA and their own education system. The *Helsingin Sanomat* wrote of these criticisms in "Finland Breaks Point Record in PISA Study: PISA Methodology Criticised" (Retrieved 16 January 2008, http://www.hs.fi/english/article/Finland+breaks+point+record+in+PISA+study/1135232362277). Firstly, they cite how the education system, strong on egalitarian values, "inhibit[s] exceptional talent from emerging" (ibid.). This sentiment echoes many of the interviewed subjects in Chapters Four and Five, as they also agree about this weakness in Finnish education. The article also mentions criticisms of cultural bias in PISA, which favors the Anglo-Saxon countries, and how PISA influences countries to adopt competitive attitudes towards education (ibid.). These criticisms in the Finnish press echo those discussed in a later section in this chapter.

The phenomenon of Finland in PISA, still quite recent, has not yet seen full implementation of the Finnish model into other systems of education. Ochs documented a successful implementation and internalization of certain foreign practices into a London school system. She cites the Phillips and Ochs model of the four stages of educational borrowing, first, cross-national attraction, then decision-making, followed by implementation, and finally internalization (Ochs, 2006, p. 600). The London borough of Barking and Dagenham successfully reformed its schools to implement education practices from Switzerland and Germany (ibid.). She also discusses the filters within the policy borrowing process. The original practice goes through different lenses, or filters, that distort and convert the original practice into the one implemented. The stages begin with interpretation, then continue with transmission, followed by reception, and finally, implementation (ibid., p. 605). In the end, the London borough did successfully implement a foreign system, but by carefully following five goals:

1) A strong commitment to improving the school system
2) Strong key partnerships to provide support in the process
3) Awareness of the challenges at hand when implementing a foreign system into one's own
4) Recognizing that the process would require continuous commitment and repetition
5) Considering the contexts of both countries throughout the policy borrowing stages (ibid., p. 616).

In the future, perhaps some education systems, whether at the macro or micro level, will adopt aspects of the Finnish model to successfully improve their home system.

The policy borrowing models discussed in the Introduction set down the framework of policy borrowing. Most of this section deals with the beginning stage of policy borrowing, cross-national attraction. PISA, as Ertl has described, generates as powerful an external negative evaluation as Sputnik or *A Nation at Risk* (2006, p, 619-

621). The negative reinforcement of PISA has initiated cross-national attraction, and more specifically of course, to PISA's top performer, Finland.

Cross-national attraction, however, represents just the first stage of the policy borrowing model. As stated previously, PISA has been a recent phenomenon, and this attraction to Finland has yet to materialize into full policy borrowing. Hopefully, those countries using Finland as model of education will acknowledge that the policy needs to pass through different filters or lenses in order to properly "indigenize" into the home system, much like Ochs's account of policy borrowing in London. This careful process does not allow for a "quick fix" but rather a thoughtful procedure by which to implement successful models from abroad into a home system.

The concept of policy borrowing provides the impetus for this study about Finland and PISA, since a clearly established phenomenon of interest in Finnish education due to PISA now exists. After such discussion of cross-national attraction and policy borrowing, I must now assert my own opinion on the matter. I believe that one naturally learns from another. For example, a beginning teacher learns from the modeling and good examples of a more experienced teacher. Similarly, a doctor may learn new techniques from a colleague. Learning from another's example provides an excellent pathway towards improvement. On a larger scale, fields such as engineering, medicine, and technology often learn from each other and borrow new models. This helps improve the fields as a whole. However, when considering such an interdisciplinary subject such as education, the lines become blurred. Comparativists from Sadler to Phillips urge those seeking policy borrowing to take into account the context of an education system. As Sadler stated, "a national system of Education is a

living thing" (Higginson, 1979, p. 49). Therefore, direct borrowing and lending of features become problematic, much like Halls's heart transplant analogy (1970, p. 163). In order to borrow successful features of education from another context, careful consideration must be made. The Introduction discusses two models of policy borrowing by Phillips and Ochs. One of the models, the cyclical pattern, begins with cross-national attraction and ends with the indigenization of the original policy. The other shows how a borrowed policy becomes distorted through various lenses through the process of proper implementation. Perhaps the original policy changed so much that the indigenized model barely resembles the first version. In that instance, however, the policy properly fits into the home context. Personally, I believe educational policy makers and politicians must heed the warnings of so many comparativists and avoid "quick fix" and "phony" situations. PISA, which has made education more visible in political decision-making, could possibly trigger "quick fix" situations. Nevertheless, I do believe that education systems can and should learn from one another. Perhaps external observers will always have some "idealistic romanticism," as Pollard has described it, but perhaps some is needed to spark cross-national attraction, eventual, indigenized policy borrowing, and ultimately, educational improvement. Countries such as Finland, Japan, and Germany attracted educational attention for strengths within their systems. Therefore, they have much to offer countries seeking educational improvement. Even though proper policy borrowing may take decades to implement and indigenize, it must be done in order to keep improving education and prevent the ossification of tired systems.

The OECD

The creator of PISA, The Organisation for Economic Cooperation and Development (OECD), with thirty member countries, commits itself to "democratic government and the market economy." It also "plays a prominent role in fostering good governance in the public service and in corporate activity." Furthermore, the "OECD produces internationally agreed instruments, decisions and recommendations to promote rules of the game in areas where multilateral agreement is necessary for individual countries to make progress in a globalised economy" (Retrieved 7 November 2005, http://www.oecd.org/about/0,2337,en_2649_201185_1_1_1_1_1,00.html).

The OECD emerged from the OEEC, the Organisation for European Economic Cooperation, founded in 1947 to help reconstruct Europe after the Second World War. As NATO's economic counterpart, the OECD came to existence in 1961, taking over the OEEC (Retrieved 7 November 2005, http://www.oecd.org/document/18/0,2340,en_2649_201185_2068050_1_1_1_1,00.html). The current trend toward globalization has "seen the scope of the OECD's work move from examining each policy area within each member country to analyzing how various policy areas interact with each other, between countries and beyond the OECD area" (ibid.). The OECD has also striven to "achieve sustainable economic growth and employment and to raise the standard of living in member countries while maintaining financial stability – all this in order to contribute to the development of the world economy" (Retrieved 17 June 2007, http://www.oecd.org/pages/0,3417,en_36734052_36761863_1_1_1_1_1,00.html). The

Organisation also assists in the world's economy beyond its thirty members, and uses its experience to aid transitional countries and economies (ibid.).

The OECD's directorate for education views education within a lifelong learning context. The OECD conducts tests to generate statistics and indicators, but its work also aims to cover the qualitative dimensions of educational research. The Organisation describes its educational research as "policy recommendations designed to increase both the quality and equity of education systems" (Retrieved 17 June 2007 http://www.oecd.org/dataoecd/51/27/37474503.pdf) and hopes to have wide policy relevance.

PISA

Beginning in 1992, the OECD began publishing *Education at a Glance*, which provided the OECD member countries with comparative information about the differing organization and function of their education systems. The study, published yearly since that date, has sparked considerable interest among the OECD member countries. In response to the member countries' interest in comparative student performance, the OECD initiated the Programme for International Student Assessment in 2000 (Riley & Torrance, 2003, p. 420). Through PISA, the OECD makes good educational practice visible to the rest of the world. However, the OECD "acts non-coercively," meaning countries, whether involved in PISA or not, can set their own levels of reaction and response to the survey (Gruber, 2006, p. 198). The assessment survey, intended for administration every three years, tests students nearing the end of many countries' compulsory education, at age fifteen, on their acquired skills necessary for life in the knowledge economy (OECD, 2004, p. 4). At the first time of administration, PISA

surveyed 315,000 students in 43 countries and focused on mathematics, science, and reading (ibid.). PISA also takes into account that "the acquisition of knowledge and skills can be influenced by students' individual characteristics, by features of their schools, and by the structure of their education systems" (ibid., p. 5). Therefore, the survey acquired data on students' home background, engagement in learning, approaches to learning, gender differences, social backgrounds, school climate and resources, and school system characteristics and their influence on the results (ibid., p. 6-18). The OECD points out that this survey "does not produce prescriptions for education systems, but makes observations designed to help policy makers think about the effect of certain system features" (ibid., p. 18). PISA also measures student capabilities across academic disciplines, as in their motivation, their attitudes towards learning, strategies for study, and computer skills. The OECD also gathers data on students' backgrounds, such as their socio-economic status, family culture, family structure, immigration status, and access to educational and cultural resources in the home (Lie & Linnakylä, 2004, p. 227).

According to the OECD, three general themes emerged from the PISA 2000 data. First, they noticed that autonomous education systems performed better than centralized ones. Secondly, they found that education systems that monitored and assessed their performance had better results than those that did not undertake periodic assessments. Lastly, the OECD states that countries that provide support to low-performing students had overall higher academic achievements than those that did not (OECD, 2004, p. 19).

The test, re-administered in 2003, added a new section of problem solving to the previous three subject areas. This provided "for the first time a direct assessment of adult competencies that apply across different areas of the school's curriculum" (OECD, 2004,

p. 3). The ideal 15-year-old problem solver "can think about the underlying relationships in a problem, solve it systematically, check their work and communicate their results." (ibid.) Forty-one countries participated with analyzable results in this administration of the test. The 2003 test, while covering all four subject areas, focused on mathematics (OECD, 2004, p. 2).

The 2006 survey expanded to 57 countries, including both OECD countries and partner countries. It covered 90% of the world's economy. PISA 2006 also increased its research on factors contributing towards educational outcomes, such as motivation to learn, learning strategies, and socio-economic background (Retrieved 17 June 2007, http://www.oecd.org/dataoecd/51/27/37474503.pdf). The OECD concluded that PISA had illuminated "those countries that succeed in achieving high performance standards while at the same time providing an equitable distribution of learning opportunities" (ibid.).

PISA effectively changes the role of the OECD and also changes its relationship with member countries (Gruber, 2006, p. 197-198). PISA provides the OECD countries and participating countries with significant educational benchmarks. The OECD's strong reputation for measuring economic indicators presumably has allowed for the high visibility of PISA and its general acceptance as a measure of educational standards. Drawing upon the educational research potential of its member countries, the OECD has created a policy-driven survey, with "hard" empirical data, arranged in a league table format that can embarrass low-performing countries or praise high-performing ones (ibid., p. 198-199).

The Organization of PISA

PISA began in response to the desire of OECD member countries for reliable educational data. The OECD feels it created PISA in accordance with the wishes of its member countries and that it has considerable use at the public policy level. Furthermore, it created the tests with the view that school education comes as a part of the lifelong learning process, and it did so not to measure school curricula particularly, but the application of knowledge in everyday life skills (Retrieved 18 June 2007, http://www.oecd.org/document/53/0,3343,en_32252351_32235731_38262901_1_1_1_1,00.html). As discussed in the Introduction, previous international education surveys, such as the IEA's TIMSS, used curriculum-based questions to carry out their measurements. PISA differs from TIMSS by using real-life skills as an indication of educational attainment.

In order for the OECD to execute a survey of this magnitude successfully, it relies on many experts to fulfill the needs of the test. The OECD works in cooperation with the education ministries and education ministers from the participating countries. The team at the OECD has central control over the management of PISA and provides a consistent direction for all the PISA groups. The education ministry of every participating country designates a representative to the PISA Governing Board, which determines the PISA policies (Retrieved 9 August 2007, http://www.oecd.org/document/53/0,3343,en_32252351_32235731_38262901_1_1_1_1,00.html).

The PISA Consortium refers to an international contractor responsible for the design and implementation of PISA. This Consortium consists of different testing and

assessment agencies. National Project Managers, appointed by their country's government, work with the OECD, the Governing Board, and the Consortium to supervise the application of PISA in their home country (Retrieved 9 August 2007, http://www.oecd.org/document/53/0,3343,en_32252351_32235731_38262901_1_1_1_1,00.html).

Two groups manage the questions set. PISA has two groups of experts, one for subject matter and one for the questionnaire as a whole. An international group of experts make up the Subject Matter Groups for the target subjects for PISA: mathematical, scientific, and reading "literacy," and problem solving. The Questionnaire Expert Group provides guidance in the creation of the surveys themselves. The Governing Board chooses the members of the Expert Group. The OECD encourages all participating countries in PISA to submit possible test questions to the PISA Consortium. The Consortium itself also writes questions for the survey. It reviews all questions and the participating countries review them for any cultural bias. The participating countries also take part in pilot studies to determine the fairness of the questions (Retrieved 9 August 2007, http://www.oecd.org/document/53/0,3343,en_32252351_32235731_38262901_1_1_1_1,00.html).

In addition to PISA, the students answer background questionnaires, which cover information about themselves, their homes, and their attitude towards learning. Heads of schools also answer a questionnaire about their schools. Participating countries also have the option of administering one of several PISA questionnaires, asking, for example, about parent background or computer literacy. The OECD uses this information to

clarify the connections between student performance and external factors, such as socio-economic status, immigration, and gender (Retrieved 9 August 2007, http://www.oecd.org/document/53/0,3343,en_32252351_32235731_38262901_1_1_1_1,00.html).

The Implementation of PISA

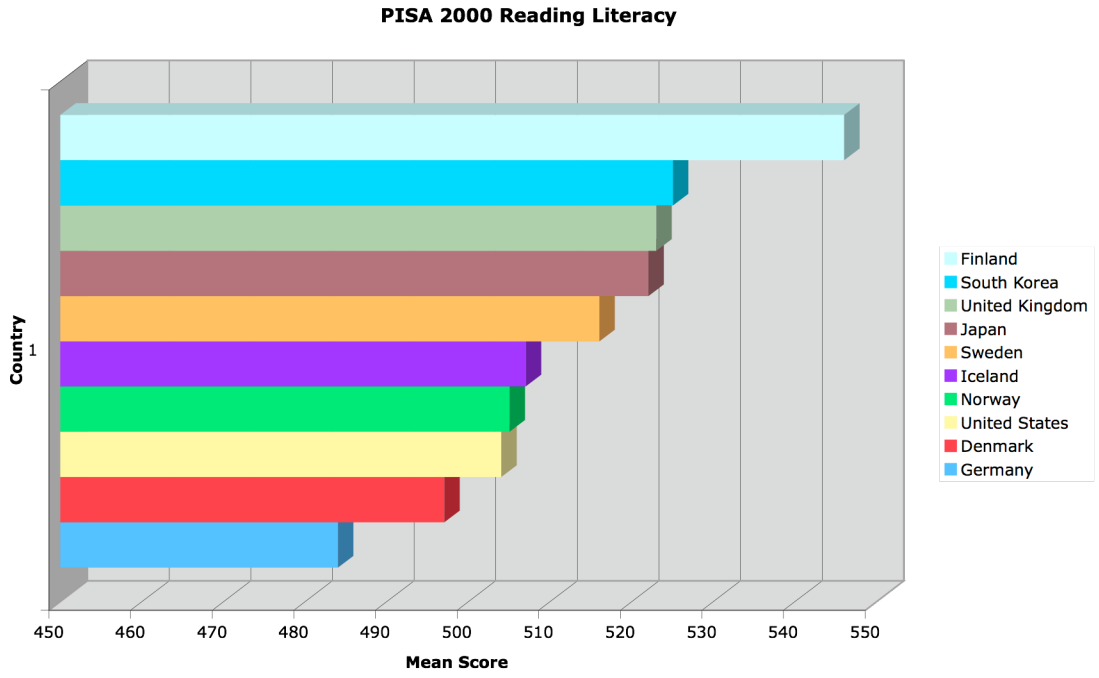
The international contractor, called the PISA Consortium, chooses schools at random within each participating country. According to PISA protocol, the students must be between 15 years and three months of age and 16 years and two months of age at the time of testing. The PISA Consortium samples schools and students in order to include a wide range of backgrounds and academic abilities. These sampled students take a two-hour, paper-and-pencil test on the areas covered, mathematical, scientific, and reading literacy. PISA stresses that these test their everyday life knowledge, and not school curricula. In 2003 PISA also surveyed problem solving ability. Each PISA survey includes approximately seven hours of testing material. While each student takes a two-hour test, the combination of all the surveys allows for all seven hours of testing material to be covered. The OECD has conducted some computer testing, in anticipation of future PISA surveys (Retrieved 9 August 2007, http://www.oecd.org/document/53/0,3343,en_32252351_32235731_38262901_1_1_1_1,00.html).

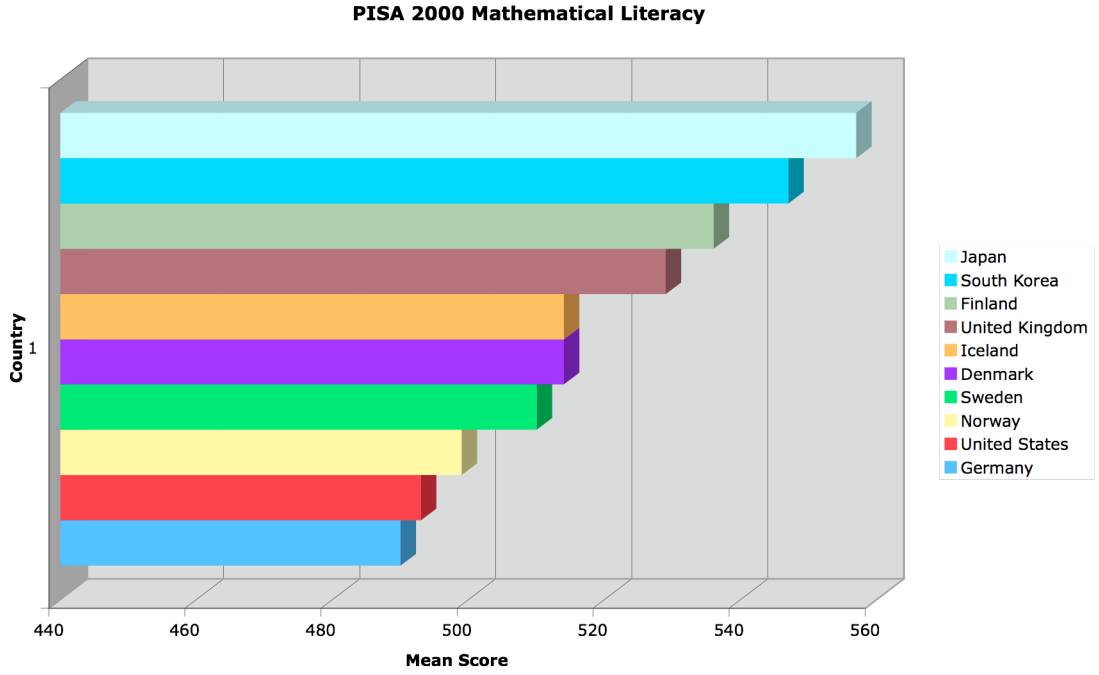
The National Project Managers from each country oversee the test correctors. Every participating country has its own test correctors for PISA. They mark the surveys according to the protocol determined by the PISA Consortium and Subject Experts. The groups exchange and check the corrected PISA surveys, send them to the PISA

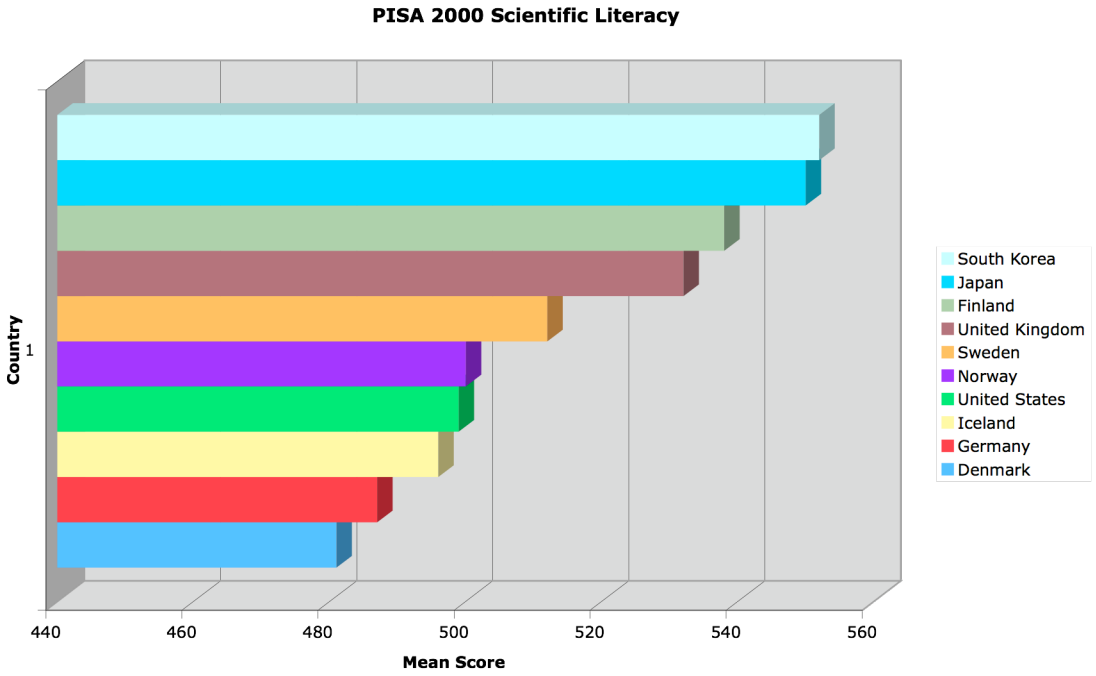
Consortium, and ultimately to the OECD. The tests are scored according to a scale, Level 1 for the most basic level and Level 5 for the most difficult. The PISA questions also reflect these five levels of difficulty. In the end, the OECD ranks them according to the mean score on the surveys (Retrieved 9 August 2007, http://www.oecd.org/document/53/0,3343,en_32252351_32235731_38262901_1_1_1_1,00.html).

Finland in PISA

The results of PISA 2000 showed that Finland had the lowest between-school variance, indicating high equality within the Finnish educational system and low influence of socio-economic status on student performance (OECD, 2005, p. 25). Furthermore, Finland scored the highest in reading literacy that year with 546 points, followed by Canada with 534 and New Zealand with 528 (ibid., p. 92). In terms of mathematical literacy, Finland ranked fourth with 536 points, coming after Japan (557 points), Korea (547), and New Zealand (537) respectively (Välijärvi, Linnakylä, Kupari, Renikainen, Arffman; 2000, p. 15). Finland also scored third in scientific literacy with a score of 538, behind Korea (552) and Japan (550), respectively (ibid., p. 17).


PISA 2000 Reading Literacy
Country
1
450
460
470
480
490
500
510
520
530
540
550
Mean Score
Finland
South Korea
United Kingdom
Japan
Sweden
Iceland
Norway
United States
Denmark
Germany


PISA 2000 Mathematical Literacy
Country
1
440
460
480
500
520
540
560
Mean Score
Japan
South Korea
Finland
United Kingdom
Iceland
Denmark
Sweden
Norway
United States
Germany

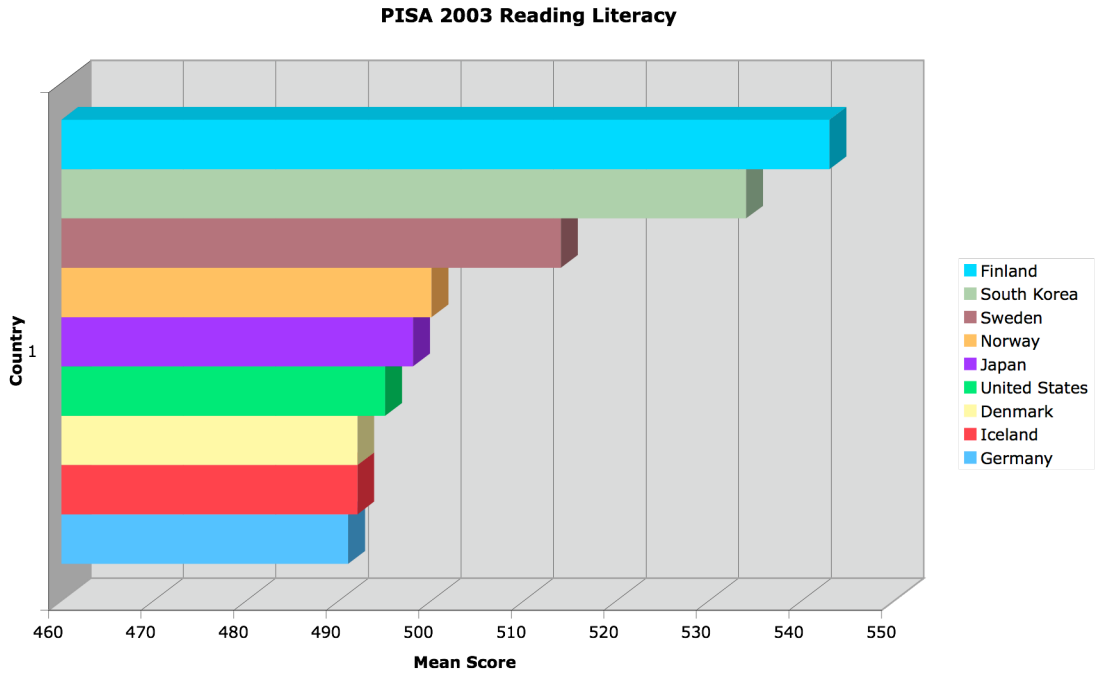


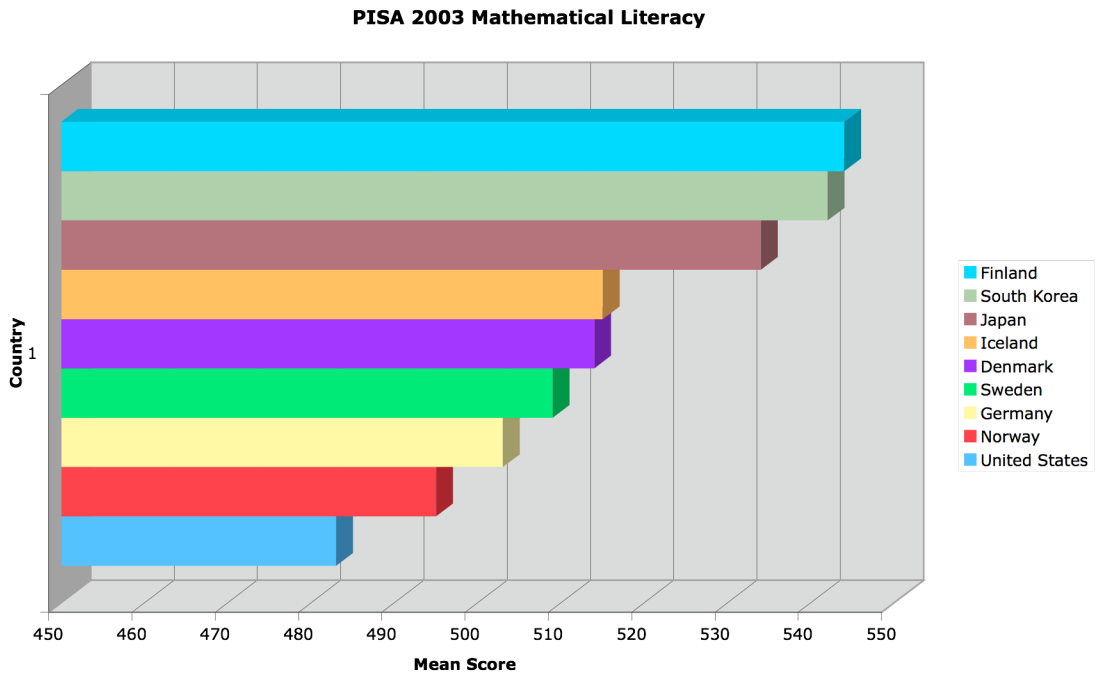
(Figures adapted from Välijärvi, Linnakylä, Kupari, Renikainen, Arffman; 2000, p. 6, 11, 13).

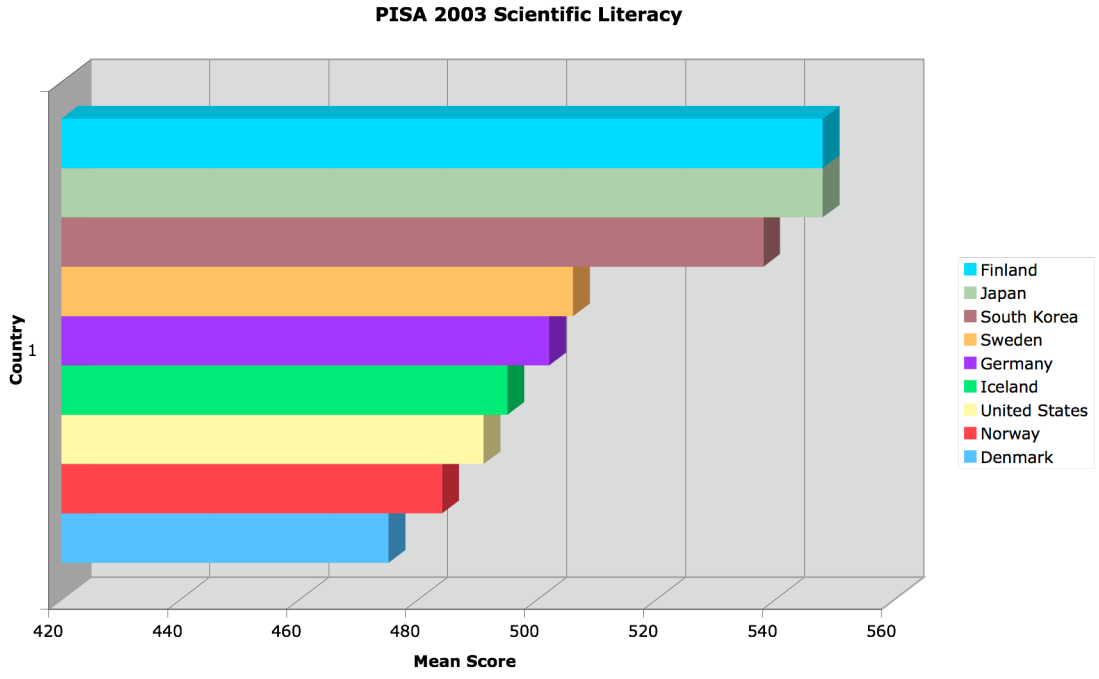
PISA 2003 illustrated further Finland's educational success, with the country scoring significantly higher than its previous performance in 2000 in mathematical and scientific literacy (OECD, 2004, p. 1). Therefore, in terms of performance and educational equality, Finland seems to lead the world. Finland topped the OECD countries in reading literacy (543 points) and mathematics (544), while tying with Japan in science (548), and coming second only to Korea (550) in problem solving with a score of 548 (University of Jyväskylä, 2004, p. 2,4-6). When adding non-OECD countries to the data, Finland scores second in mathematics with Hong Kong, and comes third in problem solving, behind Korea and Hong Kong (ibid., p. 38). The following figures show the mean PISA scores for the 2003 survey, in the order of reading literacy, mathematical literacy, scientific literacy, and problem solving.

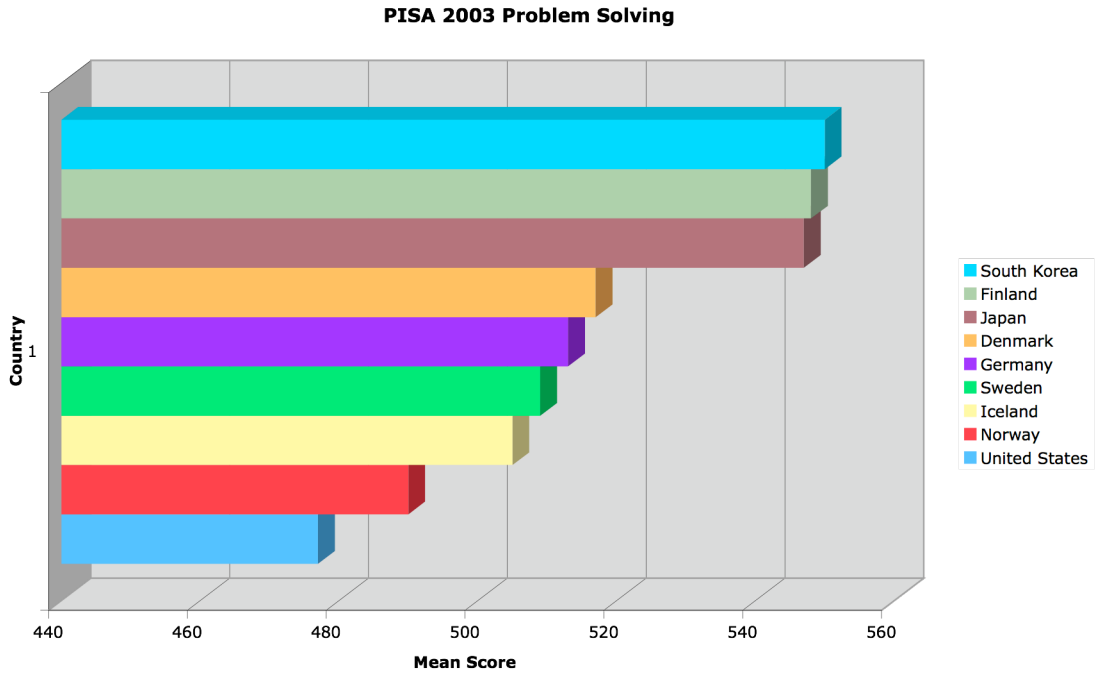
(Retrieved 15 August 2007, http://www.pisa2006.helsinki.fi/finland_pisa/results/2003/)

The 2006 survey saw Finland again achieve the highest marks on the performance scale. In scientific literacy, the main focus for 2006, Finland scored highest with 563 points, ahead of Hong Kong with 542, Canada with 534, and Taiwan with 532 (OECD, 2007, p. 22). In reading literacy, Korea topped the scores with 556 points, Finland followed with 547, then Hong Kong with 536, and Canada with 527 (ibid., p. 47). In mathematic literacy, Taiwan scored highest with 549 points, followed by Finland with 548, then Hong Kong and Korea, both with 547 points (ibid., p. 53).

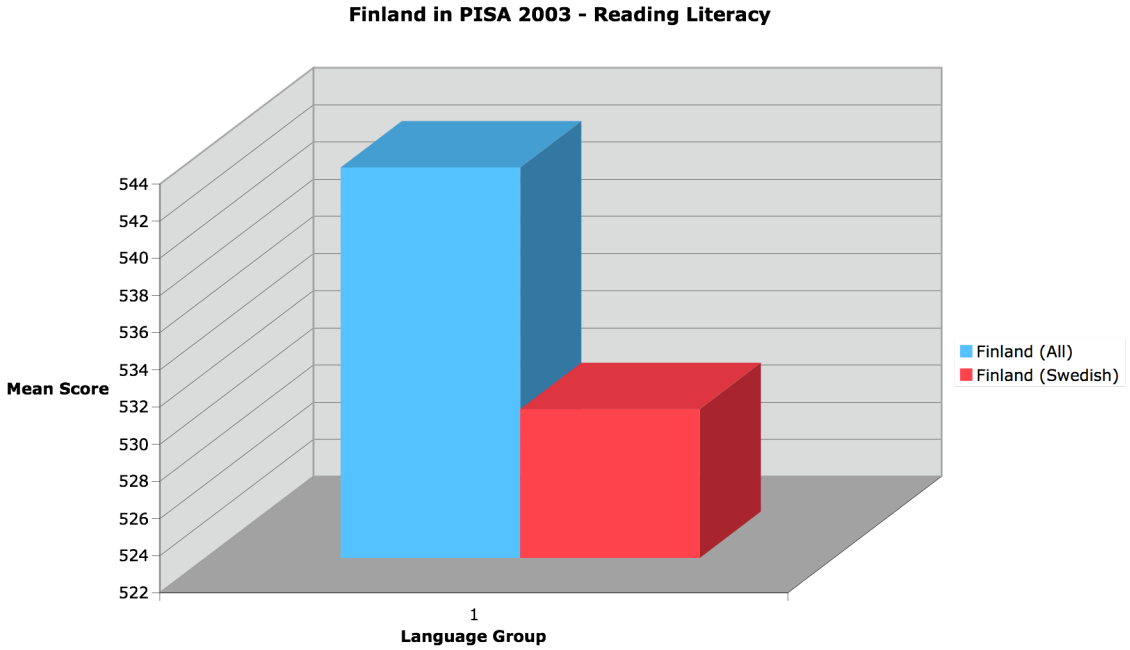



PISA 2003 Mathematical Literacy
Country
1
450
460
470
480
490
500
510
520
530
540
550
Mean Score
Finland
South Korea
Japan
Iceland
Denmark
Sweden
Germany
Norway
United States

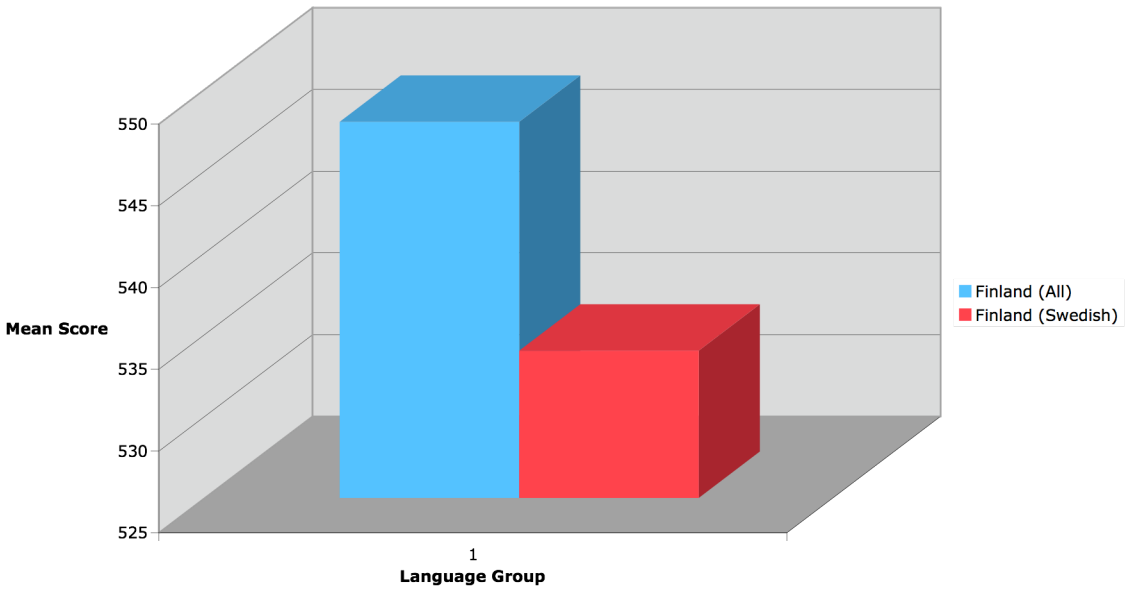

PISA 2003 Scientific Literacy
Country
1
420
440
460
480
500
520
540
560
Mean Score
Finland
Japan
South Korea
Sweden
Germany
Iceland
United States
Norway
Denmark



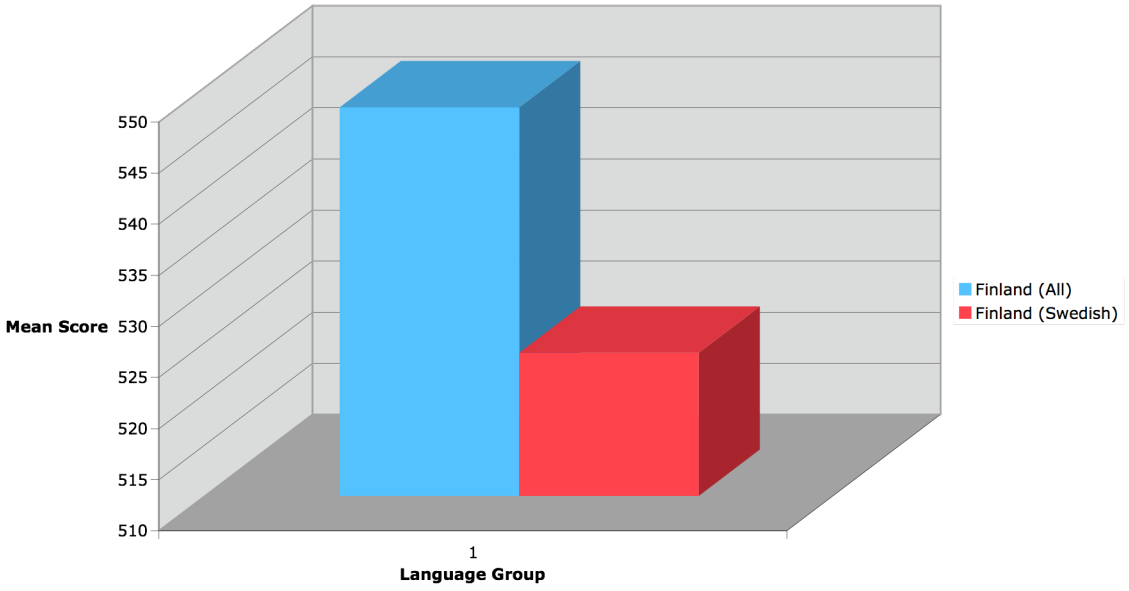
The 2003 survey results also showed Swedish-speaking Finns as a separate result. The following figures show the disparity between the Swedish-speakers and the overall Finnish result.

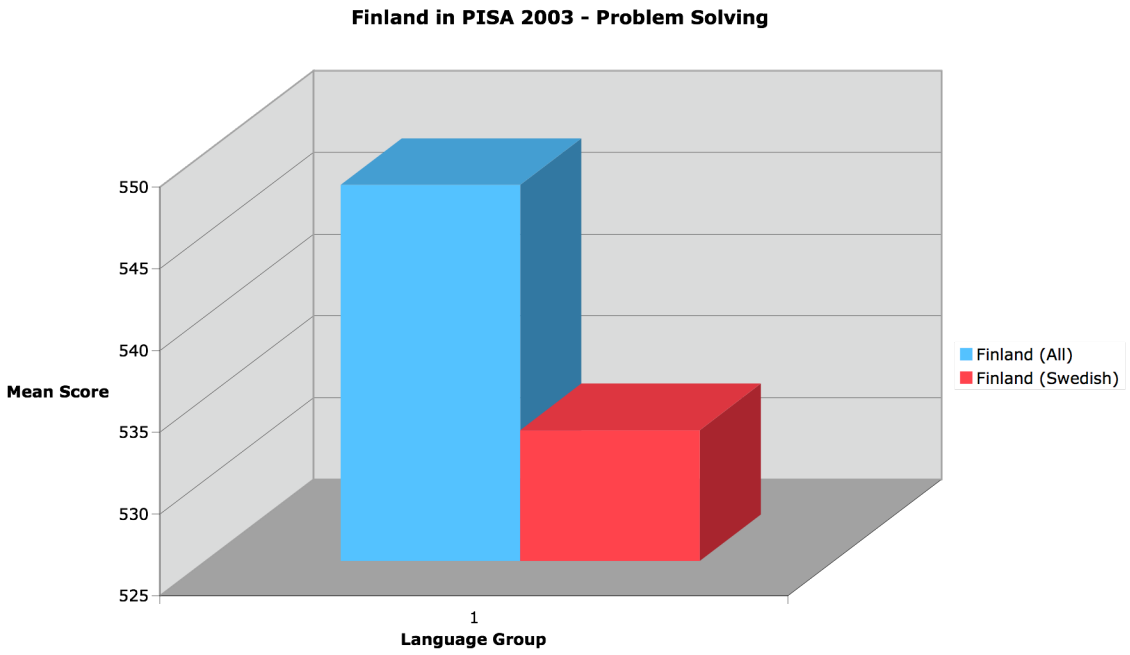


Finland in PISA 2003 - Mathematical Literacy

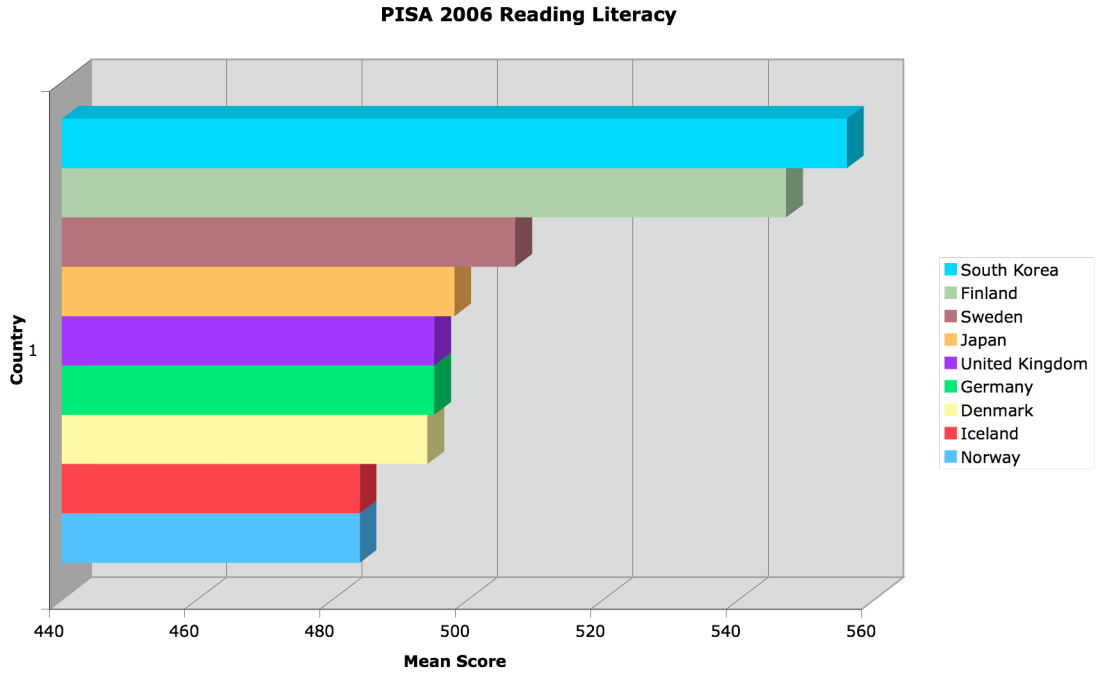


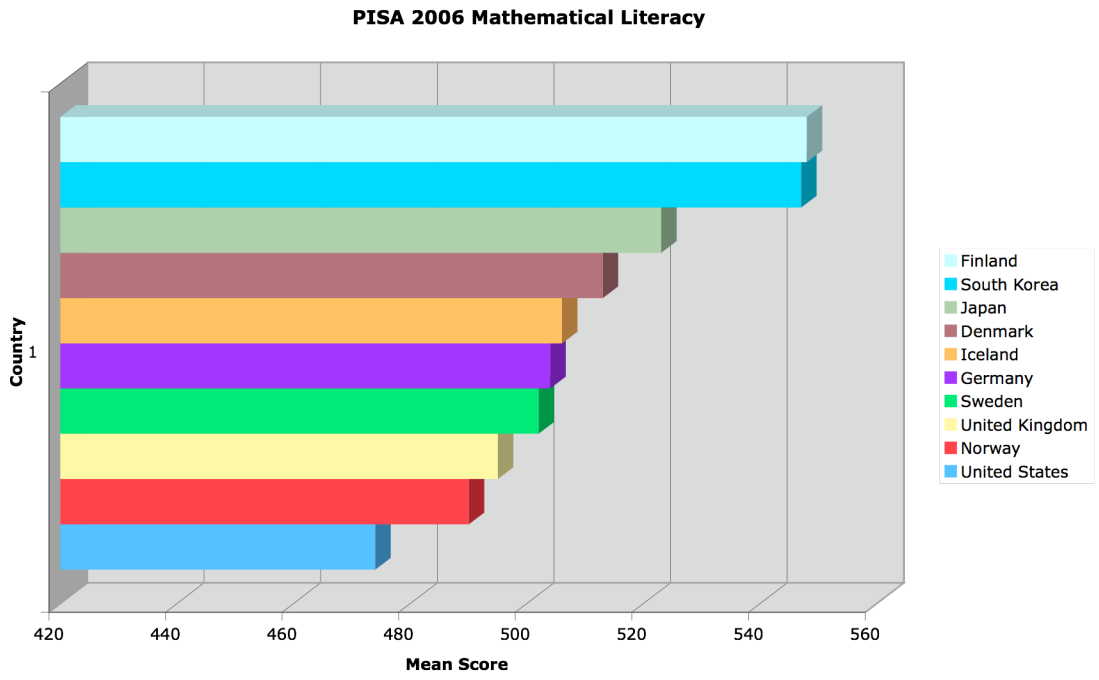
Finland in PISA 2003 - Scientific Literacy

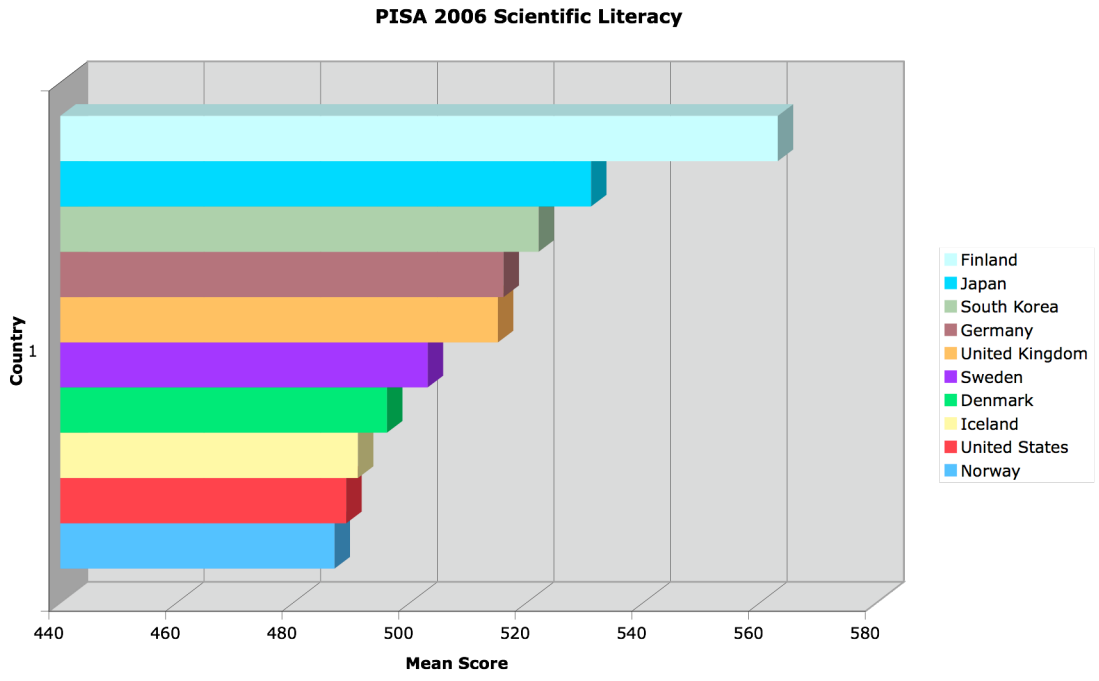




(Figures adapted from http://www.pisa2006.helsinki.fi/finland_pisa/results/2003/, Retrieved 15 August 2007).







(Figures adapted from http://www.oecd.org/dataoecd/15/13/39725224.pdf, Retrieved 9 January 2008)

The performance of Finland in the 2003 PISA survey came from strong performances evenly distributed among the country's schools, with small between-school variance. The influence of socio-economic status remained low compared to other OECD countries (Sahlberg, 2007, p. 161). Surprisingly, Finland does not spend exceptional amounts on its education system. In 1992, the country spent 7.9% of its GDP on education, compared with 6.3% in 1995, and 6.2% in 2002 (ibid.). The financial crisis and recession of the 1990s decreased spending on education. Finland spends an average amount on education compared with its OECD counterparts, while the overall achievement of the system comes at the top of OECD members (ibid., p. 162). For example, the most recent *Education at a Glance*, published by the OECD, released figures on educational spending. In terms of overall spending per student, from primary to tertiary, the following countries spent these appoximate amounts on education:

- United States $12,100
- Norway $10,800
- Denmark $9,800
- Sweden $9,100
- Iceland $8,300
- Japan $8,200
- France $7,900
- Germany $7,800
- Finland $7,800
- United Kingdom $7,300
- Korea $6,000
- OECD average: $7,600 (OECD, 2007, p. 170).

In terms of their spending in reference to their Gross Domestic Product, they spent the following approximate percentages in 2004 and 1995:

- Iceland: 2004: 7.9%, 1995: n/a
- United States: 2004: 7.4%, 1995: 6.7%
- Korea: 2004: 7.2%, 1995: n/a
- Denmark: 2004: 7.2%, 1995: 6.3%
- Sweden: 2004: 6.7%, 1995: 6.2%

- France: 2004: 6.3%, 1995: n/a
- Finland: 2004: 6.1%, 1995: 6.3%
- United Kingdom: 2004: 5.9%, 1995: 5.5%
- Germany; 2004: 5.2%, 1995: 5.4%
- Japan: 2004: 4.7%, 1995, 4.7%
- OECD average: 6.2%
- Norway [expenditure from public sources only] 2004: 6.2%, 1995: 6.4% (OECD, 2007, p. 170)

These figures are approximate, as the graphs in *Education at a Glance* cannot indicate exact numbers.

Nordic Neighbors

Finland has a relationship with its Nordic neighbors of Sweden, Denmark, Norway, and Iceland. While the other countries have close ties due to language and common history, Finland's relationship with the rest of the Nordic countries has more to do with geography and its time as a part of the Kingdom of Sweden and Finland. PISA provides a good springboard from which to examine the differences and similarities between Finland and Scandinavia, as well as among all of the countries covered by PISA.

In the 2000 PISA survey, Finland scored highest among all 32 participating countries in reading literacy with a mean score of 546. Sweden scored in ninth place, with a mean score of 516. Iceland came in tenth place, tying with Austria and Belgium, with a score of 507. Norway followed, with a score of 505, tying with France for thirteenth place. Denmark came in at country number sixteen, with a score of 497, below the OECD average (see Figures).

In mathematical literacy, Finland scored highest among the Nordic countries in fourth place with a mean score of 536. Iceland and Denmark tied for twelfth place with a mean score of 514. Sweden came in fourteenth among the surveyed countries with a

mean score of 510. Finally, Norway came in sixteenth place, with a score of 499, just below the OECD average (see Figures).

For scientific literacy in the 2000 survey, Finland scored 538, in third place overall. Sweden came next among the Nordic countries with a mean score of 512, in tenth place. Norway came thirteenth, with a mean score of 500. Iceland tied with Belgium and Switzerland to come at sixteenth place with a score of 496, below the OECD average. Denmark came in 22nd place with a score of 481, well below the OECD average (see Figures).

The PISA 2003 survey saw Finland improve its performance. In reading literacy, Finland scored highest of all participating countries with a mean score of 543. Sweden came in seventh place, with a mean score of 514. Norway came next among its Nordic counterparts, with a mean score of 500, in tenth place. Denmark and Iceland tied at number sixteen, with a mean score of 492, below the OECD average (see Figures).

In mathematical literacy in 2003, Finland improved its performance from the 2000 survey and scored highest of all participating countries, with the exception of non-OECD Hong Kong. Finland had a mean score of 544. Iceland followed in eleventh place with a mean score of 515. Denmark came right behind in twelfth place, with a mean score of 514. Sweden came in fourteenth place, with a mean score of 509. Norway came in nineteenth place, with a mean score of 495, below the OECD average (see Figures).

Finland scored highest of all participating countries in scientific literacy, with a mean score of 548. The Scandinavian countries did not perform well in this part of the 2003 PISA survey. Only Sweden scored above the OECD average with a score of 506, in twelfth place. Iceland, tied with Slovakia, came in seventeenth place with a mean score

of 495. Norway came in 23rd place with a mean score of 484, followed by Denmark, in 26th place with a mean score of 475 (see Figures).

The new category of problem solving placed Finland in second place, with a mean score of 548, tying with non-OECD Hong Kong. Denmark came eleventh among OECD countries, with a mean score of 517. Sweden followed closely at number thirteen, with a mean score of 509. Iceland came in fifteenth place with a mean score of 505, followed by Norway in 20th place with a mean score of 490. Norway scored below the OECD average (see Figures).

The 2006 PISA survey also saw Finland outscore the rest of the Nordic countries, as well as the rest of the countries participating in PISA, whether OECD or non-OECD. In scientific literacy, Finland scored a mean of 563, topping all participating countries, while Sweden scored 503, Denmark 496. Sweden and Denmark placed around the OECD average. Iceland, with a score of 491, and Norway, with 487, came below the OECD average (see Figures).

In reading literacy, Finland scored highest of the Nordic countries with a mean score of 547. Sweden also achieved scores higher than the OECD average with 507 points. Denmark had a mean score of 494, around the OECD average, while Iceland and Norway tied at 484 points, just below the OECD average (see Figures). Mathematical literacy again proved Finland the highest achieving Nordic country in PISA, with a mean score of 548. Denmark and Iceland scored above the OECD average, with 513 and 506 points respectively. Sweden, with 502 points, scored within the OECD average, and Norway, with a score of 490, placed below the OECD average (see Figures).

Although the difference in PISA outcomes, for example between Iceland's and Denmark's performance in mathematical literacy in 2003, does not have any statistical significance, the difference in performance between Finland and Norway in the same survey does suggest disparity between the two systems. On the surface, all Nordic countries follow similar patterns in their politics, economics, and society, and also in education. However, PISA illustrates that the different Nordic countries have nuances that make them distinct.

Finland, in addition to its language and history, differs from its Nordic neighbors. Various factors have influenced Finnish culture to develop into its own unique hybrid of Scandinavian and Eastern. Explored in Chapter Two, Finnish history has created a culture that "still incorporates a meaningful element of the authoritarian, obedient and collectivist mentality" (Simola, 2005, p. 457). Finland's geography also contributes to this. Situated between Sweden and Russia, the country belonged to both Kingdoms prior to its independence. The Russian influence and its proximity to the East have added a different dimension to its culture, enhancing the influences of the Swedish Kingdom. "It is not an overstatement to say that eastern elements are evident in Finland everywhere and in every way, from its administrative traditions to its genetic heredity" (ibid.). This Eastern flavor also filters into politics. Social Democracy in Finland, especially when compared to its Nordic counterparts, "retains some eastern authoritarian, or even totalitarian, flavour… At least heuristically, there is nothing strange in finding Finland together with nations such as Korea and Japan in some international comparisons" (ibid.).

These differences have also permeated the education systems. The teachers in Finland purposely keep a professional distance from their pupils and their families. They

feel that this sustains their role of adults and of role models. "Rather than encouraging intimacy, some experienced Finnish teachers emphasized how important it was to keep a certain professional distance from their pupils and their homes and problems" (Simola, 2005, p. 463). Finland's Nordic neighbors, however, described close relationships with students and their parents.

Kjærnsli and Lie used the PISA 2000 data for scientific literacy to ascertain any strong correlations among the Nordic countries in science performance. They analyzed PISA data in order to observe anything that could characterize the Nordic countries as a group. They conducted a similar study using the 1995 TIMSS data, finding "evidence of a characterisic pattern of features constituting a Nordic tradition within science education" (Kjærnsli & Lie, 2004, p. 271). Finland did not participate in the 1995 TIMSS survey. In PISA, Finland greatly outscored its Nordic neighbors, especially Denmark (ibid., p. 272). Kjærnsli and Lie used a number of tests to check for Nordic correlations. They did find a clear connection among the Nordic countries, but found in cluster analysis that Denmark veers towards the German-speaking cluster, while Finland seemed somewhat atypical of a Nordic country in that type of analysis (ibid., p. 279, 283). When comparing the science and reading literacy results, they found that "Finland was well separated from the rest of the Nordic group, and Denmark was 'drawn away' from its more northern neighbors by the English-speaking rather than German-speaking countries" (ibid., p. 283). When comparing these cluster results to the 1995 TIMSS results, for example, they found that countries could cluster as English-speaking, German-speaking, Eastern-European, and Nordic (ibid.). The correlations among the Nordic countries, although somewhat weak, illustrated that Iceland, Norway, and Sweden

had the strongest connections with each other, while Denmark leaned towards continental European countries, and Finland fitted even less well into the Nordic group. "Both the extremely high overall score in scientific literacy and the divergence … from the Nordic pattern put Finland at odds with its Nordic peers" (ibid., p. 284). Kjærnsli and Lie cited a similar study using reading literacy, and remarked that "the similarities and differences that have been revealed in the present analyses are obviously caused by the interplay of curricular, language and more general cultural factors" (ibid.).

Turmo delves into the issue of socio-economic status and educational performance in PISA within the Nordic context. The PISA surveys collected information from participating students, which separate into three categories of measurement. The first, economic capital, refers directly to financial resources. The second, cultural capital, means the level of knowledge with cultural practices, such as classical music, reading books, or sophisticated use of language. The last, social capital, indicates strength of community or social networks which support a specific person and the community itself (Turmo, 2004, p. 288-290). Turmo found that the Nordic countries varied in the influences of socio-economic status on education. Norway and Denmark had the greatest influences from socio-economic status while Finland and Iceland had the least. Sweden came in the middle (ibid., p. 294). Owing to the principles of equity and egalitarian values of Nordic countries, one would expect a low influence of socio-economic status on the outcomes of education. Norway, however, comes at the OECD average for the influence of cultural capital on scientific literacy. Finland and Iceland had some of the weakest correlations within the OECD (ibid., p. 302). The philosophy of a welfare state would lead to the expectation of low influence of socio-economic background on

educational attainment. However, the cases of Norway and even Denmark illustrate that Nordic countries too fall prey to these influences.

Criticisms of PISA

Many criticisms of the OECD's PISA surveys exist. S.J. Prais, for example, wonders why the United Kingdom's results for PISA differ so greatly from cross-national tests administered by the the International Association for the Evaluation of Educational Achievement (IEA). Prais questions the methodology differences between the two tests, namely the questions asked, differences in target age groups, and the representation of participating schools (2003, p. 140). He criticizes PISA's mathematics questions as "not of the stated 'everyday life' type; indeed as much as anything they do little more than confirm that there are great difficulties in framing 'real life' questions equally appropriate for candidates from such widely disparate social backgrounds" (ibid., p. 143). Prais also states that PISA intended to cover students born in 1984, but criticizes it because "*two* school-years had to be sampled, with greater disturbance and lower co-operation" (ibid., p. 148). He also argues that the UK's non-response rate at 19% indicates that in "PISA there must be more than a suspicion of lower representation of weaker English pupils, and a greater upward bias in the reported results" (ibid., p. 151). Prais concludes that education ministries, including that of the United Kingdom, can learn nothing of value from PISA.

The methodology of any study, especially of one so large, almost inevitably comes under criticism. Raymond J. Adams has in turn criticized Prais's criticism of the PISA tests. He argues that "the purpose of studies such as PISA and TIMSS … is to stimulate debate about the relative merits of policy choices that are made in education

systems" (2003, p. 378). Therefore, cross-national testing serves its purpose, in the way, for example, that PISA has generated much discussion about education throughout the world. In reference to Prais's comparison of PISA and TIMSS, Adams states that the two assessments have no statistical link and use different sets of countries for their respective studies (ibid.). Though Prais questions the practical nature of the PISA tests, Adams argues that "it is a worthwhile objective to seek to assess the extent to which pupils are able to apply to a rich array of problems, what they have learned in the compulsory phase of their education" (ibid., p. 379). Furthermore, Adams contends that the target age for PISA leads to better data, since seeking out a specific grade level, as with TIMSS, brings up comparability issues across countries (ibid., p. 381). Finally, although Prais argues that the respondents in the UK sample for PISA came dangerously low, Adams points out that in the UK PISA "had the highest school response rate" (ibid., p. 383-384).

In reply to Adams's response, Prais once again published an article with criticisms of PISA. He acknowledges that points of agreement exist between his point of view and that of Adams as a representative of the OECD. He states five aspects where PISA and TIMSS differ: the age of testing, response rates of sampled schools, response rates of sampled students, PISA methodology, and the type of mathematical questions in the surveys (Prais, 2004, p. 569). Prais also raises his newly clarified points of contention with PISA. He recognizes the difference between the two types of surveys, since TIMSS measures knowledge of curricula and PISA assesses skills for everyday life. To Prais, a survey like PISA, with only skills for everyday life, possesses weaknesses, although he would approve of a "half and half" study, a hybrid of TIMSS and PISA, so to

speak. He also believes that a survey like PISA has no historical comparisons, which limits its validity (Prais, 2004, p. 570).

Prais also disapproves of PISA's sampling. He believes a broader student sample would clarify the different class composition in different countries, and criticizes the age-only sample. As an age sample can span across different grade levels, this prevents PISA from allowing good comparisons of results by grade (Prais, 2004, p. 571). He also has concerns, as in his previous article, about the UK sample for PISA, and questions the participation in comparison to GCSE results. Prais suspects that low GCSE results in a school would make it less likely to participate in PISA (ibid.). He still believes that "unless there are substantial changes in PISA's objectives and methods, … questions arise as to whether Britain should in future participate in – and whether the taxpayer should continue to finance – further rounds of these very expensive surveys" (Prais, 2003, p. 153). Despite Prais's disapproval, PISA continues, and the interest of the press, governments, and education officials seems to grow from survey to survey. Although Prais condemns the PISA methodology, the interest in PISA and subsequent comparative value indicates the staying power of PISA in the future.

Schagen and Hutchinson discuss, much like Prais, both TIMSS and PISA. They admit that two international surveys give conflicting impressions of different educational systems. They imply that having two surveys, even with different goals, can raise confusion among those interpreting the results. They equate having two surveys to a man having two watches:

> A man with one watch always knows what time it is; a man with two watches is never quite sure (Anonymous, in Schagen & Hutchinson, 2007, p. 34).

They characterize the difference between the two surveys as TIMSS asking, "What science have you been taught and how much have you learned?" and PISA asking, "What can you do with the science you have been taught?" (ibid.). They criticize the causal connections made by those analyzing the questionnaire data gathered by these surveys, and how many use the background data to reach conclusions about education systems. They believe that "unmeasured 'third factors' can actually be the root cause of both measures" (ibid., p. 35). Furthermore, they think that a cross-sectional study does not lend itself to an accurate picture of an education system, and instead recommend more longitudinal studies. The three-year cycle of PISA comes at too rapid an interval, and Schagen and Hutchinson recommend a longer ten-year cycle to better capture the changes within and between education systems (ibid.). Chapter Five, which discusses the findings from interviews with Finnish education professors, parallels this criticism by Schagen and Hutchinson.

Goldstein also addresses issues arising from PISA. He recognizes the difficulty in ensuring comparability in a large-scale, international survey. The issue of equity in translation especially has pertinence with PISA. In the past, equity in translation seemed possible, but "there is now a recognition of the tentative and approximate nature of translated materials" (Goldstein, 2004, p. 319). Despite this, he feels that PISA lacks a good model of achieving maximum equity between the surveys for different countries. Although the OECD made great efforts to create the best methodology, "the PISA study represents a very ambitious and wide-ranging attempt to measure and compare performance of 15-year-olds…" (ibid., p. 320).

Despite this acknowledgement, Goldstein discusses PISA's weak points. Although PISA implies that countries can have direct comparisons with each other, large-scale comparisons such as PISA, among others, lack longitudinal data that allows for this. He also mentions that "observed differences will undoubtedly reflect differences between educational systems but they will also reflect social and other differences that cannot fully be accounted for" (Goldstein, 2004, p. 321). Sahlberg agrees. The high scores of nations such as Japan and Korea in PISA may reflect the strong culture of private tutoring outside of school, and not the education system alone. A country like Finland, however, which does not participate in high-stakes testing and does not have a culture of private tutoring, also performs well in PISA (Sahlberg, 2007, p. 163). Cultural bias and the influences of society, therefore, are difficult to avoid. Although the OECD utilizes an extensive methodology, incorporating both of its languages, English and French, in the processes of translation into other languages, Goldstein notes a lack of attention to cultural specificities, leading to cultural bias in the test questions (Goldstein, 2004, p. 322). He feels that PISA takes too narrow a view of education, therefore making its modeling too simplistic. The complex nature of large-scale, cross-national surveys lends itself to criticism. Goldstein recommends that a multilevel data analysis would allow for more complexity of models and account for more cultural specificity (ibid., p. 328-329).

Bonderup Dohn cross-examines the purpose of PISA and its methodology. She argues that PISA does not measure "knowledge and skills for life" as stated by the OECD (2001). "PISA gives a *relatively* valid assessment of 'knowledge and skills of students in assessment situations,' but its results cannot validly be generalized to claims about 'knowledge and skills for life.' In other words, the PISA studies do not assess what they

claim to do" (Bondup Dohn, 2007, p. 2). She believes that PISA really addresses two questions, how fifteen-year-olds use their competence in reading, mathematical, and scientific literacy in life, and how well compulsory schooling prepares students for life after formal education. She also makes the point that pupils may learn to apply skills learned outside of school walls in their real-life situations (ibid., p. 2-3). She finds PISA's methodology too insufficient and the survey items too simplistic for the onerous task of measuring one's ability to navigate "real life" situations. All tests, to some extent, can apply to real life (ibid., p. 9). She acknowledges the impossibility of creating such a large survey and completely eliminating bias. Even though the OECD took great pains to reduce bias, especially working in two languages, PISA has more bias than it should. Bonderup Dohn cites cultural bias, ambiguities, errors, and misprints within PISA questions (ibid., p. 11-13). She also mentions the influence of cultural context in a survey such as PISA. "Situations of everyday life require not only the solving of pre-set problems but the ability to pose such problems, as well as an understanding of their embedding in context" (ibid., p. 3). She asserts that the OECD created PISA in a vague way on purpose, in order to appease all interested parties (2007, p. 10). The concrete and absolute results of the surveys contrast with the comparatively ambiguous measurements made by PISA.

Grisay and Monseur use PISA to illustrate the difficulty of maintaining equivalence in an international test. They cite translation as a point where errors and cultural contexts arise, even though, as cited previously with Bonderup Dohn, the OECD uses many guidelines in its translation protocol. The OECD even takes advantage of its position as a bilingual organization, as we have seen, and uses two language versions, in

English and in French, to minimize any translation biases. The OECD encourages the two translators for each country to use both the English and French versions, and reconcile the differences with a third translator. The national versions then go back to the OECD, to the PISA International Centre, to further verify the equivalence of the translated version (Grisay & Monseur, 2007, p. 70-71). Despite these careful efforts, however, cultural and curricular differences can skew the equivalence of different countries, even with the same mother tongue.

Grisay and Monseur found that the further or more "distant" the language from the Indo-European family, the less equivalence occured in the PISA surveys. For example, East Asian countries had more diversion from the original tests than European countries (Grisay & Monseur, 2007, p. 73-74). They also found some bias among the test questions. Asian countries scored lower on multiple-choice questions than their western counterparts. They speculate that the Asian languages do not lend themselves to multiple-choice questions, whether in terms of syntax or word order, for example (ibid., p. 82). The Asian countries scored much higher on the constructed response section of PISA. Countries with both low GDP and low reading scores, however, scored better on multiple-choice questions (ibid., p. 83). Much like Bonderup Dohn and Goldstein, Grisay and Monseur also cite cultural differences as potentially skewing the PISA scores of different countries (ibid., p. 79).

Riley and Torrance criticize the politicization of education as a result of international surveys such as TIMSS and PISA. They draw attention to the fact that the OECD actually has no direct responsibility for education, but has had a great impact on education and subsequent policy. This influence could be either positive or negative

(Riley & Torrance, 2003, p. 420). The superficial scores generated by such surveys, such as PISA, "blunt instruments" often carry too much weight and have become a part of a "new education currency" (ibid., p. 420-421). They cite the example of Finland in their analysis of the positive and negative outcomes of surveys such as TIMSS and PISA. The many educational observers of Finland, as a result of its success in PISA, argue that PISA could have a good result if it improves, for example, teacher education levels, or better teaching of reading skills in other countries. This "PISA tourism," so to speak, could have a negative impact if "politicians seek simplistic solutions to the education challenges which their own countries face and seek off-the-shelf solutions which are highly context specific" (ibid., p. 421).

Riley and Torrance worry that education policy-makers do not pay any attention beyond the scores produced by surveys such as PISA. They believe that international surveys such as TIMSS or PISA have the "potential to create understanding and identify where the strengths and weaknesses of education systems lie," since they generate a fair amount of data about background information and revealing details about the education systems (Riley & Torrance, 2003, p. 422). However, the allure of the survey results often overshadows these helpful elements. They worry if "the 'findings' actually say anything very meaningful about the state of education in different countries, and if so, do the league table presentation[s] of results do more harm than good?" (ibid.). They address the issue of student perceptions of the surveys. For example, some students may see a top outcome in an international survey as a source of national pride, while others, perhaps those more accustomed to test-taking, may not perceive something like PISA as particularly important (ibid., p. 423). They also criticize the limited subject matter,

meaning just three subject areas, in both TIMSS and PISA, a shortcoming over which the survey-producers have full control. "No measures are produced of performance in other academic areas, far less of attitudes and values across the curriculum as a whole, and whether or not schools are producing decent, tolerant, and curious citizens of the future" (ibid.).

The political impact of PISA, less directly related to the formulation of the tests, remains a source of criticism nonetheless. Riley and Torrance feel that the rankings, the cause of political and media sensation, "are clearly designed to attract attention while the caveats which are included in the reports are routinely ignored" (Riley & Torrance, 2003, p. 423). They also feel that many observers of these surveys do not take into account the statistical significance of the results. For example, England, ranked 7th in PISA 2000, could have been 3rd or 9th, as the countries in that range did not produce different scores of statistical significance (Riley & Torrance, 2003, p. 423). They worry that countries will construct new education policies as a direct result of the outcomes in PISA or TIMSS. Riley and Torrance would disapprove of the German reaction to PISA, as already discussed in this chapter. The supposed *PISA-Schock* prompted changes in the German education system and its curricula due to poor PISA outcomes. The Germans, who previously thought their education system proved exemplary for the rest of the world, found the negative PISA outcomes devastating for the education system, politicians, and the nation (Ertl, 2006, pp. 619-620). Riley and Torrance also have concern over the narrowing of education. Surveys such as PISA and TIMSS "create and reinforce a climate that views education as narrow skill preparation for future employment, rather than as a challenging engagement with the knowledge and

understanding that constitutes our culture and the democratic processes which future citizens must control" (ibid., p. 424). These surveys have changed the field of comparative education into "a political tool for creating educational policy or a mode of governance, rather than remaining in the research realm of intellectual inquiry. The publicity and effects of the OECD-led PISA assessment of political debate were a perfect example of this. It is symptomatic of the problem that scholarly discussion has been most vivid in so-called 'hero and villain' countries" (Simola, 2005, p. 456). Riley and Torrance imply that international surveys may change the future of education. "What physicists realized some time ago, but educational testing people seem averse to acknowledging, is that when you measure something you change it" (Riley & Torrance, 2003, p. 424). However, supporters of PISA, while acknowledging the criticisms, point out that the political criticisms, as well as criticisms of the use of PISA data, move beyond the jurisdiction of the creators of PISA (Sahlberg, 2007, p. 163).

Even critics of PISA acknowledge the detailed, careful protocol outlined by the OECD for execution of the survey. Despite this, PISA's methodology, according to the critics, falls short. The complex nature of large-scale, international surveys, along with language problems and cultural influences can weaken the validity of PISA results. Even so, surveys such as PISA come with a caveat, summed up well by Goldstein:

> Finally, any such survey should be viewed primarily not as a vehicle for ranking countries, even along many dimensions, but rather as a way of exploring country differences in terms of cultures, curricula and school organization… Such studies should be treated as opportunities for gaining fundamental knowledge about differences, not as competitions to see who comes top (Goldstein, 2004, p. 329).

These criticisms of PISA cover many dimensions of PISA specifically, PISA and its relation to TIMSS, and the influence and impact of large educational surveys in general. The various critics of PISA mentioned in this section raise the following points:

- The methodology of PISA in terms of:
  - Questions asked
  - Age group measured
  - Sampling of schools and students
  - Questions not necessarily measuring real life situations – too simplistic
- Need a hybrid study, half like TIMSS and half like PISA
- TIMSS and PISA create confusion because they conflict with each other
- The three-year interval is too rapid
- Difficulty in comparability in such a large survey
- Issue of equity in translation
- Lack of longitudinal data in large-scale comparisons
- Factors external to the education system, such as country characteristics, societal and cultural factors can influence scores
- Possible cultural bias in the test questions/cultural bias of multiple choice
- PISA takes too narrow a view of education, too simplistic a model
- It does not authentically measure everyday skills, only relative everyday skills
- Cannot elimate bias, for the survey is too big
- PISA purposely vague to appease all interested parties
- Non-Indo-European languages at a disadvantage
- PISA makes education too political
- OECD not directly responsible for eduation
- Too many simplistic solutions and educational changes proposed because of PISA
- Many people do not look beyond the results
- Need to measure other academic areas
- Many people do not take into account the statistical significance of outcomes – look at the rankings too literally
- PISA has become a political tool

These international comparisons will most likely remain a fixture in the future of educational policy and research. The surveys "serve as a basis for creating a rich empirical database that has continuing significance for cross-national research in its attempt to understand the potential reasons behind observed differences between and within countries" (Lie & Linnakylä, 2004, p. 228).

As the author of this study, I feel I must present my personal criticisms of PISA. First and foremost, one must assume that PISA actually does measure quality in education and educational outcomes. If not following this assumption, then the phenomenon of PISA possesses very little validity. Secondly, during my teaching career, I opposed standardized tests since I believed they prompted teaching towards the test and not the complete education of the student. I felt a standardized test could not properly assess the complex nature and interdisciplinary possibilities of education. Even PISA measures a narrow view of education. However, as a researcher, I now see the benefits of cross-national tests, especially in a global context. Thirdly, I believe that international surveys such as PISA allow for the discussion and comparison of education, while bringing the field to the forefront of people's attention. Fourthly, in terms of methodology, I think that tests such as PISA and TIMSS have value for education systems and politicians. In addition, I also consider educational methodology a subject prone to criticism and accusations of weakness. Most major studies would endure a similar criticism of their methodology. Finally, despite any criticisms, PISA has done the monumental job of creating a dialogue for education and allowing for cross-national comparisons, hopefully providing education in general with a catalyst for future improvement.

School Effectiveness

In terms of policy borrowing, countries often look for certain features when looking to transfer educational ideas. An effective school system often attracts attention and can cause cross-national attraction. Effective schools or, on a grander scale, effective school systems, signal the possibility of educational transfer. The advent of PISA has

aided the discussion of school effectiveness and added another dimension to the literature. This section discusses school effectiveness research that now uses PISA as a reference point. School effectiveness, although a large, comprehensive, and literature-rich field in education, does not provide the base theory for this study. While this study bases itself in the policy borrowing realm and in qualitative research, it draws upon some school effectiveness research. If one assumes that high achievement in PISA indicates a successful education system, then one can consider that a high PISA outcome denotes an effective school system. Therefore this study includes a discussion of some school effectiveness research, as well as some research conducted with PISA as a reference point to school effectiveness.

First, we must define an effective school. Sammons, Hillman, and Mortimore write that an effective school is "one in which students progress further than might be expected from consideration of its intake. An effective school thus adds extra value to its students' outcomes in comparison with other schools serving similar intakes" (1995, p.3). This type of research began with two famous studies, those by Coleman et al. and Jencks et al. In 1966, the "Coleman study" stated that schools had little effect on the achievement of students (Coe & Fitz-Gibbon, 1998, pp. 421-422). In 1972, Jencks et al. released a study with similar findings (Rowan, Bossert, & Dwyer, 1983, p. 24). However, Edmonds found that "all children are eminently educable and … the behaviour of the school is critical in determining the quality of that education" (Edmonds, 1979, p. 20). Ever since that time, the entire movement of school effectiveness research has tried to prove the original researchers, Coleman and Jencks in particular, wrong (Angus, 1993, p. 334). In other words, today's school effectiveness researchers investigate whether

schools can raise the overall levels of student achievement. Today's researcher works under the assumption that schools do matter. This burgeoning field found, in the 1980s, that teaching and teacher-pupil interaction heavily influenced school effectiveness (Rutter & Maughan, 2002, p. 456). Rutter and Maughan also cite that in the late 1980s and 1990s school effectiveness researchers began looking at the genetic influences behind student achievement (2002, p. 457). In other words, the nature vs. nurture debate entered the school effectiveness realm.

Angus, an educational sociologist, argues that school effectiveness research fails to understand that the school has "a social, political, and cultural process that is far from neutral. It is precisely this fundamental lesson that is ignored in the currently dominant perspective on school effectiveness" (1993, p. 334). Sammons et al. admit that "most school effectiveness studies have focused on academic achievement in terms of basic skills in reading and mathematics, or examination results" (1995, p. 4). Angus accuses school effectiveness researchers of ignoring external factors that affect schools "in favour of a narrow quest to identify school practices that are correlated with narrowly measured student achievement indicators" (1993, p. 335). Furthermore, he believes that today's school effectiveness research hides behind increasingly complicated methodology. "Family background, social class, any notion of context, are typically regarded as 'noise' – as 'outside' background factors which must be controlled for and then stripped away so that the researcher can concentrate on the important domain of school factors" (ibid., p. 341). This linear notion of school effectiveness, in the opinion of Angus, harms the research in hand. He believes that this perspective "is an homogenized view which overlooks social and cultural differences and antagonisms… The trouble is that this

vision is of an unreal world, in which schools are quarantined from social relations of inequality, cultural hegemony, sexism, racism, and any of the other social and educational disadvantages and conflicts that surround and pervade schooling" (ibid., p. 343). Much like the difficulties in policy borrowing, school effectiveness should also take into account the nuances and external factors influencing each school. School effectiveness research, however, could benefit from taking into account external factors that influence the attainment of each school. However, Sammons et al. admit that "gender, socio-economic, ethnicity and language characteristics… also have a small but continuing influence" (1995, p. 5). "There is increasing recognition that, although much can be learned from international and comparative studies of school and teacher effectiveness conducted in different countries, the results of such studies are unlikely to be directly transferable to other contexts" (ibid., p. 6).

Nevertheless, when we investigate school effectiveness research, we must take note of the factors that allegedly make effective schools. Sammons et al. list eleven factors for effective schools. They are:

1) Professional leadership
2) Shared vision and goals
3) A learning environment
4) Concentration on teaching and learning
5) Purposeful teaching
6) High expectations
7) Positive reinforcement
8) Monitoring progress
9) Pupil rights and responsibilities
10) Home-school partnership
11) A learning organization (1995, p. 8)

Rutter and Maughan also mention the characteristics that cultivate school effectiveness. They reduce them to six categories:

1) Contextual features
2) School organization and management
3) School ethos
4) Effective monitoring
5) Group management in the classroom
6) Pedagogic qualities (2002, p. 466)

However, they also reveal issues in school effectiveness that still need further research and debate, for example, whether schools can influence the behavior of students, or the extent that parental involvement affects student outcome (ibid., p. 462-463). They also state that the topics of diversity of the student body, peer influences, and the resources of the school all need further investigation in future school effectiveness research (ibid., pp. 463-466). Although research suggests that class size does not affect school effectiveness, Rutter and Maughan imply that teaching techniques do not change with different class sizes. Therefore, schools should try to change instructional approaches along with class sizes, for maximum effectiveness (ibid., p. 462-463).

Meuret addresses the issue of equity in school efficiency. He believes that education systems should be both equitable and efficient in order to achieve efficiency (Meuret, 2006, p. 391). The two do not always go hand-in-hand. In fact, even though equity should be important, efficiency tends to have priority in education policy (ibid., p. 392). He cites the arguments for both sides, that equity undermines efficiency, and that equity helps efficiency. Those who argue against equity believe that education cannot overcome the limitations of natural academic talent, that egalitarian values reduce rewards for students and eventually their desire to succeed, and that heterogeneous classes become more difficult (ibid., p. 396). Those who feel equity aids school efficiency think that raising standards for weak students will ultimately improve the average performance for all students, that increasing numbers of students will add

pressure on the top students, helping them achieve even more, and that weak students stem from teaching and school systems which emphasize the differences in academic talent (ibid.). Meuret uses PISA to aid his study, and finds that countries like Finland and Sweden have both low dispersion of scores as well as a strong group of high-achieving students, implying that both efficiency and equity can co-exist in the same education system (ibid., p. 398).

Arguments against equity state that favoring the weak students will be at the expense of the strong. Meuret addresses this issue, claiming that this can happen if the resources for the weak students take away the resources for the rest of the students, or drag down the performance of the others. However, if the policies for weak students do not detract from the performance of their peers, or even motivate them to improve, then this could improve education for all (Meuret, 2006, p. 399). He cites PISA to illustrate that "efficiency and the standard of the weakest go hand in hand" (ibid.). Similarly, in terms of socio-economic background, "trying to reduce the influence of social background does not … necessarily entail sacrificing either the average standard or that of the elite" (ibid., p. 405). Meuret cites the "Swedish virtuous cycle," conducive to equity and efficiency, as proof that efficiency and equity can co-exist in an education system. "The Swedish case appears to tell us that efficiency, equity of the educational system and the quality of the Welfare State are not only compatible but in this case even reinforce each other" (ibid., p. 408).

Gorard and Smith also use PISA to measure equity in education systems. Even though they acknowledge the difficulty in comparing different education systems, international surveys "allow researchers and policy-makers in one country to put the

position of their own country in perspective" (Gorard & Smith, 2004, p. 15-16). They suggest that the raising of academic standards has increased inequality in schools (ibid., p. 17). These authors used PISA to determine the division of students in school as a result of a variety of factors: family wealth, parental occupation, country of origin, performance in PISA reading literacy, and gender (ibid., p. 18-19). They note that Finland has an education system with little segregation and therefore, a high amount of equity (ibid., p. 22).

International comparative surveys such as PISA have added another dimension to school effectiveness research. Duru-Bellat and Suchaut use PISA to investigate student performance in different countries. Much like Angus, they take into account that out-of-school factors influence a school system and, related to this, the difficulty in measuring school efficiency due to these factors (Duru-Bellat & Suchaut, 2005, p. 183). They found that high and homogenous performance in PISA characterized countries such as Finland, and that homogenous performance also indicated social equality (ibid., p. 185-186). Their other findings also state that background factors, such as economics, socio-economic level and parental education also influence PISA outcomes. For example countries with higher GDPs tend to have higher PISA scores (ibid., p. 186). However, the amount of time spent in school does not affect student performance in PISA. The longer the school systems maintain heterogeneity, the better the outcomes. For example, early streaming, selective admission, and grade repetition all lead to a large spread in PISA scores and eventually to social inequality (ibid., p. 186-188). Duru-Bellat and Suchaut find that the amount of equity in a system ultimately affects its outcome, and that school does matter for students (ibid., p. 192).

Sammons admits that little research in school effectiveness has utilized cross-national testing, but these tests could provide new insights in the field (2006, p. 584). However, she also acknowledges the lack of longitudinal data available through surveys such as PISA, limiting school effectiveness research (ibid., p. 587). International comparisons such as PISA and TIMSS, whether viewed in terms of criticism or praise, offer the educational world beneficial information about the quality and equity of different educational systems, and provide relevant benchmarks from which to improve education and education policy (Lie & Linnakylä, 2004, p. 228). They also offer insight on how to improve education systems and school effectiveness by illuminating the different ways different countries address issues within their education systems (ibid.).

