

UNIVERZA V LJUBLJANI  
FAKULTETA ZA DRUŽBENE VEDE

Maruša Gorišek

Vpliv zgodovinskega razvoja na današnjo uspešnost izobraževalnega sistema: Primerjalna analiza Finske in Češke

The impact of historical development on today's education performance: The comparative analysis of Finland and the Czech Republic

Magistrsko delo

Ljubljana, 2017

UNIVERZA V LJUBLJANI  
FAKULTETA ZA DRUŽBENE VEDE

Maruša Gorišek

Mentor: red. prof. dr. Bogomil Ferfila

Somentorica: dr. Katalin Miklossy

Vpliv zgodovinskega razvoja na današnjo uspešnost izobraževalnega sistema: Primerjalna analiza Finske in Češke

The impact of historical development on today's education performance: The comparative analysis of Finland and the Czech Republic

Magistrsko delo

Ljubljana, 2017

## **Vpliv zgodovinskega razvoja na današnje uspešnost izobraževalnega sistema: Primerjalna analiza Finske in Češke**

Zaradi dokazanih pozitivnih učinkov izobraževanja na posameznike in ekonomijo je izobraževalni sistem dandanes ena najbolj pomembnih politik modernih sistemov blaginje. Široko dostopno izobraževanje je eden izmed načinov nižanja stopnje revščine in izboljšanja socialne mobilnosti. A tako, kot je pomembna dostopnost, je pomembna tudi kvaliteta izobraževanja. Z nastankom mednarodnih primerjalnih testiranj učencev, kot je PISA, je vrednotenje kvalitete izobraževanja v mednarodni perspektivi postalo veliko lažje in države so kmalu začele posvečati več pozornosti kvaliteti izobraževanja. Kljub temu pa je potrebno za pravo oceno uspešnosti izobraževalnega sistema upoštevati več, kot le en test. V tej magistrski nalogi se sprašujemo, kako pomembno je zgodovinsko ozadje in sistem države blaginje za uspešnost izobraževalnega sistema. Naloga temelji na primerjavi dveh držav, sicer podobnim političnim sistemom, vendar zelo različnim zgodovinskim razvojem po drugi svetovni vojni. Hkrati imata državi danes zelo različne rezultate mednarodnih primerjalnih testiranj. Da bi podrobno določili uspešnost izobraževalnega sistema pa naloga obravnava tudi dejavnike socialne vključenosti ter inputov in outputov izobraževanja.

**Ključne besede:** uspešnost izobraževanja, Finska, Češka, socialna vključenost, primerjalna analiza.

## **The impact of historical development on today's education performance: The comparative analysis of Finland and the Czech Republic**

Proven positive effects of education on individuals and economies have resulted in education being one of the most important policies of modern welfare systems. Accessible education is a great mechanism for tackling poverty and improving social mobility. However, the quality of education system is equally important as its accessibility. With the emergence of international student testing, such as PISA, evaluating quality of education in international perspective became easier and countries started thriving towards better education. But when researching education performance it is important to look further. In this thesis we ask ourselves, how important is historical background and welfare system for education system development and what are main factors determining educational performance. This thesis is based on the comparison of two countries with similar political systems but much different historical development after the Second World War and with nowadays much different performance in international student testing. To determine their educational performance this thesis looks into indicators of social inclusion, as well as inputs and outputs to education.

**Key words:** successful education, Finland, The Czech Republic, social inclusion, comparative educational research.

## TABLE OF CONTENTS

<b>1</b>	<b>INTRODUCTION</b> .....	<b>6</b>
<b>2</b>	<b>OBJECTIVES, HYPOTHESIS AND METHODOLOGY</b> .....	<b>8</b>
<b>3</b>	<b>CONCEPTUAL FRAMEWORK</b> .....	<b>11</b>
3.1	<b>Education and welfare</b> .....	<b>11</b>
3.2	<b>Finnish Nordic model of welfare and education</b> .....	<b>14</b>
3.3	<b>Position of education in the Czech Republic Communism and transition</b> .....	<b>16</b>
<b>4</b>	<b>DEVELOPMENT OF EDUCATION SYSTEMS IN FINLAND AND THE CZECH REPUBLIC</b> .....	<b>19</b>
<b>4.1</b>	<b>Finland</b> .....	<b>19</b>
4.1.1	1960's and 1970's – modernization of Finland .....	19
4.1.2	Finnish education system after 1990 – road to the top .....	23
4.1.3	Latest reform and the future of Finnish education .....	26
4.1.4	European Union and Finnish education system .....	27
4.1.5	Finland in the new era of globalization .....	29
<b>4.2</b>	<b>The Czech Republic</b> .....	<b>31</b>
4.2.1	Education under communism – the era of constant changes .....	31
4.2.2	Education after 1990 – transition and democratization of the Czech Republic .....	35
4.2.3	Further development after joining the European Union .....	38
4.2.4	Education of the Czech Republic in recent years – underperformance and globalization .....	40
<b>5</b>	<b>SOCIAL INCLUSION AND DISTRIBUTION AS EDUCATION PERFORMANCE INDICATORS IN FINLAND AND THE CZECH REPUBLIC</b> .....	<b>43</b>
<b>5.1</b>	<b>Finland</b> .....	<b>43</b>
5.1.1	Educational structure of Finnish population .....	43
5.1.2	Unemployment in Finland .....	45
5.1.3	Poverty in Finland .....	47
5.1.4	Inequality and class dependency in Finland .....	48
<b>5.2</b>	<b>The Czech Republic</b> .....	<b>51</b>
5.2.1	Educational structure of the Czech population .....	51
5.2.2	Unemployment in the Czech Republic .....	52
5.2.3	Poverty in the Czech Republic .....	53
5.2.4	Inequality and class dependency in the Czech Republic .....	55
<b>6</b>	<b>COMPARATIVE ANALYSIS: SUCCESSFULNESS OF EDUCATION IN FINLAND AND THE CZECH REPUBLIC</b> .....	<b>57</b>
<b>6.1</b>	<b>Inputs in education</b> .....	<b>59</b>
6.1.1	Financial resources .....	59
6.1.2	Material resources and safe climate .....	60

6.1.3	Human Resources and quality of teaching .....	63
6.1.4	Quality assurance .....	66
<b>6.2</b>	<b>Outcomes of education .....</b>	<b>68</b>
6.2.1	Dropout rates .....	68
6.2.2	Learning outcomes – international perspective .....	69
<b>7</b>	<b>FINAL RESULTS OF THE COMPARATIVE ANALYSIS.....</b>	<b>73</b>
<b>8</b>	<b>CONCLUSIONS.....</b>	<b>77</b>
<b>9</b>	<b>DALJŠI POVZETEK V SLOVENŠČINI.....</b>	<b>79</b>
<b>10</b>	<b>LITERATURE.....</b>	<b>81</b>

## 1 INTRODUCTION

This study focuses on the question of international comparison of education systems and tries to determine the main factors influencing the performance and successfulness of an education system with the comparative analysis of two European countries' education systems. This topic has become more important in last two decades with the emergence and expansion of international learning outcome tests, such as PISA. Those tests changed the way countries develop their educational policies. It made their country performance visible in another light as well as determine which country's education is producing the best outcomes. Many of the worst performers started learning from the top performers and started copying their policies. However, there are more things to consider than one test result, which is why deeper understanding of the subject is necessary.

Already in the ancient Greek times, when Plato founded what is believed to be the first university in the world, education was recognized as extremely important factor in person's development. Plato believed that education is a moral enterprise and that teachers are leaders who have a responsibility to guide those that are learning and are responsible for their future. In his words ideal city can be only achieved with ideal citizens who need ideal education (Smith 1997).

Even though the benefits were clear, in the middle ages education was mainly held out in religious schools, monasteries and churches with very few people having access to it. However, protestant reformation changed this and already in 1592 parts of Germany introduced obligatory education for children, with whole Prussia and Austro-Hungary following in 1763 and 1774 (Diamond 2017).

In early 19<sup>th</sup> century it became evident, that education has far bigger impact on society than first thought, which led to the development of educational research (Comp 2003). Researchers discussed the consequences of education and came to the conclusions, that education improves economic growth, helps tackling poverty, reduces crime rates and social exclusion, and provides good base for research and development. Because of that, education is today one of the most important policies and one of the most important parts of welfare systems.

Throughout the nineteenth and twentieth century majority of European countries followed Prussian, Austrian and Hungarian example and introduced obligatory elementary education for all children and the era of expanding education began. Literacy rate improved, and whether education is needed was not a question anymore. The main question became how to make

education on all levels more accessible to the people. Despite the big step in educational opportunity, international performance tests that started in 2006 prove, that there is a big difference between learning outcomes of different countries. This proves, that accessibility is not the only thing that matters in education, but, that the quality of education is equally important.

After the Second World War and the division between the East and the West, countries in Europe had a rather different path of political development, which influenced the development of education systems as well. This thesis is focusing on the comparison of two countries' education performance based on their development – Finland and the Czech Republic.

## 2 OBJECTIVES, HYPOTHESIS AND METHODOLOGY

The countries for comparison were chosen based on the Mill's method of difference. This method used in comparative political science means using cases, countries, with similar characteristics and different outcome. Comparing characteristics of similar countries and finding a difference, an independent variable, among them can identify reasons for different outcomes (Mill 1843).

While Finland and the Czech Republic had different paths of development after the Second World War, there are many differences between them and their position today. Both, Finland and the Czech Republic, are today members of the European Union, both are parliamentary democracies and both are trying to maintain a certain level of welfare system. They have very similar Gini coefficients of inequality and their Human Development Index is similar<sup>1</sup>. Education in both countries is free on all level and both countries are experiencing discussion whether or not they should introduce scholarships for tertiary level of education. Both countries also have very similar expected years of schooling of people, 16,8 years for the Czech Republic and 17,0 years for Finland. Nevertheless, their performance in education is rather different. While Finland is known as one of the countries with the best education system in the world, the Czech Republic is hiding in the averages.

Furthermore, each country is a clear representative of two different systems after the Second World War. While Finland adopted the much praised Nordic welfare model, the Czech Republic was part of the communist Czechoslovakia. This thesis will compare the development of education systems inside those welfare systems and the successfulness of their education system today.

The main research questions, based on the determined differences between countries, are:

*-What are the main factors in the development of education system of a country, which are influencing the successfulness of education system?*

*-What are the main reasons for the huge success of the Finnish education system?*

*-What are the main reasons for underperformance of the Czech education system?*

---

<sup>1</sup> Gini coefficient for Finland is 26,3 and for the Czech Republic 26,9. Finland is ranking 23rd on Human Development Index and the Czech Republic is ranking 28th (United Nations Human Development Reports 2017).



In addition to the research questions, we have created the following two hypothesis:

**H1:** *“Based on the indicators of social inclusion, education inputs, and outputs, Finnish education system is performing much more successfully than the one of the Czech Republic.”*

**H2:** *“Communist political system after the Second World War influenced the development of education system in the Czech Republic, which resulted in education system of the Czech Republic being less successful than education system of Finland.”*

The reason this thesis is operating with the term successfulness and performance of education, rather than its quality, is in the understanding of education system as a policy, determined by its inputs, system process, and outputs. Scheerens, Luyten and van Ravens (2011) determine several indicators of quality of education based on the same viewpoint in which all mentioned steps, inputs, process and outputs, are important in determining overall successfulness of education. In this research we try to address all parts of educational policy inputs, process and outputs. While the successfulness of education can be perceived differently depending on countries' point of view and political consensus, we will analyze the successfulness of education performance based on several factors. A successful education is the one, reaching main goals of education based on the theoretical concept of the influence of education on society and individuals, explained in the theoretical part of this thesis. Therefore, for the purpose of this research, success in education will be determined by the level, to which individuals are equipped for everyday life (as measured by PISA and other international tests), the extent to which education system is providing necessary work force and is enabling social mobility (as measured by social distribution indicators) and how well education system is responding to changes in society (as measured by trends in different input and output indicators).

The research will include conceptual framework, where the main methods used will be literature review, analysis of primary, secondary and tertiary sources, and descriptive method, with which we will explain basic terms.

The empirical part will consist of three different parts. In first two parts we will conduct mirror-type comparative studies discussing the same issues of the two selected countries. Firstly, we will compare the development of education systems in Finland and the Czech Republic in past decades and compare them by different timeframes, based on the historical milestones in Europe's development. Secondly, we will discuss social mobility and inclusion in both countries. The analysis will be based on the statistical data from different national databases regarding the same indicators.

In the third part we will conduct a comparative analysis of Finnish and Czech education performance and successfulness. This comparison will be conducted based on the statistical data from official statistics databases of Finland, the Czech Republic and the European Union.

As mentioned above, the focus of comparative analysis is in the main development differences in welfares and, even more importantly, in the development of education systems. Based on the analyzed aspects of educational performance and social inclusion dimensions connected to education, the thesis determines major points of educational quality which will give us the idea of the successfulness of education. These points are: Social inclusion indicators such as poverty rate, unemployment, and class dependency, educational structure of population, learning outcomes – performance in international tests and learning inputs – financial resources, class climate, and human resources in teaching. Furthermore, the research tries to determine main differences in system development, which can be linked to the successfulness of education systems.