Various studies have found Finland's education system effective. After the first PISA survey, the *Helsingin Sanomat* reported that the OECD found Finland possessed an "educational wonderland" (30 October 2002, Retrieved 20 September 2007, http://www2.hs.fi/english/archive/news.asp?id=20021030IE5). With its medium spending and below-average time spent in comprehensive school, Finland achieved top educational results on PISA. Spending on education reduced from 6.3% to 5.8% of GDP from 1995 to 1999, comes close to the OECD average. Finland spends less on education than countries such as Denmark, South Korea, Sweden, Canada, Norway, and the United States (ibid.). Even more recently, the Finnish press published an article entitled, "OECD: Finnish Education Highly Efficient," citing that Finns achieve high marks in PISA with average spending and below-average time spent in school (18 September 2007, Retrieved 20 September 2007, http://www.yle.fi/news/id70076.html).

School effectiveness researchers now use PISA as a basis for study. Articles by Meuret, Gorard and Smith, Duru-Bellat and Suchaut, and Sammons all use PISA in their school effectiveness research. All of these researchers use PISA to indicate equity in education systems. According to Meuret, schools need both equity and efficiency to be truly effective, and they argue that school efficiency and equity reinforce each other (2006, p. 391; p. 408). Meuret, Gorard and Smith, Duru-Bellat and Suchaut all cite Finland as a country with high equity within its school system. Meuret also brings up an interesting point, that "efficiency and the standard of the weakest go hand in hand" (ibid., p. 399). In Chapters Four and Five, we will see how this statement plays out in the Finnish context. Furthermore, Meuret cites how the critics of educational equity feel that favoring weak students comes at the expense of the strong. The Findings chapters will also address this issue, as illustrated in practical terms, within the Finnish school system.

The topic of school effectiveness holds an influential position in educational research. This section, covering only a small sample of the wide-ranging literature, gives some background on the topic and relates school effectiveness to PISA. In the beginning of this section, I stated that the PISA study has shown its connection to school effectiveness. Even though not directly related, the school effectiveness debate does contribute to the field of policy borrowing. As concretely illustrated by PISA, school systems such as those in Finland and Sweden indicate a low dispersion of scores and strong high achievers. Factors such as these, which indicate school efficiency and equity, are evident in effective school systems. Therefore, this could trigger cross-national attraction and, eventually, "indigenized" policy borrowing. School effectiveness must be

kept in mind while exploring the success of Finnish education, in order to compare and contrast the successes of Finnish education with the indicators of effective schools.

Summary

Cross-national attraction possesses the first phase within the policy borrowing typology suggested in the work of Phillips and Ochs. Many events can trigger such interest, for example, a case of "negative external evaluation." Reports such as *A Nation at Risk* illustrate an example of negative reinforcement. PISA, although a recent phenomenon, has created "negative external evaluation" on such a scale. For countries such as Germany, the shock, or *PISA-Schock,* came at an elevated magnitude. Naturally, countries seeking to improve their education systems look to the highest scores in PISA. Finland has consistently shown high performance in PISA in all three administrations of the survey. Those interested in Finland's success in PISA have also expressed interest in Finland's education system. Visitors with the purpose of inspecting the education system have been dubbed "PISA tourists" by the Finns. This cross-national attraction stems from the catalyst that PISA provides. The visitors have come in large numbers in order to inspect the factors contributing to PISA success, with the hope of bringing them back to their home countries. Therefore, many countries suffering from "negative external evaluation" as a result of the PISA results flock to Finland in order to find solutions to their educational problems in a manifestation of selective policy borrowing.

Finland's PISA performance in all three administrations of PISA has distinguished Finland from the Scandinavian countries, so often viewed as a collective unit. The differences among the PISA performances of these countries, sometimes quite

disparate, highlight the unique character of Finland and spark further investigation of the reasons behind the high performance in PISA.

The OECD has changed the face of education in a global context. The creation of PISA has been a new phenomenon in an internationally and globally comparative context. Conducted every three years, it could continue to provide a longitudinal study of educational achievement and context for various countries in the world, in addition to creating a benchmark for international educational comparison. A survey such as PISA, however, falls prey to criticism and disapproval. Prais, possibily PISA's most renowned critic, argued that "immense resources had been invested in carrying out and analyzing the results of this survey – but not, in my view, in fully thinking through its purpose and design" (2003, p. 139). Assessment on this scale inevitably garners a negative press. The basic methodology, its validity, cultural and linguistic transferability, among other factors, have all come under attack by PISA critics. Research of this kind cannot ignore its critics. However, others have praised the new approach of cross-cultural comparison in the PISA tests. "It eschews the often-derided model of curriculum testing. Instead, it accesses whether students nearing the end of compulsory education have the knowledge and skills needed for full participation in society" (Retrieved 27 September 2005, http://www.conway.com/ssinsider/snapshot/sf011210.htm).

School effectiveness, although not closely related to the field of policy borrowing and cross-national attraction, does have its connections. An in-depth investigation of a successful education system such as that of Finland merits a discussion of school effectiveness. The school effectiveness research area focuses on the factors influencing an effective school, such as equity, school ethos, teachers, parental involvement, and

society itself. Although some debate exists as to whether school equity relates to school efficiency, school effectiveness researchers cite countries such as Finland that have attained high equity within their school systems. PISA has permeated the field of school effectiveness as researchers now use the survey as a measure of school effectiveness and believe it will provide new insights into the field. Policy borrowing can relate to school effectiveness as highly effective schools can attract interest.

PISA and the success of Finland in the surveys act as a catalyst to investigate many factors, those influencing PISA and the issues that PISA influences. Although it has been less than a decade since the first PISA tests, the survey has exhibited wide influence and has affected other fields of educational study. For example, it has provided new benchmarks for school effectiveness. On a grander scale, PISA has triggered considerable interest in the Finnish education system. An immense degree of cross-national attraction has occurred. Countries investigating Finland most likely look for features to implement into their own systems. As PISA remains a relatively recent phenomenon, no evidence yet exists on policy borrowing from Finland. In the future, however, other countries no doubt will have selectively borrowed features from Finland and have implemented them into their own systems.

We are not Swedes. We do not want to be Russians, then let us be Finns.

- Ivar Arvidsson

CHAPTER TWO:
BACKGROUND OF FINLAND

Introduction

Finland's performance in PISA undoubtedly points to success in its education system, but we must examine Finland's historical and social context to better understand the country's educational achievements. An education system, as a "living thing," according to Sadler, merits investigation within its context. At the urging of comparativists such as Phillips and Halls, this study takes into account the background of Finland within the investigation of Finnish success in PISA. The enigmatic Finns need and deserve more than a brief explanation to explain and clarify their unique qualities. The question, "Who are the Finns?" necessitates a long answer:

> But where does Finland belong? Is it a Baltic state, like Estonia? Is it part of Scandinavia, like Denmark, Norway, and Sweden, with which it is linked and with which it has such close ties? Is it really a part of Russia? Or is it something different from all these? A great part of Finnish history has been devoted to trying to solve this problem (Bacon, 1970, p. 16).

This chapter strives to clarify the Finnish context, and therefore how it eventually influenced high PISA outcomes in all administrations of the survey. This chapter also describes the Finnish education system after exploration of "things outside the school system" (Sadler, in Higginson, 1979, p. 49). Hopefully this approach will enlighten the context in which the education system lies.

History of Finland to Independence

The Finnish people have kept to themselves throughout their early history. "Due partly to the size of the country and their own small numbers, the Finns have striven throughout their history to live their own lives, avoid assimilation with their neighbours

and remain aside from the quarrels of the rest of the world" (Juva, 1968, p. 17). The recent attention accorded to Finland has been an interruption to the country's traditionally quiet existence.

The first settlers in Finland emerged as far back as 7000 BC, a people who subsisted mostly on elk hunting and fishing. Archaeologists account for speakers of Finno-Ugric languages in modern Finland from about 4200 to 2200 BC (Chislett, 1996, p. 17). By the Iron Age of Northern Europe, approximately the 6th Century BC, the beginnings of Finnish culture emerged, especially along the coast. The Finns of that day managed to elude their Indo-European counterparts for centuries. By the Bronze Age in that area, between 1800 and 500 BC, the Scandinavians reached the Southwest coast of Finland (ibid.). Roman senator and historian Tacitus first mentioned the *Fenni* in his work *Germania*. Many believe he referred to the Finnish people in this account of 98 AD (Niiniluoto, 1960, p. 12; Chislett, 1996, p. 18). Until then, the Finns lived in relative obscurity from the rest of the European world. Tacitus's account described the people as living in extreme poverty, and he did not make clear the difference between the Finns and the Lapps (Chislett, 1996, p. 18).

No historical accounts of the Finns clearly designate a place of origin. Juva cites that Blumenbach of Göttingen described Finns as a people from Central Asia. He based this assessment on their non-Indo-European language and the customs that differed from the customary Western ways (Juva, 1968, p. 19). Juva even cites some who have connected the Finns with the Turks. However, most trace their ethnic origin to the language, which has relations, whether close or distant, to Estonian, Hungarian, and Lapp, as well as the languages spoken by ethnic groups in northern Russia. These

languages form the Finno-Ugric group. Although most linguists take great interest in the dissimilarity of the Finnish language from other European languages, Finnish can express the same notions as Indo-European languages (Niiniluoto, 1960, p. 12). Most believe that, perhaps about four thousand years ago, those belonging to the Finno-Ugric language family came from the same geographical area. Although no conclusive data exists, many think they came from Central Asia, but some archaeologists suggest that the origins of the Finns may have been as close as Estonia, where they lived before they crossed the Baltic Sea into Finland (Hall, 1967, p. 13-14). However, no historical records, whether oral or written, have accounted for this migratory past. Slavic peoples absorbed some ethnic groups speaking a similar language to the Finns. Only the Finns, Estonians, and Hungarians achieved independence. In the context of world history, these groups led an isolated existence (Niiniluoto, 1960, p. 11). The Finnish people, often confused with and lumped together with their Scandinavian neighbors, actually possess a completely different language and background from most of their European counterparts, and may understandably feel somewhat isolated from mainstream Europe.

In order to understand Finland's history, culture, and ties with Scandinavia, one must investigate the country's relationship with Sweden. In fact, the Swedes did inhabit some places in modern Finland, especially around the coast and in the west and southwest. These areas of Finland always possessed a Swedish-speaking population (Niiniluoto, 1960, p. 12). Nevertheless, the Finns lived in a separate, isolated peace until the Middle Ages:

> [The Finns] remained for hundreds of years without any coherent political or social organization to connect their sparse and widely separated settlements , although their western neighbours were already progressing towards a more unified state. Thus, in the

> Middle Ages, their country could be easily annexed by Sweden, and gradually swallowed, administratively, into the kingdom of Sweden-Finland (Hall, 1967, p. 14).

Sweden ruled Finland for 600 years. In 1323, a peace treaty assigned Eastern Finland to Novgorod and the Western and Southern parts of Finland to the Kingdom of Sweden. By the middle of the 14th century, Sweden held Finland fully under its control (Chislett, 1996, p. 18). However, the Swedes "were benevolent overlords, who brought them learning and industry, and married their own political and legal organization to the native Finnish instinct for social democracy" (Hall, 1967, p. 16). Sweden viewed Finland as a group of provinces, and granted much power to the Bishop of Turku, then the main city in Finland. The Bishop represented Finland at the Royal Council of Sweden. By 1362, the Finns did have a voice in the election of a new King of Sweden, and by the 16th century, Finland had representatives in the Swedish parliament (Chislett, 1996, p. 18).

The Kingdom of Sweden at that time did not have the power, even if it wanted to do so, to overpower the Finns. "And, separated as the two countries were by the Gulf of Bothnia, the liaison was conducted in twin beds, with a corresponding increase in independence" (Bacon, 1970, p. 52). Therefore, the Finns felt no bitterness towards their rulers, and even appreciated the benefits of Swedish rule. In fact, "Finland gave constantly faithful service to her suzerain power, and on her side Sweden showed a generous appreciation of Finnish loyalty" (Fox, 1926, p. 8-9). The only source of contention, however, came through the use of language. The Finns held on tightly to their Finnish identity and language, even though they needed the Swedish language in schools, politics, and all aspects of official life. Educational and social advancement required the use of the Swedish language, but most Finns refused to give up their unique

language. At the height of Swedish power, twenty percent of the population of Finland spoke Swedish, either as a native or adopted tongue (Hall, 1967, p. 16).

Finland, geographically sandwiched between Sweden and Russia, became the battleground for continuous wars between 1300 and 1800. Sweden enjoyed time as a great power between 1617 and 1721. Its control over the Baltic even expanded the Finnish border further east into Russia. However, from 1714 to 1721, Russia occupied Finland. The treaty of Uusikaupunki saw Sweden hand over Inkeri, Estonia, and Livonia to the Russians. This denotes the decline of Swedish power and the emergence of Russia as a power in the Baltic (Chislett, 1996, p. 19).

In 1807, Alexander I of Russia and Napoleon of France signed the Treaty of Tilsit, staking the claim of both France and Russia on the rest of Europe. Russia heightened security from her enemies in the Gulf of Finland. Finland's geographical location worried Russia, since enemies could use the land to facilitate attack. The Russian empire also had long coveted Finnish occupation. Russia took advantage of Sweden's dwindling power at that time and gained control over Finland, a key country in the Baltic due to its strategic geography. Control of Finland would allow better access to Western Europe (Fox, 1926, p. 9-10). Therefore, in 1808 Russia invaded Finland (Chislett, 1996, p. 20). The Finnish war between Sweden and Russia in 1809 ended the 700 year relationship of Finland with the Kingdom of Sweden, and began a new era of Finland as a Grand Duchy of Russia.

Despite its Russian connections, Finnish law still used the influences from Swedish rule. The Finnish national movement, which began under Swedish rule, gained new momentum under Russian rule (Gilmour, 1931, p. 20). Despite residual historical

animosity towards Russia, some of the Czars did much for the future of Finland. For example, Alexander I declared that the Russian empire would not interfere with the rights of self-governance for the Grand Duchy of Finland (Fox 1926, p. 10). He promised to maintain the existing structures of Finland in return for the support of the Finnish people (Hall, 1967, p. 99). This autonomy granted to the Finns strengthened the groundwork for the future of an independent Finland and also garnered respect for their first Czar (Chislett, 1996, p. 20).

Finnish autonomy also helped isolate Finland from Sweden. Nevertheless, the Lutheran Church remained the religion of the Finns, and Swedish continued as the official language. Helsinki, much closer to the Russian border than Turku, became the new capital of Finland (Chislett, 1996, p. 21). The Bank of Finland, founded in 1811, also moved to Helsinki from Turku, and the university followed in 1828 (ibid.). Alexander I helped create a separate government for Finland, by creating the Diet of Four Estates, a parliament with representation from the clergy, nobility, peasants, and middle class. This helped endorse the rights and privileges of all social classes in Finland (Chislett, 1996, p. 21). During this time, Finland's post office was developed in 1811, and the board of health in 1812. Alexander I also granted back the land, ceded to Finland under the Treaty of Uusikaupunki, which would remain in Finnish hands until the Second World War (ibid.). Finland's governance allowed for a senate consisting only of Finns. The Grand Duke of Finland, Alexander I, would hold responsibility over the senate (ibid.). At that time the Finns had control over their own government, legal system, churches, and schools. In addition their economy remained separate from Russia, and the rule of Alexander I did not differ much from that of Sweden (Hall, 1967, p. 99).

Alexander II instituted a system of popular education (Fox, 1926, p. 11). He also, quite significantly, championed the use of the Finnish language. Even though he allowed Swedish to remain the official language of Finland, he permitted the Finnish language to have the same rights as the Swedish language. History documents that, as late as 1833, Alexander II insisted on the use of the Finnish language in official documents in the Autonomous Grand Duchy (ibid., p. 12). The time of Alexander II also allowed Finland to develop economically, separate from Russia or Sweden (Hall, 1967, p. 101). Alexander's liberalism began to worry Russia, and its countermovement assassinated Alexander II in 1881. This would allow the future Alexander III to exercise conservatism during his reign (ibid.).

Russian rule did not prove to be only beneficial for the Finns. A famine from 1867 to 1868 claimed the lives of 100,000 Finns, then 8 percent of the population (Chislett, 1996, p. 22). The Finnish Diet passed an act in 1878 that allowed Finland to have its own army. The increasing tenacity of the Finns began to worry the Russians. They felt that this growing self-sufficiency would lead to other groups within the Russian empire also asserting their independence (ibid.).

If only Alexander I and Alexander II had ruled over the Grand Duchy of Finland, the attitudes of the Finns towards Russia could have been radically different. However, Alexander II, whose rule encouraged Finnish independence and language, preceded the rule of Alexander III, who removed the freedoms bestowed upon Finland by his predecessor. Under his rule, both Finland and Russia suffered (Fox, 1926, p. 13-14). The reigns of Alexander III, who ruled from 1881 to 1894, and his successor, Nicholas II, in power from 1894 to 1917, mark a much more conservative era of Russian rule over

Finland. This conservatism harnessed the autonomy of Finland and began the attempted Russification of the Finns (Chislett, 1996, p. 22).

In 1898, General Nikolai Bobrikov took over as the governor-general of Finland, and almost immediately placed all Finnish activity under Russian supervision. "At a single stroke Finland's autonomy was destroyed" (Hall, 1967, p. 102). He also shut down the Finnish newspapers. In 1901, the Finnish military, which had had its own defense forces since 1878, came under Russian command and was forced to speak Russian (Chislett, 1996, p. 22). This caused an uproar as well as fear among the Finnish people. Some members of the Diet fled abroad, while young men tried evading the draft. More than 500,000 Finns signed a petition against the measure. This caused the Russians to surrender this policy, and disband the Finnish army (ibid.).

The assassination of Bobrikov in 1904 and the Russian Revolution in 1905 gave the Finns some respite from the Russians. In 1906, the new parliament, or *Eduskunta,* replaced the old Diet. This reform gave Finland a single-chamber parliament as well as universal suffrage. Finnish women thus became the first in Europe with the right to vote (Chislett, 1996, p. 22). With no real army, Finland maintained neutrality during the First World War. However, at that time Finland's people had begun to divide into two groups, the "Whites," consisting mainly of bourgeois, Finnish military officers, and the "Reds," the extreme socialists and the working class (Hall, 1967, p. 106; Chislett, 1996, p. 23). The Russians supported the Reds and the Germans supported the Whites.

Elections held in 1916 saw 103 social democrats come to Parliament, and in March 1917 Oskari Tokoi became the first democratically elected socialist prime minister in the world (Chislett, 1996, p. 23). The following November, Parliament passed a

resolution granting it the power formerly possessed by the Czar of Russia and the Grand Duke of Finland (Hall, 1967, p. 105). Lenin, a supporter of Finnish autonomy, came to power in November 1917 (Chislett, 1996, p. 23). The Finns declared their independence on 6 December 1917, and on the "last day of 1917 Lenin's government recognized the new state, and Finland stood alone before the storms that were brewing at home and raging abroad" (Hall, 1967, p. 105).

Independence and War

Unfortunately for the Finns, their independence did not come at a peaceful time. Throughout 1917, the class divide began to grow. The harshness of war triggered the decline of the working class, weighed down by unemployment, near-famine, and poverty. The war, however, supplied the middle and upper classes with economic gain (Hall, 1967, p. 106). The divide between the Reds and the Whites began to grow, and this fissure eventually led to a coup in January 1918 (Chislett, 1996, p. 23). The Reds had approximately 100,000 people on their side, while the Whites had about 70,000. The Reds received help from now-Soviet Russia, and the Whites, led by General Mannerheim and supported by Germany, ended up with victory (ibid.). This war, not only a Civil War for Finland, also marked the liberation from Russian rule. It also came at a heavy cost. Nearly 37,000 people died as a result of the Civil War, whether they were killed in battle, executed by the enemy side, died in prison camp or a result of prison camp, or were missing in action (ibid.).

In addition to the loss of life, the Finnish Civil War left deep wounds that would remain in the Finnish psyche for the next half century. The war, however, did bring social and political stability, mainly through a program that allowed tenant farmers to

purchase their farms (Chislett, 1996, p. 23). Post-Civil War Finland sought a monarch for its new, independent land. Sweden, which wanted to maintain neutrality during the war, did not support the victorious Whites, which therefore ruled out importing a Swedish monarch to occupy a Finnish throne (ibid.; Fox, 1926, p. 19-20). For this reason, the Finns looked to Germany to find their ruler. They chose Prince Friedrich Karl of Hessen as their new king. However, in November of 1918, the German monarchy collapsed along with the surrender of Germany, and, under Allied pressure, Prince Friedrich Karl abdicated his throne even before arriving in Finland. Afterwards, Finland soon became a republic (Chislett, 1996, p. 23).

Instead of a monarch, Finland's constitution now calls for a President elected every six years. The president appoints the prime minister, conducts foreign policy, and has the right to disband parliament and organize new elections. Originally, the president inherited many of the powers possessed by the Grand Duke of Finland, the Russian Czar (Chislett, 1996, p. 23). The president, unlike his or her counterparts in some other countries, renounces any political party affiliation once in power. Therefore, he or she does not act as the leader of his or her party, rather, as the leader of his or her country. Finnish politics also possesses two other distinguishing features: "The use of qualified majorities for approving legislation (which acts like a built-in stabilizer preventing sudden swings between right and left in government policy); and the protection of private property rights against government intervention. Such measures have helped to establish a consensus system of politics" (ibid., p. 24).

After the Civil War, Finland lived in a time of peace and hope. She asserted her neutrality after independence, and hoped Finnish neutrality would be much like the

neutrality in the Scandinavian countries. Twenty years after the Civil War, however, the beginnings of another war began to simmer (Hall, 1967, p. 110). "But for the Finns the choice between neutrality and belligerence had been eliminated, though without their knowledge, before the outbreak of the Second World War… The great powers – by which Stalin meant the Soviet Union and Germany – had between them already decided Finland's fate" (ibid.). In 1939, Germany and the Soviet Union signed a pact secretly consigning Finland to the Soviet "sphere of interest" (Chislett, 1996, p. 24). After Germany defeated Poland in 1939, Finland refused Soviet demands to build a military base on its land. The Finns feared for their independence. In response, Stalin and the Soviets attacked Finland on 30 November. The Winter War, although but a hiccup in the grand scheme of the Second World War, commanded great respect from other countries in the world. The scenario of the Finnish David and the Soviet Goliath prompted Theodore Roosevelt and Winston Churchill to denounce the Soviet attack on Finland and to strongly support the Finnish resistance movement. Roosevelt referred to the Winter War as the "rape of Finland" and Churchill stated the invasion was "a despicable crime against a noble people" (ibid.).

A peace treaty on 12 March 1940 put an end to the Winter War. Ultimately, Finland ceded ten percent of its land to the Soviet Union. The population in the ceded land, more than 400,000 Finns, moved within the new Finnish borders (Chislett, 1996, p. 25). Finland joined World War II when Germany invaded the Soviet Union in 1941. Finland did not ally itself with Germany; rather, she fought against the Soviets to regain the land lost during the Winter War. The Continuation War, a bitter battle, ended with the Moscow Armistice. In the end, Finland ceded back to the Soviet Union most of the

land originally ceded after the Winter War, in addition to Petsamo, a nickel mine and port on the Arctic Ocean. The Armistice also demanded that the Finns expel the Germans from their territory, which eventually caused the Lapland War (ibid.). "Finns saw the liberty and independence of Finland as their chief concern… Indeed, this was the point they stressed during the Continuation War – that their sole object was to maintain the integrity of Finland. They only wanted to be left alone" (Bacon, 1970, p. 225).

The Lapland War followed the Continuation War, extending from September 1944 to April 1945. The Germans sought the strategic nickel mines in Petsamo, and the Finns tried to protect them while also attempting to expel the Germans from their country (Retrieved 5 November 2008, http://www.rajajoki.com/lapland.htm/). The Germans employed a scorched earth policy, which ended in severe destruction in Northern Finland. The Finns finally banished the Germans in 1945 and drove 200,000 of them out of their country. Finland lost 87,000 of its people during the wars between 1939 and 1945, amounting to 2.3 percent of the total population (Chislett, 1996, p. 25). The War also left 60,000 disabled and 4,000 refugees in Finland, in addition to the devastated North due to the scorched earth policy (Eskelinen, 1968, p 59).

War and strife ironically united the Finnish people. In the words of US President Franklin Roosevelt, "The Finns have won the moral right to live in everlasting peace and independence in the land they have so bravely defended" (Saari, 1944, p. 37). All the conflict united the Finnish people and their differences of opinion. Hence, the Finns in following generations valued freedom, liberty, and democracy. After the Second World War, Finland "was a nation crippled and exhausted, but Finland survived. This may seem a pitifully unheroic end to a story of so much effort and sacrifice, suffering and

blood, but for a small nation, in the iron times of the Second World War, survival was a rare triumph" (Jacobson, 1987, p. 43). Finland also evaded the Soviet Union's grasp. "One theory is that Stalin feared the Finns would take up arms again and mount a ferocious resistance" (Chislett, 1996, p. 26).

Finland after World War II

After the War, Finland spent time recovering from the wounds of War. The Finnish tenacity during the War continued in its post-War relations. President Paasikivi, successor of the previous President and War hero, Mannerheim, needed to balance Finland's Soviet relations and the country's strong commitment to democracy and independence, and did so successfully. Finland even rejected millions of dollars in Marshall Aid from 1948 to 1952 because of Soviet pressure. The rejection of the aid gained the trust of the Soviet Union (Chislett, 1996, p. 26-27).

The resettlement of the Eastern Finns after the border changes actually expanded the rural and agrarian labor force after World War II; Finland was the only OECD country to do so (Chislett, 1996, p. 27). Finland also recuperated its post-war economy through importing raw materials and semi-finished products, which consisted of 10 percent of GDP. Finland paid off its war debts, the only country involved in World War II to do so, by 1952, the same year as Helsinki hosted the Olympics. This time signified the end of an era in Finland, a time of unease and apprehension. Problems began to decrease (Hall, 1967, p. 125). In 1955 Finland joined the United Nations and the Nordic Council (ibid.).

After the eradication of war debt, Finland and the Soviet Union began new relations. The death of Stalin in 1953 allowed for better relations between the two

countries (Hall, 1967, p. 125). The Soviet Union also became Finland's main trading partner. Ironically, the relationship became "like a colonial one in reverse: The Soviet Union, the 'colony,' supplied Finland with raw materials, oil and gas, and Finland, the 'metropolitan power,' exported value-added products" (Chislett, 1996, p. 28).

Politically, post-War Finland underwent tremendous change. After the Communist defeat of 1948, the Social Democrats and the Agrarian party took turns as the dominant political party in Finland. Between 1950 and 1964, Finland had nineteen different cabinets (Chislett, 1996, p. 30). Urho Kekkonen undertook his presidency in 1956, at the height of the Cold War between the Soviet Union and the United States, but promised to maintain neutrality. "No country felt the Cold War more keenly than Finland – which shares a 1,300 kilometer-long border with Russia and is close to the Kola Peninsula on the Arctic Sea where Moscow had a third of its nuclear arms – and it lived on a knife's edge" (Chislett, 1996 p. 28-29).

In 1960, the Social Democrats regained power and achieved a national consensus. They initiated an incomes policy and came to terms with the Communist party (Chislett, 1996, p. 30). The incomes policy led to economic and social reforms, paving the way for the Welfare State. In the 1960s, the Finnish government implemented pension programs and illness insurance, and a more comprehensive pubic health care system emerged in the 1970s (ibid.). These came at a similar time as the reforms in the education system. At this time the state identified the importance of education and reformed the education system to improve its quality. The Finns had long realized the importance of strong language skills, which, along with technological skills and strengths in science, led to

economic success and social development (ibid.). Also at this time, the amount of spending for social welfare increased quickly (ibid.).

The 1980s, Recession, and Recovery

The 1980s saw Finland expand economically. Finland's growth in the 1980s came at the top of the performance levels of OECD countries, "leading Finns to refer to their country as the Japan of Europe" (Chislett, 1996, p. 32). Finland also managed to diversify its industries. For example, the formerly dominant wood and paper sector decreased from 77 percent of its exports in 1950 to 39 percent in 1990. Meanwhile, the exports of metal and engineering products increased from 5 to 43 percent (ibid.).

The 1980s also saw Finland assert a more European identity. Finland joined the European Free Trade Association in 1989, despite the pressures from the Soviet Union. At that time Austria and Sweden applied for European Community membership, but Finland felt it would affect her neutrality. The persistence of the Cold War meant that Finland had to tiptoe around such matters (Chislett, 1996, p. 33). However, the European Commission created the European Economic Area, which gave Finland a loophole. The Finns could have a more European economy without needing to integrate with the other European countries politically (ibid., p. 33-34).

Also during this time, the Finns still lived in fear of the Soviet Union and its oppressive regime. During the 1980s, this fear manifested itself in Finnish media, especially television and radio (Chislett, 1996, p. 32). Also at this time, Finnish politics turned more conservative. In 1987, a political turning point occurred when the National Coalition Party won in the elections and formed an alliance with the Social Democratic Party. This trend continued further in 1991 when the Center Party, formerly known as

the Agrarian Party, became the strongest party and formed a union with the National Coalition Party (ibid., p. 33). The Center Party's turn in power marked a change from past Finnish politics. It looked favorably upon European Community membership, and did not take as seriously the relationship with the former Soviet Union (ibid., p. 34).

The conservative turn of Finnish politics coincided with a coup attempt against Mikhail Gorbachev's disassembling of the communist system. The attempted coup, in 1991, had both favorable and adverse consequences for Finland. Economically, Finland suffered because of the close trade ties with the former Soviet Union. However, the collapse of the Soviet Union benefited Finland politically and opened the door for membership of the European Union. Previously, the close ties with the Soviet Union did not allow for EU membership (Chislett, 1996, p. 33). The failed coup in the Soviet Union turned a leaf in Finnish politics. Finland then could coordinate her politics with the rest of Europe and not worry about the relationship with the Eastern neighbors. The Finns subsequently voted in favor of European Union membership, implying a disdain for their erstwhile Soviet neighbors and their stronghold and a hope for the the future. "Never would the country be left alone again to face Russia as it was in 1939" (ibid., p. 35). On 1 January 1995, Finland became a member of the European Union, becoming the first new or successor state after the First World War to become a member of the EU. With Finland's membership, the EU extended its borders to Russia and to the Arctic Circle (ibid., p. 36).

After twenty years of steady growth, the Finnish economy took a dive in 1990, the steepest decline of any OECD country (Chislett, 1996, p. 36). The virtually full rate of employment plummeted to an unemployment rate of 20 percent. 430,000 jobs were lost

during that time. The recession, lasting from 1991 to 1993, so deeply affected Finland that many Finnish economists liken it to the Great Depression of the 1930s (ibid.). The loss of the Soviet market, a trade relationship that had lasted for more than forty years, deeply influenced the Finnish economy. The overvalued Finnish Mark and rising debts also added to the deep recession. The Finnish Mark devalued by 12 percent in 1991, then depreciated a further 20 percent in 1992 (ibid., p. 37). It took until 1996 for Finland's economy to regain the economic level it had attained before the recession, and eventually to fulfill the criteria for the European Monetary Union and transfer the Finnish Mark to the Euro in 1999. The recession made Finland realize the need for economic support (ibid., p. 39). During the recession, Finns queued for food handouts, delivering a blow to a country that had become one of the world's ten richest within thirty years. Finland recovered, however, and by 1995 ranked fifth out of 174 countries in the 1995 United Nations Human Development survey (ibid., p. 68). Seven years after the recession, exports doubled, and a smaller labor force managed to produce a large output (Kirby, 2006, p. 293). The electronics market has become a huge industry for Finland, with a very large amount of exports, rivaling the old export powerhouses such as wood and paper from Finland's forestry industry (ibid.). A report in 2003 by the OECD praised Finland for high levels of investment in research and development, a strong financial sector, and a post-recession economic growth rate double that of the OECD as a whole (ibid.). However, a downside to this rapid economic growth exists. Finland still has high unemployment, as the export market recovered more rapidly than the domestic demand for labor (ibid., p. 294).

Language

The Finnish language possesses unique characteristics that separate it from other European languages. In fact, the distinctiveness of the language demonstrates the Finns' uniqueness as a people and remains an extraordinary characteristic (Bacon, 1970, p. 37). The mysterious nature of their origins as well as the nature of their language, in concert with their history under foreign rule, adds to pride in their exceptional language.

The centuries under Swedish rule enhanced the pride in their language, due to the necessity of Swedish, used in all officialdom, including education (Hall, 1967, p. 16). The bilingualism of Finland, stemming from Swedish rule, adds a new dimension to the influence of language. In order to better understand Finland one must understand its ties with Sweden and the reasons behind its bilingualism.

During their time under the reign of the Kingdom of Sweden-Finland from the thirteenth century to 1809, the Finns were forced to accommodate the Swedish language. The people of Finland expressed their nationalist feelings in Swedish, as the educated people of Finland used the Swedish language, and Swedish remained the language of instruction in all schools (Bacon, 1970, p. 82). With the implications of language use in Finland, a feeling of superiority developed in reference to the Swedish language. The advantages for Swedish speakers were significant. Because the educated spoke Swedish and schools used Swedish as the medium of instruction, those wishing to advance in society adopted the Swedish language as their mother tongue. Even workers along the mainly Swedish-speaking coast assumed Swedish as their native language (ibid., p. 88). So powerful did the Swedish language become that a Swedish-born professor in the university in Turku promoted the abolition of the Finnish language and even the

prohibition of sauna use, a most unique Finnish custom (ibid., pp. 72-73). Since the dual-language system in Finland hindered complete unity of the Kingdom of Sweden-Finland, the Swedes worked hard to change all language use into Swedish. Churches and schools used Swedish. People even adopted Swedish names to better assimilate into the upper class. This movement would later create social problems that resonated for centuries (Hall, 1967, p. 90).

Despite, or because of this, a Finnish nationalistic sense emerged, and through this came the fight for the Finnish language. "More correctly they might be called the harbingers, since at first they were less concerned with the possibility of an independent Finland than with the new interest in things Finnish" (Bacon, 1970, p. 73). This nationalism emphasized education for all, and the expansion of the Finnish language to a position equal to Swedish, and to have two official languages in Finland (Saari, 1944, p. 33). At this time, the rebellion against the Swedish language began, quite possibly the only source of tension during Sweden's rule of Finland. The push for the Finnish language came on two levels. The first, more practically advocated the use of Finnish in terms of government and administration. The other, more emotional level, saw Finnish as a unique language, influencing the character of the Finns and most highly valued by them (ibid., p. 88). However, this new push for the Finnish language raised many questions for both the Finnish and Swedish-speaking inhabitants of the country. The sole use of Finnish, so different from European languages, would immediately isolate Finland and its people. Would the abandonment of the Swedish language have adverse effects for Finland (ibid, p. 84)? After the annexation by Russia, Swedish curiously remained the language of administration and of schools. Upon closer examination, however, one can

understand the reasons. Many feared that the rejection of Swedish would allow for Russian to take its place (Hall, 1967, p. 92).

Many in Finland championed the cause of the Finnish language. For example, many consider church reformer Mikael Agricola as the father of written Finnish. In the 1540s he produced a Finnish alphabet book (Louhivouri, 1968, p. 176). Agricola also translated the prayer book and the New Testament into Finnish. Owing to these accomplishments, many call him "the father of Finnish literature." (Hall, 1967, p. 87) Ironically, those who fought most for the rights of the Finnish language came from the Swedish-speaking minority and aristocracy:

> A group of Swedish-speaking Finns took up the unlikely task of advancing the Finnish language at the expense of their own. Foremost among them was J.V. Snellman (1806-81), teacher, editor, and administrator, who devoted himself to a crusade to persuade his compatriots that unity and independence could never be achieved until the whole country spoke and used the Finnish language, and only the Finnish language. A country, he affirmed, in which the bureaucracy and the cultivated class spoke Swedish and the rest Finnish, was a country divided against itself, and one which laid itself open to the imposition by the Russians of their own language. It was therefore the duty of Swedish-speaking Finns to learn and adopt the Finnish language, and so identify themselves with the nation as a whole (Hall, 1967, p. 92).

The efforts of people like Agricola and Snellman allowed for more acceptance of the Finnish language. A.I. Arvidsson, the Finnish poet, encouraged modernization and the expansion of education. Finland could achieve these goals, he felt, by removing the language barriers and tensions between Swedish and Finnish: "We are no longer Swedes, we cannot become Russians, let us therefore become Finns in thought, feeling and deed" (Saari, 1944, p. 35). Finnish, formerly the language of peasants, started to infiltrate education. In 1841, the Finnish Lyceum started teaching Finnish, and the university in

Finland established a chair of Finnish in 1850. In 1858, the first Finnish secondary school started in Jyväskylä, followed by another school in Helsinki in 1869. Finnish secondary schools followed later in the cities of Kuopio, Joensuu, and Hämeenlinna. By 1860, Finnish-speakers joined the cultured social class (Gilmour, 1931, p. 21). Through this history, one can more clearly understand the bilingual rights of the dwindling Swedish-speaking minority in Finland. The Constitution of 1919 declared the official bilingualism of Finland. However, the animosity and tension between these two groups does still exist. "But the Finnish national conscience, now wide awake, remains unsatisfied, and a new generation of 'Pure Finns' has arisen to demand rights strictly proportional to their numbers" (Gilmour, 1931, p. 22). In addition to these problems, "the battle has been transferred to the scholastic areas where the pure Finns oppose the preferential treatment accorded to Swedish education" (ibid.). Therefore, according to the aforementioned references, one can understand the tensions surrounding the Finnish and Swedish languages infiltrating all aspects of Finnish culture and even education.

However, this link to Swedish culture and language allows Finland to cooperate in the Nordic community. To the casual observer, Finland belongs to the group of Scandinavian countries by proximity of geography:

> Finland participates as the easternmost of the Nordic countries, or of Fenno-Scandinavia, as the geographer would say. But it would be a mistake to imagine that this cooperation is motivated by purely or even primarily geographic considerations. There is so much else to bring the Nordic countries together. They all have the same cultural background, and a historical fellowship of fate (Fagerholm, 1960, p. 69).

With the onset of independence in 1917, Finland turned to her Swedish roots for guidance as a new country, despite the time as a Russian Grand Duchy. In the end,

Russian influence did not shape Finland as much as Sweden. Upon Finnish independence in 1917, they chose to begin their time as an independent country upon the previous Scandinavian foundations (Fagerholm, 1960, p. 69-70). Furthermore, the influence of the Swedish language allows Finland to assume Scandinavian identity. Finland secured its position as part of the North, rather than the East. Despite the differences from its Scandinavian counterparts, modern, independent Finland has formed its unity and identification with them (Hall, 1967, p. 205).

Politics

Finnish politics has largely enjoyed consensus and coalition governments. Due to a multi-party system, no party has enough power to solely govern the country. The coalition-style politics have given continuity and consistency on many fronts, including economics, education, and foreign policy (Chislett, 1996, p. 63). For the most part, the Center Party, formerly the Agrarian Party, and the Social Democrats have been the two leading parties in Finnish politics (ibid.).

Parliamentary elections come every four years. The 200 member *Eduskunta* has proportional representation. The presidential elections occur every six years, and the president may only serve two consecutive terms (Chislett, 1996, p. 63). The Finnish constitution necessitated a two-thirds majority for the passing of bills until 1991, where a simple majority vote replaced the old system. Although nineteen different cabinet regimes came between 1950 and 1964, the governments have been more stable since that time (ibid.).

The 1919 Constitutional Act grants widespread power to the president. The power of the president offsets the potential instability of the parliament (Chislett, 1996, p.

64). When taking office, the presidents renounce their political party affiliation in order to take precedence over any political skirmishes between the many political parties. As previously stated, the president appoints the ministers, runs foreign policy, forms majority governments if needed, and commands the armed forces (ibid.). The president originally had limitless jurisdiction to dissolve parliament, but an amendment in 1991 added the requirement of the prime minister's consent (ibid.).

Finland has a relatively large number of political parties. The main political parties follow, with their 1995 percentages: Social Democratic Party (28.3%), Center Party (19.8%), National Coalition Party (17.9%), Left Alliances (11.2%), Swedish People's Party (5.1%), Greens (6.5%), Christian League (3.0%), Young Finns (2.8%), Rural Party (1.3%), Liberal Party (0.6%), Ecology Party (0.3%), and Other (3.2%) (Chislett, 1996, p. 65).

Society

Finnish society has long adhered to an egalitarian philosophy. Before the recession, Finland had achieved almost full employment, and had one of the OECD countries' most developed welfare systems (Chislett, 1996, p. 78). Welfare spending for Finland makes up more than 40 percent of the GDP. The government spends money on unemployment benefits, education, pensions, health care, and social services. Although high compared to its OECD counterparts, Finland's spending on social welfare remains on an even level to that of other Nordic countries (ibid., p. 79).

The Finnish Welfare State illustrates a lack of social class divide:

> In examining many aspects of Finnish economic, social and cultural life it is apparent that one unusual feature of modern Finland is the relative absence of those invisible social barriers which inhibit the full development of the human spirit … The

> relative absence of class distinctions in education, in everyday social life and in the protocols of public life forcibly strikes a visitor from Britain who spends any length of time in Finland (Singleton, 1989, p. 161-162).

The Welfare State adheres to a philosophy of early intervention in order to preempt more severe or chronic problems later. As early as 1895, workers had compensation rights if injured in accidents. By 1968, these rights had expanded to free disabled medical care, allowances, and disabled pensions (Singleton, 1989, p. 165). Both local municipalities and the national government have plans to treat widespread diseases and other health problems, including alcoholism (ibid., p. 166). Finland also administers state-funded home loans, a program started in 1944, interest-free for couples under thirty years of age. The repayment scheme reduced the money owed according to how many children were in the household (ibid.). Finland also has a very generous maternity program. Mothers-to-be can choose a cash payment or a package of baby clothing, bottles, and other accessories for a newborn baby (ibid.).

Finland has long provided women with excellent rights. Finnish women first earned the right to vote in 1906, the first in Europe, as we have seen, and the high proportion of women in parliament also reflects a society with liberated women (Chislett, 1996, p. 70). In fact, the first parliament in 1906 had nineteen women (Kirby, 2006, p. 284). Today (2008) Finland has a female president. In the 2000 presidential elections, four of the seven candidates were women (ibid.). Since World War II, the number of women in the workforce has risen by 50 percent. Finland lost so many men in the War that women needed to join the labor market. "For a generation after 1945 Finnish women bore a heavier responsibility as bread winners than would have usually been the case" (Singleton, 1989, p. 164).

Downsides of the Welfare State do exist. Finland has a sizeable ageing population, and does not have many immigrants to fill the gaps in the labor market (Kirby, 2006, p. 288). The OECD expects Finland to have the biggest increase of over sixty-five population in the next two decades, which presents problems for financing the welfare system (ibid.).

Religion

The Church holds much responsibility for the spread of learning and elementary education. The establishment of an organized church sparked a demand for education and academic training (Suolahti, 1960, p. 197). The Reformation encouraged the knowledge of Finnish, and a Finnish translation of the New Testament appeared in 1548, with a translation of the entire Bible following in 1642. A body of religious literature, in Finnish, also helped the spread of the Finnish language and literacy through the Church (Juva, 1968, p. 22). Those who could not read could not take communion, and those who could not read their catechism could not marry (Gilmour, 1931, p. 61-62). Secondary school education also owes its roots to the Lutheran Church. Cathedral schools, church schools, and monasteries educated the Finns until state schools emerged in the 1870s (ibid., p. 62). Most Finns, close to 90 percent, belong to the Lutheran Church, and approximately one percent belongs to the Finnish Orthodox Church (Chislett, 1996, p. 43). The two churches did not always co-exist in harmony. In 1656, the "Russian" Finns and the "Swedish" Finns fought, burning many villages. Eventually, many of the Orthodox fled to Russia. "Five centuries of political and ecclesiastical separation had moulded east and west Finns so differently that they could no longer live together" (Juva, 1968, p. 24-25). The Lutheran Church has played a major part in Finnish history and

politics. Lutheran bishops had enough foresight to encourage education and literacy, and the Russian attempts to end Finnish autonomy only reinforced their will (Eskelinen, 1968, p. 42). An Ecclesiastical Act by the Parliament governs the church, and many church members pay an optional church tax to fund the church (ibid.). Schools teach religious education, mainly within the Lutheran Church, but those with Orthodox affiliations will learn about their Orthodox faith (Bacon, 1970, p. 210).

Sisu

The Finnish word *sisu* often arises when investigating and researching the country, including the people, the history, the society, and the culture. The concept of *sisu* permeates everything from the Finnish attitude during the Second World War to its victory in the Eurovision Song Contest:

> *Sisu* is a key word in Finnish. It means dogged determination, strength of character or just plain guts. Few nations have battled against such a harsh climate and, at times, against such overwhelming odds as successfully as the Finns; they have pulled themselves up by their own bootstraps, and today, their average income per head … is among the world's 10 highest (Chislett, 1996, p. 17).

This concept of inner strength denotes the resolve to persevere, no matter what the odds. Many use the example of Finnish winters to illustrate this point (Retrieved 5 November 2008, http://www.washingtonpost.com/wp-dyn/content/article/2006/03/22/AR2006032201943.html). The concept of *sisu* even emerges when discussing the Finnish education system. Another definition describes it as this:

> Sisu is a unique Finnish concept. It stands for the philosophy that what must be done will be done, regardless of what it takes. Sisu is a special strength and persistent determination and resolve to continue and overcome in the moment of adversity…an almost

> magical quality, a combination of stamina, perseverance, courage, and determination held in reserve for hard times (Retrieved 8 February 2008, http://www.sisugrp.com/sisuis.htm).

This article describes the Finnish struggle against intruders, whether in prehistoric times or during the Second World War. These struggles, by the viewpoint of *sisu,* cultivated inner strength within the Finns. It credits *sisu* for the many musicians, artists, designers, and athletes who have put Finland on the map in relatively recent history (Retrieved 8 February 2008, http://www.sisugrp.com/sisuis.htm).

The Nordic Council

Finland's ascension to the Nordic Council marks a significant post-war accomplishment for the country and its development as a nation. The Nordic Council, consisting of Denmark, Finland, Iceland, Norway, and Sweden, decided to work together in all realms. The Council, born in 1953, officially outlined the cooperation between the Nordic countries, a practice essentially already in place. This cooperation comes at all levels and disciplines, such as politics, medicine, fashion, and the arts (Hall, 1967, p. 132). In other words:

> Cooperation on this scale becomes part of the life of the ordinary citizen, rather than a remote governmental policy, and it is undoubtedly to this groundwork of solidarity that Northern cooperation in general owes its success and momentum… broadly speaking, [to] its forty examinations, cultural exchanges, inter-availability of social benefits, a common labor market, economic cooperation, the establishment of a single passport zone, and cooperation in the development of communications (Hall, 1967, p. 132-133).

The Nordic Council, by the 1960s, saw many of its goals realized. The cooperation between the countries, whose population only reaches approximately 20 million, allows for better efficiency in the execution of projects which benefit all five nations (Hall,

1967, p. 133). For Finland especially, the Nordic Council has proved beneficial. Their struggles before and after independence with neighboring Russia followed by the Soviet Union, in addition to her geography, placed Finland in a tenuous position. Finland's determination during the Second World War seemingly deterred the Soviet Union from adding the country to its republics (Chislett, 1996, p. 26). However, the Nordic Council helped cement Finland's position as a Northern democracy, along with her Scandinavian neighbors. This gave Finland protection from encroaching Communism and security as a part of a Nordic union. "The remarkable development in cooperation has made the Finns feel psychologically, as well as politically, more secure, and more satisfied that they are able to play a part in European affairs" (Hall, 1967, p. 134).

The Finnish identity, while not quite Scandinavian, remains an elusive entity. "The Finns know and understand the Russians, and their imprisonment in history, better than do most Europeans; they have long-standing ties of sympathy with the Poles; they have a kinship, if remote, with the Hungarians; and they are part of the Scandinavian family" (ibid., p. 137). Even though Finland does have many similarities with the rest of Scandinavia, Finland possesses many attributes that render the country different from the Scandinavian countries. The Finnish political system, for example, has a separate history, setting itself apart from its Scandinavian counterparts. The political structure came to fruition at a very different time in history and in very distinct circumstances from the rest of the Scandinavian countries, and these dissimilarities make Finland unique (ibid., p. 138). Nevertheless, Finland's place in the Nordic Council confirms its place among these countries in the modern world.

The Nordic countries in the twentieth century proved themselves exemplary to the rest of the world, and pioneers in peace. Two men from Scandinavia became Secretaries General of the United Nations, Trygve Lie of Norway and Dag Hammarskjöld of Sweden (Hall, 1967, p. 206). The United Nations had two more prominent Nordic men as their agents. Folke Bernadotte of Sweden negotiated the release of prisoners in concentration camps. The United Nations then appointed him to mediate the Arab-Israeli conflicts of 1947-1948 (ibid.; Retrieved 5 November 2008, http://www.jewishvirtuallibrary.org/jsource/biography/Bernadotte.html). Sakari Tuomioja of Finland also served the UN, first as a mediator in the Cyprus dispute of 1963 and then as the general secretary of the UN Economic Commission from 1957 to 1960 (Hall, 1967, p. 206). During that time, the Nordic countries proved themselves no longer parochial, but rather an example of fine citizens and nations for the rest of the world. "In the North the rest of the world can see on a small scale many of the things it seeks for itself: order and education, social democracy and a simple way of life" (Hall, 1967, p. 205).

Internationalism for the Nordic countries comes on two levels: both in the context of the whole world and within the framework of Nordic cooperation. The five countries in the Nordic Council consider each other when constructing foreign policy (Hall, 1967, p. 207). The countries do not necessarily adopt identical policies, but the other Nordic partners tend to better understand the differences in outlook when approached with the policies in advance (ibid.). The Nordic Council also reinforces the opinions of the Nordic countries, since each country has a small population, but collectively, the countries' opinions carry more weight. "The development of Nordic cooperation is one of the great

pragmatic successes of the post-war years, and has demonstrated the ability of the Northern countries to absorb the major political differences between them" (ibid.).

This relationship of cooperation among the Nordic countries provides an excellent example for their counterparts across the world. This cooperation, functional with a great degree of flexibility, shows an affinity between countries not evident elsewhere (Hall, 1967, p. 207, 208). The Nordic countries also manage to maintain their individuality while in this union. "They have many individual characteristics which they are anxious to retain; they have also many common characteristics which give them a basic similarity of outlook" (ibid., p. 208).

The Nordic countries all have a relatively similar degree of homogeneity and share a similar religion. All, with the exception of Finland, speak a similar language, but the Finns speak Swedish as a second language, and their Swedish-speaking minority has a Scandinavian language as a mother tongue. Finland has Swedish as an official language, which allows better cooperation with its Scandinavian counterparts (Hall, 1967, p. 208-209). All of the Nordic countries also share similar social backgrounds and small population size (ibid.).

Most significantly, all Nordic countries pursue the common ideal of the egalitarian society. This egalitarian goal does not push everyone downwards; rather, it levels everyone upwards:

> The North wants to be an educated middle-class society; it rejects the cheap and shoddy and does not deride such attributes as honesty, conscientiousness, good behavior, and good speech. These may not be universally achieved, but they are commonly accepted as constituting a desirable standard, and this makes the day-to-day operation of social democracy far easier and more relaxed (Hall, 1967, p. 209).

All Nordic countries have adopted similar social policies, aiming for a welfare state. Even though the countries have differing levels of welfare and benefits, all countries strive for a high quality of life (Hall, 1967, p. 209).

The Nordic Council confirmed Finland's ascent towards being a wealthy, independent nation. For the first few decades of independence, Finland struggled with internal disagreements and war, both within the country and through protecting itself from others. The Nordic Council "brings to a close the isolation of the past and stabilizes her position in Europe and the world" (Hall, 1967, p. 210). It brings great possibilities for social, economic, and cultural development for Finland, more so than Finland could have accomplished without this union (ibid.). How much Finland will change due to this cooperation remains a question. Isolation and resistance have heightened the tenacity of the Finns. They clearly differ from their Scandinavian counterparts: "The Finns are, as it were, half-brothers who bring a different genetic inheritance into an environment which is comparable, though modified by the duality of the marchland" (ibid.). Finland's former relationship with Sweden also adds another dimension to her membership in the Nordic Union:

> The centuries of subordinate relationship to Sweden have left the Finns with a still unsatisfied anxiety to prove that Finland can do as well as her more advanced and wealthy neighbor. Over the years, many Swedish developments have reached Finland, with a certain time-lag, and made a considerable contribution to the Finnish advance; but Finland sometimes risks overstraining her resources, or choosing less suitable policies, when emulating the Swedes (Hall, 1967, p. 210).

This statement by Hall reiterates a well-known statement regarding Finnish education, that Finland makes the same mistakes as Sweden, only ten years later (Välijärvi et al., 2002, p. 3). However, Finland's performance in PISA, as well as the results of this

present study, illustrates a new relationship that has emerged as a result of the success of Finnish education.

The Finns will most likely cling to their uniqueness that differentiates them from their Scandinavian counterparts. Their history will make sure of this for some time:

> As the North influences and is influenced by the rest of Europe, the Finns may acquire some of the superficial features of both Northern and Western standardization. Beneath the surface, out of an instinctive tenacious reaction, they are likely to cling all the more closely to the traditions, the background, the language and the land which have contributed so much to their individuality. The Finns have above all one of the most individual characteristics – they are among the few peoples of Western Europe who are still in love with the world. If they should lose this zest and optimism they would lose themselves and they would no longer be Finns (Hall, 1967, p. 211).

The Education System of Finland

In order to investigate the current success of Finland's education system, we must be familiar with its history and structure. Gilmour has stated, "To understand the Finnish people you must study their educational system" (1931, p. 63). Unfortunately, very little literature in English exists on Finnish education from that era. In 1898 Yrjö-Koskinen wrote about Finnish education at the request of Sir Michael Sadler (Whittaker, 1983, p. 31). In 1907, J.S. Thornton from His Majesty's Inspectorate also produced a document on Finnish education. "Both reports described a country, nominally a Grand Duchy of Czarist Russia, which had developed an educational autonomy not to be found in the Baltic States or in Poland" (ibid.). Many observers noted the excellence of Finnish education. In 1926, Fox wrote, "The educational system of Finland is excellent. There is practically no illiteracy, and every young citizen has a chance of obtaining a University education" (p. 129). Many also document the egalitarian nature of the education system.

"There is in Finland very little class distinction in education – at least in the beginning. Most children, both from poor and rich homes, will go to the same kind of school" (Bacon, 1970, p. 210). Furthermore, this excellence and equal access cover the entire span of Finnish education. "Primary school, secondary school, and University education flourish in Finland. The three Universities have yearly increasing numbers of students. The great extent of the international recognition of Finnish scholarship gives proof of the soundness of the country's educational system" (Fox, 1926, p. 132). Contributing to this enthusiasm for education, Finns greatly respect educated people: "There is in Finland a profound respect for an academic education and a profound desire to possess some form of degree" (Bacon, 1970, p. 210).

In order to understand the Finnish educational system, we need to examine the people, their culture, languages, society, and history. Conversely, in order to comprehend Finns, their culture, languages, society, and history, one must investigate their system of education. Therefore, "to be able to understand the young Finn, we must have some idea of the world he lives in. And since his world is largely school, the Finnish educational world is the best place to start" (Binham, 1968, p. 156). Similarly, in order to decipher the beginnings of organized education in Finland, we must look to the church and religion, as discussed at length previously in this chapter. The movement for education and literacy began with the reforms of Mikael Agricola in the sixteenth century. "As early as the seventeenth century the Church set itself the ambitious task of teaching the Finnish nation to read" (Louhivouri, 1968, p. 176). All those wishing to marry needed to have literacy skills (ibid.). Furthermore, in 1686 the Church also demanded that all should be able to "read and learn by heart a considerable number of religious texts. The

penalties for non-compliance were formidable" (Binham, 1968, p. 156). These penalties did not allow Finns to enjoy "civic rights" in addition to the right to marriage. Therefore, the church's influence on education, in addition to educational programs initiated by the state, allowed for high levels of literacy at an early date. "The first records are for the year 1880, when 97.6 per cent of all inhabitants over ten years old were literate" (Louhivouri, 1968, p. 176).

Nevertheless, the Finns did have to fight for their education. "Towards the end of the nineteenth century, the idea of extending folk education beyond religious teaching was first publicly expressed. Progress was hampered by the fact that the Russian tsars did not favor a high standard of folk education" (Binham, 1968, p. 156-157). In 1863, training began for teachers of non-church education in Jyväskylä, which still has a significant tradition of teacher training. In 1866 the Senate passed a law establishing folk schools. A universal School Attendance Act was passed after Finnish independence (ibid, p. 157). After independence, the country provided free education for everyone aged seven to sixteen. Furthermore, "a desire for education and knowledge is a natural part of this open, full-stretch society; an equally natural part is a democratic education system which has included neither boarding schools, exclusive or not, nor expensive day schools" (Hall, 1967, p. 65). As a result, state education has reached all populations through its egalitarian philosophy.

Although the growth of Finnish education followed a similar pattern to that of most industrialized countries, this development came later (Antikainen, 1990, p. 75). For example, compulsory education came later than in other Nordic countries, as well as other European countries. In fact, the Compulsory Education Act did not come into force

until 1921 (ibid.; Simola, 2005, p. 458). Nevertheless, those born in the early twentieth century, although only receiving a primary education, had enthusiasm and respect for education, and "their lifestories contain descriptions of how poverty or their father's decision prevented them from continuing at school" (ibid., p. 76). In other words, the educational situation for past generations formed the respect for education of future generations. We see this play a part in the education system today, as discussed in Chapters Four and Five.

In 1931, Gilmour made an observation of a school in the Helsinki area, the Kaisaniemen Kansakoulu. She documents that all children had medical examinations twice a year (1931, p. 63). She also mentions "the orderliness, the politeness, the independence, the thoroughness, the co-operative spirit, the initiative, the absence of self-consciousness" (ibid.). Furthermore, she writes, "The Finnish elementary school has grown up and developed much along the lines prescribed by Cygnaeus – from the lowest to the highest it seeks 'through labour to labours' to keep a close connection with practical life" (ibid., p. 64). Uno Cygnaeus, often considered the father of the Finnish primary school (Retrieved 15 August 2007, http://www.britannica.com/eb/article-9028391/Uno-Cygnaeus) remains an important figure in Finnish education to this day. Finland commissioned Cygnaeus in 1858 to draft a plan for the primary school. To do so, he traveled around Finland and studied the curricula in different schools. He even went to Sweden, Denmark, Germany, and Switzerland (Retrieved 15 August 2007, http://www.jyu.fi/tdk/museo/unoe.html). Cygnaeus's legacy lives on in Finnish schools, as he believed in crafts and handiwork as a tool for teaching. "Cygnaeus was an enthusiastic follower of Pestalozzi's principle that the object of the elementary school

was to develop harmoniously all the intellectual and physical powers, and the natural gifts and inclinations of the children" (Gilmour, 1931, p. 61).

Gilmour also remarks how the Finnish school provided a strong foundation for those who continued with study in addition to those would leave the education system sooner than some of their peers. "In the meantime those whose school years are limited find therein practical instruction in matters likely to be useful in after life and an imaginative education that leaves the door open for progress later on" (Gilmour, 1931, p. 64). Binham notices the strong medical care for the children, which falls under the remarkable welfare available to them through the schools. "Everything at the elementary school is free – free books, free meals, free medical and dental treatment, and for children living more than three miles from school (the rule rather than the exception in the more remote districts) free transport. Clothes and shoes are also provided for needy pupils" (Binham, 1968, p. 157). She also notes the practical application of the schools to Finnish life as well as the independent characteristic of Finnish schools, which benefits those who continue with their study and those who leave for the labor market.

In his account of Finnish schools, Bacon also detects this sense of practical and applied education:

> Most Finns will spend a considerable time on modern languages, though they may not learn any classical languages at all. They will study their native language, usually Finnish, first; secondly the other home language, Swedish (or Finnish if they are Swedish-speaking); and thirdly, at least one and probably two foreign languages (1970, p. 212).

For the Finns, their obscure and not widely spoken language compels them to learn many languages, as Bacon implies. "In a country like Finland, a knowledge of foreign languages is vital. Indeed, one of the most striking aspects of the Finnish secondary

school has been the amount of time it devotes to languages" (Binham, 1968, p. 158). Bacon also observes that the entire Finnish system, "though not as rigidly controlled centrally as in many countries, … is more centralized than in England" (ibid.). The Finnish education system, through a series of reforms, devolved and decentralized. Bacon also comments on the curiously small amount of time that Finnish children spend in school. "School begins earlier in Finland than it does in England; usually around eight o'clock. It may finish as early as two o'clock – in winter this is very desirable as it gives the children a chance of seeing the light" (ibid, p. 213). Even PISA notes that the Finns also spend very little time in the classroom compared to their counterparts in other countries.

The current Finnish education system, the object of so much current interest, actually has a straightforward structure. Finns hold education in "high esteem" and acknowledge "its significance for the development of society and the economy" (Herranen, 1995, p. 323). Traditionally, Finnish education aimed to "raise the general standard of education and to promote educational equality" (ibid.). The system consists of basic school, upper secondary school, and the university level. Finland also enjoys extensive preschool provision and day care. Since 2001, the Basic Education Act has administered the "provision of preschool education [which] is an obligation on the local authorities and a right for families" (Retrieved 19 October 2005, http://www.minedu.fi/minedu/education/general_education.html). In the 1860s, Uno Cygnaeus brought the concept of the kindergarten to Finland. In the 1970s, the government passed the Child Day-Care Act, which decreed that all day-care centers provide supervision by registered child-care providers (Nurmi, 1990, p. 27). The Finnish

Ministry of Education sees preschool as part of the early childhood education process and as assisting in the goal of equal educational opportunities for all. Currently, 96% of children partake in the preschool system. The curriculum is prescribed at the national level but carried out at the municipal level (Retrieved 19 October 2005, http://www.minedu.fi/minedu/education/general_education.html). In the 1990s, it became a goal for all six-year-olds to have the right to attend preschool education (Herranen, 1995, p. 325). Furthermore, a study in the 1970s initiated by the Ministry of Education and that for Social Affairs and Health allowed for a pre-class consisting of six-year-olds to begin the first year of comprehensive school, if seen relevant by the local council (Nurmi, 1990, p. 27). The transitional year for six-year-olds provides the strong foundation for high-quality education for the Finnish people (Sahlberg, 2007, p. 153). Today, six-year-olds have the right to free schooling, under the organization of the municipalities. School for six-year-olds takes place in either schools or day care centers. This way, students have preparation before basic education. All day care teachers have university training (Finnish National Board of Education, n.d., p. 15).

The 1970s brought reforms to the Finnish education system. Since the mid-nineteenth century, educational reform had been at the forefront of Finnish consciousness. This time in Finnish history, as previously mentioned, became a point of transition for many aspects of Finnish life. Many viewed the education system as biased towards the Swedish-speaking upper class, and not to the needs of Finnish people. "A system of compulsory folk schools began to develop between 1856 and 1866 alongside many private secondary schools, established both to break Church monopoly and to advance the progress of the Finnish-speaking majority" (Whittaker, 1983, p. 32). The

creation of these folk schools allowed those without a wealthy background or with Finnish as a mother tongue access to education. At the time of independence in 1917, "the country's system of education [was] seen as a tool for sustaining national identity, basic literacy, and essential political freedom" (ibid.). After World War II, Finland found schooling a bit disjointed owing to the class and language differences; it also had very little possibility of transfer between the tiers of education commenced at age eleven. The post-War system started at seven and had an examination at the age of eleven. Those successful in the examination continued at secondary school. Students could leave school at the earliest at 15 years of age. Those who did not enter secondary school could study more practical subjects, such as forestry (Binham, 1968, p. 157). The government committees proposed to make schools comprehensive and egalitarian, to make general and vocational subjects interrelated, and to standardize schools even in outlying areas. These reforms faced heavy resistance. Opponents to the reforms argued that it was impossible to educate the entire population (ibid, p. 159). The government proposed that these reforms take place in a "rolling" manner, between 1970 and 1985 (Whittaker, 1983, p. 32-33). Geography determined the first areas to see reform, as examples of "inadequate education" made way for the new comprehensive system, beginning in the North in 1972 and ending in the Helsinki area in 1977 (ibid., p. 34; Antikainen, 1990, p. 77).

Originally, the education system of Finland was under centralized control. However, in the 1960s a restructuring occurred and the Ministry of Education established a new local education administration. Interestingly, the Finnish ministry found useful models in Sweden and Germany. In the 1980s, the education system undertook a market

economy model and underwent decentralization (Antikainen, 1990, p. 76-77). Some would see this trend in Finnish education as the influence of a social democracy. This "refers to a general tendency towards equality, in which education is viewed as an agent of social change" (ibid., p. 77). Furthermore, many viewed education as a vehicle for economic growth. The role of education, therefore, had evolved and became more involved with politics and economics (ibid.).

The decentralization of the education system increased the autonomy of schools, and therefore accountability for schools and teachers. The schools have the responsibility of producing learning outcomes, while the government has the responsibility of providing for the schools in order to meet their goals, therefore creating a cycle of trust in the governance of Finnish education (Sahlberg, 2007, p. 155).

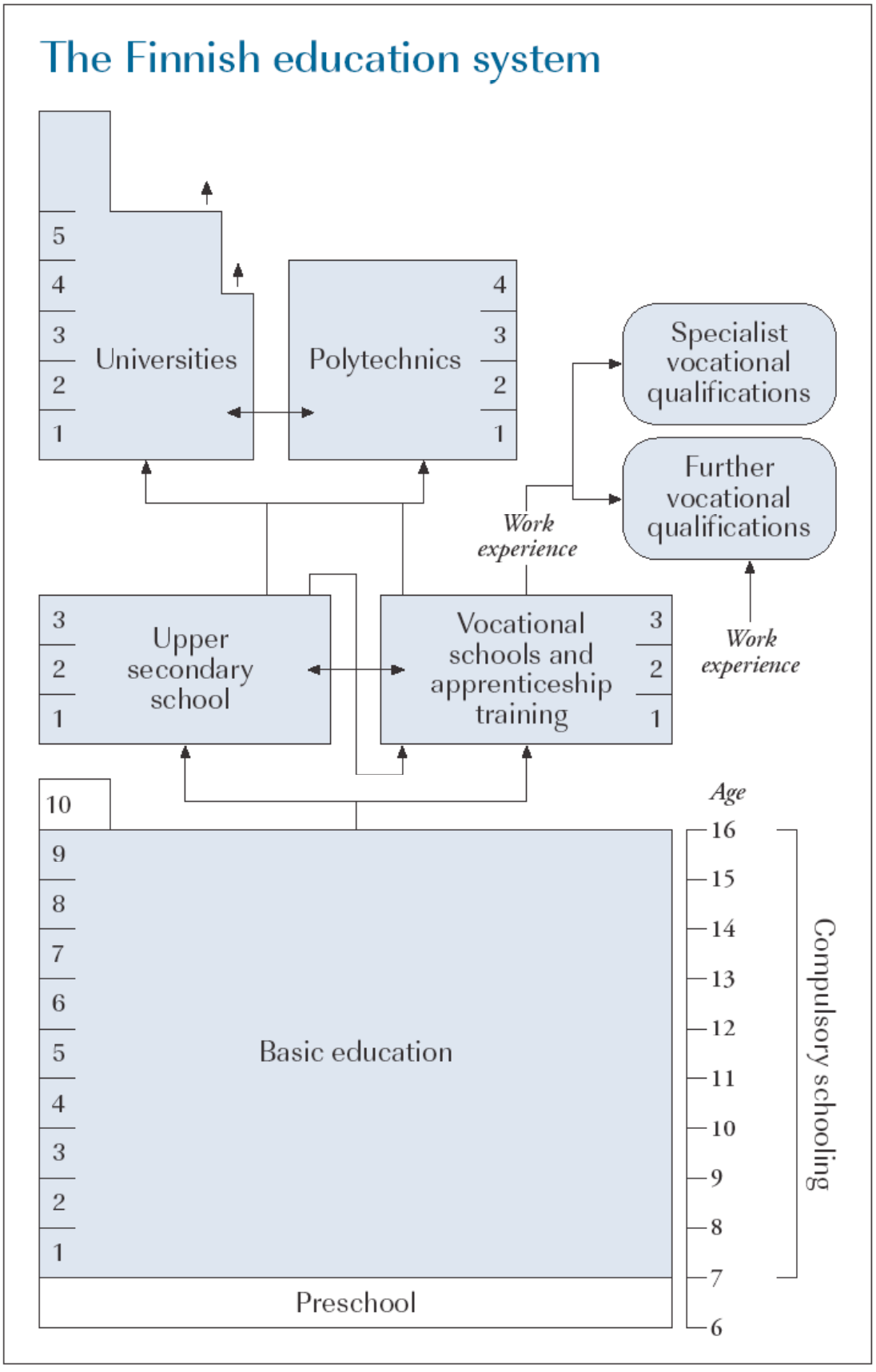

The Finnish education system
5
4
3
2
1
Universities
Polytechnics
4
3
2
1
Specialist vocational qualifications
Further vocational qualifications
Work experience
Work experience
3
2
1
Upper secondary school
Vocational schools and apprenticeship training
3
2
1
10
9
8
7
6
5
4
3
2
1
Basic education
Preschool
Age
16
15
14
13
12
11
10
9
8
7
6
Compulsory schooling

Figure from (Välijärvi, Linnakylä, Kupari, Renikainen, Arffman; 2000, p. 55)

Finland's education system enjoys political consensus on the major issues by its political parties. Seven key policies encapsulate the main issues under agreement:

1) Depth: The importance of knowledge and learning
2) Length: Long-term educational goals, rather than short-term gains
3) Breadth: The responsibility of education falls at all levels of government
4) Justice: Equity of quality and access of education
5) Diversity: Strong principles of inclusive education and heterogeneous classrooms
6) Resourcefulness: Trusting that creativity and competency override "routine experience"
7) Conservation: Balancing proven, efficient education methods with new innovations (Sahlberg, 2007, p. 166-167).

In the Finnish constitution, educational rights come under section 16. Children have rights to education free of charge. Under this decree, public authorities must guarantee equal opportunities for education, despite special needs, for all students no matter their economic background. The Basic Education Act, effective from 1 January 1999, states: "Education shall be provided according to the student's age and capabilities and so as to promote all students' healthy growth and development" (Finnish National Board of Education, n.d., p. 7). This Act, purposely simple, functions as a starting point for education and takes differences into account (ibid.). The Basic Education Act also maps out the minimum and maximum time spent in school for students. For example, Finnish students in compulsory school have 190 days of school, from four to seven hours of school per day (ibid.). The Basic Education Act also encourages integrative, interdisciplinary themes in education and encourages good basic competencies (ibid.). The organization of teaching and learning in Finland comes from four areas: first, the Basic Education Act and Decree, as already discussed; the government's decree, which

gives more detailed goals of education; the National Core Curriculum, and the municipal and school curricula, the implementation of the national curriculum according to local needs (ibid.). Expenditure in education comes at about 10 Billion Euros per year. Within this expediture, Finland spent the following percentage of the budget in each educational sector in 2005:

- Pre-primary (six year olds) – 2.9%
- Basic education – 36.5%
- Upper secondary general education – 6.4%
- Vocational education and training – 14.7%
- Higher Education: Polytechnics – 7.8%
- Higher education: Universities – 17.9%
- Other education – 3.9%
- Administration – 2%
- Financial aid – 7.8% (Lankinen, conference proceedings, 31 March 2008).

Today, the basic or compulsory school covers nine years and begins at the age of seven. Some 99.7% of students complete basic school in Finland, which gives it one of the lowest dropout rates in the world (Retrieved 6 November 2008, http://www.minedu.fi/OPM/Koulutus/yleissivistaevae_koulutus/?lang=en). In the 2006-2007 school year, the entire country had 350 school dropouts (Lampola, Halinen, Koivula, Toom & Airaskorpi, conference proceedings, 1 April 2008). The government finances the education, but the municipalities control the spending of the money for their local schools (Retrieved 19 October 2005, http://www.minedu.fi/minedu/education/general_education.html). Local authorities assign a place in a school for each student, close to their homes. However, the students have school choice and can apply for a place at another school. Basic education remains the responsibility of the municipalities (Retrieved 6 November 2008, http://www.minedu.fi/OPM/Koulutus/koulutusjaerjestelmae/koulutuksen_hallinto_ja_pae

aetoeksenteko/?lang=en). The system has full, public financing (Sahlberg, 2007, p. 153). The current system of education comes from the reforms in the 1970s. The reforms combined the Finnish equivalent of primary school, secondary modern school, and middle school into this nine-year compulsory school (Nurmi, 1990, p. 28). Compulsory school breaks down into two sections, the lower stage and the upper stage. The lower stage lasts six years and the upper three (ibid.). In the first six years of compulsory school, the students have classroom teachers, and in the last three years, they have subject teachers. In the upper stage, children have both mandatory and optional subjects (Nurmi, 1990, p. 28). The curriculum in the current system came from a combination and an adaptation of the former primary and middle schools (ibid., p. 29).

The National Core Curriculum, created by the Finnish National Board of Education, provides teachers with a plan of educational objectives as well as assessment criteria. Although the Board of Education lays down the guidelines, the municipalities and schools place the curriculum into the local context, and the teachers hold the responsibility of carrying out the national curriculum as they see fit (Retrieved 6 November 2008, http://www.oph.fi/english/page.asp?path=447,4699,4847). In 1970, Finland introduced the first national curriculum, with strong centralization (Retrieved 6 November 2008, www.oph.fi/info/pisahelsinki2/lectures/Irmeli%20Halinen.ppt). The curriculum has undergone three reforms since its inception, in 1985, 1994, and 2004. In 1985, the National Curriculum became the National Core Curriculum, with increasing emphasis on a municipally based syllabus. The reforms also abolished ability grouping and increased eligibility to studies after compulsory education (ibid.). In 1994, the reforms delegated power further to the municipalities and schools. Furthermore, the

changes abolished school inspections, encouraged cooperative learning, and created a "thinner" core curriculum (ibid.). The 2004 reforms reversed the curricular reforms and strengthened the core curriculum. It also re-distributed the lesson hours, emphasizing goals instead of content (ibid.). The reforms in general have strengthened the roles of local authorities and schools, and stress the relevance of local and school-specific curricula. They have also increased the role of student welfare and special education, in addition to individualized student learning. They have stressed the importance of cooperation between home and school (ibid.). Although the reforms of 2004 to the National Core Curriculum have increased the control of the local authority over the curriculum, the latest reform has applied more regulations to the National Curriculum, for the Board of Education felt it needed to provide more guidance (ibid.).

Although schools in Finland vary in size, most primary schools have fewer than 300 students. In order to illustrate the range in size, over one-third of comprehensive schools have fewer than fifty students, while 4% of schools have 500 students or more (Sahlberg, 2007, p. 153). Schools today still follow the values of equity and provide free hot lunches, free health care, free transportation for students living far from school, and free counseling (ibid., p. 154).

Finnish schools also provide extensive special needs education. The schools provide special support for students with difficulties, disorders, and disadvantages (Retrieved 6 November 2008, www.oph.fi/info/finlandinpisastudies/conference2005/koivula.ppt). All students have the right to the same educational objectives and possibilities; therefore, students with various difficulties have the right to individual support. The extent of this support depends on the

extent of the difficulties (ibid.). The Basic Education Act defines students with special educational needs as those affected by illness, disability, or reduced functional ability, those who need more mental or social support, or the students who have risk factors in their development that affect their learning (ibid.). The special education philosophy in Finnish schools aims first to include the students within the mainstream classroom, in order to best provide them with the same educational opportunities as their peers. The second option will provide special education in a separate class, group, or school (ibid.). In 2006, 7.7% of Finnish students received special education, while in 1998, 3.8% of students obtained more attention in schools (ibid.). The Board of Education attributes this to better diagnosis, as with disabilities such as dyslexia. Boys most often attend special education classes due to behavioral problems, while girls receive more instruction in mathematics (ibid.). Students receive part-time special education when they exhibit slight difficulties in learning or when they need support in some areas to overcome learning difficulties. 21.9% of students receive some sort of part-time special needs education (ibid.).

Assessment in Finnish schools comes strictly from their teachers. The decentralized nature of Finnish schools allows for this. Primary schools do not use testing in order to concentrate on teaching, which allows for flexibility in curriculum design for teachers (Sahlberg, 2007, p. 156). After fifth grade, the law prohibits numerical grading in order to prevent student competition (ibid., p. 155). This lack of testing may relate to Finnish success in PISA. The Finnish National PISA Report cited that 7% of Finnish students felt anxiety when working on mathematics at home, compared to 52% of Japanese students and 53% of French students (ibid., p. 156). Each

student receives a report once a year, and teachers may administer an additional report halfway through the year (Finnish National Board of Education, n.d., p. 8). At the end of compulsory school, students receive a certificate of completion (ibid.).

After compulsory school, the students can choose between upper-secondary school and vocational school. Students may choose an optional tenth year of compulsory school, if they feel they need more time in compulsory school to improve grades or better select post-compulsory school options (Retrieved 6 November 2008, www.oph.fi/info/pisahelsinki2/lectures/Irmeli%20Halinen.ppt). Approximately half of the continuing students choose upper-secondary school and half choose vocational education. Students applying to upper-secondary school fill out an *yhteiskaku*, an application based on their marks from school, which also lists their preferences for upper-secondary school (Retrieved 6 November 2008, wsc.turkuai.fi/modvoc/documents/research/VET_in_Finland_14.9.2007.pps). Numbers in both sectors of upper-secondary education have increased in the past few decades. As previously stated, 97% of students completing compulsory education continue on to upper-secondary school. Students completing the vocational track of upper-secondary education sometimes enter the academic track after the completion of their course (Nurmi, 1990, p. 30). In both sectors, students have both mandatory and elective subjects (ibid.). In general upper-secondary school, students have compulsory courses and choose at least 10 advanced courses in the three-year duration of school (Retrieved 6 November 2008, http://www.oph.fi/english/pageLast.asp?path=447,4699,4840,4845). Much like compulsory school, local authorities have responsibility for general upper-secondary schools (ibid.). A matriculation examination takes place after the completion of upper-

secondary general education. The National Curriculum provides the basis for the examination, which has a minimum of four tests: the compulsory mother tongue examination, plus three assessments chosen from the second national language, mathematics, foreign language, and general studies (ibid.). The matriculation certificate at the end of upper-secondary school gives eligibility to enter tertiary education. (Retrieved 19 October 2005, http://www.minedu.fi/minedu/education/general_education.html).

Those who continue on to upper-secondary education also may enter the vocational sector of upper-secondary education. Students who choose the vocational track learn in a school environment, but do have some work-based learning as well (Retrieved 6 November 2008, http://www.oph.fi/english/pageLast.asp?path=447,4699,4840,4843). The apprenticeship schemes in vocational schools have expanded recently, and approximately ten percent of the vocational course takes place in an appenticeship environment (ibid.). Institutions carrying out vocational education receive a license from the Ministry of Education, but municipalities and companies carry out the education itself (ibid.). In initial vocational education, students can receive 53 qualifications out of 116 study programs (ibid.). The qualifications come under seven sectors of vocational study:

1) Natural sciences
2) Technology and transport
3) Social sciences, business and administration
4) Tourism, catering, and home economics
5) Health and social services
6) Culture
7) Leisure and physical education
8) Humanities and teaching (Retrieved 6 November 2008, http://www.oph.fi/english/pageLast.asp?path=447,4699,4840,4843).

Vocational education and training in Finland believes in giving students knowledge and skills necessary for vocational competence and employment, in addition to knowledge and skills needed for further studies and lifelong learning (ibid.). Therefore, students in the vocational sector have one third of their curriculum filled by general studies (ibid.). Currently, a movement has been gaining momentum where students gain qualifications in both the academic upper-secondary school and the vocational sector of upper-secondary education (Lankinen, conference proceedings, 31 March 2008). For example, ten percent of students in the vocational education stream take classes in the general upper-secondary school, and eight percent take the matriculation exam (Retrieved 6 November 2008, wsc.turkuai.fi/modvoc/documents/research/VET_in_Finland_14.9.2007.pps). Furthermore, five percent of university students come from vocational upper-secondary school (ibid.).

Finnish schools self-evaluate; in other words, they have no school inspectorate (Finnish National Board of Education, n.d., p. 5). The government entrusts the schools, the providers of education, to carry out the National Curriculum and to evaluate and monitor their own quality (ibid.). This school self-evaluation occurs every three years (Lampola et al., conference proceedings, 1 April 2008). It consists of surveys with parents, personnel, and students, in addition to teacher meetings over different issues within the school (ibid.). This ethos of self-evaluation comes from a similar philosophy within the teacher training programs. School evaluation in Helsinki takes into account these factors: school achievement compared to national samples, parental opinions, health reviews, curriculum evaluations, and evaluating the annual plan (ibid.). Schools start the academic year with an annual plan, and use these self-evaluations to ascertain if

they have achieved their goals (ibid.). The ethos of self-evaluation implies a culture of trust within schools, and therefore eliminates the need for inspectorates and league tables. The Evaluation Council for Education and Training works with the Ministry of Education to aid the self-evaluation of schools (Finnish National Board of Education, n.d., p. 5).

At the tertiary level, students can attend a university or a polytechnic. Polytechnics focus on a more practical training of professionals for their careers. Currently, Finland has twenty-nine polytechnics, most having good connections to business and industry. Finland developed polytechnics in order to have a more practical focus in its tertiary education sector (Retrieved 7 November 2005, http://www.minedu.fi/minedu/education/general_education.html). Finland's first university was founded in 1640 in the city of Turku. When the capital moved to Helsinki in the early 19th century, the university moved as well. However, not until Finland gained independence did more universities emerge (Nurmi, 1990, p. 31). Today, the university network includes nearly every subject and enjoys geographical distribution all around Finland (Retrieved 7 November 2005, http://www.minedu.fi/minedu/education/general_education.html). The state administers the universities, but they have widespread autonomy. Polytechnics at the higher education level come under municipal or private administration (Retrieved 6 November 2008, http://www.minedu.fi/OPM/Koulutus/ammattikorkeakoulutus/hallinto_ohjaus_ja_rahoitus/?lang=en). Students enter university through entrance exams. The polytechnics differ from universities as they have a more practical focus. For example, doctors receive their education through universities, while nurses do so through polytechnics. Engineers can

take either path, and are referred to as either *insenööri* or *diplomi-insenööri* in Finnish indicating whether they have studied at polytechnic or university, respectively (Retrieved 6 November 2008, wsc.turkuai.fi/modvoc/documents/research/VET_in_Finland_14.9.2007.pps).

Participation in the Finnish education system has increased dramatically in recent years. In 1960 only 8% of adults had an upper-secondary qualification, and only 4% had a tertiary education degree. In 2005, nearly 50% of adults had finished upper-secondary education, and 25% of adults had had a tertiary education (Sahlberg, 2007, p. 158). Nearly 70% of today's younger generation aims at tertiary education, while approximately 70% of their grandparents held an elementary school certificate (Simola, 2005, p. 458).

The 1990s held reforms for the Finnish education system. The upgrading of polytechnics to the higher education level was one of the biggest changes in Finnish education of the 1990s. Polytehnics also gained the ability to grant master's degrees, undertaken after three years of work experience by the candidate (Retrieved 6 November 2008, http://www.minedu.fi/OPM/Koulutus/ammattikorkeakoulutus/opiskelu_ja_tutkinnot/?lang=en). The Finnish National Board of Education considers the year 1994 as marking a paradigm change in Finnish education. In this year, the National Core Curriculum underwent the aforementioned reforms, which strengthened the role of the municipality (Lankinen, conference proceedings, 31 March 2008). This "revolution" in Finnish education also marked the end of school inspections and inspections of school material (ibid.). Along with delegating the responsibility locally, the "thinned" national

curriculum entrusted the municipalities, schools, and teachers with implementing the curriculum within their schools (ibid.). In fact, the "thin" curriculum of 1994 only had approximately two pages of goals and content per grade level and study area (Lampola et al., conference proceedings, 1 April 2008). The reforms also stressed cooperative learning (ibid.). The 1990s also gave birth to LUMA. The LU in LUMA stands for *luonnontieteet*, or natural science, and the MA stands for *matematiikkaa*, or mathematics (Retrieved 12 June 2008, http://www.helsinki.fi/luma/english/). LUMA began in 1996 as an attempt to improve skills in science and mathematics (Retrieved 11 June 2008, http://www.oph.fi/english/pageLast.asp?path=447;65535;77331;77333;77340). Jointly supported by the general school and vocational school tracks, LUMA attempted to raise interest in science and mathematics as well as achievement in those areas, especially among girls (ibid.). The Ministry of Education, National Board of Education, universities with teacher training courses, municipalities and schools all had stakes in the project (ibid.). The reforms of the 1990s illustrate the ongoing efforts of Finland to continuously improve the education system.

The *Saame*, (Sami) the indigenous people of Lapland, have constitutional rights to cultural autonomy (Finnish National Board of Education, n.d., p. 3). They have their own parliament that does command educational influence (Lankinen, conference proceedings, 31 March 2008). For the municipalities located in the Sami areas, pupils learning the Sami language must have the provision of primary education in the language, if wanted by their parents (Finnish National Board of Education, 2001, p. 4). Education in the Sami language, therefore, does exist in the Sami-speaking areas of Lapland (Finnish National Board of Education, n.d., p. 3).

Education for Swedish-speaking Finns

Swedish-speaking Finns, called *finlandssvenskar* in Swedish, or *suomenruotsalaiset* in Finnish, hold a unique place in Finnish society. The Swede-Finns, constitute a "declining cultural, economic, and social elite [which] has sought to maintain ethnic identity boundaries through control of a separate Swedish-speaking school system and widespread non-formal educational efforts" (Paulston, 1977, p. 181). Separate schooling, Paulston argues, allowed the Swede-Finns to maintain the survival of their minority group (ibid., p. 182). Although a minority, Swedish-speaking Finns had an atypical role compared to other ethnic minorities. They constituted "a high percentage of Finland's economic and social elite … with … superior resources, historical dominance, and psychological advantage" (ibid.).

In response to the Finnish nationalist movement in the mid-nineteenth century, the Swedish-speakers started their own counter movement, but only in the interests of the upper classes. The common Swedish-speakers did not have a part in this movement (Paulson, 1977, p. 183). Many viewed the Finnish language as the language of peasants and felt superior to Finnish speakers (ibid.). In 1906, Swede-Finns founded the Swedish People's Party in order to unite the entire Swedish-speaking population in Finland, irrespective of social class. This uniting of Swede-Finns supports their view that Finland, much like Switzerland or Belgium, has a culturally and linguistically pluralistic society, and "that both nationalities in Finland have existed side by side since the beginning of Finland's history. Both have contributed to its development" (ibid.).

With Finnish independence came official bilingualism, and with this legal status, the Swedish-speaking Finns "aggressively pursued a policy of separatism and cultural

autonomy" (Paulson, 1977, p. 183). Along with this legal bilingualism and separatism came separate Swedish-speaking schools. The Constitution of Finland clearly declares the rights of education in the Swedish language. In Section 17, the Constitution confirms the two national languages of Finland, Finnish and Swedish. The Section also asserts the right to use the mother tongue in official capacities, such as in courts of law and government documents. It also affirms the provision for cultural and societal necessities, on an equal basis, in the mother tongue (Finnish National Board of Education, n.d., p. 3). In 1920, with the founding of the Swedish Department in the Central Bureau of Schools, both Swedish schools and Finnish schools held, legally, an equal position (Paulson, 1977, p. 184). This advantageous minority position does not find a parallel with the Finnish-speaking minority in Sweden. The Swedes have the vision of assimilating and integrating the Finnish minority into Swedish society (ibid.).

During the 1920s and 1930s, Finnish-speaking university students battled for the "Finnification" of the University of Helsinki (Paulson, 1977, p. 184). The prevalence of Swedish-speaking professors and Swedish as the language of instruction placed a great onus on the Finnish-speaking students (ibid.). Furthermore, the large number of Swedish schools and the "disproportionately large size of the Swedish-speaking educated class" encouraged "an overproduction of Swedish-speaking university students in comparison to the total Swede-Finn population" (ibid.). Nevertheless, today's University of Helsinki still does have a quota for Swedish-speaking students and professors, and Åbo Akademi in Turku caters only to Swedish-speakers (ibid.).

The original dominance of the Swedish-speaking population's needs is clear. Economically and intellectually, the Swede-Finns held great power in Finland. "The

penetration of ethnic or nationality sentiments into the field of economic and financial activities … that have successfully provided the funds necessary to support … educational work in popular education, folk high schools, cultural activities, and in the media" illustrates this power held by the Swedish-speakers in Finland, and in so many realms (Paulston, 1977, p. 186). Efforts for separate education secured a mutual acknowledgement that the Swede-Finns were different from Finns. Nordenskiöld cites that between 1880 and 1881, Swedish-speaking students numbered 1,764 while the total of Finnish-speaking students came to only 786. In 1908-1909, however, the Swede-Finn numbers remained nearly constant at 1,771 while Finnish students grew to 4,756 (1919, p. 375).

More recently, the "resettlement of Finnish refugees and post-War reconstruction, along with increased economic power and [the] legitimacy of Finnish nationalism, has meant increased intermarriage and the rejection of Swedish culture for a national identity by a relatively small but growing number of young Swede-Finns" (Paulston, 1977, p. 186). In other words, the events unfolding after World War II lessened the stronghold of Swede-Finn identity and allowed for mixing of the two language groups. Although the number of Swedish-speakers has remained consistent over the years, their percentage of the overall Finnish population has decreased. Language shifting has become more common, as the Finnish language gained recognition in Finnish society, and became the language of the labor market. Intermarriage also influences this trend. Swedish-speakers also emigrate to Sweden, further decreasing their percentage in the Finnish population. As recently as 1919, people still believed that "Finland is permeated with Swedish culture. The majority of the leading men still have Swedish as their native tongue."

However, "the Finnish element is coming more and more to the front…" (Nordenskiöld, 1919, p. 376). Less than 60 years later, in 1977, Paulston could say "the Swede-Finns continue to surpass national educational norms, and especially those SF [Swedish-speaking] youth who live in towns and regional urban centres… The continuing high priority of urban Swede-Finns on formal schooling is apparent" (p. 184). Upon investigation of current PISA results, we must wonder if this ethnic superiority still exists.

Teacher Training

The teacher training programs of Finland reflect the high status of teachers and the professional reputation of the teaching profession. Kivinen and Rinne cite how various occupations professionalized themselves, so to speak, by "squeezing themselves inside the definition of the professions and evolving their own professional ideology" (1994, p. 516). In Scandinavia teaching has an element of professional competition, as those unqualified for teaching become excluded from the job market. The trend towards professionalism and the movement towards university training also affected teacher training in Finland. The "academic drift" of teaching and other professions to the university level provides examples of this new trend of "neo-academic higher education curricula" (Kivinen & Rinne, 1994, p. 518). In both Sweden and Finland, the movement of teacher training to the university level coincided with the reforms of the comprehensive school, showing some consistency between the two countries (ibid).

We can see the history of Finnish teacher training in three phases. First came the "quasi-monastic" training, "being groomed to civilize the ignorant masses of an agrarian

society" (Kivinen & Rinne, 1994, p. 518). The second phase saw teacher training moved to seminaries, and the third, and current phase, is that of university teacher training.

Under Russian rule, there existed a movement to nationalize education and teacher training. A Finnish-speaking teaching seminary opened in 1863, while a Swedish-speaking institution opened in the 1870s. The development of a basic national school increased the need for more structured teacher training. Although Finland made basic education compulsory in 1922, it was the last of the Nordic countries to do so, and the country did not implement compulsory education fully until World War II, when children even in the most remote districts enrolled in school (Kivinen & Rinne, 1994, p. 519).

Despite the enviable position that Finnish teachers enjoy today, the ascent to this place in society took a great deal of effort. This feat of endurance included a resistance from the land-owning peasant class to having schools within their municipalities until the early twentieth century, when, at that comparatively late time, nearly every municipality had a school (Simola, 2005, p. 460). Unfortunately the bitter Civil War in 1918 divided the country and, eventually, its view of teachers and education. The loyalty of some teachers to one side or the other left a feeling of bitterness and lack of trust. The Civil War led some to believe that only missionary-style teaching could save the immoral masses, some to stop believing in a universal society, and the elite to no longer believe in education for all (ibid.). Not until after World War II did the country begin to re-unify in its view of teaching and education, as teachers and "ordinary people" once again became worthy of trust. Finnish teachers have been on the conservative side of the political spectrum, unlike their colleagues in other countries (ibid.).

Finnish independence in 1917 further emphasized the need for a united teacher training system. In 1934, the Jyväskylä College of Education trained teachers after completion of secondary education. Even at this early time, teaching and teacher training held great respect in Finland. "It has been a very characteristic feature of Finnish teacher education that it has leaned on the legitimacy of the educational sciences… Teacher training thus in fact eventually legitimated its gradually growing status by leaning on the established academic status of educational research" (Kivinen & Rinne, 1994, p. 519).

The reforms of teacher education in Finland illustrate the educational change so closely interwoven with politics, the economy, and society, and the reassessment and reconstruction the Finnish government underwent in the twentieth century (Begrem, Björkvist, Hansén, Carlgren, & Hauge, 1997, p. 434). Post World War II forced Finland, along with many other countries, to reconsider the role of education in social and economic development. Putting education under a microscope revealed the inadequacies of the education system, triggering the reforms that followed (ibid.).

Despite the founding of post-secondary school teacher training institutions, many of the teaching seminaries continued to exist. In 1968, however, a committee determined that all teacher training courses require an upper-secondary school qualification and that they would consist of a four-year course of study, culminating in a master's degree in education. Therefore, all teacher training would take place within the universities (Kivinen & Rinne, 1994, p. 521).

In 1971, the Teacher Training Act moved all teacher training to the university level. These teacher training reforms mirror the school reforms of the 1970s. Seven universities at that time had teacher training departments, one of them Swedish-speaking.

These programs all led to a master's degree in education, the formal training for all teachers in Finland, including the primary school level. Primary school teacher training, originally a three-year program at teacher training colleges, expanded to four-year, and finally five-year programs in universities in the late 1970s (Sahlberg, 2007, p. 153). The reforms to prepare teachers as professionals and researchers create the foundation of the teacher training reforms (ibid.). "The interaction between teaching and research, it was hoped, would lead to an improved level of scholarship among the teachers" (Kivinen & Rinne, 1994, p. 522). The attention to teacher training within the general educational reforms illustrated the objective of professionalizing and "academizing" teacher training (Begrem et al., 1997, p. 434). It also closed the gap between educational science and teacher education (ibid., p. 435). Finnish teachers, even those not currently engaged in any educational research, thus maintain a strong knowledge of educational theory (ibid., p. 436). In 1982, only 10% of applicants found themselves selected for a teacher training program, implying good quality of teacher training and popularity of the profession (Whittaker, 1983, p. 35).

This process further cemented respect for teachers in Finland. "The long march of teachers from despised and underprivileged civil servants to the core of the academic elite has been more glorious and successful in Finnish society than in most other countries in the world" (Kivinen & Rinne, 1994, p. 521). The march of primary school teachers illustrates this fact. Even as far back as 1890, primary school teachers wanted their training within universities, and not in seminaries (Simola, 2005, p. 460). Before World War II, more primary school teachers had an upper-secondary education than their colleagues in any other country (ibid.). After the founding of the Jyväskylä College of

Education in 1934, more universities developed faculties of education, eventually including the training of primary school teachers, and raised the level of their training within the educational hierarchy (ibid.). In the 1950s, the teachers' union insisted that primary school teachers have training at the same level as grammar school teachers, within a university (ibid.). The educational reforms of the 1970s finally fully supported the training of primary school teachers at the university level. The aforementioned comprehensive school reforms (1972-1977) and the teacher education reforms (1973-1979) had a sister reform, the General Syllabus and Degree Reform in Higher Education (1977-1980), which abolished the bachelor's degree and subsequently raised the level of primary school teacher education to the master's level in 1979 (ibid., p. 461). The educational reforms of the 1970s, which included teacher education reforms, finally ended the rift begun in the early twentieth century. The "teachers' middle class war" culminated in a "triumph for popular schooling" (ibid.).

The teacher education reforms seem to have reached the overarching aim of improving the quality of teachers and their status within society (Begrem et al., 1997, p. 434). This enviable position in Finnish society reaps great benefits for the education system. The respect and high status of teachers come from people of all types of socio-economic backgrounds as well (Simola, 2005, p. 458). "Today the success of the professionalization strategy can also be seen in the comparatively high status of teachers, and in the huge numbers of undergraduates wanting to launch their career as teachers" (Begrem et al., 1997, p. 434).

Along with high status of teachers come respect and satisfaction from the consumers, the parents. A 1995 survey showed that 86% of parents had high satisfaction

with teaching (Simola, 2005, p. 458). For the most part, Finnish parents supported principles of equity (ibid., p. 459).

Teaching, with its respect, appreciation, and high status, also enjoys popularity. A 2004 poll of upper-secondary school graduates cited 26% of students naming teaching as the most sought-after profession (Sahlberg, 2007, p. 154). Even though, as in most countries, teacher shortages prevail, especially in mathematics and science, teaching still remains the most popular profession and overtakes such careers as medicine, law, engineering, and journalism (Simola, 2005, p. 459). The popularity of teaching, according to Sahlberg, comes from the requirement of a master's degree. The degree benefits both schools and the broader society. A qualified teacher can gain employment not only in schools but also in occupations within both the public and private sector. A teaching degree also allows entrance to other postgraduate degrees, which explains an increase in PhDs among both teachers and head teachers (Sahlberg, 2007, p. 154). Master's degrees also indicate the depth, breadth, and general high quality of teacher training, in addition to reinforcing trust on the part of society and parents (ibid., p. 154-155).

The professionalizing of teacher education and teaching in general stems from both the shift of teacher training to a more academic subject within universities, and the educational reforms that decentralized decision-making for schools (Begrem et al., 1997, p. 437). Professional teachers:

1) Perceive personal enrichment as a professional asset
2) Appreciate cooperation and interaction with students and colleagues
3) Realize their responsibility and value their autonomy
4) Dedicate themselves to their work (ibid.).

The decentralization and devolution of school control also add to the increased responsibility of teachers. The current Finnish school curricula "reflect a clear transition to decentralized educational decision-making, being much less prescriptive than the previous curricula" (ibid.). They allow teachers freedom and autonomy, and a culture of trust within Finnish society for the teaching profession. This trust among the Finns includes politicians and economists, something rare in other countries (Simola, 2005, p. 459). Recent periodical publications in Finland have indicated this unanimous support for education and its equitable distribution among all students within the country (ibid.).

Teachers today, despite their long road to high status and becoming an academic elite, perceive themselves as members of the upper-middle class (Simola, 2005, p. 461). Their aforementioned conservatism still seems to exist today. The teachers in comprehensive schools "appear to be pedagogically conservative and somewhat reserved or remote in their relations with pupils and their families" (ibid.). A 1996 report from a visiting group from England found the Finnish schools surprisingly conservative and traditional, with the teacher in the front of the classroom teaching to the entire group of students. The visitors from England rarely observed individualized or student-centered learning. They did, however, notice a great amount of consistency between the schools (ibid., p. 462). A Finnish head teacher remarked how Finnish teachers did not want to give up their traditional forms of teaching if they did not have to (ibid.). Finnish teachers, however, show a strong commitment to their work and good work satisfaction (ibid.).

Currently, twelve universities have teacher training courses in Finland. Moving all teacher training to the university level shows the unification within the teacher

training programs, no matter what the level or discipline (Begrem et al., 1997, p. 435). The country has more professors of education than the rest of the Scandinavian countries combined (Kivinen & Rinne, 1994, p. 522-523). Does the system produce better teachers? The former Director General of the Ministry of Education, Jaakko Numminen, believed that the promotion of teacher training to the university level, on the whole, failed, as "a university training offers no better guarantee of good teaching than that provided by the old seminaries or even the crash training programmes" (ibid., p. 523). Even so, Finnish teachers enjoy high status in society. Today, as we have seen, teacher training courses still accept approximately only 10% of approximately 5,000 applicants each year (ibid., p. 524; Sahlberg, 2007, p. 154).

Today, all teachers within the Finnish education system, despite the level, have a tertiary degree education. Teachers for pre-primary school have either a bachelor's degree from a university or a polytechnic (Finnish National Board of Education, n.d., p. 15). Teachers in vocational education need to have a higher or postgraduate degree within their specific subject, either from a university or a polytechnic. If a higher degree does not exist within the field, they must have the highest possible qualification within that discipline. In addition to the academic qualifications, vocational teachers must have at least three years experience within their field of study, as well as the pedagogical coursework (ibid.).

The aforementioned popularity of the teaching profession relates to the low admissions rate to teacher training programs. At the University of Helsinki, for example, applicants to teacher training programs must also, in addition to the university entrance examination, pass a book test, an interview, and a teaching exercise based on group

interaction (Toom, conference proceedings, 31 March 2008). Although the group exercise may differ from university to university, this example illustrates the rigorous admissions process to teacher training courses. The Finnish teacher training philosophy perceives the teachers as researchers, and therefore takes a research-based approach to teacher training (ibid.). Qualified teachers in basic school and upper-secondary school have master's degrees (Finnish National Board of Education, n.d., p. 15). Teachers of the first six years of comprehensive school have a master's degree in pedagogy, while subject teachers have a master's degree within the subject, although they can choose to write a master's degree in pedagogy (ibid.). All teachers have teaching practice, undertaken in special teacher training schools affiliated with the university training courses (Toom, conference proceedings, 31 March 2008). Successful completion of a teacher training course allows the candidate admission to doctoral programs (ibid.).

Despite the careful attention paid to teacher training, Kivinen and Rinne worry about the future of Finnish teacher training. They believe that the too-rapid expansion and reform of teacher training required a reassessment, and wondered whether the professionalization of teaching "blocks from view the needs for greater flexibility on the educational labour market and the real demands generated by a teacher's work" (Kivinen & Rinne, 1994, p. 525).

Summary

In order to understand the system of education in Finland, one must understand the country and its context. This chapter heeded the warnings of Sadler and others by delving deep into the context of Finland, from a historical, political, cultural, religious, lingistic, and societal view, even before investigating the education system of Finland.

Gilmour (1931, p. 63) has described the intertwining of the country and its education system, and rightly so. Finland's unique history, its time as part of both Sweden and Russia, and its subsequent struggle for independence have permeated the psyche and constitution of the Finnish people and infiltrated attitudes towards education.

Finland's history, up to and after independence, has illustrated the tenacity of the Finnish people. After independence, the Finns did not have an easy time; rather, they faced their own internal struggles. During the Second World War, in which they bravely fought powerful invaders, the Finns proved their resolve. Recovery from this war, in terms of the economy and of loss of life, took many years. To add to this hardship, the fall of the Soviet Union triggered a harsh recession that once again damaged Finland on so many levels.

Finnish tenacity once again proved its strength through recovery from this recession. This time, however, the Finns pulled through and achieved economic prosperity. This "new" Finland found itself on the world map for various reasons, such as the economic success of its companies and its educational success as now illustrated by PISA.

Finland's unique history as part of two powerful kingdoms, as well as its geographically liminal location between East and West, has given the country its own distinctive flavor. The time as part of the Kingdom of Sweden has given the Finns linguistic, cultural, political, and societal ties with the rest of Scandinavia. The ties with Russia and subsequently with the Soviet Union have given Finland eastern connections, as well as placing the country in a delicate situation during the Cold War. Currently, the relationship with Sweden and the rest of Scandinavia has placed Finland in the

cooperative context of the Nordic Council. After the fall of the Soviet Union, Finland emerged as a main player in European matters as a member of both the European Union and the European Monetary Union.

This chapter discussed at length the events in Finnish history that influenced their respect for education. When delving deeper into Finnish history and culture, the importance of Finnish society became evident. The following passage illustrates some of the sentiments felt by the Finnish people:

> The respect for learning and the desire to learn, which penetrate deep down into Finnish society, appearing in the old, vanishing culture of the Swedish families and in the strivings of the sons and daughters of small farmers and factory workers, still strongly persist. These young Finns will want more learning and social education for their children, and it looks as though they will get what they want (Binham, 1968, p. 167).

The need to learn, pride in the languages, and the struggle out of peasant life, among other factors, became ingrained within the Finnish psyche and seemingly exist to this day.

These factors have influenced the Finland of today, endowing the country with both Scandinavian and Eastern aspects. The Finnish education system, teacher training, and education for the Swedish-speaking minority all stem from historical contexts and Scandinavian philosophies. In order to understand Finland's present situation and its education system, one must investigate Finland's past. In Chapters Four and Five, we will note that the reasons behind Finnish PISA outcomes refer back to the discussions in this chapter on the Background of Finland.

Educational research in Finland has evolved an extensive Finnish terminology, and passionately defends its own scientific integrity as a discipline taking its place among the other scientific disciplines; but the development of its over-sophisticated methodology gives a distinct impression of largely having been driven by an academic inferiority complex.

-Former Director General of the Finnish Ministry of Education, Jaakko Numminen

CHAPTER THREE:
METHODOLOGY

Introduction

The following chapter illustrates the research process used in the undertaking of this project. It reveals the techniques used in order to carry out this research focusing on the education system of Finland and its success in the OECD's PISA surveys. I specifically chose to investigate this system qualitatively, in order to probe the nuances of this country's provision in education. The study hopes to shed light on the successes of the Finnish education system.

Research Questions

This research originally stemmed from an interest in the country of Finland as well as its official bilingualism with the languages of Swedish and Finnish. However, the advent of PISA spawned a new interest in the country, relating specifically to its education system. Many have wondered about the reasons for Finnish success in PISA and the factors behind it. This leads to the main research question:

- In light of the results of the OECD's PISA surveys, how can we explain the phenomenon of Finland's educational success?

Upon further investigation, two sub-questions emerged. The first tackles the perceptions of Finns involved in education on their performance in PISA, as well as the perceptions of the PISA creators at the OECD. The second takes some of the warnings of policy borrowing into account and delves into the external factors influencing Finland's success in PISA.

- What are the perceptions of Finland's education officials, PISA test administrators, heads of schools, and teachers of this success and how do they explain the outcomes?

- Which external factors, historical, social, political, and cultural, influence the success of Finland in PISA?

General Purpose of the Study

This project intends to uncover some of the factors contributing to Finland's success in education, as indicated by its results in the OECD's PISA surveys. The intense worldwide interest in Finland and the education system due to PISA has merited deeper, qualitative investigation into the topic. This study investigates the opinions on this topic by those involved in Finnish education, whether education officials, head teachers, or teachers. In addition, I ascertained the opinions of the OECD officials responsible for PISA. The study aims to illuminate the opinions of those involved in Finland and PISA about the high Finnish outcome in all three administrations of PISA. The qualitative nature of this study intends to reveal the points of view of the voices not heard through quantitative research.

Conceptual Framework

This study comes within the field of comparative education. This research uses PISA as a springboard for a qualitative study of Finnish education. Although PISA uses quantitative methods, "the consequence is that quantitative surveys are adequate instruments for assessing competence in *one* kind of situation, namely an assessment-related one. They cannot be assumed to be adequate instruments for assessing the competence necessary in dealing with the variety of situations of life" (Bonderup Dohn, 2007, p. 14). Therefore, this qualitative research delves into the "variety of situations" influencing the Finnish education system and the reasons behind the success in PISA.

Ertl expresses similar feelings to Bonderup Dohn about large-scale, international surveys. He states, "the results of in-depth qualitative studies in other national contexts also need to be taken into account" (2006, p. 629). A survey like PISA allows for rich, cross-national data, allowing for researchers to observe the differences of the education systems between different countries. These surveys serve as a catalyst for further study. Although the data from an international survey such as PISA does not easily lead to strong, causal conclusions, the secondary analyses as a result of PISA lend themselves more to causal inferences (Lie & Linnakylä, 2004, p. 228). Therefore, I hope that this qualitative data will shed light upon the successes of Finland in PISA. The present study also uses policy borrowing models to examine the "transferability" of Finnish approaches to education to other countries. Owing to Finland's performance in PISA, the country's educational system has attracted much interest from the rest of the world. This investigation will ascertain whether this interest in Finland has any justification beyond the PISA results. The research looks at the internal perceptions of Finnish education, and external interest, the phenomenon of cross-national attraction, and the possible policy borrowing that may result.

I chose not to compare Finland with any other countries, although comparisons with two other Nordic countries, Sweden and Denmark, also came under consideration. Denmark, as a lower achieving Nordic country in PISA, would provide an interesting contrast to Finland's success. Sweden, however, with its historical and linguistic ties with Finland, would also offer an interesting comparison to Finland. I also considered comparisons with countries such as Japan and South Korea, also high achievers on PISA. However, the logistical difficulty of comparing countries of such distance proved too

difficult under the temporal and financial constraints of this project. Ultimately, however, Finland itself possessed such richness and robustness that the researcher decided on focusing on just the one country. One professor of education in Finland, when asked which country provided the best contrast to Finland, answered:

> It would be nice to compare Finland to Ireland, a very small country, but very Catholic. But the more problematic point is that, in order to make a comparison, you could try to have pairs for comparison that contain the theoretical element, and then you are checking the effect of something, so you would have multiple comparisons to locate a country like Finland. Compared to other Scandinavian countries, compared to other small countries, compared to Catholic countries, compared to other religious groupings, and that would then create the multiple points of view. We have not yet decided what would be the most optimal countries to compare Finland to. In one respect it is The Netherlands, which has the highest rate of children with special needs in PISA samples, as we have. In the official PISA samples, we have about 7% of students who have special education needs, and also in The Netherlands... (Interview, university professor of education, 30 October 2006).

In other words, no country holds the distinction of being the best comparison to Finland. According to Bereday, "studying one country, simple as it seems contrasted with the involved business of comparing several countries, is nonetheless a serious scholarly undertaking… A comparative judgment is an observer's final photograph of that culture" (1964, p. 10). Bereday himself wrote a one-country study about Poland. "Its major purpose is to demonstrate the oldest theme in comparative education, how practices in the schools depend upon extraneous social factors… After assembling relevant educational facts, a one-country analysis must be devoted to tracing the interdependence of factors such as these" (ibid., p. 56). Phillips and Schweisfurth introduce intra-educational and intra-cultural study as "an investigation of education through various levels, with due

attention to context" (2006, p. 9). In other words, a one-country study can provide rich data and can pay attention to contextual factors.

Comparative Education Methods

The purpose of comparative education, the study of foreign systems of education, has an interdisciplinary nature as well as a practical application. Comparative education has influences in the social sciences as well as the pedagogical side of education (Bereday, 1964, p. 5). Comparative education as a discipline, in other words, focuses on education as a social science, in addition to traditional pedagogical aspects of education. The study of outside systems of education helps the researcher better know his or her own (ibid.). As previously stated, "in studying foreign systems of Education we should not forget that the things outside the schools matter even more than the things inside the schools, and govern and interpret the things inside" (Sadler, in Higginson, 1979, p. 49).

Language

Bereday believed that learning foreign languages had the utmost importance for the comparative educationist. He believed that foreign language learning was high value for those often exposed to another culture (1964, p. 132-133). Furthermore, "because the aim of comparative education is to look upon the school system as a window on the soul of a nation, the researcher cannot render justice to the structure without an awareness of the intimacies, hopes, and dreams within… Students of foreign cultures must appreciate that languages are the key to this sensitivity" (ibid., p. 141).

For these reasons I attempted to learn both official languages of Finland: Swedish and Finnish. I had already lived in Sweden and had achieved a proficient level in this language. For this reason, I originally thought to focus primarily on Swedish-speaking

schools. However, upon closer investigation, the culture of Swedish schools in Finland possessed differing histories, cultures, and attitudes and so I decided to incorporate both language groups in the research. The comparison of two language groups within one country would provide for an interesting intra-country comparison. The learning of Finnish, a complex language with no relation to Swedish, then became a necessity. I studied Finnish in two intensive courses. My Finnish, while respectable, did not achieve and has not yet achieved a proficient level. This could have inhibited the data in terms of observations within the Finnish schools. Unfortunately, the time constraints of this project did not allow for more use of the Finnish language.

Some of the interviewees preferred to speak their native language. When this involved Swedish, I could understand and ask new questions sparked by their responses. However, if the subject used Finnish, I could not do this as well as in Swedish. This may have reduced my ability to conduct a properly semi-structured interview, discussed later in this chapter. Although Bereday warns against the bias of translators and interpreters, I used translators when the interview subjects chose to speak in their mother tongue. Although I attempted to persevere with English, I found some of the interviewees could not respond in the manner they wished in English. The translations of their interviews reinforced in my mind that I made the right decision in asking them to speak their native language, since the interviews proved rich and full of insight. Bereday stated, "The job of translation is in any event an extremely exacting intellectual activity" (1964, p. 136). In order to achieve the highest level of translation, I asked only native speakers of the languages of Swedish and Finnish to translate the interviews conducted in those languages into English.

Travel

Similar to his opinions about language, Bereday also had certain beliefs about travel to the countries involved in comparative study. "From travel flows understanding. To meet a culture in daily contact and in a thousand unforeseen situations is to acquire the feel for the tenor of life that is hard to match otherwise" (1964, p. 143). In other words, a comparative educationist needs immersion into the country or countries studied to truly understand the culture. As obvious as this sounds, it captures the complex and interdisciplinary nature of properly conducting a study of this kind. The comparative educationist should spend long periods of time in their country of study, since this helps them "to master the language at an advanced level, and permits them to follow closely and continuously not only the changes of educational organization, or even of educational philosophy, but also all other relevant facts of politics, economics, culture, and society. In areas of specialization, comparative educators are expected to acquire a deft touch, to sense the spirit of the culture" (ibid.).

Travel, as well as experience with outside cultures, helps reduce bias in comparative research (Bereday, 1964, p. 155). Travel outside of one's homeland has become much easier, especially compared to Bereday's time. I had lived in Sweden, and also traveled extensively in Finland, Iceland, and Denmark prior to commencing my studies of Finland. Since the beginning of this research project, I have been to Finland many times, whether for personal travel, fieldwork, or language study. By no means does this mean I have near-native knowledge of the country, but it allows me, as Bereday suggested, an expansive knowledge of the culture and nuances of the country, which hopefully reduces bias and allows for viable comparative study.

Data Collection

I conducted research qualitatively, using observations, interviews and documentary research. According to Glesne, in order "to understand the nature of constructed realities, qualitative researchers interact and talk with participants about their perceptions. The researchers seek out a variety of perspectives; they do not try to reduce the multiple interpretations to a norm" (1999, p. 5). The nature of qualitative research assumes a "world in which reality is socially constructed, complex, and ever changing" (ibid.). Chapter Two discussed at length the historical and cultural influences of Finland, and Chapter One described how a country's external features influence an education system. In order to fully capture and understand the nuances within the Finnish educational context, I decided on a qualitative approach to the research.

Research Approach

In order to investigate the strengths of Finnish education, I chose to interview education officials and investigate lower secondary schools, since the investigation purposely covers the age group similar to those in the PISA surveys. Besides collecting literature on the country, I chose to interview Finnish education ministers, Finnish PISA test administrators, professors of education in Finland, PISA test creators at the OECD, head teachers, and teachers in order to gather data and to explore the research questions.

Case Study

Although I investigated six sample schools for this study, it does not use them as case studies. Case study research, however, does have some similarities to this particular project, since quantitative and macro-level approaches to educational research, while valid, "dismiss the significance of detailed observation and description at the school

level" (Crossley & Vuilliamy, 1984, p. 197). Yin attests to six sources of evidence from case studies: documentation, archival records, interviews, direct observations, participant-observation, and physical artefacts (2003, p. 85). This present research used documents, interviews, and direct observations. During visits to schools in Finland, I gathered teaching material and school background information. I also observed classes in the six lower secondary schools and took notes during this process. Observation allows the researcher to take note of "relevant behaviors or environmental conditions" (ibid., p. 92). I also used interviews to gather more data from these sample schools. I chose the technique of semi-structured interviews, discussed later in this chapter. Even though the research implemented methodology often used in case study research, this study did not apply the techniques necessary for a true case study approach. Therefore, it cannot classify as a true case study.

Observations

Through observations, I intended not to systematically check for certain characteristics, but rather tried to deepen understanding of Finnish culture and society, the culture of the schools and of the age group in question. According to Stake, "observations work the researcher toward greater understanding of the case" (1995, p. 60). Observations in the schools allowed for better interviews with the teachers and head teachers.

School visits, according to Bereday, would most practically take place on a one-day, or at the very least, half-day basis. Although he suggests much longer visits, too long a visit would take away time best used at other schools. He feels that interviews should have importance in a school visit, but observations must as well. Class visits

allow for better understanding of the school culture. Even though Bereday suggests not taking notes while observing, he believes that notes make up an integral part of observation and should be written after the school visit (1964, p. 14). I unfortunately could not spend more than two days in each school, but felt I was able to gain a good grasp of the school culture through school visits.

School visits also require observation, whether participant observation or non-participant observation (Cohen & Manion, 1994, p. 107). This research, which used non-participant observation, requires that researchers "stand aloof from the group activities they are investigating and eschew group membership" (ibid.). The researcher in the back of the classroom, taking notes, embodies the classic example of non-participant observation in educational research (ibid., p. 109). Observations for this research took place in this manner. Taking notes while observing commands the utmost importance in observations. Without doing so, "there is nothing to be gained merely by your presence as an observer" (ibid., p. 112). I took notes during my observations, not according to Bereday's suggestions but more along the lines of Cohen and Manion's methodology (1994, p. 107, 109).

Document Research

In addition to interviews and observations, I explored published work on Nordic education, Finnish education, and the PISA surveys. I read many books and articles investigating these subjects. "All comparative students must begin by extensive reading" (Bereday, 1964, p. 11). Bereday cited three types of documents for the comparative researcher, primary, secondary, and auxiliary. Primary refers to direct information about the topic, such as newspaper articles. Secondary sources mean books or other non-

primary qualitative reports. Auxiliary sources, according to Bereday, include writings not directly related to the research, but in possession of some relevance to the subject (ibid., p. 12). I feel I covered the three types of documents cited by Bereday. Due to the topical nature of the research, the publication of many articles on the topic continues and will continue for the foreseeable future. When at the sample schools, I collected materials describing the schools chosen for this study.

Interviews

In order to ascertain different opinions about Finnish education and the PISA surveys, I chose to interview subjects with different relationships with these topics. An interview differs from conversation, as the interviewer takes charge of the interaction, while the respondent follows; however, to which degree depends on the type of interview (Keats, 2000, p. 1-2). Interviewing, as opposed to other types of qualitative research, stresses the importance of interpersonal skills (Oppenheim, 1992, p. 65). All of the aforementioned examples illustrate the complexity of interviewing and qualitative research.

Cohen and Manion state that interviews have three distinct intentions. First, they can grasp information directly controlling the research questions. Second, they can test hypotheses or raise new ideas for research, and third, they can supplement other research or combine with other methods to complete a research project (1994, p. 272-273).

The limitations of interviewing and qualitative data gathering must be kept in mind. Glesne warns,"interviewing is a human interaction with all of its attendant uncertainties" (1999, p. 67). Nevertheless, this parallels the nature of qualitative research. Glesne also states that interviews can follow a strict format, only adhering to

the original questions intended by the researcher, or "questions may emerge in the course of interviewing and may be added to or replace the preestablished ones; this process of question formation is the more likely and the more ideal one in qualitative inquiry" (ibid.). Although the author created general questions for each category of interviews, she found that the most successful interactions involved dialogue tailored to each interviewee.

Most educational methodology would characterize this type of research as semi-structured interviews. According to Drever, "the name 'semi-structured' means that the interviewer sets up a general structure by deciding in advance what ground is to be covered and what main questions are to be asked. This leaves the detailed structure to be worked out during the interview. The person interviewed can answer at some length in his or her own words, and the interviewer responds using prompts, probes and follow-up questions to get the interviewee to clarify or expand on the answers" (1995, p.1). Kvale gives a more theoretical definition, as "an interview whose purpose is to obtain descriptions of the life world of the interviewee with respect to interpreting the meaning of the described phenomena" (1996, pp. 5-6). The open-ended nature of semi-structured interviews allows for "interview conversation to capture the multitude of subjects' views of a theme" (Kvale, 1996, p. 7).

I conducted all interviews under the condition of anonymity. All interviews were recorded; I asked all of the interviewees for permission to record prior to the interviews. I carried out all interviews on a one-to-one basis, with the exception of one group interview. Cohen and Manion state that group interviews, while helpful when interviewees have rapport and similar intentions, can be detrimental if the interviewees

feel less comfortable in expressing their personal opinions (1994, p. 287). Luckily the three participants in the group interview worked together, and therefore created a warm and friendly environment resembling a *Kaffeeklatsch*.

Cohen and Manion cite a manner in which to systematically analyze interview data (1994, p. 292-296). Taking this into account, I transcribed the interviews myself, with the exception of interviews that needed foreign-language translation. Furthermore, I reviewed each interview as a whole, then broke the transcripts down into general themes which re-occurred during the interviews and across all interviews. Similarly, I noted individual opinions that seemed unique to the interview. I also noted how these themes related to the research questions.

Limitations and Bias

Bias most likely enters every human being's opinion in one way or another. Bias also influences comparative education research. "Like all human beings, professors of comparative education exhibit prejudices" (Bereday, 1964, p. 156). Bereday refers to cultural bias as "the plague of comparative methodology" (ibid., p. 159). Therefore, he suggests that comparative educationists remain on the "outside," so to speak, while observing cultures. Bereday lists four stages that comparative researchers must successfully achieve: the most accurate and unbiased collection, application, juxtaposition, and comparison of educational information. However, the issues of bias and subjectivity permeate all of these steps and therefore complicate them (ibid.).

Bereday states that the most common form of cultural bias is "the defensiveness that citizens of one country carry poised against possible criticism by citizens of another." This may not have relevance in this study (1964, p. 159). In fact, the opposite may be

true. Comparative education researchers have a relationship with Finland based on praise and wonder, rather than criticism. Therefore, perhaps one can apply a converse rule to the norm of comparative education bias. Nevertheless, one must address the issue of bias, both outside-in and inside-in of this research. One could describe this research as outside-in, for the researcher, not a citizen of Finland or a native speaker of the languages, could not have a full grasp of all the nuances and the broad knowledge base involved with the country. However, an inside-in observer, a native Finn, while with more knowledge of the country, would be obscured by a bias different from the limitations of an outside observer, as the observation of one's own culture is clouded by the experience in that culture. In other words, an outside observer of Finland may perceive its education system as praiseworthy, but one who went through the system may have found it insufficient.

Bereday also warns about bias in data collection. "The technique of collecting the facts has always been and continues to be the most formidable obstacle of the discipline" (1964, p. 161). He adds that ethnocentrism colors the data. National reports, for example, have distorted views about their own systems. Bereday's warnings, applied to this particular research, would suggest that the people of Finland have biased opinions about their own education system. Furthermore, those who chose to participate in this project probably had strong opinions about education in Finland. The subjects I interviewed and those observed in the schools are products of the Finnish education system. Therefore, as participants in the system, they will have biases, whether positive or negative.

However, as an outsider, my own biases and experiences color the outlook on Finnish education, but I attempted to neutralize these biases. My outside-in perspective also colors the research. Most of the subjects participated as the result of a connection with me or with my contacts, which also may skew the data. Glesne, in *Becoming Qualitative Researchers*, raises the subjects of rapport and subjectivity. Rapport, in the research sense, mostly benefits the researcher, rather than the interview subject (1999, p. 96). Keats, on the other hand, writes that rapport "is the term given to that comfortable, cooperative relationship between two people in which there are maintained both feelings of satisfaction and an empathetic understanding of each other's position" (2000, p. 23). Keats describes rapport as a more symbiotic relationship. She feels that rapport does not equal friendship. "A relationship characterized by rapport is marked by confidence and trust, but not necessarily by liking; friendship invariably is" (1999, p. 96). She states that although rapport can help the researcher, sometimes friendship can hinder the data. "Generally, people will talk more willingly about personal or sensitive issues once they know you" (ibid., p. 99). However, she also states that "when a distinction between rapport and friendship is made in qualitative literature, the overwhelming tendency in the past was to warn against forming friendships because of the hazards of sample bias and loss of objectivity" (ibid., p. 102). One can infer from this statement that previous friendships with the subjects also cause the problems of sample bias and subjectivity. Glesne states, "data bias can result from a somewhat unconscious subjective selection process. … Research participants overidentify with the researchers. In doing so, they may begin to act in ways that they perceive the researchers want them to act or in ways that impress them" (ibid., p. 102). Again, according to this statement, one can infer that a

previous relationship can cause bias in the data. "Subjectivity has long been considered something to keep out of one's research, something to, at the least, control against through a variety of methods to establish validity" (ibid., p. 105). Despite Glesne's warnings, I did conduct a few interviews with subjects with whom I had previous contact and relationships. As Glesne warned, my opinions, even as the researcher, could have influenced my interviews. In other words, I chose this topic from a belief in the Finnish school philosophy and from positive personal interest. My own bias may have caused a chain reaction of bias due to my choice of subjects.

Bereday, in his discussion of bias in interpretation, addresses, much like Sadler, the close relationship between education systems and society (1964, p. 163; Higginson, 1979, p. 49). Therefore, a researcher in comparative education must understand the history, society, economy, and culture of a country in reference to its education system and the data collected about it. Bereday implies that a researcher would most likely apply their own country's ideologies to another, which would ultimately color and bias the interpretation of the research.

Bereday's final two stages of comparative education research, juxtaposition and comparison, have real methodological difficulties, especially in minimizing bias. He feels that cross-cultural comparison and ethnocentrism add bias to these two stages, although they illustrate the "honest differences of perception" (1964, p. 166). At the time of Bereday's writing, neither large-scale cross-national tests nor inter-country surveys existed, and he felt that the lack of "common cultural denominators" delayed the accurate comparison between countries (ibid.). Bereday felt that a common denominator would minimize cultural bias in comparative educational research. Even though studies such as

PISA have currently become common in comparative education, his original hypothesis stands true: that cultural bias cannot be avoided.

This type of research also follows many assumptions, for example that the OECD's PISA test provides a good indicator of successful education systems, and that Finland's performance indicates that Finland has an exemplary education system. Furthermore, this research also assumes that Finnish schools produce well-educated students, and do not just teach towards the test. A vast educational world exists beyond this one place. Surely other countries have excellent qualities in their own education systems, despite their scores in the PISA surveys?

Participants

All participants have affiliations with Finnish education, or involvement with the OECD's PISA survey. I interviewed four people from the Institute for Educational Research at a university in Finland, all responsible for PISA 2000 and 2003 in Finland. I interviewed three professors from the Department of Education at another Finnish university, responsible for the implementation of PISA 2006 in Finland. I also interviewed four officials at the OECD in Paris, who worked with the creation, execution, and analysis of PISA. Furthermore, two former ministers of education granted interviews contributing to the study. At the six schools chosen as sample schools, the head teachers and classroom teachers with subjects and students pertaining to PISA agreed to interviews with me.

Access to and Selection of Schools and Participants

I used various approaches by which I identified my interview subjects and sample schools. I contacted the four Finnish professors responsible for PISA 2000 and 2003 directly, and they responded to my request for an interview willingly. A professor from my department in Oxford had previously worked at the OECD, and gave me the names of contacts there. That contact collected four interviews. I received the name of the former ministers of education in Finland from the same contact. From one of my interview subjects at the OECD, I obtained the name of a Finnish professor, who coincidentally was in charge of Finland's execution of PISA 2006. Along with him, I interviewed two of his colleagues.

I again used personal contacts in order to select my schools. As a student of the Finnish language, I luckily had a Finnish teacher who taught in the Helsinki area. Through this connection, I chose a Finnish-speaking school. I also attended a conference in Helsinki addressing Finland and its performance in PISA. The conference included school visits, where I visited a Swedish-speaking school. I established contacts there and used this school as another sample school. Through other contacts in Finland, I secured visits to three other schools, both Swedish and Finnish-speaking. One of these schools set up a visit with a neighboring school.

Although usually reserved for surveys, one could characterize this type of subject gathering as snowball sampling:

> Researchers identify a small number of individuals who have the characteristics that they require. These people are then used as informants to identify others who qualify for inclusion and these, in turn, identify yet others – hence the name snowball sampling (Cohen & Manion, 1994, p. 89).

Nevertheless, not all contacts proved to be fruitful. By both personal contact and by directly contacting schools, some clearly did not want to be part of the study. Unfortunately, this meant that certain geographical areas targeted for this study, such as Central, Northwestern, Northern, and Eastern Finland, did not have representation in this study.

Sampling

I originally chose two schools in the Helsinki metropolitan area. I chose one Finnish-speaking school and one Swedish-speaking school to cover both of the official languages of Finland. Investigating Swedish-speaking schools in addition to Finnish-speaking schools allowed me to cover the two main populations of Finland. Two more schools, in a town of 7,000, also contributed to the sample. The town supports both Swedish and Finnish speakers and is located in the South of Finland. One school, Swedish-speaking, came from a city on the Southwest coast of Finland. The city has approximately 180,000 inhabitants and is the fifth largest city in Finland. Another school, Finnish-speaking, has a population of 20,000 and is in the South of Finland. Although I tried to have more sample schools for this study, the difficulty in finding participating schools limited this study to six schools. However, according to the PISA results, schools in Finland have consistent results, which allows for limited sampling of schools. Coincidentally, four of the six sampled schools also were sample schools for the PISA surveys.

Within these schools, I specifically chose to focus on fifteen-year-olds, also the target age for PISA. Furthermore, the teachers I chose to interview all taught fifteen-year-olds in the subjects covered by PISA: mathematics, science, and the mother tongue,

whether Swedish or Finnish. The head teachers of the sample schools provided an overview of their schools. Interviewing the PISA executors of Finland and officials involved with the education ministry allowed for a "top-down" view on Finnish education. The interviews at the OECD allowed for the inclusion of perspectives of the PISA creators.

Ethical Issues

When conducting research at the qualitative level, especially dealing with personal interaction as in interviews, the researcher must maintain sensitivity towards ethical considerations. A typical ethical dilemma, according to Cohen and Manion, "requires researchers to strike a balance between the demands placed on them as professional scientists in pursuit of truth, and their subjects' rights and values potentially threatened by the research" (1994, p. 347). However, they also state that most books on the subject encourage researchers to "proceed ethically without threatening the validity of the research endeavour in so far as it is possible to do" (ibid.). Vague as this may be, Cohen and Manion assert that informed consent, the "bedrock of ethical procedure," allows for more ethical research (ibid., p. 349). For example, one must receive informed consent from the subjects about their participation in the project. "Informed consent entails informing the research subjects about the overall purpose of the investigation and the main features of the design, as well as of any possible risks and benefits from participation in the research project" (Kvale, 1996, p. 112). Informed consent implies that the subject has a right to "freedom and self-determination" (Cohen & Manion, 1994, p. 350). Therefore, if the research involves danger to the subjects in any manner, they have the choice whether to participate or not. Luckily, this specific research did not have

any dangerous elements, so all interviewees as well as the sample schools consented to involvement in the project.

Ethical dilemmas in educational research, according to Cohen and Manion, also involve issues of privacy, anonymity, and confidentiality, among others (1994, pp. 364-368). They feel no clear answer exists with these issues, and all need to find a balance according to the research and the researcher (ibid., p. 365). They characterize the issue of privacy as the individual right to privacy versus the public right to know. The more sensitive the information given, the more privacy becomes important (ibid., p. 366). Anonymity, on the other hand, implies that the information given by the subject does not reveal their identity (ibid.). Confidentiality means that although the researcher has gathered potentially sensitive information, he or she will not release this information in the research. A researcher can ensure privacy with both anonymity and confidentiality.

For this specific research about Finland and PISA, confidentiality most appropriately ensured privacy for the participating subjects. Therefore, I assured subjects' confidentiality in the research. "Confidentiality in research implies that private data identifying the subjects will not be reported. If a study involves publishing information potentially recognizable to others, the subjects need to agree to the release of identifiable information" (Kvale, 1996, p. 114). In the case of this work, I assured confidentiality to the volunteering participants from the schools. However, due to the international visibility of the Finnish education ministers, Finnish education academics executing PISA, and the OECD members administering PISA, pseudonyms would barely cover their identities. Therefore, their proper names were used in these cases.

Summary

The complex and interdisciplinary nature of educational research requires detailed discussion of the methods used within every project. This particular study implemented qualitative research in order to grasp the fine nuances within a culture and society, in addition to factors of the Finnish education system that would influence a strong PISA performance. This chapter has attempted to clarify the research methods used in this particular study and to illuminate the often quite complex research methods of comparative education. The chapter commenced with a discussion of the research questions undertaken in this study:

- In light of the results of the OECD's PISA surveys, how can we explain the phenomenon of Finland's educational success?
    - What are the perceptions of Finland's education officials, PISA test administrators, heads of schools, and teachers and how do they explain the outcomes?
    - Which external factors, historical, social, political, and cultural, influence the success of Finland in PISA?

The research questions provide a central hub from which the research stems. Therefore, the methodology designed for this study allowed me to ascertain the external factors influencing the education system and consequently the successful performance of Finland in PISA.

The discussion of comparative education methods clarifies the systematic approaches undertaken in comparative education research. Issues such as the approach to research, language, and travel, all merited discussion, as all had relevance to this particular study. The methods used in data collection all deserved analysis, in order to describe to the reader the manner in which the author conducted the research. For

example, I discussed semi-structured interviews, since I used that approach in my data gathering. The issue of sampling and access to schools and participants also held an important place in the methodology discussion, as the manner in which a researcher chooses schools and interview subjects must come under consideration as well. Finally, I also examined the issues of ethics, limitations, and bias, since most research in the social sciences has to address these issues. As I investigated people within their own contexts and jobs, I needed a certain amount of care and forethought to accompany the approach to these interviews and the interaction with the individuals. While all research has possible limitations and bias, the fact that I come from a different culture to that of Finland may lead to criticisms of such limitation and bias, but I believe it gives me a clearer view of Finnish education than a direct product of the education system might have. This chapter has discussed comparative education methods and their use in this study, taking care to implement the research according to ethical guidelines.

Comparative education methodology has evolved from different schools of thought. For example, two great British comparativists, King and Holmes, come from differing academic backgrounds. King originally studied Classics and linguistics while Holmes had his background in the hard sciences, namely Physics (Phillips & Schweisfurth, 2006, p. 82). While Holmes had a "prescriptive" approach to comparative education method, King urged researchers to use "whatever was most appropriate to any particular investigation" (ibid., p. 83). Therefore, comparative education method does not possess a clear methodology designed for the specific discipline. A reseacher must design a methodology from the conglomeration of comparative approaches in existence. This project tried to best implement the comparative methodology for its purposes,

specifically, to successfully ascertain the perceptions of those involved in PISA and in Finnish education on different levels, and the reasons behind the country's educational success, the object of so much interest after the launch of PISA.

FINDINGS:
PREFACE

Overview

Due to the introduction of PISA, educational actors on so many levels, from ministers to teachers, have developed a curiosity about the reasons behind Finland's outcome in all three PISA surveys. This interest has spawned the publication of articles explaining the reason for the PISA outcomes of Finland. Before the discussion of findings from this particular project, I will explore the reasons given in publications generated from the interest in Finland due to PISA.

After the first administration of PISA in 2000, the University of Jyväskylä released a document entitled, "The Finnish Success in PISA – And Some Reasons Behind It: PISA 2000" (Välijärvi, Linnakylä, Kupari, Reinikainen, & Arffman, 2002). Similarly, after the 2003 survey, the university released a similar document entitled "The Finnish Success in PISA – And Some Reasons Behind It 2" (Välijärvi, Kupari, Linnakylä, Reinikainen, Sulkunen, Törnroos, & Arffman, 2007). Välijärvi and Linnakylä collaborated again and published another article addressing the success of Finland in PISA in 2005. Furthermore, the Ministry of Education in Finland and the Finnish National Board of Education also address the reasons behind Finnish success in PISA on their websites. Due to the vast outside interest in the education system because of PISA, the National Board of Education also holds yearly conferences addressing this topic.

Välijärvi et al. described the Finnish reaction to high outcomes in, at that time, the first two administrations of PISA, and the paradigm shift of educational interest that occurred after the release of PISA results:

> The outstanding success of Finnish students in PISA has been a great joy but at the same time a somewhat puzzling experience to all those responsible for and making decisions about education in Finland. At a single stroke, PISA has transformed our conceptions of the quality of the work done at our comprehensive school and of the foundations it has laid for Finland's future civilisation and development of knowledge. Traditionally, we have been used to thinking that the models for educational reforms have to be taken from abroad. This sudden change in role from a country following the example of others to one serving as a model for others reforming school has prompted us to recognise and think seriously about the special characteristics and strengths of our comprehensive school (2007, p. 3).

After two successful performances in both PISA surveys, Finland received the news with pleasure, yet with bewilderment. This parallels the similar sentiment of bemusement of Japan in the 1980s, as discussed in the Introduction. In the past decade, PISA positively reinforced the education system of Finland, which the article implies was the source of some dissatisfaction. Furthermore, it made the Finns look inward into their education system in order to identify its strengths, the object of so much educational interest.

Välijärvi et al. and Välijärvi and Linnakylä do not credit one reason behind the results, but rather a "web" or a "whole network of interrelated factors" such as comprehensive school, the structure of the education system, teacher training, students, families, and Finnish culture (Välijärvi et al., 2002, p. 4; Linnakylä & Välijärvi, 2005, p. 34). The Ministry of Education and the National Board of Education also do not list one reason, but several on their websites. For example, the Ministry of Education lists the following background reasons for Finnish success in PISA:

1) Equal opportunities
2) Comprehensiveness of education
3) Competent teachers
4) Student counseling and special needs education
5) Encouraging evaluation
6) Significance of education in society
7) A flexible system based on empowerment
8) Cooperation

9) A student-oriented, active conception of learning (Retrieved 30 June 2008, http://www.minedu.fi/OPM/Koulutus/artikkelit/pisa-tutkimus/index.html?lang=en).

The National Board of Education also lists its reasons for Finland's PISA outcomes, quite similar to those from the Ministry of Education:

1) Equality of opportunities
2) Comprehensive education
3) Flexibility of system
4) Cooperation
5) Individual support of students
6) Non-high-stakes testing
7) High-quality teachers
8) Active learning (Retrieved 30 June 2008, http://www.oph.fi/english/SubPage.asp?path=447,65535,77331).

In addition to explaining reasons behind Finnish success in PISA on their website, the Finnish National Board of Education holds yearly conferences addressing this topic. The latest conference, which I attended, listed the following as features of the Finnish education system:

1) Equal opportunities for education
2) Regional accessibility to education
3) Decentralized administration – local implementation
4) Publicly funded education system
5) School free of charge
6) State financial aid scheme for students
7) Learning environment with possibilities of individual attention, innovation, recognition of prior learning
8) Virtuous cycle of teaching
9) Welfare state crucial to success of education (Lankinen, conference proceedings, 31 March 2008).

In general, all of the aforementioned sources discussing the reasons behind high Finnish outcome in PISA give consistent reasons for the PISA success.

Equality

First and foremost, all of the sources point to the Nordic philosophy of equality as a salient factor behind high PISA scores. Equal opportunity, according to Linnakylä and Välijärvi, make up some of the many factors responsible for Finland's strong education system. The philosophy of equity and especially a commitment towards decreasing low achievement play a significant role in Finland's PISA outcomes. Finland's PISA scores show a narrow gap between high and low scorers on the literacy scale; furthermore, low scorers in Finland score higher than many of their counterparts in other OECD countries (Linnakylä & Välijärvi, 2005, p. 35). The principle of equality also clarifies the low impact of socio-economic background of Finnish students on their PISA outcomes and the small between-school variation, especially compared to other OECD countries (ibid.). The standard of equity also permeates the philosophy of the Finnish comprehensive school, with homogenous grouping and non-selective entry (ibid.). This Preface will address the concept of the comprehensive school later in the section.

Overall, Välijärvi et al. credit certain factors in the education system mimicking those of Finnish society that contribute to its strength and, as a result, achievement in PISA. Most prominently, they cite high equality within the education system, illustrated by the narrow gap between student achievement, and the minimization of low achievers (Välijärvi et al., 2002, p. 24). The ethos of equality, a long tradition in the Nordic countries, reduces the obstacles faced by certain students, particularly the lowest achieving, and therefore minimizes disparities between students (Välijärvi et al., 2007, p. 31). Therefore, Finnish schools have the smallest variation between each other in the OECD and the smallest standard deviation within PISA mathematical literacy in 2003

(ibid., p. 26; ibid., p. 31). The equality also stretches across geography meaning very little difference exists between rural and urban schools, for example, or across regions, such as North or South (Välijärvi et al., 2007, p. 11). This equality of opportunity, as well as non-selective education, allows for all students to attain relatively high achievement, also despite the socio-economic status of the family (ibid., p. 33, 35; Välijärvi et al., 2002, p. 26). In other words, the Finnish comprehensive school "is not only a system… [but] it is also a matter of pedagogical theory and practice. An intrinsic part of this philosophy is the principle of equity, on which Finnish education policy has been largely premised" (Välijärvi et al., 2007, p. 38).

Both the Ministry of Education and the Finnish National Board of Education credit the equality of the education system as a great asset. The Finnish education system provides all students, no matter what the circumstances, whether socio-economic, geographical, gender, cultural or linguistic background, with the same opportunities to free education (Retrieved 30 June 2008, http://www.minedu.fi/OPM/Koulutus/artikkelit/pisa-tutkimus/index.html?lang=en; Retrieved 30 June 2008, http://www.oph.fi/english/SubPage.asp?path=447,65535,77331).

Along the same vein, the Ministry of Education notes that Finnish students performed in a very consistent manner in the surveys. The country has one of the smallest differences between weak and strong students in PISA, and they also exhibit the same consistent performance among schools and geographical regions (Retrieved 30 June 2008, http://www.minedu.fi/OPM/Koulutus/artikkelit/pisa-tutkimus/index.html?lang=en). Although the Ministry acknowledges a difference in PISA outcome between the two official language groups in Finland, discussed at length in Chapters Four and Five, it

notes that socio-economic background does not make more of a difference in Finland than in other OECD countries (ibid.). The Ministry of Education observes that high performance can occur even with small differences in student performance (ibid.). Furthermore, the website notes that Finnish students achieved the high PISA outcomes with less time in school than students in the OECD countries, and with average expenditure (ibid.). These findings reinforce the Nordic ethos of equality existing within the education system, and successfully manifesting itself within PISA outcomes.

Teachers

The high quality of teachers also held an important position in the sources describing the reasons for Finnish PISA success. This salient factor often sets Finland apart from other countries, rendering the situation of the country's teachers unique.

The National Board of Education and the Ministry of Education praise the commitment teachers have to their work and their high level of training, as all qualified teachers have master's degrees (Retrieved 30 June 2008, http://www.minedu.fi/OPM/Koulutus/artikkelit/pisa-tutkimus/index.html?lang=en;). Välijärvi et al. also credit the highly qualified teachers, with their master's degrees, with the low admission rate to teacher training courses, and the high amount of trust, respect, and autonomy within the profession as factors that strengthen the education system (Välijärvi et al., 2002, p. 42). Finnish teachers, regarded as educational experts, have gained the trust of Finnish society to teach the difficult, heterogeneous groups of students (Välijärvi et al., 2007, p. 49).

Linnakylä and Välijärvi also credit the teachers with much of Finland's educational strengths. They write that the teachers in Finland, who must deal with

heterogeneous grouping, "must be well educated and a true pegagogical expert" (Linnakylä & Välijärvi, 2005, p. 36). The acceptance rate to teacher training programs in universities remains around ten percent of all applicants. Teachers, all with master's degrees in either education or their teaching subject, enjoy being part of a highly valued profession and have high status in society (ibid.). Furthermore, teachers enjoy trust, independence, and autonomy within society, and have responsibility for the assessment of their students (ibid., p. 36-37). This trust in teachers plays a factor in the other discussed reasons behind the high PISA outcome for Finland.

National Curriculum

The Finnish National Curriculum, often mentioned in studies accounting for Finnish PISA success, entrusts the teachers with great freedom in teaching. Teachers, with their established academic prowess and high skills, have earned a great deal of trust from the Ministry of Education and the Board of Education, municipalities, and schools for their quality of work. The National Curriculum allows teachers to teach in the manner they see fit.

Välijärvi et al. credit the flexibility within the curriculum as one of the reasons behind high PISA outcomes for Finland. The National Curriculum, born in the 1990s, allows for municipal, school, and teacher autonomy (Välijärvi et al., 2002, p. 44; Välijärvi et al., 2007, p. 50). The advent of the National Curriculum also increased the responsibility of teachers over their own teaching, and encouraged them to design their own lessons (ibid.; ibid.).

The Ministry of Education and National Board of Education also recognize the National Curriculum of Finland, with the responsibility of execution on the local level, as

the backbone of a flexible education system (ibid.; Retrieved 30 June 2008, http://www.minedu.fi/OPM/Koulutus/artikkelit/pisa-tutkimus/index.html?lang=en;). The municipalities, schools, and teachers of Finland have accountability of executing the National Curriculum. This illustrates a trust from the national level in the local level in administering teaching and learning. In addition, no national tests exist, nor do league tables (ibid.; ibid.). Schools do not compete with one another and provide supportive assessments of students. National assessments occur only by sampling and only to identify areas to improve within the education system (ibid.).

On a more practical level, the focus of the Finnish curricula also contributes to high PISA outcome. For example, in scientific and mathematical literacy performance in 2000, the first article attributes the achievement of Finland in PISA to the National Curriculum. The curriculum, according to the authors, possesses similar features to the definition of PISA literacy (Välijärvi et al., 2002, p. 22).

Comprehensive School

The comprehensive school, which has roots in the Nordic principle of equality, also influences Finnish PISA outcomes and reinforces the strength of the education system. The comprehensive school has many features that provide a supportive environment for all students, regardless of academic talent.

Välijärvi et al. recognize the education environment as providing a good foundation for the education system, for example, with philosophy of equity inherent within the system, support of students through heterogeneous grouping, special education, individual attention, and inclusion (Välijärvi et al., 2002, p. 39-40; Välijärvi et al., 2007, p. 47-48). These characteristics of the comprehensive school allow all students

to attend the same school with their peers, despite any difficulties. The philosophy of heterogeneous grouping and the difficulty in teaching such a class necessitates excellent teachers, regarded as pedagogical experts (Välijärvi et al., 2007, p. 49).

Linnakylä and Välijärvi cite individualism and inclusion as another salient factor behind Finnish PISA success. Nearly all students attend the comprehensive school until sixteen, but the school will adapt to each child's needs. Comprehensive school "accentuates the fact that school is for every child and that the school must adjust to the needs of each child, not the other way around" (Linnakylä & Välijärvi, 2005, p. 35). The school, with heterogeneous grouping, uses teacher-planned curriculum for a student-centered, inclusive environment (ibid.). The ethos of inclusion allows for vast support for weaker students through a very developed special education program (ibid., p. 36).

The Ministry of Education and the National Board of Education also praise the comprehensive school structure of Finland as a positive feature of the system. The ethos behind the comprehensive school calls for non-selective schools with support for those with difficulties (ibid.; ibid.). In fact, this support is so comprehensive it seemingly reaches all students who need it. Only two percent of students need to repeat a grade level and only 0.5 percent of students fail to earn a comprehensive school degree (Retrieved 30 June 2008, http://www.oph.fi/english/SubPage.asp?path=447,65535,77331). Guidance counseling helps students in their choices for further education, as well as providing advice for study skills (Retrieved 30 June 2008, http://www.minedu.fi/OPM/Koulutus/artikkelit/pisa-tutkimus/index.html?lang=en).

Cultural Homogeneity

The articles cite how cultural homogeneity better allows the country to achieve in education and in PISA. Finland, a country with a generally homogenous population, does not have the same issues, or at least to the same extent, as countries with varying cultural backgrounds and heterogeneous populations. Cultural homogeneity does have its advantages, however, as Välijärvi et al. attribute cultural homogeneity as a source of strength to the country, meaning Finland has enjoyed political consensus, especially in matters of education (Välijärvi et al., 2002, p. 45; Välijärvi et al., 2007, p. 51; Linnakylä & Välijärvi, 2005, p. 37). The "mutual understanding" achieved through this consensus allowed for the reforms of the 1970s to pass "without huge political contradictions" (Välijärvi et al., 2007, p. 51). Välijärvi et al. also describe how Finland takes care of its minorities, namely its Swedish-speaking minority (ibid., p. 52; Välijärvi et al., 2002, p. 46). Both language groups have the rights to equal funding for education from pre-primary school through university (ibid.; ibid.).

Additional Reasons

Naturally, a myriad of reasons exist in the explanation of the strength of Finnish education and the subsequent high performance of Finland in PISA. This segment discusses some important points, not clearly fitting in the aforementioned parts in this Preface.

In order to specifically explain the high scores in PISA's reading literacy section, Välijärvi et al. credit a high interest in reading by Finnish students (Välijärvi et al., 2002, p. 15; Välijärvi et al., 2007, p. 27). The interest in reading supersedes the socio-economic, cultural, or linguistic background of the students (Välijärvi et al., 2007, p. 27).

Finnish culture values literacy and reading, and also has a high appreciation for education in general. The Ministry of Education mentions the "significance of education in society" as a key factor behind Finnish educational strength, since education holds high esteem in society and enjoys political consensus (Retrieved 30 June 2008, http://www.minedu.fi/OPM/Koulutus/artikkelit/pisa-tutkimus/index.html?lang=en).

A conference held by the National Board of Education from 31 March 2008 to 2 April 2008 addressing the reasons behind Finland in PISA gave many of the reasons discussed in this section. For example, Lavonen praises Finnish science teaching, and attributes the high quality to good teacher training, localization of curriculum, and strong learning materials (conference proceedings, 31 March 2008). He also believes Finland's strong PISA outcome in scientific literacy comes from the National Curriculum and good textbooks, in addition to the main cornerstones of Finnish education policy, such as equality, commitment to a knowledge society, and effective special education (ibid.). Furthermore, he admits that the Finnish curriculum reflects much of the content covered in the PISA surveys (ibid.). For example, the Finnish textbooks, responsible for most of the teaching material in classrooms, are of a high quality and cover contextual relationships, such as science and society, or science and humans (ibid.). Lavonen contrasts these reasons with another high performer in PISA, Japan. He feels their high scores come from *juku* attendance by most Japanese students (ibid.).

The conference also addressed the reasons behind Finland's high performance in scientific literacy in PISA 2006. Finland, which scored seventy points above the OECD average for scientific literacy, roughly equivalent to one proficiency level in PISA, clearly outperformed all other countries in that literacy area (Lavonen, conference

proceedings, 31 March 2008). Lavonen noted that the Scandinavian countries scored close to the OECD average, and accounts for the difference in terms of the high quality of Finnish teacher training (ibid.). Furthermore, he believes that Finnish students show a higher effort level in school and in education generally, therefore taking PISA more seriously (ibid.). Interestingly, however, Finnish students have a lower interest in science than the OECD average, despite their high PISA performance level (ibid.).

Halinen suggests that the conception of learning in Finland may provide the Finnish PISA secret. The rather old-fashioned manner in which teachers see students as responsible for learning, and encourage both individual and cooperative learning processes, may set Finland apart from other countries, and therefore provide the key to the Finnish PISA outcomes (Halinen, conference proceedings, 31 March 2008).

Challenges

Despite all the praise directed towards the Finnish education system, the drawbacks deserve addressing as well. Välijärvi et al. discuss challenges to the Finnish schools. The Finnish education system has the danger of resting on its laurels, but the authors stress that room for improvement still exists. They describe the "meager attention" paid to gifted students, and the need to develop further the skills of the academically talented (Välijärvi et al., 2002, p. 48; Välijärvi et al., 2007, p. 56). They also worry about the disparity between genders, for example, the higher attainment of girls in reading literacy than that of boys (Välijärvi et al., 2007, p. 37). Finally, the authors discuss the negative perceptions of school climate and school satisfaction of Finnish students in the PISA questionnaires (ibid.). This illustrates how the education system, the object of so much attention, still grapples with its own challenges.

The 2003 PISA survey, which scored the Swedish-speaking Finns separately, found that the Swedish-speakers scored lower than the mean of the entire Finnish sample (Välijärvi et al., 2007, p. 6, 13, 16, 19). For example, in the scientific literacy section, "Finnish-speaking students clearly outperformed their Swedish-speaking peers in scientific literacy, with an average difference of 26 points. However, even the Swedish-speaking minority was doing very well, since their results were on a par with those of the Netherlands" (ibid., p. 17). Although the Swedish-speaking Finns do perform at a very high level in PISA, their scores come curiously lower than their Finnish-speaking peers. Chapters Four and Five further discuss the factors behind this PISA result.

Linnakylä and Välijärvi, as previously discussed, acknowledge the cultural homogeneity within Finnish society, which, on the positive side, accounts for political consensus in education policy. However, Finland has recently experienced a growing number of immigrants, and therefore, immigrant students (Linnakylä & Välijärvi, 2005, p. 37). As the population of the country becomes increasingly heterogeneous, many acknowledge the difficulty in maintaining the ethos of equality in such increasingly heterogeneous environments (Välijärvi et al., 2002, p. 47; Välijärvi et al., 2007, p. 55). Although Finland does its best to equally educate the immigrant population, the authors admit they have "a lot to learn from [other countries'] experience in educating immigrant students to communicate and build contacts and networks with various cultures, in several languages, and using a variety of technical tools" (ibid.). Here, the articles acknowledge an area of education where Finland can learn from outside examples.

Summary

This Preface explores some of the literature written and generated by Finnish academics and educationists about some of the reasons behind Finland's performance in PISA. Although it has not covered all of the existing literature, it provides a view of the published reasons for Finland in PISA. The Findings chapters present and discuss the salient factors explaining Finland's performance in PISA as reported by interview subjects. Chapters Four and Five will illustrate whether the conclusions drawn in this section remain consistent with the reasons gathered from the dissertation research.

CHAPTER FOUR:
PERSPECTIVES ON PISA FROM THE FINNISH EDUCATION SYSTEM
INTERVIEWS WITH EDUCATION MINISTERS

Findings from Finnish Education Ministers

Interviews conducted with the two education ministers revealed common threads throughout the data. One minister, Arvo Jäppinen, held the position of Director General of Education and Science at the time of the interview, but retired from the position in May 2006. In 1969 he started at the Ministry as a temporary employee, but stayed on and held the positions of researcher, advisor, planning officer, assistant head, and finally, Director of the Ministry. He served as the director from 2001 to his retirement from the position in 2006. In the 1990s, Mr. Jäppinen worked at the OECD as a specialist in science and education policies. He earned a degree from the University of Helsinki in Sociology, and more specifically the Sociology of Education. Mr. Jäppinen has long been a strong advocate of equality in education.

The other interviewee, Olli-Pekka Heinonen, also held that position. As a member of the National Coalition Party, he served as Minister of Education from 1994 to 1999. Mr. Heinonen served as Education Minister under Prime Minister Esko Aho of the Centre Party from 1994 to 1995, then under Prime Minister Paavo Lipponen of the Social Democratic Party from 1995 to 1999. Also under Lipponen, he served as Minister of Transport from 1999 to 2000, then as Minister of Transport and Communications from 2000 to 2002. Mr. Heinonen left politics in 2002 and now works for a Finnish broadcasting company. He has a master's degree in Law from the University of Helsinki.

Strengths of Finnish Education

Both ministers described many different strengths within the Finnish education system. They felt strongly that Finland had a good educational culture. The country's history as a part of the Kingdom of Sweden and also as a Grand Duchy of Russia made the movement for independence a strong notion among the Finnish people. The aim for independence necessitated the increase of the educational level of the whole population. Olli-Pekka Heinonen states, "It wasn't the idea to educate a few, but it was to make sure that the overall educational level… was a possibility for everyone." This notion never faces challenges on the political level, with "no political disagreements" on the matter. Finland's aforementioned political system lends itself to consensus, which in turn influences the continuity and consistency in Finland's education system (Chislett, 1996, p. 63). However, the importance of education to Finland most likely enhances the political consensus on this matter. The lack of social stratification in Finland manifests itself in the education system. According to Heinonen, it gives possibilities to everyone, no matter the background, whether social or economic.

Another great strength in the Finnish education system lies in its teacher training. Heinonen mentions that Finland has especially strong teacher training programs and highly qualified teachers. He states, "I strongly believe that they are very motivated, well educated, and committed to their work. That is definitely a benefit." Arvo Jäppinen concurs. He believes that excellent teacher training remains one of the great strengths of the Finnish education system, and cites that the number of applicants to teacher training programs far exceeds the quotas at the universities. This low acceptance rate leads to strong, intelligent teachers. The teacher training programs, all of which require master's

degrees from their graduates, almost guarantee extremely strong students in their programs. Jäppinen describes the process of acceptance into teacher training programs, which involves two rounds of tests:

> The first test has been done on the basis of papers from secondary papers, or level of qualification from [the] secondary level. Then [from] that group, there are people who will take the applicant test. They are interviewed. They are put to play a teacher's role in practice and they have writing tests and then practical tests. On the basis of these two tests there are really top applicants that can be adapted for academic study. In the beginning, the level of applicants is very high. Then the education is quite good from our point of view. If you have good students and good teaching, the results must be good.

Chapter Two also discussed this rigorous method of selection to teacher training programs, specifically for the University of Helsinki. In addition to this extremely selective rate of acceptance, teachers can strengthen their skills with in-service training. Jäppinen describes these opportunities as reinforcing the strength of teacher training programs, and heightening the level of more experienced teachers.

Teacher autonomy also relates to the strong teacher training. Heinonen mentions, in addition to the strong teaching, that high-quality educational materials also contribute to the success of Finnish education. These educational materials, according to Heinonen, do not receive the acknowledgement they deserve. Jäppinen believes that this also contributes to the strength of Finnish education:

> The teachers have autonomy in choosing their teaching methods, in choosing their textbooks… That is why even if the teaching profession is not very well paid in Finland, it is very popular. It gives you freedom to utilize your high level of education in practice.

Jäppinen relates teacher autonomy to the high quality of teachers. The strength and capability of the teachers allows for autonomy, trust, and responsibility.

This strength through autonomy also stretches through into the decentralization and devolution of the education system in Finland. Jäppinen thinks that the decentralized system and the local responsibility and accountability for education also provide a strong foundation for the system of education. He states that, at his level of educational administration, they only look at the results. The responsibility ultimately lies with the local authorities. Heinonen also mentions the local responsibility of education as a strength. He believes that national educational organizations should set the standards for education, but should allow freedom for the local authorities to best execute these standards according to their needs. He states, "You should give quite a bit of freedom to the municipalities and the schools. The expertise is there. They know the local circumstances and the experts of teaching and learning are there." Although the Finnish government executes a national curriculum, it remains just a framework for classroom lessons. The local authorities, head teachers, and teachers decide the skills most pertinent for their pupils.

Jäppinen mentions that the teachers manage to maintain a close relationship with their students while upholding a position of authority. He says the visitors to Finland, the "PISA tourists," become surprised at the relaxed relationship between teachers and students. He states, "They are good friends normally." However, they maintain a distance and gain the respect of their students. He believes the students respect good teachers and professionalism. The students "immediately find out if the teacher is not a professional teacher, a less capable [teacher]. It is very important to have that kind of trust between teacher and pupil."

All three PISA surveys thus far indicated that Finland has a strong tradition of literacy and considerable success and achievement in reading. Much like the authors cited in the Introduction to Findings, Heinonen remarks that Finns read a great deal, and acknowledges the importance and influence of reading on eventual educational attainment. This love of reading, however, is not unique to Finnish culture. A similar love of reading, Heinonen admits, exists fairly consistently across Nordic countries.

The strength of Finnish education also comes from the value and tradition of education ingrained in Finnish culture. Heinonen describes the importance of education in his family:

> My father was a teacher also, and the atmosphere at home was that we valued very highly education and knowledge and all of that. I think many good things have happened to me because of education… like the challenges I have had in my life. The reason was because of the possibilities to educate yourself.

Jäppinen mentions the importance of the family in the Finnish educational culture. The tradition of education, he states, has roots within society and families. The appreciation for education passes down from generation to generation. He says that, typically, parents want their children to attain a higher education level than their own, no matter what the social class. Heinonen agrees, since he feels that Finland's positive attitude towards education maintains consistency in their society.

Finland's history also adds to the value of education in society. Heinonen says that at the time when the idea of Finnish independence first started to take hold, in the 1860s, the concept of education for all began to appear. According to Heinonen, the preparation for independence intended to raise the level of education for all Finns, not just for a lucky few. He states, "It was very important in the Finnish educational policy and

has been and is a consensus. There are no political disagreements about that." Chapter Two described the political consensus existent in Finland. Jäppinen also cites political consensus as a strength of Finnish education:

> We don't have any political party; we don't have any government; we don't have any family who could say that education is not important. If there would be a politician that would say he didn't care so much about education policy, he will be a former one. It is inside the Finnish society, that education is important. There is a political consensus between various political parties on that.

Heinonen also mentions that the lack of social stratification in Finnish society helped create an equal education system. The education system in Finland can create possibilities for everyone.

Finland's success in PISA comes from the egalitarian values of the country. The benefits of the Welfare State manifest themselves through the success of Finnish education. Jäppinen cites how he researched "talent resources" in Finland. He remarks how in the 1950s and 1960s, his research found that these "talent resources" did not always have the opportunity to go to school at that time. The education reforms of the 1970s, however, changed opportunities for Finnish students. The results of these reforms manifested themselves after thirty years. In other words, it took a generation to truly observe these equal opportunities for Finnish students. Jäppinen carefully mentions the attitude towards reform within the Finnish Ministry of Education:

> When you reform a system, you need a long time for results. We have here in the Finnish Ministry of Education, that if you need a reform, it has to be done quickly. You can't be all the time on the reform. In education you need both continuity and change. How to find the balance between change of reforms and continuity, this is one key issue. Change and continuity, education needs both of them. Continuity is very important but sometimes you need change.

This outlook towards the reforms succinctly describes a very astute attitude towards education reform. According to Jäppinen, the education reforms of the 1970s allowed for social mobility.

Jäppinen mentions how assessments, whether international or national, benefit the Finnish education system. The local authorities welcome assessment and eagerly participate in evaluations. Jäppinen states, "They don't oppose them. Because, you know, in Britain, they are against [them] because they are afraid of being punished later." As Finland does not have the equivalent of Britain's league tables, the negative connotations of an assessment culture do not exist. Rather, Finnish schools welcome assessment in order to see their strengths and weaknesses.

Jäppinen gives a more political perspective when he describes the varying contributors to a child's education. The school environment and school community also contribute to the success of Finland in PISA:

> School is not any more only teachers and pupils. It's more and more a multi-professional community. You need teachers, psychologists, medical doctors, social workers, *et cetera* in order to have enough knowledge to find out the problems pupils might have.

This multi-person community helps assess any problems that may arise and create preventative efforts such as remedial work for those in danger of dropping out. Although these many professionals come at an expense to the Finnish government, "it is not so costly as if the pupil would be excluded from active life. Later, she or he will cost a lot. We have, by the way, counted if the young boy, for example, will drop out, he will be excluded from active society, he will cost at least 1,000,000 Euros. School is cheaper, much cheaper." His sentiment echos the philosophy of the Welfare State discussed in

Chapter Two. The Welfare State views early intervention as a way to prevent more severe problems later.

Weaknesses of Finnish Education

PISA allows, according to Heinonen, an education system to review both its strengths and weaknesses. Heinonen believes that, although the academic track in Finnish schools demonstrates high quality, the vocational track could improve. He thinks that Finnish vocational education has employed a more theoretical educational ideal, perhaps not suited to vocational education. He feels that the vocational education stream should be combined more with apprenticeships, in order to expand the potential of vocational education in Finland. Heinonen also mentions educational budget cuts as a weakness of Finnish education, since the educational system of Finland has seen a decrease in funding. In response to the deep recession of the 1990s and decentralization of the education system, the Finnish government reduced spending on education. For example, between 1990 and 1994, expenditure decreased in comprehensive schools by fifteen percent, in upper-secondary schools by twenty-five percent, and vocational schools by twenty-three percent (Riste, Kivirauma, & Simola; 2002, p. 654). At the same time, enrollment in school increased, for example, by twenty-two percent in upper-secondary schools and by twenty-eight percent in vocational schools (ibid.). Special support teaching decreased by half at that time, never to return to its full strength (ibid.). Further budget cuts worry Heinonen. He notes that many municipalities have decreased their spending on education, and fears that this will affect the quality of teaching in the schools.

Jäppinen feels that the greatest weaknesses in Finnish education lie in the school environment. He considers the lack of enjoyment of Finnish pupils as a great weakness.

The 2000 PISA survey measured the students' sense of belonging in school. In Finland, approximately 22% of the students reported a low sense of belonging in school. Countries such as Sweden, at 18%, and the United Kingdom, at 17%, had the least amount of students reporting this low sense of belonging (OECD, 2003, p. 21). However, countries such as Japan, at 38%, South Korea, at 41%, and Poland, at 41%, reported the highest levels of lack of belonging (ibid.). Nevertheless, this statistic worries Finnish officials. Jäppinen thinks that boys, especially, do not enjoy school. He suspects that boys do not believe that school really suits them, despite good performance in school subjects. This curious phenomenon has the boys going to school and trying to finish as quickly as possible. He also cites how girls perform higher than boys in Finnish education. Jäppinen feels the real weakness and the real question lies in how to motivate boys to enjoy school and to continue with their studies.

Jäppinen mentions how drug abuse and other antisocial behavior affect the schools and their communities. This problem, according to Jäppinen, can become quite serious in some areas. Although this problem has increased since the beginning of the new millennium, he feels that it has stabilized since. Providing education for all and having all schools and classrooms for the learning of all students presents a great challenge for Finnish education. The aforementioned multi-person community of education and school support help all students combat these problems and provide educational opportunities for all. Again, a person who dropped out of school costs more than a student needing support to keep him or her in school.

Heinonen also mentions how Finnish students do not enjoy school, and cites how many Finns worry about the lack of enjoyment of their pupils. Heinonen, a father of a

teenage son, adds his own perspective on the situation. He says, "I don't see it as a big problem, I would be more worried if 100% of Finnish pupils say that they enjoy themselves in schools, because I wouldn't think that was true." He has his own interpretation of the lack of enjoyment of Finnish students. He believes that the students perceive school as a place of learning, not of enjoyment:

> They see this role [of school as a place of learning]. I think that's why they say it's not a place for enjoyment for them. I think that… I hope what you see in schools is that people, both teachers and pupils are committed, serious about learning. I don't mean that it can't be fun, but you learn things, but they are committed to learning things.

Heinonen's personal perspective on the problem sheds light on the situation. Perhaps the lack of enjoyment in school comes as a cultural distinction in Finnish society.

Both Ministers refer to teacher training as a main factor in the strength of Finnish education. However, this does have a downside. Despite all of the strengths of teacher training, sometimes the exceptional students accepted to teacher training programs get poached out of teaching. According to Jäppinen, the level of intelligence and capability of those accepted to teacher training programs leads employers in other sectors to poach teachers from the teaching profession. Employers recognize the signal that teachers, with their exceptional educational backgrounds, can work positively in other environments.

Jäppinen mentions how Finland invests much money and many resources into their at-risk and low-achieving students. He does admit, however, that high achievers need more support too, in order to encourage them to fully realize their potentials.

Responses to PISA

Jäppinen believes that surveys like PISA benefit education and educational policy; he even worked with PISA closely from its beginning:

> I was a member of a steering group for the project. For a long time I was the chairman for the group. I was a member and then we there discussed the first ideas to establish the exercise that PISA is… It is important to know how your country is compared with others, what is your position compared to the other countries, what [are] the school achievements in our country compared to others. It is very important to know in order to develop education further.

Heinonen takes this a step further. He believes PISA provides a good measuring system from one education system to another, since it helps with decision making, and provides indications of what works and what does not work in an education system. He also states that PISA developed educational tools of assessment that have proved very valuable. However, he also says, "Pretty often, what happens also is that you can try to draw very quick consequences of the results. In France, the government fell because the results of PISA were so bad." After the first round of PISA in 2000, the United States and France scored so similarly that France refused to acknowledge the results, even though France scored higher than the US in all three assessment areas. This anecdotal example illustrates the poignancy of the "negative external evaluation" already discussed in Chapter One. Countries often try to implement a "quick fix" solution to education systems, a common reaction to "negative external evaluation." He warns that PISA can cause premature decision-making by people jumping to conclusions simply from the PISA data. He also says by putting things in order or in a ranking, as with PISA, a danger presents itself:

> If you say that it is only something where you put things in order, who is the first, who is the second, who is the third, and then you say that those did it the best and those did it the worst. That is not the way. Sometimes you see the media loves to do it this way. They did it badly. It's their fault. I think that is the bad side of measuring like this.

PISA itself, according to Heinonen, does not provide an easy platform from which people can draw conclusions.

Heinonen believes that standardized testing, especially at the international level, presents challenges of comparison and measurement. Comparing things across countries and cultures involves the difficulty of measurement. He states how one cannot know what goes on in one school compared to another. A standardized test hopes for equality of measurement, but cannot guarantee it. Heinonen believes the challenge of standardized tests lies in the interpretation of the results. He cites how someone can look at test results and label one school good and another one bad when, in reality, this comparison between schools remains a difficult task. Despite the danger of jumping to conclusions from PISA, Heinonen agrees that it provides a good springboard from which further study can emerge, and PISA needs further study to find true answers to educational problems.

Jäppinen believes that PISA illustrates an education system's strengths and weaknesses, and thinks that PISA clarified some of the needs of the Finnish education system to the ministers. PISA has illustrated how Finland needs to have more high-achieving students and reduce the number of low-achieving students. For example, in the 2006 scientific literacy survey, 0.5% of Finnish students scored lower than Level 1, 3.6% of students scored at Level 1, 13.6% at Level 2, 29.1% at Level 3, 32.2% at Level 4, 17% at Level 5, and 3.9% at Level 6 (OECD, 2007, p. 20). Although quite enviable to other

countries, this breakdown illustrates to the education ministers that most students could perform at a higher literacy level. All students, despite their varying levels, need a push forwards. Because of this, the Finnish education ministers concluded that they needed to support weak students and those at risk of dropping out, while encouraging the strongest students to keep achieving. In order to do this, Jäppinen states, teacher training must be kept at a high level.

Jäppinen also believes that the PISA results made Finland a bit too happy with the educational situation. The society, education policy makers, and parents, for example, may have taken the PISA results too seriously too quickly. Jäppinen warns that this may be a risk of the PISA results. He states, "We have warned them that we must develop further, otherwise we are dropping down, because all the countries are making a lot of effort at this point." He also notes that Finns feel that the application of knowledge has great importance in their teaching and learning philosophies, in addition to the theoretical background of study:

> In Finland, we had this discussion about which is more important, to be capable to utilize your knowledge in practice in everyday life or to utilize your knowledge in an academic career. Sometimes the correlation is very strong between the two. We need both of those.

However, Jäppinen also mentions how PISA only measures one type of thing and does not cover all areas of educational assessment, warning that one must look beyond PISA scores and investigate successfully performing countries to find their strengths.

Heinonen feels the PISA results reflect the Finnish attitude to education and the country's culture of learning. He worries, however, and warns of the danger of believing that Finnish education has done everything right and does not need to improve. He

believes many things in Finnish education still need improving. Jäppinen, as previously stated, believes that PISA allows Finns to see the strengths and weaknesses of their educational system. Knowing both strengths and weaknesses allows improvement upon the weaknesses, so that in the future "there won't be any more weaknesses." Both ministers see the benefit of PISA, and acknowledge PISA as an opportunity to observe the weaknesses in Finnish education and as a catalyst for improvement. Resting on laurels can become a great downside of Finnish success in PISA.

Both ministers address the difference of PISA compared to surveys such as TIMSS. Heinonen discusses how the two surveys measure different things, therefore generating different results. He sees the benefit of diverse educational measurement, as educational systems can vary. Finland scored lower in TIMSS than it did in PISA. Finland's participation in the 1999 TIMSS Repeat, or TIMSS-R, yielded a score of 520 on the mathematics scale (Retrieved 19 February 2008, http://christianparty.net/timssr.htm). In contrast, Australia had a score of 525, Canada 531, Hungary 532, Japan 579, Korea 587, New Zealand 491, England 496, and the United States 502. The average of the thirty-eight participating countries came to 487 (ibid.). On the scientific part of the survey, Finland scored 535 points. In contrast, Australia had a score of 540, Canada 533, Hungary 552, Japan 550
Korea 549, New Zealand 510, England 538, and the United States 515. The average science performance of the participating countries came to 488 (ibid.). While Finland scored above the average with a respectable amount of points, other countries had much higher scores in TIMSS-R. Jäppinen describes how the measurement of TIMSS differs from that of PISA, and how Finns have success on surveys with measurements such as

PISA. Finns, according to him, do not necessarily have success in other types of tests. He attributes this success to the importance of application of knowledge in Finnish education. He says how critics of PISA argue that PISA needs more curriculum-based assessment. In Finland, according to Jäppinen, the debate dealing with the importance of theoretical or applied knowledge has already occurred. He states, "Sometimes the correlation is very strong between the two. We need both of those." PISA, however, does not cover everything, especially the more theoretical background behind the curricula. He mentions that national assessment in Finland focuses more on the curricular objectives. Jäppinen advocates both kinds of surveys, since the information gathered from them helps further develop the education system of Finland. These surveys provide use to Finnish educational policy makers and enjoy eager participation from Finnish schools. Heinonen believes that surveys such as PISA reduce the need for national assessments. PISA undertakes part of the job that countries such as Finland would have to do nationally, and circumvents the need for too many national tests.

Heinonen reiterates the point of how PISA not only measures, but also helps people understand more about education, education systems, and the education policies contributing to PISA results. PISA results force the actors in policy to really observe the drivers for educational change. He says, "You have to go beyond why is it so in this country and why is it so in that country." In essence, PISA calls for qualitative study beyond its results, in order to better understand the factors behind the scores. In this way, PISA aids in the development of education systems.

Cultural transferability

Both Ministers mention the difficulty in transferring aspects of an education system from one country to another. Finland has seen many visitors, "PISA tourists," as they now call them, due to the success in PISA. Jäppinen tells some of his visitors about the setting and organization of the Finnish education system. He makes sure he emphasizes the differences in the education systems of his guests, the PISA tourists. He warns, "Don't follow technically our system. Don't copy it. What is working in our society is not necessarily working in other cultural and historical circumstances." He also adds the importance of cultural heritage in a society, since education systems have such cultural, historical, political, and societal ties that these visitors probably cannot implement features of the Finnish education system into their own.

Heinonen believes that a survey like PISA forces education decision makers to really understand the ways in which education systems work. He also believes that PISA forces a deeper investigation into educational systems. He suggests delving further beyond why certain results happen in some countries, and beyond the differences between educational structures in different countries. He emphasizes that education systems have complex relationships with their corresponding national cultures, a structure that "perfects the educational systems." He continues, "The educational system, it is not a machine that you put something in and something comes down. It is so strongly bound to the other things in society that you have to understand those. And a good thing of PISA is that it raises those things."