### 3 CONCEPTUAL FRAMEWORK

#### 3.1 Education and welfare

Already in 1948 James Bryant Conant, a well-known educator and president of Harvard University, wrote a book about the education in society at that time. He determined education as a social process, which is underlining whole economy, is affecting social structure of the country, and is representing one of the biggest influences on participation of citizens. Already then he believed that equality of educational opportunity is the necessity for the development of a country (Conant 1948, 38–41). This was especially important in the United States, where social status is highly connected to access to education. Clear distinction between private and public schools give an advantage to richer children whose parents can afford a better education. Traditionally high tuition fees for higher education make an even bigger connection between social class and educational opportunity in the U.S. The proof of that is also a huge controversy of Conant's preposition as the president of Harvard University in 1930's and 1940's, when he wanted to open admission to the university for all academically deserving students, no matter of their social background.

In Europe the understanding of importance of education rose throughout the 20<sup>th</sup> century, when countries started promoting education and implementing compulsory elementary education with the purpose of preparing citizens to participate more fully in the country's economy. The wave of reforms quickly expanded on secondary and tertiary education as well, and improving access to education became one of the main goals (Rust and Wells).

A study from Lochner Lance and Enrico Moretti from 2003 gave a big example on how important education is for social security and inclusion, and their findings are remarkable. Finding out that social return of education is larger than the private return, they proved, that there is a bigger connection between schooling and crime rate, than between schooling and income increase. Authors researched, whether there is a connection between education and criminal rate by analyzing prison inmates, arrested persons and self-reported crimes in the United States. Lochner and Moretti concluded, that schooling and education significantly reduce criminal activity. As they found out, the reason is mainly in income increase as a result of schooling. With better economic position and income, the cost of committing a crime gets bigger (Lochner and Moretti 2003).

Different authors, for instance Eric A. Hanushek and Ludger Wössmann (2007), further researched to which level does the education has an impact on societies and economies. They

researched the impact of education quality on economic growth of countries. The study was performed because of emerging doubts about education actually being responsible for economic growth of countries. Although majority of studies in past thirty years concluded, that there is a direct connection between more schooling and higher earnings of individuals, Hanushek and Wössmann raised a question of whether there is a direct link between individual's education and their performance on job market. The problem they raised is that majority of those studies focused on comparing years of education with their income. That, as they warn, implies that one year of education in Ghana would represent the same asset as one year of education in Finland. Therefore, they focused mainly on quality of education and found out that there is a direct connection between quality of education and social distribution and economic growth. More than years of education themselves, it is the quality that is influencing economic growth of a country (Hanushek and Wössmann 2007).

Positive impacts of education have also been, by different authors, connected to political and civic participation, and health of individuals. As Peter Muennig (2007) found out in his research of education influencing health, a 20 years old person who dropped out of school has the same health state as 40 years old graduate. Muenning researched health status directly connected to education, such as pain and discomfort levels, depression, and ability to take care of oneself. He states, that studies prove, that people with higher education have higher life expectancy (Muenning in Belfield and Levin 2007).

Education became more and more important with the expansion of welfare systems across the globe. Sally Tomlinson (2005) explains the basis of welfare state as the desire to redistribute social goods and resources more equitably, and encourage productivity and economic growth among citizens. State here plays the biggest role, especially in protection and promotion of citizen's well-being, with providing necessary services, which are usually payed by taxes. Because of its effects, education is one of the many forms of government structures to pursue the goals of welfare.

Nowadays welfares are typically connected to modern democracies, but from the Tomlinson's definition one can see, that welfare model is not necessarily connected to democracy itself. In fact, many authors agree that fascist and authoritarian regimes were a good example of welfare, since they were providing many services such as pensions, jobs and affordable housing.

Authors are usually distinguishing three different types of welfare models. First is a liberal type of welfare model which has a basis in classical liberalism. This kind of welfare model is market

dominated and residualist. The entitlement for benefits is usually based on the need. Secondly, we know corporatist or conservative welfare model which is most common in Central Europe. The model is state dominated, while the basis for benefits is related to individual's contributions. Third model is Social Democratic welfare model, used mainly by Scandinavian countries. Its roots are in socialism with a high level of labor de commodification. The model is state owned with universal access to benefits with basis in citizenship (Van Voorhis 2002).

After the Second World War there was a noticeable growth of welfare systems and, consequently, education became more and more popular. It was seen as one of the best methods of preventing unemployment and social exclusion. The belief was, that expansion of education would contribute to equality and justice in society and promote social cohesion. Education often played a role of another welfare safety mechanism (Arnesen and Lundahl 2006, 286).

That resulted in governments across Europe and North America to increase educational accessibility and think of it as an investment, rather than a cost. Human capital, created mainly by education, was soon seen as one of the fundamental sources, not only on of improved social structure, but also of long term economic growth (Benos 2010). Improved literacy, economic growth and rise of standard, made it obvious that welfare model is enabling individuals and society to grow more than ever. Governments supporting more free and accessible education was a win-win situation for both, state and individuals.

However, the governments soon figured out that education can effect society also in the completely opposite way, if not done right. Tomlinson addresses the example of Great Britain after the Second World War. Obligatory schooling until the age of 14, school lunches and transport sounded like a good idea. But government wanted to speed up the learning process for working class children, to create new working force to reconstruct war-damaged Britain. After basic elementary education children were divided into two lanes of secondary schooling, based on the results of the intelligence test. It was soon figured out that children with more resources have more access to outside school training and therefore reach higher scores on the test. They were able attend better schools, while working class children attained schools with worse curriculum and less experienced, sometimes even less educated teachers. It was soon visible that education can create even more inequalities and segregation between people, which was far from the idea of welfare state (Tomnilson 2005).

### **3.2 Finnish Nordic model of welfare and education**

Nordic welfare model is a type of Social Democratic welfare with the biggest goals to establish equality between men and women, rich and poor, and to prevent poverty. Preventing poverty would enable a better life for citizens and gave them capabilities to fulfil their potentials. It is the type of a model that is based on maximizing participation on labor market, while offering extensive benefits (Esping-Andersen 2008).

One of the most important aspects of the Nordic welfare model is universalism, which means social benefits are available to all people. They are not targeted to specific groups and benefits policies are concerning whole population. The idea is, that everyone is contributing to the system, and everyone is benefiting from it (Kangas and Kvist 2014).

One of the reasons Nordic welfare model is often described as one of the most successful welfare systems is due to its strong social consensus, rooting back to after-war times, when government needed to establish broad consensus and public participation to promote policies directed towards economic growth and improved living conditions (Kildal and Kuhnle 2002).

Nordic countries compared to the rest of the world are rather similar, since they have a long common history, similar values and a very efficient bureaucracy, that can implement social policies and effectively collect taxes. However, there are differences between Nordic countries when comparing them. Although they fit into the same model of the Nordic welfare system, there are five different varieties of it. Usually, it was Denmark and Sweden that first implemented new social policies, while Norway and Finland mainly followed later. For instance, Sweden adopted its National Pension Act already in 1913, while Finland implemented first pension plan in 1937 (Kangas and Kvist 2014).

The goals of the modern Nordic welfare countries are mainly focused on poverty reduction and insurance against income loss, where education plays an important role. At the same time they address all varieties of social inequalities. The goal is to maximize human potential of citizens, since that would benefit both, individuals and state. Those ideas are implemented through promoting equality on labor market for men and women, social services which enable decent living to everyone, no matter what their income is, and equal access to education (Kangas and Kvist 2014).

Education in the Nordic countries is organized as a very uniform system under the government control with the desire to serve the purpose of greater social equality and faster economic growth.

However, it is possible to distinguish local differences that separate Nordic countries from the rest of the world. Ari Antikainen (2006) tried to identify a united Nordic model of education analyzing their common aspects. He argues that all Nordic countries' education systems have been mostly developed in 60s and 70s merely influenced by social democratic ideology and industrial development of the area. Education systems today are very progressive and pragmatic with a support for long compulsory education. Nordic education systems are publicly funded and very comprehensive, with the main values following previously mentioned ideas of the Nordic welfare model. In connection to this, education is widely accessible to all people, regardless of their race, religion, national background or economic situation and is one of the most important factors in promoting equality.

An education system is often very flexible and has no dead-ends, meaning that students have an opportunity to advance to a degree no matter what direction of studies they took, vocational or general. Children have a lot of possibilities to advance and study what they are interested in with a rather free choice of courses. Pupils are encouraged to think, try new things and learn on many different ways with interdisciplinary studying. System is, especially in Finland, designed in a way to encourage students to learn new things also in their free time. New trends are moving towards digitalization, modern learning techniques and even better connection between economy and education (Ministry of Education and Culture of Finland 2017).

All teachers are highly educated professionals with university degrees and the school system is promoting national identity among students. Common to all Nordic countries is also the widespread idea of lifelong learning and support of informal education. The background for this lays in history and common values of the Nordics. Lifelong learning was crucial for surviving in northern conditions, and the protestant hard work ethics added their part (Antikainen 2006).

Even though Nordic countries' education systems have some similarities, those similarities occur either because of the common values of the Nordic welfare model, or because of common historical values that Nordic countries have in common. It is hard to talk about a system concept of Nordic education system, since there are many differences between them, regarding implementation or results.

### **3.3 Position of education in the Czech Republic Communism and transition**

Communism was developed as the opposition to capitalism and is based on Marx's idea of classes and empowered proletariat against capitalists. After the Second World War it spread over Eastern Europe and Asia, including the Czech Republic in 1948, which was then part of Czechoslovakia.

The core of every communist regime is the main communist party, in this case the Communist Party of Czechoslovakia, which established a one party system allied with the Soviet Union. Although officially a multiparty system, the Communist Party of Czechoslovakia was in charge of everything and held the ultimate political monopoly. Policy process was in total control of the party. Courts, police and military were loyal to the system and the party, not to laws. Education and economy were completely nationalized with planned economy as the main strategy. Marxist ideology became a huge part of every aspect of people's lives and Czechoslovak interests became much related to the interests of the Soviet Union (Abrams 2005).

Despite the ideology, communist system looked a lot like a welfare system in some aspects. Leslie Holmes (2009) identified main policies of the communist countries to be focused on nationalization of industry and macroeconomic planning, but also on state provision of free health care, education, and subsidized housing and public transport. State control over large specter of benefits is something that is typical for welfare states. That was the case also in communist countries, where governments provided accessible education, health care and state aided benefits to improve the quality of life.

While the state in Communism indeed offered a great deal of welfare policies and benefits, there are certain content differences to be acknowledged. All services were controlled by one party with minimal checks and balances and a strong will to maintain control over population and socialize people in a way they will ensure them continuous power. This was seen as a control over media, economy and education.

On the first look education in Communism can look a lot like education in capitalism. Free, accessible to everyone, compulsory and very successful when comparing data of literacy among population. Holmes (2009) explains that communist countries often showed better results in literacy improving than capitalist states and Czechoslovakia was a country known for its high literacy and educational attainment. This was, however, mainly due to the long tradition of



developed education in Austro-Hungary. Therefore, researchers soon declared communist education system to be very different from western in its core content.

As Holmes (2009) explains there were some basic limitations to education system compared to the one in Western Europe and US. Instead of focusing on developing critical thinking and creative skills, communist education system was focused on rote learning with very little encouragement of individual initiative. Control over population to ensure the rule of the party, which was the core of the Communism, was probably most seen in education. After the revolution, educational practices changed and new ways of teaching were established. Because of the long history of Austro-Hungarian regime and newly established control over education, relationships in communist education were highly hierarchical, especially between students and teachers. As Glenn (1995, 186) explains, after the fall of communist regimes many countries had to change majority of their textbooks, especially for history and literature, since they were written to fit the communist ideologies and often filled with untruths.

One of the main purposes of education systems is to produce human capital for the labor market. In communism, economy was planned and, therefore, education was adjusted to fit mass production in economy. It favored procedural knowledge and memorizing, instead of developing skills, adaptive to outside changes (Berryman 2000). Because of the party control over economy, education was also the only way of social mobility and uprising, other than through the party. The connection between economy and education was also one of the main reasons why education systems went through such a change as the countries of Eastern and Central Europe transitioned from Communism to democracy in late 1980's.

Transition from planned economy to open market was one of the biggest changes that affected all levels of society. Liberalization of labor market and decentralization of wage setting changed the rules of economy and introduced a completely different set for education. Economy was not predictable anymore and stiff education did not manage to produce the labor force that the new economy needed. Berryman (2000) explains main problems of education systems that countries of Eastern and Central Europe faced when transitioning from planned economy to free market. As she explains, most education systems in planned economies focused on procedural knowledge and early specialization, which is not suitable for market economy, since it does not give students wide enough skills for the new, flexible production. Furthermore, those education systems are not flexible enough for changes in the outside circumstances. Berryman (2000) also notices, that many former communist countries face with problems of nontransparent and not effective governance of education system.

Many authors (Chase 1997; Flabbi *et al.* 2007) are proving immediate effects of transition on education, stating, that education returns increase as countries transform from planned economy to free market environment. Because planned economy returns of education, especially individual returns, were fairly low, change in market directly influenced them. However, Flabbi, Paternostro and Tiongson (2007) explain, that extensive increase in returns from pre-transition era to early-transition era is rather short and stabilizes after few years into the transition era.