Due to its performance in PISA, Finland and its education system have attracted much attention from the rest of the world. According to Jäppinen, this means that the

education ministers, head teachers, and teachers have had to work very hard for the PISA tourists. He feels that the visitors find the relaxed atmosphere of Finnish schools surprising. Heinonen finds the attention that Finland's education system has received quite flattering. He feels that the Finns, however, respond to this positive attention with discussions about the shortcomings of Finnish education. He says, "When that kind of attention comes, very quickly it sparks discussion that we aren't that good, that there is something wrong with the results, and actually we should not at all be proud of this kind of attention, that we should try to work harder ourselves." Along this vein, he suggests that Finns thrive in the face of adversity: "The culture in Finland is such that we are strongest when there are difficulties. When the times are tough, Finnish people, they are really committed to the future. It is difficult for us to deal with good results."

The aforementioned factors behind the strengths of Finnish education, such as the movement for independence and subsequent importance of education in the Finnish culture, represent external factors that influence the strength of Finland's education system and its success in PISA.

Finland and Asia

Finland, although considered the top scorer in all three administrations of PISA, also shares the upper echelon with two other OECD countries, South Korea and Japan. As the cultures of Finland and Asia differ greatly, one must wonder what differences in these countries lead to similarly successful education systems, at least in terms of PISA. Therefore, I asked my interviewees about the similar outcomes in PISA of Finland, Japan, and South Korea.

Jäppinen points out that Korea, Japan, and Finland all have great traditions of

education, and great respect for teaching and learning. However, he also mentions that Korea and Japan use a great deal of private funding in education. The teaching of students outside of school walls, as with the *juku,* also influences outcomes, including PISA results. Jäppinen also cites how Finnish pupils spend much less time in school than their Asian counterparts in terms of school year and time of day spent in school. Heinonen retells an anecdote from a Japanese colleague. This explains how society, teachers, and parents, instill the highest importance of education in their students, and train their pupils to perform at the highest level. The Japanese colleague "said that the Japanese education system is like running 100 meters. Everyone must come to the finish at the same time." This race to the finish line, which does not allow for slow runners, also does not allow for independent behavior. With this example of end result impeding individual creativity, Heinonen admits that this matter remains a big issue in education. Making sure that all receive similar levels of education while leaving room for individual growth and creativity "is the big issue of how to make an education system successful."

Jäppinen admits however, that Finland, Japan, and South Korea all regard education similarly within their culture and society. Ultimately, this importance of education, despite the different attitudes in their cultures, leads to similar PISA results.

Finland and Scandinavia

If one looks at Finland in reference to Japan and Korea in terms of their success in PISA, one might also investigate their Nordic cousins and see what makes Finland more successful in education. I therefore addressed this question with my interview subjects. According to Heinonen, the Nordic countries have such cultural similarities, but the difference in educational attitude and PISA results "might have something to do with

how strongly the national independence and culture and education in Finland have been bound together." Despite the cultural, political, and social similarities, Finland's history as part of both Sweden and Russia, the movement for independence, and the rise to economic prosperity may give them an educational edge in terms of PISA. Heinonen also cites the importance of reading in Finland, as we have seen, but admits that the other Nordic countries also hold reading and literacy in high esteem.

Jäppinen acknowledges the complexity and interweaving of factors that contribute to greater Finnish success in PISA compared to Finland's Scandinavian counterparts. He mentions the organization of schoolwork and the core curriculum as a factor. The decentralization of the Finnish education system and the local execution of a national curriculum, according to Jäppinen, remain a strength in Finland. He also mentions school discipline. He implies a greater level of discipline in Finnish schools compared to Scandinavian schools. In addition to these factors, Jäppinen thinks the core of Finnish success, even over the country's Scandinavian counterparts, lies in its teacher training. The teacher, who obviously plays a key role in education, needs to juggle many balls to successfully undertake his or her responsibility as an educator. The strength of Finnish teacher training, even compared to Finland's Nordic counterparts, sets a high bar of quality for Finnish teachers. Jäppinen also believes cultural differences between the Finns and the Scandinavians play a part in higher Finnish PISA scores. "Finnish people are more serious, perhaps more than those in other Nordic countries. Perhaps Finnish people take education more seriously in general. It is more the way to social mobility than in Sweden and in Denmark." Possible social mobility, therefore, also plays a part in the differences between Finland and the rest of the Scandinavian countries.

Despite the immediately observable similarities between Finland, Sweden, Denmark, Norway, and Iceland, Finland's unique history and her culture and society influence the education system, creating better success for Finland in PISA.

Education in Two Languages

Both Ministers believed that the parallel systems, in both Swedish and Finnish, had benefits for Finland. Although Heinonen states that Finland having two official languages is just a fact of life in Finland, he believes in its benefits. The Swedish speakers of Finland make up the rich culture that Finland has today. An officially bilingual country calls for increased language abilities for the Finnish people. He implies that a bilingual country supports the learning of other languages and allows for contact and cooperation across Finnish borders.

Jäppinen believes that one of the strengths of Finnish education lies in the country's minority education policy. Education in the Swedish language supports the Swedish-speaking minority, and he also mentions that the *Saame* people of Lappland, although they make up only 7,000 citizens in their population, have a similar right. In Finland, native language need not impede education. The influx of different immigrant groups, however, may change this outlook in the future. The schools using the Saame language often have problems finding teachers in their native language. Jäppinen also believes that Finns learning Swedish strengthens and reinforces Finnish society. Even though compulsory Swedish may detract from taking other languages, it helps Finland cooperate with the Scandinavian countries and aids Nordic cooperation, as also referenced by Hall in Chapter Two.

The PISA results for Finland revealed that the Swedish-speaking minority curiously scored lower than their Finnish-speaking counterparts. For example, in 2003, the Finnish-speakers had a mean score of 543 in reading literacy, while the Swedish-speakers scored 530. In mathematical literacy, the Finnish-speakers had a score of 544 while the Swedish-speakers had 534 points. In scientific literacy, the Finnish-speakers had a mean score of 548 and the Swedish-speakers a score of 524. Finally, in problem solving, the Finnish-speakers had 548 points while the Swedish-speakers had 533 points (Retrieved 19 February 2008, http://www.pisa2006.helsinki.fi/finland_pisa/results/2003/). Heinonen admits he would have guessed it the other way around. The Swedish-speaking Finns traditionally had the power, money, and influence in Finnish society. This stems from Finland's history as part of the Kingdom of Sweden, as discussed in Chapter Two. The Swedish language became the language of adminstration, courts, and education in Finland; therefore, the educated class of Finland spoke Swedish (Andersson & Herberts, 1996, p. 384). This turnaround in the language groups in PISA results makes for opposite results than anticipated. He speculates that the students taking the Swedish-language section of PISA came from bilingual families, perhaps giving them less of a grasp of Swedish. Jäppinen states that, although no exact conclusions have been drawn, the responsibility for these results may stem from the teachers in Swedish-speaking schools. He speculates that the Swedish schools may not have as many qualified teachers and may have more temporary teachers. Perhaps the existence of temporary teachers may come as a weakness for all of Finnish education. Jäppinen cites how the Swedish-speakers in Finland come from three main regions: Helsinki, Turku, and the West coast. He believes the Swedish-speaking students, and therefore teachers, coming from the Helsinki and

Turku areas, have similarly strong levels in their PISA outcomes to those of their Finnish-speaking counterparts. However, in the West coast of Finland, mainly the countryside, the students exhibit lower achievement. He speculates that the Swedish-speakers in this geographical area may not have their full qualifications. Perhaps a cyclical pattern also emerges because of the lower achievement in this area. Nevertheless, Jäppinen states, "We don't have any exact answers but we have analyzed it. We will take some measures in order to correct that as well, by concentrating more on teacher training in Swedish."

Summary

For this study, I was fortunate enough to gain the perspectives of two different Ministers of Education from Finland. Both provided a top-down, political view of Finnish education as well as a ministerial viewpoint on PISA. Although my interview questions addressed more than the positive factors within the Finnish education system, the interviews with the ministers presented a good base from which to compare and contrast the reasons for Finnish success in PISA given by the ministers and the reasons discussed in the Preface.

The ministers agreed that Finnish history and culture influence the high value placed on education within Finnish society, a result of the movement towards independence and the recovery from wars and recession. Finland's education system also enjoys political consensus among its politicians, which provides consistency in the education system over the years, regardless of who holds political power in the country. The Nordic philosophy of egalitarianism, a strong factor in Finland, also contributes to the strength and equal opportunities of Finnish education, as do the teachers. The high

quality and popularity of the teacher training programs lead to well trained, intelligent teachers. Decentralization within the Finnish system allows for local responsibility within the national curriculum, and the teachers are entrusted to skillfully implement the National Curriculum in their own classrooms. All of these positive aspects of the system described by the ministers echo those discussed in the Preface.

As for the weaknesses in the system, one minister hopes for better vocational education and training, in order to better prepare the youth for the labor market. He also worries about drug use among students today, as well as their lack of enjoyment in school. The high quality of teachers can present a strong signal to employers in other fields, who try to recruit teachers to their own professions. The ministers also admit the need for better support for their high-achieving students, often overlooked by the Finnish system. The ministers interestingly gave differing answers to the literature discussed in the Preface, by not mentioning at all the challenges for gifted students and immigrants.

In response to PISA, the ministers praised its virtue as a good measuring tool by which to assess educational standing. PISA also widens the visibility and understanding of the educational field for people today. However, both also acknowledge how PISA measures only one thing, and how many observers interpret PISA results in too concrete and literal a manner.

Both ministers mentioned the many "PISA tourists" coming to Finland in order to observe the education system. However, they warn that these visitors cannot copy the system exactly, for education systems have complex natures intertwined with the society of the home country. The cultural bindings of an education system prevent direct borrowing.

In terms of the comparison of Finland with high-achieving Asian countries, the ministers acknowledge that Finland and these Asian countries all have strong traditions of education. However, in Finland, students do not have supplementary providers of education, such as the *juku* in Japan. Much like Lavonen, the ministers feel much of the success of Japan in PISA comes from education outside the school system, in the *juku*. The ministers also cite how in Japan the education system does not allow for individual growth and expression.

The PISA results showed Finland outperforming the Scandinavian countries. When comparing Finland with the Scandinavian countries, the ministers describe how Finland's movement for independence influenced attitudes towards education in their country. They also cite how in Finland the schools have more discipline, teachers have better training, and society allows for more social mobility, therefore adding impact and impetus to academic achievement. This view parallels those discussed in the Preface, as Finland's schools have more "old-fashioned" values and a bigger teacher-student gap.

According to the ministers, the Swedish language in Finland aids cooperation with the Scandinavian countries, and subsequently with other countries beyond Finnish borders. They attribute the curious lower score of Swedish-speakers in PISA to the fewer qualified teachers in Swedish-speaking schools. The ministers also speculate that many of the students taking the test in Swedish come from bilingual families, so that their Swedish language competence may not be as strong as their Finnish.

Overall, the Finnish education ministers provided clear, insightful views on Finnish education from their position as politicians specializing in education, which offered both reinforcement and contrast to the reasons for Finland in PISA discussed in

the Preface. The perspective of the Ministers of Education will also compare and contrast nicely to the reasons for Finnish success in PISA given by others.

CHAPTER FOUR:
PERSPECTIVES ON PISA FROM THE FINNISH EDUCATION SYSTEM
INTERVIEWS WITH HEAD TEACHERS

Findings from Head Teachers

Interviews with head teachers of the six sample schools allowed for an administrative perspective on PISA and Finnish education. The six head teachers had long experiences with Finnish education and they presented excellent insight on these topics. Last names and schools have been omitted from the interview data to ensure anonymity of the participating head teachers.

Name	***School***	***Sex***	***Former Teaching Subject***	***Years as Head Teacher***
Magnus (A)	School A	Male	History, Social Studies	1
Pentti (B)	School B	Male	Mathematics, Physics, Chemistry, Information Technology	15
Elvi (C)	School C	Female	History	7
Kalevi (D)	School D	Male	Gym	10
Mai-Len (E)	School E	Female	Special Needs	5
Seppo (F)	School F	Male	Mathematics, Physics, Chemistry	11

When cited throughout this chapter, the names of all head teachers follow with the letter of their school, which also corresponds with the schools listed in the next section. Therefore, School A for head teachers also refers to School A for teachers. Mai-Len, from School E, has E following her name to indicate at which school she works.

The School

Magnus (A) finds a varying level of interest and motivation in his school. He says that 60 to 70 percent of his students have enthusiasm for study and school, while the rest do not. He also feels very independent in running his school. He describes the process of organizing the curriculum and balancing the budget:

> I am very independent, actually… However, there are a lot of economic questions here… You have to follow the budget… The town gives us the money that we can spend. Actually, the state gives the town the money, and the town gives the money to spend here… but you have to follow a certain plan. It's a general plan, an education plan. For example, in our school students must [have] 75 different courses. 47 to 51 are compulsory courses. You have to give these courses to the students. That means in one course, the costs are 2,000 and 3,000 Euros. A lot of money goes there. Then you have a little left and then you have [the] other courses. You have to give them these courses, or try to give them these courses. At the moment we can give them all courses that are written in the general plan, but then, we haven't got any money left. I haven't [got] so much spare room to do what I want to do. We need more money.

Seppo (F) also describes the level of independence within his school. In the past year, his school started to use the national curriculum. Fifteen years ago, in 1992, he says they had a very free curriculum, but now they have more ties to the national mandates. Even though the time with the free curriculum was a "wild situation," it gave the school the choice to place emphases where they pleased. Elvi (C) describes the decrees and mandates coming from the government in the form of the national curriculum and the budget:

> There are of course laws and decrees, and there are curriculum plans, this framework that we have. But of course it is then about money. But within that frame, the school is quite independent. For example, when it comes to the school's inner organization, we are bound in that way that we have a breakdown that states how many

> hours, how many lessons one has for mathematics, history, Finnish, English, per week. That exists. But then we get to organize our work quite far independently.

Mai-Len (E), who formerly had experience in educational politics, feels that both she, as a head teacher, and her teaching staff have independence within their own schools and classrooms:

> Personally I've got a lot of independence, because I know how everything works in the relevant governing bodies since I've been involved in educational politics… I know where the money comes from and who decides what, so I feel I've got a lot of freedom. The teachers definitely have freedom in their teaching, and [the town] is a great employer that gives a lot of freedom. But the thing that is very restricting and a bit negative right now is the time distribution that the government has imposed, that dictates that all students in year nine must have exactly four hours of mathematics a week. I don't think all students need four hours of mathematics, because there are students who would do just as well with fewer hours and there are those who should have more difficult mathematics while there are those who need a simpler level. But we're not allowed to do that; we're not allowed to divide the students into different levels, and we can't change the hour distribution. In the past, we could. Things have changed in Finland recently, a few years ago. The regulations became stricter again. We couldn't be as free in the schools anymore. But when you consider PISA, it's based on the time when we did have that freedom.

Although Mai-Len feels she has a great deal of independence in running her school, she does feel the recent "tightening" of the national curriculum inhibits the independence that she and her teachers enjoyed.

Seppo's (F) school has a good cross-section of students coming from varied backgrounds, from children of farmers to children of businessmen and businesswomen. From his school, 54 percent go on to an academic upper-secondary school, 44 percent to a vocational school, and two percent go straight into apprenticeships for work. Elvi (C), however, has 80 percent of her students attending academic upper-secondary schools.

She finds her students very ambitious in general. Mai-Len (E), previously a special needs teacher before taking on head teacher positions, speaks of the difficulty in the variation of comprehensive school students:

> The difficult thing with these [comprehensive school] children is that [their learning] varies so much. There are those who are really, really good and want to learn a lot and should get great teaching, and they get it, but then there [are] always some who might be loud and disturbing in class or those who are so weak that they need special teaching. It's very difficult for the teacher to give all this at once in a lesson, and I think that's the greatest difficulty right now, that we have such different students and they are all integrated, that there is no special needs class.

Mai-Len says that in her current school no special needs classes exist, but her previous school in Helsinki did have such classes. She cites how schools now tend to integrate the weakest pupils rather than have them taken out into separate groups. In her community of small towns, they need more of these classes, since some weak students need separate lessons to proceed at their own pace.

Mai-Len (E) also describes her experience as a student. The old system placed students in academic streams, based on motivation and academic ability:

> The students who were too troublesome or weak went to other schools, so it was much easier for the teachers to teach. The classes had 30-40 students, but it was easier when they didn't need to have the disturbing or slow-learning students in the class. Now there are only sixteen students in a class, but it's still very difficult.

Kalevi (D) notices a difference between city students and those who grow up in the countryside. His school, located in a small city, has better-behaved students and atmosphere than schools in the large cities of Finland.

Strengths of Finnish Education

Pentti (B) praises Finnish school culture, since it places high value on education. He feels the great strength of Finnish education comes from the equality of educational provision for all students:

> The Finnish school culture, it has evolved during many years, and one of the benefits of the Finnish school culture is that it gives the same education equally to all of the students. It also takes care of the less capable students. And the Finnish education system is very equal. If you compare it internationally, elsewhere in the world students specialize already when they are very young, for example [they go] to high school education or vocational schools, which means that they have to make choices very early on. In Finland these choices are made only after the comprehensive school, meaning after the ninth year.

Magnus (A) thinks the value of education in Finland stems from the country's small size. He says, "That means that we have to do something special with our people, and one special thing could be that we are very [highly] educated here." Finland's philosophy, therefore, tries "to educate not our best people but people best." Finland's tradition of education has concentrated on this philosophy, especially since the comprehensive school reforms of the 1970s. Magnus warns, however, that the Finns can always improve their level of education and cannot become complacent. Elvi (C) also thinks that the importance of education in Finnish culture comes from the small size of the population. She says, "We need to make sure we have a good education… to preserve the whole reserve of intelligence." The welfare state and the Finnish government also require that the education system take care of all of the students.

Mai-Len (E) believes that Finland's culture values education and has always done so. The culture has emphasized the importance of education and has admired those who

have an education. She worries, though, that the younger generation will not have the same regard and respect for education: "The new generation I don't think feel quite the same… For my generation it was very important to go on to university. Nowadays young people want to be pop stars or something else. Becoming a professor isn't the first thing they talk about." Seppo (F) also attributes the value of education to Finland's small population. This small population, in addition to the unique language, requires a high level of education in order to maintain competitiveness in the modern world. He believes another strength in Finnish education comes from the comprehensive, compulsory system, with mandatory school attendance and similar access and educational provision for all children.

Magnus (A) thinks small class size improves the level of education of the Finns. Small class sizes and small schools aid discussion between classmates, which in turn helps the learning process. He says, "I think that this is the key to education, to discuss and to learn to discuss. In my opinion, teachers shouldn't have a monologue, just talking all the time. In my opinion, the students and the teacher should discuss these problems together, then you can learn a lot."

Kalevi (D) thinks the high quality of teachers helps Finnish students learn in the education system, as well as the provision of education for all students in the country. Free education for all also comes high on his list of strengths of the education system. Elvi (C) has similar views to Kalevi. She also mentions the high quality of teachers and their advanced degrees as a strong point of Finnish education, and also cites the egalitarian values of the society. The late specialization of students and the long comprehensive system allow students to better choose an appropriate educational path.

Elvi also believes that Finland does a good job in teaching children to read, for being "able to read is an important prerequisite for being able to continue in one's studies and at all in life, so I think we are really good at that." A culture of reading, which the ministers also mentioned, permeates Finnish society.

Magnus (A) believes that Finnish classrooms have a good balance between a relaxed atmosphere and structure. The teachers have a fair amount of authority over the students and can enforce rules without being too strict. He also describes the balance of Finnish education between flexibility and tradition. He says that Finns use an amount of self-criticism and always try to improve their education system. However, "it is very important that you don't change things all the time." His perspective, much like Arvo Jäppinen's, allows a balance between continuity and change in Finnish education.

Weaknesses of Finnish Education

Pentti (B) believes the great weakness of Finnish education lies in the opposite of one of its strengths. He admits that it cannot adequately provide for its academically gifted students:

> The only problem at the moment, shown by research such as PISA, is that in Finland we cannot yet adequately take care of those students who are gifted in a certain subject. This is the only problem at the moment, but we are thinking about it. Also I have thought about it very much here in this school. How could we organize the teaching in a way which would pay adequate attention to this?

In his school, they have tried to better provide the interested students with more mathematics:

> In mathematics this has been addressed in such a way that students can choose to concentrate more on mathematics. These students study mathematics more than other students, and it

> seems to be a good solution. Unfortunately this kind of a solution is not at use in all Finnish schools.

The equality of the system does have a downside, both in terms of the lack of support for the strong students, and of the difficulty for teachers to manage different ability levels in a class.

Magnus (A) admits that sometimes the teacher-student gap can become too large:

> In my opinion, there is too big a gap between the students and the teachers. It could be smaller, but it is very, very important that the students… in some way, look up to the teacher… but the level could be smaller. It shouldn't be some garden party or like that but we could be more aware of the students' problems, take care of them more and understand that they have a lot of work to do and so on.

Magnus also thinks students these days have been spoiled by their parents:

> Today's youth, in my opinion… are quite spoiled… because Finland's economy is quite good, and there are a lot of parents who give them a lot of things. They are very comfortable with the way of living that you can get everything that you want. That is a big thing because now we notice it in school. It's not so nice, because they can't take rules.

Magnus worries that the pupils do not like school. The PISA data showed that Finnish students had some of the lowest happiness levels in school. He suspects that Finnish students actively admit when they do not enjoy a lesson or school, perhaps unlike their counterparts in other countries. Kalevi (D) also feels uneasy about the lack of enjoyment Finnish pupils have in school. He infers that the students feel this way because teachers have such high expectations of them academically.

Mai-Len (E), while describing the stricter curriculum reforms, mentions that Finland's high PISA outcomes came from the more flexible academic environment of the recent past: "It was done at a time when we really could choose within the school how to

organize the teaching." While a head teacher in Helsinki, she offered many course options and the students could choose a more individualized course of study. Currently, however, students must all study the same thing, and they also have more theoretical and fewer practical courses than before. She cites how not all students want theoretical courses, and so theoretical courses should be an option for the students who want that direction of study: "It should be optional so that those who want more theory can have it, and those who need more practical things should have that." She believes the government will change the reforms back to the former way: "It will probably change again eventually, once they realize the mistake, because it is a mistake." Mai-Len thinks that Finland needs to implement more social training in the school curriculum. She thinks the children need instruction on how to express themselves, develop cultural awareness and public speaking skills, and not just emphasize theory and mathematics. She worries that children in Finland suffer from low self-esteem and feel sad in school. She says, "The most important thing is to teach the children to feel good about themselves, so they can be happy people, rather than [just focusing on] these subjects and theoretical knowledge."

Mai-Len (E) does not think that Finnish schools differ too much from schools in other countries. She believes young children need good instruction in reading and writing, but Finland does not always provide a good education in these subjects. She feels that Finns have become lazier:

> When the children are little, it's so important to teach them to read and write, but we're not always good at that. I think we have gotten a bit lazier… The teachers are not so hard working anymore. Some of them are, but many are teaching without caring whether anyone learns anything. I'm not talking about my teachers, of course, but generally, teaching has gone down.

> When I was young, we had a lot of homework, but that's changed. We had to ask our parents for help because it was so difficult, but now parents don't have time to help their children any more…. I don't think we [give] as much time [to] education as we did before.

According to Mai-Len, the young today do not spend time reading or studying; rather, they prefer to see friends or surf the Internet.

Kalevi (D) finds the lack of support for the weak students a flaw in the education system. He believes, however, that school can be too hard for some of the pupils, who would benefit more from a more applied, practical education. A few students in his school "don't want to read and study so much. I think it is better that they do something more with their hands than read and study so much." He believes the very few students who do not want to study would benefit from more practical training. Elvi (C), however, follows the more popular opinion that the system does not support the academically gifted students. In addition to this, she thinks that the Finnish system should better cultivate the talents of students. She says, "Perhaps the real talents aren't cared for in any special way and that is of course in a way a shame… One should find every kid's talent, and one could continue to work on that."

Responses to PISA

Pentti (B) describes how PISA measures practical applications of subject matter, and says how Finland scored well in PISA because Finnish pupils have good skills in the practical applications of knowledge: "This is what we Finns are good at. Top class of the world." However, he warns that PISA did not measure how the students learn the material or their learning processes: "But PISA did not measure how the student had learned all those issues, which are part of the curriculum, things they should have learned

in school, for example, for the sake of their future studies. This is where we still should improve."

Pentti describes a cut in the hours of mathematics teaching in the past, with selected areas of mathematical priority:

> For example when it comes to mathematics, when the number of hours that mathematics is taught was reduced in Finland, a choice had to be made when deciding the curriculum and which issues will be stressed in it. This was when a decision was made, that the emphasis would be on practical uses of mathematics, not so much on algebra and geometry, which -- however unfortunately -- are important for the sake of further studies of the students… It is because of this that we are excellent in PISA, but there are still problems, which we have to deal with. I believe there is a hope we can do it, but it will take a couple of years before this improvement will be visible.

Pentti describes the case of Hungary, which has an excellent program for mathematics, but a focus on pure mathematics:

> Hungary … is very good at mathematics. In Hungary, mathematics is studied a lot and people study even pure mathematics. However, the Hungarians did not do well in PISA, because it concentrated more on the mathematics of everyday life, practical mathematics. And the result was, really, that the Hungarians were quite average and did not do nearly as well as the Finns, even though we Finns have a lot to learn from the Hungarian mathematics teaching.

He thinks that PISA is just one kind of test and measures one view of education. For example, it does not measure knowledge of curriculum, but Finland has its own assessments to measure this.

Pentti (B) describes how Finland has great pride in its performance on PISA: "We Finns just have to be proud that we are good at what PISA measures… Those attributes measured by PISA are valued very much internationally, so in that sense we are

very proud." Kalevi (D) also mentions the pride they felt. He feels that Finns can also learn about themselves and their own education by taking part in surveys like PISA.

Magnus (A) warns that standardized tests must carefully formulate their questions in order to maintain relevance for the age group and have cultural sensitivity. He believes that very different results could have emerged from another way of designing the tasks for PISA. Overall, Magnus thought PISA gives a good overview of education in many countries and provides good comparison between education systems; he feels proud that Finland performed so well in the survey. PISA, however, raises many questions and he hopes that people will use it as a springboard for further research. He says, "There are … a lot of questions that are not so well answered in this project... because the only way to really research a school and school activity is … go into the school and research it." Magnus says, despite good outcomes on PISA, Finland should keep in mind that it can always have a better education system.

Elvi (C) thinks PISA allows countries to see where they stand in an international educational context: "It can be nice to know where one stands, that kids can read and write and they have developed as humans, that can be nice of course, and healthy. Also [it is] good to see for national decision makers where one can improve things." Although Elvi's school participated in PISA as a sample school, she expressed surprise at the results. The PISA questions, not typical school questions, showed that Finnish students can apply their learning to realistic situations:

> I was a little surprised and also impressed [by] the questions that the students did. They were not at all typical school questions in that one, so to speak, sits and crams something and then repeats it. Instead it is more about thinking for yourself… and I think it was fairly interesting to see, and it was nice that we did so well.

> It shows that we probably are on the right track in this country with regards to school.

Although some claim that Finland coached students in PISA tests, she feels that the nature of the assessment does not allow for preparation:

> It is … very interesting that it was a completely random sample of students. One didn't pick out the best or worst or anything, but took those according to a list from these authorities. We got a list like that and we were supposed to pick, was it every third or fourth… but it was very random. It was also interesting to see how that would go. It went well.

Mai-Len (E) has her suspicions about standardized testing in general. She does not believe that tests can effectively assess students because they have received different teaching. Although mathematics may provide a uniform testing base, "all other subjects are based on the values of the teacher and what feels important to the teacher. We can't ask questions about things that might be taught differently in other countries or might not be taught at all." This view also applies to a broader scale. She does not like comparisons with others in general, on any level. Therefore, she finds PISA "pointless" and unnecessary:

> If you compare people on one level but not on another, then it isn't the real truth. If you're good at this one thing but bad at all these other things, then how do you say you're good? I don't think PISA will be able to have such test methods that [allow] you to truly compare different countries.

Mai-Len's sentiments echo those of many critics of PISA, discussed earlier in this project. She feels the differing backgrounds of participating countries do not allow for fair comparisons. She cites the factor of immigration: Finland has very little while other countries have many. Mai-Len also believes that Finland brags too much about high PISA outcomes. She feels the PISA results just show that Finns have good mathematical

skills. Although Mai-Len disapproves, the government has added more of an emphasis on mathematics in the national curriculum:

> They added another hour of mathematics to the curriculum, although we're already the best in the world. Why would they do that? They are just putting even more emphasis on mathematics. It's all about these technological skills that Finland is good at, but what might be needed in the future, we don't know.

Mai-Len believes that Finland's scores in PISA will decrease in future surveys.

Seppo (F) thinks PISA provided evidence that the Finnish comprehensive school provided good quality education for all of its students. He also cites that PISA revealed the bad points of Finnish education, as in needing more support for the talented students, as well as illustrating the good educational practices. He says that PISA provides educators such as himself with evidence that they have been working successfully. In this way, they can prove to the government and the educational policy makers that they produce high-quality education and should continue on a similar path. PISA, however, does not provide complete educational assessment. Seppo speaks of every country having their strong points within their educational culture, and says that PISA only measures a small part of the entire scope of educational provision.

Cultural Transferability

Magnus (A), despite commending PISA for allowing cross-country comparison, warns that one cannot really use PISA to determine concrete educational rankings of the participating countries. He says, "If you want to answer that you should go to every country in this world and see it in the place, in the school, and see how it works. You can't say anything if you just read it on paper."

Cross-National Attraction

Magnus (A) finds the attention to Finland and its education system somewhat curious, since he thinks Finnish education "is overrated. We are not so good." He hopes that "PISA tourists" can find criticisms about Finnish education in addition to the positive aspects, and can take something home that will benefit their country educationally. Magnus wishes that the visitors will tell teachers, head teachers, or educational policy makers of the strengths and weaknesses they have observed during their trips, so that Finland can further improve on their current system. Mai-Len (E) also mentions the many PISA tourists in Finnish schools. She thinks these tourists will not find anything special about the Finnish system, although "it is nice for Finland to have a claim to fame too… It is nice for [the PISA tourists] to come here, because it doesn't occur to people to come here."

Seppo (F) looks positively upon the attention that Finland has received, and feels that, in response to the attention to his country, Finland should in turn observe other systems of education to discover factors that could improve the Finnish education system. Pentti cites how many PISA tourists have come to his school for observation. He describes how these visits take a toll on the head teacher. These visits require the head teacher to prepare and spend all day with them, which he admits can be tedious. He adds, however, that he finds the interest in the Finnish system pleasant.

Elvi (C), like Pentti, feels that all these visitors come as a strain to Finnish educators and thinks that all these visitors disturb school life. She thinks that observing Finland's education system is the new educational trend: "Ten or fifteen years ago everyone went to New Zealand to study the school system. That was where one went;

that was the place… Planes full of teachers and other school people have flown from Finland to study New Zealand's school system." However, with this new trend in observing Finland, Elvi says "all of a sudden we were a little caught off guard when they started to pour in here and look at the Finnish school system… We don't experience it as anything sort of… why do they come here? We strive here every day." Elvi speaks of the aforementioned sense of bemusement that some countries experience when becoming the object of educational attraction. Much like countries formerly regarded for their education systems, such as Japan and Germany, Finland now holds the position of the country most admired for its education system.

Finland and Asia

Pentti (B) believes that Finland scored similarly to Japan and Korea in PISA due to similar values of education in their cultures:

> This kind of culture in Japan and Korea … values school very much. And in Japan and Korea people study for example, mathematics much more than in Finland. And people strive forward. For example, in Japan there is a terrible competition for a child to go all the way to university. And it gives good results, but on the other hand it can be quite difficult for the youth. It can even cause anxiety, because the competition is too strong.

Japanese and Korean cultures highly value education, and parents encourage their children to achieve as much as they can and to go as far as possible in the education system. Pentti parallels this with a similar value instilled in Finnish children from their parents:

> Especially homes and parents [in Japan and Korea], fathers and mothers want their children to get as far as possible. We in Finland have experienced the same regarding some students, that if the home wants a lot of good results from the young one, he or she may feel anxiety about it. So whether it is good or bad, it is difficult to say. Perhaps one could find a middle way about it, so

> that there wouldn't be too much pressure on the student causing anxiety.

Elvi (C) thinks that Finnish children have more time to play and be children. In Asia, the academic pressure forces them to become serious at an early age. She acknowledges the importance of play, especially in the younger years, for a child's development. She does not believe that children need to start early with mathematics practice.

Magnus (A) infers that Finland, a country with a small population, can more effectively concentrate on educational matters than larger countries, such as Japan. All three of the countries have highly educated people and competitive industries. Magnus stresses that the top three countries in PISA probably do not have a significant difference in scores.

Kalevi (D) admits he has wondered much about the similar outcomes of Finland, Japan, and Korea in PISA. In Asia, students have longer days in school and more days in a school year, but in Finland they have high expectations and many requirements of their students. He suspects that in Finland, teachers and head teachers expect more from their students in a smaller amount of time. Seppo (F) infers that the two different types of education produce the top results in PISA from differing foci of education. In Finland, they aim to support all of their students educationally, especially the weak ones. In Asia, they aim for high-performing students and produce the consequent results.

Finland and Scandinavia

Magnus (A) believes that Finland scored better in PISA than Scandinavian countries because of its unique mentality. He describes how Finns can sit and concentrate, unlike Swedes. In Sweden, they have a stronger group mentality, even in schools:

> It is important that they gather in a group, and the teacher should be a part of the students and one of the people in the group. Everyone is discussing and you should have a vote and vote for what we should do in the next lesson. Then everybody votes and then the teacher's voice is not the best voice.

Magnus implies that too much of a group mentality ultimately takes away any authority for the teacher. He also attributes the strength of leadership in Finland to the role of its political figures. Finland has a president, while Norway, Sweden, and Denmark all have royal families. These Scandinavian kings and queens do not have a strong role; rather, they merely represent the country. Magnus believes this influences the culture of authority in Scandinavian countries, which transfers to schools. Teachers have stronger and more authoritative roles in Finland than in Scandinavia. In Sweden, according to Magnus, they must vote on everything:

> My friend… he was working for two weeks in a company in Sweden, and they had to paint a wall in the company. Just one wall. There were seventeen workers in that room, and everyone voted on [the] color for the wall… [In] some way, that must go down [to] the education level, and to the school.

In Finland, the larger teacher-student gap results in more effective learning. Seppo (F) also compares Finland with Sweden. He visited a school in Sweden and found the teachers and schools had too much control from the government. He says, "It is very stiff; they have a lot of meetings. We went to the Finnish elementary school of Stockholm, and it was very much guided from above there."

Mai-Len (E) thinks Finland's strong results in PISA come from the relatively good behavior in its schools. In Sweden, however, schools have more difficulties and more disturbing students, which makes it difficult for the teacher to teach. Sweden, despite this, has its own cultural virtues as well. She says, "On the other hand the Swedes

become much more outgoing and speak much better and more easily, learn to perform and are much more advanced on the cultural scene than the Finns." She said one can view either country as having greater assets than the other, depending on which aspects one values. Elvi (C) also admires the Swedish system for producing students who can express themselves verbally. She also thinks they have good self-esteem and can better cultivate skills such as music. Furthermore, Finland also does not have the immigrant populations of the other Nordic countries, and this influences the results.

Kalevi (D) believes that the Finns performed better in PISA than the Scandinavian countries due to the higher expectations Finland has of its students. Pentti (B) believes that Finland has a better education system than the other Nordic countries, especially due to its system of teacher training:

> So far our systems are better than in the other Nordic countries… We have the benefit as compared to the other Nordic countries, that we have noticeably better teacher traning. It is of higher quality than, for example, in Sweden, Norway, Denmark. Especially Norway. There, in Norway, the teacher training system is very bad.

Pentti does fear, however, that reforms in the teacher training system will cause a decrease in teacher quality in the future.

Elvi (C) states how many people have wondered about the differences between Finland and other Nordic countries and their differing PISA outcomes. She believes that the variations in teacher quality create some of these differences. All of the teachers in her school have their teaching degrees and master's degrees. She also thinks a narrow specialization in teaching subjects helps the teachers better master their subjects. The Danes, according to Elvi, have accused Finland of using too many assessments in their schools:

> The Danes say … the good PISA results are due to our terrible drilling of our students with our exams. I had Danish principals visiting and they were almost a bit annoyed with us… It goes well when you drill and have so many exams and things like that, but as I said, in this PISA assessment it was not at all about this type of drilled, learned knowledge but it was about the ability to read, understand, and draw conclusions, problem solving, and so on. There must be something in this school system that develops also this thought process.

Education in Two Languages

Magnus (A) speaks of the cultural difference between Swedish-speaking Finns and Finnish-speaking Finns, coincidentally the topic of his doctoral degree. He attributes the lower performance of Swedish-speakers in PISA to the cultural differences between the two groups, since the Swedish-speakers have more cultural ties to Sweden. He describes the Swedish-speakers as a hybrid of Finns and Swedes. He says, "We are more social people than the Finnish people. We are more open… We are maybe more aware of our family, our society, the school." He describes Finns as more solitary and less outgoing. Elvi (C) also believes that the Swedish-speaking Finns are a cultural hybrid between Finns and Swedes. Seppo (F) also says the difference comes from cultural nuances. The Swedish–speakers have a stronger community feeling, stronger family ties, and form closer social connections.

In his school, Magnus (A) has approximately 95 percent of his students as bilingual, both Finnish and Swedish-speaking, even though he works at a Swedish-speaking school. He thinks the parents choose the school because they believe they will receive a better education there:

> The parents think it is a better education at a Swedish-speaking school. Usually the Swedish-speaking schools are smaller ones, and if you go to a smaller school, you will be noticed. In a bigger school, you are just one in a million… In a big school,

> your contact with the teacher is not that good as in the Swedish schools, the small ones. There are some big Swedish-speaking schools also, but that is maybe a reason. It is also easier to get a university place if you are Swedish-speaking, that's for sure.

Seppo (F) also mentions easier university entrance for Swedish-speakers, which reduces the quality of teachers. This could explain the lower attainment of Swedish-speakers in PISA. In addition to more lax admissions standards, the Swedish-speaking schools experience a teacher shortage as well, especially in the area in Seppo's community, more isolated from cities and high concentrations of Swedish-speakers. However, he also cites a higher enjoyment in school in that community.

Elvi's (C) school, although Swedish-speaking like Magnus's, also has a sizeable bilingual population:

> About one-third of our students come from pure Swedish-speaking homes where both the mother and father speak Swedish. The rest are from bilingual homes. And lately more and more students have arrived whose parents… can be completely Finnish speaking as well… There are some classes who only speak Finnish with each other… We have arranged them, in order for there to be some sort of possibility to split Finnish grammar instruction… we have often put those students who need grammar, Finnish grammar are usually in the A and B sections, and then C, D, E, F, and G are such that they are more Finnish-speaking… They do admittedly have mother tongue classes when they have Swedish, but it should really be called 'school tongue classes' because it is not their mother tongue. This is a challenge for this school to deal with this… I realized that myself when I, as a history teacher, find it very hard to use a Swedish [language] history book. The words are so difficult; there are so many political terms that it made it a bit difficult to deal with. That is a special thing for this school to tackle.

Perhaps this also affected PISA outcomes for Swedish-speakers, since some of the students in Swedish-speaking schools do not speak Swedish as well as Finnish.

Mai-Len (E) does not think Swedish-speaking and Finnish-speaking schools have any differences in the Helsinki area, but schools on the North-West coast, in Ostrabothnia, scored very low and brought down the PISA average for Swedish-speaking schools. She does not approve of the 2003 PISA sampling, since all Swedish-speaking schools took part while only a sample of Finnish-speaking schools did so. She thinks this may lead to inaccuracies.

Summary

The interviews with the head teachers provided a unique point of view, differing from the other interview subjects. Also, as former teachers, their viewpoints proved valuable to this research project. The head teachers cite high levels of independence within their schools in terms of teaching and curriculum and within a budgetary context. For example, they could spend the school's budget to best suit the school. The principals also reference independence within the school to execute the National Curriculum in the best interest of their students. Unfortunately, however, some believe the reforms to the National Curriculum harm opportunities for the students and the creativity of teachers. The head teachers find the students in their schools come from various backgrounds and have differing levels of academic motivation and ability. The heterogeneous mix of students differs from some of their own experiences as students, when students were separated into ability tracks. They believe heterogeneous grouping creates challenges for Finland's teachers. The candid sentiments of the head teachers parallel the factors discussed in the Preface, crediting the independence given to schools due to the structure of the National Curriculum.

The head teachers praise the education system for its high value of education and equality of provision. The small population and history of Finland as part of Sweden and Russia, and the subsequent Finnish independence movement also add to this. They describe how Finland needs to maintain a high level of education in order to succeed as a nation. The Preface also discussed this high value of education in Finland as a salient factor behind Finland in PISA.

The principals also mention their teachers as a strong point within the education system, for their high quality and competence within the profession. Much like the ministers of education and the sources cited in the Preface, the head teachers praise Finland's teachers as a source of strength in the education system. Within the schools, they also credit the relaxed but structured atmosphere of the classrooms. The conference I attended addressing the reasons behind Finland in PISA also mentioned this fact. The panel discussion mentioned how some cultures find the Finnish classroom "loose" while others find it old-fashioned (Lampola et al., conference proceedings, 1 April 2008).

The head teachers inevitably describe weaknesses within the education system. They feel while the system supports students who need extra attention, the academically strong do not have enough backing for their talents. This, they believe, illustrates a downside to an egalitarian system. Much like the sources cited in the Preface, the head teachers thought the attention given to weak students comes at the expense of gifted students. Much like the ministers interviewed, they also worry that Finnish pupils do not enjoy school. This salient negative factor also had discussion in the Preface. Additionally, some principals note a decrease in respect for the older generations in recent years, including both teachers and parents. They have also noticed how Finns

have become lazier in recent years, less hardworking and less inclined to read. This candid revelation implies that Finland's outcome in PISA may change in the future. In response to PISA, the head teachers describe how it provides good measurements and benchmarks for practical education, and feel proud of Finland's achievement in the test. However, they warn that it only measures one kind of education, a "practical" education. Some wonder about PISA's cultural sensitivity. As reported by Välijärvi et al. and at the conference, many Finns, including some of the interviewed head teachers, expressed surprise at the high PISA results (Välijärvi et al., 2007, p. 3; Lampola et al., conference proceedings, 1 April 2008). Nevertheless, they feel PISA has provided Finland with good reinforcements for its education system.

The principals have encountered many "PISA tourists" within their schools due to the cross-national attraction triggered by the onset of PISA. Some of the head teachers felt that the Finnish system did not merit so much attention, but hoped the PISA tourists could also find negative factors of the system so that they could improve upon them. They also felt that the Finns could reciprocate educational interest, and hoped that Finns would travel abroad to observe the education systems of other countries, since it would benefit the education system at home. Furthermore, they think that the PISA results require much investigation beyond the superficial scores.

When comparing Finland with Japan and South Korea, the head teachers describe similar values of education in the culture of these countries. However, they felt that the students in Asian countries succumb to much more academic pressure than their Finnish peers. Some of the principals attribute the similarity in PISA success to Finland's small population size, making it easier to execute a successful education system. One of them

speculates that Finnish schools expect more of their students in a shorter time, explaining how Finland can achieve similar outcomes in PISA with a much shorter time in school. The similar outcomes of Finland and Japan and Korea illustrate how two different attitudes can produce similar results. For example, the Finnish philosophy, providing support to all students, produces similar outcomes in education, or at the very least, PISA, to certain Asian countries, which stress high results from high achievers.

The head teachers, when describing the differences between Finland and the Scandinavian countries, often use Sweden as a contrast to Finland. They feel the Finnish schools have a bigger teacher-student gap in terms of respect, and better teacher quality in general as a result of the teacher training system. In Sweden, despite the lower PISA outcomes, the head teachers think the system cultivates better self-esteem and happier students. They also cite the cultural differences between the two language groups in Finland. The Swedish-speakers, for example, tend to be more social. Bilingual families often choose Swedish-speaking schools because of smaller class size, a more nurturing environment, and more teacher contact. However, as cited previously, Swedish-speakers score lower in PISA. Students in Swedish-speaking schools can have a bilingual background, or even Finnish as the stronger language, therefore decreasing their ability to perform in Swedish. Furthermore, some feel that Swedish-speaking students have an easier time in school as Swedish-speaking schools also allow easier entrance to university and also to teacher training programs.

The viewpoints of the head teachers both mimicked some of the perspectives discussed in the Preface, but also gave a candid perspective on their views of the nuances of the Finnish education system, cross-national attraction, and PISA.

CHAPTER FOUR:
PERSPECTIVES ON PISA FROM THE FINNISH EDUCATION SYSTEM
INTERVIEWS WITH TEACHERS

Findings from Teachers

Interviews focused on teachers of subjects directly related to PISA: science, mathematics, and mother tongue, and those teaching the age group measured by PISA. Within the six schools sampled, seventeen teachers participated in the study, all with varying levels of experience. Last names and schools have been omitted from the interview data to ensure anonymity of the participating teachers.

The Schools

The six sample schools covered both language groups by including three Swedish-speaking schools and three Finnish-speaking schools. I tried to include in the sample schools from the same town, in order to provide a parallel perspective among the two language groups. This occurred successfully for four of the sample schools. The two remaining schools, one Finnish-speaking and one Swedish-speaking, did not come from the same town. Chapter Three also discusses the geographical locations of the schools.

School A and School B both came from the metropolitan area of Finland's capital city, Helsinki. School A has 100 students and approximately twenty teachers. School A, which uses the Swedish language, feeds into the only Swedish-speaking upper-secondary school in that city, which neighbors Helsinki. School B, with grades 7, 8, and 9, has approximately thirty teachers and 400 students. School B uses Finnish as its language of instruction.

School C, as mentioned in Chapter Three, serves a town of approximately 20,000. This town, unlike many in Finland, does not allow school choice for its students; students must attend the school in their catchment area. I examine school choice in Finnish schools at length in the section discussing the results from Finnish educationists. While this school takes the students from the town itself, others in the town draw in students from more rural communities and farms outside of the town limits. The area itself speaks primarily Finnish. School C has 420 students and approximately thirty teachers. It teaches students in grades 7, 8, and 9.

School D, a Swedish-speaking school in the fifth-largest city in Finland, has about 400 students and forty teachers. Although this city hosts the Swedish-speaking university of Finland, the town has a majority of Finnish-speakers. It has grades 7, 8, and 9. School D is located next door to a lower-secondary, Finnish-speaking school.

Schools E and F come from a community of 7,000 in the South of Finland. The town's entire municipal area has a population of 35,000. School E, the Swedish-speaking school of the town, serves the 1,000 Swedish-speakers in the area. Both the lower-secondary school and the upper-secondary school operate within the same building. The lower-secondary school has grades 7, 8, and 9. School F, with approximately 400 students in grades 7, 8, and 9, has about forty teachers.

The Interviews

I used semi-structured interviews with the teacher interviewees, as described in Chapter Three. The Appendices contain the interview questions for teachers. During my observations of the six schools, I asked the teachers of the subjects covered by PISA, mathematics, science, and mother tongue, if I could interview them. All teachers responded positively to the prospect of the interview and to contributing to the research.

The Teachers

The teachers, seventeen in total, covered a spectrum of teaching experience. This range allows for differing perspectives on Finnish education and rich data.

School A ***Name***	***Sex***	***Subjects Taught***	***Years of Experience***
Linda (AL)	Female	Swedish	4
Hans (AMS)	Male	Physics, Mathematics	36
School B ***Name***	***Sex***	***Subjects Taught***	***Years of Experience***
Aino (BS)	Female	Biology, Geography	25
Saija (BL)	Female	Finnish	1
Jukka S. (BM)	Male	Mathematics	30
School C ***Name***	***Sex***	***Subjects Taught***	***Years of Experience***
Benny (CMS)	Male	Mathematics, Physics, Chemistry	5
Sanna (CL)	Female	Swedish	3

Krister (CMS)	Male	Mathematics, Physics, Chemistry	25
School D ***Name***	***Sex***	***Subjects Taught***	***Years of Experience***
Jukka E. (DL)	Male	Finnish	7
Maarit (DMS)	Female	Mathematics, Physics, Chemistry	10
Toni (DMS)	Male	Mathematics, Physics, Chemistry	3
School E ***Name***	***Sex***	***Subjects Taught***	***Years of Experience***
Christian (EM)	Male	Mathematics	6
Christer (ES)	Male	Biology, Geography	26
Pia (EL)	Female	Swedish	19
Jonny (EM)	Male	Mathematics	1
School F ***Name***	***Sex***	***Subjects Taught***	***Years of Experience***
Miikka (FL)	Male	Finnish	20
Terttu (FMS)	Female	Chemistry, Mathematics	17

When cited during this section, all teachers have a code in order to help the reader identify their different schools and subjects. For example, Linda, from School A and a native language teacher has the code AL, representing School A and that she teaches language. Terttu, from School F, has the code FMS, for School F, mathematics, and science.

Teacher Training

Most, but not all, interviewed teachers had earned their teaching diplomas. Some had straightforward routes to teaching through teacher training, while some took different paths. Pia (EL), for example, studied Swedish at the Swedish-speaking university and had her practical teacher training with their Faculty of Education in Vaasa. Sanna (CL), a Swedish-speaker says, "There is only one way to do it [teacher training], which is to study in university and have a practice in Vaasa… We go there for six months. It doesn't differ much from the general studies and teacher studies. The courses are the same except for the six months you are in Vaasa." Krister (CMS), however, worked at his current school while he studied for his degree. He left to do his practical training in Vaasa but returned to the school afterwards. Jonny (EM), who also has an interest in music, studied for two degrees to have teaching certification in two subject areas:

> It started that I was interested in leading musical ensembles for social reasons. It is developing for the youngsters [*sic*] and then I chose to seek [*sic*] into teacher's education. The process was then I chose mathematics and studied that for some years, and the same time studied a little music to get a double examination and papers as a professional teacher and a professional music teacher.

Saija (BL) also had both subject and teacher training. She enjoyed the practical part of her course, especially Finnish as a second language:

> There was Finnish as a second language, and I think that was the best part of the training, because it was so in the real world. It is so different the training and the real world here. You have two weeks time [during training] to think about one lesson and here you have six lessons per day and it's so different.

Toni (DMS) also studied two subjects and pedagogy and undertook practical training in schools: "[Teacher training] is kind of independent [*sic*] type of education. You must do

a lot of homework, and you yourself find out different kinds of information, and that is good, because we have to do it right here, right now." Terttu (FMS) studied Chemistry but in her second year decided she wanted to teach: "I studied Chemistry and in the second year I had to choose if I wanted to be a teacher or a scientist, so I decided I would be a teacher. For me, it lasted ten years. I have two children."

Hans (AMS), a teacher for over thirty-five years, had a different experience. He had one year in a teacher training institution. He says, "I have learned from practice." Jukka S. (BM), a quite experienced teacher, noted how current teacher training has changed over the years:

> I think [teacher training] is most of the time similar, but of course the idea of how to teach and how to learn has changed over the years. We think and we discuss more about cognitive ideas so the pupils will process themselves what we are studying, why is this happening, try to understand. Not just follow the teacher, do as I am showing you. The world has perhaps changed but I think that the idea of how to become a teacher is more or less the same [as] it used to be.

Aino (BS) also had her teacher training in the old system: "My teacher training… it was helpful, but mostly it wasn't so useful…. I think it is better nowadays… than it was. It didn't have so much to do with the practical things I met at schools, so that's why. I hope it has gone in a better direction nowadays."

Linda (AL), a teacher of Swedish, actually does not have her official teaching qualification. She has been working as a teacher for four years while simultaneously studying for her degree. Christian (EM) also does not have a teaching qualification. He describes finding his job as a coincidence. He originally came to his school as a temporary teacher, for only one month. The following school year, the school asked him if he could work the entire year. He works concurrently on his teaching diploma.

Interestingly, both Linda and Christian come from the Swedish-speaking community and work at Swedish-speaking schools. The ministers and head teachers, in their interviews, addressed the issue of Swedish-speaking Finns scoring lower in PISA due to lower numbers of qualified teachers and teaching shortages. Perhaps these two teachers included in the sample are a coincidence, or perhaps this finding is indicative of the teachers in Swedish-speaking schools.

The Classroom

Nearly all interviewed teachers said they felt autonomous and independent in their classrooms. Finland, which has an aformentioned national curriculum, encourages the delivery of this curriculum on the local level to ensure suitability for the particular students. Jukka S. (BM), for example, said he felt very independent. Although the national curriculum dictates the same content for teaching, he feels he has the freedom to teach in his own way. Toni (DMS) states, "I can make any decisions I want about the teaching. No one comes and tells me what to do and how to do it. I myself make all the decisions." Krister (CMS) describes how the national curriculum tells him what to do, but he designs his own lessons. Pia (EL) also acknowledges the national curriculum, but says she feels quite independent:

> I can do my own lessons, of course, but I have to follow the instructions from the government. But it is… not a problem. I feel quite independent. I have a very good co-teacher, Maria, and we plan together what we do during the lessons. We have a lot of help from each other. That is very nice, actually, good support and a lot of help from her.

Christer (ES) tries to teach his students more than the textbook, especially those students who have high interest in education:

> I've chosen to do further studies in biology and geography specifically because they are subjects I've worked a lot with in my free time. I've been a field biologist, out in the nature a lot, so there's a lot in there that's important to me personally and I try to give that to the students.

Despite the recent reforms for a more detailed National Curriculum, Aino (BS) still feels autonomous and free to select her lessons and subjects for teaching. Terttu (FMS), however, does not. The new curriculum gave her an extra hour for mathematics, but also required her to teach more subjects. She hopes not to feel rushed to teach everything in the new curriculum. Jonny (EM), who does feel autonomous, says:

> I feel I have very big possibilities to think about my education and my teaching, and even if I teach… once a week per class per group, anyway, there are many possibilities to use these tests or to have these sheets that you give a different number [grade] for. Of course there is the need to follow the educational plan. That is very important but it has been surprisingly not so detailed [as] I feared.

Linda (AL) describes how the curriculum does not let her implement her own goals for her students' education, but allows her to teach in her own way to the national curricular goals. Hans (AMS) teaches so that his students perform well on the matriculation examination. As a mathematics teacher, he teaches towards success in this examination. As long as his students manage well in it, nobody questions his methods. He feels quite independent in that respect.

Saija (BL), however, does not feel independent in her classroom. She feels the curriculum restrains her creativity as a teacher.

> I feel that I am not free. I feel that I would like to do many, many nice things with the pupils but there are quite straight rules what to do. We have that plan… We have these kinds of courses and we should do this and that… There are so many things you just do. Nowadays I feel like there are coming more and more things to finish.

Pia (EL) describes the different system in Finnish schools today, compared to her experience as a student. She studied in a selective school, at a time where the children found themselves separated into academic and vocational tracks much earlier. She had 36 students in her class, quite large by Finnish standards today. She describes how this choice came at grade four, rather than after grade nine. The schools also did not have special education to support weaker students. Students who could not handle the work left school. She feels that the school instilled values of hard work and effort in the students.

The Students

When asked about their students, most of the teachers found them fairly well behaved and motivated to learn. Krister (CMS), for example, said he had good classes, but with some difficulties and some exceptions. Aino (BS) says the small class size helps maintain any discipline problems, as well as the special education program: "We also have a class, a special class for students with special needs, so they are taught separately… It is easier for us when they are in a different classroom." Pia (EL), on the other hand, found that they varied depending on the lessons, their personalities, and their learning abilities:

> It depends on what we are doing, of course, and their personality and their ability to learn. They are very different from each other, I would say. They are very mixed groups, because we can't divide them into, you know, people who have good ability to study and not so good ability to study.

With reference to mixed-ability teaching, Pia says, "It is actually the biggest problem I have." Terttu (FMS) also finds it difficult to teach at so many different levels in the same classroom. She prefers the weaker students, however, since she enjoys it when students

with difficulty in mathematics can understand the material. Hans (AMS) feels lucky with his students. His students deliberately choose more time in mathematics to better their educational chances in the future. He feels lucky as these students often have the best behavior in the school. Christer (ES) notices this as well. His students who want to attend academic upper-secondary school study harder in his subject than those who want a more practical training.

A difference in educational attitude may exist between rural and urban communities. Terttu (FMS) describes one of her students, a child of farmers, who says he does not need education because he will be a farmer like his parents. She predicts he will leave education after comprehensive school. Jonny (EM), who taught in Vaasa on the North West Coast for his practical teacher training, said the Swedish-speakers differ in their attitude toward education in the Northwest from those in the South. As he now teaches in the South, he finds them more motivated than their Northern counterparts:

> I find them very much motivated here in the South of Finland than in Ostrabothnia. The values are supporting *gymnasium* studies, towards the *gymnasium*… As a teenager you think it is both traditional and conventional, so many youngsters of course follow their elders' view of things… Here in Southern Finland… it is more of a materialistic culture in a way… Materialistic in the sense that you want to have use for the knowledge, and … to be able to succeed.

Toni (DMS) also notes a difference in the students, but more geographically. Rural schools, which do not have as many resources as city schools, have problems with "peacekeeping," since they do not have as many special teachers to give the students the support they need. Christian (EM), however, has the opposite experience. His rural school has children who come from stable homes, with more old-fashioned morals and greater respect for teachers.

Strengths of Finnish Education

Many of the teachers felt that Finland's culture values education. Miikka (FL) believes Finns have great pride in their education system, because of its equality and access to all, no matter what the family background. Krister (CMS) thought it came from Finland's small size and more marginal place in the world's geography: "We are so aside, if we don't get good knowledge, I think we are going to go back… I think the whole of Finland wants to learn and the students go to school to learn." Pia (EL) agrees that Finland's culture values education, but attributes it to Finnish history:

> I think it is the history, and for my generation, or for my family, they wanted me to go to university because not a lot of people from my family had the opportunity before. My mother, she couldn't go to *gymnasium* and do the *studentexamen* because of lack of money. They couldn't afford it, and she was always keen for me, 'You have to do it, you have to do it!'… I think that it is more or less that everybody gets some education. I'm not sure that the kids today appreciate it though. They don't understand how much they get for free.

Hans (AMS) tells a similar story. His parents, peasant farmers, encouraged him to pursue his education, since they believed education provided the best preparation for the world. The way of his parents' existence could not continue in a more modern Finland: "There were lots of small agricultural units with no possibility to survive in the world where we are living now, so education is the answer."

Jonny (EM) believes that Finnish culture values education because "it is a matter of life and death for the Finnish state and the Finnish culture." He feels the need for Finns to learn languages and use them, due to the relatively small populations of the two linguistic groups. He also thinks his pupils need to learn about cultures. Jukka S. (BM) speaks of the consensus of the entire country about the value of education and their ideas

about it: “I think the whole nation has more or less a very good consensus about the values and ideas [of education]. We feel that the world around us, at least in our society, our nation, is very democratic.” Aino (BS) also thinks that Finnish society values education, but not through the money they pay the teachers. Toni (DMS) agrees with Aino. He says Finnish society does not value education in terms of teacher salaries, but does support it with good resources and teaching materials. Toni also thinks Finnish society makes Finnish education a strong system. He says, “We are hardworking and I think that is the reason. We make work, and we calculate, calculate, calculate. It shows… Maybe it is the religion, the Lutheran religion. Work hard and be happy.” Jukka E. (DL) also describes how Finland values education, not with money, but with respect. He believes this respect for education comes from Finnish history. In the times of Swedish and Russian rule, the educated in Finland were either Swedish or Russian. The educated Finns came from the Swedish-speaking community. He describes how, in the late nineteenth and twentieth centuries, the Finnish speakers had more opportunities for education, therefore creating this value and respect in the society today. Christian (EM) believes his students value their education as well. They worry about whether they can obtain places in an academic upper-secondary school and have concern about their examinations. Benny (CMS) thinks Finnish society values education, but not the politicians, because they do not provide enough money for education.

The teachers also speak of the support for weak students as an asset in Finnish education. Jukka S. (BM) mentions special education several times when describing the best points of the education system. He says how it does not overlook these students. He describes it as a caring system, one that wants the students to do well in society and in

their futures. Jukka S. describes the school atmosphere as friendly and uncomplicated, a relaxed environment where the students can receive support for work and study.

Many of the teachers view the equality of the education system as an advantage. Terttu (FMS) says, "We have opportunities for all children. That is the best thing about [our] education." Jukka S. (BM) finds that the equality leads to even results. Jonny (EM) approves of the equal chances for education provided for both males and females in Finnish society. He also feels the students always have a voice within the school system, as a result of democratic values. Pia (EL) also views the equality of the system as a great asset. She says, "You don't have to be rich or you don't have to be talented or you don't have to prove that you are something before you enter the system. Then you can go as far as you want." Jukka E. (DL) thinks the change to comprehensive, egalitarian education benefited Finland tremendously:

> We have made mistakes. In the 70s there was a system that we really don't want to talk about. It was not a bad thing that happened, but it was something that was not equal for all of the students. After that, we wanted to give equal education to all and also give those talented students the possibility to learn on their own level. In the 70s there was the attention to make different levels [with] different ability students. It was not equal, so it really didn't make good results. [The inequality] was totally reduced.

Aino (BS) feels the equality of education and equal access benefit all. She cites the example of how the Finnish welfare state, which provides free lunches to every student, fulfils a basic need to every student in order to prepare them for a day's learning. Hans (AMS) also mentions the egalitarian nature of the education system. Access to education, as well as uniform standards, helps all students achieve a similar level of education. The matriculation examination also provides continuity for all Finnish

students and forces them to achieve a certain standard of education. Maarit (DMS), like Hans, praises the consistency and continuity of the Finnish system. She thinks having the National Curriculum and similar textbooks helps Finnish students reach a comparable level of education. Jukka E. (DL) expressed appreciation for his education: "When I got older and older I learned we are in a quite extraordinary situation to get this kind of schooling and totally free. We can study in university and it costs quite nothing."

The make-up of the Finnish population also helps the country achieve a successful education system. For example, some teachers remark on the lack of an immigrant population in Finland, in comparison to other countries. Jukka S. (BM) notes how a larger immigrant intake makes a more complicated educational situation in countries such as Germany, England, or France. The different cultures, backgrounds, and languages create challenges for other education systems.

Jukka S. (BM) describes his students as curious, always wanting to know more and to study more. Linda (AL), a teacher in a Swedish-speaking school, speaks highly of the student-teacher relationship in her school:

> We have quite … good contact with our students. We know who they are and they know who we are and we talk to each other by name … We are not called teacher, we are called by name. That gives a certain feeling of familiarity or being at home in a way. I think that these students feel safe and secure here… I think that could be a part of a good learning environment.

Miikka (FL) also thinks the close relationships between teachers and students reflect that positive aspect in society. Benny (CMS) even admits being more like a friend to his students.

Jonny (EM) praises the education system:

> The democracy and the possibility to take a standpoint and to be listened to… Then also the value that both men and women are equal in our society… Furthermore, we have flexibility. The kind of reasons that we have the possibility to pick the strengths of both [vocational] education and *gymnasium*… that is good, I think.

In a similar vein, Pia (EL) describes how the system supports students and leads them on the right path:

> We have this [guidance system], everyone helping them. 'You have to go somewhere.' If you are not interested, you can't drop out. That's good… You can always change. If you find out that this school is not for me, you can go to the other school. At least you have tried and made your own decision. I think that would be very important.

Krister (CMS) thinks that reading really provides a good basis for success. In the early years, he describes, the schools place a great emphasis on reading. This helps them understand texts and perform better in all subjects. Linda (AL) thinks that universal education and equal access help promote literacy in the entire Finnish population.

The teachers mentioned the high quality of teachers as a strong point of Finnish education. Only Benny (CMS) contradicts this. He says he became a teacher because "I like math, and I am quite lazy, so the easiest way to go through university is to become a teacher. It's true!" Maarit (DMS) praises the Finnish system in trying new ways to teach over the years:

> We have had quite many [*sic*] ways to teach. In the '70s we had different teaching methods to what we have today. And in the '60s and '50s we had a very different way. Maybe we try nowadays cooperative learning, sometimes group work, and we try these methods.

Krister (CMS) says, "I just have math, physics, and chemistry. In some countries one teacher teaches many subjects, and that, I think is not so good. They can't get so deep into something. I don't think my class would want me to teach in other subjects." Aino (BS) credits the high level of teacher education:

> I think it is because the teachers are so good, and the teacher training… The basic education of teachers is high, and it is so good, because we do the higher, upper exam at university and then we go one year… we do the teachers' education after that. It's because [of] that the education is so high.

Saija (BL) also agrees that the teachers greatly affect the high quality of Finnish education, since all have undertaken many years of study to receive their teaching qualifications. Jukka E. (DL) also thinks teachers contribute to the high quality of Finnish education, but modestly says the entire system works together as a unit, so teachers cannot take all of the credit. Nevertheless, later in his interview, he credits Finnish teachers for their contribution to the education system:

> It is the qualifications of [teacher] education. We have high standards for teacher education… Teacher motivation for their work is not dependent on the price they are paid but their inside motivation. We don't have to watch each other, 'Are they doing their work?' Everybody is motivated by himself or herself… Every teacher is responsible, I think.

Christer (ES) describes the dual nature of the teacher, both as an academic and as a teacher. He considers himself as a biologist with a master's degree in pedagogy. He also believes the highly competitive entrance to teacher training programs adds to the quality of teachers in Finland.

Weaknesses of Finnish Education

Krister (CMS) thinks that impending budget cuts will come as a detriment to the education system:

> In [my city], I think [education] is going in the wrong direction. The cities are independent. They started in many cities to cut down the budget for education, so next year they are cutting by five percent the school's money, so the city doesn't have enough, and they have to cut it from the school. There are also many schools [where] they are going to cut the money, which will make two or three more students per class. Now we have seven classes [per grade level], and with a five percent cut, we will go to five classes, and that is not so good. I think it is better to have small classes. We have quite small classes, 20-22 students, and in some classes smaller. When I started here we had 32-33 per class, and it is much better now.

Jukka S. (BM) also says the schools need more resources:

> The resources, economically speaking, they are not the best. They are not at the level I think they should be. The economy of Finland is doing very well. Finland has never been so rich as it has been today. But all in all, I must say that it feels that we don't have enough money for education.

Linda (AL) says how Finnish society values education, yet speaks of the difficulty with the tight funding of education. She believes that with more money they could better provide for the students in their schools.

The curious finding in the Finnish PISA results, lack of enjoyment in school, seems to come from a cultural influence. Maarit (DMS) thinks the students say they do not enjoy school because of peer pressure. She thinks they actually do like school. Aino (BS) also addresses this issue: "If you ask a teenager, 'Do you like school?' the mentality in Finland is of course, 'I hate it; I don't like it.' I'm sure … they don't like it so much. We have good results, but they don't like it so much." Benny (CMS), however, believes

his students very much enjoy school. He says, "We have a quite extraordinary school in that way. We don't have many students who dislike coming to school in the morning."

Many of the teachers mentioned the converse of the great strength of Finnish education as the great weakness. Jukka S. (BM) believes that school does not provide enough challenges for intelligent students:

> I think my only concern is that we give lots of support to those pupils who are underachievers, and we don't give that much to the brightest pupils. I find it a problem, since I think, for the future of a whole nation, those pupils who are really the stars should be supported, given some more challenges, given some more difficulty in their exercises and so on. To not just spend their time here but to make some effort and have the idea to become something, no matter what field you are choosing, you must not only be talented like they are, but work hard. That is needed.

Miikka (FL) describes how he will give extra work to students who want to have more academic challenges, but admits that "they can get quite good grades, excellent grades, by doing nothing actually, or very little." Pia (EL) also feels that the schools do not motivate very intelligent students to work. She thinks the schools should provide more challenges for the academically talented students. In fact, she thinks the current school system in Finland does not provide well for its students. Mixed-ability classrooms, she feels, are worse than the previous selective system:

> I think this school is for nobody. That is my private opinion. Actually I think so, because when you have all these people at mixed levels in your class, then you have to concentrate on the ones who need the most help, of course. Those who are really good, they get lazy.

Pia believes these students become bored and lazy, and float through school with no study skills. Jonny (EM) describes how comprehensive education places the academically gifted at a disadvantage:

> We have lost a great possibility when we don't have the segregated levels of math and natural sciences… That should be once again taken back and started with. The good talents are now torturing themselves with not very interesting education and teaching in classes that aren't for their best.

Aino (BS) states that the evenness and equality of the education system has a "dark side." Teaching to the "middle student" in a class of heterogeneous ability bores the gifted students, who commonly do not perform well in school. Maarit (DMS) finds teaching heterogeneous classrooms very difficult. She admits that dividing the students into ability levels would make the teaching easier, but worries that it may affect the self-esteem of the weaker worse than a more egalitarian system. Similarly, Terttu (FMS) thinks that the class size is a detriment to the students' learning. Even though Finnish schools have relatively small class sizes, she thinks that a group of twenty is too large, since she does not have time for all of the students: "You don't have enough time for everyone… All children have to be in the same class. That is not so nice. You have the better pupils. I can't give them as much as I want. You have to go so slowly in the classroom." Curiously, Jukka E. (DL) thinks that the special education students need more support and the education system needs to improve in that area.

Miikka (FL) describes discussion in educational circles about creating schools and universities for academically talented students:

> Everyone has the same chances…One problem is that it can be too easy for talented students. There has been now discussion in Finland if there should be schools and universities for talented students… I think it will happen, but I don't know if it is good, but it will happen, I think so. I am also afraid there will be private schools again in Finland in the future… [There] will be more rich people and more poor people, and then will come so [many] problems in comprehensive schools that some day quite soon … parents will demand that we should have private schools again, and that is quite sad.

He believes this will create socio-economic differences currently not so influential in Finland.

Jonny (EM) worries about the possibilities for students after their education. The labor market does not provide enough jobs for students: "We have so many young students and university youngsters that are studying and won't get a job in the future. That is a problem that we can't afford in the long term, to continue in this way." He also fears that the small, homogenous population does not encourage new ideas and becomes stagnant in its thinking. He also feels that Finnish education has no long-term strategies, no plans for the future:

> Our values do not support [the education system] at the moment, not… religion and not… working values. It doesn't support it, especially not in the South of Finland where far too many are [aiming at] the *gymnasium* and we don't have any long-term planning for how Finland will work after ten or twenty years. We are living hand-to-mouth.

Some teachers feel that the education system could achieve even more with better funding. Aino (BS) thinks that Finnish education could benefit from more money:

> I find [the education system] very good, and as I have discussed with teachers from other countries, I think it is quite good, but of course it could be even better -- more money, smaller groups, especially when we go outside, working in… nature and things, more equipment, and for example, computers. They are very old and only half of them work. Things like that. We could do even better if we had more money.

Sanna (CL) also thinks Finnish education needs more funding. The budget cuts would greatly affect her school, which already has classroom shortages. Miikka (FL) believes his school could benefit from more computers and resources as well. Christer (ES) does not think schools have enough resources to best teach their students. Many schools need

more support for their special students but do not have the money for these teachers. Limited resources also mean large class sizes. Christer used to have classes with over thirty students in the past, and Benny (CMS) worries that budget cuts will increase his class size from approximately twenty to twenty-five or thirty. These large groups will be harder to teach.

Sanna (CL) thinks the great strength behind Finland's PISA outcomes lies in reading and reading comprehension. Although the children do play video games, she feels they read books and newspapers as well. Linda (AL), however, feels the love of reading has declined in the younger generation, as they tend to gravitate more to video games and television. Miikka (FL), also a teacher of mother tongue, also cites a decline in reading interest and an increase of video game and computer play. Saija (BL) agrees. As a teacher of Finnish, she feels that she has difficulty motivating her students to learn: "I think my subject is not the … easiest one to teach. They don't read so much, newspapers or novels." Her students, especially the boys, do not like their assignments in Finnish language. She also thinks the respect for teachers has declined in this past generation. Miikka (FL) also thinks his students do not respect their teachers:

> They don't respect the teachers. They respect them very little… I think it has changed a lot in recent years. In Helsinki, it was actually earlier. When I came here six years ago, I thought this was heaven. I thought it was incredible, how the children were like that after Helsinki, but now I think it is the same.

Linda (AL) notes deficiency in the amount of time available for subjects. With more time, she would implement more creative activities, such as speech and drama, into her lessons. Saija (BL) also thinks that her students need more arts subjects like drama and art. She worries that they consider mathematics as the only important subject. She

feels countries such as Sweden, Norway, and England have better arts programs than in Finnish schools. Arts subjects, according to Saija, help the students get to know themselves. Maarit (DMS), a Finnish-speaker, thinks that schools need to spend more time cultivating social skills.

Pia (EL) finds the PISA frenzy about Finland amusing, since she believes the schools have declined in recent years: "I think [the attention] is quite funny because school isn't as good as it used to be… I used to be proud of being a teacher and proud of this school, but I can't say I'm proud any more."

Responses to PISA

The teachers had various familiarity levels with PISA. Coincidentally, some of the schools used in this study participated as PISA sample schools, therefore giving a first-hand perspective on the survey.

Both Miikka (FL) and Christian (EM) remain a little skeptical about PISA, but find it strengthens the faith in their education system. Saija (BL) believes that PISA provided Finland with good reinforcement, but most of all supported the hard work of the teachers. It also rewarded the special education efforts in Finland, whose sample consisted of many students in special education or extra support. Toni (DMS), although a little suspicious about standardized tests and international surveys, does admit PISA did good things for Finland. Benny (CMS) simply feels that PISA suited Finland. A different type of educational survey would not yield the same outcomes.

Christer (ES) thinks PISA, in addition to centralized standardized testing, allows people to better observe the strong points in education systems. However, he warns that

countries must not compete with each other. PISA also allows Finland to see the areas that need improvement.

Krister (CMS) believes that PISA allows for good comparisons between countries. Jukka S. (BM) thinks it provides a good measuring stick for education, albeit a bit limited it its scope:

> I don't find [PISA] good since with education, you are never ready. There is a similarity with wines. For example, if you study wines for thirty years, you realize how little you know. A lifetime is not enough. You are never ready. With education it is the same thing. Every morning you have to find the right note… If you have a test, it will of course measure something but it will be always a bit limited. If it is measuring, like I said, in Finland we have a great support to the underachievers, to those pupils who are not doing so well in their studies. It's giving us good results in PISA. For my mind, for my idea of the whole educational system, we need to have more support to the brightest pupils, the best ones, to really give them a challenge and give them the idea that you can make something special out of them… PISA is not measuring that… It is one test. Of course, it is a nice glory to Finland and the whole educational system, but it is only one thing.

Linda (AL) expresses a similar sentiment:

> At least some important questions are being asked, but I don't know if the results are to be trusted… In different countries, for example, the way you ask the question could be understood in many different ways… There are many things that could be understood differently in different countries. I don't know if you can really compare the results between [countries].

Jukka S. and Linda express the sentiments of many critics of PISA, that PISA has a limited scope and lies vulnerable to cultural bias.

Pia (EL) thinks PISA comes as an asset for the European Union and provides a good comparison between the EU countries. PISA and standardized tests, according to her, provide good comparisons and help keep educational levels even. Jonny (EM) also

thinks that PISA has benefits for Finland's EU membership. The European Union necessitates understanding of the other member countries, and PISA aids this.

Pia (EL) warns, however, that PISA results and standardized tests do not measure everything in education. She feels that all standardized tests, not just PISA, need further analysis and observation of all factors influencing education in order to provide clearer pictures of the factors affecting education systems. She says, "You can't read this [PISA] as a bible or something… I think you should compare schools across Europe and all over the world. But then you have to look at the background, you can't just stare at the numbers and the results." Sanna (CL) thinks that PISA needs more research to support the findings from the survey. Jonny (EM) agrees. He believes PISA does not show the cultural differences behind the results, such as the values of the students:

> Of course PISA doesn't show values and doesn't show neither the way of thinking nor the reality, what is important, necessarily. It is hard [in] this kind of quantitative research to see everything. You should also have qualitative research, where you very deeply and in the long term get to know different humans, but how do you compare them? That is almost impossible.

Hans (AMS) also expresses skepticism about PISA. He says, "I'm not sure if the results are quite what they seem to be." He feels these surveys provide a reason for the outcomes that really result from something else. For example, many attribute Finland's high reading literacy to the good schools, but Hans believes that television may play a bigger role than anticipated. In order to watch television, Finns must read subtitles in their own language while listening in another.

Aino (BS) disapproves of educational budget cuts due to high PISA outcomes. She also felt it needed deeper student questionnaires. She admits Finnish students do not like school and believes PISA should have investigated more of these kinds of matters.

Krister (CMS) described the process of PISA within his school. The survey called for random sampling, which Krister recalls as every seventh student from the lists. He feels that having every student in the school take the assessment would provide a better picture of the school: "We have in every class some students with some difficulties, but if you picked a small class the two who go out to small groups, it doesn't show the real standard of the class." Jonny (EM) approves of the PISA sampling method, which draws a wide range of students from each school. Pia's (EL) school also participated in PISA as a sample school. She describes the strict process of testing, which called for every other student in alphabetical order. She says, "It was a very strict system. You couldn't cheat. Actually, you could cheat if you just took out some names, if you wanted your school to get the good results." Pia brings up a dark side of PISA, the possibility of cheating for higher scores on the survey. Toni's (DMS) school also participated in PISA. Although his colleague took charge of the project in the school, he said his colleague, the liaison teacher, followed the rules exactly and picked every tenth student. Maarit (DMS), who teaches at the same school as Toni, described the secrecy behind the project. The teachers could not read the tests; rather, they came in envelopes and only the sampled students could access them.

Terttu (FMS) felt PISA had very easy questions in its mathematical literacy section. Her school, also a sample school for PISA, had many students selected, albeit randomly, who participated in special education or extra support in mathematics:

> The students chosen from our school were not… There were so many students who were not normal students; they were special students. I was surprised that it went so well… But there were such easy questions, but if they were more difficult, then in Finland the pupils would have not succeeded on them so well.

Jukka S. (BM) speaks of the depiction of Finnish education as the best in the world because of its performance on PISA:

> It is tempting to think [that Finnish education is the best in the world], but I find there is some self-indulgence in the idea that we are the best in the world. In the Finnish minds, when people in Finland are discussing with each other we tend to be very modest… We are too modest to say we are the best in the world… I think we have a good system, yes, but it would be fantastic to develop it more and more so we have the best system in the world as a goal.

He fears that the success in PISA creates a danger of the education system becoming smug and complacent. Jonny (EM) agrees, worrying about a lack of self-criticism. He worries that people will no longer see the weaknesses of the system. The economic resources for education, according to Jukka S., need to increase in order to maintain as well as increase achievement in education. Jonny also thinks that teachers need continued support from the government to better perform in their jobs.

Jukka E. (DL) sums up the Finnish teachers' view on PISA well:

> I think [PISA] is important in the international [arena], the OECD, so they can evaluate in different countries, the systems. But particularly in Finland it is not so important for our own school system, because we have seen that we are doing fine. That is one reason it is good. We don't have to really change anything, but if we are okay, everything is fine, we don't have to change anything, that is no progress.

Miikka (FL) also fears that PISA will lead to a situation where Finland will not change and develop its system to improve. He fears that peple in Finland will rest on their laurels as a result of high PISA outcomes. Jukka E. gratefully views PISA as good

reinforcement for the education system, but worries that PISA will cause the Finns to become complacent in their education and not make improvements.

Cross-National Attraction

Hans (AMS) thinks that the attention from PISA tourists is not worth their time because "We are not that good." Linda (AL) says the attention "is interesting, and funny in a way because we're just doing what we've always been doing, or that's how it feels. Suddenly there is something remarkable about it." Jukka S. (BM) believes the short visits from the PISA tourists cannot yield many conclusions about the system. The Finnish education system has too many complexities that visitors cannot understand in a short time. Pia (EL) thinks that the visitors coming to Finland look for the easy answers and easy solutions, but "they can't get it. It's not that easy."

Toni (DMS) thinks all the attention that Finland has received will soon pass: "There will be another PISA and maybe we will be tenth, or on another study. They come and go. I don't pay so much attention to it. I just teach." He believes the PISA tourists come "looking for something that isn't there. They should know that they have the knowledge to change their own doings." Christer (ES) guesses that the PISA tourists come looking for the "secret weapons that give us these good results, but we don't." Sanna (CL) thinks visitors come looking for "the big secret that everybody wants to know," even though she feels that teachers do not do anything extraordinary. "This is just plain education," she says, "It feels kind of stupid, because these people come to observe and you don't feel like you are doing anything special." She thinks they have received too much attention because of the PISA results. Saija (BL) describes visitors to her school from Japan: "A group came from Japan and liked our textbooks so much that

they are going to translate them into Japanese! It's funny." Both Saija and Sanna repeat the sentiment of bemusement felt by other interviewees due to the interest in the Finnish education system. However, Saija feels all these visitors can learn from Finland in order to develop their schools, and thinks that Finland and Finnish schools can in turn learn from their visitors.

Jonny (EM) thinks the visitors to Finland have different agendas depending on the similarity of the education system in their home country. Visitors with similar education systems "realize that Finland is not the example of education, it is one way, one solution for one country's problems." However, he believes many become tempted to implement aspects of the Finnish system without realizing it will not succeed in their home country.

Miikka (FL) thinks the attention has benefited Finland, since these visitors from other countries allow Finns to learn from their visitors, and vice versa. All countries could benefit from observing other education systems, not just Finland. He thinks Finnish students should visit other countries to see how things work so that they can learn more about their systems and cultures. Christer (ES) believes the attention benefits a country like Finland: "It is good for a little country to do something good."

Cultural Transferability

Pia (EL), who participates in school exchanges with various other countries, has some experience with other education systems:

> I was a member in a group who had a community project, and we went to Slovakia and we went to [the] Czech Republic, and we went to Italy, and it was so different from Finland, so you can't compare. If you look at the results, you can't just look at the numbers, because the school system is so different. The whole society is different and the whole idea about kids going to school, how you look at it, is very different.

Hans (AMS) similarly believes that Finnish success in education came from a school culture cultivated by teachers and generations of hard work. He feels that educational models from one country cannot transfer to others. Linda (AL) thinks different cultures and languages could interpret PISA questions differently, which hinders comparison between countries on their PISA performance. Miikka (FL) does not see much use in comparing systems from other countries, because all countries have their own cultures. He believes that the Finnish education system is the best for Finland, but perhaps not for other countries. He cites how even the Swedish-speaking school in his town has different interpretations of school and the curriculum based on their own needs. According to Miikka, countries cannot really implement the Finnish system into their own.

Jonny (EM) believes that PISA creates some cause for comparison between countries, especially within the European Union. However, he feels that PISA needed deeper, qualitative research to find the factors behind the results. Even though he thinks that direct comparisons between different cultures and society remain impossible, he hopes the comparisons drawn because of PISA will help the educational authorities in different countries to understand the unique backgrounds of each country, and to "borrow" policies with this in mind.

Finland and Asia

Maarit (DMS) expressed surprise at the similar outcomes of Finland, Japan, and South Korea, because pupils study much more in the Asian countries and begin school earlier. Jukka S. (BM) thinks that Finland performed as well as countries such as Japan and South Korea because of good problem-solving skills. Jonny (EM) draws upon a more historical context:

> All three countries have had to build themselves up after the war. All three have had too small resources, for instance, resources in basic things like coal, iron, and other energy resources. We have had to cooperate with other nations, and also they have in a way, focused on education, educational possibilities, and the state has given the talent the possibility to develop.

Pia (EL) believes education systems can achieve the same results in different ways: "I think [Asian schools] have bigger classes and they have… a lot of discipline… maybe you can get the same results in two ways, this way or the more casual way." She uses this example to illustrate the necessity for further investigation beyond PISA results. Pia also questions if the other countries cheated on PISA, by not following the instructions. Her sample school included those in classes for additional academic support, but wonders if other schools included these pupils as well. She also believes that students in Japan, although producing good results, do not enjoy school: "You can look at Japanese schools and I don't think they are very happy, the students, but the results are very good. Maybe we have happier students, but not quite as good results." She thinks that the countries can learn from each other.

The similarity in PISA outcome surprised Krister (CMS) the most: "I can't give you a logical explanation for that. In my experience, they still know more math in many other countries." He does cite, however, that in Finland all students have a similar level of education while in other countries, exposure to mathematics and science can vary.

Aino (BS) believes that the Asian countries have too high expectation of their students, leading to high competition and stress:

> I think that perhaps in Japan… [the requirements are] too high... They are too stressed; the pupils are too stressed… I don't know about Korea, perhaps the same thing there, too high requirements, too much competition. I don't know there if you fail exams, if your education then finishes, but I think it has

> something to do with that… I think we are… the pupils aren't too stressed. There is a good amount of competition and not too much. If you fail the exams you can do it again and again.

Toni (DMS) thinks that Finland takes weak pupils into consideration, and gives them the support they need in small groups outside of the main classroom. For these reasons, Finland has a large contingent of middle-performing students. Although he admits he does not know so much about Japan, he suspects they have many high-achieving students but the weak students remain at a very weak level. Jukka E. (DL) feels that Finnish students have more freedom:

> We have more freedom in education, so the pupils, they are not outside motivated but inside motivated, and they are not too hard, loaded from the outside. They don't have to manage so well so early. They have time to grow up, and then learn, and then how to learn, not how to get information, but learn how to learn, and then get the freedom to learn what they are interested in. I think that this is the outside opinion because I don't really know how they do it in South Korea or Japan, but I have the feeling that they are more outside motivated and a more disciplined system.

Sanna (CL) draws similarities between the countries and their attitudes towards education. She believes all three of the countries have similar educational values, leading to comparable results. Miikka (FL) also draws similarities, as students in all of the three countries have parents who support education and academic success, and have high goals for their children. He also cites good effort from all of the students in these countries, social mobility and educational return play a part in Finland, Korea, and Japan. Success in school leads to success in life. In Finland, according to Miikka, "when we start to do something, we want to finish it well. We don't want to do it halfway. I think the Finnish *sisu* comes [as a factor]."

Finland and Scandinavia

Krister (CMS), originally from Sweden, has an interesting perspective on the differences between the Nordic countries. He has also observed classrooms and schools in all of the countries concerned. He thinks that students listen to teachers in Finland, and not in the other countries:

> When the teachers say something here the students listen. In Sweden, it is not exactly the same. I have been in all the Northern countries with classes, and usually when we are somewhere with other countries' students, our students are used to doing what the teachers say… I think the discipline is harder here. I don't think it is so hard but it is hard.

He believes that students in Sweden and Norway have the lowest respect for their teachers, while Denmark comes in between. As Krister comes from Sweden, he has excellent insight into the differences between Finnish and Swedish schools. He thinks that Finnish schools have higher standards of education, and the students have better mechanics of learning. Swedish students, however, have their own strengths: "Sometimes I give [my students] a problem, and they can't write anything but they have to explain by words how they are going to think to solve the problem. Usually they don't get it so well…I think it is good if they think a bit more." He believes that Swedish students could better tackle this task. Krister compares education in the two countries with his brother, who lives in Sweden. He finds that Finnish students have better study skills and go further and deeper in subjects than in Sweden. Finnish schools also instill a work ethic in their students:

> They get homework from school practically every day from first grade. They learn to take their work seriously and do it. [They] make a system when they do their homework. I know that, for instance, my brother, his kids [in Sweden] don't have homework so often… It is a tradition here… We learn to do our schoolwork

> continuously. From an early age, Finnish students receive homework and learn to take work seriously.

Linda (AL) also has some insight into the difference, as she has in her class a student who had also studied in Sweden:

> I have a boy in one of my classes here, and he has spent most of his life in Sweden and went to school there… He's Finnish, and the whole family moved over there for work and he learned Swedish there. His parents also, they really wanted him to stick with his knowledge of Swedish. When they came back he came to this Swedish-speaking school. He said that, and he's been here for a year, that he has learned more here during this one year than all of his studying in Sweden. He said they don't give homework there, at least at the school he was in… It's noisier and the environment is not so supportive of studying. It's a lot of things going on and people fighting… He said the problem was… there are a lot of foreigners and there is a lot of racism, and a lot of these problems in these schools.

Linda admits they do not have many cultures within her school, although she thinks her students should have diversity in their lives and learn about other cultures. However, she would also prefer to have a good learning environment. Miikka (FL) also says that Denmark, Sweden, and Norway have bigger immigrant populations and therefore more diverse cultures to integrate within their systems.

Benny (CMS) and Pia (EL) also find that Finnish schools have more discipline. Pia says, "If you look at the Swedish schools, and there is no discipline at all… It's all about social skills… I think they need some rules and regulations and some orders from teachers who can organize the work." Finnish teachers mark their students' work and give grades that reflect the level of their academic work, which she also thinks influences their work ethic. Danish schools that Pia observed do not use grades in a similar, scoring fashion. She describes how "people didn't know how to read and write in year five, because they didn't test it. You're supposed to know in your own way. It's very nice,

actually, but it's not good for learning." Toni (DMS) also cites how Swedish schools have less discipline and no homework. He says, "We have some sort of Eastern European hardness. Do that, and calculate, calculate, calculate. Maybe that is good. Pupils learn even if they don't want to. We make them learn." He believes that the students need discipline: "I think that people need discipline. They want it from our side. If no one gives orders they won't know what to do next, especially at this age that these pupils are."

Hans (AMS) also uses Sweden to contrast with the Finnish system. Although they have a matriculation examination in Sweden, they do not have many other examinations or assessments. Swedish students do not receive grades in school until grade eight, the penultimate year of compulsory schooling (Retrieved 18 February 2008, http://www.estia.educ.goteborg.se/sv-estia/edu/edu_sys3.html). In Finland, according to the national curriculum, students must receive grades by eighth grade, but in practice, many schools start administering them around grades five and six, and some even earlier (Finnish National Board of Education, 2004, p. 260-261). The Swedish upper-secondary school, the *gymnasium,* offers a variety of academic and vocational subjects. All students in Sweden attend *gymnasium,* unlike the Finnish system where they divide into two sectors. Hans implies this lessens motivation for study. Aino (BS) uses Norway and Sweden as comparisons:

> I have now talked to Norwegian teachers because they are a part of our project and we went there in September. We saw them and the education level of teachers is not as high as in Finland, and the teachers, they make groups and teams. For example, a team of teachers is teaching all the seventh graders. They decide themselves all together who teaches what subject. So a teacher is teaching perhaps five subjects and perhaps they haven't studied [the subject] at all… I see the advantages of this team building

> but then they told us also that every pupil is integrated into [mainstream education]. They have their pupils with Down's Syndrome and they are with all the others. I think it must be very hard for the teachers… I think there [have] been so [many] other problems in Sweden, social problems… I think it is the behavior in the social system in Sweden.

Christer (ES) believes that Finland performed better in PISA than Sweden, Swedish-speaking Finns, and other countries because of the logic of their language. Finnish, although a difficult language for others to learn, has a clear and consistent phonetic system, as opposed to, as he cites, English or French. Finnish also "is a language where you write it in the same way that you pronounce it. It is very easy for the pupils to learn how to write in the right way, compared to English or French… I think this will give a little benefit for the Finnish schools." In terms of language, Finnish-speakers have this advantage over others, but less so in mathematics or science.

Miikka (FL) describes the differences in educational laws between Finland and Sweden. In Finland, the law dictates that students must learn. In Sweden, however, the law says that pupils must go to school. In Sweden, "the students are in school but it is too easy there. They can do more or less what they want. They come to school… but they don't have to learn." In Finland, students must learn, but do not need to go to school to do so in other ways, such as with private tutoring or home schooling. For this reason, Miikka believes Finland has a better education system than the Scandinavian countries. Christer (ES) thinks that Swedish schools have too much freedom and low expectations of their students.

Although Jukka E. (DL) acknowledges the similarities in the systems, he believes Finnish society has more respect for its teachers. He says, "We are on the outside quite

similar… I think Finnish society respects and values teachers more. It is not financial but it is status. Teachers and doctors are respected [in the same way]."

Jukka S. (BM) finds the differences in PISA outcomes curious, since all the systems in the Nordic countries have similar features. Maarit (DMS) does so too, as all of the countries have similar teaching methods. She admits that Finland always watches Sweden in terms of education. As discussed previously, Finns have the saying, "In reforming school, Finland makes exactly the same mistakes as Sweden, except it happens ten years later" (Valijärvi et al., 2002, p. 3). Jonny (EM), however, notes the differences between the countries, albeit small:

> In Denmark you have the situation, the Danish culture … as I understand, you choose your work and studies much earlier. In Sweden, you specialize much faster and in a way evaluation in Sweden has some weaknesses that perhaps should be dealt with. Then we have Norway, a very rich country, and it is perhaps isolating themselves. The value perhaps is that 'We stand by ourselves and if we get a job as an oil driller or whatever it is enough for us.' As I understand it, Swedes and especially Finns live to work, and Norwegians want to be more free and they work to get a living. In Iceland, well, there is a very special, unique situation, so it is hard to compare. I have been in Iceland and they have very strong ties with their economy. It is worth our respect. They have of course some problems with their language as they have to learn both Icelandic and Scandinavian languages, and they are not perhaps in need of cooperation with other European countries as we are in Finland. Iceland has more connections with North America. Perhaps that may affect their education system also.

Jonny's perceptions of the nuances between the Nordic countries give a better impression of their differences and potential attitudes towards education.

Education in Two Languages

The surprising disparity in PISA outcomes between the two language groups triggered much discussion. When describing the reasons behind this outcome, Aino (BS) infers that the Finnish-speakers enjoy school less, and the Swedish-speakers leave more time for social activities. Still, the outcome confuses her. She says, "It shouldn't be… it's strange." Sanna (CL) also expressed surprise at the differing outcomes between Swedish-speakers and Finnish-speakers. Pia (EL) describes how the newspapers published articles about the reasons behind these differences, and she has also contemplated the differences herself:

> I read about it in newspapers, and there was a whole lot of explanations, different kinds of explanations, about small schools getting less money than other ones. We had a problem before, because we didn't have enough teachers, trained teachers. If you look at this school, we have a lot of people working here who are not teachers. Maybe that is one of the explanations. Sometimes you need to know more than the subject. Maybe that's why.

Swedish-speaking schools, often smaller than Finnish-speaking schools, receive less money and fewer resources. Terttu (FMS), a Finnish-speaker, infers that the Swedish-speaking teachers have a lower education level. In her community, the Swedish-speaking schools have trouble filling their positions with qualified teachers. Miikka (FL) believes that the Swedish-speaking system of teacher training may be antiquated. He thinks it needs modernization in order to better prepare teachers. He says, "They would be angry if they heard me, but it is hard to get the best people from a very small minority, because there are so many other jobs and the job history for Swedish[-speakers] in Finland is a little different from [that of] Finnish[-speakers]." This shortage trickles into tertiary education as well. Jonny (EM), although quite pleased with his university education,

admits to a weakness within the Swedish-speaking university in Finland, since a limited number of professors have to know about a wider range of subjects than their colleagues at other universities. Hans's (AMS) experience at the same university yielded a different impression. He quite enjoyed the small university because he could get to know his professors better.

Hans (AMS) thinks the textbooks influence the disparity in PISA outcomes for Finland:

> I think that the explanation could be that the books in Swedish are… if you have a new book in Finnish, it takes three to five years before you have the same book in Swedish. Now, in mathematics, I haven't had a new book in fifteen years, but I am trying to introduce a new book, but I have it only in Finnish. It doesn't come out in Swedish. I am at a breaking point because I am trying to use [something that] doesn't exist. I have some raw copies of what the book will be like and I have some text but I have to do it just like that, and it takes time from what I could be doing explaining things, more examples and things like that.

Linda (AL) infers the disparity comes from the strength of the Swedish-speakers in their language. Her school, located in the Helsinki area, has about 75 percent bilingual children. Many of the students have trouble handling the two languages, or have Swedish as their weaker language. Between lessons, the students in this school will speak to each other in Finnish. Linda thinks the students in Swedish-speaking sample schools may have scored lower on PISA due to their weaker language skills.

Krister (CMS) deduces that Swedish-speakers perform lower in PISA than Finnish-speakers due to differing levels of discipline in schools: "I said we have good discipline here, but the Finnish-speaking schools have harder discipline. If on the same logic, that should explain it, harder discipline makes better results." Sanna (CL) also mentions the higher levels of teacher authority in Finnish-speaking schools.

Pia (EL) tackles the issue of cultural differences between the two language groups. She would find interesting a comparison between the two groups in terms of social skills and ability, attitude towards life, and self-awareness. She describes how Swedish-speakers have a happier disposition: "We like our schools and we like our work; we have a social [network]; we have friends; we have people to talk to; we don't commit suicide… Maybe we have an easier way. We are something between Sweden and the Finns." Miikka (FL), a Finnish-speaker, encourages other comparisons between the two language groups, not just in education. He finds that the Swedish-speakers outscore the Finnish-speakers in terms of personal health and activities, whether athletic or social. Benny (CMS), a Swedish-speaker, feels that observations should be made on the personal side as well as in education:

> We have much happier students than the Finnish side. It is okay that they don't get the highest scores but they like to be in school. We look at the personal side as well, not just the educational side. We try to get people to enjoy themselves, both the teachers and the students.

Jonny (EM), a Swedish-speaker married to a Finnish-speaker, describes the different cultures of the two language groups. He talks of the two conversation styles of the two groups: the Swedish-speakers have more spontaneity, while the Finnish-speakers wait their turn. He also says Swedish-speakers use more jokes in their conversations. Aino (BS) describes the differences between the two groups:

> My husband belongs to the Swedish-speaking minority, and my son who will be sixteen tomorrow, he has gone through the Swedish school system. I have found it very interesting, and I think … the bilingual [education] had advantages for us… as a family and as a country. As a country I have noticed some differences if I compare the Swedish and Finnish system here. Perhaps it has to do with the Finnish Swedish-speaking population. They are more together as a group. They have more

> social things going on. They are more warm and closely related in the Swedish schools than the Finnish. I think it is the teachers and the pupils but it also has to do with being close to relatives and things like that. For example, there are frequent celebrations at school… when my son was in primary school … they have more parents' evenings and things like that.

Jonny (EM) admits that Swedish-speakers have so many educational resources that "we are a bit spoiled as a people. We have too [many] possibilities to choose between and we perhaps don't see that we should try to compete more." He conveys how Finnish-speakers have to fight and compete for their educational possibilities and social mobility. For this reason, he believes that Finnish-speaking schools have better education and more motivated students. He admits that the Swedish-speakers have isolated themselves within their own community and have had the possibility to live undisturbed and with security.

Jukka S. (BM), a Finnish-speaker, finds the bilingual education policy in Finland "complicated." He implies that compulsory Swedish may not have pertinence for many Finnish-speakers, who should concentrate on learning more widely spoken languages. However, he does admit one's language skills improve with the more languages one studies. Krister (CMS), a Swedish-speaker, finds the bilingualism of Finland and the rights of the Swedish-speakers in education beneficial. If not for this right, Swedish-speaking students who do not speak Finnish "would be considered second [class] citizens if they didn't go to school in their own language." Jonny (EM) believes the Swedish-speaking population of Finland has the unique ability to experience their own language in the country from a young age, through the possibility of education in their own language. He also feels the economic possibilities provided for Swedish-speakers in their own language help maintain this culture. Jonny thinks that bilingual families should have

more support to develop both languages in their children, especially with more intermarriage within the two language groups in recent years. Aino (BS), as previously noted, married to a Swedish-speaker, sends her children to Swedish-speaking schools. She believes the bilingual country has benefited her family by supporting the needs of both languages.

Hans (AMS), who teaches near Helsinki, remarks how they try to maintain the Swedish-language in his school. Because Helsinki has a primarily Finnish-speaking population, they feel the influence of this language. Most of his students also have one Finnish-speaking parent and one Swedish-speaking parent. He thinks they choose the Swedish-speaking school for their children because of easier university entrance and better career opportunities due to language skills.

Summary

All teachers provided insight into their perspectives as educators in the Finnish system. Their honest perspectives on PISA and Finnish education reinforced salient factors behind Finnish educational strengths but some provided frank accounts that contradicted them as well.

The teachers described their teacher training programs as nearly identical to academic university courses, but with the addition of pedgagogical coursework and practical teaching experience in classrooms. A few of the more experienced teachers acknowledged how the present teacher training system has improved over the old system of training. However, two of the interviewed teachers, although teaching in Finnish schools, did not yet have their official teaching qualifications. Although they may be excellent teachers, they do not hold the official degrees, held in such high regard in

Finland and abroad. Interestingly, both of the unqualified teachers taught in Swedish-speaking schools. Perhaps this occurrence within the participants indicates a similar occurrence within Swedish-speaking schools around the country. Consequently, many attribute the lower performance of Swedish-speaking Finns in PISA to fewer qualified teachers.

As a result of local school governance, the teachers felt independent and autonomous in their classrooms, free to implement the National Curriculum as they wished. The structure of the National Curriculum allows for this, which garnered praise, previously cited in the Preface. However, two teachers expressed that they felt constrained even within the National Curriculum. Perhaps some teachers could use more room for their own teaching than the curriculum allows. This finding may also stem from the recent reforms to the National Curriculum, calling for tighter control from the state level.

The teachers found their students generally well behaved and motivated to learn, and praised the special support classes for students needing extra attention. The supportive nature of the low achievers comes from the Finnish ethos of equality and comprehensive school discussed in the two literature reviews and the Preface.

The teachers remarked on the importance of education within Finnish society. This stems from its history, as discussed in Chapter Two. The Preface also mentioned the high esteem that education holds in Finnish society. The equality of access and high quality of education, coupled with the hardworking tradition of Finnish society, leads to a strong education system, according to the interviewed teachers. The teachers also think the high quality of Finnish teachers also adds to the education system, although one

teacher admitted he was lazy and thought that teacher training was the easiest route through university.

All education systems, no matter how robust, have weaknesses. Limited resources and recent budget cuts hinder, according to the teachers, the true potential of the system. They also worry about the lack of enjoyment of their students. PISA indicated that Finnish students do not enjoy school. Some teachers attributed it to the age of the students, for fifteen-year-olds often do not enjoy school, while some felt the students did in fact enjoy school. Although they list the support of weak students as a great strength, conversely, they feel the system should better stimulate the academically gifted. The teachers felt that the strong students did not receive enough challenges in school. This illuminates some of the downfalls of a comprehensive system with heterogeneous grouping. For example, some of the teachers describe the mixed-ability classrooms as a difficult teaching situation, for it promotes teaching to "nobody" or to the middle. This presents a "dark side" to mixed-ability grouping.

The teachers observed that PISA had benefits both for Finland and for education in general. They felt it provided good reinforcement for the education system, as well as rewarding their efforts in supporting students needing extra attention. PISA also provides a good basis for educational comparison on a global level. However, some of the teachers criticize PISA, since it does not measure everything, just three subjects, and does not account for cultural differences between the countries involved. They felt that it needed more qualitative research to look beyond the results. The teachers also worry that Finnish success in PISA will produce a complacency within the education system and hinder any efforts for improvement.

Finland's high scores in PISA lead to international attention towards Finland and great attraction to its education system. One even thought that the attention to Finland was not worth the time of PISA tourists. The teachers feel that, in any country, no easy solutions to educational reform exist; furthermore, the Finnish system does not provide the only answers to countries seeking educational improvement. They can see the benefit of having so many visitors, however, because this has led them to learn both from the visitors and about their own system. Some teachers also cited amusement by all the attention their schools received, and felt this attention would pass on to another country in due course. This parallels the surprise and bemusement of the Finnish people cited in the Preface. The potential transfer of aspects of the Finnish system into another country also raised concern among the teachers. They felt that different societies had qualities reflected within their education systems, therefore making it very difficult to transfer factors of a system directly. Their viewpoint agrees with the policy borrowing theories discussed in Chapter One. The necessary cultural considerations make direct transfer impossible.

Some of the teachers expressed surprise at the equivalency of PISA outcomes of Japan, South Korea, and Finland. One teacher was very surprised at these results, because students in the aforementioned Asian countries spend much more time in school, in terms of length of school day, length of school year, and extra schooling in "cram schools" such as the *juku*. Similarly, teachers felt that the Asian schools had too high expectations of their students. Finnish schools, however, have better support for their weak students than the Asian schools, as well as more freedom in the pupils' education. They also believed Finnish students generated academic motivation internally, instead of

externally like their Asian counterparts. One teacher simply believed that school systems could achieve similar results in different ways.

Although Finnish and Scandinavian schools have similar structures and philosophies, the PISA results illustrate different achievement outcomes. The teachers believe that in Finland the students respect their teachers more and listen to them. This higher level of discipline, in addition to a better work ethic among Finnish students, helps them have better educational attainment, including in PISA. Unlike Finland, Scandinavian countries, especially Sweden, have more sizeable immigrant populations making the student population more difficult to teach.

The teachers interviewed cite a cultural difference between the Finnish-speaking Finns and the Swedish-speaking Finns. Some of the teachers married partners from a different language group and provided good insight into this matter. While the Finnish-speakers score higher on PISA, they enjoy school less. The Swedish-speakers, while with lower PISA scores, fewer qualified teachers, and more outdated textbooks, can boast a happier and more social lifestyle. This helps explain the counterintuitive outcome of Swedish-speaking Finns in PISA.

CHAPTER FIVE:
PERSPECTIVES ON PISA FROM A POLICY VIEW
INTERVIEWS WITH FINNISH EDUCATIONISTS

Findings from the Finnish PISA team

This research included interviews with four professors at the University of Jyväskylä in Finland, whose educational institute had the responsibility for carrying out PISA in Finland for the 2000 and 2003 surveys. Its department of educational research employs the professors and all work closely with PISA as well as other international educational surveys. Jouni Välijärvi oversaw the entire project, while Pirjo Linnakylä, Pekka Kupari, and Pasi Reinikainen had responsibility for the subject areas, reading literacy, mathematical literacy, and scientific literacy, respectively. For PISA 2003, Pasi Reinikainen also took on the problem-solving section.

For the 2006 PISA survey, the Finnish government asked a different university, the University of Helsinki, to head the undertaking of the PISA survey. Three professors from the new team, led by Jarkko Hautamäki, Professor in the Department of Applied Sciences in Education and researcher in the Special Education division and the Centre for Educational Assessment; Sirkku Kupiainen, a researcher in the Centre for Educational Assessment; and Patrik Schenin, Dean of the Faculty of Behavioral Sciences and researcher for the Centre for Educational Assessment, all participated in the execution of the 2006 survey and as interviewees for this project.

Interviews with the professors provided insight into PISA in Finland. The findings echo those from the other interviews, but as the number of the Finnish professors directly involved with PISA outnumbers those of the interviewed education ministers, the resulting findings came with more detail and diversity.

Name	*Sex*	*University*	*Department at University*
Jouni Välijärvi (1A)	Male	University of Jyväskylä	Institute for Educational Research
Pirjo Linnakylä (1B)	Female	University of Jyväskylä	Institute for Educational Research
Pekka Kupari (1C)	Male	University of Jyväskylä	Institute for Educational Research
Pasi Renikainen (1D)	Male	University of Jyväskylä	Institute for Educational Research
Jarkko Hautamäki (2A)	Male	University of Helsinki	Centre for Educational Assessment
Sirkku Kupiainen (2B)	Female	University of Helsinki	Centre for Educational Assessment
Patrik Schenin (2C)	Male	University of Helsinki	Centre for Educational Assessment

When cited during this chapter, a code follows the names of all professors, according to the university at which they work, and the order in which I interviewed them for this project. For example, Jouni Välijärvi has the code 1A, as he comes from the first university, the University of Jyväskylä, and was the first professor interviewed. Sirkku Kupiainen has the code 2B, as she works at the second university responsible for the execution of PISA in Finland, the University of Helsinki, and was the second to participate in the interview process at that institution.

Strengths of Finnish Education

The importance of education in Finnish culture once again emerged as a perceived salient factor explaining Finnish success in PISA. Jouni Välijärvi (1A) spoke of the high regard that Finns have for education:

> Basically, I came from a very small, country, poor area. Of course education has been very important to me, to my parents and to myself. That was the way out to get a better position in society. That belief has always been very deep in the heart of Finnish people, and I remember that from my childhood also when I went to school. It was important to go to school.

Pirjo Linnakylä (1B) also describes a similar story: "[When] my father died in the war, my mother was alone with two children, and without anything, just one bag. But she had her education… She always emphasized that education was very important." Sirkku Kupiainen (2B) also cites how education still leads to advancement and social mobility in Finland. Although she feels this importance has declined in recent years, this belief still exists in Finnish society today.

Patrik Schenin (2C) mentions the "multitude of different explanations" behind Finnish success on PISA, such as the history of Finland and the influence of the Lutheran Church. He cites, for example, the tradition of reading from the Bible in order to marry. He also speaks of the pride in the Finnish language, the national language, and its expression through literature, newspapers, and the like. The nationalist movement during Russian rule also helped influence this and instilled a need for education in Finnish society, in order to spread literacy in the Finnish language. The nationalist movement and pride in the Finnish language also bled into teacher training. "We have to force [*sic*] that teachers are teaching, creating pupils, which they did. The national language [and] teacher training [are] working together." In other words, the nationalist movement, pride in the Finnish language, emerging Finnish literature, and the influence of the Lutheran Church all positively influenced the education system in Finland.

In this set of interviews as well, the professors viewed teacher training as an important factor in terms of the strengths of the Finnish educational system. Välijärvi (1A) states how the high quality of teacher training leads to a strong education system:

> The quality of teaching and teachers is extremely important… and it explains also why differences between schools is quite small in Finland… They are trained, our teachers, at university level, and they get master's degrees. I think that is a very

> important part of the explanation, the quality of teaching. It's homogenous compared to some other countries. That has kept also the status of teachers quite high in Finnish society.

Linnakylä (1B) also mentions teacher training as a strong point of Finnish education. Even good pedagogy has varying methods, and she cites the master's degree as a good way to qualify new teachers in these various good methods of teaching different students. Furthermore, the acceptance rate to teacher training programs in Finland is surprisingly low. Välijärvi (1A) states, "If you look at what kind of students we get to teacher education programs, especially primary teacher programs, it is quite high, very popular, only ten to fifteen percent of the applicants are approved." Reinikainen (1D) says, "We have very straight-A students in teacher education." Linnakylä (1B) also speaks of the low acceptance rate into teacher training programs and the high quality of students:

> We have the best students in high school to apply to the classroom teacher program. For example this year, at this university we have the teacher training college, and there were so many applicants, thousands, that we could only accept eight percent. So when you take eight percent of the already good students, you can have very good teachers in our program.

A newspaper survey illustrates the popularity of teaching. Pasi Reinikainen (1D) remarks, "I guess that you have heard about… high school graduates, they were asked what they would like to work with, and what job. [The majority] said … they would like to become a teacher." The survey, which asked one thousand upper-secondary school students which career path they would most like to choose, ended with teaching topping the list of thirty-seven professions. Teaching, with 26% of the responses, came first on the list, followed by engineering with 19% and psychologist with 18% (Retrieved 15 February 2008, http://www.hs.fi/artikkeli/Ykkössuosikki+opettajan+ammatti/1076151893860). Patrik

Schenin (2C) describes how other countries have trouble finding enough teachers to fill their needs, but in Finland "we have the luxury of selecting the best of the best." The quality and intelligence of those in teacher training programs make educating the teachers so much easier. Finnish teacher training not only demands more from students, but the educational system also commands much effort from the teachers.

Välijärvi (1A) speaks about the high status of teachers in Finland:

> The status of teachers in society is quite high. If you compare the status of teachers, we have a survey, I think every third year, made by some leading newspaper … asking people how we value these professions, and teachers are on a very high level compared to lawyers or medical doctors and something like that. That is very exceptional compared to other countries.

Linnakylä (1B) agrees. "Since they are academics, they are considered academics in society." Pekka Kupari (1C) also mentions the high quality of teachers in Finland. All classroom teachers and even substitute teachers have master's degrees. This provides a good background and foundation for teaching. He also mentions that this high status of teachers in Finland exists despite their low salary. He says, "Teachers think that their salary is not good, but even though they do very good work. Perhaps we have quite high expectations from teachers." Schenin (2C) agrees with his colleagues at the University of Jyväskylä. He describes the high status of teachers in Finland, how "it is still glorious to become a teacher in Finland."

Teachers, despite their high status in society, have a relaxed relationship with their students. According to Reinikainen (1D), teachers "are not on the podium" but rather stay on a similar level with their students. Välijärvi (1A) notes how students and teachers respect each other in schools and within the classrooms. He finds that the classrooms have good organization and good discipline, with few disturbances from

pupils. Reinikainen (1D) cites excellent school-home relationships between the teachers and the parents. The teachers maintain a high level of trust in Finland, within the society and within school walls. He says, "Our teachers work independently. They can work together but there are none of the teachers in the same school who will look behind that teacher and check up on him." Kupari (1C) cites the example that prior to cross-national assessments such as PISA and TIMSS, teachers generated and executed their own assessments of students. Although Finland does have national assessments, Linnakylä (1B) cites how they do not measure all students; rather, they take samples, and do not assess every year. The rest of the assessment comes from the individual teachers. This lack of assessments, according to Sikku Kupiainen (2B) and Jarkko Hautamäki (2A), remains a strength for Finnish education and points to success in PISA. Students, who do not usually take tests, conscientiously undertake tasks such as PISA when they arise.

Linnakylä (1B) also recounted her days as a teacher, when she struggled with engaging the pupils in the curricula. She states, "I sort of decided that … I had to start to listen to [the pupils]. I think that is really the change of our pedagogy… We tried to listen to students' needs and their abilities and their dreams and tried to teach that way." Today, these teachers, with their high qualifications and subsequent trust in their abilities, provide their students with student-centered teaching and a school-based curriculum, to better serve their needs. Reinikainen (1D) describes the individualization of learning in Finnish schools, tailored to the needs of the pupils. He says how this occurs mainly in the beginning years of comprehensive education. He also states that students can work in groups and that teachers encourage the students to work independently. Linnakylä (1B) also speaks of the many talents of teachers today. They exhibit strong skills at academic

subjects; she cites how many have talents in the arts and in sports as well. She says: "Wonderful that the Finnish teachers see that their work is really producing good results. I know they work very hard. They are very responsible. I feel proud for the teachers."

The nature of Finnish society also lends itself to educational success. Kupari (1C) attributes the success in PISA to societal factors, to the society of Finland as well as to the homogeneity of its people. Kupianen (2B) stresses that Finland lacks an immigrant population, with only two percent of students with an immigrant background. PISA indicates that students of an immigrant background do not score as high in PISA as their peers, although with differing variation in scores. While countries such as Canada, New Zealand, Australia, and Finland have low variation in these scores, countries such as the United States and Germany have high variation from immigrant students (Entorf & Minoiu, 2004, p. 357). She cites how many countries have trouble educating their immigrant population, which does not really come as an issue in Finland. Linnakylä (1B), Reinikainen (1D), and Välijärvi (1A) also all comment on how the lack of immigrants emphasizes this cultural homogeneity and they imply that this aids in administering an equal and high-quality education to all students in Finland. The immigrants that Finland does have, however, score very high in PISA. In the 2006 PISA survey, for example, only three percent of the Finnish students sampled came from an immigrant background, but scored up to fifty points higher than their immigrant counterparts in other counries (Retrieved 22 February 2008, http://www.helsinki.fi/news/archive/2-2008/15-16-16-06.html).

In a similar vein, Kupari (1C) relates how Finland, a small country of only five million people, also contributes to the success of administering a strong education

system, since the small population size better allows the education system to serve the needs of its students. Välijärvi (1A) agrees about the cultural factors influencing the high achievement of Finnish education. He says that the homogenous culture makes it much easier to find a common understanding about an education system. Linnakylä (1B) says, "We are a small country. We have to do well. It's a survival game." This references not only Finland's small size, but also its war-ravaged past and tenacity to eventually break through to success and prosperity.

The decentralized system of education in Finland as well as the devolved control adds to the strength of the education system. Välijärvi (1A) explains how the devolution of control allows municipalities and teachers to create learning environments most significant for and pertinent to the needs of their students and the community:

> In Finland, the tradition is that municipalities have taken conrol over the educational system. That is a very strong and long tradition… Even when they have difficulties in their economy, as they have in many cases nowadays, they really value their education system on a really high level. It seems to be, so that municipalities cut their funding of education, parents get easily quite angry and aggressive. It only says that education is really highly valued by parents and municipalities.

Linnakylä (1B) says, "We tried to listen to students' needs and their abilities and their dreams and try to teach that way." Even with this devolution, Välijärvi (1A) notes how no systematic differences exist between schools in Finland: "There are no systematic differences in Northern or Southern or Eastern or Western parts of the country, country schools or city schools, their average level is quite similar. It only [indicates] that municipalities are taking their educational responsibilities quite seriously." Despite the decentralization of control, Finnish schools maintain a universal standard around the country. Kupari (1C) takes this a step further, and argues that in addition to the

geographical equity, students' socio-economic background also does not affect their quality of education.

The egalitarian nature of Finnish society also lends itself to a strong educational system. One can see these egalitarian principles within the school. Kupari (1C) cites how in Finland the system of education tries to provide a good quality education to all. The integration of special education as well as a lack of streaming contributes to this. Maintaining this type of cohesive education comes with difficulty. Kupari admits, "Of course it's a demanding task." Linnakylä (1B) stresses that Nordic countries hold in high esteem the principle of equity; therefore countries such as Finland readily spend money on achieving an equal system. Reinikainen talks about the equal opportunities for education in Finland, illustrated by the lack of private schools, no separation of sexes, and free education for all. Education does not depend on parental income and does not pre-select students into schools. This comprehensive education system follows the egalitarian ideal. The school system also provides children with the advantages of a welfare state, giving them health care, dental care, and free lunches. Hautamäki (2A) and Schenin (2C) feel that these factors, all part of the education system, help the well-being and learning readiness of pupils. Reinikainen (1D), however, worries about the future of comprehensive schools, and states how discussion exists concerning selective schools in Finland. Kupiainen (2B) also sees the egalitarian nature of Finnish education as a strength. She states how all students have the option of school choice when available. In Finland, students and parents had the option of school choice since the mid-1990s. Although contradictory to the Scandinavian ideal of the homogenous comprehensive school, these "quasi-markets" allow individuals to find better matches to their educational

needs by attending schools outside of their catchment areas (Seppänen, 2003, p. 513-514).

All of the professors mentioned a salient point, the lack of weak students in Finnish schools. Välijärvi (1A) believes that "the obvious trend of the Finnish educational system is how we take care of the poorly performing students, how every teacher, not just some teachers, how every teacher takes all students very seriously and how they take care of the weak ones." Reinikainen (1D) concurs: "We can see easily from the results, how the weakest are the ones who actually keep the Finnish results the best… in the world." Kupari (1C) also makes the somewhat contradictory statement, "The Finnish weak students are very good." Linnakylä (1B) takes it a step further, by pointing out that the lack of low achievers in Finland came about because of hard work:

> One of the reasons is that we have so few low achievers, that we have achieved so few low achievers. I would like to emphasize that. It doesn't come by nature. It comes by teachers and good work and all the investments for special education, because we have also very good special education.

Kupiainen (2B) believes that the special education system supports the Finnish "ethos of trying your best." Effort placed on learning leads to better success for Finnish students.

Kupiainen (2B) also emphasizes the factor of special education in the outcomes of Finnish education and in PISA. She cites how a quarter of students receive some sort of extra support at school. The extensive special education leads to very low class repetition among Finnish students, and therefore to strength among weak students, as illustrated in PISA. Most fifteen-year-olds in Finland study at the proper grade level, unlike their French counterparts, where 46 percent have repeated at least once before taking PISA at fifteen. In Finland, even the weakest students perform the minimum work required.

Kupiainen implies that this leads to high PISA scores. She also feels that the special education and the support for weaker students encourage them to try, at the very least to complete the minimum requirements for their grade level. This emphasis on effort probably filtered through for those students sampled for the PISA surveys:

> There has been talk in Finland that the special education students are 'counted out' [in PISA] but that is not true. By accident, … some of the Finnish samples… had SEN [Special Educational Needs] students who should have not even been in the samples. I think that is a [reward] for supporting the low end.

In other words, Kupiainen describes how the Finnish sample for PISA included special education students, even though they should not have been in the samples, which reinforces the education system's commitment to special education and supporting weaker students. Chapter Two illustrates in detail this commitment to special education and the practical application of special education in Finnish schools. Schenin (2C) takes a more statistical view of this issue. He also feels that the support of weak students comes as a strength of Finnish education. He finds that high results in PISA come from having few low achievers. In Finland, the lack of low achievers has led to PISA success. Countries with high achievers in PISA but many weak students cannot have overall high scores on PISA.

The professors mention that Finland has a strong tradition of literacy and highly engaged readers. According to Välijärvi (1A), Finnish students exhibit high engagement in reading, especially the girls. Many of the youth in Finland list reading as one of their favorite hobbies, and spend a lot of time on that activity. Reinikainen (1D) and Kupiainen (2B) also speak of the excellent tradition of literacy in Finland and cite a law where engaged couples needed to prove literacy in order to get married. This law, discussed at

length in Chapter Two, helped cement the tradition and importance of literacy in Finland. The Lutheran Church promoted the Finnish language and also literacy. Originally, Lutheran priests were the only group expected to learn the Finnish language, in order to communicate with their congregations, and only religious books such as the Bible and Psalm Books could be printed in Finnish (Gilmour, 1931, p. 20-21).

Reinikainen (1D) also mentions television: "I think one of the [good] things … is our TV. We have subtitles. If [children]… watch TV they have to have a good reading speed, a fast reading speed." Finnish television imports many programs from other countries, but does not dub the original language into Finnish. Rather, subtitles in Finnish translate the television program. In order for Finnish children to watch television, they need to know how to read, and at a rapid pace.

The curricula for Finnish schools do not fall far from PISA goals, which would explain also Finnish success in PISA. Välijärvi (1A) states how science, mathematics, and mother tongue in the National Curriculum do not differ greatly from the definitions of literacy in the PISA frameworks:

> Both curriculum in mother tongue and mathematics and in science, they are quite close to the idea of PISA, how these subjects, these different types of literacy are defined in PISA frameworks. They are not very far away from how they are defined in [the] Finnish National Curriculum. If I compare how mathematics is stressed in [the] Finnish National Curriculum compared to some Asian countries or Eastern European countries, our definition is much closer. That is one explanation why we are doing so well in [PISA] math and science.

In other words, Finnish education strives for a pragmatic education. Kupiainen (2B) also describes how PISA questions more closely reflect the Finnish curriculum than those of TIMSS. She cites how Finland never did particularly well in international assessments,

especially in mathematics and science: "I think the socially constructed ideas of education which have been strong in Finland … favor the type of tasks that PISA [has] had than TIMSS [has] had. TIMSS has been more dominated by the kind of hardcore math and science curricula." In the same vein she also says, "I don't really believe that Finnish children are more intelligent than the children anywhere else, but what makes our school system, it seems to be able to educate them in a way, in the framework that PISA has taken." She does take care to point out that Finland did not design the framework for PISA, rather, all the participating countries in PISA collaborated on the project. Hautamäki (2A) agrees and cites how PISA tasks closely compare to the exercises in Finnish textbooks. In both PISA and Finnish textbooks, "you read something and the actual act is not very complicated, but you have to take it out of the text whether the figures should be added or divided or multiplied. We have been using those text forms for items for a long time." Kupari (1C) mentions how Finnish students do not spend much time in school, but manage to learn their subject matter properly: "For example, we have a very small number of mathematics lessons if you compare [us] to other countries… We can get more out of these lessons … There must be something in that. We do it effectively, I suppose." Kupari also believes that curricular reforms in the 1990s added to the strong outcomes in PISA. Curriculum reforms in 1994 emphasized the role of the students as active participants in their own learning, and the applicability of the curriculum to real-life situations (Tani, 2004, p. 8). He believes this permeated the teaching style of the teachers and influenced the high mathematical literacy score in PISA. He also cites LUMA in the mid-1990s, where the Finnish government installed a program supporting mathematics and science education in Finland, both in the training of

teachers and expanding and improving facilities for science and mathematics. LUMA, an acronym for *luonnontieteet ja matematiikka,* or science and mathematics in English, developed in 1996 to increase math and science skills at all educational levels by improving school laboratories and equipment, as well as more teacher training in these subjects (Välijärvi et al., 2002, p. 23). Kupari admits, however, that he cannot cite exactly its influence on PISA results. Reinikainen (1D) finds that one cannot find a connection with LUMA and higher achievement in mathematics or science.

Weaknesses of Finnish Education

Just as all professors mentioned the support for weak students as a huge strength in the Finnish educational system, they also mention the lack of support for gifted students as a great weakness. Välijärvi (1A) says that Finnish education could better reach the academically talented students:

> We could reach better results with the talented students. We are not understanding deeply enough the needs of these students. In many cases they are unmotivated when they leave basic education and they … feel school is boring.

Linnakylä (1B) attributes this to the Nordic model: "The principle of equity is very seriously taken in Nordic countries, so we invest much more money and effort in low achievers than in talented students. That is your problem… we don't pay … enough attention to the gifted." Kupiainen (2B) also mentions this. In a comprehensive school, all students would share the same academic level. In reality, however, comprehensive schools have heterogeneous class compositions. While the Finnish ethos gives support to the weak students, it also causes oversight of the academically talented students. Reinikainen (1D) agrees. He says how no support currently exists for the strong students, but wonders "how high would they achieve if they had support?" Kupari (1C) adds that

support really should go to the academically gifted students, but it comes down to issues of pedagogy:

> The problem of this kind of heterogeneous teaching is… how teachers can divide their time to different students. When [we] put emphasis on weak students, how can teachers give enough support to the best performing students? That is one issue in Finland; we are trying to find some ways to improve.

Kupiainen (2B) addresses pedagogical possibilities that could help the gifted students, but admits the difficultly in implementing them in the classroom. The textbooks illustrate this problem. Many argue that education cannot be equal if different students use different textbooks. Schenin (2C) describes the logistical difficulty of carrying out gifted education in Finland:

> The simple fact of special education for [the] talented… and the question of why not take two percent out of schools and put them into special classes, special schools… It would be impossible in Finland, virtually impossible. Two percent of the Finnish school population would be possible to create small classes or a small school in Helsinki but nowhere else. The rest would have to bus or fly all over the place.

The concept of egalitarian education does not cover all students in this sense, and the Finnish context also inhibits the implementation of support for gifted students.

Välijärvi (1A) worries that the strong students can become bored and leave education. This oversight, he feels, stems from the concentration of support for weaker students: "It seems very difficult to combine these two issues [of weak and strong students], you are taking really good care of weak students when the needs of gifted students become sometimes taboo." The strong students who become bored with education may lose motivation and leave education and not attempt further study or

qualifications for the labor market. Kupiainen (2B) also describes how academically talented students never learn to study:

> The teaching is geared... a little bit towards the average students, or maybe even below. I think that might be growing in the population a number of students who don't learn what it means to study, because they do well without studying too much. This may be a problem one day, that you don't really reach anything if you don't really do some work for it.

Because they do not have sufficient challenges in school, academic matters come too easily to gifted pupils and they never need to study to achieve good marks.

The professors mention another point consistently, that Finnish pupils do not like school. Kupari (1C) says the visitors to Finnish schools notice this fact, or that the students do not have positive attitudes towards some subjects. He hopes that these "PISA tourists" will have some insight on how to fix this problem. Kupari suggests that this consistent dislike of school comes from a cultural nuance rather than a worrying trend. Nevertheless, Kupari states, "In Finland we think that the students try to do their best even though they can say they don't like to be in school. Even though they say that, they like to go to school and they work quite actively." Reinikainen (1D) goes along with Kupari. Students may try their best and actually enjoy school, but do not admit it. Reinikainen states, "It is not culturally acceptable to say, 'I love mathematics' in Finland, I guess." He adds, "I think that also may be a cultural feature in Finland, that we are not even supposed to love mathematics, but however, … all the kids at the end of the summer vacation, they are waiting to get back to school."

The professors also take a comparative and cross-national perspective on this matter. Schenin (2C) describes how Danish observers found that Finnish schools did not have a positive climate. He pointed out to the Danes, however, that countries with top

results in PISA do not have positive climates. He says, "Perhaps their aim, their goal of teacher education to have a wonderful classroom climate with really efficient work is not a reasonable goal." He also describes enjoyment in school as "the most stupid indicator by a long way." Finnish assessments have shown that the pupils, both boys and girls, have a positive attitude towards school, even though very few admit that they love it. Hautamäki (2A) points out a negative correlation between school enjoyment and achievement in PISA. For example, countries such as Brazil and Tunisia, which score low in PISA, report high enjoyment in school. Kupiainen (2B) argues that in her observations Finnish students always seem to enjoy school: "I must say, every time I walk into a school, I have never been visiting a school where the students suffer. They look very positive."

Hautamäki (2A) and Kupiainen (2B) also address this issue further. Hautamäki worries about bullying in Finnish schools, especially when related to academic motivation and success:

> There is a minor problem which I don't like at all, which is the bullying. The children are not safe… Some of the young people do not tolerate others, and they tease them when they are orienting themselves in an intellectual fashion, and I don't know the real extent of that. I believe it is quite common, and that is not nice.

Whether the students actually do not like school or just do not admit it remains in question, and this affects boys more than it does girls. Kupiainen cites how boys in lower-secondary schools who enjoy learning or have academic ambition find themselves in a socially difficult position. Academically inclined boys find themselves bullied or excluded socially. This leads to boys hiding their interest in school, and a higher number of girls in upper-secondary education. She says, "It enhances the difference between

girls and boys attending high school and after that, attending university. It is unfair towards boys because they just seem to be [in] a poorer situation trying to be good students."

Two of the professors believe that the Finnish school system could be too academic. Välijärvi (1A) worries about the lack of social development in Finnish schools, and the impact in the future:

> Maybe [the schools] are, in some cases, too much concentrating only on academic achievement and maybe the social side of it, their social needs are not considered. You can see that some students have problems in their sense of belonging and these kinds of social development. Finnish students don't seem to be very active in participating in social life in school. They are in a way, too much concentrated only on the academic part of the education. I think this will be one of the big issues in the future.

Välijärvi worries about the social development of Finnish students, sometimes overlooked by the Finnish curriculum, although also important in the growth of a person. Reinikainen (1D) worries that achievement in PISA and the too-academic curriculum in Finnish schools take away from other subjects. Time given to traditional academic subjects reduces hours in subjects such as art and home economics, where students struggling in other subjects may excel. He thinks this creates huge drawbacks in the Finnish curricula.

Schenin (2C) speaks of the structural weaknesses of the system. In upper-secondary school, the students have a choice as to which subjects to take according to their interests. He thinks this comes as a detriment to a student's learning:

> This is counterproductive in the sense that in the *gymnasium*, those who think they are not good in some subjects will leave them out. They are encouraged even to do this. Then they are selected into further studies on the basis of their selections. This means that structurally, we have built a system that leads to very,

> very powerful, especially gender and parental background, enhancing or enforcing segregation of further studies.

Even though Finland has a comprehensive system of education, this self-selection leads to disparity in education level, something that worries Finnish education officials. For example, girls often choose not to take much mathematics at the upper-secondary level, causing a disparity in mathematical level and in university entrance in these subjects. Schenin believes this problem comes from the structure of the system. He also believes the structure of the system does not take into account the differing developmental levels of the children. He says how preschool aims to even out these differences in theory, but does not necessarily do so in practice. He describes this as a "politically correct and inefficient model." He acknowledges how the comprehensive education system, especially with the good special education system that Finland possesses, helps an entire population advance in its education level, but it comes at a cost. He believes "some children would, in their personal development… do better in a system where we go onwards when you have actually understood what you are supposed to understand and learn… [rather] than just being pushed forward because you are of a certain age."

Reinikainen (1D) feels that the Finnish government tried to hide the PISA results initially. He implies that the high scores in PISA prompted the government to add more instructional hours in subjects pertinent to the PISA surveys:

> I would say that one of the drawbacks in my sense was that the Finnish people were supposed to be the best readers in the world, in PISA 2003, but [at] the same time our weekly instructional hours in mother language were increased by one weekly hour or two. The same happened in mathematics… Physics and Chemistry were started to be taught two years earlier, as independent subjects themselves… Those changes might guarantee that Finnish know-how is better and stays at the top of the world.

This increased instruction time in the PISA-related subjects correlates with the lack of time for subjects like art and home economics, as Reinikainen mentioned. The decreased time for more creative subjects and social development may not show up in PISA, but may harm Finland in other ways.

Hautamäki (2A) describes a weakness in the education system but on a more abstract level, the concept of over-education:

> There is also a problem that is called optimal overeducating. We are overeducating our people. The workforce demands but does not require so much *gymnasium* or third degree education. So we are overeducating them, but for a small country this seems to be something which is worthwhile doing, but [we should wonder] whether there should be more vocational elements.

Schenin (2C) states how the debate about over-education has gone on for years, stemming from the education of the peasant and working classes in the past. The debates currently center on education and the economics of education. Today, Finnish policy makers worry if they spend too much money on education. However, Schenin says, "If anything, the success of the Finnish educational system has been outperformed by the economic performance of Finland. Comparative studies would dare suggest that we are precisely at the right level."

Responses to PISA

The responsibility of executing PISA in Finland has thus far been in the hands of two different universities: one university for the PISA administrations in 2000 and 2003, and another for the 2006 survey. For the first two, Välijärvi (1A) liaised between the international coordination center for PISA and Finland. In Finland, they trained test administrators, one person in each school, which came to approximately 150 schools for

PISA 2000 and 200 for PISA 2003. He states how the OECD set up strict guidelines about the practicalities of PISA, such as organization and sampling. However, within that framework, he says, they had autonomy in organizing PISA within Finland.

Linnakylä (1B) had experience prior to PISA of working with the OECD. She represented Finland on the OECD-sponsored collaboration by the Nordic countries on literacy and reading within the Nordic community. She helped develop PISA items for the surveys with the international expert groups. She had the responsibility of assembling the different texts collected from the different Nordic countries and screening the first phase of texts. Linnakylä describes the difficulty in choosing texts culturally acceptable in all countries. Kupari (1C) also mentions how every country sent in proposals for items for the eventual PISA surveys. The Finnish teachers, he says, were not particularly eager to contribute to PISA. He reveals that the OECD entrusted the experts to do their own work and describes the interesting process of maintaining cultural sensitivity in the PISA items. Reinikainen (1D) had a more limited involvement with the creation of PISA, since science in the 2000 and 2003 surveys had a minor role. He oversaw the problem-solving section and sees problem-solving as a positive addition to PISA:

> I hope that the PISA framework will be changed so that we will not be discussing any more about scientific literacy or mathematical literacy, but it would be problem solving, mathematical and scientific. That would be more dynamic, and it's a dynamic world… I think that those skills measured in PISA are really important, but … for problem solving itself, all the bigger items are problem solving.

Reinikainen feels differently about the autonomy granted by the OECD from his colleagues. He feels that "there was no freedom at all" but implies that Finns take rules very seriously, and follow the guidelines by the OECD very strictly. He thinks that

creating a test for Finland should not be up to the OECD, but rather to the Finns. He states how surveys such as PISA should be a cooperative effort, and the test items should be "equally unfair to everyone."

Linnakylä (1B), Kupari (1C), and Reinikainen (1D) all thought that the creation of PISA was positive. Kupari likes the PISA approach, with the focus on "literacy," and not on curriculum content. He finds the application of mathematics, his specialty, in the real world a necessary skill. Reinikainen thinks that the PISA approach, which differs from the IEA approach, has considerable value for education. Much like some of PISA's critics mentioned in Chapter One, both Kupari and Linnakylä think that PISA's administrations come around too often. Linnakylä feels that a five-year interval may improve upon the surveys, cutting down labor and expense. However, she finds PISA quite useful, especially for a country such as Finland, which does not undertake many assessments of its own. PISA's background questionnaires, she feels, do not ask much because they avoid taking up too much time. She feels they could delve deeper into the students' backgrounds and gather more information. She does, however, find that PISA provided good reinforcements for Finnish education:

> In our newspapers they always complain about education and the students and about the teachers. How young people are terrible and misbehaving and how they don't learn anything, and how the school system is bad and how the old system was good. That is why it has been very eye-opening, to see that our system is functioning very well, that our teachers are doing a good job, and our students are learning more than they used to.

Välijärvi (1A) agrees with Linnakylä, since he also believes that PISA has increased confidence in the Finnish education system. Traditionally, he says, the public has criticized Finnish education, especially at the lower secondary level. Many thought that

the system should re-introduce streaming, rather than following the comprehensive ideal. The PISA results, however, have positively reinforced the comprehensive education reforms of the 1970s. Välijärvi describes how PISA compelled Finns to learn more about their system, how the reforms worked quite well for Finnish education and society. He also believes that PISA reinforced the teacher training system, the movement of teacher training programs to the university level and the requirement to have master's degrees: "After PISA it is much deeper [*sic*] accepted by people in the administration and the whole society that investing in teachers … will bring good results when we are measuring what students have learned." Välijärvi also, on a more pragmatic level, finds PISA useful because of the amounts of money spent on the project. He mentions how the Finnish government had much more involvement in PISA than in the IEA surveys. The whole idea of PISA, according to Välijärvi, especially for OECD countries, stems from the notion that education and economic development have a strong relationship, and that then provided the catalyst for the entire PISA undertaking. Schenin (2C) also argues that PISA provides evidence for debates and discussions about education in Finland, since they had not until that time used evidence-based arguments, but "belief-based" approaches, as Hautamäki (2A) describes it.

Schenin (2C) describes how PISA scores came as a shock to Finland. Observing the decline in matriculation examination scores forced many to believe in the weakening of the Finnish education system. They thought they had a lack of success in education, and then the OECD released the PISA outcomes in 2000: "We were talking about how things were going really badly; we are still doing better than anybody else by PISA standards." Those pessimistic about Finnish education did not want to discuss the PISA

results of 2000, but the 2003 survey began conversations about education and provided evidence to back up confidence in the education system.

Hautamäki (2A), Kupiainen (2B), and Schenin (2C) admit they did not know about PISA in much detail before their organization of the 2006 survey. Hautamäki points out that PISA, as a large, well-organized research project, does not allow for creativity. Previous to their organization of the survey, they observed the trends from the previous two surveys. They noticed that the countries involved did not exhibit particularly varying scores between literacy areas. For instance, countries that score high in PISA tend to do so in all assessed areas; conversely, countries that do poorly in PISA score weakly in all subjects. Kupiainen observes that countries that score low in PISA do poorly in other areas as well, indicating that education is only one of their problems. She believes Finland's success in PISA comes from the strength of the reading and language skills of Finnish students. PISA questions, according to Kupiainen, require careful reading to draw the right conclusion. Finnish students have this strength, but she does not attribute the high scores to the country.

The analysis of the 2006 PISA team showed that the best performances in PISA did not come from the countries that spent the most money on education. They also observed student variation within a country. The findings showed that a lower than average student variation best creates equity in a school system. Perhaps Meuret could use this as an example of school equity as indicating school efficiency. Hautamäki (2A) points out that countries can score high on PISA in two ways, with both high and low variation among the students.

Hautamäki (2A), Kupiainen (2B), and Schenin (2C) describe the nuances of the Finnish education system that led to high scores in the PISA surveys. Not necessarily strengths, these features may have contributed to Finland's scores in PISA. Kupiainen and Hautamäki indicate that the students in Nordic countries take PISA while still in comprehensive school. They believe this plays an important role in PISA outcomes, since countries that have finished basic school and have already separated their students at the time of PISA testing score differently. PISA, in other words, comes at a good time for the measurement of Finnish students. Kupiainen cites The Netherlands as an example where students have already separated into their different tracks by age fifteen. The three professors imply that if Finland were in the same situation, scores in PISA would be lower.

To illustrate this example further, Hautamäki (2A) cites Finland's own assessments of schools, taken at the ages of approximately twelve, fifteen, and eighteen:

> We have from Finland our own results, where we were checking the between-school variations at sixth grade, ninth grade… twelve, fifteenth, or seventeen and eighteen years of age. Between-school variations increase enormously at our third measuring point, where the school has been divided into two sectors, vocational school and gymnasium track. That creates between-school variation that is quite close to The Netherlands and other countries: forty percent. So, it seems, that because of a good measuring point for us, we are showing results, where the equity is exceptionally high, but within the system there are already extremes.

PISA, therefore, comes at the most ideal time for Finland and the Nordic countries, a time of high equity in the education systems. As previously mentioned, the Finnish school culture, lacking in tests, may factor into high PISA scores. Kupiainen (2B) wonders whether, if a larger testing culture existed, the Finnish students would have done as well

in PISA. Her colleagues in The Netherlands said the Dutch results would have been better if they had considered PISA a high-stakes examination. They felt they did the OECD a favor by undertaking the survey, but did not take it seriously. She disapproves of this attitude. She feels the problematic attitude lies in academic motivation solely for money or academic credit. In Finland, however, PISA did motivate the teachers who, in turn, motivated the students. She also thinks that the students in the vocational track would not do as well in these assessments. Since PISA still comes at the comprehensive school level for Finland, the country has an advantage in PISA.

Hautamäki (2A) further describes details of the Finnish education system not usually mentioned which may have aided Finland's high score in PISA. School choice within the education system and the sparse population of Finland can influence a student's educational experience. In smaller communities, students may be confined to the local schools, but in bigger cities students can exercise their right to school choice. In fact, as of 2000, half of the students in the Helsinki area changing to lower-secondary schools applied to schools outside of their catchment area (Seppänen, 2003, p. 513). Students who have a particular interest, such as music, for example, can choose a school based on their interests. Kupiainen (2B) and Schenin (2C) say that some parents may encourage their children to attend a school not necessarily close to home, but based on the strength of the school program. In a large city such as Helsinki, therefore, the possibilities of school choice result in students coming from different parts of the metropolitan area, creating a more diverse school. This leads to a relatively large variation between the schools in heavily populated areas, both in terms of achievement and also in terms of socio-economic background.

Kupiainen (2B) also mentions the "hidden" streaming structure of Finnish schools. Hautamäki (2A) reveals that PISA does not pick up on this fact, since the random structure of PISA sampling cannot account for these relative differences. Kupiainen states how, in principle, each student has the same curriculum because of the National Core Curriculum:

> We have a National Core Curriculum and every school implements that. There is only a leeway of two or three hours a week you can change…There are some selective classes especially in the bigger cities, that have an emphasis on math. It does not necessarily mean they have much more math…it means they get students that are interested in it. Just because the students are more homogenously motivated, you reach further.

This "homogeneous motivation" can help certain students excel further in their studies than their peers. She states, "The child gets into a class where the children are of parents who know how to choose the correct things." Even though these opportunities limit themselves to large communities, the professors imply that certain kinds of parents find opportunities for their children from an early age. Schenin (2C) states, "The players know how to play the game." Hautamäki (2A) calls this "clever education," implying that those who know the system can take full advantage of it. Kupiainen mentions, "There are hidden curricula for the children of a given type of parent." Hautamäki feels that school consists of "small things" which combine and correlate to make an entire system. When many good "small things" combine properly, a strong education can ensue. He states, "There are no secrets. It is not a hidden mechanism. It may not be known to everybody, but it is not classified information." In other words, students with ambition or parents who seek the best possibilities for their students can use the best offerings of the Finnish education system to their advantage.

PISA garnered more of a response than its predecessors, IEA surveys such as TIMSS and PIRLS. Välijärvi (1A) cites how PISA impacted society much more significantly than IEA surveys. Reinikainen (1D) does not prefer one survey over the other, since they measured such different aspects of education. Together, he felt, the two provided insights into learning. Looking at the results of PISA and TIMSS together provides a good lens from which to view learning and education. For example, former Eastern Bloc countries, which focus more on content learning, have good results in TIMSS but not in PISA. Kupari (1C), as previously stated, approves of the "literacy" approach of PISA, and feels that students need to know how to apply their mathematical knowledge. Välijärvi believes that Finnish pupils have more motivation in taking the PISA tests as opposed to those of the IEA, because they differ from the tests taken in school.

Kupiainen (2B) cites how many countries, such as Finland, France, and the United States, score differently in PISA, TIMSS, and their own national assessments. Finland's disparity in mathematical scores in TIMSS and in PISA generated much discussion about the mathematical ability of Finnish students:

> In Finland, the kids showed up as good as you can dream of [in PISA], and most mathematicians were pissed off at the results. Their understanding is that the results [in mathematics] are just getting worse and worse all the time, and the kind of math … PISA measures does not measure the kind of mathematics that would be of use [in] educating engineers and mathematicians, the higher math in their careers and their work. This gives a false image of the level of mathematical level in this country.

Hautamäki (2A) also cites how researchers worry that the mathematics in Finland could be more effective and deep. Despite the high scores in PISA, mathematicians in Finland still worry about the mathematical aptitude of students. PISA does not necessarily

indicate strength in mathematical skills, and many Finnish mathematicians believe that "math… [is] not as effective or deep as it could be and should be."

Observing the different performances of Finland in the two different types of surveys raises the issue of sampling and effect on scores. As previously mentioned, PISA comes at a time when Nordic students still attend comprehensive school, and if given at a later time in Nordic education, the students might not score as high. Meanwhile, TIMSS samples at grade level, which may cause an age difference of up to two or three years in some countries. Prais also questions the issue of sampling and methodology of these two surveys and believes a hybrid between the two would provide the best assessments (Prais, 2003, p. 148; Prais, 2004, p. 569-570). Kupiainen (2B) states how no clear answer exists to sampling and methodology of such a large, cross-national educational survey.

Kupiainen (2B) describes how TIMSS measures the "lowest common denominator" of the curricula of participating countries:

> It is subject-based, and it is so that the countries that participate that year make the decision on what can be included based on their curricula. The fact is that they are different countries in different years, so they are a bit difficult to compare year by year because the curricular needs and the curricular denominators are different in different years. I think that just because Finland has never done so well in TIMSS and done so well in PISA … I think that one of the fruitful things about PISA is that [it] has shown to begin to look at the education systems but also at the curricula of different countries.

Kupiainen regrets Finland not taking part in more IEA assessments. The United States, in contrast, took part in both PISA and TIMSS, and in combination with its own assessments, provides good background for analysis and reflection upon the US education system. Although Finland does have some of its own national tests, these strictly assess the curriculum. She praises PISA for triggering further exploration into

education systems, since she thinks TIMSS does not provide any reason to look beyond curricula. She feels that with more assessments, Finland can go beyond reflecting on its own education system towards deep reflection and exploration.

Linnakylä (1B), who focuses on reading literacy, thinks that people exaggerate the differences between IEA surveys and those of PISA, and that they actually measure similar things. She cites how the IEA literacy study of 1991 also used life-based questions. The grade-level-based sampling of IEA poses some problems, especially for students in Nordic countries who start school later than their counterparts in other countries. Having served on committees for both surveys, she also found that the two surveys had similar development processes. She believes that many exaggerate the differences between IEA studies and PISA:

> I am the IEA people and the PISA people. The same people are doing both studies, as in many countries. The IEA says it is more research and PISA says it is more economics, [but it is] the same people, the same researchers, in many countries… I wouldn't say they are so much different, really.

Kupari (1C) acknowledges the difference of the two surveys on their basic level, measuring curricula or skills for life, but similarly feels the two actually have similarities. They follow similar procedures in formulating the survey questions and adhere to analogous standards. He points out, however, that PISA does not have as extensive a background questionnaire for the students, and illustrates how TIMSS had teacher questionnaires. This lack of student and teacher background in PISA prevents researchers from making close correlations with student achievement. Reinikainen (1D) looks favorably upon the background questionnaires of these surveys, which set them

apart from other national assessments. Surveys such as TIMSS and PISA, according to Välijärvi (1A), instill too much competition between countries.

With proper motivation, they can serve as a catalyst for further study and investigation into education systems. These surveys also help illuminate different educational cultures, as comparisons between Asian countries and Anglo-Saxon countries, for example, become easier. Furthermore, Välijärvi (1A) finds that the interest in Finland resulting from PISA has forced the Finns to look deeper within their own system and really learn about it. Kupari feels the international surveys allow people to view education systems as a whole:

> In both PISA and TIMSS, the idea is to look at school systems, not students, not separate schools, but school systems. It is good to see what are the strengths of each school system and I think that these kinds of issues have values. After that you can arrange national studies which go deeper… We have seen that when people ask from us, what are the explanations of PISA and the good results for PISA in Finland, it is based on this data. It is very difficult to say what are the reasons, what are the explanations.

Reinikainen (1D) agrees. For him, PISA does not provide a clear message; rather, secondary analysis and further research stemming from PISA should provide better answers. Kupiainen (2B) also praises PISA for triggering more observation of education systems and not just curricula. PISA provides a starting point for further questions about education. Schenin (2C) admits to PISA's flaws, but says it has good use in the educational world. He believes it has given cause for reflection on the education system of Finland and the politics behind it. Kupiainen worries that while PISA and other surveys gain in importance, people will coach students on the tests. Hautamäki (2A)

admits that PISA cannot measure everything and comes at a high price, but acknowledges that PISA boasts a good design constructed by the world's experts on education.

Reinikainen (1D) thinks that international surveys lead to political pressure. The political repercussions of PISA may have negative effects in the future: "The assessment results have been evaluated politically. Teachers are horrified that Finland was doing so great and a huge amount of cuts are done in the budgets and the library budgets." Although he admits PISA has placed well-deserved prominence and attention on the teachers, these budget cuts will have consequences in the future: "If cuts are done in a budget for today's kids, the effects are seen in ten and twenty years from now, not immediately." Reinikainen also fears that people do not understand much about PISA, simply that Finland did well on it, and that people will jump to conclusions from the results. Although he thinks very highly of the PISA data, he disapproves of the very political use of them. He fears that the political decision makers will not take into account cultural factors influencing an education system. He says, "It is a misuse or a lack of understanding of the data in that sense."

This political impact also affects other countries. Välijärvi (1A) cites how Germany takes educational standards very seriously, and notes the outcropping of new standardized tests due to PISA. German *PISA-Schock*, as referenced in Chapter One, uses authors such as Ertl and Gruber's work to illustrate the profound impact that PISA had over Germany. Germany, therefore, created standardized tests in order to better assess their education system in reaction to PISA and *PISA-Schock*. Denmark also has created tests, now compulsory for students, published for the public. He feels this will increase the competition between schools in a country traditionally quite flexible in its

education system. He mentions that, even in Finland, discussions have emerged about more national assessments and stricter standards in different subjects. These possible reforms, according to Välijärvi, go against the ideas and philosophies behind Finnish education. He states, "I think that the real trap nowadays is that education is becoming more and more political." He believes this comes from PISA, because of its importance and impact on politics. He fears that, in the future, education will become a more common arena for political quarrels. He believes that teachers should have the freedom to concentrate on pedagogy, but worries about the negative impacts of a highly politicized education system. Välijärvi also fears that this will drive away future teachers.

Hautamäki (2A) believes that PISA has generated good technical outcomes, such as reinforcing spending on education and educational research, which he feels have more value than "silly economic studies." PISA furthermore shows the value in comparing education systems and paying attention to student in-school variations. Välijärvi (1A) also praises PISA for making education more visible, by heightening the importance of education, especially in public discussions. Because of PISA, more and more people have an interest in education. He believes people need to realize the importance of education, especially "for coming generations, not only for economic competition but for their personal development and understanding of the world and being able to communicate to each other."

PISA ultimately reinforced education in Finland. Previous to PISA, Hautamäki (2A) cites dissatisfaction with the education system and discussions about changing the system, especially teacher training. Many argued to remove teacher training courses

from the universities and to transfer them to polytechnics. However, "PISA results stopped that discussion… That has been a very important effect. No one dares."

Cultural Transferability

The professors all mentioned the issue of cultural transferability. Despite all of the interest in Finnish education, complete with vast numbers of PISA tourists, they warn against borrowing the system and remind all to keep in mind the context from which the Finnish system has developed. Hautamäki (2A) states how many perceive Finnish education as the best in the world, but adds, "We are best in that test."

Välijärvi (1A) acknowledges that PISA allows a country to see what works in their education systems and what could be better. He says no "easy solutions" exist, since "educational systems are so culturally bound that you must be very careful to go deeper in these kinds of issues." He refers to the "quick fix" solutions in cross-national attraction: "You can see people only taking a quick look. It is most important to find the things that are behind the scale points." Furthermore, Välijärvi cites the example of hours in school. Finns actually spend comparatively very little time in school, approximately 30 hours a week, but still perform well in PISA. He recommends, "You can't explain [educational differences between countries] only analyzing PISA results, you must go deeper into the culture, the educational culture of these countries." In reference to the attention placed on Finland now, Välijärvi finds the attraction quite interesting. Originally, Finland modeled its education system after the other Nordic countries, especially Sweden and also Germany. He cites how Germany traditionally held the honor of the exemplary educational model. PISA has changed the direction of the attraction. "Suddenly, they are coming from Germany and now other Nordic

countries to see how we are organizing [education] … I think that is one of the positive effects of PISA." He enjoys the increased mobility between countries and the encouragement of learning from each other. The Finns, he describes, have benefited from these visitors since it forces them to learn more about their own system, especially when hearing about the experiences of PISA tourists in their schools. Välijärvi remarks how he has learned to value assets such as the social system, health care, free and healthy school lunches, for example, since they all play a role in aiding students and teachers in carrying out their most important responsibilities. He admits it would be difficult to assess what these PISA tourists really learn while in Finland. He says, "You can't move any models directly from one country to another. There is so much connected to the cultural base of the country … [education systems are] deeper in the national culture than any other institution."

Hautamäki (2A), Schenin (2C), and Kupiainen (2B) also warn that education systems come intertwined in a country's culture. Kupiainen describes that a country with a larger population and different social and cultural structure would have no educational guarantees by imitating Finland's education system. Schenin agrees. He says, "If you take our education system and transplant it, you won't necessarily get the same results." He speaks of how the investment in factors such as health care of children and expectant mothers has a bigger influence than the investment in education. He describes how the Centre for Educational Assessment has not "looked at what the actual effects of the school system [are], because they are all cultural. They are all intertwined in the situation in the country."

In reference to PISA success, Hautamäki (2A) says, "It doesn't make sense to say we are the best, but it turned out that we can continue on the way which we have been doing." Kupiainen (2B) agrees that the Finnish education system, a "caring, comprehensive system," seems best for a country such as Finland, homogenous, with late industrialization. She states, "There is no basis to speculate that it would be the best solution for something." Despite their doubts, PISA tourists and visitors do come to Finland looking for educational answers. Hautamäki, although he admits he does not know the details, describes how China has borrowed aspects of the Finnish approach for a school in Beijing:

> Chinese authorities are trying to replicate a Finnish *gymnasium* somewhere in Beijing or somewhere else. They have translated the material from several of our schools, the core curriculum, and some textbooks used by those example schools. There has been some agreement to train Chinese teachers, several hundred of them… If it would be a success, no evidence would be found. Nobody would know why.

This example illustrates the power of cross-national attraction in education policy. Hautamäki, however, warns that copying aspects of a successful education system does not necessarily provide the anticipated results.

Linnakylä (1B) speaks of the different visitors that have come to Finland because of PISA. As a citizen of a small country, and one not often visited, she enjoys this educational tourism. Even in her city, not as easily accessed as Helsinki, they have up to three tour groups a week since the release of the first PISA results in 2004. The Germans came first. "The first year every week a group of Germans came, all different parties and administrators and teachers and different states, because they have so many of these *Länder* [states] inside of Germany." Scandinavians made up the next influx of tourists,

coming from Sweden, Denmark, and Norway. Japanese and Koreans came in the next wave of PISA tourists to her city. She says, "It's amazing, even though they are doing so well, they came." Much like Välijärvi (1A), Linnakylä says the visitors to Finland have made her learn more about her system:

> It has been interesting and eye opening to look at your own system and your own culture… I learned a lot. I really found out how similar Sweden and Finland are… It's not only the visitors that will learn and gain. I am quite sure that the Finns will gain. It is nice to be the focus of attention, but it is also that you learn from other systems of education.

Schenin (2C), Hautamäki (2A), and Kupiainen (2B) also agree with this sentiment. Schenin describes how the visitors coming from all over the world ask excellent questions about the education system, something that Hautamäki finds useful. Kupiainen agrees with Linnakylä and states how these visitors and this attention have forced Finland to "look in the mirror" and really learn about themselves. Kupiainen also describes the trust implicit in the system in Finland, quite different from that of observers. Many educational tourists come to Finland and wonder how they manage without inspectors. She says how the policy makers really do not know too much about the schools, but believe and trust the schools to carry out their jobs successfully. She states, "It is belief-based, not evidence-based."

Kupari (1C), when citing the evenness, equality, and egalitarian nature of the Finnish system, states how "in Finland, we can produce quite even results and it is not possible to say that if we would move this system to another country, could we have the same results?" Certain systems work in certain conditions, but not others. "They have cultural features, there are historical features, and these always affect the implications and the implementation of the system." He warns visitors to keep in mind that no easy

answers exist in terms of educational policy borrowing. Countries can learn from others, "but it is not possible to copy anything as such, to copy this idea and to bring it to some other country, and to use it in the same way." In order for successful policy borrowing to take place, changes must occur to ensure cultural compatibility. "Each culture has to modify their own system so it will suit their own system, their own culture, and their own way of education… There are very seldom simple solutions and simple answers."

Reinikainen (1D) also mentions the necessity of investigating the cultural contexts behind PISA results. In reference to the interest in Finland, he says, "Of course we are very proud to present our system and so on. It is our adaptation of one single instructional activity, and expecting that to work similarly in another country as in Finland is nonsense. It is a stupid thing." He feels that people do not concentrate enough on the backgrounds and cultures influencing PISA scores. The PISA tourists come, according to Reinikainen, and focus on small things, like school lunches or that the children take off their shoes in school. "The focus might be on the small things, some instructional things, things that are not easy to be changed in any system. The school type, for example, those cannot be changed easily. A similar educational system cannot be built, for example, in the States, if the bases are not the same as over here." Reinikainen cites *sisu* as a strong influence behind Finnish education. He describes *sisu* as "Finnish guts." These guts, or "Finnish character," give Finns strength in the face of adversity. "Even if the tasks we have to do and face are not nice, or we do not enjoy those or love those, but we do it anyhow. We are trying to finish the job, any job that is given. *Sisu,* as we call it. Our Finnish guts."

Schenin (2C) suggests that those observing the success of Finland in PISA need to explore beyond the results. He believes that many trying to decipher the high scores focus too much on subject-related reasons and not more general ones:

> We do a lot of strange things like taking off our shoes [at school], or having a lot of reindeer per capita, and other things that are specific to Finland but have probably nothing to do with any PISA explanation. This would be one way of getting around some of the explanations, and focusing on those… that are more general.

In other words, those looking for a quick fix or easy answers to educational success look too superficially into Finnish society. Schenin advises to explore the systemic explanations.

The success of Finland in PISA has triggered its closest neighbor to mimic the system. Ironically, Finland has traditionally looked to Sweden for educational models. The aforementioned Finnish phrase states, "In reforming school, Finland makes exactly the same mistakes as Sweden. Only it happens ten years later" (Välijärvi et al., 2002, p. 3). Following the PISA results, Kupiainen (2B) cites how "the first thing that the Swedish, rightist government decided was to divide their upper secondary school into two like we have in Finland." The original educational trend between these two has reversed itself, with the interest now coming from Sweden towards Finland.

Finland and Asia

The similarity of PISA outcomes between Finland, Japan, and South Korea deserves some attention. The professors had some interesting insight into this matter. Hautamäki (2A) refers to Japan, South Korea, and other high-achieving Asian countries as "booster countries." He feels Finland has such distance from these countries culturally, geographically, politically, and socially that analysis in these realms can

clearly show the differences. He says, "We are fully believing that those countries are taking everything out of the persons." In other words, the culture of these countries gets the best academic performance out of the children by intense measures. Kupiainen (2B) feels the authoritarian attitudes in Asian schools also exist in Finnish schools, leading to similar attitudes towards education and similar outcomes.

Välijärvi (1A) has worked closely with his Japanese colleagues on Japanese results in PISA. Firstly, he sees Finnish success, especially in the scientific and mathematical literacy realms, as a result of the Finnish curriculum in theses subjects more closely resembling the definitions of literacy in PISA. In Japan, he finds that the role of education has changed:

> It seems that the role of education, especially in Japan, has changed. It doesn't guarantee anymore, in all cases, a very good future if you have a good education and eternal jobs in very good companies. I think that growing unemployment in Japanese society, it has had an impact also in the educational sector.

He also believes that the motivation for Japanese students comes from the outside rather than the inside. In other words, the motivation for study and academic success does not come from the students themselves, but rather from pressure from parents, society, or a desire to succeed in the labor market. Korea, where Välijärvi cites considerable monetary investment in education, does not necessarily have an effective system of education:

> I am not quite convinced that [the Korean system] is very effective, that their pedagogical practices are very effective, because if you look at the PISA results, the average times that students are working in schools, or outside school, it is almost fifty hours per week. In Finland it is thirty hours per week. That is one reason that they get such high results. In the future, I think their challenge is the quality of educational practice and pedagogical practices.

These examples illustrate the need to reference cultural factors in analyzing PISA results.

Linnakylä (1B) agrees with Välijärvi (1A), and attributes Finnish scores in PISA to the compatibility of the curriculum with the pragmatic approach of PISA. She cites how Korea and Japan have been very good at mathematics and science, but have not concentrated on reading literacy. To them, "it's just soft stuff." She says that in Finland, in comparison to Asia, "We have very different types of teaching and we never follow this sort of clear, marked plan. And when you go to the classrooms, you can see they have a very different way how the teachers are working." Schools in Finland, she feels, have school- and teacher-based curricula, and focus on the student.

Kupari (1C) thinks the similar outcomes of PISA from the three countries come from their equivalent attitudes towards education. However, he feels the good education for students in Japan and Korea comes from the high competition for university places and jobs. In comparing these countries, "there are very interesting issues looking at certain countries which seem to have high results but they have differences in other aspects." He thinks that the cultures of Japan and Korea vary very much from that of Finland. In terms of education styles, the countries also differ greatly. Finland has small class sizes and different teaching methods from the two other countries.

Reinikainen (1D) thinks that Finland has the same level of attainment in mathematics and science as Japan and Korea. In PISA, Korea and Finland had similar patterns of achievement, with very few weak students. Japan, however, has more low achievers. Japan and Korea also scored high on TIMSS. He attributes this success to supplemental education in "cram schools," such as the *juku* in Japan and the *hagwon* in Korea. Reinikainen notes how Finnish children do not attend such schools. He states, "It

is a miracle for me that in Finland we have [a] very small amount of instructional power compared to these countries, in normal schools. We don't have any *juku* schools, and we are still doing greatly."

The professors mention the effort by the Finnish students as a factor that gives them success in PISA and in education in general. Hautamäki (2A) speaks of the importance of effort and doing one's best in Japan as influencing high educational attainment. He also speaks of this in Finland, which helps explain similar PISA outcomes in the two countries. Schenin (2C) cites how any country performing well in PISA tends to have small variations within the levels of their students, and also to have the least variation in scores due to socio-economic level of their families. Finland, along with Korea and Japan, has managed to achieve these two attributes, thus indicating similar levels of success in PISA.

Hautamäki (2A) describes how the educational research group at his university conducted a comparative mathematics study involving children from Helsinki, Hong Kong, Singapore, and Beijing. Because they did not use a random sample, they could not generalize the results at a national level. However, the ranking came out with Hong Kong in first place, followed by Singapore and Beijing. Helsinki's schools came out last. Nevertheless, Hautamäki states that no sufficient studies exist that compare Finland to countries such as Japan, Korea, Singapore, and Hong Kong. "They seem to be so far away countries that no one has really compared [them], and somehow we would be willing to compare ourselves to countries with similar population sizes and things like that, which is not optimal."

Finland and Scandinavia

The difference in PISA outcomes between the Nordic countries raises many questions. The countries, which have many similarities, had different outcomes. Finland, of course, scored higher than its Scandinavian counterparts. Välijärvi (1A) acknowledges the similarities of their education systems and their philosophies of education, and therefore credits teachers as the crucial factor for Finland. Hautamäki also thinks teachers set them apart from the Scandinavian countries. The Finnish attitude maintaining the respect and high regard of teachers makes Finland different. Teacher education and the high status of teachers, in addition to the popularity of the profession, mean that no shortage of teachers exists in Finland. Välijärvi cites how Sweden has a shortage of teachers and a different system of teacher education. Although now a part of higher education, it remains separate from other studies. Teaching also does not have the same popularity in Scandinavian countries as it does in Finland. Reinikainen (1D) mentions how Finland's teachers have higher qualifications than their Scandinavian counterparts. This respect for teachers still present in Finnish society may correlate to the higher scores in PISA. Reinikainen cites how in Sweden teaching does not command the same respect as in Finland. Teaching in Finland also has a tradition of running through families.

Kupiainen (2B) thinks that Finland's higher scores in PISA than the rest of Scandinavia also have to do with its differing development. PISA, as discussed previously in this chapter, came at the right time for Finland. She cites how Finland's industrial development came later than its European and Scandinavian neighbors. This late industrialization more closely resembles the patterns in the Far East, bringing Finland

closer to countries such as Japan and Korea in this realm. Because of this, Kupiainen states, "It might just be that PISA came at the point where we were still on the slope up and many… European countries were beyond the point where education is on the rise." She also believes that PISA came at the time where Finland's educational reforms of the 1970s came to fruition:

> In Finland, the PISA generation…is the children of those parents who have the greatest advantage … of the educational expansion in Finland… The kids of PISA, … their parents are those who went into this expansion of the academic side of the old system, the parallel system, and the first ones who got university educated.

Hautamäki (2A) agrees. The reforms of the 1970s first influenced the parents of students taking PISA. The parents benefited from comprehensive education and more access to education in general, and their children, in turn, have parents with higher and more widespread education levels.

Linnakylä (1B) cites the recession of the 1990s as a salient factor in Finnish education. The recession, she feels, put Finland higher than its Scandinavian counterparts in PISA. Before the recession, Sweden was always better in education. The recession "really changed our attitudes towards education, because in the '90s, we didn't think it had to be so pragmatic." Previously, Finns viewed education as an autonomous and independent entity, separate from the labor market and the economy. Linnakylä cites the "terrible" unemployment rate in 1993, at twenty percent:

> We had to do something. In '94 we got a new curriculum in both lower and higher grades and also the universit[ies] changed their profile. I think that was very good and healthy for Finnish life, so that we started to rethink the role of education and how it has to consider changes in the working life and economy.

Afterwards, Finland aimed to train innovative workers with pragmatic knowledge and problem solving skills. The other Nordic countries did not have such a recession, and did not have to make the subsequent educational changes. The social mobility present in Finnish society, both after the wars and after the recession, does not have as much influence in Sweden. Kupiainen (2B) cites how Finland still has returns for education, where more education leads to more prosperity. In the other Nordic countries, however, she describes how the high standard of living has meant that a high level of education did not necessarily lead to a good quality of life.

Linnakylä (1B) also mentions demographics when describing the differences between Finland and the other Nordic countries. The other countries have much higher immigrant populations than Finland, because of more open immigration policies. She says, "Shame on us," but admits that immigrants in a society add complexity to an education system. In this case, the education system needs to cater to immigrant students and different language backgrounds, as well as cultural and family factors. She cites the example of Sweden:

> It's not easy in a suburb school … if you have twenty students they might have fifteen different nationalities and languages. It is not sometimes the problem with the schools, but with their parents and with work and their background as they come as refugees or an asylum seeker. They are not easy problems to solve, especially in a school, even though they try very hard. But still Sweden is doing, I would say, very well, comparing to their population which has a strong immigrant basis.

Linnakylä also feels that Finnish schools have more discipline than their Scandinavian counterparts. She thinks that perhaps Finns have more old-fashioned values, but the schools do not have the same strictness as other countries. She cites how the Russian visitors think the Finnish schools have no discipline and are ill behaved, while their

Swedish PISA tourists believe that Finnish schools have strict discipline and well-behaved students. She says, "We are in between." Kupiainen (2B) believes the authoritarian attitude of the Asian countries also exists in Finnish schools. This attitude sets Finland apart from its Nordic counterparts and makes the educational outcomes higher.

Kupari (1C) admits that the other Nordic countries also wonder why Finland has more success in PISA than they do. He thinks that Finland and Denmark have differences from the others. He says, "I think that we have a little bit different attitude towards education… Our mind is a little bit different [from that of] people in Sweden and Norway." Denmark, for example, feels influences from Continental Europe while Finland holds a position between East and West and borders Russia. In Denmark, according to Kupari, the Danes stress the importance of enjoyment of life. This filters into school life, where the importance lies more in the enjoyment of school rather than in school performance. In Finland, however, students try their best in school, even if they do not enjoy it. Kupiainen (2B) also mentions this. She cites how the Swedish visitors to Finland note how Swedish students have more "non-answers," meaning "if a task looks too hard, they don't bother. They just skip to the next one." In Finland, she describes, students receive half of a credit for an answer even if it is not totally correct. Swedish students do not have this advantage, making them more reluctant to answer questions they cannot completely answer. She describes this as an "in-between. Even if you don't know, or if you think you know, you try and you might get the right [answer]." Finnish students take the risk of answering the question while their Swedish peers do not. Kupari

feels the Nordic countries have fairly similar systems, as illustrated by similar hours in school for the students, but perhaps Finland has a more effective system.

Reinikainen (1D) says, "We have followed the Swedish curricula and general schooling system but we are about ten years behind Sweden. When we copied the system we also studied the failure of the system, what could be improved." By learning from Sweden's mistakes, Finland implemented successful educational practice. This may also have influenced the relatively higher scores of Finland in PISA over the scores of Sweden.

Education in Two Languages

Reinikainen (1D) addresses the issue of the performance of Swedish-speaking Finns in both PISA and TIMSS as compared to their Finnish-speaking counterparts. He believes that the teachers of Swedish-speakers do not have as high qualifications as Finnish-speaking teachers, and do not have as high scores previous to entrance to the teacher training programs. He cites the historical benefits of Swedish-speakers in Finland:

> The Swedish-speaking minority has historical benefits here in Finland, so they have some kind of quota… For example, in different high schools, every Swedish-speaking student can get into the high schools if they want, even if their average isn't very good. In the Finnish-speaking minority, there is a competition among the students [for access] to high schools. Each one of the high school graduates of Swedish-speaking high schools already has a quota of universities and law schools and so on. Each one can get [access] to better education and universitiy degrees, but in the Finnish-speaking majority, there is competition again in university places. I think this quota [has] negative aspects.

Hautamäki (2A) addresses how teachers in these schools also have less inclination to give high grades, since all students have access to the *gymnasium*. Grades, therefore, have

less importance in Swedish-speaking schools. The Swedish-speakers completing upper secondary education have the advantage of quotas at Finnish-speaking universities as well. In addition to this, they have their own Swedish-speaking university and can also study at universities in Sweden. The Finnish-speakers, however, need to compete heavily for university places. Reinikainen believes that these quotas for Swedish-speakers reduce the scores in PISA and lower the educational quality of Swedish-speaking Finns. He warns that this interpretation is his own and not official. Nevertheless, "In Finland, the Swedish-speaking minority is the best; it is one of a kind. It is very powerful."

Linnakylä (1B) states how Finnish education in both the Swedish and Finnish languages stems from the historical background of Finland as a part of the Swedish Kingdom. She also points out that Russia also ruled Finland as a part of its kingdom:

> It is only 5.5% of the population that is Swedish-speaking. I think soon we will have more students that are Russian-speaking than Swedish, so I don't know when they will say they want the same status. It is a fact and it is the historical background. We have been a part of Sweden and also a part of Russia… We have a parallel Swedish system and constitution, so they have their own schools and also their own university. It is a little bit easier for them to get to university. Their socio-economic background is a bit higher, so it usually supports the minority status.

Välijärvi (1A) acknowledges that the Finnish-speakers score higher than the Swedish-speakers, formerly the elite in Finnish society, in all domains of PISA. Although difficult to explain, he speculates that the answer may lie in the qualifications of teachers. Swedish-speaking schools have more unqualified teachers than Finnish-speaking schools, and this has been the case for some time. Kupiainen (2B) and Hautamäki (2A) mention this as well, and they feel this may play a role in their quality of schooling. Teacher training for Swedish-speakers takes place at Åbo Akademi, the

Swedish-speaking university of Finland. The university has an education department in Vaasa as well. Therefore, Swedish-speaking teachers receive their training in only two cities. Finnish-speaking teacher training, however, takes place in seven universities that offer the course, with departments outside the main campuses in other cities as well. Finnish-speaking teachers have eleven cities where they can undertake their teaching practice in Finland. Välijärvi implies that more geographical options for training make for a richer teacher training experience and lead to qualified teachers with better teaching practice and experience. Although he admits he does not have great familiarity with the subject, he suspects that the Swedish-speaking community has more trouble attracting top students to teacher training courses and the teaching profession. Whatever the reason, the lower scores of Swedish-speakers in PISA caused a stir after the first administration of the survey. In order to explore the reasons, the 2003 survey over-sampled the Swedish-speaking schools, producing the same results. This outcome "seems to be systematic and systemic in all domains."

Hautamäki (2A) also cites how the 2003 PISA survey released the results for the Swedish-speaking schools separately. The 2000 and 2006 surveys sampled Swedish-speaking schools in accordance with the Swedish-speaking population in Finland, approximately six percent. However, the 2003 survey did not sample Swedish-speaking schools; rather, it surveyed all of the schools. According to Hautamäki, in 2003, "the sample is not the sample, it is the total – all Swedish-speaking schools in Finland." The surveys indicated that the Swedish-speakers scored lower than Finnish-speakers. Kupiainen (2B) describes how PISA treated Swedish-speaking Finland as a separate country in the 2003 survey. She cites how Finnish speakers outscore Swedish speakers

academically, except in English. Despite the consistently lower scores, both Hautamäki and Kupiainen mention that the differences do not have real statistical significance. Schenin (2C) speculates that the difference might come from something small, such as approaches and attitudes towards testing. Despite this, the curious disparity between the two language groups presents a challenge for Finnish researchers, who attempt to decipher the reasons behind this phenomenon. Schenin adds how the Åland Islands of Finland, Swedish-speaking and autonomous, tend to use a system of education closer to that of Sweden. PISA did not sample schools on the Åland Islands for the first two surveys, but the PISA 2006 did use some schools within the sample.

The PISA scores of the Swedish-speaking Finns lie in between the outcomes of Sweden and Finnish speakers in Finland. Hautamäki (2A) cites other research differing from PISA where the Swedish speakers in upper secondary school in Finland score similarly to Swedish students in upper secondary education. These differences signal cultural factors between the three groups that may influence educational outcomes. These findings could provide a catalyst for further study of these matters.

Kupiainen (2B) and Hautamäki (2A) take the discussion a step further and state how the Swedish-speakers in Finland can separate into two categories: the pure Swedish-speakers of the West Coast, and the more bilingual Swedish-speakers of the South. Hautamäki describes these differences:

> The basic thing is that within the Swedish population there are two sub-populations. One [does] not favor academic training, and that is in the North, [in] Vaasa. So you get … one group that is doing as well as any Finnish [speakers] and you have one that is doing less [well] than the … Finnish-speaking in those areas… It may mean they are not so interested in taking part in these examinations… [It] would simply explain the differences of Swedish and Finnish-speaking young people.