Many reforms of social and education policies were, therefore, necessary in transition, but fast changes in policies were mostly impossible. Newly elected governments of those countries in transition were often left with bad economic situation, high unemployment rate and worrying poverty numbers. Lack of civil society and its cooperation with state, the result of many years of Communism, made it very hard to implement big economical changes without people turning against democracy. Furthermore, there were other urgently needed reforms to be done, regarding transition to democracy, which put education to the sidetrack (Hall 1994).

However, the Czech Republic was one of the countries which maintained the basis of the welfare system and made only small changes after the independence (Inglot 2008). Czech society was fairly well educated and literate already in times before communistic regime, due to its strong tradition of education. For instance, first university in Central Europe was established in the Czech Republic already in 1348. However, after the Velvet revolution in 1989 the country started transitioning to democracy and the democratization of education began as well. First, with ensuring back the academic freedom in tertiary education and furthermore with a path towards more autonomy on school level (Glenn 1995).

Education system of today's Czech Republic is, as for any other country, a result of decades of changes and reforms to adjust education to time and circumstances, which changed often in the past century. Only with understanding how an education system developed it is possible to fully understand its performance today.

## **4 DEVELOPMENT OF EDUCATION SYSTEMS IN FINLAND AND THE CZECH REPUBLIC**

### **4.1 Finland**

#### **4.1.1 1960's and 1970's – modernization of Finland**

Before 1950's Finland was a rather poor, agrarian country where majority of population was working as independent farmers. After the Second World War, Finnish economy faced a problematic, slow economic growth, due to high reparation Finland had to pay to Soviet Union. Majority of young people left school after just six years of basic education. Because of a huge dispersion of population, only one quarter of Finnish youth had access to grammar schools and upper secondary schools (OECD 2010).

As much as the reparations to Soviet Union at first presented a burden to the economy, in some way it also helped to re-run the economy, since the reparation had to be paid in equipment. Soon after the war the country faced fast development and the Finnish welfare model formed in a way we know it today. In 1960's and 1970's Finnish society underwent some huge changes, with a purpose to modernize the country and create a new type of Finland. The government coalition, formed of social democratic and center party, managed to establish a huge level of consensus between different stakeholders and proceed with major social benefits acts and developed country's core pension, health care, social care, and education systems forming today's welfare system. Reforms were based on the consensus between employers and employees making it possible to find solutions with wide range of support. The government believed that education is one of the most important sub-systems in the making of modernized Finland, which is why they focused a lot of their time for a comprehensive reform of education system already then. Sahlberg (2009) believes that Finnish education system played a great role in the fast development of the country.

The first initiative for a reformed education system was discussed by the Finnish parliament in 1963. Education system of that time was just not adequate for the growing Finnish economy. Children were involved into 7 years of compulsory civic schools, which were basic education schools. They were compulsory, based on the individual's citizen rights. Although the civic school, lasted for seven years, children were divided into two groups after only 4 years. One group advanced to lower secondary school, which lasted for 5 years, and was later able to advance their studies in vocational college or upper secondary school and then higher education program. This divided children into unequal groups (Antikainen and Luukkainen 2008).

System was not flexible and did not provide the needed work force. Furthermore, the performance results were falling behind in international comparison. As Sahlberg (2009) states, Finland was in 70's ranked in the lower part of OECD's ranking in research and development intensity. Only 16 percent of people finished secondary education in Finland in 1970, while a vast majority (74 percent) only completed basic education. In order to support the fast economic development of the country and keep up with its neighbors, the reform was necessary. What followed was the biggest education reform in Finland after the Second World War.

In 1966 the government stated that education reform is one of their top priorities and in 1968 the School System Act was adopted. The act was the result of long negotiations and work with teacher's union, labor organizations, and local authorities in Finland. The ground for today's success of Finnish education has been set. Priority of the reform was to create equal opportunities for all children, raise the quality of education and increase participation in education programs. Education was understood as a public service, offered by the government. The proposed changes were even a bigger step away from the classic Germanic syllabus-driven model of education and presented a step towards more humanistic and child-centered model (Antikainen and Luukkainen 2008).

First structural changes in Finnish education system were made in 1972 with the establishment of comprehensive school system. Structural changes happened gradually, from the North towards the South of the country. Previous 7-year civic school system was transformed into 9 grades of compulsory basic education for all pupils. Basic education was divided into primary education (first 6 grades) and lower secondary education (last 3 grades). This meant a big change, since children were now obliged to stay in schools at least until the age of 16. Therefore, wider amount of children were obliged to be a part of education for a longer amount of time. After obligatory elementary school, students were able to continue their studies in vocational education or in upper secondary general schools which led to higher education and vocational college institutions (Antikainen and Luukkainen 2008).

Schools became the domains of municipalities and previously mainly private owned grammar schools were slowly transferred to public administration. The main principle followed by the new reform was equal access to a quality education, regardless of children's race, sex, religion, ethnic or social background. With municipalities becoming responsible for education the process of decentralization started in Finland. Slowly, school inspections were abandoned, there is no national testing in elementary schools and no obligatory approval of text books. Municipalities gained a lot of freedom with teaching organization, since curriculum is not

determined by the state. Each school adopts their own version of curriculum. State authorities provide just a basic framework which gave a lot of freedom also to teachers, which can choose their own style of teaching and the material they use while teaching. Regulation is performed within schools (self-regulation), and municipalities are encouraged to develop their own work (Kupiainen *et al.* 2009).

It was not only organization of education that changed. Finland also significantly changed teacher's training. First, it was made compulsory for teachers to hold at least Bachelor's degree. In only 7 years, in 1978, the standard for teachers was to hold a general title of Master of Science or Arts. All teacher's education was organized in the same institution, for class and course teachers. Teachers were understood as advisers in pupils' learning rather than just deliverers of content (Antikainen and Luukkainen 2008).

Implementation of such big reform was possible because of the broad public consensus in Finnish society after the Second World War, and a common goal of economic development. Education reform was one of the core reforms of a big project aimed at modernizing, urbanizing and reconstructing the entire country. The main acts of reform were written with the involvement of different stakeholders and were containing a good plan for implementation. What helped with implementation was also pragmatism of Finnish civil servants and strong administrative structures at the national and local levels in Finland (Sahlberg 2006).

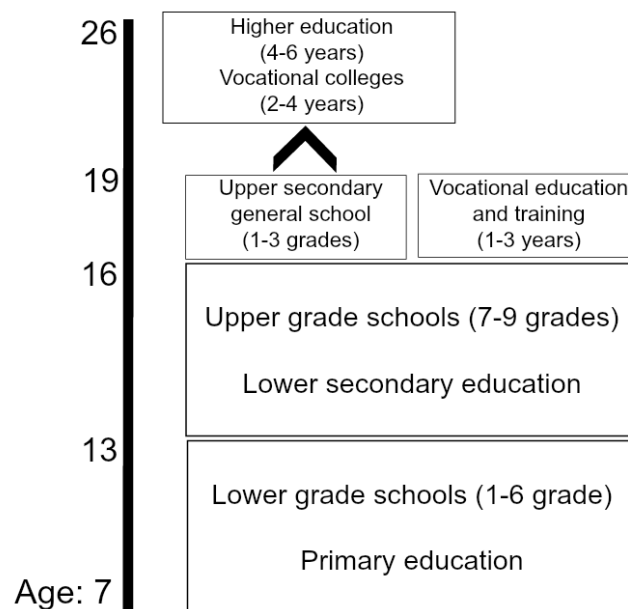
However, the reform did not happen as easily as it may now sound. Some municipalities were against changing already established education systems, but reform faced even bigger dispute between teachers. Before implementing the reform teachers had to undergo basic training in order to be prepared for the new system. Many of them, especially the older generation of teachers, were not in favor of the reform, since they were accustomed to the old way of teaching. They were not ready to teach in schools where more and less capable students would be in the same class and a lot of teachers needed many years to accept the reforms (Sarjala in OECD 2010).

Following basic education reform it was a logical next step to reform secondary education. Sahlberg (in Antikainen and Luukkainen 2008), explains main guidelines of reform were to develop secondary school as a path leading to the higher education. The reform still put in first plan the requirements for the work force, but made it possible for youth graduating comprehensive school to have equal competency for either vocational, or general upper-secondary education, which gives them an opportunity to choose. Upper-secondary general

school was transformed into a 3-year school, while vocational upper secondary schools were transformed into wider, general schools of many professions, with further distinguished specializations within.

Since Matriculation Examination was done only in general upper secondary schools, it was impossible for graduates from vocational school to attend higher university programs. The reform changed that, and introduced quotas for graduates from college-level vocational education to attend university faculties. The main aim was to enable students advancing through general path and students advancing through vocational path to earn their university degree at same time.

Table 4.1: Finnish school system at the beginning of 1990's



Source: Aho *et al.* in Antikainen and Luukkainen (2008).

Vocational schools went from around 700 specific lines to 22 occupational branches, further divided into 220 specialties. The subjects and disciplines were re-organized into series of small components, introducing the today known course-based upper secondary education (Antikainen and Luukkainen 2008).

The first results of reform were visible soon after the implementation of the basic and upper education reforms. More and more young people stayed in school and completed their upper-secondary education. The gap between young adults in 1970's started to shrink. The rise of comprehensive school in years after the reform is correspondent to the development of Finnish

welfare system and government efforts to greater social and economic equality. As much as the reform was a success, Finnish education system faced even more challenges in the years to come (OECD 2010).

#### **4.1.2 Finnish education system after 1990 – road to the top**

Beginning of 1990's brought some radical changes in Finnish economy which changed the development of the country. In the beginning of the decade, Finland faced a huge economic recession due to the collapse of the Soviet Union, one of the Finland's most important trade partners. High level of unemployment, big drop in economic growth and rise of public debt were just some of the consequences of the crisis. However, Finland managed to recover from the crisis fast with focus on investments in information technology and developing telecommunication business. Those changes had huge impact also on Finnish education at that time. The cooperation between economy and education strengthened and had some groundbreaking results (OECD 2010).

Employers started to have a huge influence on the content of education. They were communicating the kind of skills they value in fresh graduates which influenced curriculums also in basic education. Employers were advocating mathematics, science and technology courses, as well as the development of soft skills, such as creativity, problem solving, teamwork, and other cross-curriculum activities (OECD 2010).

In 1990's structural reforms of Finnish education system continued with the establishment of Polytechnics, a new form of higher education. The purpose was to improve the quality and popularity of vocational education. Some minor changes were made also in basic education and elementary school was not anymore divided into lower and higher grades. In 2001 free pre-school was established, which was on the agenda already in 1980's. Children started pre-school at the age of 6, then continued through nine years of basic compulsory education. After the end of the basic education, all students have the same qualifications for both, general upper secondary education or vocational education. With the establishment of Polytechnics both, students from general school or vocational school, have the ability to obtain a higher education degree in the same amount of time (Antikainen and Luukkainen 2009).

In 1995 Finland joined the European Union, which had a big impact on country's policies with harmonization, Europeanization, mutual recognition and convergence of policies on European level (Wilton 2014). Antikainen and Luukkainen (2008) named the changes in Finnish education after 1990 as neo-liberal changes. The trend continued towards decentralization,

deregulation, accountability and rationalization, but with bigger emphasis on customer oriented practices. Because of the changes in society, where individualism and competitiveness were more and more present, the management of schools changed. Municipalities and school principals gained more power also regarding financial management (Antikainen and Luukkainen 2008).

However, the new millennium showed the results of the 30 years of reforms. The first PISA results from 2000 put Finland on the top of the world when it comes to education performance. The same success followed in 2003, 2006 and 2009. Finland was leading in all areas – literacy, mathematics and science. The phenomenon of the Finnish education became the subject of discussion internationally. Finland became a success story with student performance and their educational attainment. 96 percent of children continue their studies on upper-secondary level and in last 20 years the number of students involved in higher education tripled (OECD 2010).

Table 4.2: PISA results for Finland 2000–2015, ranking amongst all participants

	<b>2000</b>	<b>2003</b>	<b>2006</b>	<b>2009</b>	<b>2012</b>	<b>2015</b>
<b>Reading literacy</b>	1st	1st	1st	3rd	6th	4th
<b>Mathematical literacy</b>	4th	2nd	2nd	6th	12th	13th
<b>Science literacy</b>	3rd	1st	2nd	2nd	5th	5th

Source: Ministry of Education and Culture of Finland (2016).

One of the biggest challenges of the Finnish education system in 1990’s was the high number of drop-outs. In 2000 there was a high number of 7 percent of population that dropped out of the formal education system. The country battled this problem quite successfully, with motivating schools to fight dropping out. A part of yearly fund was determined to the school based on the level of drop-outs. Schools made a big step towards offering support in learning process for children and improving their well-being in schools (Sahlberg 2009).

Finnish school system is funded fully out of the government budget, remaining free for everyone on all levels. On elementary level government provides also free school meals and in cases, where children live at least five kilometers from school, government provides also free transportation. University students are entitled to free education, government funded benefit and cofounding of their rent<sup>2</sup>. However, recent changes do not include free university studies

---

<sup>2</sup> Government provides rent support for students for max of 5 years of studies for one degree.



for everyone anymore, since students from countries other than EU or EEA are obliged to pay tuition fee. Funding of education is provided with taxes and education is understood as one of the core subsystems of the Finnish welfare state. Despite all education being free, Finland's spending for education was smart and rather small compared to its performance. As Sahlberg (2009, 10) points out the investment into right parts of education made Finnish education system more successful while being less expensive than for instance in Norway, Denmark, Sweden, Japan and United States. OECD data shows that in 2012 Finland spent in 7,2 percent of GDP for education, while Sweden spent 7,7 percent of GDP, Norway 7,4 percent and Denmark 7,9 percent of GDP (OECD 2016).

Sahlberg (2009) points out some of the elements of Finnish education, which are influencing its performance. The purpose of schooling in Finland remains based on the holistic approach. Schools are not only focusing on delivering subject knowledge but also in development of each student's personality. Curriculums include knowledge, skills, and interpersonal characteristics. Learning is more important than testing and development of a person is more important than universal standards. As he continues to explain, the success of education reforms was in the long term vision and strategic principles of the reforms went above only teaching (for example providing equal opportunity for everyone). Education was reformed in relation to core values of the system and society.

Teachers in Finland have a lot of professional freedom and the ability to influence the development of schools. They have a free choice of methods, assessment and are often part of school's decision making. The quality of teaching is their responsibility. With the reform of teacher's education only the best students get to attend education faculty and all teachers are highly educated and well-paid academics and, therefore, highly valued by the Finnish society (Finnish National Board of Education 2016).

Finnish schools are based on the idea of inclusiveness and are promoting diversity. Teaching is not based on written standards but merely on guidelines which encourage creative solutions. The importance of learning from previous experiences was the key to balance between the new innovations and employing existing good practices. Majority of those principles were already brought in the system with the reform in late 1960's and early 1970's so the good results in 2000's have the ground in the exact reform (Sahlberg 2009).

### 4.1.3 Latest reform and the future of Finnish education

Despite the good results Finnish education system is delivering, the process of reforming has not stopped yet. The most recent reform has started in 2012 with the Basic Education Act and Decree (422/2012), where the framework for new curriculum, coming into force autumn 2016, was determined. The reasons for reforming already good system are mainly in the problems Finnish education system is, despite its success, facing, and the enormous changes our society is experiencing in recent years. One of the biggest problems Finland is facing is the gender gap between girls and boys. In latest PISA results girls have outperformed boys in every single category. Furthermore, boys at the same age are way less motivated for school and more boys than girls stated that they *'hate school'*. The poor economic growth and the consequences of the economic crisis are resulting in big budget cuts for education (Moore 2008; Soby 2015). On the other hand, competences needed for living are changing, new technologies are changing our everyday lives and globalization and multiculturalism are the new realities. Education system was therefore no longer sufficient and is now undergoing extensive reforms of its core values (Soby 2015).

Finnish government took the reform seriously and comprehensive, which means they did not focus only on the changes needed, but also on the process of the change itself. Core curriculum was outlined by several multidisciplinary working groups with cooperation of online consultant group and opinions from different stakeholders. By opening up the process and allowing different parts to take part in creating new curriculum, Finnish government created a new curriculum which has wide support and is a result of practical ideas of all influenced actors (Finnish National Board of Education 2017).

The idea of the new reform is to improve the already very inclusive education system and take even one step forward in understanding education as an investment in the future. Reform understands education in a holistic way with its main focus on educating children into responsible citizens, promoting lifelong learning and enabling each student to develop in a way most suitable for him or her. New curriculum is therefore competence based with the idea to teach children things they will most likely need in their lives. Soby (2015) is listing seven competence areas on which new Finnish elementary school curriculum is focusing now. Those are: (1) Thinking and learning to learn, (2) Cultural literacy, (3) Taking care of oneself, (4), Multi-literacy, (5) Digital competence, (6) Entrepreneurship and (7) Participation and realization of individual influence.

Following these areas, Finnish schools will now increase their use of ICT, move towards interdisciplinary subjects and change lesson hour distribution. There will be more social sciences, arts and environmental courses and additional language courses. Aim of the new reform is to encourage young people to think critically, to be active and develop their competences and abilities to the fullest. Finnish education system is all the time undergoing different reforms, including right now. This autumn the new, changed curriculum for elementary schools came in action, but Finnish Ministry of Education and Culture already announced, that secondary upper education level curriculum reform is soon to follow.

Due to the financial and economic crisis in Europe from 2008 onwards, Finnish government is facing with significant drop in economic growth which is affecting the funding of social systems, including education. Recent cuts in education budget forced universities to reform their programs and adjust finances. For instance, government cuts represented 15 percent of all income of University of Helsinki. University therefore reduced the number of staff and terminated all together 570 employees, changed its programs and decided to look for new forms of income. Government cuts did not hit only universities, but also students directly. With the year 2017 the student benefit and housing benefit will lower for almost one third (University of Helsinki 2016).

Together with budget cuts Finnish education is facing a significant drop in PISA results. As presented in table 4.1., Finland is no longer achieving top positions, especially in mathematic literacy. With a drop in funding and performance, the question Finland is facing is, whether or not it is able to maintain the education at the level it is, or even develop it further.

#### **4.1.4 European Union and Finnish education system**

Finland is a part of the European Union since 1995 which means, that decisions and policies accepted on European level directly affect Finnish legislation. This applies also to education policies. Elementary and post-secondary education is a domain of every EU member itself and although it has some common framework it does not affect Finnish policy making much. Mainly, it is because Finnish education is on much higher level than many other countries' making framework acts by European Union less strict for Finland. Reading the currently active act – Education and Training 2020, one can soon find out that aims of the framework are very similar to those in Finland for more than 20 years. Creating lifelong learning a reality, improving education quality and promoting equality and social cohesion are just few of them.

EU's frameworks are directed towards addressing common challenges in member states' education systems, which are often different from Finnish ones (European Commission 2016).

However, the story is quite different on the area of higher education. In the beginning of 2000's the European Union started its way towards more harmonized higher education systems throughout Europe as a part of European integration. Bologna process affected all member states, including Finland. The idea was to unify all university degree programs and establish a two level system including Bachelor's degree, lasting for three years, and Master's degree, lasting for additional two years. Together with that a new form of grading was introduced with credit points (ECTS) and new way of accreditation and quality assurance. The purpose of Bologna reform was to enable even more mobility inside the European Union for students, since mobility is one of the EU's core values (Ministry of Education and Culture of Finland 2016).

Finnish universities were not at all agreeing with the proposed Bologna reform, which left government with a hard job of convincing them the opposite. When first trying to advocate the reform, it was introduced that Bologna reform will fix Finnish high drop-out rate from universities, make a better connection between universities and companies, improve student mobility, make it faster for students to obtain a degree and achieve the goal of life-long learning even more. However, after Bologna process meetings in Prague 2001 and Berlin 2003 the goals drastically changed. As Vällimaa, Hoffman and Huusko (2007) research, only two goals remained the same (student mobility and establishment of two cycle degree).

Critics of Bologna reform were criticizing the fact that objectives are coming from outside of Finland, meaning Finland has to change its high education system in a way that is not necessarily corresponding with its national problems, because of the push from above. Finland already had two level degree system, but Bachelor's degree was understood only as a stage in studies and not as an actual degree, contrary to many other European countries. There is no market for Bachelor's level students, since employers do not accept it as a basic degree and putting more importance on Bachelor's thesis will not necessarily create a bigger demand for them. Even bigger concern for critics was the establishment of new bodies, responsible for quality assurance and accreditation of programs which never before existed in Finland. However, Finland made necessary changes but understanding of education remained the same and Bachelor's level hardly gained any importance in the eyes of employers. Similarly, quality assurance systems in Finland are still not common (Vällimaa *et al.* 2007).

Furthermore, the latest changes in higher education predict, that Finland will come even closer to Bologna system. For instance, with the start of academic year 2017/2018 University of Helsinki will undergo a series of reforms of curriculum, study directions and reform of study levels. Due to the latest trend where students are encouraged to graduate as fast as possible, Bachelor's level will gain much more importance and be treated as a separate degree level. The reform called '*The Big Wheel*' will focus on further internationalization of studies and improving mobility among different study programs (Student Union University of Helsinki 2016).

The reasons for latest changes are not only in making the study process faster and closer to the European standards, but also to renew programs to fit the needs of the changing labor market. Content of teaching and teaching techniques will modernize. Renewed content will follow similar idea as the latest curriculum reform in elementary schools with increased multidisciplinary and practical work and less focus on subjects. As Helsinki University Student Union (Student Union of the University of Helsinki 2016) explains, the goal of the reform is to give students a valuable set of skills needed for the job market and making those skills easier to recognize.

#### **4.1.5 Finland in the new era of globalization**

The term geography of educational policies represents the global movements on the field of education, which are the consequence of international testing of school pupils. At the shift of the millennium international tests became more popular, widely accepted and gained a lot of power in the eyes of the governments. TIMSS (Trends in International Mathematics and Science Study) and most importantly PISA (Program for International Student Assessment) gave out a different perception of the world and Finland was one of its main actors.

Before first PISA research in 2000 western countries such as Germany, Sweden, France and US believed they are world leaders when it comes to education, explains Sahlberg (2011b). They believed, that their institutions are the most quality ones and that their students are performing among the best in the world. Needless to say, PISA results were a shock. All mentioned countries were ranked in plane average while Finland, Canada, Korea and other Asian countries ranked as the best performers. What might came up as a surprise to Finland, never before ranking above average in anything but reading, was a wake-up call for western countries, which merely affected Finland as well. In later years Finland managed to perform even better (Ministry of Education and Culture of Finland 2016).

As Sahlberg (2011) explains, PISA had great consequences on educational policies globally, especially because it represented a completely different view in international educational benchmarking. Until then benchmarks were mainly done based on input statistics of education, such as number of enrolled students, class sizes or government spending for education. PISA offered for the first time the international comparison of educational outcomes. Although there are many different international educational guidelines, such as OECD's Education at glance or many European Commission acts, none of them have had as great impact as PISA results had.

PISA examines how well children are able to use the knowledge gained at schools in everyday problems. Its results changed focus in education from Anglo Saxon world to Finland, Canada and Asia. Finland found itself, for the first time ever, as a forerunner with no one else to look up to and base their reforms on. Contrary, there were other countries that wanted to know the Finnish secret. Thousands of delegations have visited Finland, made researches on their education system and praised its success. Despite the big success of Finland, many argue that this was not the best for Finnish education system. Many educators, professors and professionals spent a lot of time writing about the Finnish success story, which shifted Finnish focus from future to the past. They were no longer looking for better ideas, new reforms and ways to advance even more and the process of reforms stopped (Sahlberg 2011a).

It is not only lack of reforms that many educators criticize about PISA. As Sahlberg (2011a) argues, PISA is supporting transfer of policy practices that are not necessarily transferable. It is important to understand not just macro, but also micro factors that affect country's performance. In Finnish society, there is a lot of trust among people, making it easier to implement educational policy with bigger freedom of institutions and teachers, which may not be the case in other countries. Furthermore, there is a big trust in teachers who are very respected by the society, as they are educated in top quality institutions. They have the ability to deepen their knowledge and take additional courses throughout their career and all the time develop their skills and knowledge.

As Grek (2009) researches, PISA was a reason for many policy changes in countries such as Germany and the UK, but not in Finland. Results made policy makers careful around education so they would not disturb the good performance.

While PISA has made many countries re-think their education policies there are many critics saying there is too much importance being put in PISA. Sahlberg (2011b) believes that too

much focus on one test can lead to unethical means to boost performance and actions that would mean just temporary success and would focus only on narrow part of educational performance that PISA is researching. Although results say a lot, there is only literacy, mathematics and science that is being tested and many teachers believe there is more to test than just that. As Sahlberg (2011b) stated, many Finnish professors want to see international tests that would also measure students' creativity and social competences. Focusing too much on PISA could lead to neglecting other parts of education, such as arts, sports, music and developing of children's personality.

In last few years the discussion in Finland and PISA changed. Since 2006 every PISA results have been worse for Finland which is why policy makers are wondering what went wrong. With new curriculum reform in 2016 they want to bring Finland to its all paths of glory in educational performance.

## **4.2 The Czech Republic**

### **4.2.1 Education under Communism – the era of constant changes**

The Czech Republic<sup>3</sup> has a long history when it comes to education. Being formerly part of Austro-Hungarian Empire with a strong catholic background it was one of the leading nations in education in Central Europe. The first university was established in Prague already in 1348 and for many decades to follow, Czech education attracted people from all around Europe. Compulsory education was introduced as early as 1774 resulting in reading and writing knowledge of the Czech Republic residents in 20<sup>th</sup> century as one of the highest in Europe (Vlčková 2006a).