He describes how the Southern group has similar education outcomes as Finnish-speakers, while those on the West Coast have lower achievement. Hautamäki also thinks the Swedish-speakers have less interest in taking examinations and have lower motivation for performing well on tests. This disparity has economic reasons as well. Schenin (2C) describes how textbooks in the Swedish language have less practicality on the economic level. Producing textbooks in Swedish at the Finnish standard requires much money. Publishers produce textbooks in Swedish less often. The competition for good textbooks in the Swedish language comes at a much lower level than the competition for books in Finnish, therefore decreasing the quality of the textbooks. Books in Swedish also have the tendency to remain in schools and in the curriculum longer than books in Finnish, making them more obsolete at the end of their run. Furthermore, the Åland Islands have a tendency to take their textbooks from Sweden.

The students in the two language groups have different attitudes towards school and learning. Swedish-speakers typically enjoy school more than their Finnish-speaking peers. Kupiainen (2B) also notes how this filters into other parts of life, not just school. Swedish-speaking adults are happier than Finnish-speaking adults. Schenin (2C) cites how Swedish-speaking pupils more likely confess to liking school, and how enjoyment of school has wider acceptance in a Swedish-speaking environment. Ultimately, these curious differences between the two language groups remain quite small.

Summary

The seven education professors interviewed provided an academic view of Finland and PISA. Although many of their views parallel the salient findings thus far, they did provide formal insight into the Finnish education system and PISA. Some of the interviewed professors coincidentally wrote some of the cited articles in the Preface; therefore, many of the interviews sparked similar findings.

As strengths of Finnish education, the professors also cite the importance and high regard of education within Finnish culture. The high esteem of education in Finnish society also relates to social mobility in Finland as well as the nationalist movement before independence. Unlike previous interviews, the professors cited the influence of the Church, which encouraged education and literacy in the Finnish people, as impacting high literacy rates. The pride in the Finnish language, discussed in the Preface, also played a factor.

The professors, like the other interview subjects, also describe the teachers as a salient factor in Finnish educational success. The high quality of teacher training programs, as well as the high status of teachers in Finland, leads to excellent teachers, and therefore strong schooling for pupils. The low rate of acceptance adds to the high quality and high status of teachers in Finland. Teachers, considered as academics, have a high level of trust in society; therefore, they successfully implement the National Curriculum on a local level.

The decentralized control over Finnish schools also adds to this strength, with teachers controlling the implementation of National Curricula to best suit their students. The local control and flexibility of the curriculum also received praise in the Preface.

Furthermore, the professors acknowledge that the Finnish curriculum comes close to the skills tested in PISA. The professors also acknowledge the equality of society as a factor. Finnish society, with its egalitarian values, also buoys the education system with equality within the system, and the provision of support for weak students strengthens their academic output. The articles reviewed also mentioned the individualization of learning and comprehensive school values as strengths of the Finnish system. Finland's demographics also contribute to its educational strengths, according to the professors. The low number of citizens allows the country to better provide for its pupils, and the homogenous culture and lack of an immigrant population also ease the processes of education in the country. This relates to the findings in the Preface, where the articles cite how the homogenous culture allows for political consensus for education. The teachers also backed this up with concrete examples from their students.

In addition to the strengths, the professors also addressed the weaknesses of the education system. Consistent with the findings from literature and from the other interviews, the professors felt the attention given to the weak students causes the system to overlook the academically gifted pupils. Furthermore, the attention to academic subjects in Finnish schools comes as a detriment to the social development of the students. Finally, the professors discuss the indicator that shows Finnish pupils dislike school, despite their admirable academic performances. One revealed that students in high achieving countries often do not like school; therefore, this finding does not refer to Finland specifically. One professor calls it a "stupid" indicator, and the others think that the students seem happy in school, despite this finding.

The professors, responsible for the execution of PISA in Finland, had some interesting perspectives on the survey. Some of the professors felt that the PISA surveys came at too rapid a pace; therefore they recommend a five-year cycle. This view of PISA has not come up before in the interview findings, but it has appeared in Chapter One, discussing criticisms of PISA. They do think PISA, in general, has increased the importance of education not only in Finland but also all over the world, and that it has taken a good focus on "literacy." However, they felt that the political impact of PISA could sometimes lead to negative action. Nevertheless, they found that PISA provided good reinforcements for Finnish education, and came at a good time for Finland, both in terms of testing age, and of Finland's development as a country. The professors astutely described how PISA comes at the end of comprehensive school for Finnish students; it assesses the students at an opportune time, unlike students in other countries. They also described the fact that PISA illustrated how systems with high equity also had low student variation in PISA, and how score clusters from PISA indicate "educational cultures" within similar countries. The professors also discussed PISA in relation to TIMSS. One interviewee felt Finland should have participated more regularly in the IEA's mathematics and science surveys, since the results would help assess Finland's educational strengths and weaknesses. Although PISA had more of a societal impact than TIMSS, some professors felt that the two surveys did not differ from each other in a significant manner.

The professors, often targeted by "PISA tourists" for interviews, had strong opinions about the potential transferability of certain aspects of the Finnish education system. They warned countries against policy borrowing, since copying the system

would not necessarily lead to better educational results. The professors felt that education systems have such cultural ties that make borrowing directly difficult. Education, more than any other political institution, has roots in a country's culture. They felt that no easy solutions existed in terms of educational improvement, since the culture of a country closely intertwines with its education system. They described how best to use PISA results: as a catalyst for further investigation of education within a particular country.

The similarity in PISA scores between South Korea, Japan, and Finland merits discussion of the connection between their scores. The professors felt that all of these countries had similar attitudes towards education, in addition to a small influence of socio-economic background on academic outcome. However, they felt that Finnish teachers had different teaching styles from their Asian counterparts. The professors felt that the education systems of Japan and Korea put the students under too much pressure. They believed the system was too rigorous and authoritarian, and the students received too much influence externally, whether through "cram schools" or by external motivators, such as parents. Much like the other interview and article findings, the professors believe that the cram schools and intense pressure hold much responsibility for the outcomes in Asian countries.

Finland's higher attainment in PISA than its Scandinavian counterparts also merits discussion. The professors admit that all systems have similarities in structure and in philosophy. However, they believe teachers in Finland set the country apart from Scandinavia. Their status in society, the popularity of the profession, and the high quality of teaching differentiate Finnish teachers. Finland also differs from Scandinavia, since

the country developed industrially in a pattern more like Asian countries, such as Japan and Korea, instead of like Scandinavia. The social mobility still present in Finnish society also helps the education system produce strong students.

When explaining the lower attainment of Swedish-speaking Finns in PISA, the professors attributed this to the minority group having teachers with lower qualifications and an easier entrance to upper secondary school and university. This decreases the quality of education and therefore the motivation of the students. The professors also cited a geographical difference within the Swedish-speaking minority. Those on the more rural west coast of Finland had less academic motivation than their more urban counterparts in the South.

CHAPTER FIVE:
PERSPECTIVES ON PISA FROM A POLICY VIEW
INTERVIEWS WITH THE ORGANISATION FOR ECONOMIC COOPERATION AND DEVELOPMENT

Findings from the OECD

The interviews with four employees of the OECD gave further perspectives on PISA. Because the OECD created PISA, the interviewees offered viewpoints different from those coming from Finland. The interview subjects included Andreas Schleicher, the head of the indicators and analysis division, who runs PISA and quantitative work on education; John Creswell, an OECD administrator who manages PISA globally; Eric Charbonnier, the finance for education expert from *Education at a Glance*; and Abrar Hasan, the head of the education training policy division at the OECD's education directorate.

Views on PISA

John Cresswell describes how the OECD countries initiated PISA. The OECD created PISA in response to the member countries' need for educational assessment. Although the OECD had been collecting educational statistics, they consisted mainly of educational inputs and they eventually saw the need for a test of educational outputs. The OECD member countries asked the OECD to organize the test, and the Organisation in turn hired a contractor to design the test for them. Creswell himself works with the contractor to ensure they include the wishes and needs of the participating countries. The contractor, the Australian Council for Education and Research, in actuality a consortium of organizations, consists of members from countries such as Japan, the United States, The Netherlands, and Norway. All countries involved in the consortium aid in the design

and implementation of PISA. The OECD and Creswell determine what the countries want out of the survey and communicate it to the contractor.

PISA, on the most basic level, has provided the participating countries with a language in which to discuss educational comparison. Cresswell states how PISA has provided the countries with a forward-looking basis for international comparison. Previous to PISA, "every country [was] convinced that they [had] the best education system… When everybody thinks their system is the best, there is no actual basis for communication and discussion." PISA provided not only a language, but also much more information with which to compare students internationally and comparatively. Cresswell admits that some countries see the difficulty in comparing themselves with others: "A country that has a very high GDP, a very wealthy country, might say, 'What's the point in comparing us to a country that has a very low GDP, and totally different interests and a totally different [education] system?'" Therefore, countries with similar geography and politics, for example, have teamed up to provide collaborative analyses of their collective education systems. Cresswell cites how the Nordic countries have succeeded very well in these cooperative analyses, and the South American countries participating in PISA also attempt these collaborations. Policy discussion and change have become a useful "by-product" of all of this collaboration and discussion. These cooperating countries have used these collaborations for improvement:

> There are particular issues that have come up and have given the countries information to give them a basis for policy improvement, policy change. It might be in the area of socio-economic background… It's given information about, for example, migration, and the success or otherwise of migrant students in different countries, information about those other things.

This information relayed by Cresswell may put an interesting spin on policy borrowing. While policy borrowing may prove difficult to education systems' cultural ties, observing how a similar country handles situations may prove fruitful for the borrowing country. PISA has provided great amounts of information and can hopefully spawn educational discussion, rhetoric, and positive change in the future. According to Cresswell, PISA starts a conversation but cannot improve education systems on its own. The governments need to initiate the change.

Eric Charbonnier, a specialist in the funding of education systems for *Education at a Glance,* describes the publication:

> *Education at a Glance* … cover[s] all the aspects of education starting from pre-primary, the beginning, to … compulsory education, primary and secondary, tertiary education, and also lifelong learning opportunities… In fact, PISA is part of *Education at a Glance* because PISA is the evaluation of fifteen-year-olds, so it is included in [the] publication.

Previous to PISA's first release, people only had a feeling or a hunch about the strengths and weaknesses of their education systems and their relative standing in a comparative sense. PISA, however, has changed this and has given countries a concrete view of their education systems, as well as tangible examples of educational success:

> Before PISA you had a vision, a feeling of what was good or bad in the education system, but it was only a feeling. But with PISA it was the first time some things were compared with students at the same age, fifteen years old, and so many surprises were found with the first PISA results. For example… in France for many years, Germany was the best model in the world. After [the] PISA results, PISA showed that Germany was not great compared to Finland or Korea. It changed the perfection [*sic*] for the French people for the German system, and also the perfection [*sic*] of German people for their own system. I think PISA was the beginning of the success of international comparison.

Charbonnier also cites how the interest in international educational comparison doubled or tripled after the first release of PISA outcomes.

The success of PISA, according to Charbonnier, comes from the need of countries to observe the education systems of other countries: "Now we are in a world with more mobilization, globalization… It is interesting … to know if our system is good compared to another." Charbonnier, from France, describes how the French did not express interest in comparison with other countries: "In the past France was not interested to be compared with others, and for the past six or ten years they have been interested to be compared with others, not only in education, but in economy, in all the other sectors." He believes PISA changed this attitude in his country. He acknowledges the difficult methodology involved with such large-scale comparisons, but says the methodology has now improved so that people can better rely on internationally comparative data. These surveys, according to Charbonnier, "show the reality of education systems." Through the perspective of the OECD, the three cycles of PISA have allowed them to better understand the survey and its impact. They now know better why an education system has success or failure. Charbonnier says, "We have many things to improve, but I think we have arrived at the stage where we [are] better able to know the reasons for success and failure in an education system."

Andreas Schleicher, the head of the division at the OECD that runs PISA, started at the institution in 1994. At that time, he was the sole employee undertaking that type of work. Today, however, the division makes up the largest department at the OECD. The larger and more expansive interest in quantitative comparisons, both internationally and nationally, has increased the need for and interest in these quantitative comparisons.

Schleicher describes the need of OECD countries to know more about educational outputs: "I think governments knew everything about what they invested in education and how large classes are, *et cetera*, all these input characteristics, but they had very little idea on results achievement in a comparative sense." National assessments gave the countries a sense of their achievement nationally, but they needed to know more internationally:

> That was the idea, basically, to get the idea of a comparative functioning of education systems, but also to learn from policies and practices, to see your own policies and practices in the light of what other countries are doing, and you need benchmarks for it. That was the motivation, and that's pretty much what PISA became, so I think it corresponds quite well.

Schleicher believes that PISA has created an active dialogue in education, allowing for debate and discussion among educationists, politicians, and policy makers. PISA has also allowed for educational interaction between countries, and made an insular part of a nation become more international:

> Education has traditionally been an inward-looking business, a very national, cultural business. Now it is becoming more of a domain where people look at alternatives, debate them, not always agree, but … [PISA] has served a function, among ministers but also among practitioners that really look outwards.

Although most would have expected Japan to rank near the top and Mexico at the bottom, the importance and interest in PISA comes from the educational policies and practices leading to these differences. Cresswell did not express surprise at the results of PISA, rather, about the interest in PISA. The impact of PISA on Germany, for example, gave the country the alleged *PISA-Schock*. He was surprised at how disappointed countries became when they felt they scored poorly on PISA. Nevertheless, PISA has allowed countries to see where they stand educationally and to observe the pathways to improvement in their education systems. Schleicher states:

> The ranking of countries, I think that is interesting for the media but it is not that instructive. You see that Japan is on top and that Mexico is on the bottom, but that's what you would have expected. That doesn't give you a lot of new insights, but to see what policies and practices are associated with those differences, that is really quite instructive for countries.

Schleicher speaks more about countries learning from each other: "They learn, by looking at other countries, what is possible to achieve, in terms of quality, equity, efficiency, and they get some insights on what they can do to improve." The OECD also works with countries to provide policy recommendations in terms of education.

Cresswell believes that PISA has stimulated countries to conduct policy reviews of their own education systems, in order to identify their strengths and weaknesses. He says, "That is a good thing and a positive thing. It [has] given them this way of comparing that they didn't have so clearly before." PISA comparisons have prompted the countries to explore inwards, but outwards as well. Countries can now look towards other countries to examine their educational strengths, whether from curriculum, teaching methods, funding, or educational structure. At the governmental level, the dialogue will allow for policy decisions based on comparative information. PISA, according to Cresswell, has refined interest in education systems and has allowed for slow change and educational improvement.

Charbonnier worries that people perceive PISA only as a ranking of education systems. PISA, however, does not only show rankings and averages. PISA also illustrates dispersions of performance on the survey. He cites the United Kingdom as an example, where they have many high-ranking students but a large level of inequity: "If you look at [the UK's] PISA scores as a whole, you think, 'Oh, it's okay, the education system is fine, the performance is above average,' but if you start to look at the inequities

you see another picture." Charbonnier continues: "I think it is dangerous to think about ranking and only about ranking. We need also to be able to capture the trends of progress of an education system." He advocates looking at three components of education made visible by PISA: the performance, the inequities in the performance, and the efficiency. A country such as Finland, for example, manages to have few inequities with minimum spending. He also wants observers to notice another factor, the organization of teaching. This covers the perceptions of school, teaching, and teacher-student relationships. Indicators such as school repeaters, where France has many and Finland very few come under this category, as well as interest in school. For example, countries such as Japan and Korea have high performance in PISA but low enjoyment in school. Observing and analyzing all of these factors behind the average PISA outcomes give a better picture of education systems.

Despite all of these benefits, Schleicher does admit that PISA could have a wider focus, as it only concentrates on mathematics, reading, and science, and problem solving in 2003. It does not assess skills such as social competencies and the like, which he believes also has equal importance. He says, "Some people think there is a risk that looking only at certain things make[s] you forget about other things that are important." PISA, a very costly program of assessment, must seem of importance to countries, otherwise, they would not participate in the survey. As a voluntary assessment, perhaps as more countries enter the survey, some would not find it worth the cost and time involved in participation. Cresswell describes the difficulty in gathering enough schools to participate in the survey. He does not consider this a shortcoming of PISA itself, but

rather a result of too much testing in schools. Because PISA does not come under the category of a high-stakes test, many schools express reluctance in participating.

Schleicher mentions evolution in PISA, doing things differently from cycle to cycle. Even so, he acknowledges the need to improve things further:

> I think sometimes we have been too conservative in the methods we have chosen. I wish we had done many things that we are doing in the subcycle of the first one, like using a more interactive approach, taking a more courageous approach to have a larger share of open-ended items which are more difficult to score. We have always taken in PISA a quite cautious approach in order to ensure we don't run too many risks… It's a learning process for the countries, for the OECD.

Cresswell also cites how the OECD has continually tried to improve PISA. Although the OECD would like to see more improvements, the governments of the participating countries have expressed a need for continuity. They do not want to change the survey in order to better measure any changes within their system or in the outcomes.

PISA vs. TIMSS

Schleicher describes the difference between PISA and TIMSS as "another way of looking in the world." TIMSS used a common denominator for countries, the curricula used in schools. Although he thinks of this approach as relevant for educators, he and the OECD did not find it interesting from their perspective. They focused more on the application of knowledge and the transfer of knowledge to real-life settings. This gives attention to the use of knowledge to life after basic education. Schleicher says, "We had not so much in mind how well school[s] had achieved in what [they] intended to do, but to what extent actually schools serve the function on what students are expected to do in the outside world and society." This more external view of education, therefore, did not need to use the "common denominator" philosophy of TIMSS, but rather the "union

effort of what countries do differently." Schleicher admits some view this as unfair, since it assesses students on matters not taught within school walls. However, "when students leave school that is what the world will expect from them." He acknowledges that both TIMSS and PISA have relevance and validity, and that PISA simply follows one such view of education. Although the OECD did use the TIMSS data sometimes, the surveys, which concentrated on school curricula, did not fully respond to the needs of the OECD countries.

Charbonnier describes how TIMSS and PISA differ as international surveys. TIMSS measures students at grade four or grade eight, where the students can come from different schools, institutions, or age groups. PISA wanted to measure students at an age level, for "many problems of comparability in TIMSS was that in grade four and eight… you are not at the same level in terms of institution and comparison was not really adequate." The success of PISA, according to Charbonnier, stems from the age-group sampling. Hasan thinks PISA garnered more attention than TIMSS because it came from a better-known, internationally recognized organization with greater governmental support. This gave PISA more credibility than surveys generated by the IEA. PISA had more policymakers involved in the process and gained integrity from its more sophisticated methodology, which allowed for better comparison between countries.

Cresswell cites how TIMSS has different designs and backing philosophy to PISA. TIMSS is based on the learning of curricula and focuses on the students and what they have learned in the past. Assessments such as these give governments an idea of how well students have learned the curricula in school, and provide a good comparison of how students in one country compare to the students in other countries in terms of lessons

learned in school. PISA, however, does not look to the past, rather it looks to the future and assesses how students can apply school knowledge in the real world. He describes the difference: "Ours is a looking ahead philosophy and theirs is a curriculum-based philosophy." Cresswell does say how many countries that participate in PISA also participate in TIMSS, in order to obtain two types of information from the assessments. The sampling process also differs between the two kinds of surveys. TIMSS uses grade levels, which, to Cresswell, raises two problems. Firstly, different grade levels denote a different age group in some countries. Secondly, this does not take into account grade repeaters. With PISA, age-based sampling allows them to measure at the end of compulsory school in most countries. He does state that some countries have been extending the time of compulsory education, which will provide a challenge for PISA in the future.

Finland in PISA

Schleicher found himself initially surprised at the PISA results: "I thought you would find countries doing either well in quality, or well in equity, and we find that is not necessarily the alternative." Despite this, he had expected the relative standing of countries such as Korea, Japan, and Finland close to the top. However, he did not anticipate some of the European countries or the United States performing as poorly as they did in PISA. He did not expect Finland to come out as number one, but as one of the high-ranking countries.

Previous to PISA, Schleicher describes how all countries believed they had the best education system: "Quite honestly, particularly in Europe… every country would have told you, 'We have the best education system.'" Self-belief and pride in home

education systems, in addition to lack of comparative information, left Finland off the educational radar. He continues, "I don't think anyone who knew the Finnish system was surprised, but think that lots of people who did not know the Finnish system, they were surprised that the country would do so well."

The reasons behind PISA success for Finland, according to Schleicher, come from its reforms and transformations in the twentieth century. He attributes much of the success to the teachers, who collaborate with each other and have achieved high status through their "knowledge-rich profession." The school system, with lots of transparency, allows everyone to see clear goals and standards. Students have access to a great deal of support and individualization of learning. The national government has entrusted the municipalities and schools with responsibility and autonomy, but can intervene if needed. For these reasons, Schleicher expected Finland to perform well in PISA.

Charbonnier believes that Finland succeeded in PISA for eradicating the reasons that cause inequities in other education systems. For example, Finland does not have large inequities due to socio-economic background. Finnish schools also have efficiency in their system without large spending. Charbonnier also credits the teachers and teacher-student relations:

> Another reason for success in Finland is the strong relationship between the teachers and the kids. In some countries, kids don't have the feeling they are believed in by the teacher. In some countries there is much repetition. In Finland there is no repetition… You have the teacher that is able to work with an individualization of the teaching. They can adapt their program [to] the level of the kids.

Abrar Hasan expressed no surprise at the success of Finland in PISA, since he also describes the education system as innovative, with individualized learning. He

believes the teachers have great interest in educating their students, which helps Finland deliver a high quality of education. He believes the quality of teaching and teacher interaction with students remains a key factor in the strength of the education system. Finland also uses its vocational training to help ease the transition from school to work. The vocational education stream prevents school dropouts and helps create practical skills for the labor market. Furthermore, the Finnish system recognizes that every child has their own rate of learning, and provides funding for the support of those who need extra attention.

Cresswell mentions first and foremost teachers as a factor behind PISA success for Finland: "Teachers are very highly respected in Finland. It is a very highly desirable occupation. They reject ninety percent of applicants from secondary school into teacher training programs. Most of them have master's degrees, and so on." Furthermore, the high regard and value of education in Finland also contributes to their high results, as well as the egalitarian philosophy of the country. He describes the socio-economic equality as "brilliant." The Finnish government provides equal resources to all schools no matter what the geography or location. The comprehensive system ensures that everybody attends school and obtains a basic education. The National Curriculum provides continuity among all schools in the country, yet schools have the trust of the system to autonomously complete the curricular requirements in the manner best suited for their students. He states, "Putting that all together, they seem to have a system that is dealing [with] and coping well for their particular students." Cresswell also cites a strong home-school connection and exemplary pre-school education, since the students have a late start but manage school easily from an early age. He does not think that Finns found

the results surprising, only the rest of the world, perhaps due to their small size. Cresswell also thinks the economic boom of Finland contributes to the results. He says, "If you look at their changing economy also, you wouldn't be surprised. Fifteen years ago Nokia made boots. Shoes! Their economy changed as well."

Finland's tiny performance variation struck Schleicher most significantly, with only a four percent variation occurring between schools:

> I think the most amazing finding for me was not the absolute top-performance of Finland but the fact that only four percent of performance variation lies between schools. Every school succeeds, whether it is in a rural area or an urban area, a rich area or in a poor area, you don't see the performance differentials that you see in other countries. Actually, they are very good at making success a predictable outcome of the system. Parents can rely on the quality of the system rather than worrying about the school to which they send their children. That's a really… striking figure.

According to Schleicher, Finland has achieved high levels of equity, quality, and a high level of consistency in its education system.

Cresswell finds that the gender difference in Finland provides the only real weakness in its education system. Girls have much higher attainment in reading and boys in mathematics. Schleicher also has difficulty describing any weaknesses in the Finnish system, and can only do so in relative terms. He cites how Finns worry about their gender differences in PISA scores and school performance, and their very small socio-economic influence on educational outcomes. Even though they do well, the Finns want to improve. Schleicher says, "I think that is also encouraging that in Finland, they wouldn't just say, 'We are doing well. We don't need to improve,' but they look at both the relative and absolute performance. I think that is a very good sign." The possibility of future threats to their education system comes as the only recommendation Schleicher

could provide for Finland, and he advises to watch for future threats. For example, the teaching profession, highly regarded in Finland, could come under competition from other professions rising in the prestige rankings. A country very competitive for the most intelligent people could find potential teachers lured to other professions. Finland, according to Schleicher, needs to ensure the education system maintains its high quality and does not come under threat.

Despite Finland's success in PISA, Charbonnier mentions that Finland has its own share of problems. For example, it boasts excellent performance from fifteen-year-olds, good access to university and retention rate in tertiary education, but also a higher than OECD average rate of unemployment:

> If you take the Finnish education system, their performance is good at fifteen years old. The access to university is also good in Finland, the proportion of graduates is good, [but] the unemployment rate … [is] above the OECD average. [They] have a good education system but it is difficult to find a job after graduation. Finland has also progress to do.

In other words, university graduates have trouble findings jobs after their studies. Charbonnier also thinks that they should improve teachers' salaries, in order to maintain the interest and popularity of teaching. He fears that other professions will eventually lure potential teachers their way. He thinks that Finland should make sure it does not decrease in its strong points while making progress on the identifiable weaknesses.

Hasan does not envision Finland's education system stagnating in the future, for he believes that the Finnish system always looks for ways to improve. He cites how, during the economic recession of the 1990s and the subsequent sixteen to twenty percent unemployment rate, Finland managed to maintain the investment in human capital and quality of the education system. When the economy finally picked up, Finland had the

skills to support economic growth. The other Scandinavian countries and Finland also have been open to reviews and implement recommendations from the OECD in order to keep improving. For these reasons, Hasan does not think that Finland will become complacent with its success.

In terms of Finland's educational future, Schleicher refers to history. Many countries have shared the spotlight with Finland as the world's exemplary model of education. For example, in the 1960s, the United States held the honor, and Germany had been long regarded as a top ranked system of education. In the past, education held prestige for the recipient, but in recent times, education has become necessary for economic success. The future returns of education individually, societally, and economically can change education. Schleicher says, "Today education is becoming the prime driver of success, and I'm more optimistic that countries will maintain their success. History shows that success is never forever."

Future of PISA

In the future, Schleicher hopes to assess a broader range of competencies, which he describes as the biggest challenge for PISA. He believes that those who have the greatest success in the global economy have good skills in collaboration, conflict resolution, and analyzing information in an interdisciplinary manner. In the future, he hopes to expand PISA and assess if students can really innovate, create, and produce as well as analyze text. He also wishes to implement more information technology into the survey. He would also like to assess a younger age group in order to measure student growth and consistency in an education system more longitudinally. Measuring at different ages allows one to see "how competencies evolve in education systems… [and]

to what extent does socio-economic influence … performance? Do education systems reinforce those disparities as students grow older or are education systems able to moderate those differences?" Surveys at different ages would better illuminate the answers to these questions. Schleicher also thinks that future PISA surveys should collect more teacher data. He sees the need for closer association between education performance and teachers. He admits, "PISA is weak, still weak today, like TIMSS. These services are far too weak in feeding the results back into improving classrooms and learning. It is a useful instrument for policy, but not yet totally useful for practitioners." In short, Schleicher believes that PISA needs to measure a broader skill set, cover not just one level but the evolution of these skills, and provide a better link between educational results and classroom practices.

Cresswell anticipates more computer testing in the future, and cites how the 2006 survey had a trial run with a computer option for the scientific literacy section. The computer provides more potential for test items, questions that would be difficult to answer on a paper and pencil test. Therefore, a computer-based survey would allow for assessment of more diverse skills than the original test. Logistically, however, this creates implementation issues, depending on the computer access of schools, or whether the OECD itself would provide laptops. This also raises the issue of whether computer-based testing will assess computer skills or the literacy skills measured by PISA. Cresswell also would like to see the expansion of PISA into different age groups. The OECD has contracted an agency to see if an assessment of nine-year-olds could become a possibility in the future. He would also like an assessment at an older age, such as at the

university level, but anticipates much difficulty in creating a suitable means of assessment.

Charbonnier believes that PISA has already changed the future of education. He cites the example of Finland, the success in PISA, and the influx of PISA tourists. He feels fairly confident that PISA has put Finland on the map, both in general and in terms of education. He says, "When I say that PISA… will change the world and the conception of education, it has already started." For example, Germany reformed its secondary education system because of PISA results, which showed that Germany had a high level of inequity in secondary education. Early streaming and the high influence of socio-economic background caused this disparity. Germany, consequently, currently attempts to implement later school selection in order to increase educational efficiency and equality.

Cross-National Attraction

Finland's performance in PISA has generated many educational visits to the country. Schleicher thinks it must be a "nightmare" for Finland, "all of these thousands of visitors coming" to their schools. These visitors want to see the educational drivers behind the quantitative PISA results. Schleicher states how the OECD had to meet with Finland's policy group before the release of PISA results, in order to ensure they knew how to manage their results once released: "I [arranged a] meeting of the policy group, governing … Finland to make sure they would have an understanding when they saw the results… I knew that three months later they would have the results, and I wanted to make sure that they actually … got a sense of it." Schleicher went to Finland to ensure they could handle the results and the consequences it would have.

Cresswell cites how the variation between the Nordic countries has prompted many visits to the OECD from Norwegian officials:

> The Norwegians are very keen to find out what it is about the Finns that they do differently. We have … people who come through visiting because we do presentations to different groups, [and] Norway is by far the country we get most representation from… ten times more than any other country… It is a very wealthy country as well, and I think they were surprised by the results.

The variation between Finnish PISA outcomes and Norwegian results has Norwegians as the most frequent visitors to the OECD because of PISA. Their performance in PISA could classify as a "negative external evaluation" situation, as discussed in the Introduction. This "negative external evaluation" has promped Norway to seek changes in its education system.

The interest in PISA and its outcomes has tempted many countries to make reforms based on PISA results. In fact, Cresswell cites how the OECD has counseled countries not to make changes because of PISA, citing that improvement or deterioration between PISA cycles does not provide impetus for educational change. He feels that countries take PISA too seriously:

> One country, because the [PISA] results had gone down, the prime minister formed a working party to look into this. They came to Paris, and we had a meeting with them. There were twelve senior parliamentarians, and we had to tell them not to do anything based on a small change from 2000 to 2003. They didn't, eventually. They decided that they would wait.

PISA has provided the danger of a "quick fix" due to "negative external evaluation." He thinks countries observing others, such as Finland, as a consequence of PISA results, only look for a quick fix to transfer into their countries. However, Cresswell feels that other

countries can provide educational insight, such as Hong Kong, also with high PISA outcomes.

The interest in Finland has prompted Finnish officials to focus inward and explore the reasons behind their own PISA success. After the release of the 2000 PISA outcomes, the Finns had to investigate their own system in order to identify the influencing factors that culminated in a high PISA score:

> After PISA 2000 results came out in 2001, Finland became flooded with all sorts of working parties and groups and so on. They really sat down, the Finns, and just reviewed what they had been doing that had really brought things to a place where there was a very good education system. They tracked it down to the 1950s and '60s, to changes which had taken place slowly, big changes, and taken place over many, many years. They were able to do that, so they also learned something from themselves… They actually had been improving their system for a long time… They reviewed all that and came up with a plausible answer for why they did so well in all areas [of PISA].

In other words, even Finland needed to figure out the reasons behind its PISA results.

PISA, according to Schleicher, has caused radical change in the educational world. Since PISA, countries have a better idea of the educational pursuits in other countries, and can answer questions based on educational comparison. PISA has instigated borrowing stemming from interest in other countries' education systems:

> I think finally education is doing what other sectors of society have [done] long before. If you are in medicine, nobody would say, you can't operate this kind of disease because it is done in a different way in a different country. I think a lot of the barriers we have in education today are barriers of traditions, barriers of ideology, all of those things. And I think these things are disappearing. The empirical evidence is starting to replace, get across that. I think that is good. But this is only the beginning. I think education is still a field largely dominated by beliefs, ideologies, traditions, those kinds of things that have to change.

Schleicher implies that education has lagged behind other fields in terms of borrowing ideas and policies to better suit their own systems. PISA has allowed for discussion, comparison, and ultimately, policy borrowing. Unlike most interview subjects, he encourages the cross-fertilization of educational ideas.

Educational Transferability

Cresswell calls the interest in Finland the "Finland Phenomenon." He describes this as "everybody going to Finland and 'Aha! So this is how you do it. Let's go away and do that.' But it doesn't work." He says that educational changes need to account for the culture intertwined with the education system: "Any change or improvement has to take into account the culture that the education system is operating on… I think you have to be cautious with the analyses and the comparisons. You have to take into account the cultural differences." While comparisons between similar countries, such as the Nordic countries, provide useful information from their collaborative work, disparate systems need to observe caution when attempting to make comparisons with differing countries. The cultural differences play a strong role.

Hasan states, "We know that with the secondary school level, approximately two-thirds of the performance is actually dependent upon outside [factors of] schools … So the societal issues come through in the two-thirds part, which is a very large part." He attributes two-thirds of students' performance to external factors, implying that education systems have strong bonds within the societies of the home country.

Cresswell believes some things can transfer into another system, but not others. For example, something like highly qualified teachers, which Finland boasts as part of their education system, can be "policy malleable," but he says that the Finnish language

cannot transfer into another country. According to Cresswell, aspects of an education system such as a comprehensive education system or educational funding can transfer into another. However, he does account for cultural differences. He states, "I think even within countries, the differences between regions are strong… I can't imagine countries will adopt wholesale without taking their own culture into account, their own history, because it is difficult to change things quickly like that."

Charbonnier believes that through PISA countries can learn from each other, such as borrowing the structure and organization of education systems. He cites the example of his home country, France, which has a high rate of grade repetition. Originally seen as the best solution for weak students France now sees through PISA that a model with low repetition, like Finland, yields better results. These kinds of observations and discussions have become possible because of PISA. However, he thinks that some aspects of Finnish education remain too deeply grounded in the culture to work in other contexts. PISA allows not only analysis of country performance, but also of education systems and teaching philosophies. He says, "It is up to the countries to decide if they can export or import maybe some of the features… in their countries." Charbonnier thinks that features like individualization of learning can transfer from the Finnish system to other countries, but the egalitarian quality cannot relocate into another culture.

When asked about the validity in comparing many countries with different backgrounds, Schleicher mentioned the frequency of that kind of enquiry when referring to PISA. He acknowledges the relevance and importance of the question, and addresses the many challenges when comparing so many students from varying countries on one kind of assessment:

> People say, well, you can't compare rich and poor countries. But if you go to whatever country when students leave school, no one asks them if they come from a rich or poor country but they have to be benchmarked on what they can contribute. Some are lucky, some are less lucky, some are born more gifted, more talented than others. There are differences that we can't change. Still, I think the bottom line of what we can do is an important characteristic. I think comparisons are important, and you can adjust them. We do that all the time.

In other words, despite the uncertainty in comparing countries with differing histories and backgrounds, the need for comparison does remain. Furthermore, countries also have varying contexts within their borders that do not receive the same contextual criticism as international surveys. Countries also need to see where they stand and need assessment to see what they can do. Schleicher admits that many do not agree with him, but believes ultimately in the benefits of comparative assessment:

> At the end of the day we need to see where we stand. I am actually convinced that such comparisons are very valuable and that they are pretty robust as well… There are different cultures, different ways that students learn in different countries, different forms of tests that they take -- all of those things vary. I think at the end of the day, what they can do is what matters. That's what we assess.

Schleicher says that others do not believe that comparisons can exist between countries, but that he does. He does not agree that cultural context eclipses the ability of comparison. Quite optimistic about educational transfer, he believes that successful features of education systems can transfer to other countries. He says, "You can't transfer the context, but you can transfer the ingredients of success." He does not believe in directly copying an entire system, rather, in identifying the drivers of educational success and transporting them to another system. Schleicher does not agree with critics who warn about the pitfalls of educational transferability. He says, "You wouldn't have

this attitude in industry. You wouldn't say, 'We cannot learn anything from Toyota because Toyota is made [in Japan]'. It's an attitude we do not have in other sectors." He does acknowledge, though, that cultural contexts have the most difficulty in transferring to other countries. For example, in Finland, the teaching profession enjoys a very high status. Although a direct transfer cannot occur to another country, in the long-term, others might also instill high value of teachers within their societies.

Finland and Asia

Schleicher does not see much difference in the top performing countries in PISA and would consider them all in the same educational league. These countries reach similar outcomes with different educational policies and practices. Although Finland's strengths come from a knowledge-rich teaching profession, and in Japan more investment goes into learning time, these "different strains" do not produce much of an outcome difference, with little to no statistical significance. Schleicher believes "they have very high aspirations with their students and with their families, which you don't have in Finland. I think the amazing thing is that Finland achieves the same results with half the student learning time." He believes this stems from the highly individualized learning system that engages students at all learning levels in school. The similarities in PISA outcomes of these countries "show us that there isn't one way to success, but there are very different approaches in how you can be successful in education."

Hasan also believes that Finland and the Asian countries have different approaches to education. He has closely examined Korea, which shows similar scores in both TIMSS and PISA. He describes large class size, rote learning, commitment of parents to their children's education, considerable amounts of homework, and outside

tutoring as factors that influence Korea's outcome in international education surveys. Nevertheless, he thinks that a comparison between Finland and a high-performing Asian country provides a good contrast, since he believes that the best comparisons occur with countries with completely different societal contexts.

Charbonnier thinks external influences affect the PISA outcomes of countries such as Japan and Korea. These countries have learning outside of school as a tradition, in the form of private tutoring. Parents of high socio-economic status can afford to provide their children with additional education to supplement their classroom learning.

Cresswell also acknowledges that the Asian countries have very different teaching styles compared to Finland. He implies that the high drive of the students for success comes from society and culture. He finds that the "saddest, most interesting thing is, in school, you could look at the Asian countries: Japan, Korea, and Hong Kong, and the students are not happy. They are not happy in school…You'll find that the Asian students have a low sense of belonging in school." Although Hong Kong scores higher than Finland in PISA, they have expressed great concern over the unhappiness of their students. Although PISA results reveal that Finnish students also do not enjoy school, students from high-achieving Asian countries enjoy school less. Cresswell also cites how Finnish students do not perceive a particularly strong disciplinary climate in school:

> In Finland, the students perceive that the disciplinary climate is not that good anyway. All those sorts of things … are contradictory to what you might expect. The teacher has to wait quite a long time for the students to quiet down in Finland compared to other countries. It is quite interesting.

Asian students have high motivation, most likely stemming from parental or societal pressure. These differences make the similar outcomes of Finland in PISA counterintuitive.

Finland and Scandinavia

Cresswell attributes the disparate PISA outcomes among the Nordic countries to the difference of the Finnish language. Although he says some describe the culture of Finland and the Scandinavian countries as similar, he believes they are not, due to the vast differences in language. He says, "Certainly their language separates them out in terms of what it is about their reading skills, for example… There is nothing to really learn from that because they're not going to change their language… It could be accounting for [the difference] somewhere along the line."

Charbonnier mentions how many ask the OECD why Finland scored higher than the other Nordic countries, and how many Norwegian visitors to the OECD ask this question as well. He attributes it to the teachers in Finland. Much like the admission rate to teacher training programs, obtaining a job as a teacher also has a similar rate of acceptance, as noted previously, approximately ten percent. The status of teachers in Finland commands high respect, equivalent to that of doctors. Teachers in Finland have garnered a large amount of trust: "The teacher is someone that the parents really trust in discussing education, the kids are happy to work with the teachers, and it is not exactly the same in all of the Nordic countries. It is really specific to Finland." These factors play a part in the Finnish success in PISA. Although teachers have high respect and status in Finland, this appreciation does not come in terms of money. Finnish teachers

have salaries lower than the OECD average. These indicators do not have parallels in the Scandinavian countries.

Cresswell also thinks that the Nordic countries may feel some annoyance at all the attention that Finland has received because of their high PISA outcomes: "I know the other Nordic countries feel a bit negative. [That] isn't the right word, but I think they all feel like they are doing a pretty good job with their education systems. They are all average or above." All of the Nordic countries scored above average in PISA and do not have many negative aspects to their education systems. Therefore, Finland's high outcome in PISA has come from circumspect educational reforms, and not luck. Cresswell states, "It was careful, considered decisions." He infers that more interest has gone to Finland, as opposed to high performing Asian countries, because Finland comes from a Western culture. Perhaps the interest has gone to Finland because the country can achieve similar results with Western values. Cresswell points out that Finland can learn from Asian systems as well.

Finland's higher scores in PISA illustrate how similar systems can produce varying results. Schleicher cites how Denmark and Norway do not have the same level of ambition as in Finland, which creates the disparity in PISA outcomes. The Nordic countries have similar support for education and school conditions, but the aspiration towards education and the ambitions of excellence and high standards only come from Finland. Socio-economic status also has a larger influence in Scandinavian countries such as Denmark. Schleicher says, "The system often says to a student from a certain social background, 'Oh, we make it easier for you, we support you very well,' But at the end of the day, that is not very good for the student. In Finland there is a very strong

ambition and aspiration in the system." Schleicher also looks closely at the educational incentives. For example, in Iceland, many can make a good living by working in the tourist industry. Many boys do not continue with education and enter the tourist industry. In that situation, the outcomes in education do not matter as much for the economy.

Summary

The OECD officials, some involved with PISA in its infant stages, offered the perspective of the OECD on PISA and Finland's success in the surveys. This point of view gave a different, external outlook on Finland in PISA. The OECD created PISA because the member countries expressed a wish to have a comparative assessment; therefore, the OECD created PISA in response to these wishes. PISA, in return, allowed the OECD member countries and other participating countries to have a language of international educational comparison and provided a concrete view of education systems. In addition, "similar" countries such as the Nordic countries have begun collaborative work analyzing their respective education systems. Through PISA, the failures and successes of an education system have become apparent. PISA has changed education, according to the OECD officers, by creating benchmarks for educational attainment and making education an outward-looking business. PISA has triggered countries to learn from each other educationally. The officials admit that PISA could have a wider focus, and say that they always seek to improve upon the original PISA survey.

The OECD officers discussed the differences between PISA and TIMSS. They felt that PISA used a different perspective from TIMSS, by using real-life situations to measure the use of knowledge after basic education. They thought that TIMSS looked to the past, by focusing on curricula, rather than to the future, like PISA.

I addressed with the OECD officers Finland's success in PISA. One OECD officer did not expect many, or any, countries to achieve high levels of both quality and equity like Finland. However, the OECD officers did say that those familiar with the education system of Finland did not express surprise at the first PISA results. They attribute Finland's success in PISA to the educational reforms of the 1970s, the high quality of teachers, the consistency of the system, the autonomy of schools and teachers, high equity within the system, socio-economic equality, the National Curriculum, and the individualized learning in schools. These findings echo the sentiments from the Finnish interviews at all levels as well as the literature discussed on this topic.

In the future, the OECD officials hope for a wider variety of subjects for assessment in PISA, as well as the testing of different age groups. The variety in age groups would help provide longitudinal data and a better idea of the link between the classroom and educational outcomes. They also hope to use more computer-based testing in the future. As one of them views PISA as "still weak," they continually try to improve on the surveys. Nevertheless, one official believes that PISA has already changed the future of education.

PISA inevitably created an attraction to countries with high PISA outcomes. Finland has experienced great numbers of "PISA tourists" observing the education system. The officers feel a country like Finland has benefited from the visitors, by prompting them to explore their own system and dissect the reasons behind the PISA success. Education, according to the officers, has finally started to learn from other examples. However, they warn countries and policymakers against the temptation to make reforms based on PISA outcomes, and suggest that other countries besides Finland

have strong education systems. The OECD officials believe some features of an education system can transfer to another, such as the basic structure, but state that educational transfer cannot occur directly and that it needs adaptation to the culture of the "borrowing" country. Overall, the OECD officials have a more optimistic view of policy borrowing than many of the other interviewees. One of them felt that education systems have some "policy malleable" features, more easily transferred than others with more ties into a country's culture. Furthermore, greater possibilities for policy transfer exist between "similar" countries, such as the Nordic countries.

Finland's similar performance to Japan and Korea prompted the officials to discuss the similarities and differences in these countries. The similar results from such seemingly different countries and cultures triggered curiosity in many observers of PISA. The officials cite that the Asian students receive much of their learning outside of school walls, such as in *juku*. They also report that students in these systems tend to feel very unhappy and gather their motivation from external sources, such as their parents or society in general. In Finland, the students achieve the same results in half the time, which the officials attribute to the individualized learning in schools. In any case, these examples show that more than one pathway to educational success exists.

Finland's achievement in PISA overshadowed that of Scandinavian countries. One official speculates that the Scandinavian countries felt a degree of annoyance at the attention Finland has received because of PISA. They attribute the Finnish success in PISA to the different language and to superior teacher training in the country. This exemplifies, in contrast to the example of Asian countries, that similar systems can produce varying results.

An educational system must be studied using two methods:
one to study the society, and one to study the education system itself.

-Kimberly Ochs and David Phillips

CONCLUSION

The creation of the Programme for International Student Assessment by the Organisation for Economic Cooperation and Development has transformed the face of education. PISA, which measures the mathematical, scientific, and reading literacy of fifteen-year-olds around the world, has placed education in an internationally comparative context. PISA, administered thus far in 2000, 2003, and 2006, saw Finland placed at the top of the scale in all three literacy areas, and in all three cycles of PISA. The global phenomenon of PISA, as well as Finland's performance in the assessment, has triggered worldwide interest in Finland's education system.

Finland outperformed all of its Scandinavian cousins of Sweden, Denmark, Norway, and Iceland. Finland, so often overshadowed by their more visible Scandinavian counterparts, suddenly became the center of educational attention, both at the global level and in the Nordic community. Upon further investigation, one can see Finland's unique history, language, and context influencing its status as the world's new educational leader.

As the new example of high-quality education, the Finnish education system has attracted considerable interest from other countries. This cross-national attraction stems from the "negative external evaluation" experienced by some countries because of PISA. Visitors from these countries, dubbed "PISA tourists" by the Finns, have come in large numbers to observe factors of the education system responsible for Finnish PISA achievement. This need for policy borrowing comes from the desire to buoy up ailing and failing education systems.

However, despite all of the positive press circling around PISA, this does not indicate that all consider PISA a valid measurement of an education system; rather, it makes the assumption that PISA reliably assesses education in three literacy areas. PISA, therefore, falls prey to much criticism. A survey the size of PISA, which also keeps expanding with each administration, understandably comes under methodological scrutiny. Critics question the sampling, linguistic transferability, test questions, cultural considerations, and validity of PISA. Depite negativity towards the survey, however, PISA has truly impacted the world in its comparative assessment of education systems.

Finland's high scores in PISA indicate that the country has an effective education system. School efficiency researches both internal factors such as teaching, administration, and school ethos, and exernal factors such as parents, society, and educational politics. School efficiency also brings up the issue of equity in schooling, and the possible relationship between the two areas. As we have seen, Finland's outcomes in PISA indicate an equitable and efficient system, and Meuret uses the country of Finland to back up his belief that school systems can be both equitable and efficient. School efficiency, a large area within educational research today, inevitably has absorbed PISA as a benchmark for efficient schools and a related research area in the field.

The factors contributing to Finland's PISA success stem from many areas, including ones intertwined within Finland's history. Its time as part of both Sweden and Russia has given the country both Scandinavian and Eastern influences. The Swedes, although "benevolent overlords," created one area of contention for the Finns: the Swedish language. In order to progress in society or gain an education, the Finns needed to speak Swedish. Finnish, a member of the Finno-Ugric language group, bears no

resemblance to any Western language with the exception of fellow Finno-Ugric languages Estonian and Hungarian. The Swedish language, a Scandinavian, Germanic language, became an official language of Finland. Former Swedes who settled in Finland became the Swedish-speaking Finns, an upper class group from the former ruling country.

Sweden handed Finland over to Russia in the nineteenth century. During Russian rule, the Finnish national movement gained momentum. Although the first two rulers of Finland, Alexander I and II, also ruled benevolently, their successor, Alexander III, changed this pattern. Around that time, famine struck Finland and Alexander III removed much of Finland's autonomy. During the time of the First World War, Finland's people began to divide into two camps, the "Whites," or the bourgeoisie, and the "Reds," or the working class. Independence for Finland came at a tense time for the Finnish people, who eventually launched into a Civil War. The war, which claimed many lives, ironically united the Finns.

World War II also tested the resolve of the Finns. They fought off invasions by both Russia and Germany. The Russian invasion, called the Winter War, is often referred to as the "rape of Finland." Finland fought in both the Lapland War and the Continuation War in order to drive the Germans from their country. The Second World War left much devastation. Post-War, the Finns fought their own way out of debt and started building a burgeoning economy. This vast economic expansion came to a halt with the fall of the Soviet Union. Finland's economy, tied to the USSR, fell tremendously and the country experienced a severe recession. Luckily, Finland overcame the recession and eventually

joined the European Union and the European Monetary Union. The Finland of today enjoys globally recognized companies and a high standard of living.

The investigation of Finland's education system also involves examination of Finland's society. Finnish politicians have long had political consensus on their views of the education system. The philosophy of an egalitarian society also permeates the education system. Equality in access, quality, and provision of education mirror the egalitarian practices in Finnish society.

The Finnish education system, responsible for producing high results in PISA, has become an object of admiration. Basic education, much like in Scandinavian countries, commences at the rather late age of seven. Students attend comprehensive school until the age of sixteen, free of charge, which includes free meals. After comprehensive school, students can either leave or continue on two tracks of upper-secondary school, an academic stream or a vocational stream. Students at the end of upper-secondary school take a matriculation examination to enter university. The education system underwent reforms in the 1970s, changing a formerly streamed system more closely resembling Germany's educational structure to a comprehensive school easily accessible by all, no matter what the socio-economic background.

Some of the Swedes from Swedish rule remained in Finland, forming the Swedish-speaking community in Finland. This minority, typically wealthy and upper class, has access to education at all levels in their mother tongue. Provision for Swedish-speaking Finns starts at the preschool level and extends all the way through university.

Teacher training in Finland has evolved from teaching seminaries to the main universities. Future teachers study for a university degree in their desired subject, much

like their peers not pursuing a teaching qualification. In addition to their course, they study pedagogy and have practical classroom experience. Candidates also must conduct research and write a thesis for their master's degree. Teaching, with its high respect in Finnish society and high status as a profession, enjoys great popularity among the youth, so much so that teacher training programs have an extremely low rate of acceptance. Society looks upon teachers as academics and entrusts them with a great deal of autonomy within their classrooms.

In order to better reflect upon the findings of this study, we must re-explore my original research question:

- In light of the results of the OECD's PISA surveys, how can we explain the phenomenon of Finland's educational success?

In addition, I had two sub-questions behind the original impetus for this project:

  - What are the perceptions of Finland's education officials, PISA test administrators, heads of schools, and teachers of this success and how do they explain the outcomes?

  - Which external factors, historical, social, political, and cultural, influence the success of Finland in PISA?

As stated in the Introduction, this study focused on the first stage of the policy borrowing cycle, cross-national attraction. The research intended to uncover some of the factors behind Finland's high PISA outcomes, as well as the aspects of the education system contributing to the PISA results. As many observers of PISA tend to examine only the rankings behind this quantitative survey, my study aimed for deeper, qualitative investigation into this topic. It ascertained the viewpoints of various actors in Finnish education, teachers, head teachers, educationists, and ministers, on the reasons behind Finnish PISA success and the factors in the education system contributing to a high PISA

outcome. The interviewees also expressed their opinions on the features outside the education system contributing to a strong education system and high outcomes in all administrations of PISA.

In general, the interviews in this present study yielded consistent responses to the questions asked. All interviewed parties had various perspectives on PISA. PISA provides education with good measuring tools for international comparison, and gives observers of education a concrete view of the systems along with the strengths and weaknesses. It also presents a language for educational discussion. Furthermore, it aids in the understanding of education for those not experienced or closely involved in the field and has raised the visibility and importance of education. On a more specific level, the Finns interviewed, no matter at which level of educational provision, felt that PISA provided good positive reinforcements for the education system. They did worry, however, that the government would become complacent about the education system as a result of PISA success. The teachers, head teachers, ministers, and professors all hoped the education system of Finland would continue to improve and achieve. However, some feel the three-year cycle should expand into a more manageable five-year interval, since it would reduce pressure on the OECD and participating countries to generate this complicated survey so often, and would also decrease the large amount of money this type of survey requires. Interestingly, critics of PISA also disapprove of the three-year cycle, stating that it is too rapid. The interviewees also expressed the need for observers of education and of PISA to look beyond just the rankings and take into consideration the cultural nuances and situations of the participating countries. They also admitted that

PISA does not measure everything, rather, a limited subject matter. An education system covers much more than the assessments in PISA.

Finland's PISA outcomes have motivated many visitors to travel to Finland and observe the education system. All of the interviewees within Finland mentioned a great number of visitors, "PISA tourists," to Finland. This occurred mostly at the school level, but the professors and ministers also felt the effects of this educational pilgrimage. Depite all of this attention, all but one of the interviewees felt that a country could not imitate simply the education system of another, for education comes closely intertwined with a country's context, whether cultural, historical, political, economic, or societal. Hence, no easy solutions for educational policy borrowing exist. Although Finland's education system signals success due to high PISA achievement, detailed study of the country's background reveals the complexities behind the structure and administration of the system, as well as the attitudes towards education and the its stakeholders.

The strengths of the Finnish education system, as described by the interviewees, all relate to the aforementioned historical, political, and societal factors of Finland and subsequent influence in the education system. For example, many interviewees attributed much of the system's strength to the value placed on education within Finnish society, as well as Finnish culture and history. The Finnish nationalist movement would not exist if Finland had not been part of both Sweden and Russia. In addition to this movement, the series of wars and subsequent devastation to the country and its people also increased the desire for and respect towards education. This attitude towards education, now ingrained in the psyche of the Finnish people, has manifested itself, most visibly in the PISA findings.

Finland's ties with Sweden, and therefore the rest of the Scandinavian countries, have instilled a philosophy of egalitarianism in the society reflected in the education system. Many of the interviewees attributed the consistency of educational outcome to Finland's egalitarian values. This equality within society also reduces the variation in socio-economic backgrounds, also reflected within the education system. Because all students have equal access to school, the economic situation of their parents does not hinder or help educational access or attainment, as reflected by PISA. The egalitarian philosophy also aids in the support of weaker students. The interviewees consistently mentioned this support as a real asset to the education system and eventually with respect to PISA as well. The fight for rights within the Finnish language also promoted literacy among the people, a skill still visible today. The highly literate Finnish population can trace the roots of literacy to the Lutheran Church and pride in the unique Finnish language.

Finland's geography also contributes to the educational successes. The relatively small, homogenous population plays a role in high PISA scores. Unlike many developed countries, and even its Scandinavian counterparts, Finland has small immigrant and refugee populations. The literature addressing Finland's success in PISA as well as some interviewees credits this cultural homogeneity with promoting political consensus in education. Many of the interviewees attribute Finland's educational outcome to homogeneity. Countries struggling with immigrants or refugees need to deal with multicultural issues and second-language acquisition. Finland does not need to address these issues to nearly the same degree as other countries. Geography also relates to the independence movement, since some interviewees mentioned Finland's small size as a

factor buoying educational attainment. Before independence, the Finns perceived education as their way forward, since running their own country would require skills often attained through education. Similarly, some interviewees perceived Finland's small population in a similar manner. An independent, small country needs to rely on its human capital in order to function. Finland, therefore, needs to educate its people in order to successfully run the country in the future. This geographical factor, coupled with residual notions of independence, adds to the strength of the Finnish education system.

The pride in the education system and respect for education feed into another salient factor in Finnish education: the teachers. The interviewees unanimously praised the teachers as the bedrock behind Finnish educational strength. The teachers, highly educated in very selective teacher training courses, enjoy respect in society as well as within the educational profession. The national government entrusts municipalities to adminster a form of education best suited for its citizens. The municipalities give control to schools and head teachers, who in turn trust their teachers to best implement the national curriculum for the students. This autonomy and trust, coupled with the high quality training of teachers, their high status in society, and general capability, heighten the potential of the Finnish education system.

The strengths of Finnish education, so intertwined with the Finnish context, cannot really exist without weaknesses as well. Along with one of the great strengths of Finnish education, the excellent support for weak students, comes its great faults, the lack of support for the academically talented. In this situation, one can observe a limitation of egalitarian values. The interviewees also consistently mention the students' lack of enjoyment in school. This factor worried some but not others. Many credited peer

pressure and the general teenage sentiment that school is somehow "uncool." The teachers often observed that their students seemed generally happy. Nevertheless, this PISA outcome exists and curiously mirrors those of the high-attaining Asian countries, whose students also do not enjoy school. Perhaps lack of school enjoyment correlates to high achievement in PISA and strong educational outcomes. Some of the interviewees also mentioned too few creative subjects and lack of social development in school as a weakness of the system. Too much attention on traditional academic subjects may detract from more creative subjects such as music and art, or the general social development of the students.

PISA, which created a dialogue for educational discussion and also generated benchmarks of educational attainment, lends itself to international education comparison. Finland, often viewed collectively with the Scandinavian countries, scored higher than all of them. This occurrence no longer lumps Finland together with the other Nordic countries, at least in educational terms. Since Finland set itself apart from the Scandinavian countries, which share similar structures of education and egalitarian values, I felt the need for further investigation into the reasons behind these outcomes. The interviewees agreed that all of the Nordic countries have similar systems, but curiously varying results in PISA. Many interviewees credited Finland's context in history and society as a main factor. Some of the interviewees felt that Finland's independence movement still affected the attitude towards education today. In a similar vein, Finland's unique history and relatively late independence and industralization set it apart from the Scandinavian countries, displaying these differences in the education system. The later industrialization makes Finland more similar to a country like South

Korea. Furthermore, many cited the recession of the 1990s as another factor separating the Finnish context from Scandinavia. This deep recession affected education in two ways: first, to take a more pragmatic approach to education, for better relatability to the labor market, and second, to heighten the value and importance of education within Finnish society. Social mobility also correlates to these factors. Interviewees cited that social mobility, less present in Scandinavian countries, still exists in Finland, increasing the impact of education. Since the rest of the Scandinavian countries do not have this experience, this circumstance disconnects Finland partially from Scandinavia.

Finland's different philosophy towards immigrants and refugees makes a different population demographic from Scandinavian countries, especially neighboring Sweden. While Sweden has had a more liberal policy towards immigrants and refugees, Finland has not. "Shame on us," says Professor Linnakylä, but many of the interviewees speculate that this has positively affected the provision of education in the country. Finnish teachers again took the spotlight when the interviewees credited Finland's superior education system to the teachers. While the teaching profession in Finland gathers the best students owing to its popularity, the other Scandinavian countries have teaching shortages. Related to the teachers is the higher discipline in Finnish classrooms. Many interviewees believe the stricter discipline in Finnish schools has led them to achieve higher results in PISA.

PISA also allows for comparison between countries not traditionally contrasted. After the results of PISA in all three administrations of the survey, Finland and Asian countries such as Korea and Japan remained consistent leaders. South Korea and Japan, traditionally considered countries producing high educational achievement, not often

came in the same educational category as Nordic Finland. However, after PISA, I wondered how these countries, seemingly so different, could attain similar PISA, and therefore educational, results. When asked, the interviewees described that these three countries achieved similar results in different ways, but that all three countries had similar attitudes and good traditions of education. However, they also mentioned factors often criticized when analyzing the success behind these Asian "tigers." They felt the Asian schools did not encourage the individual growth of students. They also considered the schools in Korea and Japan too rigorous and authoritarian, and the time spent in school too long. The students also gathered their academic motivation from external sources, such as from their parents and from society. Finally, both Korea and Japan have a large culture of external tutoring and "cram schools" for students, in order for them to achieve their highest academic potential. In contrast, the interviewees believed that Finnish schools had more freedom in education and encouraged individualized learning. In contrast to their Asian counterparts, the Finnish students' academic motivation came from themselves. The interviewees inferred that Finnish schools ultimately produced more effective schools, since the schools achieve the same PISA results as in Asian countries, but in much less time.

Finland's history as part of the Kingdom of Sweden still influences the country today. Swedish ensures that the Swedish-speaking minority has the same rights as the Finnish-speaking majority. Therefore, all Finnish speakers must learn Swedish in school and in university, and Swedish speakers have the right to education in their own language from preschool to university. Although there have been some tensions historically between the two groups, the interviewees believed that the Swedish language aided

Finland to cooperate with the Scandinavian countries as a collective, Nordic unit, and also helped international relations beyond the Nordic region. Language skills outside of the Finno-Ugric family helped Finns to relate better to the other European countries.

The Swedish-speaking minority, traditionally the wealthy and influential class, curiously scored lower in PISA than the Finnish speakers. This counterintuitive result prompted me to ask the interviewees about their explanations of this PISA outcome. Just as PISA provides a good measuring tool for global educational comparisons, in this case it provided a concrete comparison intra-country, between the two official language groups. Some interviewees inferred that many of the students taking the PISA test in Swedish actually came from bilingual families; therefore, Swedish may not have been their strongest language. Many Swedish-speaking teachers also do not have as high an education level as Finnish speakers. Swedish-speaking Finns have an easier entrance to *gymnasium*, or the academic upper-secondary track. They also have their own university, as well as quotas in other Finnish universities. Some Swedish-speakers also go to Sweden for their university studies. Therefore, as they have more university places available to them, their educational path comes with much less competition. Many interviewees thought the quality of Swedish-speaking teachers was lower for this reason. However, while they showed lower achievement in PISA, the interviewees felt the Swedish-speaking Finns had better social skills and were happier.

While this project uncovered a number of positive factors in the Finnish education system, it uncovered the negative aspects as well. The research and interviews revealed opinions about Finnish education that often do not receive coverage in the many articles attempting to uncover Finland's "secret" or documenting the country's high scores in

PISA. The most salient factor in PISA, the strength of the teachers, obviously deserves praise. However, one interview with a teacher, Benny, revealed that he joined the profession because "I like math, and I am quite lazy, so the easiest way to go through university is to become a teacher. It's true!" One must wonder if Benny's example is an anomaly or if other people enter the profession for the same reason. The ethos of equality and the comprehensive school also has a negative side. Many of the interviewees cite the lack of support for strong students as the biggest weakness. Pia had this opinion on comprehensive school: "I think this school is for nobody… when you have all these people at mixed levels in your class, then you have to concentrate on the ones who need the most help… Those who are really good, they get lazy."

Hautamäki and Kupiainen reveal that PISA assesses students at an ideal stage for Finland, as students are just at the end of their comprehensive education. Intra-Finland testing reveals that at the end of upper-secondary school Finnish students have large variations in their attaiment, due primarily to separation into vocational and academic tracks. Kupiainen also speaks about "hidden streaming," perhaps illustrating that even these comprehensive schools, with only a few hours of teaching flexibility per week, allows some students to receive a better education. As Schenin stated, "The players know how to play the game." The oft-praised comprehensive school seemingly has loopholes of which some students can take advantage.

Cresswell describes how Finland's PISA scores revealed high gender disparity, with girls outperforming boys in reading and boys outperforming girls in mathematics. Perhaps this marks another aspect of Finnish education where the country can improve. Charbonnier mentions another dark point in the Finnish education system: the difficult

transition to the labor market and the large unemployment rate in the country. Although the country can educate the citizens to a high standard, they may not find opportunities to make money or contribute to the labor market. Finally, some of the interviewees mentioned that students and even teachers have become lazier over the years. One must wonder if this will affect future PISA scores. Many countries have held the throne of exalted education systems over the years, such as Germany and Japan. However, PISA has shown us that these countries no longer hold this title. Will Finland break this paradigm? According to Schleicher, "History shows that success is never forever."

After all of this discussion and description of the strengths, and also weaknesses, behind Finland's education system and subsequent high performance in PISA, I must discuss this in relation to why this study began: the cross-national attraction surrounding Finland and the possibility of policy borrowing. Does a naïveté of emulation exist, or does the borrowing of Finnish educational policy have a valid basis? In the Introduction, I discussed the various models of policy borrowing and the impetus for cross-national attraction. PISA has very much created the motivation for cross-national attraction for Finland. The low outcome of some countries in PISA has sparked the case of "negative external evaluation," especially in the case of Germany. Finland's high performance has created attraction to their country by the visitors, the "PISA tourists," who seek educational examples to bring to their home systems. This brings up the issue of whether another country can, according to Phillips and Ochs, "domesticize" or "indigenize" aspects of the Finnish educational structure into the home system.

Overwhelmingly, the interviewees spoke of the difficulty in transplanting a system from one country to another. The cultural ties of the Finnish education system

and the context in which it lies give the education system its unique flavor. I included Chapter Two because many interviewees kept referring to certain aspects of Finnish history, society, and culture as factors behind the successful education system. Certainly, then, a country cannot easily directly "borrow" the Finnish system in whole or in part, although Professor Hautamäki cites a program in China where direct borrowing has taken place.

As Cresswell described the successful research collaborations between "similar" countries, such as the Nordic countries or Spanish-speaking South American countries, perhaps this suggests that borrowing can successfully occur between countries with similar backgrounds. Furthermore, he describes some factors within an education system as "policy malleable." For example, one country can learn from another in terms of structure and organization of the education system, but other factors remain too grounded in the context. Cresswell explains that the "borrowing" country can take a factor from the Finnish system such as the individualization of learning, but clearly cannot borrow the egalitarian society and Welfare State. Schleicher, as I perceive, had the most "liberal" views of all of the interviewees in terms of the possibility of policy borrowing. He describes how other sectors have long borrowed from each other and learned from each other, and now the previously inward-looking discipline of education has begun to do the same thing, in part due to PISA. He feels countries have a lot to learn from each other. Schleicher, however, acknowledges the power of context. He states that countries cannot transfer context, but they can transfer the "ingredients of success."

After all of this discussion, I feel I finally must assert my own opinion on policy borrowing in education. I agree with Schleicher's astute point about the borrowing in

medicine and industry, where countries with different contexts have long learned from each other. However, I believe that education systems have deep roots within the context of the country, which makes policy borrowing difficult. I also think that this has made education "inward-looking" until recently, where the advent of PISA has forced countries to look outward for educational examples. However, I believe too that Finland deserves praise for its accomplishment in achieving an excellent education system, and that countries can learn from its example, with careful consideration of cultural factors. Countries can borrow the "policy malleable" factors, with proper processes of "indigenization." After passing through the various lenses of transfer, the policy may differ from the original, Finnish, example, but it should fit the borrowing country's context in a more suitable manner. The education system of Finland, including all of its strengths, possesses features that are uniquely and charmingly Finnish. The "Finnish-ness" of the system, which makes it so successful, merits discussion of national character.

Does national character exist? Some may argue that it does not, even for small countries. However, some feel that a national character does exist. Kandel believed that it does exist, and that it influences a country's education system as well. Mallinson also published literature on this matter. The writings of both authors suggest that the concept of national character has complex roots:

> The concept of nationality does not, however, lend itself readily to such a simple definition as loyalty to a common ideal; there are other factors and explanations that cut across it. There are those who would insist that a nation is or should be a racial unit with common ancestors, common kin, common language, common culture, a common homeland, and certain common characteristics (Kandel, 1933, p. 6).

Eventually, Kandel states, "Nationality implies a spiritual tie which binds together a group of individuals that feels itself as one." He also writes, "A nation is then a group of individuals sharing a common culture… Nationalism, then, implies a common language, common customs, and a common culture" (ibid., p. 7-8). Nationalism, therefore, also has influences in education:

> The history of education can point to numerous examples of changes in the development of educational theories and practices which have been consequent upon changes and crises in political, economic, and social conditions, but never before has education been so sensitive to the problems with which society is confronted. Always intimately bound up with the fabric of life, education has never been looked upon as it is today not only as an important instrument of social control but as one of the most valuable aids for social reconstruction (ibid., p. 1-2).

Mallinson agrees: "Education, then, is a social force in the sense that any educational system must reflect closely the ethos of people it is called upon to serve" (Mallinson, 1957, p. 2). Nations can use education in order to strengthen the citizens' ties as a nation: "The national characteristics of any given nation will find their expression in the nation's schools, and those schools are constantly used to strengthen and perpetuate the national characteristics and outlook" (ibid., p. 8). As nations evolve, so do their education systems: "Obviously the schools must closely reflect the social pattern holding in any particular country as do reforms in education the changing tone and temper of the people" (ibid., p. 48).

According to Kandel and Mallinson, national character does exist, and even influences the education system of a country. Therefore, one can better justify many of the discussions that took place throughout this study. For example, the concept of national character and education helps explain the difficulty in educational policy

borrowing and the many strengths of Finnish education. For example, the Preface as well as Chapters Four and Five discussed factors such as equality, the National Curriculum, literacy, the popularity of teaching, and the like as factors behind Finland's PISA performance. Kandel and Mallinson's descriptions of national character and education clarify the significance of national factors in the education system. National character also must take into account the Finnish concept of *sisu*.

The delicately intricate web of features influencing the Finnish education system and its success in PISA can boil down to one underlying factor: *sisu*. While one can explain the Finnish educational successes due to interlocking, interwoven reasons such as Finnish politics, the Nordic egalitarian ideal, the wars and recovery, or the recession of the 1990s, the one concept of *sisu* encompasses all of these intertwined factors.

To reiterate the definition of this word, Chapter Two described *sisu* as this:

> *Sisu* is a key word in Finnish. It means dogged determination, strength of character or just plain guts. Few nations have battled against such a harsh climate and, at times, against such overwhelming odds as successfully as the Finns; they have pulled themselves up by their own bootstraps, and today, their average income per head … is among the world's 10 highest (Chislett, 1996, p. 17).

This strong will and internal strength in the face of adversity provide an overarching explanation for the reasons behind Finnish success in PISA. For example, many of the interviewees credited the high value and regard for education in Finland as contributing to its top PISA ranking. The history of Finland, its struggles for independence, civil war, World War II battles, and deep recession, all contribute to the value of education in Finnish society. Overcoming these setbacks as successfully as the Finns have done

required *sisu*. The highly literate society and pride in the Finnish language stem from the struggle of Finnish speakers for rights in the Finnish language. One can explain this struggle, and triumph, with *sisu*.

The high quality of teachers, probably one of the most salient findings in this research project, also has roots in the high value placed on education in Finnish society. This respect for the teaching profession, on the same level as the respect for medical doctors, does not have the same standing in most other countries. The popularity of the profession, along with the comprehensive teacher training, all stems from the high regard for education in society and the overcoming of difficult situations, explained by *sisu*.

Sisu explains the higher educational performance of Finland than the Scandinavian counries, since they did not have the same struggles as the Finns, and do not have the concept of *sisu* in their languages. Although all Nordic countries share low socio-economic variation and egalitarian values in the education systems, Finland enjoys the most educational success, as defined by *sisu*.

So much does the concept of *sisu* provide an overarching common thread for all of the factors behind Finnish success in PISA that the Centre for Educational Assessment at the University of Helsinki put definitions on its PISA 2006 website. *Sisu,* a concept unique to Finland and the Finnish language, has to be understood if one is to truly understand the Finns and Finland. This comprehensive word covers the complex web of finely intertwined factors such as Finnish history, politics, society, culture, and religion, which collectively explain the strength of the Finnish education system, now so visibly apparent and admired by others because of PISA.

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APPENDIX A:
INTERVIEW QUESTIONS

The following reflects the type of questions I had with informants during interview sessions. Although I cite concrete interview questions, I followed the semi-structured interview process discussed in Chapter Three, which takes into account that the interview could go in a different, yet relevant, direction. The questions in italics indicate ones not directly related to the research, rather, to warm up the interviewee.

Interview Questions for Teachers

1) *What subject and age group do you teach?*
2) *How long have you been a teacher?*
3) *Can you describe the process of your teacher training?*
4) Do you think Finnish teacher training contributes to the results on PISA?
5) *How would you describe your teaching style?*
6) *Do you give homework?*
7) *Do you give grades?*
8) *What are your students like?*
9) *What positive qualities do your students have? Negative?*
10) *How much independence do you have in your classroom and your school?*
11) *Do you ever feel imposed upon by the central government or the municipality?*
12) What was your experience like as a student?
13) Do you feel you were well educated growing up in Finland?
14) Do you think Finland's culture values education?
15) As a teacher, what do you think about standardized tests?
16) What are your views on the PISA test?
17) Was it a good idea for the OECD to make it?
18) Do tests such as PISA matter?
19) Do you have any criticisms of the PISA test?
20) Do you think that Finnish education is the best in the world? Why or why not?
21) Do you feel the results reflect Finnish education? Why or why not?
22) Why do you think Finland came out on top?
23) What do you think are the strengths of Finnish education?
24) What are the weaknesses of Finnish education?
25) What is special about Finland and its education system that produced the results for literacy, math, and science?
26) Why do you think the results were as good as Japan and Korea, countries traditionally known for their education systems?
27) Why did Finland score higher than other Nordic countries, even though there are strong similarities between the systems?
28) What do you think about all of the attention that Finland receives about its educational system?
29) What do you think "outside observers" of Finnish education will take home with them?
30) Do you think there is a "special ingredient" of Finnish education?

31) What do you think about the bilingual education policy in Finland? Is it necessary?

Interview Questions for Head Teachers

1) What are the responsibilities for your job?
2) What subject and age group did you teach and for how long before you became head teacher?
3) When did you assume your responsibilities as Head Teacher?
4) How long have you been in your current position?
5) What are the differences in your job as head teacher and classroom teacher?
6) Did you have another career?
7) Can you describe your process of teacher training?
8) What are your students like?
9) Do you have problems with your students? If so, what?
10) What are the positive aspects of your students? Negative?
11) How much independence do you have in your school?
12) *Do you ever feel imposed upon by the central government or the municipality?*
13) What was your experience like as a student?
14) Do you feel you were well educated growing up in Finland?
15) Do you think Finland's culture values education?
16) As a head teacher, what do you think about standardized tests?
17) What are your views on the PISA test?
18) Was it a good idea for the OECD to make it?
19) Do tests such as PISA matter?
20) Do you have any criticisms of the PISA test?
21) Do you think that Finnish education is the best in the world? Why or why not?
22) Do you feel the results reflect Finnish education? Why or why not?
23) Why do you think Finland came out on top?
24) What do you think are the strengths of Finnish education?
25) What are the weaknesses of Finnish education?
26) What is special about Finland and its education system that produced the results for literacy, math, and science?
27) Why do you think the results were as good as Japan and Korea, countries traditionally known for their education systems?
28) Why did Finland score higher than other Nordic countries, even though there are strong similarities between the systems?
29) What do you think about all of the attention that Finland receives about its educational system?
30) What do you think "outside observers" of Finnish education will take home with them?
31) Do you think there is a "special ingredient" of Finnish education?
32) What do you think about the bilingual education policy in Finland? Is it necessary?
33) What percentage of your students is bilingual?
34) Why do you think the Swedish-speakers scored lower?

Interview Questions for Education Ministers

1) *What position do you have at the Ministry of Education?*
2) *What responsibilities do you have at your job?*
3) *How long have you been in your current position at the Ministry?*
4) *Did you hold any other positions at the Ministry?*
5) *Were you ever a teacher?*
6) *If so, how long were you a teacher and what subjects did you teach?*
7) *Why did you leave teaching?*
8) *Have you had any other careers?*
9) *How much independence do you think the schools and municipalities should have?*
10) What was your experience like as a student?
11) Do you feel you were well educated growing up in Finland?
12) What is your opinion on standardized tests in general?
13) What is your opinion on cross-national tests?
14) What are your views on PISA?
15) Do you think it was a good idea for the OECD to make it?
16) What are your opinions on tests such as TIMSS?
17) How do you think these tests differ from PISA?
18) Do these tests matter at all?
19) What are the benefits of tests such as PISA? The drawbacks?
20) Do you feel the results of PISA are indicative of Finnish education? Why or why not?
21) Do you feel the results reflect Finnish education? Why or why not?
22) Do you have any criticisms of PISA?
23) Do you think that other education ministers (both in Finland and elsewhere) have criticisms of PISA?
24) Do you think that Finnish education is the best in the world? Why or why not?
25) What do you think are the strengths of Finnish education?
26) What are the weaknesses of Finnish education?
27) Why do you think Finland came out on top in PISA?
28) What is special about Finland and its education system that produced the results for literacy, math, and science?
35) Why do you think the results were as good as Japan and Korea, countries traditionally known for their education systems?
29) Why did Finland score higher than other Nordic countries, even though there are strong similarities between the systems?
30) Do you think that Finnish culture supports education? Why or why not?
31) How often do you visit schools?
32) What do you think about all of the attention that Finland receives about its educational system?
33) What do you think "outside observers" of Finnish education will take home with them?
34) Do you think there is some "special ingredient" of Finnish education?

35) What do you think about the bilingual education policy in Finland? Is it necessary?

Interview Questions for Finnish Educationists

1) What is your current job?
2) How did you become involved with the PISA test?
3) How did you create the test for Finland?
4) How much guidance did you have from the OECD in Paris?
5) What is your view on PISA?
6) Was it a good idea for the OECD to make it?
7) Did you feel a degree of autonomy when making the test for Finland or did you feel bound by regulations from the OECD?
8) Were you ever a teacher?
9) If so, how long were you a teacher and what subjects did you teach?
10) Why did you leave teaching?
11) Have you had any other careers?
12) What was your experience like as a student?
13) Do you feel you were well educated growing up in Finland?
14) What do you think about other tests such as TIMSS?
15) How do you think these tests differ from PISA?
16) What is your view on standardized tests in general?
17) How about your view on cross-national surveys?
18) Do these tests matter at all?
19) What are the benefits of tests such as PISA? The drawbacks?
20) What do you think are the strengths of the PISA test? What are the weaknesses?
21) What are your criticisms of the PISA test?
22) Do you feel the results of PISA are indicative of Finnish education? Why or why not?
23) Why do you think Finland scored so high on the PISA test?
24) What is special about Finland and its education system that produced the results for literacy, math, and science?
25) Do you think that Finnish education is the best in the world? Why or why not?
26) Do you feel that the results reflect Finnish education? Why or why not?
27) Why do you think Finland came out on top?
32) Why do you think the results were as good as Japan and Korea, countries traditionally known for their education systems?
28) Why did Finland score higher than other Nordic countries, even though there are strong similarities between the systems?
29) What do you think are the strengths of Finnish education?
30) What are the weaknesses of Finnish education?
31) Do you think that Finnish culture supports education? Why or why not?
32) What do you think about all of the attention that Finland receives about its educational system?
33) What do you think "outside observers" of Finnish education will take home with them?

34) Do you think there is a "special ingredient" of Finnish education?
35) What do you think about the bilingual education policy in Finland? Is it necessary?
36) How often do you visit schools?
37) Which schools do you visit?

Interview Questions for OECD Officials

1) How long have you worked here?
2) What do your responsibilities entail?
3) What were the reasons behind creating PISA?
4) What do you think about TIMSS and PIRLS?
5) What were the reasons for creating PISA when there were already tests like TIMSS and PIRLS?
6) What do you see as the benefits of PISA?
7) Do you see any drawbacks of PISA?
8) Do you see things happening differently in the educational world because of PISA?
9) Is there anything you would have done differently with PISA now that you have seen three rounds of it?
10) Are there any problems in comparing countries with such different backgrounds, politics, histories, etc?
11) What do you see as the future of PISA?
12) Do you think PISA will change the future of education?
13) How do you think the educational world will evolve now that PISA exists?
14) Were you surprised at the results of PISA?
15) Did you expect Finland to do so well?
16) What was the Finnish reaction?
17) Why do you think people were so surprised that Finland did so well?
18) Why do you think in PISA 2000 and 2003 that Finland came out on top, or close to the top?
19) Did PISA reveal any weaknesses in the Finnish education system?
20) Have you visited Finnish schools?
21) Why do you think Finland did better than other Nordic countries?
22) Why do you think that Finland scored so evenly with Japan and South Korea on PISA?
23) What do you think other countries are going to learn from PISA?
24) Do you think that facets of education can actually be transferred to other countries?
25) Are there any aspects of data that stands out in the Finnish case?
26) What do you think about all this attention that Finland has received because of PISA?
27) Do you think Finland will do as well on PISA 2006?
28) Do you think countries get complacent when they do well?
29) Are there any features of PISA that you could draw to my attention that would not be readily available to me?

APPENDIX B:
FIELDWORK SCHEDULE

7 December 2005	Interviews at the University of Jyväskylä with ***Jouni Välijärvi, Pirjo Linnakylä, Pekka Kupari, Pasi Reinikainen***
8 December 2005	Observations of **School A**
9 December 2005	Observations of **School B**
12 December 2005	Interview with ***Arvo Jäppinen***
13 December 2005	Interviews at **School B** with ***Pentti, Aino, Saija, Jukka S.***
14 December 2005	Interviews at **School A** with ***Magnus, Linda, Hans***
15 December 2005	Interview with ***Olli-Pekka Heinoinen***
23 October 2006	Observations of **School D**
24 October 2006	Interviews at **School D** with ***Kalevi, Jukka E., Maarit, Toni***
25 October 2006	Observations of **School C**
26 October 2006	Interviews at **School C** with ***Elvi, Benny, Sanna, Krister***
30 October 2006	Interviews at the University of Helsinki with ***Jarkko Hautamäki, Sirkku Kupiainen, Patrik Schenin***
4 December 2006	Interviews at the OECD with ***Eric Charbonnier, John Cresswell***
7 December 2006	Interviews at the OECD with ***Abrar Hasan, Andreas Schleicher***
12 April 2007	Observations at **School E**
13 April 2007	Interviews at **School E** with ***Mai-Len, Christian, Christer, Pia, Jonny***
16 April 2007	Observations of **School F**
17 April 2007	Interviews at **School F** with ***Seppo, Miikka, Terttu***

APPENDIX C:
SAMPLES OF INTERVIEWS WITH EDUCATION MINISTERS

Interview with Arvo Jäppinen, 12 December 2005

What is your capacity here at the ministry?

Well, I am Director General of Education and Science policy here. My department is responsible for pre-primary up to the university and basic research. We are 1,170 people working for Education and Science, my department.

How long have you been here?

Quite a long time. I don't remember, but as I said I worked for three years in Paris at the OECD and then I had many international visits and tasks. Also here in Finland I have a lot of posts in various bodies in Finland, but this is my main job.

Were you ever a teacher?

I was a teacher for two years, but a long time ago. I taught mathematics mostly, to the children or pupils from 12-14.

Have you been in education for your whole career?

Yes, I have been in the education sector all of my career.

What is your opinion on PISA? Was it a good idea for the OECD to create it?

Yes, of course. At that time I was a member of the ENIS project in the OECD, which is still working. I was a member of a steering group for the project. For a long time I was the chairman for the group. I was a member and then we there discussed the first ideas to establish the exercise that PISA is. I have been involved from the beginning in this activity. We were very much in favor. We didn't know the results at the time. I was afraid that our results were not that good. Anyway, it is important to know how your country is compared to the others, what is your position compared to the other countries, what is the school achievements in our country compared to others. It is very important to know in order to develop education further.

What is your opinion on tests such as IEA and TIMSS?

Well, they have been doing quite a good job for a very long time, and also PISA has to cooperate with those exercises as well. You see, IEA is the exercise of the university researchers. They are university owners of that project and PISA is owned by the OECD member states, so they had to cooperate with each other. Good work done there as well.

Which test do you advocate more on a personal level?

Both of them. I think that we need that kind of test that PISA represents, how pupils can apply knowledge in practice, and also that knowledge that pupils have learned on the basis of curriculum. We need all of the information, because all of the information that was collected is only for the purpose for how to develop our education further. That is the only purpose. We don't want to punish or sanction or whatever, but we only use those results for development. It is the policy of Finnish national evaluation as well. We have quite a lot of evaluation and assessment. We have promised the schools and whatever they are we don't ever use those results as punishment, just in order to develop their education further. It has helped us very much because our people, our schools, and our municipalities are very eager to participate in evaluations. They don't oppose them. Because, you know, many countries, in Britain, they are against because they are afraid of being punished later.

What do you think are the benefits of PISA?

Well, as I said, we have drawn some conclusions from the results. One is that we need more of those who reach the highest level of achievement, 5 and 6. Then we have to diminish the number of those who are at the low level of achievement, in order to get all forward. I think especially at the moment we are really investing a lot in education policy to those who are at risk to drop out or at risk not to achieve the required achievements. But then give the space to those who are better and those who can learn more quickly and more profoundly. These two, those between are doing very well, but it is our way to go forward. These are our main conclusions from PISA. That is from education policy. The others are teacher training should be developed further, even though it is at a quite high level in Finland. We need especially teacher education development in order to equip teacher candidates with the capabilities to pick up those who are at risk at early as possible so we can help them to go forward and to learn. Teachers have to be, at the same time teacher, in the narrow meaning, psychologist, sociologist and whatever in order to know the pupils and to pick up on those who are good and those who are at risk. That is where we are developing our teacher training now, in that direction.

What do you think are the negative aspects of PISA?

Perhaps the one potential negative aspect is that Finnish society, education policy makers, parents are too happy with the situation. That is the potential risk. We have warned them that we must develop further, otherwise we are dropping down, because all the countries are making a lot of effort at this point.

Do you think the PISA results reflect the education properly? Do you think that Finland has one of the best education systems in the world?

Well, you know our strengths and our weaknesses. It is very important to know both of them, the strengths and the weaknesses, so that there won't be any more weaknesses. That analysis has been done. Teacher training is one area. One is also the school

environment and the school community, how school communities could work better together, because school is not anymore only teachers and pupils. It's more and more a multi-professional community. You need teachers, psychologists, medical doctors, social workers, etc. in order to have enough knowledge to find out the problems pupils might have. That is the main thing. And also to develop primitive, remedial efforts in order to help those who are in danger of dropping out for whatever reasons, mental problems, home problems, they have to be helped. Otherwise they will drop out and they will be very expensive for society later.

Do you think that other education ministers, in Finland or around the world, have criticisms of PISA?

Yes. Some are, I think so. Some are especially… those are those who see that PISA is not measuring the proper things. The people who say that PISA should measure more curriculum-based learning and achievements, not the applicable side as PISA does. In Finland we had this discussion about which is more important, to be capable to utilize your knowledge in practice in everyday life or to utilize your knowledge in an academic career. Sometimes the correlation is very strong between the two. We need both of those. PISA is one measure that doesn't cover all the needs we have. You have also those, as we do in Finland, that cover national assessment where we measure curriculum and objectives in the curriculum, and we measure whether the pupils have achieved those objectives. This is more of an academic one.

Do you think that PISA has gotten more attention than TIMSS?

Well, yes, because there are a large number of countries taking part in PISA and it is going over the oceans so there are countries from America, from Asia, etc. I think that it's very well planned, based on careful research that was done before, and then start to test. Those tests before, they tested whether the test is measuring what it should measure, has been done earlier, so PISA has been careful in that way. But as I said earlier, we need all of that information, whatever it is, and compare and analyze how it can be used in education policy.

From what I understand, the scores for Finland were lower in TIMSS. Do you have any ideas why that happened?

It is that thing I mentioned. It measures more of the academic type of knowledge than PISA does. But we take it seriously, of course, and we don't want to say we are good in very sense. We are good in the test that PISA measures. We are not necessarily good at the other tests. We are very humble, so we don't say we are good at everything.

What do you think are the strengths and weaknesses of Finnish education?