Often mentioned as the father of modern education, Jan Amos Comenius, was of Czech origin. The man who introduced pictured textbooks and supported logical thinking and long life learning, whose impact on education is still today widely recognized. Therefore, it is no surprise that the Czech Republic had highly educated people and high literacy rates already before the Communism (Darden and Grzymala-Busse 2006, 94). One of the main reason for high literacy in the Czech Republic was compulsory elementary education, which was organized in mother tongue of each minority. When today's Czech Republic and Slovakia established independent country of Czechoslovakia the tradition of compulsory education remained the same with strong

---

<sup>3</sup> The Czech Republic was established in 1993 with the collapse of Czechoslovakia. The name Czech Republic did not exist prior to 1993. For easier understanding this research uses the name Czech Republic to refer to a nation of Bohemian and Moravian lands regardless of the official name of the country at the time text is referring.

focus on vocational education, which resulted in highly technically skilled population (Gawdiak 1989).

Nazi occupation of Czechoslovakia during the Second World War resulted in closing all universities, imposed German language in schools and left the country with ruined education infrastructure and lack of teachers, since many of them were killed in concentration camps (Vlčkova 2006a). After the Second World War there was a strong desire to democratize education system and strong tendencies towards socialism were already visible, due to the Soviet Union liberating Czechoslovakia from Nazi occupation. In 1948 the Communist party of Czechoslovakia seized power and immediately started with transformation of political system, including education system, to fit Marxism – Leninism ideology. Government took control over all education, centralized and unified it. The party's goal was to cleanse all education system of fascism and collaborators. Elementary education, however, continued to be obligatory and free for all citizens (Vlčkova 2006a).

Curriculum, which was prior to this mainly decided at the school level, was now created by the Communist Party and the same for all schools. It was created to fit Marxist – Leninist theory and raise children who would support socialism. With this notion, all text books changed and new, politically oriented subjects were introduced in schools. Compulsory elementary school was increased from eight to nine years divided into two levels – first level lasting from first to fifth grade, and second level from sixth to ninth grade. More focus was given on teacher education and pedagogical faculty was established (Ministry of Education, Youth and Sports of the Czech Republic 2017). One of the party's biggest goals was promoting equal rights to education for all citizens (Liškova 2008).

The goal of the ruling party was to develop education system in a way that it will produce brave people, defenders of the country, and supporters of workers class and socialism. Individualism was suppressed on all levels and all workers and teachers had to undergo political training to prove their party loyalty to be able to work in education (Predotova 2014).

The development of the education system in the forty years of the communist rule was characterized by many smaller changes, rather than a few big reforms. For instance, duration of compulsory elementary education changed every few years. Nine year obligatory education changed back to eight years already in 1953 with the new school act. Duration of elementary education shortened, but curriculum remained the same, which resulted in big overload for students who had to process same amount of matter in a shorter time. Combination of this and



the fact, that curriculum was focusing only on very core and elementary subjects, led to a decline in education performance and small education crisis in 1950's (Liškova 2008).

The party first responded with changed curriculum, which resulted in less humanity studies courses. Consequently, the communist party decided to tackle the problem with changing the number of compulsory education back to nine years in 1960. This was, though, not the only novelty the newly adopted school act introduced. New textbooks and curriculum were adopted and special pedagogical commission was established to deal with the development of educational content (Liškova 2008).

Next bigger change in education system was introduced in 1978 with the new constitutional act where ten years of compulsory education were introduced. However, the duration of elementary school did not change and continued to be eight years, divided into two levels, but higher education (two years of it) became compulsory as well (Predotova 2014). The purpose of this change was to adjust education system to the changes in technological development and connect education system better to the needs of the economy. It was the first education system program developed for a longer period of time, but the vision of the development was still closely linked to the vision of the development of the communist party (Liškova 2008).

Table 4.3: Changes in compulsory education in the Czech Republic from 1947 to 1948

Year of implementation	Official name of the education program	
<b>1947</b>	National school	
	General school	Urban school
		Lower grammar school
<b>1948</b>	National school	High school
<b>1953</b>	8-year middle school	
<b>1960</b>	Elementary school	
	1st level	2nd level
<b>1978</b>	Elementary school	
	1st level	2nd level

Duration in school years

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
--	----------	----------	----------	----------	----------	----------	----------	----------	----------

Source: Liškova (2008, 21).

Changes of the education system policy were mainly targeting elementary education and the upper secondary education was less uniformed and more scattered than elementary one. In 1950's upper secondary schools were divided into 4-year general or professional schools, or two to three year-long vocational schools. This arrangement changed many times as education system became more and more polytechnically oriented. In 1959, when elementary school lasted for nine years, upper secondary education was shortened to just three years, in some cases the programs lasted only two years. There were many different upper secondary schools offering education on different fields. Pupils could attend general upper secondary schools, vocational schools, corporate technical schools, apprentice schools, conservatories, business institutes, and music and dance schools (Predotova 2014). When compulsory education was increased to 10 years, in 1976, the government introduced two years apprenticeships, where pupils, who did not intend to go to high school, were prepared for manual labor jobs (Predotova 2014). There were still many different upper secondary schools pupils could attend, such as general or vocational upper secondary schools, apprenticeships or high schools for workers.

Tertiary education was re-established after the end of the German occupation but was soon inferior to the ruling communist party. Before the communist rule, there was a strong tradition of mainly upper class youth attending higher education and study at universities. The communist party wanted to change this and increase the number of workers in universities with the intention to produce graduates, who would support socialism. However, the increase of students from worker class families in universities rose only by little – from former 18 percent to 37 percent of all students (McDermott 2015, 77).

In 1960's and 1970's government continued to have full power over higher education and introduced the so called principled class approach with which they regulated who was accepted to the universities, as another way of control over graduates. Political affiliation and family background became the most important factors determining who gets accepted to the university. Students from worker class families where at least one of the parents was a member of the party were strongly prioritized, while academic achievements were not of big importance. This also led to a high increase of corruption at faculty admissions (Gawdiak 1989).

In 1980's the climate in the Czech society slowly began to change and reached its peak in 1989 with the Velvet revolution. It started as a protest of students against one party rule of the Communist Party and soon many people joined in and demanded democracy. Following many mass protest, on the 17<sup>th</sup> of November 1989, the whole country joined in a two hour strike which

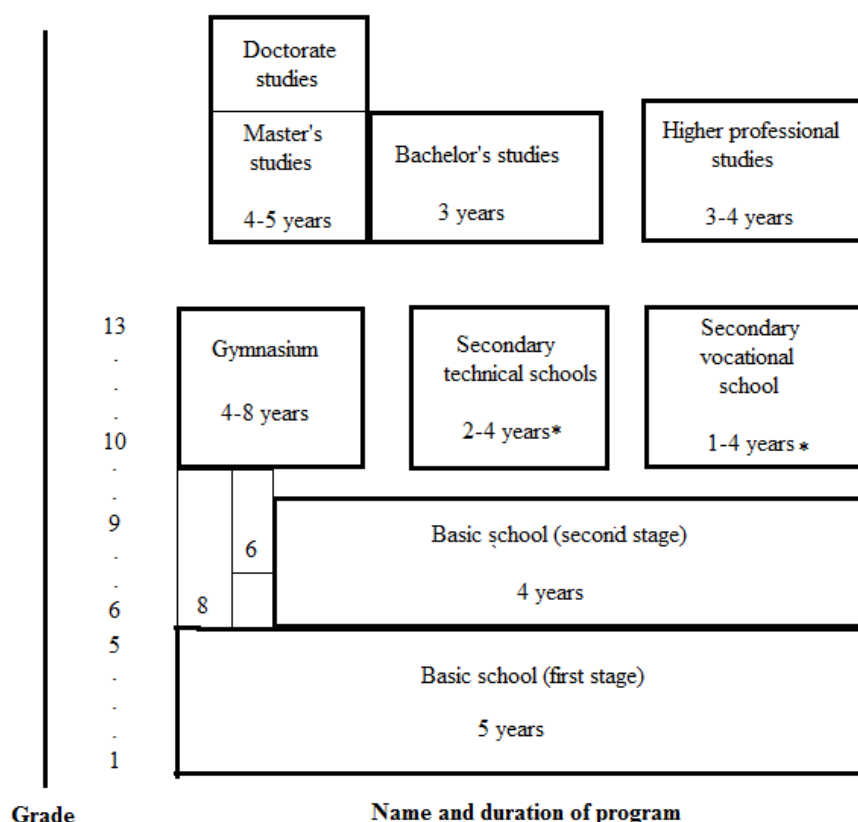
forced the ruling communist party to resign. The process towards democracy started and it influenced all spheres of politics and society, including education.

#### **4.2.2 Education after 1990 – transition and democratization of the Czech Republic**

Already in 1990 first reforms of education system happened in the Czech Republic, directed towards democratization, decentralization and de-ideologization of the Czech education. This development was much influenced by the beginning of the Czech integration into global and European organizations. Already in 1992 the Czech Republic launched a first European Commission supported project in the process of democratization (Ministry of Education, Youth and Sports of the Czech Republic 2017).

First small changes in education system happened already in 1990 when compulsory education was again shortened from 10 to 9 years. Grammar schools were re-established and lasted four years, or eight for more gifted children who attended it earlier. Vocational upper secondary schools were focusing on preparing students for professional work and lasted for four years. Talented children had the opportunity to attend six or eight year conservatories for art, music or dance. In the tertiary education, universities gained back their autonomy and academic freedom. Tertiary level vocational schools were established. One of the biggest changes right after the revolution was the abolishment of government monopoly over education. It became legal to establish private and church schools, which had to be approved by the government and had to charge tuition fee for students. Many new schools, such as Montessori and Waldorf School were established in future years (Predotova 2014).

Table 4.4: Education system of the Czech Republic in 1990's



\*If less than 4 years of studies were completed, extension studies were necessary in order to advance on the next stage.

Source: UNESCO (2017a).

In 1993 the Czechoslovak country split into two countries, the Czech Republic and Slovakia, which influenced the process of democratization. The Czech Republic was a more developed part of Czechoslovakia, with GDP one fifth higher than that of Slovakia, which is why the divorce was easier on the Czech Republic. The country did not have to make money transfers directly to Slovakia and quick economic growth was expected. However, additional bureaucracy slowed down necessary democratic reforms, including education, and international trade severed in few years after the split. Better shape of economy gave an advantage to the Czech Republic in educational development. Slovak reforms were slower and delayed, decentralization of education started only in 2003. Consequences of faster development are still seen today with big numbers of Slovak students attending Czech universities because they offer better quality education and rank higher in international perspective. In some programs in the Czech Republic, the share of Slovaks is up to 48 percent of all students (Volynsky 2013).

With the creation of the new country, a new constitution of the Czech Republic was adopted in 1992 and it included the right to free education on elementary and upper secondary level, and

if enough resources are available, also on tertiary level. Members of minorities have the right to elementary education in their native language. As a consequence to the new constitution the concept of unified schools was abolished in ideological and organizational sense. Schools became legal entities by law which gave them much bigger influence in the decision making process. New democratic narrative of the government promoted equal access to education for all people regardless their sex, religion, ethnic or economic background. Critical thinking was again promoted. Government saw education as an opportunity to increase individual's opportunities on labor market and increase economy potentials (Lorenzova 2009).

With the desire to decentralize education system the Czech Republic introduced some organizational changes which transferred some authority over schools on local level – municipalities and regions. Municipalities were in charge of elementary schools and regions of upper secondary schools. Schools gained more power when it comes to choosing the curriculum and textbooks. Teacher education became freer and political education was no longer part of their training (Liškova 2008).

Although many changes were introduced right at the beginning of the democratization of the Czech Republic it was not until 2004 that the country introduced the first act on education. Before that the regulations were scattered among many different laws. This is also the reason why many small changes were made concerning different parts of education system. However, the steps towards bigger, more comprehensive reform were made already in 1999 with the public debate over education in the Czech Republic and the beginning of curriculum reform (Lorenzova 2009).

The result of the public debate was the so-called White paper of education, introduced in 1999, which served as a national program of education and was merely influenced by the OECD recommendations for the Czech Republic. The document was written in the spirit of international integration of the Czech Republic and was written with accordance to all major international conventions and treaties on human and child rights. With the White paper, education in the Czech Republic gained a different understanding and the idea of developing individual's personality became one of the key ideas. The priorities of the White paper were to promote equal access to education, critical thinking and life-long learning. Further, the paper determined adjustment of education system based on the needs of society. The government committed to monitor and evaluate quality of education, support openness of the institutions and slowly change the role of teachers in the society (Lorenzova 2009).

Because of scattered laws and lack of regulation about pedagogical staff priorities, goals of the White paper have not been met. Therefore, after the introduction of 2004 Education act, Czech government adopted a new national program of education in 2005 which included six new directions of the Czech education:

- Updated, quality education with program on three levels: national program, field programs and curriculum. Government will especially promote courses of foreign languages, citizenship and democracy, healthy lifestyle and interest and free time courses
- Monitoring and evaluation of learning achievements on two levels: on the student level with continuous testing throughout the elementary and upper secondary education and on school level with self-evaluation of schools and national school inspection
- Providing equal access to schooling for every individual
- Development of integrated counseling in schools
- Ensure increased professionalism and social status of pedagogical workers
- Support of the further learning after education process (Lorenzova 2009).

Because of the new discussion and acts in the field of education after the Velvet revolution, more than 1700 new schools have been established throughout the country in 1990's and 2000's. Reinforced academic freedom resulted in doubling the higher education attainment by 2006. In 2004 the Czech Republic joined the European Union which influenced the education development and helped develop the system as it is today.

#### **4.2.3 Further development after joining the European Union**

Much of the Czech education development after 2004 was done with close cooperation with the European Union and other international institutions. Therefore, the most recent Strategy of lifelong learning from 2007 was developed based on the recommendations of the European Commission, and sent there to confirmation before being made public. The most important priorities from that document include recognition of permeability of education, creating equal access to education, improving functional literacy and social partnership, demanding more stimulation and quality of education, and developing counseling services to schools (Ministry of Education, Youth and Sports of the Czech Republic 2011).

Furthermore, the education framework from 2007 promotes children gaining soft skills, such as creative thinking, problem solving, and logical reasoning. The aim of the education is to create responsible people, who will execute their rights and meet their obligations. Education

institutions are meant to teach students how to develop their physical, mental and social health (Ministry of Education, Youth and Sports of the Czech Republic 2017).

The Czech Republic's education was highly influenced by joining the EU, by gaining additional funds with cooperation in operational programs of the European Union, such as the program Education for Competitiveness intended to enhance modernization of education and creating better conditions for research and development, which guaranteed the Czech Republic additional 1,83 billion euros of funds (Ministry of Education, Youth and Sports of the Czech Republic 2017).

After 2004 there have not been any major systematic changes in education. There have been, as in Finland, big changes in tertiary education following the Bologna reform. Two cycle studies were introduced with a higher possibility of changing the course of studies. The tertiary education therefore offers three or four year first cycle Bachelor's programs, one or two year second cycle Master's studies and doctoral studies. Some programs, such as medicine, are organized as one cycle Master's programs. After joining the European Union international student mobility increased and became one of the areas faculties are promoting (Ministry of Education, Youth and Sports of the Czech Republic 2007).

Furthermore, there have been efforts made to enlarge the number of people attending tertiary education, with creating better access to it. University programs are accessible to anyone finishing upper secondary program that ends with *Maturita* exam. It is a unified nation exam that pupils take at the end of gymnasium or longer programs of vocational schools. Consequently, people from vocational upper secondary schools have equal access to universities as those from general gymnasium, although in practice pupils from gymnasium score more points at the *Maturita* exam. However, most programs require passing of entrance exam to enter university studies (Liškova 2008).

In the latest years the Czech government has been preparing a law which would introduce tuition fees for higher education. Although the law is expected to be passed together with a new scheme of financial aid for students, this kind of action would limit the access to higher education for many people in the country, where higher education was for many decades seen as the domain of higher class population.

Although the development of education was in last 20 years much influenced by the international cooperation of the Czech Republic, the country is facing some major problems when it comes to the performance of education and recent changes in society.

#### 4.2.4 Education of the Czech Republic in recent years – underperformance and globalization

Contrary to Finland, there has not been much effort made in the Czech Republic to adapt education system to the changes of society and technological development. Although there are some mentions of promoting multidiscipline courses, no real changes were made. Probably the closest to modernization is the trial project of introducing tablets in early elementary education (European Schoolnet 2015).

The country is facing major problems of student underperformance. The OECD education policy outlook from 2013 describes that one out of four Czech students are underperforming to the point, when they are not able to participate in society effectively. Reading performance measured by PISA exams is below OECD average and has been dropping in latest years. Country’s performance in all PISA measured areas is dropping and continuing to be under the average score (OECD 2013a).

Table 4.5: PISA results for the Czech Republic 2000–2015, ranking amongst all participants

	2000	2003	2006	2009	2012	2015
<b>Reading literacy</b>	20th	24th	26th	34th	26th	30th
<b>Mathematical literacy</b>	19th	13th	16th	27th	24th	28th
<b>Science literacy</b>	11th	9th	15th	24th	22nd	29th

Source: OECD (2016).

Furthermore, the insight in results is unveiling a big difference in performance between children from higher social-economic classes than from those from lower classes (OECD 2013a). Greger (2012) believes the main reason for this difference is in early student differentiation, which does not guarantee all students equal opportunities.

Although the Czech Republic is dropping in PISA rankings, they continue to perform around OECD average or a bit below, since number of participating countries is larger every edition. While Finland is worried about their performance falling behind scores from previous years and uses PISA results as a benchmark and a guidance for further policies, the Czech Republic



cares only little about the results. Media, politicians, and people are satisfied with barely average results and no policy changes were made due to PISA results (Greger 2012).

The Czech Republic is a land of small schools. 35 percent of elementary schools have less than 50 students and the web of elementary schools is very widespread. The choice of school is free, but most parents enroll their children in the school closest to their home. Ministry of Education, Youth and Sports recognizes a big problem in increasing number of pupils that have to repeat classes in elementary stage. Approximately three to five percent of pupils complete their compulsory years of education before finishing elementary school (OECD 2013a).

The country continues to spend less than OECD average percent of GDP on education. Teacher staff is often paid very low, especially compared to other workers with similar education level. As OECD warns, teachers usually earn half of what an average person with university degree makes in the Czech Republic. This made the teacher profession undesirable and, consequently, led to the shortage of teachers. Due to economic crisis a lot of non-teaching staff was let go because of government cuts in education funding (OECD 2013a).

The Czech Republic has one of the highest percentages of students that attain vocational upper secondary schools. On the contrary, there is less than average number of people who enroll in higher education programs. OECD furthermore warns, that there is still a big class dependency issue in education. There is also a big gap in student performance. Children who are having difficulties are lacking support at elementary school and are, instead, often sent to special programs with less curriculum, which influences their educational future (OECD 2013a).

The country focuses much of its resources to create as sufficient quality assurance as possible. It works through many levels of evaluation and inspection. There is a big number of bodies, such as National institute for education, which are a part of education development, making the area governance a bit scattered. Schools continue to have a lot of autonomy with their own governing bodies, which are including parents and teachers. Consequently only one percent of decisions about education are taken at the state level. Schools have a lot of power to make decisions, while often lacking systematic support to make real changes that would influence country performance (OECD 2013a).

As listed in the educational strategy for 2020 by the Ministry of Education, Youth and Sports of the Czech Republic, the country is facing a lot of uncertainty and the clear direction of further education development is not yet known. Many of the goals of previous visions and directives were not met, therefore, the three main goals in the further development of the Czech education

system are still the same - reducing inequalities, supporting high quality teaching, and ensuring responsible governance of the education system (Ministry of Education, Youth and Sports of the Czech Republic 2017).

## **5 SOCIAL INCLUSION AND DISTRIBUTION AS EDUCATION PERFORMANCE INDICATORS IN FINLAND AND THE CZECH REPUBLIC**

Decades of measuring education returns and education's effect on economy and social inclusion made education one of the core pillars of social policies and welfare models. Although some researches (Psacharopoulos and Patrinos 2004) prove, that private returns to education are higher than social returns, there is still an undeniable connection between education, and social inclusion and social distribution. Van Der Berg (2008) argues, that the probability of finding employment and the level of personal income rise with the level of education. This is truer in countries with generally lower incomes and countries in development, but connection exists also in developed countries.

As mentioned before, education influences equality and justice in society and promotes social cohesion which is why it is nowadays used as one of the core mechanisms of welfare states and a method to fight poverty (Arnsen and Lundahl 2006).

Impacts of education on society and economy are the reason why countries, including Finland and the Czech Republic, are moving towards expansion of educational opportunities. It is also a reason why social inclusion and distribution have to be taken into account when researching education successfulness and performance.

### **5.1 Finland**

#### **5.1.1 Educational structure of Finnish population**

Finnish social reforms are, already since 1960's, directed towards more inclusive, quality, and free education for everyone, regardless their gender, ethnic background, religion, and social background. Reforms of the education system have changed the structure of Finnish society in last decades.

Table 5.1: Educational structure of Finnish population from 1970 – 2015 in percentage of total population over 15 years of age

	<b>Basic Education</b>	<b>Upper secondary<sup>4</sup></b>	<b>Tertiary education (lower or higher level)</b>
<b>1970</b>	74,7%	16,5%	7,2%
<b>1980</b>	61,5%	25,3%	6,0%
<b>1990</b>	49,6%	32,5%	7,6%
<b>2000</b>	40,6%	36%	10,5%
<b>2010</b>	33,0%	39,2%	16,5%
<b>2015</b>	29,3%	40,7%	19,3%

Source: Finnish statistical database (2017).

In 1970's, before the education reform came into practice, a vast majority of population had only completed elementary school. Only 16,5% of people completed upper secondary stage of education, while tertiary education level was even less common. Low level of general education was mainly the result of bad accessibility of upper secondary education. Relatively small, mainly agrarian, population was scattered in villages with big distances and many pupils did not have the opportunity to attend higher education. With elementary education reform in 1970's and following upper secondary education reform, the accessibility improved, pupils got more choice, and opportunities for their educational path and the results were quickly seen. In just ten years the number of people with completed upper secondary education level rose for almost ten percent. In the upper table the trend of higher educated population is clearly visible and nowadays less than third Finns older than 15 have only completed their elementary school. With the main purposes of education reform being the increased educational participation and creating equal opportunities for all children, it is no wonder that effects of reform were to be visible also on social inclusion among people. In 2001 the European Council adopted a set of indicators of social inclusion as a step in creating a common social policy that would help tackle poverty and social exclusion amongst member states. The goal of indicators and common social policy was to strengthen the social policy as one of the main productive factors. Indicators

---

<sup>4</sup> Including vocational education

belonged to fields that have been considered as the most important for social exclusion. Furthermore, they adopted eight secondary indicators that are supporting the primary indicators offering a different dimension of the problem (Atkinson *et al.* 2004, 52).

The adopted primary indicators include measurements such as at the risk of poverty rate and inequality of income distribution, which are areas where education is used as a policy to tackle the problems. Even more directly connected to education are indicators measuring early school leavers and youth not part of education, training or employment. Secondary indicators are including Gini coefficient, long term unemployment rate and low education attainment rates (Atkinson *et al.* 2004, 54).

### 5.1.2 Unemployment in Finland

Finnish policy model is a form of cooperation between economy, employment, social and educational policy, with the purpose to tackle poverty and enable high standard of living. In 1960's and 1970's Finnish labor market was on its peak with very low unemployment rate and high economic growth, mainly due to fast industrialization, wood industry and trade with Soviet Union. Despite big expansion of education in next decades the unemployment rate trend is rising ever since. The European Union listed education and training and its accessibility as one of the most important factors to improve employability and urged all countries facing problems with high unemployment to invest in education and training (European Parliament 1996). However, in the Finnish case, unemployment rose despite constant tries to expand education and make it more accessible.

Table 5.2: Unemployment rate in Finland from 1960 to 2015 (Percentage of labor force not employed).

Year	1960	1970	1980	1985	1990	1995	2000	2005	2010	2015
<b>Unemployment rate</b>	1,6	2,1	4,7	4,9	3,2	15,4	9,8	8,4	8,4	9,5

Source: European Central Bank (2016).

Trading Economics (2016) states that the unemployment in Finland reached its absolute lowest in September 1961 when it was only 0,7 percent. On the contrary, the absolute highest was recorded in May 1994 when unemployment was at 19,9 percent. As seen from the table, the unemployment rose steadily until the big jump in 1990's due to economic crisis caused by the changes in Eastern Europe and the collapse of the Soviet Union. Drastic measures were needed

to control the damage and repair Finnish economy. In 1995 the government of Finland decided on the program intended to tackle the crisis and strengthening education was one of the core measures in the program (European Parliament 1996). In only five years unemployment lowered for almost six percent. Overall education level of society continued rising and education and training gained a strong position in creating better future for Finnish people. It was understood as the basis premise for new, information society. In 2008 the world, including Finland, was affected by another, this time global, economic crisis. Economic development of Finland basically stopped and unemployment rose again. This time the healing was not so fast and the consequences are still visible in 2016 with GDP growth of Finland being only 0,4 percent. Holmström, Korkman and Pohjola (2014) explain that Finland is, due to the crisis, in need of high value added jobs and bigger support for innovation. Governments since 2008 failed to provide ideas to improve situation. Lack of reforms, including no bigger changes on education area, prevented Finnish economy to get back on tracks as fast as after the crisis in 1990's.

Looking at unemployment rate today, statistic reveal (Eurostat 2017) that the biggest rate of unemployment is among people who did or did not complete elementary school or reached lower secondary education level. Higher the education level, lower the percent of unemployed people is (Table 5.3).

Table 5.3: Unemployment rate based on education measured in percent of population between ages 25 and 64

<b>Level of education</b>	<b>Less than primary, primary or lower secondary education</b>	<b>Upper secondary education</b>	<b>Tertiary education</b>
<b>Unemployment rate (2015)</b>	12,1	8,2	6,4

Source: OECD (2017).

As seen from the data of unemployment by the level of education, it is clear, that education improves probability of employment. Investing in accessible and quality education is therefore one of the reasonable measures to tackle unemployment.

### 5.1.3 Poverty in Finland

Other than unemployment, Finland's society is battling with increasing poverty rates, deepening social inequalities and big class differences. Ever since 1990's poverty rate in Finland is increasing. Measured in percent of people with income lower than 60% of median national wage, the rise is seen in the table below.