I think the strengths are teacher training. Masters level degree is needed for a permanent teachers post. There is very profound education, very well-qualified students, because the number of applicants are much higher than can be accepted, so we take two state

tests, as you may know. The first test has been done on the basis of papers from secondary papers, or level of qualification from secondary level. Then that group, there are people who will take the applicant test. They are interviewed, they are put to play a teachers' role in practice and they have writing tests and then practical tests. On the basis of these two tests there are really top applicants that can be adapted for academic study. In the beginning, the level of applicants is very high. Then the education is quite good from our point of view. If you have good students and good teaching, the results must be good. But you see the problem is, the level of teacher training is so high that there are many who like to hire new teachers for the other jobs in society. There are part of those who graduate from teacher training institutes who are hired for industry, for staff chiefs and whatever. That is so highly appreciated. There are people who say jokingly, please put the level lower, so they don't leave but we don't do that. Then in-service training, those teachers who are in teaching, they have to have opportunity to have in-service training now and then. That is the main strength. The next point is the national curriculum, just the framework for classroom work. Then teachers have autonomy in choosing their teaching methods, in choosing their textbooks. We don't have any system where we adopt some textbooks or borrow some others. It is up to teacher to do the best ones, and also teaching methods. We only look at results. That is why even if the teaching profession is not very well paid in Finland, it is very popular. It gives you freedom to utilize your high level of education in practice. The necessary condition for giving teachers freedom is that they have good education, otherwise they are not capable for utilizing that freedom in practice. The third one is that the local responsibility for education, because it is the local office's responsibility to run schools and the state gives responsibility to the local authorities. Then evaluation. You need only good teachers, good curriculum, local responsibility and commitment, and evaluation. It's not so simple in practice. Then weaknesses, we have a lot of them. Weaknesses are related to the school environment. Finnish pupils do not like to go to school. **I've been hearing that a lot. Why?** It's a very good question. We don't know exactly, but especially boys. They don't like to go to school. They don't think school is something suitable for me, but still they are quite good pupils. Perhaps it is so as a joke, it is so that boys go to school, they try to it as quickly as possible and then get out of school. Of course boys are at a lower level in schooling achievement than girls in Finland. How to get boys to like to go to school and to study, I think that is the main weakness behind it. Well, then of course there are drugs and that kind of behavior, and those kinds of things in the school community. It is quite serious in some cases. How to get school or classroom so that everyone can learn, that is a challenge. **Have you seen those kinds of behavior, like drug use, increase recently?** Not now. It increased over the last years but now it is more balanced. It increased a lot in the beginning of the century, but we have made measures in that. What I mentioned, in schools, the community must be a multi-person community, so that there are psychologists, medical people, who can find out if some pupil has problems. If he is leaving out of school, he or she can come to school, it is allowed, something has perhaps happened. We must have a professional who can check out what is going on. We need those kinds of measures in the future. It is costly. You need many professionals in the school community, but it is not so costly as if the pupil would be excluded from active life. Later, she or he will cost a lot. W e have, by the

way, counted if the young boy, for example, will drop out, if he will be excluded from active society, he will cost at least 1,000,000 Euros. School is cheaper, much cheaper.

In the PISA results, why do you think Finland scored as high or higher than Japan and Korea, countries traditionally known for their educational outcomes?

Japan and Korea are good as well. There are differences. If you take, for example, Japan. They invest a lot of private funds in education. They train students outside of schools. We don't do that, because we invest in the teacher training. That is one reason that Japan is so good, they use much more time in school than our pupils. Our pupils in school, the number of days or number of hours is much lower than in Japan. But then as to Japan and Korea, they have traditionally been good at education. They have a good tradition as we have. In our society, education has been highly appreciated, by parents and by society and so. **Why is that?** Well, it's a tradition. Parents want to have better for their education for their children than they had. It is typical in Finland. Parents say that, 'my boy or girl has to have much better education than I had. I had no opportunity to go to school when I was young. But now I will give that opportunity to my daughter or to my son.' That is typical thing among parents in Finland. Even those who are living… who come from lower social classes. This is very strong, this idea. **What do you think that Finland, without private tutoring outside schools, not as many hours in schools do so well?** That is the benefit of good teachers, that they can do it in quite a brief time. The Finnish pupils use homework, fewer hours for homework in other countries. Both at school and at home, lower hours for study. But still the differences, those parents who have a high level of education have the opportunity to prepare the pupils more in schoolwork or give them attitudes that are more favorable for educating themselves, etc. The best thing in Finland is to have a very high level mother. It is the level of education of the mother explains a lot of the school achievements. It is the strongest correlation. The level of education of the husband is not that strong a correlation. There is a difference, the higher the level of education for the mother, the higher the school achievements of children.

Looking at the PISA results, Finland scored higher than other Nordic countries, even though the countries are similar culturally, socially, and politically?

Perhaps there is not a single factor behind that. There is a combination of factors. I mentioned how to organize schoolwork, the level of education of teachers, what is the core curriculum, what is the discipline at school. There are those kinds of things. I can't say a single one, but I think that again, it is the teacher training. The teacher is a key person, in a way. Even if she or he, because teachers need to be at the same time a teacher, and then a manager of various professionals to work in the same direction at school, those two mentioned level of skills that are needed of teachers. Perhaps tradition, perhaps cultural reasons, Finnish people are more serious, perhaps than those in other Nordic countries. Perhaps Finnish people take education more seriously in general. It is more the way to the social mobility than in Sweden and in Denmark. Maybe that is one reason. When I was younger I made research work in talent resources in Finland. I found out that there are many talent resources in Finland which didn't have the

opportunity to go to school in the fifties and in the sixties. Then we renewed our education policy totally in the beginning of the seventies. We reformed basic education totally and teacher education totally in the beginning of the seventies. Now after thirty years time, we have results. We have a long time when your reform a system, you need a long time for results. We have here in the Finnish Ministry of Education, that if you need a reform, it has to be done quickly. You can't be all the time on the reform. In education you need both continuity and change, how to find the balance between change of reforms and continuity, this is one key issue. Change and continuity, education needs both of them. Continuity is very important but sometimes you need change.

Do you think Finnish culture supports education?

Yes. If we don't have any political party, we don't have any government, we don't have any family, who could say that education is important. If there would be a politician that would say he didn't care so much about education policy, he will be former one. It is inside the Finnish society, that education is important. There is a political consensus between various political parties on that.

What do you think about all the attention that Finland has received about its education system?

Well, it has meant that we have had to work very much for foreigners. We had a lot of visitors, ministers, and other delegations. We have taken them, if we only have the time to organize the visits. I think the Finnish schools have been a target for various groups from various countries. It has been a surprise to many foreigners when they have been in the schools and in the classrooms when they have been visiting there. At the same time it is so free, pupils don't, they have free relations with teachers and pupils, they are good friends normally. But at the same time, if you are a good teacher, you re respected by the pupils. That is why also good education is needed. Young students are very clever. They immediately find out if the teacher is not a professional teacher, less capable. It is very important to have that kind of trust between teacher and pupil. Bad teachers are not appreciated. They are not appreciated by the children, the pupils, and by the parents. Parents are very active too. The follow if the teacher is not capable to do his or her work.

What do you think these visitors to Finland will take home with them?

Perhaps some things to be learnt, when I speak to the visitors, I often warn them at the end, 'I have told you what is our system, how we have organized our education policy, what we have done, and what is our cultural surrounding the education is, and then I warn them, don't follow technically our system. Don't copy it. What is working in our society is not necessarily working is not working in other cultural and historical circumstances.' It is very important to know. We know that there are countries that have copied some part of our system. Perhaps some part you can copy, but the total system never. You must always take into account what is the cultural heritage of the society. What parents are thinking, how they appreciate education, what cultural or historical circumstances that are behind education policy. They all have effects on the school system, how well or

badly it will work. Then there are visitors when I say, 'I will warn you, don't copy, but learn something and apply that to your own circumstances in your country.' They look at why you are speaking so, but I say I know that is the case.

What do you think about the bilingual education policy in Finland? Do you have an opinion about it?

Yes I do. We have two major minorities in Finland, the Swedish-speaking minority, 6% of the total population, and a tiny minority in Lappland, Saame people. It is in the Finnish constitution, not only my opinion, that we have provided both groups with a high level of education. It is right for both groups, the majority and the minority. That is why we have a school system for our Swedish-speaking pupils from pre-primary or kindergarten to university. They can learn at those levels with their own language. With the Saame people, there are only 7,000 living in Lappland, but representing three dialects, three languages. We give them preliminary education in their own language, but we don't have teachers to teach them further. That is one of our strengths in Finnish society. We have guaranteed educational rights for both minorities. Your education is not dependent on your linguistic background. But for the Saame people it is problematic, but they can maintain their language at the beginning stages of school. **Do you see this as beneficial?** Yes. Very beneficial. Of course there is policy debate whether it is useful to organize Swedish education in Finland, and especially if those who have Finnish as our mother tongue have to learn Swedish as well and vice versa. There are people who say, why should we do that. We couldn't we take English and then French, Italian, Russian, etc. I think it is a strength in Finnish society that we can learn and cooperate with other Nordic countries as well in Swedish.

Why do you think that the Swedish-speaking minority scored lower than their Finnish-speaking counterparts?

Well, we have analyzed that. We don't know the exact answer but there are perhaps some explanations for that. The level of teachers is perhaps lower. There are more temporary teachers and not so much permanent teachers as in the Finnish school system. Perhaps the regional reasons, because those Swedish-speaking who come from the best of Finland, it is more countryside area and perhaps it is relating to that. It is dominating, because there are three major parts of Finland where Swedish-speaking parents live, the Helsinki region, the Turku region, and the western region. Turku region and Helsinki region, those students are as good as the Finnish ones. But in the countryside area, in the west of Finland, they have lower achievement. Perhaps the reason is relating to teachers. We don't have any exact answers but we have analyzed it. We will take some measures in order to correct that as well, by concentrating more on teacher training in Swedish. **In the eyes of the Ministry are they equal?** Yes, of course.

Interview with Olli-Pekka Heinoinen, 15 December 2005

Why did you leave the education ministry?

I was selected to be minister for communication and transport and I stayed there for three years. After that I came here [to the television station]. I wasn't really planning on becoming, or working in politics. That wasn't my aim. It kind of happened as a bit of a surprise for myself too. I thought that I would do it for awhile, as a project. I would come in and come out. It went on and on. I thought that I would have to now just end the project, because I … the challenge with politics is that you are responsible for a wide scope of things. I became a member of parliament also. I wasn't that when I first entered. I was for a year a minister on the education side, and then I became a member of parliament. I wanted to concentrate more clearly on something, what we are doing here is actually pretty close to the things that we did at the ministry of education, national culture, institutions. I enjoyed it a lot.

When were you at the OECD?

In 1994 to 2000, about. **Was that before you were education minister?** No, I wasn't really working for the OECD; I was doing a lot of things with the OECD. That was during my ministry days.

Were you ever a teacher before all of this?

Actually, I was. **What did you teach?** I was an unqualified teacher. Actually, I am a lawyer by education and then I was studying music and I have a qualification for a music teacher. I actually taught for one year, mostly music, but it was this very strange combination of subjects. I taught music then a strange subject which is kind of agriculture, forestry subjects and what else? I think that was the two mainly. It was from grades 7 to 9.

What was your experience like as a student in Finland?

I think we get a very… at the time I was in school, we got a very solid base. You learn a lot of things, how things are, and when I was in school, there wasn't too much freedom of choice, very much did the same things. There was a lot of things that my age group still learned by heart, by memory. I had a very happy experience with school. I enjoyed it a lot and I learned the culture of school very easily, so I had a good time.

Do you feel like you had a good education in Finland?

Yes, I did. It helped me a lot. My father was a teacher also, and the atmosphere at home was that we valued very highly education and knowledge and all of that. I think many good things have happened to me because of education. **Like what?** Like the challenges I have had in my life. The reason was because of the possibilities to educate yourself. Not only in academics, but also the music side. **There is a very strong tradition here.**

Yes, it is. That is why there are so many highly valued musicians, conductors, from Finland, because of the education system, also in the music side.

Do you think that Finland's culture values education?

Yes it does, from a long time period. There is a long tradition. In 1860s, when the idea of independence came for the first time, the way that aim was tried to be achieved for us was by raising the education level of the population. The idea was, in the very beginning, to raise the educational level of the whole population. It wasn't just the idea to educate a few, but it was to make sure that the overall educational level, it was a possibility for everyone. It was very important in the Finnish educational policy and has been and it is a consensus. There are no political disagreements about that. We do not have an internal class, a social class in Finland, and one of the reasons why not is the education system. It gives possibilities to everyone.

What are your views on standardized testing?

Do you mean nationally or internationally? **Both.** I think they kind of… the challenge is also how to make sure that the grades are comparable with each other in different schools. It gives a tool to do that, and on the other hand it shows what are the strong points and what are the weak points of the educational system. The challenge is the interpretation of the results. How you interpret them, you have to have a lot of knowledge to do that. They are quite easily… you can say easily that is a good school and that is a bad school. You don't see what the school does during that time the students are there, the kind of starting level, although you try to make sure it is the same, but it isn't. What is essential from the educational system point of view, what is happening during those years the people are in that school. Then there are again, things that are very difficult to measure, such qualifications in today's world, the working world, that are really important, they are extremely difficult to measure, and you have tot take that into consideration.

What are your views on PISA?

I think it's a good tool. It helps the decision making, and it gives you indications of what you should do and what you shouldn't do, what is functioning and what is not. But again, drawing the conclusions, it's not very easy from the results of PISA. I think it's been extremely valuable work that's been done to develop PISA, the tools. I think, I believe that that kind of work will become even more important. Pretty often, what happens also is that you can try to draw very quick consequences of the results. In France, the government fell because the results of PISA were so bad. **Was that when America scored higher than France and they refused to acknowledge the results?** Exactly. Then you should go more deeper in the results of PISA, in order to be able to say how things are.

What do you think about PISA vs. TIMSS?

I think it is valuable that we have different kinds of tests also, that the outcomes and the results are a bit different. I think that helps also to see the diversity of measuring, that we do have different systems. I think that the work that has been done on PISA has really impressed me. **You worked on PISA, right?** Yes, I was. **How were you involved?** I was… we did have at that time, in the OECD, a strange settlement. We had an unofficial meeting for certain education ministers. I think Tom Alexander was the person who made it possible, that we were about ten to twelve ministers, and we met quite regularly. We discussed. Those meetings have been the most valuable international meetings that I have attended in my life. We freely discussed the educational matters and those discussions also certain directions of PISA were discussed. And then of course I was also involved in the PISA work, certain seminars in Finland on how to develop the measuring systems. **Is this with the people from Jyvaskyla?** Yes.

What are the benefits and drawbacks of something like PISA?

I think that of course, one benefit is that you can, if you wouldn't have PISA, we should have more national measurement systems, that partly does the job that we would have to do nationally. PISA is not only about measuring, it is also about trying to understand together, that what are the policies… what is the reason and what is the cost for how to achieve things through the education system. The results of PISA, they force the educational decision makers to understand how the educational system works. You just cannot look at the results and say that, now this is good and this is bad. You have to go beyond why is it so in this country and why is it so in that country. Then you have to understand that very complex and very built into the national cultures, structure that perfects the educational systems. The educational system, it is not a machine that you put something in and something comes down. It is so strongly bound to the other things in society that you have to understand those. And a good thing of PISA is that it raises those things up. **What about the bad things?** The bad things are that the conclusions are come too to quickly. If you say that it is only something where you put things in order, who is the first, who is the second, who is the third, and then you say that those did it the best and those did it the worst. That is not the way. Sometimes you see, the media loves to do it that way. They did it badly, it's their fault. I think that is the bad side of measuring like this.

Do you think that PISA results reflect Finnish education?

I think it reflects the Finnish culture towards education, which is very positive. We do have a lot of support for education from the overall society. I think you can see that in the results in PISA. At the time, I would say we do have problems in our education system and it would be very dangerous to say that everything is fine in the Finnish education system. There are a lot of things to do better.

Do you think education ministers, both in Finland and elsewhere in the world, also have criticisms about PISA, especially if they are not high scoring?

Really, you can see the attitude that it depends on how you score in the results, how you see PISA, is it good tool or not.

What do you think are the strengths and weaknesses of Finnish education?

I think that the overall culture that supports education and knowledge. Teacher education. We have good qualified teacher courses and well-qualified teachers. I strongly believe that they are very motivated, well-educated and committed to their work. That is definitely a benefit. We do have good educational materials. **Like textbooks?** I think that is important and something you do not hear too often. That side is, for some reason, good in Finland. I think those are the good sides. The bad sides are probably the issues we have challenge with vocational education side. It's been quite theoretical and what we should have is to combine it more with the idea of apprenticeship. Not only have an apprenticeship, but combine factors of an apprenticeship with the theoretical. Then, of course, our educational system is going through quite a challenge resource wise. In many municipalities, the money spent for education has decreased a lot, and that is coming close to the level that it really affects the quality of teaching. I think those are the weak sides that we are having.

How much independence do you think the schools and municipalities should have?

That is a very difficult question. I think that we should state nationally the overall standards for education, that what everybody should learn during their school time. Then the question of how that is done, you should give quite a bit of freedom to the municipalities and the schools. The expertise is there. They know the local circumstances and the experts of teaching and learning are there. In Finland, we have a history that when we were building the so-called Nordic welfare state model, it was done so that we made a very strict legislation which didn't leave any freedom to the local schools or municipalities, because we wanted to make sure it was the same for everybody in every part of the country. That kind of an infrastructure you need to build. During the last twenty years we had the possibility to increase the freedom of the schools and the municipalities. I think there is quite a good balance at the moment from that. The issue is that you don't anymore steer so strongly through legislation from the national level but it is more informational and evaluational steering than what it used to be.

Looking at the PISA results, Finland scored as high or higher than Japan and Korea, countries traditionally known for their educational outcomes. Why do you think that is?

It's difficult to say, but I remember speaking with, for example, both my Korean colleague Dr Ahn, and then my Japanese colleagues. He had the idea to train individuals at the highest value in the Japanese educational system. He said that the Japanese education system is like running 100 meters. Everybody must come to the finish at the same time, that you don't really allow much room for independent behavior or I don't know if that is true or not, but that is what he said. I think that is a big issue, how you can make a function fit of making sure that everybody gets the basic and then at the same

time leave room enough for the individual creativity to grow. How you combine those two things, that is the big issue of how to make an educational system successful.

Also looking at the results, why do you think Finland scored higher than the other Nordic countries?

That is very difficult to say. We are culturally so close to each other, that what is actually the reason for that. I don't know. It might have something to do with how strongly the national independence and culture and education in Finland have been bound together. They are so strongly in our identity that is a thing that, one reason that comes to mind. We read a lot in Finland, but it is also the same in other Nordic countries. I think as readers of newspapers we score very highly also. I think reading is very important when you talk about education.

What do you think about all the attention that Finland has received about its education system?

Of course it's flattering. But there are also dangers. It is interesting to see that we Finns are such that we actually, when that kind of attention comes, very quickly it sparks a discussion that we aren't that good, that there is something wrong with the results, and actually we should not at all be proud of this kind of attention, that we should try to work harder ourselves. Finland, the culture in Finland is such is that we are strongest when there are difficulties. When the times are tough, Finnish people, they really are committed to the future. It's more difficult for us to deal with good results. I think that's the way it is.

What do you think PISA tourists will take home with them?

It's very difficult to say. The most essential thing at the end is what happens in the classrooms. That is the most important thing, what is the atmosphere there. How the teacher sees his or her role, what is the attitudes and the motivation of the pupils. Some people, Finnish people, are very worried that in international comparisons, Finnish pupils, they don't enjoy school. **I hear that a lot. Do you know why they don't enjoy it?** I have a teenage son, and I think it's not… I don't see it as a big problem. I would be more worried if 100% if Finnish pupils say that they enjoy themselves in school, because I wouldn't think that was true. I think that Finnish pupils, they think that school is not a place for enjoying, but a place for learning. They see this role. I think that's why they say that it's not a place for enjoyment for them. I think that… I hope what you see in schools is that people, both teachers and pupils are committed, serious about learning. I don't mean that it can't be fun, but you learn things, but they are committed to learning things. At least that is what I see through my own kids at the moment.

Do you think having bilingual education is necessary here?

I think that it is just the way it is. Then there is the culture. There is a long history with that. The Swedish-speaking minority is also a part of Finnish culture. It is also an

advantage for us, because we learn two first languages, and they are both small languages. It increases your language abilities, that you can learn many languages. For that reason, it is a bit easier after you learn Finnish and Swedish, to learn English, German, other languages. It kind of supports the idea of other languages.

Looking at the PISA results, the Swedish-speakers score lower than the Finnish-speakers. Why do you think that happened?

Actually, I don't. **I would have guessed it would have been the other way around.** I would have guessed that too. I don't know whether it those students maybe come from bilingual families. You know that in bilingual families, both language skills are lower until the grade of 5, and after the 5th grade, both language skills increase higher than the average. In the lower classes, it is kind of a disadvantage that you are bilingual, but at the higher it is an advantage that you are bilingual.

Why do you think bilingual families choose to send their children to Swedish-speaking schools?

Sustaining the culture. You want to make sure that the culture and language lives on. I think that's the main reason for it.

APPENDIX D:
SAMPLES OF INTERVIEWS WITH HEAD TEACHERS

Interview with Pentti, 13 December 2005

How long have you been here?

Here in Maartinlaakso I have been 15 years. Before Martinlaakso I have been mathematics, physics, chemistry, and information technology teacher in Helsinki and in Espoo.

Did you come here as the Rektor?

I came here from Espoo 15 years.

To be the headmaster here?

Yes.

What are your students like at this school? How do you find them?

The students are... most of them are very satisfying in the school. The school is one of the best schools in Vantaa.

Are they good students and behave well, and listen in class?

Yes.

Do you feel independent in this school? Does the municipality or the government have any influence?

Of course they say what we do. We get the school, curriculum, in there we can do what we want to do.

What was your experience like when you were a student in Finnish schools?

It is today very different than before. The school has changed the past ten years very much. We are very most independent now than before, and that is a good thing.

Do you feel like you had a good education in Finland?

Yes, of course. I don't know, say, why, but the thing is education is very good... for example, for PISA, we feel that it is very good.

Do you think Finland's culture values education?

I don't understand what you mean, but I think that my answer is yes.

And why?

Why? I cannot say that in English.

Can you say it in Finnish?

Joo, sanotaan suomeksi se, niin. Tämä suomalainen koulukulttuuri, niin sehän on kehittynyt monien vuosien aikana, ja suomalaisen tämmöisen koulukulttuurin hyviä puolia on se, että se antaa tasa-arvoisesti kaikille oppilaille saman opetuksen. Se huolehtii myös tällaisista heikommin oppivista oppilaista. Ja suomalainen koululaitos on hyvin tasa-arvoinen. Täällä ei, ei hyvin, jos verrataan kansainvälisesti asioita, niin muualla maailmassa eriydytään jo hyvinkin nuorena sanotaan tämmöiseen lukiokoulutukseen, ammattioppilaitoksiin, eli he joutuvat liian aikaisin tekemään valintoja. Suomessa nämä valinnat tehdään vasta tämän peruskoulun jälkeen, eli yhdeksännen vuoden jälkeen.

Ja ainoa ongelma tässä tällä hetkellä on, jota nyt kaikki tutkimukset esimerkiksi Pisa on osoittanut. Niin me ei Suomessa tällä hetkellä vielä kyetä riittävän hyvin huolehtimaan niistä oppilaista jotka ovat lahjakkaita joissakin oppiaineissa. Se on ainoa ongelma tällä hetkellä. Mutta sitä pohditaan. ja minäkin olen täällä koulussa sitä pohtinut hyvin paljon, että miten me voitaisiin näillä opetuksen järjestelyillä huomioida tämä.

Matematiikassa se on huomioitu sillä tavalla, että oppilaat voivat valita tämmöisen painotetun matematiikan, jossa he opiskelevat matematiikkaa enemmän kuin muut oppilaat. Ja se vaikuttaa hyvältä ratkaisulta. Mutta sellainen ratkaisu ei valitettavasti kaikissa suomalaisissa kouluissa ole.

Yes, let’s say it in Finnish. This Finnish school culture, it has evolved during many years, and one of the benefits of the Finnish school culture is that it gives the same education equally to all of the students. It also takes care of the less capable students. And the Finnish educational system is very equal. If you compare it internationally, elsewhere in the world students specialise already when they are very young, for example to high school education or vocational schools, which means that they have to make choices very early on. In Finland these choices are made only after the elementary school, meaning after the ninth year.

And the only problem at the moment, shown by research such as Pisa is that in Finland we can’t yet adequately take care of those students who are gifted in a certain subject. This is the only problem at the moment. But we are thinking about it. Also I have thought about it very much here in this school, how could we organise the teaching in a way, which would pay adequate attention to this?

In mathematics this has been addressed in such a way, that students can choose to concentrate more on mathematics. These students study mathematics more than other

students. And it seems to be a good solution. But unfortunately this kind of a solution isn't at use in all Finnish schools.

Do you understand?

What is your opinion on the PISA test?

Pisa testi on tuota noin, se mittasi asioita, jotka liittyvät käytäntöön, siis arjen, miten tulevaisuudessa, tulevaisuuden elämässä oppilaat joutuvat käyttämään esimerkiksi matematiikkaa, äidinkieltä, luonnontieteitä. Ja tässä me suomalaiset olemme hyviä. Maailman huippuluokkaa.

Mutta Pisa ei tutkinut tällaisia asioita, että miten oppilas on oppinut ne asiat, eli ne opetussuunnitelmassa olevat asiat, mitkä heidän koulussa pitäisi oppia, esimerkiksi jatko-opintojen takia. Ja niissä asioissa meillä on vielä parantamisen varaa, sekä äidinkielessä, matematiikassa että luonnontieteissä. Ja mistä tämä johtuu, että me olemme hyviä näissä asioissa, mitä pisa tutki, se johtuu, mä en osaa sanoa sitä äidinkielen osalta, mutta mä tiedän sen niinku matematiikan ja luonnontieteiden osalta.

Esimerkiksi matematiikan osalta, kun meiltä on vähennetty tunteja mitä matematiikkaa opetetaan Suomessa, niin silloin opetussuunnitelmassa täytyi tehdä valinta että mitä asioita painotetaan. Ja silloin tehtiin sellainen valinta että painotetaan tällaista matematiikan soveltamista, käytännön tehtäviä, ei niinkään tällaista algebraa ja geometriaa, jotka valitettavasti jatko-opintojen kannalta, esimerkiksi lukiossa niin on tärkeää että he osaavat tätä. Tästä se johtuu että me olimme loistavia Pisassa, mutta meillä on sisällä koulussa kuitenkin tiettyjä ongelmia, jotka meidän pitäisi vielä pystyä järjestämään. Mutta, mä uskon että toivoa on, että siihen kyetään, mutta siihen menee vielä muutama vuosi ennen kuin se näkyy tämä parannus.

Tässä on hyvin tyypillistä Pisassa, että kun vertaa näitä eri maita, sanotaan Unkari, joka on matematiikassa erittäin hyvä. Siellä opiskellaan hyvin paljon matematiikkaa ja opiskellaan ihan puhdasta matematiikkaa. Niin unkarilaiset eivät pärjänneet Pisassa hyvin, koska siinä oli enemmän juuri tätä arjen matematiikkaa, soveltamista. Ja seuraus oli todella joo, että he unkarilaiset pärjäsivät suurinpiirtein keskiarvon mukaisesti, ei ollenkaan niin hyvin kuin suomalaiset, vaikka meillä suomalaisillakin on paljon opittavaa unkarilaisesta matematiikan opetuksesta.

Ymmärsitkö? Do you understand?

Hyvä.

Pisa test, well, it measured attributes relating to practical issues. Ways in which the students will have to use for example mathematics, Finnish or natural sciences in their life. And this is what we Finns are good at. Top class of the world.

But Pisa didn't measure how the student had learnt all those issues, which are part of the curriculum, things they should have learnt in the school, for example for the sake of their future studies. And this is where we still should improve, both when it comes to Finnish, mathematics and natural sciences. And why is it that we are good at these issues that Pisa was measuring, it is because…I can not say it when it comes to teaching of Finnish, but I know why it is when it comes to mathematics and natural sciences.

For example when it comes to mathematics, when the number of hours that mathematics is taught was reduced in Finland, a choice had to be made when deciding the curriculum and which issues will be stressed in it. This was when a decision was made, that the emphasis would be on practical uses of mathematics, not so much on algebra and geometry, which however unfortunately are important for the sake of further studies of the students, for example in the high school. It is because of this that we were excellent in Pisa, but there are still some problems, which we have to deal with. I believe that there is hope that we can do it, but it will take a couple of years before this improvement will be visible.

It is very typical about Pisa, that when one compares different countries… Let's say Hungary, which is very good at mathematics. In Hungary mathematics is studied a lot and people study even pure mathematics. However, the Hungarians did not do well in Pisa, because it concentrated more on the mathematics of everyday life, practical mathematics. And the result was, really, that the Hungarians were quite average and did not do nearly as well as the Finns, even though we Finns have a lot to learn from the Hungarian mathematics teaching.

Did you understand? Do you understand?

Well done!

Do you have any criticisms about PISA? Some things you don't like about it?

No. PISA is one kind of test and which test is right, but PISA *niin kuin mä sanoin niin Pisa ei huomioinut sitä tämmöistä paikallista opetussuunnitelman osaamista. Niitä varten on Suomessakin muita testejä, jotka mittaa tätä. Ja meidän suomalaisten vain pitää olla ylpeitä että me olemme osanneet sen asian mitä Pisa mittaa. Ja kuitenkin ne asiat joita Pisa mittaa, niin ne on kansainvälisesti hyvin arvostettuja asioita, että niitä osataan. Että siinä suhteessa,* we are very proud.

No. No, Pisa is one kind of test and this test is right, but Pisa, like I said, Pisa didn't pay attention to this kind of local following of the curriculum (how well students have learned things that are included in the curriculum). We have other tests in Finland, which measure this. And we Finns just have to be proud that we are good at what Pisa measures. And anyway, those attributes measured by Pisa are valued very much internationally. So in that sense we are very proud.

Do you think that Finnish education is the best in the world?

I don't know if it is the best in the world but it is very good.

Why do you think Finland came out on top of the PISA test?

Se johtui juuri tästä meidän opetussuunnitelman painotuksesta. Ne sattui olemaan samoja, joita Pisa painottaa.

It was just because of this emphasis in our curriculum. They happened to be the same as what Pisa emphasises.

If you look at the test scores, Finland scored higher than Japan and Korea, and why do you think that happened?

… Hmmm... Se johtuu ehkä tällaisesta japanilaisesta ja korealaisesta kulttuurista. Heidän kulttuuri arvostaa koulua hyvin paljon. Ja Japanissa ja Koreassa opiskellaan esimerkiksi matematiikkaa huomattavasti enemmän kuin suomessa. Ja siellä ollaan tuotanoin hyvin eteenpäin pyrkiviä. Esimerkiksi japanilaiset, siellä on hirvittävä kilpailuasema siitä että lapsi pääsee esimerkiksi aina yliopistoon asti. Ja se antaa hyviä tuloksia, mutta toisaalta se saattaa olla aika raskasta niille nuorille. Se saattaa olla jopa ahdistavaa, kun on liian suuri kilpailutilanne. Mutta ymmärtääkseni se johtuu, juuri heidän hyvä menestyminen, tästä kulttuurista, joka arvostaa suunnattomasti osaamista, koulua. Ja pyrkivät, etenkin kodit huoltajat, isät ja äidit haluavat että lapset pääsevät mahdollisimman pitkälle. Mutta, me suomessa olemme myös kokeneet saman eräiden oppilaiden kohdalla, että jos koti, kotona halutaan hyvin paljon hyviä tuloksia nuorelta, niin se nuori saattaa ahdistua siitä. Että onko se hyvä vai huono, vaikea sanoa. Ehkä siinäkin löytyisi joku sellainen välivaihe, sellainen hyvä, ettei olisi niin ahdistavaa, mutta kuitenkin tulokset olisivat hyviä.

… Hmmm...

Perhaps it is because of this kind of culture in Japan and Korea. Their culture values school very much. And in Japan and Korea people study for example mathematics much more than in Finland. And people strive forward. For example in Japan there is a terrible competition for a child to go all the way to university. And it gives good results, but on the other hand it can be quite difficult for the youth. It can even cause anxiety, because the competition is too strong. But as far as I understand their good performance depends on this culture, which appreciates knowledge and school so greatly. And especially homes and parents, fathers and mothers want their children to get as far as possible. We in Finland have experienced the same regarding some students. That if the home wants a lot of good results from the young one, he or she may feel anxiety about it. So whether it is good or bad, it is difficult to say. Perhaps one could find a middle way about it, so that there wouldn't be too much pressure on the student causing anxiety, but the results would however be good.

Why do you think Finland scored higher than the other Nordic countries on PISA?

Toistaiseksi meidän systeemit on parempia kuin muissa pohjoismaissa. Mutta en tiedä tulevaisuudesta, koska täällä on esimerkiksi opettajainkoulutuksessa tapahtumassa muutoksia, ja minun käsitykseni mukaan ne muutokset ei välttämättä ole hyvään suuntaan. Meillähän nyt on etuna se esim muihin Pohjoismaihin verrattuna, että meillä on huomattavasti parempi, korkeatasoisempi opettajainkoulutus, kuin esimerkiksi Ruotsissa, Norjassa, Tanskassa. Erityisesti Norjassa. Siellä on, Norjassa on erittäin huono systeemi opettajainkoulutuksen suhteen. Mutta pelkään että me olemme menossa vähän huonompaan suuntaan tässä asiassa. En toivo sitä, mutta pelkään.

So far our systems are better than in the other Nordic countries. But I don't know about the future, because the teacher training is experiencing changes here, and my take on it is that the changes are not necessarily for the better. At the moment we have the benefit as compared to the other Nordic countries, that we have noticeably better teacher training. It is of higher quality than for example in Sweden, Norway, Denmark. Especially Norway. There, in Norway, the teacher training system is very bad. But I'm afraid that we are heading for a little bit worse in this regard. I don't wish that, but I'm afraid that is the case.

What do you think of all the attention that Finland has received due to PISA?

That is a very good thing. That's very nice that other countries are interested in our system.

Why?

Because we are Finnish.

What do you think they will take home with them?

Yes in this school we have been visited by many outside observers. It is a very good thing, but *tämä kuluttaa rehtorin työaikaa hyvin paljon. Meillä on käynyt hyvin isoja ryhmiä, ja sitten meillä on käynyt Saksasta, Norjasta, Hollannista, Belgiasta, Japanista, Singaporesta, opetusministerit ovat käyneet. Ne on hyvin mielenkiintoisia vierailuja, mutta niissä menee esimerkiksi koko päivä. Niihin täytyy valmistautua. Ja vieraiden kanssa täytyy koko päivä liikkua täällä koulussa, eli se on joskus rasittavaa, koska jos niitä on paljon niin se aiheuttaa sitten valtavaa kiirettä rehtorille taas muualla, koska nämä työt täytyy hoitaa, niin kuin näet nämä paperipinot tässä. Tänä päivänä Suomessa nimittäin rehtorin työmäärä on aika aika suuri. Mutta muuten se on mukava tietysti että käy näitä ihmisiä vierailulla ja ovat kiinostuneita meidän koulun systeemeistä ja niin pois päin. Sehän on ihan mukava.*

Yes in this school we have been visited by many outside observers. It is a very good thing, but this requires a lot of time of the head master. Very large groups have visited us. And then we have been visited by ministers of education from Germany, Norway, Holland, Belgium, Japan and Singapore. They are very interesting visits, but they usually

take a whole day. One must prepare for them. And one has to move around the school with the guests all day, which means that sometimes it is tedious. Because if there are lots of those (visits) it causes the head master to be even busier elsewhere, because these tasks have to be taken care of, as you can see these piles of papers here. The head master has to do quite a lot of work in Finland these days. But otherwise it is of course nice that we have these people visiting, and that they are interested in the systems in our school and so on. That is quite nice.

What is special about Finnish education?

Mä jo totesin sen, että suomalainen tällänen kasvatus ja koululaitos on hyvin tasa-arvoinen. Se on sellainen muista maista poikkeava. Ja me kuitenkin, vaikka meillä on koko ikäluokka, jota on tietysti vaikea opettaa, koska siellä ei ole huonoja ryhmiä, heikkoja ryhmiä, vaan hyvin heterogeenisiä ryhmiä, niin opettajallehan tällainen on hankala opettaa. Mutta me ollaan kuitenkin menestytty tässä hyvin. Ja se on ehkä yksi sellainen erikoisuus, mikä kiinnostaa ulkolaisia vierailijoita, että miten se onnistuu. Se on ehkä se semmoinen suomalaisen koululaitoksen, kasvatuksen, erikoispiirre. Ainakin näin luulen. At least I think so.

I already noted that the Finnish education and school system is very equal. This is what's different from other countries. And even then, although we have the whole age group, which of course is difficult to teach, because it is not divided into weak groups strong groups, but the groups are very heterogeneous, this is difficult for a teacher to teach. But however we have succeeded in this well. And this is perhaps one such speciality, which is of interest to the foreign visitors: how is this managed? At least this is what I think. At least I think so.

What do you think about bilingual education in Finland?

Yes, I think it is necessary.

Why?

I can't say, but in Finland so usually. For example, I don't think it is natural. I don't know what is necessary but I think that it is necessary.

Do you think that there is a difference between the two types of schools?

In Finland, between Finnish and Swedish speaking schools is not differences, only the language. But in education there is no differences.

Interview with Elvi, 26 October 2006

What is your job here?

Jag är rektor. Är det 'principal' det?
I'm principal. Is that 'principal'?

How long have you been *rektor* here?

Från 2001, på våren, mars.

From 2001, in the spring, March.

And did you work here before?

Jag har arbetat här sen 1973.

I've worked here since 1973.

Wow, ok.

History teacher.

How do you find the students at the school? Do you think they are good students? Do they have bad behavior? Do they want to learn?

Jag skulle säga att de är relativt ambitiösa. Naturligtvis finns det elever som inte är så ambitiösa. Men i det stora hela, de har ganska höga mål för sina fortsatta studier. En stor del går till gymnasiet. 80% kanske. 75%-80%. Och det sätter ju sina spår. Förstod du vad jag sa?

I would say that they are relatively ambitious. There are of course students who are not so ambitious. But overall, they have fairly high goals for their continued studies. A large part goes on to 'gymnasiet' [upper secondary school]. 80% perhaps. 75%-80%. And that leaves traces. Did you understand what I said?

Yes. Do you feel independent running this school? Or do feel like the commune or the government, do they tell you what to do?

Det är ju klart att det finns lagar och förordningar och så finns det läroplansgrunder, det här framework som vi har. Men naturligtvis handlar det sen om pengar. Men inom ramen för det så är skolan ganska independent, självständig. T. ex. när det gäller skolans inre organisation, på det viset är vi bunda att vi har en timfördelning som säger hur många timmar, hur många lektioner, man har i matematik, historia, finska, engelska, per vecka, det finns det. Men sen får vi nog organisera vårt arbete ganska långt självständigt.

There are of course laws and decrees and there are curriculum plans, this 'framework' that we have. But of course it is then about money. But within that frame, the school is quite 'independent', independent. E.g. when it comes to the school's inner organization, we are bound in that way that we have a breakdown that states how many hours, how many lessons, one has for Mathematics, History, Finnish, English, per week, that exists. But then we get to organize our work quite far independently.

What was your experience like as a student growing up in Finland?

Take it again.

What was it like for you being a student in Finland?

Ja.. What should I say about that, it was long ago you know. *Det är så länge sen och jag har gått i väldigt annorlunda skolform. Folkskola, men det vet du kanske inte vad det är och sen i lärovärket. Så jag har ju inte gått i grundskolan. Hmm.. Ja, det var väl OK på något vis, men jag kan inte riktigt säga... Det var ju en gammal skolform där det var helt lärarstyrt alltsammans. Det var läraren som styrde och eleverna lyssnade. Jag var väldigt intresserad av idrott och gymnastik och jag hade väldigt bra gymnastiklärare som var entuiasmerande och det är kanske mitt finaste skolminne. Den sidan fick jag utvecklas i fritt. T.ex. för mig var en väldigt svår sak finskan. Jag kommer från en liten ö där ute, en island, och det var alldeles omöjligt, jag förstod ingenting av det så det var väldigt jobbigt med finskan.*

Well... 'What should I say about that, it was long ago you know.' It is so long ago and I have gone to a very different type of school. 'Folkskola', but perhaps you don't know what that is and then 'läroverket'. So I haven't gone to 'grundskolan'. Hmm.. Well, that was, I suppose, OK somehow, but I can't really say... It was an old type of school and it was completely teacher-ruled. It was the teacher that ruled and the students listened. I was very interested in sports and gymnastics and I had very good gymnastics teachers who were enthusing and that is perhaps my finest memory of school. That side I got to develop freely. E.g. for me Finnish was a very difficult thing. I come from a small island out there, an 'island', and it was completely impossible, I understood nothing of it so Finnish was very tough.

Do you speak Finnish now?

Very badly, but I manage. I understand and I can talk. *Väldigt mycket av mitt dagliga arbete vad det gäller att ha kontakt med skolcentralen -- vi har en sån där central enhet som styr, som liksom leder skolan -- så där partar alla finska utom den svenska skoldirektören och hans sekreterare men alla andra är finskspråkiga så jag är tvungen att prata ganska mycket finska.*

'Very badly, but I manage. I understand and I can talk.' Very much of my daily work in terms of keeping in touch with the school central -- we have on of those central units that governs, that kind of leads the school -- so everyone there speaks Finnish except the

Swedish school director and his secretary but everyone else are Finnish speakers so I have to talk quite a lot of Finnish.

Do you think you had a good education, in Finland? Did you personally?

Ja, I'm very satisfied. *Jag kunde gå i skola och jag kunde fortsätta till universitet.*

Yes, 'I'm very satisfied.' I could go to school and I could continue to university.

Do you think Finland's culture, does it value education? Does it think it's important?

Can you take it again?

***Finsk kultur*]Finnish culture], do you think it thinks education is important?**

Det tror jag ju. Ja, det upplevs nog som viktigt.
I think that. Yes, it is probably experienced as important.

Varför? [Why?]

Det ligger väl i kulturen... Alltså skolan är viktig i Finland. Föräldrarna är också intresserade av skolan. Det är en viktig sak i vår... Vi är ett litet land och vi är få människor. Vi är tvugna att se till att vi har en god utbildning så att säga. Att ta vara på hela intelligensreserven. Det tror jag att det upplevs som viktigt. Och också från statligt håll -- regering och riksdag -- så är det ju ett uttalat mål att alla får en utbildning och att ingen lämnas efter. Att man ska ta hand om alla.

It probably lies in the culture... That is, school is important in Finland. The parents are also interested in school-education. It is an important thing in our... We are a small country and we are few people. We need to make sure we have a good education, so to speak. To preserve the whole reserve of intelligence. I believe that is considered as important. And also from the state's point of view -- the government and parliament [Riksdag] -- is it an explicit goal that everyone gets an education and that no one is left behind. That one should take care of everyone.

Have you heard about PISA?

Jo, det har jag ju gjort.

Yes, I have.

What's your opinion on PISA?

Vi har ju varit med om den här PISA undersökningen och vi gjorde väldigt bra resultat om jag får säga och jag var lite överraskad och också imponerad av de uppgifter som

eleverna gjorde. Det var inte alls typiska såna här skoluppgifter som man så att säga sitter och pluggar någonting och sen kan man upprepa det. Utan det handlar om att tänka själv, mycket, och jag tyckte det var ganska intressant att se och det var ju trevligt att vi klarade oss så bra. Det visar jag att vi nog är på rätt väg i det här landet vad gäller skolan. Det är ju många som har försökt förklara att Finland har klarat sig så bra i PISA undersökningen därför att så att säga vi har så mycket prov och vi drillar våra elever. Men de uppgifter som man har i PISA undersökningen dem kan man inte drilla, man kan liksom inte träna till det. Man måste kunna tänka för att klara dem. Har du sett såna här uppgifter som man använder i PISA undersökningen?

We have, you know, been through this PISA assessment and we did a very good result if I may say so and I was a little surprised and also impressed of the questions that the students did. They were not at all typical school questions that one, so to speak, sits and cram something and then repeats it. Instead it is more about thinking for yourself, much, and I think it was fairly interesting to see and it was nice that we did so well. It shows that we probably are on the right track in this country with regards to school. There are many who have tried to explain that Finland did so well in the PISA assessment by claiming it is because we, so to speak, have lots of tests/exams and that we drill our students. But the questions that they have in the PISA assessment, one can not drill someone to do them, one can, sort of, no practise for it. One must be able to think in order to do them. Have you seen the kind of questions they use in PISA?

Nej. [No.]

Jaja, nej. Man ska kunna förstå texten, det är textuppgifter. Man ska kunna begripa, det handlar t. ex. om valutor, köpa och handla valutor. Det handlar om såna härа.. Det var många intressanta frågor som hade att göra med... inredningsfrågor i olika hus och köpande av biljetter och tågbiljetter. Jag kommer inte ihåg, men det var trevliga uppgifter som visar att man kan tänka.

Well, no. One has to be able to understand the text, it is text questions. One should be able to understand, it is, e.g., about currencies, buy and trade currencies. It is about these... There were many interesting questions to do with... interior decoration, questions in different houses and buying of tickets and train tickets. I can't remember, but they were nice questions that show that one can think.

Do you think it was a good idea to make something like PISA?

Ehm. Ja. I suppose. Det kan ju vara trevligt att se var man står. Att nu barn kan läsa och skriva och att de har utvecklats som människor det kan vara trevligt förstås. Och nyttigt. Också bra att se för de nationella beslutsfattarna var man kan förbättra saker och ting.

Ehm. Yes. 'I suppose.' It can be nice to know where one stands. That kids can read and write and that they have developed as humans, that can be nice of course. And healthy. Also good to see for the national decision makers where one can improve things.

Do you have any criticisms about PISA, things you think are bad?

Inte sådär spontant. När vi var med om PISA så fanns det ingenting som jag egentligen... Det också var jätteintressant var ju det att det var ett helt slumpmässigt sample av elever. Att man plockade ju inte ut de bästa eller de sämsta eller någonting utan man tog dem bara sådär enligt en lista från de här myndigheterna. Vi fick en sådan lista och där skulle vi bara plocka in, om det var var tredje eller var fjärde, men det var väldigt slumpmässigt. Det var också intressant att se hur det där skulle gå. Det gick ju bra.

Not spontaneously. When we did the PISA assessment there was nothing that I particularly... It is also very interesting that it was a completely random 'sample' of students. One didn't pick out the best or the worst or anything but one took those according to a list from these authorities. We got a list like that and we were supposed to pick, was it every third or fourth, but it was very random. It was also interesting to see how that would go. It went well..

Do you think Finnish education is the best in the world?

Nej, nej, nej. Men jag tror vi är jätteduktiga på att lära barn läsa, det tror jag. Och att kunna läsa är ju en viktig förutsättning för att man ska kunna klara sig vidare i sina studier och över huvudtaget i livet så det tror jag att vi är verkligen bra på. Vi läser ju väldigt mycket i finland och vi har t.ex. väldigt mycket dagstidningar. Nästan varje hem har ju sådana dära tidningar som kommer hem, som man prenumerar och beställer, att det är en så naturlig del av vår kultur också det. Sen beundrar jag t.ex. det svenska skolsystemet därför att deras elever blir ju jätteduktiga på att uttrycka sig, diskutera. Och där har vi ju kanske en bit att gå här hos oss. Den finländska kulturen är ju ganska tyst. Den finlandssvenska tror jag befinner sig där mittemellan. Men det är ju ett nöje att lyssna på en liten parvel i Sverige när de ska uttrycka sig t.ex. framför en mikrofon eller någonting. Och så kan alla svenska barn sjunga. De är också väldigt duktiga på att lära eleverna det. Jag tror också att kanske det där med den egna självkänslan skulle man kunna jobba mer på. Det finns vissa sådana sidor. Men i övrigt tycker jag nog att det här skolsystemet är rätt så bra.

No, no, no. But I think we are very good at teaching kids to read, I think that. And to be able to read is an important prerequisite for being able to continue in ones studies and at all in life, so I think we are really good at that. We read a lot in Finland, you know, and we have e.g. lots of newspapers. Almost every home has those papers that arrive home, that one subscribe to or order, and that as well is a natural part of our culture. Then I admire e.g. the Swedish school system because their student become very good at expressing themselves, discussing. And there we've got perhaps some way to go. The Finnish culture is fairly quiet. The 'finlandssvenska' [culture] is somewhere in between I think. But it is a pleasure to listen to a little stripling in Sweden when they are to express themselves, e.g. in front of a microphone or something. And then all Swedish kids can sing. That they are also very good at teaching the students that. I think also that maybe this with the personal self-esteem is something one could work more on. There are some such sides. But apart from that I probably think the school system is quite good.

What do you think are the strong points, the best points of Finnish education?

Ja, det beror på vad du nu menar. Det som just har gjort antaglien att det går bra, att vi ligger ganska högt i de här PISA undersökningarna är nog det att den är så jämlik. Och så finns det, lärarna har ju en hög utbildning. Och skolan är väldigt jämlik, att vi tar hand om alla och vi tar alla med. Det som man kritiserar för det finländska skolsystemet är att man inte då tar särskilt hand om de högt begåvade de där riktigt, genierna så att säga, men man har räknat med att åtminstone på den här nivån att det kanske också är viktigt att man tar fasta på andra sociala... Ett barn är inte bara bra på matematik ett barn bör också kunna umgås med andra barn och så. Att vi kanske har tänkt oss att man kan vänta tills man kommer till gymnasiet eller högre upp innan man börjar specialisera sig. Det är det som är ganska grunden i det här finländska skolsystemet. En jämlik bas för all.

Well, that depends on what you mean. That which probably have made it successful, that we score quite high in these PISA assessments, is probably that it is so equal. And then there are, the teachers you know have high degrees. And the school is very equal, that we take care of everyone and that we bring everyone along. That which one criticizes the Finnish school system for is that one does not, then, take very good care of the highly talented, those real, the geniuses so to speak. But one have taken into consideration that at least on this level that it is perhaps also important that one embraces other social... A kid is not only good at mathematics a kid should also be able to socialize with other kids and so. That we have thought that one can perhaps wait until one gets to upper secondary school or higher before one starts to specialize. That is the foundation of the Finnish school system. An equal foundation for all.

What do you think are the weak points in Finnish education, things that could be better?

Det är naturligtvis just den här biten kanske att de där verkliga begåvningarna inte tas om hand på något speciellt sätt och det är naturligtvis på sätt och vis synd. Å andra sidan tror jag personligen att alla barn är begåvade på sitt vis och den biten borde man också få fram även om det inte syns såhär speciellt i matematisk eller annan begåvning. Man borde finna varje barns begåvning och det där skulle man nog kunna arbeta vidare på tror jag. Det är ju många barn som aldrig har kunnat liksom nå en position i skolan därför att den har varit ganska osynlig. Men kanske senare i livet kommer den här begåvningen fram. Och det borde ju skolan kunna finna. Det är svårt. Där har vi säkert en bit att gå.

It is of course just this thing perhaps that the real talents aren't cared for in any special way and that is of course in a way a shame. On the other hand I personally think all kids are talented in their own way and that bit one should also get out even if it doesn't show specially in mathematics or another talent. One should find every kid's talent, and one could continue to work on that I think. There are many kids who never have been able to kind of reach a position in school because it has been quite invisible. But maybe later in

life this talent emerges. And that the school should be able to find. It is hard. There we probably [literally sure] have some way to go.

If you look at PISA, at the results. Finland scored, as you know, on top. And as well as or better than countries like Japan or South Korea where people think, especially for math and science, that they are the best. Why do you think Finland did better than them on PISA?

Var det inte så att Sydkorea var en aning bättre än Finland i matematik?

Was it not the case that South Korea was a bit better than Finland in Mathematics?

Samma sak, det tror jag. **[Same thing, I think so.]**

Nu förstod jag inte riktigt din fråga. Vi var ungefär på samma nivå när det gäller matematik och vad frågade du mig?

Now I didn't quite understand your question. We were at about the same level when it comes to mathematics and what did you ask me?

Vad tror du, Finland är på samma nivå som Japan och Sydkorea..
[What do you think, Finland is at the same level as Japan and South Korea.]

Varför vi är på samma nivå? Menar du att man satsar mer på matematik i Sydkorea eller i Japan? Men inte här.

Why we are at the same level? Do you mean that one puts more resources into Mathematics in South Korea or in Japan, but not here?

Mhm.

Ja det är ju en intressant fråga... Det kan jag ju inte svara på. Men jag kan tänka mig att vi börjar ju skolan ganska sent i finland. Barn får ju leka och vara barn ganska länge om man jämför med Japan. När börjar man i Sydkorea i skolan? Hur gammal är man då?

Well that's an interesting question... That I can't answer. But I could imagine that we start school quite late in Finland. Kids get to play and be kids quite long if you compare to Japan. When do one start school in South Korea? How old is one then?

Det vet jag inte. [I don't know that.]

Det kan hända att det rentav är bra för barnets utveckling att få vara barn och leka. Jag har ett barnbarn som för något år sedan började i skolan och jag märkte hur otroligt utvecklande det var för honom att få leka och vara fri. Jag tror inte alls att man behöver starta speciellt tidigt med att öva matematik exempelvis. Det tror jag inte.

It could simply be the case that it is good for the kid's development to be a kid and play. I have a grandchild that started school a year or two ago and I noticed how amazingly developing it was for him to get to play and be free. I don't think at all that one needs to start very early with practicing Mathematics for example. I don't think so.

Why do you think Finland did better on PISA than other Nordic countries? They did much better than Denmark, Sweden, Norway, Iceland. Why do you think that is, because the school systems are pretty similar?

Hmm.. Det är ju många som har funderat på den saken. Så jag vet inte om jag kan komma med ett svar. Man har ju tagit som exempel eller som förklaring att vi har högt utbildade lärare. Och det tror jag att det är så. Vi har t.ex. i vår skola, alla har universitetsutbildning. Specialiserade på ett eller högst två ämnen. T.ex. man är matematiklärare och fysik och kemi eller så har man då engelska och tyska eller så. Jag själv har bara varit historielärare. Men det har jag liksom universitets degree för. Att där ligger säkert.. Det har åtminstone forskarna ansett att det är en orsak till det. De nordiska länderna själva, t.ex. danskarna säger ju att de goda PISA resultaten beror på att vi drillar våra elever så rysligt med våra prov. Jag hade danska rektorer på besök och de var nästan lite sura på oss för att det är klart att det går så bra när ni drillar och ni har så mycket prov och sådana här saker. Men som jag sa i den här PISA undersökningen handlade det inte alls om just sådana här drillade inlärda kunskaper utan det handlade om förmågan att kunna läsa, förstå, och dra slutsatser, problemlösning, och så vidare. Så någonting måste finnas kanske i den här skolsystemet som också utvecklar den här hjärnverksamheten.

Hmm.. There are many, you know, who have thought about that. So I don't know if I can produce an answer. People have taken as example or explanation that we have highly educated teachers. And I think that it is that way. We have, for example, in our school, everyone has a university education. Specialized at one or at most two subjects. For example one is a Mathematics teacher and Physics and Chemistry or one has English and German or so. I myself have only been History teacher. But I have a university degree for that. In that lies I'm sure. At least the researchers have thought that to be a reason for that. The Nordic countries themselves, e.g. the Danes say, you know, that the good PISA results are due to our terrible drilling of our students with our exams. I had Danish principals visiting and they were almost a bit annoyed with us because of course it goes well when you drill and have so many exams and things like that. But as I said, in this PISA assessment it was not at all about this type of drilled, learned knowledge but it was about the ability to read, understand, and draw conclusions, problem solving, and so on. So there must be something in this school system that develop also this thought process.

What do you think of all this attention that Finland has received now about its education?

Det är ju på det viset lite jobbigt faktiskt för det kommer så mycket människor hit och tittar på våra.. Och inte upplever vi ju nu det på det viset liksom .. För några, för 10 eller 15 år sedan for alla till Nya Zeeland för att studera skolsystemet. Det var dit man for, det

var det som gällde. Känner du till den saken? Att Nya Zeeland har varit ett sånt här landtyp [not sure]. Från Finland har det åkt flygplanslaster med lärare och andra sådana här skolmänniskor för att studera det här Nya Zeeländska skolsystemet. Och plötsligt blev vi lite tagna på sängen när de började välla in här för att titta på det finländska skolsystemet och inte upplever vi ju det som någonting sådär, vadå varför kommer man hit. Vi knogar ju på här varje dag.. Men vi har faktiskt haft väldigt mycket besökare. Och ibland så kan det ju vara lite störande förstås.

It is in that way a little taxing actually because so many people come here to look at our.. And we don't experience it that way sort of.. For some, for 10 or 15 years ago everyone went to New Zealand to study the school system. That was where one went, that was the place. Do you know about that? That New Zealand has been that type of country [?]. Planes full of teachers and other school people have flown from Finland to study New Zealand's school system. And all of a sudden we were a little caught off guard when they started to pour in here to look at the Finnish school system and we don't experience it as anything sort of, what why do one come here. We strive on here every day. But we have actually had very many visitors. And sometimes that can be a little disturbing of course.

What do you think they're looking for when they come here?

Ibland har de ju uttalade mål. För nån tid sen hade vi 30 svenska rektorer som specifikt ville studera bedömningssystemet och betygssystemet. För det hade de ju liksom lite lämnat i Sverige och likaså i Danmark att man har ju inga, vi har ju också betyg och sifferbetyg och sådana hära saker. Och det kom de för att studera. Så då.. Just den där gruppen. Men annars kommer de för att titta vad som händer här.

Sometimes they have explicit goals. Some time ago we had 30 Swedish principals who specifically wanted to study the assessment system and the grading system. Because in Sweden they had sort of left that a little and similarly in Denmark one does not have any, we have you know also grades and number grades and things like this. And they came here to study that. So then.. This particular group. But otherwise they come to see what happens here.

If you look at PISA, the scores, a *finlandssvenska* score a little lower than Finnish speakers. Why do you think that happens?

Ja.. Jag vet inte. Jag tror inte att någon annan vet det heller riktigt. För om jag nu skulle svara så här, att jo det beror naturligtvis på det att man i den finska skolan har kännts stramare, liksom ännu mera inriktad på det här med studies och prov och test, då skulle jag motsäga mig det jag just har sagt, att PISA undersökningen inte handlar om indrillade kunskaper som man sen på någotvis igen kan återge på något papper och sen, det handlar om att själv kunna tänka och problemlösa. Så jag kan inte svara på det faktiskt, jag vet inte.

Well. I don't know. I don't think anyone else knows either really. For were I to answer like this, that it depends of course on that that one in the Finnish school have felt tighter,

sort of even more geared toward this with 'studies' and exams and tests, then I would be contradicting what I just said, that the PISA assessment isn't about drilled knowledge that one can then somehow repeat on a paper and then, it is about being able to think for oneself and solve problems. So I can't actually answer that, I don't know.

In your school, what percentage are bilingual? Perhaps one Swedish speaking parent one Finnish.

Take it again please.

The students, how many of them are *tvåspråkiga* [bilingual]?

Jaja. Ungefär 1/3 av våra elever kommer från rent svenskspråkiga hem där både mamma och pappa pratar svenska. Resten kommer från tvåspråkiga hem. Och på senare tid så har kommit mer och mer sådana elever vars föräldrar, de har nog någon anknytning till svenskan men de kan vara helt finskspråkiga också. Vi hade igår ett möte med klassföräldrar och där var en mamma som genomgående pratade enbart finska. Det ringer ofta föräldrar till mig som partar bara finska. Och jag vet inte om du har hört här ute i korridorerna, men det finns vissa klasser som pratar bara finska med varann. Det beror ju också på hur vi har satt ihop dem, för att det ska bli någon sorts möjligt att dela finsk undervisning och så vidare så har vi ofta satt de elever som behöver grammatik, finsk grammatik, brukar vara i A och B klasserna och sen blir det C, D, E, F, och G är sådana som är mera från finskspråkiga. För de läser ingen finsk grammatik, de läser då bara modermålsinriktad finska. Så egentligen har de finska som modersmål i klasserna så att man kan ju inte tala om.. De har ju visserligen modersmålstimmar när de har svenska, men man borde egentligen kalla det för skolspråkstimmar för det är inte deras modersmål. Det här är ju en utmaning för den här skolan, att klara av den här.. Att ha en svensk skola som ganska långt är på finska, som så att säga är väldigt uppblandad. Jag märker det själv när jag som historialärare är det väldigt svårt att använda en svenskspråkig historiebok. Orden är så svåra, det är så många politiska termer att det gjorde det lite svårt att klara av. Det är en speciell bit att tackla i den här skolan.

OK. About 1/3 of our students come from pure Swedish speaking homes where both the mother and the father speak Swedish. The rest are from bilingual homes. And lately more and more students have arrived whose parents, they have probably some link to Swedish but they can be completely Finnish speaking as well. We had a meeting yesterday with class-parents and there was a mother who spoke only Finnish throughout. Often parents who only speak Finnish call me. And I don't know if you've heard out here in the corridors, but there are some classes who only speak Finnish with each other. That depends also on how we have arranged them, in order for there to be some sort of possibility to split Finnish instruction and so on we have often put those students who need grammar, Finnish grammar, usually are in the A and B classes and then C, D, E, F, and G are such that there are more from Finnish speaking. Because they don't study any Finnish grammar, they only study mother tongue oriented Finnish. So they really have Finnish as their mother tongue in the classes so one can not talk about.. They do admittedly have "mother tongue classes" when they have Swedish, but it should really be

called "school tongue classes" because it is not their mother tongue. This is a challenge for this school, to deal with this.. To have a Swedish school that use Finnish fairly extensively, that, so to speak, is very mixed. I realise that myself when I as History teacher find it very hard to use a Swedish history book. The words are so difficult, there are so many political terms that it made it a bit difficult to deal with. That is a special thing for this school to tackle.

Tack. [Thank you.]

APPENDIX E:
SAMPLES OF INTERVIEWS WITH TEACHERS

Interview with Pia, 13 April 2007

How long have you been a teacher?

Since 1988, I think I started, so for a long time.

Have you been at this school for the whole time?

No, I've been here since 1992.

How were you trained as a teacher? What was your teacher education like?

I did study in Turku, at Åbo Akademi, the Swedish university, and I had my teachers education in Vasa, at the *pedagogiska fakultetet*.

What are our students like?

It depends. It depends on what we are doing, of course, and their personality and their ability to learn. They are very different from each other, I would say. They are very mixed groups, because we can't divide them into, you know, people who have good ability to study and not so good ability to study. It is mixed groups.

Is it difficult to have so many levels?

Yes. It is actually the biggest problem I have.

How independent do you feel in your classroom? Do you feel like the country or municipality influences what you teach, or do you think you can do your own lessons?

I can do my own lessons, of course, but I have to follow the instructions from the government. But it is, no it is not a problem. I feel quite independent. I have a very good co-teacher, Maria, and we plan together what we do during the lessons. We have a lot of help from each other. That is very nice, actually, good support and a lot of help from her.

What was your experience like as a student?

When I was a student? Oh, my gosh. That was a different school system. I went to something called *samskola,* so after four years in this normal… actually, it wasn't normal either, because it was the training school for teachers that I went to, so it was two years of that and two years of normal school, then I had to go, well I didn't have to but I chose to go to the school, *samskola,* where only the best get in and you had to have good numbers

[grades] to go there, and it was a higher level of education. If you wanted to take what we call *studenten* [matriculation exam], you had to go there.

Is it different now?

Yes, it is different now. Now everyone goes to year 9 and then you choose. Actually, we made this choice in year 4 so it was different. If you didn't manage, they could kick you out, so you had to go to the other school or get private lessons or whatever. It wasn't the school's problem. We didn't have anything like special teachers or special help or things like that. Then it changed. It was like, I went there for, I think it was two or three years, and we had to follow, what do you call it, the old system, because otherwise we had to change the school system, so we couldn't drop out, because we had to change everything, so it was just go and go and go and go for the old system. We had big classes. There were 36 in my class, and we had a very messy class, a lot of individuals who wanted to make their voice heard with lots of talking and chatting. We had a good time, but I don't think the teacher liked us very much, and I was kind of a lazy student. I think I understand these students when they say, 'Oh, I can't do this today, I'm so tired.' I can understand it, but you have to work.

Do you think it is better now with the mixed abilities?

No.

And why not?

Because I think this school is for nobody. That is my private opinion. Actually, I think so, because when you have all these people at mixed levels, in your class, then you have to concentrate on the ones who need the most help, of course. Those who are really good, they get lazy.

Do you think they are bored?

Yes, they get bored and lazy. They have no habits of studying. When they leave the school, and the studies get harder, they are not prepared for it, because they are used to just sitting there and waiting. They know everything by heart or they knew it before or they can manage just, like, 'Oh, ok, I can do this.' It is very hard for them when they leave this school. That's a bad thing.

Do teachers have time to give them harder work?

Sometimes, but sometimes it is seen as punishment. I did this, why do I have to do this? They are not used to work. It comes too easy to them.

Do you feel like you had a good education in Finland?

Yes. I do actually.

Why?

I think I got what I needed, and what I was looking for. I think if you wanted to do a lot, you could do it, if you wanted to do it the easy way, you could do it, but it was certain things you had to do. You had to fulfill something that was very important, because you have to work sometimes and that is good. I think it was a good system.

Do you think Finland's culture values education? Do you think it is important to Finland and to Finns?

Yes, I think so.

Why?

Because of Nokia. No, that's a joke. I think it is the history, and for my generation, or for my family, they wanted me to go to university because not a lot of people from my family had the opportunity before. My mother, she couldn't go to *gymnasium* and do the *student examen* because of lack of money. They couldn't afford it, and she was always keen for me, 'you have to do it, you have to do it!' You can choose in your life. You have more choices you can do, so. I think I think that it is more or less that everybody gets some education. I'm not sure that the kids today appreciate it enough. They don't understand how much they get for free.

Do you think the importance will decrease with this generation?

I hope so, but I am not sure. I think we do a lot. We have this *studenthandledere,* everybody helping them. 'You have to go somewhere.' If you're not interested, you can't drop out. That's good. On the other hand, it takes the responsibility from them. You can behave like a child when you are sixteen. 'Oh, somebody said I had to go here. I'm not interested but I have to do this.' It is the easy way. I think they should be able to make decisions when they are sixteen. You can always change. If you find out that this school is not for me, you can go to the other school. At least you have tried and made your own decision. I think that it would be very important.

What do you think about standardized tests?

Interesting question. Hm. In a way they are good, but I am not sure how people use them. It depends how people use them, the results. If you use them to compare the schools, or if you use them to compare the teachers, or if you use them to compare the students… It depends on what you do with the results. Of course we have this national curriculum and we should follow it, so they should know more or less the same things, so that is good. If you move around you are supposed to know the same things as the other one. I think you should keep up some level or some standard. It should be kept and you should be eager to do that. But if you compare schools and you only look at the numbers, this is a good school and this is a bad school, you have to look beyond these results. You

have to see how much money you have, and where the students come from, and do you have special teachers, do you have any extra teachers, do you have school assistants or whatever. You have to compare all of these things too, not only the results.

Are you familiar with PISA?

I read the newspaper! [laughter] A little, yes.

Do you have an opinion about it?

I think it's ok, but it's like the same with the other things. It depends on how you read the results and what are you testing. Actually, only knowledge or yeah, social ability, or communication skills. Those are not tested in PISA.

Do you think it was a good idea to make it?

We have a European community and we should more or less the same, ok, why not? If it helps some schools to get a better educational system, then yes, ok. But I don't think you can read this as a bible or something. It is not the only way to look at education.

Do you have any other criticisms about it?

No, not really. I was a member in a group who had a community project, and we went to Slovakia and we went to Czech Republic, and we went to Italy, and it was so different from Finland, so you can't compare. If you look at the results, you can't just look at the numbers, because the school system is so different. The whole society is different and the whole idea about kids going to school, how you look at it, is very different. When we went to Italy, for example, we went to Naples, and it was a… I don't know how to put it. It was a shock, actually. It was a school for students between twelve and sixteen years, and they called it a technical school, blah blah blah blah, and it was students who had chosen… they can choose schools and they had chosen this school, but they didn't really go there. They had no co-work with the parents at all, except for when they were supposed to leave the school and the parents didn't like the grades they got. They had problems with the mafia, and compared to this school, it's a joke. And then you look at PISA results. How did they do? Ok, there was one from the mafia in every class who controlled the others.

Really?

It was, actually. And that is their problem. What are our problems here? Ok, we have some students who don't want to behave the way we want to behave, but they don't stab us with a knife or call the rest of the mafia to kill us. But that was reality. PISA is a joke if you look at it from that angle. Otherwise, I think you should compare schools across Europe and all over the world. But then you have to look at the background, you can't just stare at the numbers and the results. You have to see how much money you get from the schools, how much education the teachers have. Things like that.

Do you think Finnish education is the best in the world?

No.

Why not?

Because we always think we are the best. I went to Denmark, I spent one and a half years in Denmark, and they think their education system is the best in the world, and the Norwegians said we have the best system, and the English think their system is the best, and the Americans said we have the best system in the world. I don't think so, no. I think we have a good system but there is a better system somewhere else. We can always improve, and I think we should learn from other people. We have some people that are very good, but we have some very bad people too. I think we should learn from other people. If you look at the results, you can look at Japanese schools and I don't think they are very happy, the students, but the results are very good. Maybe we have happier students, but not quite as good results. Maybe we can get some ideas from them and they can get some ideas from us. I think that you can always improve.

Why do you think that Finland came on top of PISA?

Because it was made at a time when we got more money for the schools and we had a good working system. This system isn't working as good anymore, as good as it could and as good as it used to because we get less money. If we should do it, if we make this test again, I don't think we have the same results, actually, because we have bigger groups and less money. If you look at this school, we used to have a special class who were in danger of dropping out. We don't have it. We have them integrated into the rest of the classes and they make the level go down because you have to concentrate on these people who don't want to study. It takes ten minutes every lesson to make them work, instead of teaching. That's just a question about money.

What do you think is good about Finnish education?

It's equal. That's good. You don't have to be rich or you don't have to be talented or you don't have to prove that you are something before you enter the system. Then you can go as far as you want. Of course, if you are motivated, and as I said, school doesn't motivate very intelligent people to work, and that's a bad thing. I think we should improve that part.

Why do you think that Finland scores similarly to Japan and Korea, even though the countries are different from each other?

I don't know. How about the background? If you look at Korea and Japan, does everyone attend the same school? **I think so.** So you have the same start. **I think it is.** I can't explain. Maybe it is more like… maybe we get the same result by having… I'm not that familiar. I've read about the Japanese system. I think they have bigger classes and

they have very… a lot of discipline. **It's very strict.** Yes, strict, and maybe you can get the same results in two ways. This way or the more casual way. We have a school system where the students call me by my first name. Actually, they call me PW, my initials. That's fine with me, because I am PW. I know about schools when you have to ask the teacher, 'May I speak?' and you get the same results. Maybe they reach the same goals in different ways. You can, actually, if you see the results. But then again I think you should look at the background, and see if people are happy, and how many dropouts, or did actually every student take part in this, or were there some schools that cheated? I don't know, because it was very strict rules. You have to take every second or every third student in alphabetical order, and blah blah blah. And did they do it? Did they include the ones who did special education? I know we did, but I don't know.

So you participated in PISA?

I think our school participated in some… I don't know if it was a pilot study or the real thing, but it was very strict. You had to take every second in alphabetical order, and you had to divide them into… it was a very strict system. You couldn't cheat. Actually, you could cheat if you just took out some names. If you wanted your school to get the good results. I don't know if people did that. I don't think so. Of course I want to think that the Finns didn't, but you never know! [laughter]

Why do you think that Finland did better than the other Nordic countries?

Because we have more discipline. If you look at the Swedish schools, and there is no discipline at all, and it's all about social skills, which is a good thing, but when you let the students or pupils or kids decide, 'What do you want to do today?' I think they need some rules and regulations and some orders from teachers who can organize the work. It's not just about chatting and being social with each other, it's about learning. We have grades every year, so the parents can see how you are doing, and the grades are very much the same in very school, so you can compare them, and you can look at the national curriculum to see what does a seven mean, what does a ten mean? See what you are supposed to know when you are in year two and you get a ten. You're supposed to know everything so far. That is a bit different, and it is good. When I went to Denmark I saw they had lots of problems with, what they call *folkeskolan,* the lower grades, because people didn't know how to read and write in year five, because they didn't test it. You're supposed to know in your own way. It's very nice, actually, but it is not good for learning.

Interesting. What do you think about all this attention that Finland has received because of PISA?

I think it is quite funny because school isn't as good as it used to be. Actually we didn't know how good we were. I used to be proud of being a teacher and proud of this school, but I can't say I'm proud anymore. That's just my personal opinion. I hope we are going in a better way again.

What do you think all these people are looking for?

Easy solutions, the right answer, and they can't get it. It's not that easy. It's not.

Why do you think Swedish-speakers score lower on PISA than Finnish-speakers?

No. I don't. I read about it in the newspapers, and there was a whole lot of explanations, different kinds of explanations, about small schools getting more less money than other ones. We had a problem before, because we didn't have enough teachers, trained teachers. If you look at this school, we have a lot of people working here who are not teachers. Maybe that is one of the explanations. Sometimes you need to know more than the subject. Maybe that's why. I'm not sure. I don't know. I think it would be interesting to see if we could test the Finnish-speaking people and the Swedish-speakers in terms of social ability, how they approach life, and how they feel. We had this test on health, and we feel better, the Swedish speakers. It was just like this [hand motions]. We like our schools and we like our work, we have a social net, we have friends, we have people to talk to, we don't commit suicide. [laughter] It's true! If you look at Finns, they are the top of suicide. Maybe we have an easier way. We are something between Sweden and the Finns.

Interview with Jukka S., 9 December 2005

What subjects do you teach?

Mathematics and data processing, so with the computers. Mostly mathematics at the moment, and actually my title as a teacher is mathematics, physics, and chemistry, but I have been very active with computers. I teach for awhile, many teachers, how to work with computers and so on. I am the leading teacher for that in this town, so it used to be that they wanted me to concentrate more with the computers and this time I do mathematics and computer science.

How long have you been at this school?

At this school, well, it takes time to calculate. Something like ten years, no, more. It must be something like 12-15 years. All in all I have been a teacher for 30 years now. That's a long time.

Was your teacher training similar to the teacher training today, or was it different?

I think it's most of the time similar, but of course the idea of how to teach and how to learn has changed during the years. We think and we discuss more about cognitive ideas so the pupils will process themselves what we are studying, why is this happening, try to understand. Not just follow the teacher, do as I am showing you. The world has perhaps changed but I think that the idea of how to become a teacher is more or less the same than it used to be.

Did you feel that your teacher training was of good quality?

Yes, I think so. Of course the profession of a teacher is a very special one. You let's say, in the final games, you cannot learn if you have to have a personality to give something from you to the pupils. This is why I think you have to develop as a teacher, as a person, to know the pupils and to have the discussion and to have the idea that we are working for your future here. The idea is something that you don't really learn, you realize it, you have it in your personality. That's what I think.

How much independence do you feel you have within your classroom and the school?

I feel very independent. I really feel very independent. Of course we have a curriculum that we should follow and we do of course that. We have the same exercises done with all the pupils of a similar age so the tests will be exactly the same for the whole group of, let's say, ninth graders at the same time at the same lesson. It will be more or less identical in the content of the teaching. As a teacher, how do I do it and how I, let's say, point out different things, I feel very independent.

What was your experience like as a student in Finnish schools?

I find it of very good quality. I think my only concern is that we give lots of support to those pupils who are underachievers, and we don't give that much to the brightest pupils. I find it a problem, since I think, for the future of the whole nation, those pupils who are really the stars, should be supported, given some more challenges, given some more difficulty in their exercises and so on. To not just spend their time here but to make some effort and have the idea that to become something, no matter what field you are choosing, you must not only be talented like they are, but work hard. That is needed.

Do you think Finland's culture values education?

I think the whole nation has more or less a very good consensus about the values and the ideas. We feel that the world around us, at least in our society, our nation, is very democratic. Of course, in the classroom situation, you have to be the leader, you have to be the boss meaning that it's not only entertainment, the pupils cannot choose whether I am this class, I don't care for this, or I just skip it. You have to ask them to do some things, but you still you are giving them support. You are giving your knowledge and experience to give them something for their future. I think it's a very, very democratic situation so far as I can see it can be in Finland. You may have noticed in the classroom situation relationships between the teachers and students, it is very friendly. I find that I like them very much and in most of the cases I find that they like me very much. We like to be there and we like to study. In some cases they might forget why we are here and they are maybe a bit too loud but you can always take it back. I find it very nice, very caring situation.

As a teacher, what do you think about standardized tests in general?

Of course, they give you some idea what is the level of information at least, maybe the skills that have been reached during the classes, during the education and the world, but if they do standardized, they are only filling the form and not giving the real ideas, real understanding of the issue to the pupils. For example, I remember I was in London for two weeks in a program called Leonardo, and I was there observing the classroom situations. I was really surprised to see the teachers were giving the test papers the pupils had to do the next week, to look at these and these will be the tests, and this is how you should do them. Well, this is standardized, and you just put the x in the box and I really don't find it very informative about anything. Standardization to a certain level might help us just to keep it equal to different pupils, they all have the chance and possibility to learn the same things and the same level as the other classes are doing. It has its limits.

Are you familiar with PISA?

Or course. It has been quite a wide discussion in Finland, because Finland has managed quite well on those and we have had so many foreign visitors from all over Europe and actually around the world to see what we are doing here. Not really the exact content, but the ideas they are measuring, and yes.

What are your views on PISA?

I think once again, they are measuring something. But if you have a measure stick and you are thinking that, now we are doing well, and let's keep it like that. I don't find it good since with education, you are never ready. There is a similarity with wines, for example. If you study wines for thirty years, you realize how little you know. A lifetime is not enough. You are never ready. With education it is the same thing. Every morning you have to find the right note. We are beginning like this and we are studying and what did we learn today. If you have a test, it will of course measure something but it will be always a bit limited. If it is measuring, like I said, in Finland we have a great support to the underachievers, to those pupils who are not doing so well in their studies. It's giving us good results in PISA. For my mind, for my idea of the whole educational system, we need to have more support to the brightest pupils, to the best ones, to really give them a challenge and give them the idea that you can make something special out of them. It is most interesting and that is not done at the moment. PISA is not measuring that. So I have to think that we should be better, better, better all the time, despite all the good results in PISA. It is one test. Of course, it is a nice glory to Finland and the whole educational system, but it is only one thing.

Do you think Finnish education is the best in the world?

It is tempting to think so, yes, but I find there is some self-indulgence in the idea that we are the best in the world. In the Finnish minds, when people in Finland are discussing with each other we tend to be very modest. If I go to a group and I say that, about wines, that I am the best in Finland, the others would look at me like, what are you telling us! It is not allowed to say that I am the best in the world. We are too modest to say we are the best in the world. When I think of the other cultures, I have been traveling a lot in Europe but also other countries like US and so on, after the good wines. When I compare the nature of Finnish people and let's say, Spanish people, I think Spain is a nation of 40 million kings. 'I am the best, myself. After me, nobody!' We Finns, we are much more modest. I think we have a good system, yes, but it would be fantastic to develop it more and more so we have the best system in the world as a goal. For example, the resources, economically speaking, they are not the best. They are not at the level I think they should be. The economy in Finland is doing very well. Finland has never been so rich at it has been today. But all in all, I must say that it feels that we don't have enough money for education. We don't have enough money for healthcare and of course these are questions for discussion for the whole society.

Why do you think Finland came out on top of PISA?

Like I already mentioned, I think that we are taking a lot of care and supporting a lot to those pupils who are not doing so well. The equality here, we are doing quite nicely all in all, and then we have very good pupils added to that. This evenness gives the good results. That's my idea. Of course that's one idea, but as a teacher.

What do you think are the strengths and weaknesses of Finnish education?

I think really the worst weakness is that we should give more attention, more support, and more challenges to those pupils who are really talented. The best thing, well, once again, we support those who are not doing so well. We don't leave them out. I find it a very, very good thing. If you are living in a society that where you are doing really well and you are doing very badly, I really don't think that you can be very proud or happy for yourself because the neighbor isn't doing very well. We should care about all the people in Finland, and that is why I think the support is needed for those who aren't doing so well. We should give more concentration to those who are talented.

Why do you think that Finland scored as high or higher than Japan and Korea, countries traditionally known for their education systems?

It's a very difficult question. To give a real answer to that needs more results and needs more ideas of all the tests and what they are measuring. When I'm speaking about it, I am speaking in my humble opinion. I think that if we are speaking about educational science in Finland, the teachers all in all have the idea that it's most important what is happening in the heads of the pupils. Do they really understand what is going on? The ability to solve problems, for example, is on a very good level in Finland. We are not just keeping it on the level that I have a question here and you have the right answer. No. Why did you answer like that, did you really think about he basics, what is the reason the answer was like that. I think these things are in very good shape in the Finnish educational system. It might be the reason, like I said in my humble opinion.

Why do you think Finland scored higher than other Nordic countries, even though they are culturally very similar?

To be honest, I really don't know. I'm not that aware about the real systems in Sweden, Denmark and Norway, which are really more or less similar than we are. In Finland there has been reforms and reforms and reforms in the education during the last 30 years. We have more or less the idea that we are never ready. If we have good results in this test, we should improve, we should know more and do it more and do it better the next year. This is the idea of many of my colleagues and mine. That is why I think the spirit is very good and have good results. If you don't want to die stupid, you want to learn more all the time. For example, I am at the moment 54 years old, so there will be only six years until my retirement. I really feel that, despite that I am active in other professional fields and I am also earning money that way, I don't want to skip this profession. I want to be a better teacher all the time. My reward is that I know there are so many pupils that are really having something for their future. It was only a couple of weeks ago… in the evenings, I give some lessons about wine, and one former pupil of mine was ordering this lesson, which can be expensive. He wanted it for 30 or so engineers in a very high tech company. We had a nice evening. There was one discussion that I liked very much. I heard a discussion that this former pupil of mine was explaining to his colleague. He said, 'This is the man who made me become an engineer, to make me what I am today.' I was so proud to hear that. That was nearly twenty years ago. I see him now as a very, very high quality engineer and doing very complicated things. I was amazed to see his

work. He was just explaining that I was his teacher and I made him do this. It's a nice reward. You don't see the results the next year, but it takes decades to see. It is most rewarding.

What do you think about all this attention that Finland is receiving about its education system?

I think it is very flattering of course. There might be a little danger that we think now it's good and we shouldn't improve it anymore. That is dangerous. There has been some discussion when I mentioned about the economical resources for education, that they are quite poor at the moment. I think we should have more money from the town and the state for education. I think it is very important to underline that, to keep these test or indicators showing that we have a good education system, to keep them high. We need the resources also. That has been a good discussion, I think.

What do you think these outside observers will take home with them?

I think during a very short excursion, you are looking for one day, for two days, what is happening here. You cannot really find the reason why. I'm not sure; I'm not convinced that we can explain them very clearly. It is a complicated thing like that. If they do get the atmosphere, the spirit of the school, it is very friendly, very uncomplicated. But still, heading towards the goal, the idea that the pupils are working here and it is important work and we should support them in that work. We can do it in a relaxed and friendly way. I think that's a good thing to take home. We might have the advantage that in Finland, there are not that many immigrants, for example, as they do have in Germany or England or France, which gives much more complicated situations to the classrooms. There are different cultures and different backgrounds, maybe different basic studies behind the pupils. The group is not very homogenous. That makes a problem also. In Finland it is not to that level. Maybe the atmosphere all in all.

Do you think there is a special ingredient of Finnish education?

If I could do it in two words, I would say the curiosity, that our students want to know more and study more, I think that is very common in Finland. Also that the… I won't say friendliness. That is not the right word. The caring of the system. All the pupils are very important. We need all of them to do well in society and in their lives in the future. I think these two things are the special ingredients. I have seen quite a lot of education in other countries, in London, in France and Germany. I don't say that they are uncaring or less curious, but I find that the level of these things are the speciality in Finland.

What do you think about bilingual education in Finland?

I find it complicated, because the Swedish-speaking minority is very small and we feel that the need of so many languages is not maybe the best situation that it could be. I am very positive in that if you master one language, you have very hard work to master another language, but if you master two languages, it is easier to get a third one, and if

you get three, it is even easier to get the fourth one. We speak a lot of different languages, but of course we have to spend a lot of time to learn them but all in all, it might be an interesting question to have a further discussion. It is discussed now and then in Finland. I don't have a very strict opinion about that. It has always been so and I am personally very happy I have the other language and all of that.

Just two things I was noticing today. Do teachers normally give homework here?

Yes, we do. **Were you handing out marks today?** They do have grades from the tests, but not from the classroom situations, really. It is more continuous observations of what they are doing, how they are acting and so on. They do homework and we check them the next lesson and so on.

APPENDIX F:
SAMPLES OF INTERVIEWS WITH FINNISH EDUCATIONISTS

Interview with Jouni Välijärvi, 7 December 2005

What is your current job?

I am a professor of educational research and I am also the director of the Institute and in PISA I have been the national coordinator for PISA 2000 and 2003.

How did you get involved with PISA?

In this Institute we have a long tradition of organizing this kind of international study. The first studies were conducted by the institute, I think in the beginning of the '70's. I think they started already in the '60s, when IEA started their first big study in mathematics and reading. We have quite a long tradition. It is the one reason why this institute was founded, it was decided this institute would coordinate international collaborations that started in that time. It was quite natural when it was discussed, the first time for PISA, the people who something about it were in this institute.

What was the process like for making PISA for Finland?

My main responsibility was to be in contact with the international coordination center and to organize the work here, and to also find people who would organize work with schools, and training test administrators. We had test administrators, one person in each PISA school, about 150 schools in the first PISA and almost 200 in the second PISA, all kinds of these practical uses. We had to be working together with the whole team, having meetings and things always made necessary. We are used to working together, because we have been working in the same institute for quite some time.

Did you feel you had a lot of guidance from the OECD or did you feel autonomous?

In that sense, of course there are guidelines how practical issues would be organized. They were quite strict, about how it should be organized and sampling. We were very strictly guided, but inside that framework, it is pretty much up to us, how we organize, how we train, and how we organize cooperation with schools and these kinds of issues. Of course that the main idea and how the study should be organized at a national level, it was quite strictly guided, because the idea was to have it same in all countries. There were of course, different points, when we started, just how active we were in processing items for the studies and how active we were in giving back feedback on different guidelines in the beginning when they were discussed in different meetings and the internet. It is very much depending on us. In the first PISA, we were quite active, for example, in producing items. In the final study, there were quite many items which came from Finland.

Do you think it was a good idea for the OECD to create PISA?

I think it was because they put a lot of money into this. If you look at the impact of the study, afterwards, it has, to my mind, had much bigger impact that anyone had thought in advance. Compared to previous IEA studies, the impact has been much bigger. From that point of view, it was a very good idea to organize it, at least on a higher, administrative level. The Ministry of Education was much more involved in this study. I think that also the public and media, their interest has increased all the time. This seems to be quite a good moment to start this kind of study, where all the OECD countries were participating. When all the countries are participating, it is much easier to make comparisons. This is the whole picture of industrial countries. In that sense, it is quite different compared to previous studies. I think that this also, behind the whole idea of PISA, in the OECD and many participating countries, they believe that education and economical development have very strong correlations, and it has increased. That was the main driving force for the whole study.

Were you ever a teacher?

Very little times of it, many, many years ago. Of course, I have also taught in university, but not very much in school. **What subject did you teach?** Science, but I don't have teacher education. My background is more in social sciences and statistics, educational social science and statistics.

What was your experience like as student in Finland?

Well, what would I say, it was so long ago! Basically, I came from a very small, country, poor area. Of course education has been very important to me, to my parents and to myself. That was the way out to get a better position in society. That belief has always been very deep in the heart of Finnish people, and I remember that from my childhood also when I went to school. It was important to go to school. I don't know… I was never that good in school. I think I got really motivated when I went to university. I think I got the idea of why to study and became interested in research. I think I was typical, not motivated but understanding the importance of education.