Table 5.4: At risk of poverty rate in Finland from 1988 to 2015, measured in percent of population with income lower than 60% of national median income

	<b>1988</b>	<b>1990</b>	<b>1995</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>
<b>At risk of poverty rate</b>	10,0	10,5	7,6	10,5	12,7	13,7	11,7

Source: Finnish statistical database (2017).

Trend of poverty rate is similar to the unemployment trend and it is rising. Melin (2014) explains, that until 1990 poverty was understood as a personal problem in Finland and only in recent decades became also a structural problem. At risk of poverty rate of Finland is still quite low compared to other European countries, and varies only little within the country, similar to Germany, Austria and France (Eurostat 2017). Older people were considered as one of the most endangered groups for risk of poverty, but as Melin (2014) states, lately unemployed families with children and single mothers are more often at risk. Despite growing at risk of poverty rate, Finns are generally happier with their income and financial status as they were in 1990's. In 1996 sixteen percent of asked people answered, that they have no money to buy new clothes, while in 2006 the same was answered by only seven percent of asked people (Melin 2014).

Furthermore, the inability to face unexpected financial expenses has been dropping every year for the last 10 years, considering Eurostat data. In 2015 share of population unable to face unexpected expenses was at 28 percent which is significantly lower than EU average, which was in 2014 at 38,9 percent. Finns are generally also more satisfied with their financial status than average European. Vast majority of Finland's population (59,1 percent) answered that their level of satisfaction with their financial status is medium, but what is more interesting is that more people (28,6 percent) are highly satisfied with their financial status than unsatisfied with it (only 12,3 percent of population) (Eurostat 2017).

Blomgren, Hiilamo, Kangas and Niemelä (2014) explain that overlap between different poverty indicators is quite low. Only 36 percent of social benefit recipients stated that they have financial difficulties in 2009. Furthermore, only 24 percent of people categorized as persons at risk of poverty stated, that they have financial difficulties. The difference, as Blomgren and others (2014) explain, is that at risk of poverty measures only income poverty. Majority of those describing the inability to meet everyday expenses were unemployed or people with low work intensity.

There are different reasons for growing poverty rate. Riittakallio (Yle 2015) mentioned growing living costs and rents as one of the possible factors, while Mikkonen (2013) believes that growing poverty rate is closely connected to fast growing income inequality in Finland. Growing poverty and inequality have been two of the biggest problems in Finnish society lately and also two of the top priorities of latest governments. Already in time period from 1995 to 2000 Finland was one of the countries with fastest growing inequality amongst OECD members (Mikkonen 2013, 25).

#### **5.1.4 Inequality and class dependency in Finland**

Gini coefficient, which measures wealth distribution between national residents, is worldwide most accepted measurement for inequality in countries. Finnish Gini coefficient has risen from 22 in 1995 to 26,9 in 2014. Inequality rate is still below EU or OECD averages, but the constant rise is alarming. Mikkonen (2013) believes one of the main reasons for growing inequality is unequal rise of income among classes, meaning that level of social assistance rose slower than general wage trend. This supports the finding of Blomgren and others (2014), that while the share of people receiving social support has stayed the same throughout last 20 years, unemployed people with low work intensity today represent the biggest group of people facing financial difficulties with everyday expenses.

The reason for growing social inequality is closely connected to economic crisis in 1990's. High level of unemployment, fall in GDP, high public debt and increase of people in need of social support presented a high burden on Finnish government which changed its policies from social welfare to the so called active social policy. The idea was to create a high working incentives which would help economy grow. Consequently, this meant that level of social benefits was much lower compared to the developing average earnings. Supporting economy and employment while not increasing social benefits increased the differences between employed and unemployed (Blomgren *et al.* 2014).



Growing social inequality, and with it poverty, is one of the most important challenges in Finnish welfare system nowadays. The government still believes that Nordic, social democratic welfare system is the right way to tackle those problems (Mikkonen 2013), although in practice the model changed in last 20 years furthering away from universalism and generosity (Blomgren *et al.* 2014). Mikkonen (2013) explains, that one of the main challenges of future governments is to ensure adequate level of social security, high quality health services for everyone, and prevent exclusion from education. However, in 2013 governments focus in tackling poverty was still mainly focused on social benefits system and health services. In 2016 next Finnish government was no closer to tackling poverty with education. Budget cuts for education, especially universities, continued while poverty tackling policies were focused on social benefits, introducing the new universal basic income as a possible new way of providing enough income for endangered social groups to escape poverty.

While education is proven to help reducing poverty and inequalities amongst people, it is necessary that the access to education is equal and highly inclusive. Creating equal access to education has been one of the main goals of Finnish education reforms since 1960's. Finnish national agency for education clearly states, that providing all citizens with equal opportunities is the central objective of Finnish education. Providing free education with additional support and the desire to maximize individuals' potential are the main ideas of how to achieve that goal.

After the Second World War Finnish society changed into being more open and enabling all people equal opportunities through welfare, especially education. The inheritance of social status dropped and still today Finland is comparatively known as one of the most open societies, offering equal opportunities. However, there is a clear connection between parents' and children's socio-economic status and in recent year it is only growing (Blomgren *et al.* 2014).

Erola, Jalonen and Lehti (2016) explain, that social background in Finland still plays a big role in class inheritance while income mattered least and education of parents being the factor that influenced children's future the most. OECD developed index of economic, social and cultural status (ESCS) that enables research of students' background on their performance at PISA tests. Finland has one of the highest percentages of socio-economically disadvantaged students performing at the best quarter in PISA (43 percent in latest 2015 PISA results) (OECD 2016). This proves low class dependency and success of Finnish elementary education providing equal opportunity. However, since 2000 the impact of socio-economic background in Finnish schools is getting more and more important. Boys and students with immigrant background are more likely to perform worse. Gender gap between girls and boys same age is deepening every year.

In latest PISA results girls outperformed boys in all categories. Similarly, students with immigrant background have scored significantly lower results in reading literacy as their native peers (OECD 2016).

PISA results from 2015 place Finland as one of the top performers in the world. However, they also present a reason to worry. Since 2006 results in PISA have been dropping every year while gender gap and influence of socio-economic status have been rising. Finland has been listed as the country which declined the most in equity and performance since 2006 (OECD 2016).

Increase of the socio-economic status impact has been even bigger in tertiary education in past few years. Students with well-educated parents and higher social status are eight times more likely to attend tertiary education than children with lower socio-economic background. Furthermore, only ten percent of children, whose parents have only elementary education, graduate from university (Jalava 2013, 88).

High class dependency of university students raise a doubt about equal opportunities in practice. Higher unemployment and poverty rates, fast growing inequalities among people, and all the time bigger class dependency show that Finland's future, no matter of relatively high performance in international aspect, is not looking too bright. All mentioned factors show that level of social inclusion has been dropping at the same time as governments have been sliding away from the Nordic welfare model that has put Finland on the map of the most successful countries. Education reforms in 1960's and 1970's have proved the power of education in social inclusion and PISA results made Finland a star. However, it was not only bigger accessibility of education that helped with that, improving its quality was equally important.

## 5.2 The Czech Republic

### 5.2.1 Educational structure of the Czech population

Although the Czech Republic is a country of long tradition in education and its own university since the 14th century, it was not until recently that tertiary education became more common.

Table 5.5: Educational structure of Czech population from 1970 to 2011 in percentage of total population over 15 years of age

	<b>Basic Education</b>	<b>Upper secondary<sup>5</sup></b>	<b>Tertiary education (lower or higher level)</b>
<b>1970</b>	53,1%	42,3%	3,5%
<b>1980</b>	44,6%	49,4%	5,1%
<b>1991</b>	33,1%	58,2%	7,3%
<b>2001</b>	23%	62,9%	10,2%
<b>2011</b>	17,6%	60%	13,7%

Source: Czech statistical office (2017).

Until early 2000's less than ten percent of population obtained a higher education degree. Very little percentage of highly educated people was the result of two things. Firstly, long tradition of universities in the Czech Republic also kept the tradition of tertiary education only being of interest to the people of higher socio-economic classes. Secondly, the development of higher education was interrupted for almost 50 years due to Nazi occupation followed with the rule of Communist Party, where academic freedom was highly damaged and access to education fairly limited (Šebekova 2006).

Nevertheless, the Czech Republic has one of the highest shares of people who completed upper secondary education in Europe. Even more importantly, the trend of education in Czech society is turning towards more educated society every decade. In forty years a share of people with only basic education dropped from 53,1 to only 17 percent of people. This is less than in Finland and consequently there is also a higher share of people with finished upper secondary education in the Czech Republic than in Finland. There was a clear difference in the level of education

---

<sup>5</sup> Including vocational education

between Finland and the Czech Republic in 1970, which is another indicator of Czech tradition in education and high literacy already before the Second World War.

Despite those difference the trend of educational attainment in last forty years is the same in Finland and the Czech Republic. Population is getting more and more educated. The share of people with only basic education is dropping while the number of highly educated people is rising. Based on the OECD data 67 percent of today's youth in the Czech Republic is expected to enroll into a higher education institution at least once in their lives and 41 percent is expected to graduate (OECD 2015).

### 5.2.2 Unemployment in the Czech Republic

Education is considered one of the most important policies tackling poverty, especially through lowering unemployment rates and enabling people to earn more money. In the communist Czech Republic unemployment was practically non-existent. Due to the nature of economy and compulsory employment the Czech Republic did not have to deal with unemployment until early 1990's when it became a part of their economy. However, the Czech Republic's unemployment has never been particularly high. Even more, Czech unemployment rate is at the moment the lowest in the European Union.

Table 5.6: Unemployment rate in the Czech Republic from 1991 to 2015 (Percentage of labor force not employed)

Year	1991	1997	2000	2005	2010	2015
Unemployment rate	2,27	4,0	8,8	7,9	7,3	5,0

Source: European Central Bank (2017).

Unemployment started showing in the Czech society soon after transition began, mainly because of overstaffing reduction. Consequently, almost all unemployment was registered in state sector in 1991. Transformation and democratization of economy resulted in rising unemployment throughout 1990's. Since the beginning of 2000's unemployment has been dropping, reaching only 4,4 percent in 2008. Because of the economic crisis unemployment increased again after 2008. Nevertheless, unemployment stayed below EU average and in 2017 numbers showed that only 2,9 percent of labor force is without a job.

The reason for good performance lays in tax deductions for new companies that government introduced in the transition period. Those deductions and low cost of labor force made a country

very appealing for foreign investments. Over third of all jobs in the Czech Republics are located in manufacturing industry, especially car industry (Nelson 2007). Consequently, OECD listed the Czech Republic as the country with the biggest risk of losing jobs in the process of digitalization and automatization.

Improvement of education accessibility, especially in tertiary education, played a big role in improving people’s standard and increasing their job opportunities. Individuals with completed tertiary education earn averagely 75 percent more than individuals with completed upper secondary level of education. Furthermore, the risk of unemployment is much higher for persons with only elementary education than for more educated (OECD 2015).

Table 5.7: Unemployment rate in the Czech Republic based on education measured in percent of population between ages 25 and 64

<b>Level of education</b>	<b>Less than primary, primary or lower secondary education</b>	<b>Upper secondary education</b>	<b>Tertiary education</b>
<b>Unemployment rate (2015)</b>	20,7	4,4	2,2

Source: OECD (2017).

It is ten times more likely that a person with only basic education is unemployed, than a highly educated person in the Czech Republic. The connection between unemployment and education is therefore much stronger in the Czech Republic than in Finland, where there is only twice more likely that a person with only basic education in unemployed, compared to a highly educated individual. Education is, therefore, playing a big role in improving social mobility in the Czech Republic.

### **5.2.3 Poverty in the Czech Republic**

Looking solely into statistics about poverty in the Czech Republic, the country is doing very well in international perspective. While there are no recorded data of persons at risk of poverty before 2004, recent numbers show that the Czech Republic has less poverty than average in the European Union. However, authors warn that there is a big gap between statistical criteria of poor from above and the experience of poverty in the society (Večerník 2004).

Table 5.8: At risk of poverty rate in the Czech Republic from 2005 to 2015, measured in percent of population with income lower than 60% of national median income

	<b>2005</b>	<b>2010</b>	<b>2015</b>
<b>At risk of poverty rate</b>	10,4	9,0	9,7

Source: Czech statistical office (2017).

There is no available data for at risk of poverty rate before the Czech Republic joined the European Union, since the indicator was created for international comparison of poverty in the EU. At the time of the communist regime poverty was invisible, never discussed or measured. Because of planned economy and compulsory employment labor market had almost zero effect on poverty. As Večerník (2004) explains, poverty would be hard to detect with today's indicators, since standard of people was rather similar and close to minimum.

Nowadays, at risk of poverty rate in the Czech Republic is even smaller than in Finland, however, there is a big difference between those countries. While in Finland only 12 percent of population feels unhappy about their financial situation, many Czechs consider themselves as poor, even though they do not qualify as poor based on indicators. Večerov (2004) researched poverty in the Czech Republic based on four different indicators and found very different results. While at risk of poverty rate is very low, the subjective poverty line falls close to 60 percent of the population. As Večerov (2004) furthermore explains, many people in the Czech Republic fail to pay rents and bills and to modernize their homes in order to stay out of financial troubles and maintain a satisfactory life style. Over one third of the population expressed inability to face unexpected financial expenses and contrary to Finland, the number is not constantly lowering.