Did you feel you were well educated growing up in Finland?

I think so. Compared to the kind of education they get in school nowadays it was not so well-developed, like the teaching of foreign languages. That time when I was in school, we were mainly concentrating on grammar in foreign languages. I think the strengths of Finnish education is that it gives a comprehensive understanding about society and the world. We study quite many… in a way it's fragmented because we study so many subjects, but it gives quite a balanced picture. Specialization takes place quite late compared to other countries. That was the case in that time I went to school. We studied almost the same program, all the students, up until 12th grade. Now there are more chances for specialization up to 9th grade. In that time it gave quite a similar picture of society and one part of homogeneity that our basic education and upper secondary has. It is quite similar.

What do you think about TIMSS and PIRLS as tests in general, and in comparison to PISA?

TIMSS and IEA tests in general, they are more curriculum-based. The idea of IEA studies, they analyze curricula, the curriculum of the subject they are testing and trying to find some kind of common ground from that point of view. It means that the test is closer to tests which are familiar to the students from the school time, the kinds of tests they have met and taken in school. PISA tests are quite different. There are very few students familiar with that kind of test, which in Finland, they are quite motivated, actually to answer PISA items because they feel they are not… they are in a positive way different from what they are used to taking for many years. I would say that is the basic difference of PISA from TIMSS or PERLS. IEA tests are based on curriculua and PISA has a more general focus. **Do you think one is better than the other?** Well, I can't… they are different. Both are needed. If you are more interested in what students have learned in school and what do they learn, if you want to compare the contents of educational systems, I would say that IEA is better for those purposes. If you are more interested in what they have really learned and what they are able to use what they have learned, from that point of view I would say that PISA is more effective. Of course, you must remember they are testing what they have learned in basic education, and in the Finnish point of view that is very important, so it means that they haven't specialized at all. If you are interested in when they have specialized in a specific subject, in that context, I would say, IEA is maybe more effective. They are different purposes, and that is why the results are different, not so very different, but different.

Why do you think these tests matter?

I would say that… I don't like very much these rankings and league tables because they focus too much on competition between countries. If you are motivated and have time to go a little bit deeper, how results are correlating to some background variables, background of students or features of the educational system or how engaged students are in math and reading, you can learn a lot. Those kinds of things are important from a pedagogical view. You can find some interesting differences between educational cultures when you compare European countries and Asian countries or Anglo-Saxon countries or Central European countries. In our case, we have had quite a few visitors to Finland. We have leaned a lot about tour own system because people are asking and wondering about some kind of social security system inside the educational system because we are taking care of the health of the kids and their school meals and this kind of thing. I have learned a lot about our library system. It seems to be more effective than in many other countries. These kinds of issues, they are very important to understand why you are good at something and also what kind of things you would do more effectively. Of course there is never easy solutions for this kind of thing, to say that one system is better or worse than another. Educational systems are so culturally bound that you must be very careful to go deeper in these kinds of issues. You can see people only taking a quick look. It is most important to find the things that are behind the scale points. For example, it was very interesting for me to see how different some domains

are in reading or in mathematics. Especially in reading, they are strong in Finland and some are weaker. You are very good when you have to work with documents and texts, but if you have to evaluate or reflect on those texts, Finnish students are not so good at this. The reasons are in the educational culture in our schools, and this makes also a big difference between boys and girls. I would say you could learn a lot from these findings, how to develop curricula and how to develop pedagogical practices if you want to have, for example, more critical people for the future.

In your opinion, what are the benefits and drawbacks of PISA?

I think that from the point of view from the educational system, we have learned a lot and also from a pedagogical point of view, but generally I would say that PISA has raised the importance of education in the public discussions. More and more people are interested in educational systems. Also in the Finnish case, they have learned to value the work of teachers and students too. Traditionally, the public opinion has been that there are huge problems in lower secondary schools and they are always in some kind of trouble and the whole system should be reorganized because our system is very comprehensive and all our students work together. It has been very typical that people have demanded that there should be different tracks or levels or whatever they are using for different types of students. PISA has shown that our system seems to be quite effective from that point of view and are results are quite good and it has taught a lot for the whole country about our own system and taught that what was done in the '70's, when we moved to the comprehensive system, it was quite a good idea and it has worked quite well. I think that it has also shown that when teacher education was moved to the university level, all teachers get masters degrees nowadays and make their own masters thesis and get familiar with research, educational research. That has been quite a good decision in developing teacher education. It has been one reason for the good results for Finland. After PISA it is much deeper accepted by people in the administration and the whole society that investing in teachers, it will bring good results when we are measuring what students have learned.

I think that the negative aspect in general is this competition in many countries. For example, in Germany, their solutions are set up very strict standards, very detailed standards and have a lot of new tests. For instance, in Denmark, Denmark is another example. They have produced a lot of new tests and they are becoming compulsory for students and they are becoming published and competition between schools is increasing. Denmark, traditionally, has been quite flexible and free in many ways. Schools have been free to do whatever they want. To my mind, they should stay free and teachers and schools should have large freedom to decide on their own pedagogical practices. This is my fear, that this kind of flexibility will diminish little by little. Also, it also seems to be the case in Finland, they are also talking about more national tests and more strict standards for the educational system in different subjects. It seems to stress the importance of basic subjects like mathematics, reading literacy, and science. I'm not quite sure that I am very happy, because to my mind, what we talked about earlier about comprehensive education, basic education, it goes against that idea. I would like to see our education system to stay. It is comprehensive and gives quite a broad view about

society. From that point of view, social sciences and foreign languages are extremely important for Finnish people because our own language is not so well-known. I think that this competition, especially, the schools are more and more competing against each other. That is something that really worries me, and it is unfortunately taking place also in Finland.

Do you think the results of PISA are indicative of Finnish education? Why do you think Finland scored so high?

That is a good question but not so easy to answer. First of all, I would say that from that point of view both curriculum in mother tongue and mathematics and in science, they are quite close to the idea of PISA, how these subjects, these different types of literacy are defined in PISA frameworks. They are not very far away from how they are defined in Finnish national curriculum. If I compare how mathematics is stressed in Finnish national curriculum compared to some Asian countries or Eastern European countries, our definition is much closer. That is one explanation why we are doing so well in math and science. In IEA studies we haven't done so well. Not badly, but not so well. Reading literacy, it has traditionally been very strong in Finland. Also in IEA studies Finnish students have been doing very well. In reading, it is quite typical to say that Finnish students are very engaged – girls, especially, so they are still engaged in reading and reading is one of their favorite hobbies and they use a lot of time for that. That's very important, if they use time, they learn that that is one very simple explanation. More generally, I would say that the quality of teaching and teachers is extremely important in my mind, and it explains also why differences between schools is quite small in Finland, because they are trained, our teachers, at university level, and they get masters degrees. I think that is a very important part of the explanation, the quality of teaching. It's homogeneous compared to some other countries. That has kept also the status of teachers quite high in Finnish society. If you look at what kind of students we get to teacher education programs, especially primary teacher education programs, it is quite high, very popular, only 10 –15% of the applicants are approved. Typically they have already worked at school, one or two years, and they are motivated and they are doing quite well in their own school time. That makes a big difference compared to many other countries. It also means that the status of teachers in society is quite high. If you compare the status of teachers, we have service, I think every third year, made by some leading newspaper, comparing the status of… asking people how we value these professions, and teachers are on a very high level compared to lawyers or medical doctors or something like that. That is very exceptional compared to other countries. Of course we can also see some reasons when we have the Finnish culture. The culture is quite homogenous. It is much easier to find common understanding. I would say that teachers have quite a similar understanding of what is important in reading literacy and mathematics. Our number of immigrant students is quite small in Finland. So there are many reasons and different types and on different levels. Then if you look at PISA, especially if you look at people who are going abroad and visiting Finnish classrooms, it is very typical that they are working in Finnish classrooms, it is quite organized and disciplined and it's quite well, and in many cases, they say, it is positively very well, that they are students and teachers are respecting each other, and there are not so many disturbances as there are in many other countries. I

think this is very true, the relations between teachers and students, they are quite positive compared to other countries. It must be so if you look at how popular teachers professions are when students leave upper secondary school. I think that is it. Finnish schools, up to this point, are working quite well. Of course it is also connected to more general features, what is happening in society.

Do you think that Finnish education is the best in the world?

Well, I think it is the best for Finnish students. I think every country must have their own solutions because education systems are so much based on national and even local culture. To my mind, there are a lot of possibilities for teachers and students also, to organize their learning environments in that way that is appropriate for their own conditions. In Finland, the tradition is that municipalities have taken control over the educational system. That is a very strong and long tradition. I think that is very important, even nowadays, that municipalities take care of their education systems. Even when they have difficulties in their economy, as they have in many cases nowadays, they really value their education system on a really high level. It seems to be, so that municipalities cut their funding of education, parents get easily quite angry and aggressive. It only says that education is really highly valued by parents and municipalities. I would say that is an important part of explaining why differences between schools are quite small and why differences between different regions between regions in the country are quite small. Actually, there are no systematic differences in northern or southern or eastern or western parts of the country, country schools or city schools, their average level is quite similar. It only tells that municipalities are taking their educational responsibilities quite seriously.

Why do you think that the results for PISA are as good or higher than Korea or Japan, countries traditionally known for their educational achievement?

Well, that is a very good question. One part of, especially, in math and science, I think that the PISA definition of mathematical and scientific literacy are closer to Finnish curriculum than to Korean or Japanese. That is one explanation. I've been analyzing Japanese results very much because I have been there three times in a year and discussed with my colleagues in Japan quite a lot. I think that there can be also some other reasons, because it seems that the role of education, especially in Japan, has changed. It doesn't guarantee anymore, in all cases, very good future if you have a good education and eternal jobs in very good companies. I think that growing unemployment in Japanese society, it has had an impact also in the educational sector. If you look at the motivational structure of Japanese students, it is quite different compared to other countries. It seems to be quite external compared to some other countries where it is internal, starting from liking mathematics and enjoying it and valuing it very highly. In Japan it is because you get a better place in society, this kinds of external reasons. It is very difficult, I don't know the countries very well, but these are interesting findings I have made after discussing with people in Japan. I think that in Korea, they have been invested so much time in education, and so much money. I am not quite convinced that it is very effective, that their pedagogical practices are very effective, because if you look at

the PISA results, the average times that students are working in schools, or outside school, it is almost 50 hours per week. In Finland it is 30 hours per week. That is one reason that they get such high results. In the future, I think their challenge is the quality of educational practice and pedagogical practices. It is extremely difficult. These are just some ideas. It is very difficult to say specifically and I haven't made specific analyses. You can't explain them only analyzing PISA results, you must go deeper into the culture, the educational culture of these countries. It is obvious that they are very big differences and relations between students and teachers and the role of principals and teachers and the schools, and how teacher education is organized, there are quite big differences between these countries.

Why do you think that Finland scored higher than the Nordic countries, even though they do have similar cultures?

That is a more difficult question. I would say that the biggest difference, because our educational systems and the idea of education is quite similar, our idea of comprehensive education and all students work together, that is common for all Nordic countries. What is different is the teacher education and teachers, the role of teachers in society. As I said earlier, in Finland, we don't have a shortage of teachers. In general, in some subjects, we have some difficulties to find teachers, for instance, science and some foreign languages. But in general the situation is quite good. If you look at primary school teachers, it is quite well. If you go to Sweden, it is quite different. They have a shortage of teachers in many areas and their teacher education is organized in quite differently. Nowadays it is a part of higher education, but still quite separate from other academic studies. The popularity of the teaching profession is much lower than in other Nordic countries. I don't see other clear reasons than the different way they organize teacher education and how highly they value the teaching profession. Why that is the case, what makes the difference between Nordic countries, I don't know, I haven't gone so deeply the history of educational systems.

What do you think are the strengths and weaknesses of Finnish education?

I would say that, as with the PISA results, the obvious trend of the Finnish educational system is how we take care of the poorly performing students, how every teacher, not just some teachers, how every teacher take all students very seriously and how they take care of the weak ones. What that means in practice, is that they are really trying to get them to learn when they are working together. When all types of students are working together, they are complaining that this takes too much time, but it means also they are also taking care of the weakest ones. You can also see this in PISA results, if you compare the weakest students in Finland compared to other countries, our weaker students are on a very high level. The difference, if you look at top students, it is positive for Finland but not so much. It also means that in schools, they do lots of organizing of special education so that it helps effectively poorly performing students and helps keep them in the mainstream. Special teachers and other teachers are working together the whole time. I would say that this idea that they must take care of every student, that's the most important strength of the Finnish educational system, and how teachers are trained and

how seriously teachers take this. From this point of view teacher education, it's a very critical issue. You must have well-trained teachers to really understand these issues and really take care of all. Weaknesses, I would say that one of the weaknesses is that we could reach better results with the talented students. We are not understanding deeply enough the need of these students. In many cases they are unmotivated when they leave basic education and they are a little… they feel school is boring. These kinds of issues are typical when we are discussing them. It seems to be very difficult to combine these two issues, you are taking really good care of weak students when the needs of gifted students become sometimes taboo. It is very difficult to raise these two issues. What I'm worried about is the motivation of some students when they leave comprehensive school at grade 9. Their motivation, especially in mathematics, they are quite unmotivated, the differences in general in motivation in mathematics. It seems to be that these students have difficulties in finding their place in further studies or find their place in working life. That will be very critical in the future because easily these young people will become excluded from society. If you have only basic education, it is almost impossible to find permanent job in the job market nowadays. It's becoming more and more difficult. Maybe these two issues are the most challenging nowadays. Maybe also the third one I would like to raise, it's a little bit complicated, to say what is the real situation, is the climate of Finnish schools. Maybe they are, in some cases, too much concentrating only on academic achievement and maybe the social side of it, their social needs are not considered. You can see that some students have problems in their sense of belonging and these kinds of social development. Finnish students don't seem to be very active in participating in social life in school. They are in a way, too much concentrated only on the academic part of the education. I think this will be one of the big issues in the future.

What do you think about all the attention Finland has been receiving about its education system?

Well, it has been quite interesting. Traditionally, we have taken our models from other Nordic countries, Sweden and also Germany. Traditionally, Germany has been the model if you take the first two or three hundred years of education, they came from Germany, the northern part of Germany. Suddenly, they are coming from Germany and now other Nordic countries to see how we are organizing and… but I think that is one of the positive effects of PISA. It has increased mobility of people between countries and they are learning from each other quite a lot. And from our point of view it's quite positive, and we have also learned about our own system, when hearing these questions and hearing these experiences, people get when they go to Finnish schools. I have learned to value many of the strange points, these social care and health care and warm school meals and these kinds of things. They have an important role, helping students and teachers to concentrate on teaching and learning and to do what is the most important in school.

What do you think that these outside observers will take home with them?

It seems to be the most important that they had the opportunity to go to school, to see the real. In many cases, they are experienced people. They have a very long experience in

their own country and it's very… you learn a lot when you see how everyday work is organized in other countries. That seems to be the most impressive experience for these people. And also discussing about these differences and reflecting and going deeper why certain things are done in certain ways. Of course it depends a lot how well organized these trips are. It's very difficult to say to me what they actually really learn. I think they do get a lot of useful experience on their own discussions. Of course it is that you can't move any models directly from one country to another. There is so much connected to the cultural base of the country. I think if you understand this, I think you have the possibility to discuss with teachers and other people, you can get some ideas to find the practical solution, it is always depending on how well you understand your own system. From this point of view, this educational system, it's maybe deeper in the national culture than any other institution.

Do you think there is a "special ingredient" of Finnish education?

In general, I would say that the basic, when looking at what happens in some other countries, I would say the most important issue is how you get people to understand how important, first of all, how education is for coming generations, not only for economic competition but for their personal development and understanding of the world and being able to communicate with each other. Also to trust in teachers and to invest in teacher education and educational systems enough that they are real professionals, they are best to understand how to organize education on the every day level. I think that the real trap nowadays is that education is becoming more and more political. That seems to be one effect of… following from PISA maybe, PISA is seen so important because education is becoming more political. I am a little bit afraid that in the future, it will be more and more the arena of political quarrels. In my mind it should be so that we let teachers and schools to concentrate on their pedagogical work. The basic idea is to train good teachers and believe that they are real professionals and that area and not to go deeply into their every day work. You don't know what will happen. The special feature of education and educational institutions and educational institutions, because we all have such long experience school and educational work, many people think they are experts in these issues and they really think that they know how schools should be organized and how teachers should do their work. I'm afraid that it may have some more and more negative impact on schools. From that point of view, I would say that in the Finnish case, we are training teachers to be real professionals. I would hope that many still find eager young people to this profession also in the future.

How do you account for the differences between the Swedish-speaking results and the Finnish-speaking results in PISA?

That is the case [Finnish-speakers scoring higher] in all domains. The [Swedish-speakers] used to be the elite in society. We had a researcher who had retired, unfortunately. He would be much better to say about that. I don't have any clear explanations. I could guess that in the Swedish sector, they have had more difficulties to find qualified teachers. They have more unqualified teachers in their schools than Finnish-speakers. That has been the case for a long time already. **Do you have any idea**

why? I think that one reasons is that their teacher education has been concentrated at the Åbo Akademi, the Swedish university in Turku and not so much in Helsinki. If you think of the Finnish-speaking teacher education, it takes place in seven universities and they have also departments outside their main campuses in smaller cities. I think there are 11 cities in Finland where teachers are trained. This means that students, in many cases, from the neighborhood. But when speaking about Swedish-speaking system, they have only this one or two places, in Turku and Vaasa. I think they have more difficulty to get students, high qualified students for teacher education, but I am not very familiar. But anyway, Swedish-speaking students are doing better than Swedish students. That's an important issue, in the first PISA we found the same result. It was written a lot in Swedish-speaking newspapers in Finland in that time. In the first PISA we had very few students, only 200, but in the second PISA we found the same result and we had a very good sample, an over-sample, to make sure that this really exists. It seems to be systematic and systematic in all domains. Unfortunately I haven't had the possibility to go deeper in this issue.

Interview with Pirjo Linnakylä, 7 December 2005

I've been mainly doing these international and comparative assessments, both IEA and PISA, also in the international group. I have written an article that may be of interest to you. It was published in Germany. It is about the conditions of school performance in seven countries, for understanding PISA results. I wrote the Finnish part. There were two English ladies who wrote the English one, but I could print you the same article. It is dealing with the cultural context of the educational system with the main principles in education, with the curriculum development and also an emphasis on reading literacy. I mainly focus on reading literacy because this was done after the first PISA, when reading was the main focus. I think it might give you a frame for your research.

What is your current job?

I'm a professor of educational assessment and evaluation in the Institute of Educational Research and my main interest areas have been large scale, international and national assessments and I have been mainly focusing on reading literacy because my background is in linguistics and educational sciences. But earlier I have been working in the teacher training college, 13 years, but also as a mother tongue teacher before that. In this institute I have been working 18 years.

How did you become involved with PISA?

I became involved with PISA actually before the national part started because I was invited to the reading extract group representing Nordic countries. **Was that through the OECD?** Yes. So it was before PISA was actually started. We wrote this framework, which is the basis for the first reading assessment in PISA in 2000. I have been working in that extract group until today. In Finland I got involved in PISA because our institute was then the national institute for conducting the PISA assessment. Since I had been doing quite a few international studies in the frame of IEA and also earlier in the OECD in adaptive services, it was quite natural that I was doing that. I was involved in that team in our institute which was responsible for conducting the PISA 2000 and 2003.

How did you make the test for Finland? How much information did the OECD give you?

The items were developed in different countries, so the international expert groups, where I belonged to the reading part. We gave the guidelines to the national project managers, so they could provide a text and also items if they were willing to the international center, which was then located in Australia. ACER in Australia and CETO in the Netherlands were responsible for revising the items that the different nations sent to the center. For example, we sent … actually, I collected the different texts from the different Nordic countries that were contributed to the test development. I couldn't accept all the texts, but I screened the first phase. But we didn't provide the items, just the texts. But later in

the math and the science studies, then we have also provided the items. It was a big hurry in the first phase, when everything started. I think that was the main reason there were not so many items provided, just the texts from the different countries. In some countries it was hard to find money first, and it was perhaps the reason not all the countries, just a few countries sent the texts. We did. There are still two Finnish texts in the test and at least one from Sweden and one from Norway. I think the Danish text we didn't take. I think perhaps there were poor items. But that is the idea, different nations sent items so that they would be really authentic for different cultures. But it is true, they are always unfair for some countries, because, for example, we had to delete some Swedish texts because they were perhaps too authentic, and at least the Japanese and the Koreans thought that they were not appropriate. There was, for example, one text about a young girl who was a prostitute. That is a very authentic and common text in Swedish newspapers. They don't try to hide those problems. But some other nations thought they were not appropriate. There are cultural norms and values in some cultures, some things that are not suitable for schools or for assessment purposes, even though they might be problems there as well, and there might be published in the newspapers. That's why there are so many reasons that you sometimes have to delete some texts.

How much guidance did you receive from the OECD when you made this? Did they leave it up to you or did they watch you the whole time?

They left it to the experts. They invite expert groups. It's usually the contractor, the international contractor and also the national PISA governing bodies. Earlier it was the participating countries, but that is like the political group. Every country sends a representative to this PISA governing board. There are the country representatives. They nominate first some experts they would like to see in the expert group and then they select and the OECD network also participates on who will be the experts. I would say that they had to represent not every country, because we can't have a group of 30 people, because you really have to work and get something done. It's not for discussion. You have to write the framework, you have to select the items and go through the item characteristics and statistics and you can't do it with 30 or 60 people. I think we had about 10 people in the beginning in the expert group. I would say they represented different regional cultures, like I was representing Nordic, but they were all experts so they have been involved in various reading literacy studies, and it is the same and mathematics and science. They usually somehow represent the regions and also they are experts. I would say around ten people.

What is your view on PISA in general?

That's a broad question! I think PISA is very useful, really, especially in the countries where testing is very unusual, like Finland. We don't test our students, usually at all. They are only tested if we suspect if they have severe learning difficulties, real problems like dyslexia. For diagnostic purposes, so they can have some special help. For example,

after the comprehensive education, during the first nine years, they are not externally assessed at all. We have a national assessment system, but it is only sample based and not every year. For example, reading is usually assessed in every two years, but only 3,000 or 4,000 students participate. It might be at different levels, so it's not like in UK where you have final examinations. Only the teacher assesses. In this kind of situation I find PISA interesting and useful. In our newspapers they always complain about education and the students and about the teachers, and about how young people are terrible and misbehaving and how they don't learn anything and how the school system is bad and how the old system was good. That's why it has been very eye-opening, to see that our system is functioning very well, that our teachers are doing a good job, and our students are learning more than they used to.

Do you think it was a good idea for the OECD to start the PISA surveys?

Yes, I think it was a good idea to start but they should not do it so often. I think it's to often to do they study every three years because the systems and the cultures and the teachers don't change so fast. I think that every five years would be better. I have said it. I was earlier in the network and we suggested, Finland suggested that it should not be so often. Especially for the small countries, it's quite an investment to participate. Not only the money but the researchers, the resources. I think it would be enough to test it every five years and perhaps not so many areas. There could be one major and one minor area. That would be enough. Perhaps there could be two more survey type background investigations. Now the background questionnaires are very short because they don't want to test a long time. We can't really explain too much about the findings. There should be more background information gathered in the PISA context; also the teachers and teaching. Right now it's a problem that we can't say anything about the teaching. There is a lot to improve! There are good points, but there are also a lot of problems that have to be faced and improved. That has to be done together so it's not the OECD is doing that but the countries together.

What was your experience like when you were growing up in Finland as a student?

You know, I am an old lady, so the system is not the same. When I was at school, it was a very old fashioned type of school. I think the system was similar to the German system today. The first four years were in a folk – sort of like a people's school, and after that the different tracks, so that some students went to the more vocational tracks and the others went to academic schools. Then we had a *gymnasium*, we called it a *gymnasium* school. So when I was a young teacher, we changed the system in 1970, starting in 1970, so gradually it started from Lappland and it came down so that each year a different region joined the comprehensive system. As a teacher, it was very interesting to experience that change. I also got a very traditional teacher training where you learn some nice ways to teach and you learn to think that your way is the best way, and there are certain types of schemes you are supposed to follow. A good teacher says this, and a

good teacher says that. My first years as a teacher were like that. It went through because the students were only like 30% of the students or 40% later, where in the *gymnasium* type of school, they were all good students, quite interested in learning, especially in that type of academic learning. But then we changed to a comprehensive school, and the first year it was very difficult, because now we got the whole age cohort in the same classroom. Even though the class size was quite small, especially in the beginning, so it was like 25 students or 20 students, but there were also the students who had all kinds of problems and who didn't appreciate my beautiful teaching! The first autumn it was very difficult because I sort of struggled with the students all the time. They didn't want to follow me and they didn't behave as I wanted. And then we had a Christmas vacation and I remember that because I was thinking: why don't they learn? Why aren't they interested in my subject area, mother tongue. Then I sort of decided that I had to sort of give up, I had to start to listen to them. I think that is really the change of our pedagogy. So we tried to listen to students' needs and their abilities and their dreams and tried to teach that way. In the same classroom there might be very different ways to teach the students. I think that's the biggest change compared to my school time, when the teacher knew what was the best way to learn, but now it is more that the students have different best ways to learn. The teacher has to be flexible, and the teacher has to have a very wide variety of repetoire of different methods which she or he can apply according to the students' needs and capabilities.

Did you feel well educated when you were a student?

Yes. But I didn't see the worth, because when I was a student, I was living in a small town in the eastern part of Finland. It was an industrial town, where most kids, youngsters were from worker families, so their fathers and mothers worked in the factory, which was a big paper mill. I was sort of privileged, even though my father had died but my mother was a teacher. She really… she had seen how important it is that children have a very good education. My family came from the area that is Vaasa now, and my family was so-called immigrants because we came from Karelia. We had to leave everything there – the house. I was born in the Finnish side but my sister was born in the Karelian side. When they came into Finland and my father died in the war, my mother was alone with two children, and without anything, just one bag. But she had her education. She was a teacher, so she had no problems, because after the war there were lots of teacher positions open because so many men had died, so she got a job immediately and could provide a good home for us. She always emphasized that education was very important. She supported us in that but also expected a lot, that we work hard and get good grades. What was very unusual then that I was sent to be an exchange student to Germany. Not the whole year, but three months I was in one German school. That's why perhaps, I saw a little bit more what the world is, but usually that time, people were just living in that town or perhaps the next town, but not really could see the whole world like today, where the whole world is so wide and open for everybody. You can work and study anywhere. You need languages. My foreign language was German, of course, but then, after that, the war, the German language was still popular here, because they were the enemy, so it is always good to learn the

language. But it is also to tradition then in Finland to study the German language, so I never thought I would need English for example. It was because my perspective was so narrow. That's why I thought my education was so good, because I had gone through that *gymnasium* school. When I look at my education then, now, how my education was, it was very poor. It was very narrow, because it was very old-fashioned. Today, with that kind of education, you hardly could survive.

What do you think about PISA vs. IEA assessments?

I think people are exaggerating their differences. I think they are very similar. They always say that IEA is curriculum-based, and that PISA is not curriculum-based. PISA is life-based, and future-based. For example, in the IEA reading literacy study, in 1991, which was the same age group as the PISA, almost the same. It was not curriculum-based either. It was also life-based. Perhaps a little more of a curriculum side because there were more text-based documents, sort of these narrative texts and so on. I think that has been a little bit more curriculum-based in math and in science. I was also in the PERL development group in the beginning, when I thought Finland would participate but we did not, so I sort of dropped out because I thought it was unfair to be in PERL. It was better that someone from Sweden was there because Sweden was participating in that. But I saw it was not so different to participate in that IEA and PERL as it was in PISA. The development process was very similar. The experts are there and they know what is going on in reading areas. They know how the paradigm is changing and where to put the emphasis. I think it is exaggerated, the differences. Is it grade-based sampling or is it age-based sampling, that is always the big question. In PISA, we have used age-based sampling. I see that rationale. I see that the purpose is to see how the system is really different. In IEA it is grade-based, because it is more a little bit focusing on how the teaching is effective. It's a problem also the grade-based. It's not the same as testing small children, because they have been in more of the same group and then you can really see how the teaching is effective. When you are testing students who are fifteen, sixteen years old, they have seldom been in the same group, and then they have had ten or fifteen teachers and at least in Finland, in mother tongue alone, in one year they can have three or four teachers. So you don't really find out how the teaching is effecting… there are so many different kinds of teaching. At least in the Finnish case, we have always had a problem with, as other Nordic countries, with IEA because they say it is grade-based, and they say that we take the fourth grade, but then they changed it and said they should be 9 year old children. But our fourth graders are already ten years old because they start at the age of 7, not the age of 6 and 5, like in other countries. That always caused a problem, because if we are really grade-based, we would take our 10 year-old students but they don't like that either. That is also causing some problems. This is a big discussion and I think that the OECD is giving up a little bit and they take both age and grade-based possibilities. I don't see that they are so different. I'm the IEA people and the PISA people. The same people are doing both studies, as in many countries. The IEA says it's more research and PISA says it's more economics -- the same people, the same researchers, in many countries. It is also in IEA that the international center can dictate some guides and instructions. I wouldn't say there's so much different really.

Do you think that the results of PISA are indicative of Finnish education?

I hope so! Of course, from the national point of view, if you look at the results, you can see that we don't have so much of a ceiling effect, although we have a ceiling effect. In the national context, in national assessment, we always find more problems, because it is a curriculum-based assessment. We can always find difficulties and problems, and we find a lot of problems. That's why that it is a different perspective. We are looking for problems to be improved in national assessments. In international assessment, we look at how the Finnish educational system is doing in general, where the biggest problems are and where the strengths are, and where to develop the system and culture. It's a little bit of a different focus in international assessments. I think it has shown in international assessments, both IEA and PISA, because also in IEA studies we have been doing very well, that the system is actually quite sound and healthy, but there are of course some students that have not learned and they will have problems, but we think that the most important results, both in IEA and PISA, is that we have very few low achievers. We are very few if you look at the percentage, compared to, for example, the UK. You may have the same or even more high achievers, but you have much more lower achievers than we have. That is something that, as such, is a very important result to find out, that our efforts have really brought these results that we have very few lower achievers, and even they are doing about OECD average. That has been our goal. The principle of equity is very seriously taken in Nordic countries, so we invest much more money and effort in low achievers than in talented students. That is our problem a little bit, we don't pay, perhaps, enough attention to the gifted, but we pay enough attention to the poor, disadvantaged, and students who have problems. They have all sorts of aid and special education. But that has been the policy.

Why do you think Finland scored so high and what do you think is special about the Finnish system that led to the results?

One of the reasons is that we have so few low achievers, that we have achieved so few low achievers. I would like to emphasize that. It doesn't come by nature. It comes by teachers and good work and all the investments for special education, because we have also very good special education. To achieve that, we need very good teachers, and we have very good teacher education. It is emphasizing, as I said, it is not one good way to teach. There are many good ways to teach different students. That's why they need, all of our teachers need masters education, so that they also learn to read research reports and that they understand how they can exploit research in their work. That's why we want to have masters programs, so they are academics. Since they are academics, they are also considered academics in society. We have the best students in high school to apply to the classroom teacher program. For example this year, at this university we have the teacher training college, and there were so many applicants, thousands, that we could only accept 8%. So when you take 8% of the already good students, you can have very

good teachers in our program. That is worldwide, very unusual. In many countries, they take somebody who is willing to be a teacher. It differs already in Nordic countries. I have been visiting many teacher-training colleges in Sweden or so. It's like a different world. Our teachers who are in the program, they are not only good at academics, but they are very good also in music and art often, and sports. I would say they are really multi-talented people. We would need perhaps also some who are street smart. That's a problem.

When you look at these results, do you think that Finland has the best education system in the world?

I think when I look at them, oh wonderful that the Finnish teachers see that their work is really producing good results. I know they work very hard. They are very responsible. I feel proud for the teachers. In the IEA survey in 1991, where Finland was the best in reading, in both the 9 and 14 year-olds, I felt shy and modest and humble. Now I have learned already to be a little bit proud about our system and defend it. There are always people who are criticizing, that we should go back to the German type and we should have more examinations and external assessments and everything, so that it's nice to see that the system, which I warmly support, as a researcher and a teacher trainer, they are doing really well. I can also see there are problems. It doesn't say that everybody does well enough. We are a small country. We have to do well. It's a survival game. That's why I say we have a lot to do with the education system, especially with the gifted but also again with the poor achievers.

If you look at the results within the OECD, it's Finland, Japan, and Korea that come out on top. Why do you think that the results were as good or better than Japan or Korea, countries traditionally known for their education systems?

It's amazing, but I think PISA studies are a little more pragmatic than IEA, for example, because it's more life-based. I think that has made a difference. Not in reading. They have not been so good in reading, but have been in math and science the best in the world. They only appreciate that. They don't appreciate so much reading and the mother tongue. It's just soft stuff. They are still very good, but I think it is a little bit more of the pragmatic approach in PISA that made the Nordic countries, the Australian, quite well-achieving. I see that there are lots of differences., differences in educational systems and cultures. It's interesting, I would like to do an item level comparision to see how they are doing in Korea and Japan. We have very different types of teaching and we never follow this sort of clear, marked plan. And when you go to the classrooms, you can see they have a very different way how the teachers are working, so the curriculum is very strongly school-based and teacher-based and hopefully student based.

Why did Finland score higher than other Nordic countries, even though there are strong similarities between the systems?

The one big reason, we had in the beginning of the 1990s, '93 and '94, we had a very bad economic recession. Until then, Sweden was always a little bit better. It really changed our attitudes towards education, because until the '90s, we didn't think it had to be so pragmatic. Education is education, and it is autonomous and independent role, and working life and economy is different. Education was more humanistic and that was just work and economy. When we had this recession which was very much connected to the situation in Russia, because we had a very big trade with Russia all the time after the war, so we had a very big unemployment rate. In '93 we had 20% unemployment. It was terrible. So we had to do something. In '94 we got a new curriculum in both lower and higher grades and also the university changed their profile. I think that was very good and healthy for Finnish life, so that we started to rethink the role of education and how it has to consider changes in the working life and economy. That might be a little bit similar to Korea and Japan, that we tried to educate innovative workers and quite pragmatic to see that it is not only the knowledge, that you have to apply it and solve problems and make innovations based on your knowledge. Knowledge as such is not enough. I think that changed our attitudes. I think in the other Nordic countries the situation has not been so bad, as they did not have that big trade with Russia as we had. We also have demographic differences. They have much bigger immigration populations, because their immigration policies have been much more open than ours, shame on us, but they have taken also Finns and other nationalities of immigrants. They have taken a lot. It is very difficult to provide good education and to provide really the educational policy that takes into consideration the needs of immigrant students, cultural needs, and their family needs. That might be one reason that they might not be doing as well. I think that's a pity. I favor very much open doors, but it is not an easy problem to solve. I have been also doing some research in Sweden among the Finnish students there and now they don't have so many immigrants from Finland, only those Swedish-speaking students on the west coast, but earlier, they got quite a few. It's not easy in a suburb school where you have students from… if you have 20 students they might have 15 different nationalities and languages. It is not sometimes the problem with the schools, but with their parents and with work and their background as they come as refugees or an asylum seeker. They are not easy problems to solve, especially in a school, even though they try very hard. But still Sweden is doing, I would say, very well, comparing to their population, which is has a strong immigrant basis. Perhaps in Finnish schools the discipline, perhaps it is a little more disciplined than in other Nordic countries, but it is also at home. Perhaps we are more old fashioned, more like Japanese, Korean type of family. A little bit more. When the Russians come to Finland, they always say the discipline is poor and students are not respecting the teachers and so on. Then we get the visitors from Sweden who say our discipline is so hard and the students are all so well-behaved and they always listen to teachers. We are between. At least the Swedish teachers think the discipline is harder and the expectations are higher.

What do you think of all the attention Finland has received about its educational system?

It's nice. As a small country, we don't have many tourists, as you can understand! It is cold and dark, especially this time of year. We call it educational tourism, especially in Helsinki. The Education Ministry might tell you they have too many visitors already because Helsinki is easy to reach. We also have had a lot. I would say that the last three or four years, we have had at least one or two or three groups a week. At first the Germans came. The first year every week a group of Germans came, all different parties and administrators and teachers and different states because they have so many of these *Länder* states inside of Germany. The first year was very strongly German. I also went to Germany. I had a lot of keynote invitations to different congresses, to Germany, Austria, Swizerland. They were the first three. The following year was very much the Swedish and Danish and also Norwegian, at least the ones who come to Jyväskylä. Also the Japanese and the Koreans. A lot of Japanese and a lot of Koreans. It is amazing, even thought hey are doing so well, they came. But it is maybe how you were asking, they were a little bit surprised and when they come, it is very interesting. They always send 120 questions in advance. When the Japanese come you really have to concentrate because you have these 100 questions and they really expect that you have prepared yourself to answer those. It is really hard work; they usually have a translator. I think they really take advantage of everything. They don't just want to chat. It has been interesting and also eye-opening to look at your own system and your own culture. When I was invited to write that chapter for that book for these countries who were doing exceptionally well in reading, they were invited to that, and also the UK. It was interesting, because we also had a lot of discussions about different features. I learned a lot. I really found out how similar Sweden and Finland are. I could have written just the same chapter for Sweden. It was amazing and how different the Finnish system was UK and Dutch and Canada, even though I always thought they were quite similar. It has been quite eye opening and I also hope that when the Finnish schools, when they have a lot of visitors, they experience the same and they have questions and discussions. It's not only the visitors that will learn and gain. I am quite sure that the Finns will gain. It is nice to be the focus of attention, but it is also that you learn from other systems of education.

Do you think there is a "special ingredient" of Finnish education that makes it work so well?

Teacher education, focus on lower achievers, student-centered teaching, school-based curriculum, not too much assessment, very good teachers and also the students who want to be teachers. I think these are the main ingredients, and also the pragmatic curriculum. We try to look around the world, what is really happening around the world when the curriculum is developed, not only what is happening inside a subject area.

What do you think about Finland being bilingual? Do you approve of it or is it just a fact of life?

It's a fact of life, but it is not always easy to approve. It is only 5.5% of the population that is Swedish-speaking. I think soon we will have more students that are Russian-speaking than Swedish, so I don't know when they will say they will like the same status. It is a fact and it is the historical background. We have been a part of Sweden and also a part of Russia. The new immigrants are the Russians, mainly Russians and some Estonians. We have a parallel Swedish system and constitution, so they have their own schools and also their own university. It is a little bit easier for them to get to university. Their socio-economic background is a little bit higher, so it usually supports the minority status. As I told you, I come from the eastern part, and there were no Swedish-speakers, so we were not very motivated in learning Swedish in school but it is compulsory for all Finns. But also Swedish students, they have to study Finnish. I say that with a big respect that they are mainly bilinguals, but Finnish people are not really bilinguals. My Swedish is poor. I can manage with Swedish if I have to. I can give a presentation and I can speak but it's lousy. It's a fact.

APPENDIX G:
SAMPLES OF INTERVIEWS WITH THE ORGANISATION FOR ECONOMIC COOPERATION AND DEVELOPMENT

Interview with Andreas Schleicher, 7 December 2006

How long have you been here?

Much too long. Actually I started here in 1994. When I started I was the only employee on the quantitative work. Now it's the largest division so it's really grown in this time. In the beginning, when I started there was very little interest in quantitative comparisons, but now it is the big thing. I think that not just internationally, but it is nationally as well, in countries.

What were the reasons behind creating PISA?

I think governments knew everything about what they invested in education and how large classes are, etc, all these input characteristics, but they had very little idea on results achievement, in a comparative sense, you see? We always know from national assessments and evaluations if we are doing a bit better than last year, or worse, but there was no sense of where our countries stand. That was the idea, basically, to get the idea of a comparative functioning of education systems, but also to learn from policies and practices, to see your own policies and practices in the light of what other countries are doing, and you need benchmarks for it. That was the motivation, and that's pretty much what PISA became, so I think it corresponds quite well.

What do you think about the IEA and TIMSS?

That's another way of looking in the world. The interest of TIMSS was to look at assessing how well students learned what they were taught, on the basis of a common denominator of countries. For us, it was not an interesting question so much. I think it is a relevant question for educators, but for us the question was much more, to what extent the students apply what they have learned, to what extent can they transfer their knowledge to novel settings, because that is what they are required to do when they leave school. So we had not so much in mind how well school had achieved in what it intended to do, but to what extent actually schools serve the function on what students are expected to do in the outside world and society. It is more or less an outside view on education. That's also why we didn't look, unlike TIMSS, at the common denominator of what everybody does, but more at the union effort of what countries do differently. Some people call our approach an unfair approach, because we assess students on things they have not been taught. In one sense it is unfair to students, but on the hand, you can say, well, when students leave school that is what the world will expect from them, so we had that perspective. Both, I think, are relevant and valid ways of looking at the world.

Was TIMSS not satisfactory for the countries that wanted this data?

We use their data sometimes. But they don't respond very much to the questions that OECD countries have today. We use their publications whenever they are appropriate. But the way we look at the way is different. I don't want to say one is better than the other, they are just different perspectives on the world and we have chosen one.

What do you see as the benefits of PISA and also the negative factors?

I think the benefits are that it has allowed much more active policy dialogue than we have had before. Countries are debating and there are a lot of exchanges among politicians, among practitioners. You see, there are a lot of interactions among countries. Education has traditionally been an inward-looking business, a very national, cultural business. And now it is becoming more of a domain where people look at alternatives, debate them, not always agree, but sort of… it has served a function, among ministers but also among practitioners that really look outwards. I think that is the biggest benefit. The ranking of countries, I think that is interesting for the media but it is not that instructive. You see that Japan is on top and that Mexico is on the bottom, but that's what you would have expected. That doesn't give you a lot of new insights, but to see what policies and practices are associated with those differences, that is really quite instructive for countries.

Negatives? I don't know. That is something which countries would have to assess the realities that more and more countries join PISA and if they wouldn't find it interesting or if they wouldn't think that the benefits outweigh the costs they wouldn't do that. It is a voluntary assessment. I don't know. Maybe some people say PISA is still too narrow, the focus is only on mathematics, reading, science, problem solving, those skills. It doesn't say much about social competencies and other areas that are equally important. Some people think there's a risk that looking only at certain things make you forget about other things that are important. I don't know. Maybe. It is difficult for me to assess that it is really… when countries make up their mind that this is really important for them, they pay a lot of money for it. It is really costly, this service. They need to make that judgment, no? What the best benefits and costs are.

Now that you have been through three rounds of PISA, is there anything you would have done differently?

I think we have done things differently from cycle to cycle. There has been a lot of evolution in the instruments. There are lots of things to still improve further. In general, I think sometimes we have been too conservative in the methods we have chosen. I wish we had done many things that we are doing in the subcycle in the first one, like using a more interactive approach, taking a more courageous approach to have a larger share of open-ended items which are more difficult to score. We have taken always in PISA a quite cautious approach in order to insure we don't run too many risks and I think sometimes, it's the initial balance but… so there are things we could… we have learned a lot. We learn with every cycle in conceptual terms, in the assessment frame, operational terms, like instrument development, it's evolving, and in practical terms, how we

implement it. We are getting better response rates from schools, lots of little things that are gradually improving. If we had known we would have done things differently in the third cycle already. It's a learning process for the countries, for the OECD.

What are the problems in comparing countries with such different backgrounds?

That's a question that everybody asks, to what extent is it fair, appropriate to compare what are various different cultural systems and so on. I think that is a relevant question. I think there are many, many real challenges but also I think in a more and more global world students are compared on the bottom line. People say, well, you can't compare rich and poor countries. But if you go to whatever country when students leave school, no one asks them if they come from a rich or poor country but they have to be benchmarked on what they can contribute. Some are lucky, some are less lucky, some are born more gifted, more talented than others. There are differences that we can't change. Still, I think the bottom line of what we can do is an important characteristic. I think comparisons are important, and you can adjust them. We do that all the time. We basically make… we say, well, this is the expected performance of a country, and this is the actual performance. The expected is based on the socio-economical conditions, and then you can say, yes, expected performance for Portugal is actually quite good, but actual performance is really poor. What does it tell you? I mean, it is nice to know that if I were a rich person, I would perform better on the assessment, but if I am not a rich person, it is the bottom line that matters. I think that it is an important question. At the end of the day we need to see where we stand. I am actually convinced that such comparisons are very valuable and that they are pretty robust as well. It's not… there are different cultures, different ways that students learn in different countries, different forms of tests that they take, all of those things vary. I really think at the end of the day, what they can do is what matters. That's what we assess. I know that there are other people who think very differently about this. I accept it as well. Other people say you cannot principally compare different countries, different systems and so on. I don't agree with that.

What do you see as the future of PISA?

Oh several things. At first, I think we need to capture a broader range of competencies. I think that is the biggest challenge for PISA. **Do you have any idea of what they would be?** Think about people who are successful in the global economy. It is people who have the subject matter skills that we have assessed, but it is also great collaborators, people who can work well with others, manage and resolve conflict, it is the people who can synthesize different information from different fields, not just analyze texts. You can think of many things that make people successful today, great innovators, creating knowledge. We have so far only assessed transferring but people who can really produce, create, think of innovative aspects, those are things that need to be captured in future PISA cycles, information technology. There are lots of things we need to capture if we want to assess the skills that matter today. That is one dimension. Personally, I would like to see a younger cohort included in PISA so that we can measure growth. It is one thing to know where people end up, but it is another thing to see, for example, how

competencies evolve in education systems, compare them, to what extent does socio-economic influence vary on performance? Do education systems reinforce those disparities as students grow older or are education systems able to moderate those differences? All of those questions we would be able to answer if we could assess student performance not just at the end but at several stages of schooling. There are lots of things that PISA should be doing. I think we should associate performance data with good data on teachers and teaching and learning so that we have a better angle. PISA is weak, still weak today, like TIMSS. These services are far too weak in feeding the results back into improving classrooms and learning. It is a useful instrument for policy, but not yet totally useful for practitioners. That's where we need to do much better. I think there are several areas where PISA could evolve but those three areas, I think, are the most important, broadening the range of competencies, measuring not only how well do we do but also how competencies evolve and other factors associated with this, and thirdly, linking our results with classroom practices. I think those three areas. You can say something like this is far from perfection.

How do you think the educational world will evolve now that there is PISA? You mentioned that education can be very insular and now it has become globalized. How do you think it will evolve?

It is really pushing quite radical change. I can see this everywhere I go, in every country. People ask, what are we doing from different countries, and we can now answer those questions. That, I think, is starting to have a big impact. We will also see that in higher education, in school education, and I think finally education is doing what other sectors of society have long before. If you are in medicine, nobody would say, you can't operate this kind of disease because it is done in a different way in a different country. I think a lot of the barriers we have in education today are barriers of traditions, barriers of ideology, all of those things. And I think these things are disappearing. The empirical evidence is starting to replace, get across that. I think that is good. But this is only the beginning. I think education is still a field largely dominated by beliefs, ideologies, traditions, those kinds of things that have to change.

Were you surprised at the PISA results?

I think there were lots of surprises in them. I thought you would find countries doing either well in quality, or well in equity, and we find that is not necessarily the alternative. There are lots of things also, there are factors that influence performance results, the relative standing of countries, I expected. Countries like Finland, Korea, and Japan do really well, but I would not have expected that many European countries do as poorly, nor the United States. I think there are surprises there. **Did you expect Finland to do so well?** Yes. I think that what we knew about the education system would have predicted quite good results, not that they were number one, but I would not have expected them in the middle.

Why do you think that Finland came out on top of the past two PISAs?

It is an education system that is really undergone real fundamental transformations. It is a knowledge-rich profession, teachers collaborate, there's a lot of transparency in what is happening, there are clear goals and standards, good support mechanisms for schools, the schools have a lot of responsibility, but the system can intervene when things go wrong, there's a strong emphasis on individualizing learning, supported by very open passes in the education system, all of those are important ingredients for success, which we knew before. I think it was pretty much expected that they would do reasonably well. **Why do you think people were so surprised that Finland did so well?** I don't know if people were surprised, but most people just had no clue. Quite honestly, particularly in Europe, traditionally every country would have told you, 'we have the best education system.' There was a lot of self-belief and probably not many people would have thought about the Finnish education system. It was so far off their radar screen. In the absence of comparative information, it is hard to make those judgments. So, in other words, let me turn it around. I don't think anyone who knew the Finnish system was surprised, but I think that lots of people who did not know the Finnish system, they were surprised that the country would do so well. The Finns have done a good analysis themselves on why they did so well.

Did PISA reveal any weaknesses in Finnish education?

It is all in relative terms. In absolute terms, you don't see many. In relative terms, the Finns are quite worried about large gender differences. They are worried about even the small socio-economic disparities that they see. You can always think, that in relative terms they do well, but in absolute terms they always seek to improve. I think that is also encouraging that in Finland they wouldn't just say, we are doing well, we don't need to improve, but they look at both the relative and absolute performance. I think that is a very good sign.

As Andreas Schleicher, would you have any recommendations, looking at their PISA results, on what to do better?

It is tough to say, as they are doing relatively strong. What I think is important that always, the world is changing, and you need to continue to look at what are the threats to your future success. You can say, for example, they have a very strong, a very good teaching profession, but other professions will move up the scale as well, so how do you continue in a system that is very competitive for high skilled people, how will you continue to get the best teachers into the teaching profession? There are lots of things for the future. It is not changing things, but making sure that the success that exists is not going to be threatened.

What made Finland score better than the other top countries?

It doesn't do much better. I would consider those countries in the same league. There are very different policies and practices. Finland distinguishes itself on, it's emphasis is on a knowledge-rich teaching profession, in Japan you have probably more emphasis on student learning and learning time being invested. They are different strains of these

countries, but the results, I wouldn't see much of a difference between them. **So statistically, you would not consider the differences significant?** Even if they are statistically significant, countries like Finland, Japan, Canada, they are in the same league.

What do you think countries can learn from PISA?

They learn where they are. They learn where they can be. I think that is a very important aspect. They learn, by looking at other countries, what is possible to achieve, in terms of quality, equity, efficiency, and they get some insights on what they can do to improve. We are working now with Scotland; we've done a review for Denmark, where we are actually working together with these countries to distill the policy recommendations that are important, so that is possible.

Do you think there are features about Finnish education that can be transferred to another country?

I'm actually quite optimistic about this. I know people think differently about it, but I actually think much of what works in one country can be transferred into another. You can't transfer the context, but you can transfer the ingredients of success. I don't think it's a matter of copying one system, but if you know what are the drivers to the success, I think there's a lot you can do to transfer them, much more than people usually say. The first response you usually get, oh, this wouldn't work in my country. I think then it is time to think about these things much harder. You wouldn't have this attitude in industry. You wouldn't say, we cannot learn anything from Toyota because Toyota is made from Japanese. It's an attitude we do not have in other sectors. In education I think it is a mental barrier, but I think there's a lot… not the systems, but the policy drivers of success, I think are pretty much transferable. Actually you can see that they are very much shared among countries. You can see how the responsibility of schools, for example, in countries like Finland, Canada, and Japan have in common, a strong emphasis on making schools responsible, giving them a lot of tasks. I think there's a lot.

Could you think of something in Finland that cannot be transferred to another country?

Well, it is the cultural context in which you operate. That is the harder part. Many long-term outcomes, for example, the teaching profession has such a high status. I think that is a long-term outcome of the education system but you couldn't, from tomorrow, expect that teachers in any other country will have that kind of status. I think that is harder to do but I also think that achievable in the long term.

Do you think Finland will do as well in PISA 2006?

I am no magician. I can't say. I have no reason to expect they will do worse, but I don't know the results.

Were there any aspects of the data in Finland that were particularly interesting when broken down?

Well I think the most amazing finding for me was not the absolute top-performance of Finland but the fact that only 4% of performance variation lies between schools. Every school succeeds, whether it is in a rural area or an urban area, or in a rich area or in a poor area, you don't see the performance differentials that you see in other countries. Actually they are very good at making success a predictable outcome of the system. Parents can rely on the quality of the system rather than worrying about the school to which they send their children. That's a really very striking feature. **Anything else that struck you as well?** I can't really say. Finland is successful in quality, equity, and also achieves a high level of coherence and consistency of standards. I think that's really a great result.

If you look at a breakdown of PISA scores in Finland, you see that not that many people score on a low level, but not so many people who score on a high level. Do you think they could have more on the high level?

But on the high level there are lots of people. **Oh. Because when I went to Finnish schools, they said it was a great achievement to have such great support for their weaker students, but they could do more for their gifted students.** If you look at, for example, performance level 5 and 6, there were lots of… it's only I think Belgium that has more. There is a lot of excellence in the system. I don't think they do the support at the lower end at the price of leveling down the top end.

Why do you think Finland scored as high or higher than countries such as Japan and South Korea?

That is very interesting. I think South Korea, Japan, and Hong Kong do have great similarities in their systems. They have very high aspirations with their students and with their families, which you don't have in Finland. I think the amazing thing is that Finland achieves the same results with half the student learning time. It is an entirely different approach. It is interesting, actually, that you can reach similarly strong levels of performance with very different systems. **How do you think Finland achieved it?** Well, it's the highly individualized learning system, one that is very successful engaging students in the learning process, and I think that is really quite remarkable. It shows us that there isn't one way to success, but there are very different approaches in how you can be successful in education.

Why do you think Finland scored much higher than the other Nordic countries?

I think if you compare, for example, Denmark or Norway with Finland, they do very much the same things but they do not have ambition. Finland has always pushed the idea of excellence, very clear standards, and so on. In the other Nordic countries, often there has been good cultural support, so the conditions for schooling are very similar, but the aspiration has not been as strong. That is also why social background has a strong

influence in some of these countries, like Denmark. The system often says to a student from a certain social background, oh, we make it easier for you, we support you very well, but at the end of the day, that is not very good for the student. In Finland there is a very strong ambition and aspiration in the system. That's quite interesting, actually, it's an interesting question of what makes the systems different. That's my impression, that that is the driver of Finland, and not in the others. Most of the other conditions are very similar.

Do you think Finland's success on PISA and drive for education will last?

I don't know. I think history gives you a different answer. In the 1960s the United States was number one in most educational domains. Today, it is no longer. My country, Germany has been very strong in education… things change, you don't know. The question here is what are going to be the returns on this investment for the individual, for the economy, for society. In the past, education was a matter of prestige, but it was not absolutely necessary for economic success. You could be quite successful in many professions without having a university degree. That is changing. Today education is becoming the prime driver of success, and I'm more optimistic that countries will maintain their success. History shows that success is never forever.

Do you think countries get complacent when they do well?

That is a possibility. I think that it depends on what the continued incentives are. That's really what's driving people, the earning scale left out and maybe there's not as much reason to do well. I don't know. **Do you think PISA is going to change this?** What I think PISA will do is remind us where we are. And we do that on an ongoing basis. If you are complacent you will see that in the results. That's a very important precondition.

What do you think of all this attention that Finland has received because of PISA?

I think it is natural. I think it happens everywhere. In sport, who wins the Olympics, everybody looks at the winner. Nobody looks at number two and three. I don't know why. I don't know if that is a good thing, but I think it is very natural for people.

What do you think of PISA tourism, and what are they looking for?

Oh it must be a nightmare for them, all of these thousands of visitors coming there. I think they see the results and they want to see what is behind those results. They can see it in quantitative terms but what they are really interested in is what are the drivers of the success. They want to see for themselves. I think it is a very natural thing to do. One reason also for this to happen is there is very little research, there is very little written up. It is quite a new phenomenon. Everybody knows education is important and if you can do better… **Have you been to Finnish schools?** Yes, I have been there. Actually, when PISA study came out, we had the results but the countries didn't have them. I put the meeting of the policy group, governing to Finland to make sure they would have an understanding when they saw the results. I wanted to make sure … I knew that three

months later they would have the results, and I wanted to make sure that they actually… 'Don't say, this can't be, this is impossible,' but they get a sense of it… We had some school visits there. I had been in schools in Finland and in most of the OECD countries. Whenever I travel I try to go to schools.

What do you notice about Finnish schools? Is there something that sets them apart?

I'm not an expert in pedagogy. It is difficult for me to judge, but you can see… what you can certainly see is a very professional environment, a very strong collaboration among teachers, and that's what is quite impressive. I can't judge the instruction. It is not in my field of expertise.

Did you find them strict or relaxed…?

Very relaxed. Very open, very flexible, very much a focus on the student. The student has a lot of responsibilities, not like the teacher has to say, do this, do that, but they find their own ways. I think it's a good thing.

Is there marked difference, for example, when you go to Finland and when you go to Denmark?

Yes, you can see that. In Denmark they have a very supportive learning environment.

How much do you think external factors influence an education system?

People say a lot, but I'm not sure. I think you can see schools inside a country with very similar conditions that achieve very different results, and that tells you that that, for example, socio-economic conditions are challenging factors but not necessarily a hindrance for doing well. Some schools succeed despite predicted failure and vice versa. Some schools in very rich areas are doing quite poorly. That is very interesting.

What about something like a country's history, like one country that hasn't had to transition as much, or wasn't as effected by war?

I think it can be. Also, the aspirations… if you have an economy that, if you can drill oil, probably you don't have as much of an incentive to invest in education. If you have no natural resources, surely things matter. Iceland is actually a good example. Boys, when they turn 15 or 16, can become tour guides, and it puts a lot of money in their life, so why would they go to school? That's surely a kind of environment where it doesn't matter in the outcomes. **Do you see it manifesting itself, boys becoming tour guides?** Yes you see that. You see it in the results. There is no country with such big gender differences than in Iceland. It is quite natural.

Interview with John Cresswell, 4 December 2006

What do your responsibilities entail?

I can explain what we do. Basically the OECD is made up of 30 member countries that contribute generally to this organization for all sorts of statistics. They collect and share statistics information. PISA is a little bit separate from that in that the countries decided that they wanted a test for their students. For years they had been collecting information but they didn't have anything about what was coming out of education. They had all the stuff that was going in, like how much money was going in per country, how many teachers, how many students, and all of those sorts of things. PISA grew out of the idea that they needed some sort of outcomes test for their education systems. The countries eventually got together and organized that. They organized us to do that, because we were really being responsive to their wishes. Then we organized a contractor that designed it for us. We don't design the test here. A lot of my work is working with our contractors in helping to communicate to them what the countries really want in the testing program. You can imagine it is quite a large process and we have one main group that has been doing the contracting for the first three cycles of PISA, and they are led by an Australian company called the Australian Council for Education and Research. They really just lead a consortium of organizations. So there is a group in Japan, two in the US, one in the Netherlands, one in Norway, who all contribute to the making of PISA in the actual implementation of PISA. A lot of our work is working with them, to make sure things are going well in the testing programs, if they are taking place in time and if they are collecting the information that the countries want. That part involves firstly the country to decide what they want, which is not easy, because you can have a country with very diverse interests. They communicate with us and the contractor, and we monitor what the contractor is doing. For example, for the week that has just been gone, there was a meeting in Istanbul, and we had two people going to that meeting, even though we didn't organize the meeting. The contractors organized the meeting and they deal directly with the country centers which are running in each country. We go to those meetings to monitor what is happening, to talk with the people who are in the consortium, the contractor, and also to talk to the countries about participating. That is one way we do it, but we are also in constant e-mail contact with them. That is for 2006, the testing for PISA 2006 is complete, and we are now looking at writing the report for that. It will come out exactly one year from today, December 4th, 2007. That will occupy our energies for a long time. It is a massive report. You have seen the 2003 report, no doubt. 2006 will… in 2003 there were 41 countries, 30 OECD countries plus 11 other countries. In 2006 there are 57 countries. It is massive and will give us all sorts of challenges.

Is this your first PISA, as you have only been here two years?

This is my first PISA… I came as we were just finishing the writing on the other one. In the years before I was actually on the Australian Council for Education and Research, running PISA in Australia. I understand it from the national perspective and the international as well. So that's a lot of our work, organizing reports and so on.

What were the reasons for creating PISA when there were already tests like TIMSS and PIRLS?

Those tests are designed in a different way, basically. Because the countries in the OECD wanted to have an idea of where the students were going, I suppose you would say. Because they put all sorts of money and resources into education, but wanted to know if the students were prepared for the future, which was basically what education was about. The IEA test, and TIMSS, for example, is more a curriculum-based test. It is not looking at necessarily how they will do in the future, it is looking at how well the kids have done in learning what they have done in the past. That gives governments really good information on various mastery of different curricula, it gives them a good idea in a comparison on how students are doing in a particular area in one country compared to another in one area. But PISA, the philosophy is different. It is a philosophy of looking ahead. So there are important differences between TIMSS testing and PISA testing. For example, IEA testing and OECD testing. There is the philosophy. Ours is a looking ahead philosophy and theirs is a curriculum based philosophy. I'm not saying one of these is better or worse, but I am saying that we are reacting to what our countries wanted. **Because it was initiated by them.** Of course. But at the same time a lot of our countries also do TIMSS. They aren't saying that one is better or not. They are saying that we get one type of information at the OECD, and another sort of information at the IEA, and it gives us a view of what is happening in those countries. Not all OECD countries do TIMSS but there are a fair amount of them that do. The people will go to a PISA meeting and then a TIMSS meeting. They are the same people but organizing things slightly differently. That is one difference, the other thing about the PISA as opposed to TIMSS testing is the sampling process. We have a definite policy of looking at an age group, 15 year olds. TIMSS has a different policy of looking at a grade group. It might be grade 8 or grade 4 or something like that. There are advantages and disadvantages of both of those systems in that a grade system… grades mean different things in different countries. You may not be comparing exactly the same thing from one country to another. The other problem with the grade system in some countries is that they have a grade retention program, so they won't let the students progress through. When you get to 15 years of age and the final years of compulsory school, you might have a selective sample. That's why we went for the idea of 15 year olds. They are sort of the two main differences between IEA and PISA. The philosophy, the looking ahead and the student sample that they collect. The idea of PISA was to collect information about students as they are nearing the end of their compulsory schooling, and that, in most OECD countries, is around 15 or 16 years of age. That is an interesting thing. In most countries, they are increasing that age, but PISA won't increase because we have to compare the cycles to the previous ones. It might be a challenge for us in the future.

What do you see as the benefits of PISA?

The most basic thing that PISA seems to have done is that it has given countries a language to discuss comparisons. It is actually given them information that is internationally compared with this philosophy of looking ahead. They now have this

language that they didn't have before. What happens at most international meetings is that every country is convinced that they have the best education system because not necessarily it is where they come from, but they know it, they know that in all these places they are trying so hard and they are doing things and many innovations are taking place and so on. They are all convinced that their education system is the best. That can't be the case, obviously. When everybody thinks their system is the best, there is no actual basis for communication and discussion. It is only when you get to a point to where we can say that 'this is what your country appears to be good at' and 'this is what your country needs improvement at compared to this country which might be different in those regards.' 'Your country seems to be able to not only get high scores for math but the effect of socio-economic background seems to be less there' and so on. We get lots of information on the students to a really internationally comparative sense. It's given the countries the way to talk to each other about policy issues in education. It's also given countries on a smaller scale, in fact, groups of countries have gotten together doing analysis areas of interest to themselves. Some countries might say, this hasn't happened, for example, a country that has a very high GDP, a very wealthy country, might say, what's the point in comparing us to a country that has a very low GDP, and totally different interests and a totally different system? So, a number of countries, a growing number of groups of countries are getting together and doing common analysis. An example of that is the Nordic countries, Denmark and Iceland and so on. They are doing analysis on a combined basis and producing a report every cycle of PISA. The things they really want to focus on, so they can compare themselves to other countries. There's a quite a bit of variation within the Nordic countries from Finland which scores very high and Norway which scores on average. The Norwegians are very keen to find out what it is about the Finns that they do differently. We have in our, the people who come through visiting here, because we do presentations to different groups, Norway is by far the country we get most representation from. **Really?** Ten times more than any other country. It is very, very interesting. I think it is a very wealthy country as well, and I think they were surprised by the results, and maybe they did TIMSS as well, I don't know. As I said, creating what we say, a language for discussion between the countries, and also now the, in South America, there's a large amount of countries participating in PISA also get together for common analysis, generally Spanish-based with Brazil in there as well. We're finding that is a useful by-product of it. Not only do they talk about PISA, of course, and they establish communication contacts and education in general benefits from that. In addition to that, there are particular issues that have come up and that have given the countries information to give them a basis for policy improvement, policy change. It might be in the area of socio-economic background. Some students in some countries are better able, or their country's systems are better able to help students of lesser advantage. It's given information about, for example, migration, and the success or otherwise of migrant students in different countries, which can then point to different techniques that are used in different countries, information about those other things. In each cycle of PISA we have a main report, but then we have thematic reports as well. We've looked at migration, we've looked at use of computers, and all sorts of different things, the importance of school, engagement in school, and so on. There's lots of information that is generated for the countries, and that is guided by what they want. We are hoping that we know that they use it.

Do you see any drawbacks of PISA?

In some countries, it is very difficult to get schools to participate. It is not necessarily a drawback of PISA itself, but it is a reflection of the increasing amount of testing that is taking place in schools. For example, in the US, it is very difficult, each time, to get a sufficient sample. To get PISA you have to have 85% of the schools selected in your sample must participate. That is a really high number. A lot of persuasion is needed in some cases. This is not as we call it, a high-stakes test. There is no impact on students' results at school. It can be difficult. Once the school is chosen, we need 80% of the students to participate. A drawback of PISA is that it adds to this testing that seems to be taking place in schools. Some people say that governments use testing as an excuse to say that we are improving education. Testing is really one step in the whole process. We shouldn't get too carried away. We are starting a conversation, we are getting countries information about their systems, but PISA cannot improve their systems. It is the governments which have to do that. Looking at it from a school's point of view, it is a difficult test to administer, because being an age-based sample, it takes students from different from grades, puts them together for three hours, and then sends them away. It can be difficult for schools to cope with that.

Is there anything you would have done differently with PISA now that you have seen three rounds of it?

We're trying to improve PISA the whole time. That, in itself, is not difficult as an intellectual challenge to make things better the whole time, but at the same time, governments want to keep it the same. They don't want it to change. If you change it, they can't measure if their system has changed. We made changes through our analyses and socio-economic background, to get an accurate measure of socio-economic background you need a lot of information and we collect a lot of information from our students and in PISA 2006 also from the parents. The measures we have for socio-economic background have actually changed along the way. I'm not saying we shouldn't have done that, but we have to be careful about the comparisons we make now, PISA 2006 socio-economic background with 2003, and even more so than 2000. That's one thing. In terms of actually implementation of PISA, there's always something we can learn from other countries. Every country seems to be able to, the more you talk to them, they do something differently here that you can incorporate into your own system, and you find other ways of improving it and so on. In terms of saying, 'Oh, we should have done this differently,' it's pretty hard to say that, because you're fairly bound by the constraints that governments put on you for the information that they get. Technically we are, there are certain measurements that we use and certain ways that we analyze the results, which within education, or within measurement, there are two or three different schools of thought of how you should actually go about doing the scaling and so on. We've had people who have made mistakes in that area, and we think that is a pretty accurate reflection of what is happening in the country.

Are there any problems in comparing countries with such different backgrounds, politics, histories…?

Yes there are. It is seen with the Finland phenomenon. It is everybody going to Finland and 'aha! So this is how you do it. Let's go away and do that.' But it doesn't work. Any change or improvement has to take into account the culture that the education system is operating on. Comparisons, as I mentioned before, between like countries, can be very useful. But then you look at them, and you think that they are like countries, then you look at their education system and one might have a comprehensive system where everybody goes to the same school and one might have a tracked system where there are different tracks and so on. I think you have to be cautious with the analyses and the comparisons. You have to take into account the cultural differences. An interesting study was conducted by IEA of a video series. There's a website for it. The TIMSS video science I was involved in it, where they actually filmed 100 classrooms in 9 or so countries and compared them. They were particularly interested in high-scoring countries in TIMSS. The US initiated it because they did not do so well in some of these tests. They did very well in grade 4, but their performance peters out by the time they get to grade 8 and 15 year olds. It was… the countries like the Czech Republic are very good at some of these testing programs; they do quite well. Australia scores highly, the Netherlands score highly, and basically, the types and the ways that the science and math was taught in these countries was so diverse that it would be very difficult to take what they learn and use it straight away. For example, in the Czech Republic, they had quite a formal system of mathematics, where students would basically, the students would have a set amount of work to do at home, and they would come along the next day, and two students would at random present it on the board and other students would assess them. And they do well. They learn it well that way. We don't learn it that way in Australia or the US or other places. You must take into account cultural differences when you are looking at these things. Even Finland, the story goes, the Finnish, after PISA 2000 results came out in 2001, Finland became flooded with all sorts of working parties and groups and so on. They really sat down, the Finns, and just reviewed what they had been doing that had really brought things to a place where there was a very good education system. They tracked it down to the 1950s and 60s, to changes which had taken place slowly, big changes, and taken place over many, many years. They were able to do that, so they also learned something from themselves. What it was that they were doing. When it first happened, they were saying, 'we do this' and some people were saying, 'no, we do that.' They actually had been improving their system for a long time and they reviewed all that and came up with a plausible answer for why they did so well in all areas, math and science.

What do you see as the future of PISA?

I've got… there's some interesting developments and ones which are … which have to happen, actually. A lot of countries have computer testing and tests which are delivered on computer. We need to move towards that. We've tried in 2006, we had a computer-based test in science as an option. We had 12 countries do it for the field trial but only three countries who did it for the main study. There are a number of reasons for that.

One of that it is easy. It is more manageable. A lot of countries have been able to manage computer based testing within their own country. It works quite well. But when you go and take that country, and compare it with another one that has a slightly different computer system, maybe, or another one, you then start to ask yourself, 'Am I testing the students' ability in science, reading, or math as on a computer, or am I just testing the efficiency of their computer skills?' So, in PISA 2006, the decision was made to deliver the tests, the computer-based assessments in science, designed to be done on computer where it couldn't… a lot of the things that were done couldn't be done on a paper and pencil test. There were videos of things that happened during a car crash or something you couldn't actually… you could write about it but it would take you a page to write about it and lose the science. They decided they would have a standard form of delivery, so that every country had exactly the same type of laptop computer which they took from school to school. Although it worked on the internationally comparative basis, it was really hard to implement because we got people who were literally carrying seven or eight computers into a room where students have to come do tests. It just became hard to do it at that point. It wasn't as a success in terms of number of students or number of countries that participated, but it was a success, we think, in the way it was able to be a new way to get internationally comparative information about science capacity of students in areas you couldn't easily test on paper and pencil. They could do simulations, plants growing, more fertilizer here and those sorts of things. There was a very well designed original test but implementation was too hard. Now you realize, in each cycle of PISA, there is an area which is the focus, so it was reading in 2000, math in 2003, science in 2006, and the next one, in 2009, is reading again. There is proposed option to do assessment of student ability to read information on a computer basically. It's not just going to be text reading, it will be searching information. Find out about blah blah. How would you do this and go ahead and do it. There's an option we're hoping a lot of countries will take up. At this stage, this media interest, we must somehow move towards that in PISA. To not do that would be ignoring one of the major areas of where students do reading, in front of the screen. If we don't do that, we're a bit out of touch, I think. That's probably one of the biggest challenges for us.

The other main challenge will be in the area of perhaps extending the assessment to a lower age group, or a higher age group. We have a contract now for a company to explore the possibility of an assessment at age 9. We will work with the IEA, hopefully, to either use their results or their expertise, and then countries that have an idea where their students compare at 9 years old as where they are when they are 15 years old, and maybe find out where they are in between. Also there has been a move, having some sort of PISA overall test on the university level. You are looking at all sorts of skills that students might need to succeed in university and perhaps designing a test for that. You can imagine it would be quite difficult to arrange that. The interest is there. It is exactly what happened with the so-called ordinary PISA. The interest was there, and it just, in fact, the interest has stayed and we have got to do something about it. It is up to us to make that happen. Those are the two main interests in the future, towards computer-based testing and extending the sample. There are moves, for example, to cut down on the testing time, perhaps. We think we actually have a really good test to make comparisons between countries, but maybe it can be done more efficiently and in less

time. Maybe that might give us more time to collect information about the students. There is talk about those things as well. Again, you have to be very cautious if you change things.

How do you think the educational world will evolve now that PISA exists?

I'm not so sure… we have a basis of comparison and a language for discussion between countries. One might expect there might be enhanced collaboration between countries, and I could see that happening easily. There are two main levels in PISA. You have the level where the government representatives that come to our governing board, and they tell us what to do. That is one level of PISA. We have international meetings taking place. That is excellent for sharing policy discussion and what people are doing in different countries. There is another level, which is the implementation level. The national project managers, this meeting I mentioned in Istanbul. That is all the national project managers getting together, twice a year, and talk about the implementation of PISA in their country. They share ideas at that level, about how to best implement PISA. So you get actually get shared information at least at those two levels. Second to that, you also have string in research, that is growing, but in Europe, an example of that, it takes some time before tests like PISA become established in the research community. Each year we seem to get a slightly bigger number of papers presented at conferences, AERA, for example. It is increasing. Lots of ways people are communicating with each other, which I think, one would hope, would be cooperation and sharing of information. I don't know if we've talked about globalization of education, but we might talk about how to adopt things to your own country that are culturally appropriate. That would be the main things, I think.

Were you surprised at the results of PISA?

No, I wouldn't say surprised, I had come in without any preconceptions, I suppose. The interest was the surprise. I think I was surprised at how surprised they were at their results in countries that did better than they expected, countries that didn't do as well as they expected. I was surprised at the impact that it had, rather than the way that it happened. The impact within the countries was quite interesting. In Germany, for example, there was a massive impact. It seemed like PISA was well known in the street. In Australia it is not well known. It is known, but it is more like in the UK, too. That was my main surprise. Looking at the countries that didn't score as well as they did… I suppose another surprising thing is the… I go to countries and do presentations, and I'm always amazed at how disappointed countries are when they don't do well. Serbia, which took part in PISA, they were shocked by the results. They thought they had done… that their students had done much better. But they didn't do so well. Their recent history was in the center of a conflict, it's amazing. Slovakia was disappointed at their results. They thought they would have done much better. They did better than the US, though, and they expend a miniscule amount, comparatively, of course, because it is such a different economy.

What was the Finnish reaction?

I don't know if they were surprised. I think that they, as I said, they have… in Finland education is… seems to be a different childhood philosophy in some ways to education and teaching and so on. Teachers are very highly respected in Finland. It is a very highly desirable occupation. They reject 90% of applicants from secondary school into teacher training programs. Most of them have masters degrees, and so on. I don't think they would have been surprised by the results. I think they were… they knew where they were at this point. I think they were… it took some review of what they were doing to get there, but they did realize. **Do you think other countries were surprised?** By Finland? Maybe. I haven't picked that up. If you look at their changing economy also, you wouldn't be surprised. Fifteen years ago Nokia made boots. Shoes! And now they are one of the biggest companies in the world. They changed. Their economy changed as well. It wasn't… I don't think they were so surprised. **Maybe no one was paying attention to Finland.** Yes, exactly. It is a small country. That is probably true.

Why do you think in PISA 2000 and 2003 that Finland came out on top, or close to the top?

Both times? Well, if you go back to those things that I was talking about. The view of education in the country is so important. They put resources equally spread across the country. It doesn't matter that if they are way up in the northern reaches of the country. The schools are staffed and resourced in exactly the same way as a school in the capital city. The schools themselves have a fair degree of autonomy that is different to other places, and they are able to make decisions based on… autonomy, a highly trained staff. It is a comprehensive system so everybody goes to school. They have, as well as being autonomous, they also have an agreed set of outcomes across the country. The class size is small but that is not shown to be… no research really shows that that is actually advantageous. Putting all that together, they seem to have a system that is dealing and coping well for their particular students. The interesting thing about Finland is that they don't actually start school until quite late. Other countries… because in PISA, there is generally a relationship between preschool and results. **And what is that?** But they don't have that in Finland because they start quite late. It is quite interesting but that is going to be tied up with help from home, all of those things.

Did PISA reveal any weaknesses in the Finnish education system?

Yes. Huge gender difference. Massive gender difference. In fact, I think it is the biggest… **For girls, right?** Yes, in reading. I think that would be something they would be concerned about. Just off the top of my head I think it is first or second in that area. In other areas, I mean really, you wouldn't really… socio-economic equity is brilliant, really, no problems there, their reading, math and science results were all high quality. I can't think of any math subscale content areas were weaker than others. The gender difference is the only thing that comes to mind.

Why do you think Finland did better than other Nordic countries?

Well, one reason, their language is different. Their language is totally different to the other Nordic countries. Their closest relationship in terms of language is Hungarian. We would say they have a similar culture, but in a way they don't, because their language is so different. The other countries, and I don't know if this is true, because I haven't checked, but the other countries will say they have to deal with many more migrant students than Finland does. That is something that you can check. There are other things I have been through that are the major reasons. Certainly their language separates them out in terms of what it is about their reading skills, for example. Perhaps that has got something to do with it. There is nothing to really learn from that because they're not going to change their language, you know what I mean? It could be accounting for it somewhere along the line.

Why do you think that Finland scored so evenly with Japan and South Korea on PISA?

That is very interesting. The way they teach are different, although the TIMSS video study shows that Japan has a similar teaching style to Australia. Students are very driven, it seems, whether that is a cultural thing, and very keen to succeed, but the saddest, most interesting thing is, in school, you could look at the Asian countries, Japan, Korea, and Hong Kong, and the students are not happy. They are not happy at school. One of our measures is a sense of belonging. You'll find that the Asian students have a low sense of belonging at school. There are some… we have to be careful here, we don't take into account that students from different cultures answer questionnaires in different ways. The questions are asked of the students, 'Do you find it easy to make friends at school?' We find that the students from those three countries generally react much lower down that degree in that statement, nowhere near other students in other cultures. To the people in those countries… I went to a meeting in Hong Kong where they were talking about that in particular. They were extremely worried about that result. Hong Kong scores higher than Finland in just about everything. They are very worried about the result of not being happy and not having a sense of belonging in school and feeling out of place. It is a very interesting area of study. **Aren't the results that Finnish students don't enjoy school either?** Not as much. **They're unhappy but not that unhappy.** It is quite interesting, also in Finland the students perceive that the disciplinary climate is not that good anyway. All those sorts of things that are contradictory to what you might expect. The teacher has to wait quite a long time for the students to quiet down in Finland compared to other countries. It is quite interesting. The Asian countries, the students are highly motivated. There seems to be parent pressure or community pressure or one of these that I don't know. It is interesting in Australia. In Australia, as you might know, has quite a large migrant population. Students from an Asian background do better in PISA. Students, migrant students with an Asian background do better in PISA, well, they do better than most students, but they certainly do better than migrant students with an English-speaking background. And they take it in English. **So, if someone's grandparents came from Japan, they would score lower than someone who just moved from there to Australia, do you mean?** No. if you compare, say, the results of students who have come from the United Kingdom or New Zealand to Australia, if you compare their results on PISA to all the students who come from Vietnam to Australia,

the Vietnamese kill the Australians by a mile, but yet, when they came, they probably didn't have English as their language. They do incredibly well. That is a very high degree… well, they have high expectations for doing well, which comes from their parents, I assume. But very interesting. **Do you think that is similar to Finland?** I don't know. Don't forget PISA raises more questions than it answers!

What do you think other countries are going to learn from PISA?

Firstly, one of the things that they haven't learned or what they don't do is a carry a review of where they are up to. Because PISA has stimulated so much interest, a lot of countries have conducted reviews of their education systems and they are looking at their strengths and their weaknesses. That is a good thing and a positive thing. It is again, given them this way of comparing which they didn't have so clearly before. There will be countries that they can learn from, there might be some things that can be directly included into their curriculum and way of teaching mathematics or a way of teaching something that they haven't done before. That is less likely to happen, because you don't find international meetings of teachers, but they don't occur at that level as much as you find on other levels. I think people will review the way that other systems are using their resources, how they are directing their resources. There's been a huge investment in computers in some countries, and some of them are feeling that they are not getting the benefits from that. That's why they will maybe look to other countries where it hasn't been such a problem. At the government level, these people meet and they talk about policy decisions which will come in terms of their interests compared and being able to draw on resources from other countries. It's not going to change suddenly. People suddenly aren't all going to start doing the same thing. When they conduct their reviews and identify some of their weaknesses, they can say some countries are doing it better than they are, and there's a way of being able to incorporate some of the ideas that they use. Don't forget also PISA has stimulated all of this interest but there has always been reviews in education and always interest in what other countries are doing. PISA has just been able to refine that.

Do you think that facets of education can actually be transferred to other countries?

I think they can look at some things, like qualifications of teachers. It is something, obviously, Finland has very highly qualified teachers and that is a policy-malleable thing. You can encourage people and your teachers in your own country, and people who are interested in teaching, you can encourage them to be better qualified. That is something that you can do. You cannot take the Finnish language and take it to Australia. There are some of those things, which will be transferable. The system, the comprehensive system, the way they fund their schools… In some countries they are going towards a more privatization of education, but the Finnish education system has no private schools. It is a government system and that is it. To talk about it, they have no concept of what it would be. If I go to a meeting and if I say that Australia has quite a growing sector of private education, 30% of Australian kids go to non-government schools. The Finns cannot conceive of that. They can't even imagine why that would happen. The systemic things like that, they can look at. In terms of the way that they use national assessments,

and so on, countries might be able to learn from the way that they do things. Finland is quite a large country, there are strong regional aspects to the country as well, where they organize these things. There are organizational, systemic, and there are qualifications. At some levels there might be techniques as well.

Do you think there will be a convergence in the future, where in 30 years everybody will have a comprehensive and egalitarian system?

I think even within countries, the differences between regions are strong. I can't imagine that it would… there are ideas that they will share. I can't imagine the countries will adopt ideas wholesale without taking their own culture into account, their own history because it is difficult to change things quickly like that.

Are there any other aspects of data that stands out in the Finnish case, besides gender?

Rural vs. urban. I can't remember the exact results but that would be very interesting, because generally speaking, rural areas don't do as well as the urban areas in most countries. I would be surprised if that were the case. I would be more inclined to say the differences would be much smaller, but that is something that I haven't looked at. That would be quite interesting. There are so many areas that we can explore. What have you found? **Well, I've been mainly interviewing. I've been in schools were someone told me that there were more disciplinary problems in rural areas, because they don't have as much, as many resources as the towns do. I guess there isn't as much to do in the city so the kids get in trouble. It's kind of counterintuitive. I haven't received enough anecdotal evidence about it, though.**

What do you think about all this attention that Finland has received because of PISA?

It's interesting. I know the other Nordic countries feel a bit negative isn't the right word, but I think they all feel like they are doing a pretty good job with their education systems. They are all average or above. Sweden and Denmark higher than Norway, Iceland higher than Norway. I mentioned that the amount of attention that goes to Finland and not to these other countries, they might find it annoying when they are doing a pretty good job on their own. There's no real negative things really coming out. Finland has done well and have obviously made changes in their system, policy changes which have led to where they are now. It's not just luck. It was careful, considered decisions. I don't think anyone would begrudge them. As I said Hong Kong gets better marks. Not statistically significantly, but in certainly the same area as in Finland. Countries would be just as well off to look at Hong Kong and Japan as other countries that do so well. **Why do they not?** I don't know. Maybe they see… I don't know… maybe the western countries think that the Asian countries would be so different to their culture that they wouldn't absorb much from them. That's not true, I don't think. If you look at the way teachers and schools teach and handle students, it varies, obviously, from country to country, but the

similarities are greater than the differences. I think they can learn from those countries as well.

Do you think Finland will do as well on PISA 2006?

Yes. I don't know that yet but I would be… we would be shocked if our results changed too much. In fact, we would be pretty… countries would be very angry if we had a test that changed every three years. That's one of the biggest challenges of PISA, to make sure you are testing the same sort of thing so that you don't suddenly get a country that did poorly that does extremely well or vice versa. It's really a very poor reflection of the test if the results change from cycle to cycle, with minor changes from 2000 and 20003. We counseled all the countries to not use the results as a … don't use the fact that you've changed in three years or not changed to go and make changes to your education system based on that. **Do you think that's a real danger?** Oh, it was! Seriously, it was! One country, because the results had gone down, the prime minister formed a working party to look into this. They came to Paris, and we had a meeting with them. There were 12 senior parliamentairans, and we had to tell them not to do anything based on a small change from 2000 to 2003. They didn't, eventually. They decided that they would wait. Countries do take the results very seriously, especially when they go down. They celebrate, in a way, when they go up. If they go down, the bad news always causes much more interest in the press. If the results go down, they can be sure there will be a major interest in the press and in the public. We stressed again and again, over three years nothing could have changed that dramatically. The only country which changed dramatically over three years was Poland. The results changed a little bit but the redesigned their system. One of the areas we are very interested in is the variation between schools within a country. If there is a big variation between schools in a country, you start to ask yourself, well, why is that so? It becomes really important where children go to school. Whether they go to this school or that school makes a difference to their educational outcome. In some counties, that is designed. In Germany, students are put in different levels based on a test. In other countries it happens for socio-economic reasons. The wealthy children go to a particular school in a particular suburb and others go to different schools. In Poland they actually redesigned their system. They actually started it before PISA 2000 but it didn't have much effect in PISA 2000. But when PISA 2003 came around, there had been big differences. In fact, the results had been that the… I think in PISA 2000, 50% of the variations were due to the school that the children attended. In PISA 2003 it was 19%. It dropped dramatically because they were moving towards a system that had more equal types of schools. It was a big difference but it was clearly accountable. In other places where the PISA scores went down a bit, you couldn't really account for it from any particular policy that their government had undertaken in that short time.

What do you see in PISA 2030 or 2040? Do you think the results will be consistent or will someplace like Finland become complacent like Germany did and decline and will a place like Poland go up?

That's hard to say, isn't it? I wouldn't be surprised if there are countries that… in the long, long term there are changes. Korea is a good example of that in their tertiary education. Maybe in the 1970s they had a very low figure of students going to tertiary education. In the OECD countries they sort of were placed 25th out of the 30 countries in terms of the number of people who went to tertiary education. That did tell you about it. They changed their policy and now they are sort of number one. That is only the result of policy changes and a shift in opinion within a country. Things can change. Over thirty years things can change a bit. There will be some countries that will expect their results to improve over time and there will be other countries that will expect their results not to decline over time. There will be some interesting changes, I expect, in the next twenty or so years.

What do you think about all these outside observers who go, for example, to Finland? What do you think they are looking for?

A free holiday. [laughter] I think they are looking for a quick fix, really, which they won't get, obviously. It's a way of saying the countries are doing something better and it's a way of exploring and seeing if there are ideas which they can take to their own countries. It's not a bad thing, really, but Finland isn't the only country they can learn from, in my opinion. There are other countries that do well in different areas and that are successful in different areas and they should look at those countries as well. **What are your recommendations for those countries?** That's interesting. If you looked at countries that are doing well in terms of…. I mentioned Hong Kong already. If you are interested in gender differences, you might look at a country with small gender differences, opposite to Finland. You probably would go to Iceland, where the differences in terms of mathematics, the gender differences are different to everybody else. Generally, in mathematics, boys do a little bit better. Not significant in all countries, and nowhere near as large a difference as girls do better than boys in reading. In Iceland it is different. Girls do significantly better. That was the only country. There are interesting little things that you do find. I'm not saying that every country has something for every researcher or policy maker, but certainly there are countries there are doing things quite well in their own way that you can learn from.

Are there any features of PISA that you could draw to my attention that would not be readily available to me?

Sure. I'm just trying to think. Most of the things are on the internet. I would hope that everything would be available to the researcher. It was the policy that everything would be available. You mentioned the press book. There is a press book. It's not published.