Eight percent of people answered, that they cannot spend a small amount of money each week on themselves, while only one percent of people in Finland thought the same. Furthermore, nine percent of people are unable to make ends meet and the share is getting bigger each year since 2007. Contrary to that, only two percent of people in Finland have the same problem while the percentage is getting smaller each year (Eurostat 2017).

It is necessary to take into account different indicators when talking about poverty in a country since some indicators cannot measure the poverty experienced among people, as the case of the Czech Republic shows.

#### 5.2.4 Inequality and class dependency in the Czech Republic

Based on the Gini coefficient the level of inequality in the Czech Republic is similar today than it was in 1993, when the coefficient was 26,13. The score has been dropping since 2004, when it reached its peak at 27,53. The level of inequality today is, based on this coefficient, similar than in Finland. However, looking at the levels of income inequality, the Czech Republic ranks very low. Average income inequality level in the European Union is 5, meaning that individuals with the lowest paycheck receive five times less than those with the highest paycheck. The level of this inequality in The Czech Republic is only 3,5 (Janatova 2011).

While the indicator of inequality show something, the reality is, as in case of poverty, rather different. The Czech Republic has one of the highest levels of class dependency in Europe. 71 percent of people between the age of 25 and 34 have the same level of educational attainment as their parents. Only 17 percent of individuals from that age group have exceeded their parents' level of education (OECD 2015).

Class dependency and differentiation starts already in elementary school, which is why PISA results show that the Czech Republic is among the countries with the biggest result variation among schools. Furthermore, study found out a big correlation between student performance and their socio-economic status. Because parents are allowed to pick whichever elementary school they want, schools started profiling themselves based on the level of demand. The elementary school network is, therefore, divided into elite schools, with bigger parent participation, extended curriculum and main attendance by students of higher socio-economic status, and other elementary schools with basic curriculum and attendance mainly by children of lower socio-economic statuses and minority groups (Katzorova *et al.* 2008).

Those two groups of schools are equal by law but much different in their performance. Elite schools tend to attract more motivated parents and tend to get more capable students while other schools usually get more students with learning difficulties. Authors mention another reason for the growing inequalities among students. Czech school system is designed to search for more talented students at three stages of elementary school – at ages 8, 11 and 13. At those ages pupils have the opportunity to attend multi-year gymnasium, which is causing the difference in the quality of education for those attending general schools (Kahanec *et al.* 2012).

The inequalities caused by the education system continue also after a person has finished their education. Because the country does not organize any day-care for children under the age of

three, young women's participation in labor market is much lower than men's, despite the fact that 60 percent of all university graduates are women (Kahanec *et al.* 2012).

The Czech Republic is a good example of the influence of education system on social inequalities and how important is that education system is not only highly inclusive but also enabling all children equal opportunities of a quality education.



## **6 COMPARATIVE ANALYSIS: SUCCESSFULNESS OF EDUCATION IN FINLAND AND THE CZECH REPUBLIC**

Positive impact of education on society is generally connected with high educational attainment levels and equal access to education. But as Hanushek and Wössmann (2007) researched, it is not enough to only spread education for positive impacts on society, the quality of it is very important as well. As they argue, a year of schooling in developing country is hardly comparable to a year of schooling in Finland, Ireland or Canada which are among top performers in recent international tests such as PISA.

Big differences between developing and developed countries make international comparison of educational quality hard. However, UNICEF (2000) defined common points of quality in education which consider the fact, that education system is very complex and highly enclosed with political, cultural and economic context. Quality education, based on UNICEF (2000), includes healthy, well-nourished learners who are ready to learn and are supported by their families and communities, healthy, safe and protective environment with adequate facilities and resources, content and materials for acquiring basic skills (numeracy and literacy) and skills for life, processes with which trained teachers are able to use child-centered teaching approaches and finally, a quality education provides outcomes connected to national goals for education, and positive participation in society.

UNESCO's quality framework takes one step further and determines more practical determinants of quality education. Based on this framework, it is important that education follows a development vision of a country and fits well with labor market producing human resources fitting to the employers' needs. Education system also has to be responsive to the changes in society and global challenges. Furthermore, it is necessary that education system responds well to the needs of individual learners as well and creates equal opportunities for all students (UNESCO 2017a). Corresponding to this framework World Economic Forum understands quality education as a system which is on one hand having positive impact on country's economy and on the other hand prepares children for life, teaches them necessary skills and, therefore, maximizes their human potential (World Economic Forum 2017).

Strategy of the Finnish National Board of Education for learning and competence in 2020 (Finnish National Board of Education 2017) sets four main values of education in future years – equity, fairness, openness and trust. The basis of Finnish education system are still equality and equity with the main goal of providing equal opportunities for all children. Similarly the

Czech Republic Strategy for Education in 2020 (Ministry Education, Youth and Sports of the Czech Republic 2017) lists creating equal opportunities and accessibility among their core values for education development with reducing inequality being one of their strategic priorities, together with support for high quality teaching and responsible governing.

Reading the vision one can clearly see that the understanding of educational quality in Finland and the Czech Republic are similar to UNESCO's framework. While Finnish vision is oriented in the future with building of national intellectual capital as one of the core aims, the Czech Republic strives to create an education system with foundation in long-term labor market needs to ensure direct entry to the market when exiting education system. Both countries support life-long learning and education aimed at developing each person's skills for a quality life. However, Finnish vision of education has a bigger emphasize on every individual's personality and their abilities and is creating more child-centered teaching process than the one in Czech Republic, where teachers are mentioned as the ones who assist pupils.

As a response to the changes in the global world, the Finnish vision also includes more foreign language learning and usage of different technologies. The Czech Republic considers foreign language learning as one of their priorities, while the vision does not specifically mention modernization and technology usage as their core values and goals. While Finland is focusing on bigger cooperation between market and education institutions, the Czech Republic is only striving for schools to be more open to cooperation with community (Ministry of Education, Youth and Sports of the Czech Republic 2017).

Finnish education system development is based on the trust and adjustment to the development in society while the Czech Republic is battling with the stiff system and uncertainty about which way to develop the system. When looking further into the successfulness of Finnish and Czech education systems, different indicators can be taken into account, but for the purpose of this research the analysis is based on the indicators discussed by Scheerens, Luyten and van Ravens (2011) who use input-process-outcomes-context framework for defining educational quality indicators. Having already discussed the process and education system of Finland, this part focuses more on certain indicators of educational input and output that can determine successfulness of education.

## 6.1 Inputs in education

### 6.1.1 Financial resources

Education in the Czech Republic and Finland is free on all levels with the responsibility for funding divided between the government and local authorities. In both countries public and private schools receive government funds. The funding of pre-primary and elementary education in both countries is provided by the government, which transfers the funds to municipalities in Finland and regions in the Czech Republic, which are the education providers.

In Finland the amount transferred depends on the number of residents aged from 6 to 15 in municipality and any other special conditions municipality has. After receiving government funding, local authorities can decide themselves how to redistribute funds. In Czech Republic government uses similar methodology of per capita budget allocation. However, the system does not work the best and the government proposed the changes in funding system in February 2017. The previous system failed to take into account the difference between teachers' salaries, due to their seniority, and level of after school activities organized by different schools. Therefore, schools with more experienced teachers and more after school activities were disadvantaged. The new system will allocate funds based on number of students as well as teachers' salary levels and other activities (European Center for the Development of Vocational Training 2017).

Upper secondary and general secondary education is in Finland funded directly from the government, based on the number of students in each school and price unit set by the ministry. Higher education is funded directly by the state in the Czech Republic as well, but Finnish universities and polytechnic universities are expected to raise money individually as well (Finnish National Board of Education 2017a).

Table 6.1: Expenditure on education from government sources in percent of GDP

	<b>2000</b>	<b>2005</b>	<b>2010</b>	<b>2013</b>
<b>Finland</b>	5,72	6,04	6,54	7,16
<b>The Czech Republic</b>	3,67	3,90	4,08	4,09

Source: UNESCO (2017b).

Finnish government spending is slightly above OECD average, which was 6,2 percent of GDP in 2010, while the Czech Republic is often criticized for spending way less than average. For

the tertiary education Finland spends way more money from the public budget than other OECD countries averagely, while Czech Republic spends way less than OECD average also for higher education (UNESCO 2017a). As Kahanec and others (2012) explain, Czech education system is under-financed and unable to provide quality education, which is visible especially in providing early childhood education. Furthermore, lack of resources for education are disabling any bigger reforms to be carried out without additional funding.

Comparing both countries' annual expenditure per student there is a clear difference between Finland, which in 2013 spent averagely 8519 US dollars per elementary school student, while the Czech Republic spent a bit over half of that – 4730,4 US dollars (OECD 2013b).

Throughout the last 15 years the percent of GDP spent on education has been steadily increasing in Finland as well as in the Czech Republic, although the Czech Republic's increase in spending is less significant than in Finland. While the newly introduced financing reform might fix some problems with ensuring quality due to low funds, no more government money is expected to be allocated for education.

Both countries have experienced big government cuts education funding due to the recent economic crisis. The cut was biggest in Finnish higher education which forced universities to reorganize their work, reduce the number of employees and find different sources of funding, including scholarships for foreign students. In the Czech Republic cuts have been the worst for non-pedagogical staff of schools on all levels. With Czech government's intend to improve teacher's salaries, there was less money available for other workers of schools which resulted in lower salaries for non-pedagogical staff (OECD 2013b). Both countries were discussing the idea of introducing tuition fees for all higher education students and Finland already introduced them for all students from non-EU countries.

### **6.1.2 Material resources and safe climate**

Class size is one of the most commonly used indicator of education quality and successfulness that Scheerens, Luyten and van Ravens (2011) categorized as one of the material resources input indicators. The indicator is popular because of the general findings of multiple researches which proved, that smaller classes are associated with better student achievements (Jepsen 2015) and educational attainment being one of the indicators of inclusiveness of education. However, recent studies show, that correlation between students' performance and class size is much smaller than first thought and solely reducing class sizes is not the most effective quality assuring policy (Jepsen 2015).

Finnish elementary school classes are still smaller than in many other countries. Average Finnish class has 17,8 children which is way less than international average where in one class there are usually 20,3 children. Contrary, average class sizes in the Czech Republic are bigger than average, with 21,1 children in an average class. Even though classes in Finland are smaller, ratio of students per teacher is 13,3 which is close to average and much bigger than in the Czech Republic where there is 18,8 students per one teacher. Even more different is the ratio of teachers to number of school administrative or management personnel which is one of the biggest in Finland according to TALIS international comparison. There are only 5,3 teachers per administrative or management personnel in the Czech Republic, while in Finland the ratio is 12,4. This suggest that schools in the Czech Republic spend bigger proportion of education funding for administration and management, than schools in Finland (OECD 2013b).

Furthermore, class climate is another factor of great importance for the successfulness of education that is included in Scheerens, Luyten and van Ravens classification. O’Brennan and Bradshaw (2013) stated, that positive school climate is improving behavioral and academic achievements of students and influence students’ mental health and their performance. Children studying in more positive class environment tend to be more motivated and engaged in learning process. Furthermore, a healthy class climate also benefits teachers and other employees (O’Brennan and Bradshaw 2013).

TALIS, OECD’s teaching and learning international survey included school climate in their survey, focuses mainly on absenteeism, arriving to school late and different types of abuses when measuring school climate.

Table 6.2: School climate measured in percent of lower secondary education teachers whose school principal considers the following student behavior occurs at least weakly at their school

	<b>Arriving late to school</b>	<b>Skipping classes</b>	<b>Cheating</b>	<b>Vandalism, theft</b>	<b>Intimidation, verbal abuse among students</b>	<b>Intimidation, verbal abuse to teachers</b>
<b>Finland</b>	86,5	64,0	2,0	2,4	27,8	3,6
<b>Czech Republic</b>	39,4	5,7	12,9	3,9	4,9	0,5
<b>OECD Average</b>	51,8	38,7	13,2	4,4	16,0	3,4

Source: OECD (2013).

As seen in the upper table, Finnish principals are estimating that students are absent and late for school way more often than principals averagely estimated in other assessed schools, including in the Czech Republic. Based on the principals' estimation, there is also more intimidation and verbal abuse among students present in Finland, than in the Czech Republic.

However, based on principal estimation, Finnish students tend to cheat a lot less than their peers averagely and 10 percentage points less than children in the Czech Republic. School climate, especially absenteeism and arriving late for school in Finland, and cheating and in the Czech Republic, are good indicators of children's attitude towards school which support the findings of WHO cross-national study which showed, that Finnish and Czech students particularly dislike school. Both countries are ranking among the five countries, where children like school the least (World Health Organization 2012).

Only 20 percent of 11-year-olds in Finland and 21 percent in the Czech Republic answered, that they like school, while averagely in assessed countries 40 percent of students answered that they liked school. Furthermore, 11 year old students in Finland and the Czech Republic feel more pressured by the school work than average. One third of young Finnish students and one quarter of Czech students reported feeling pressured by the school work. The percentage rises drastically when asking 15-year-olds. In Finland over 60 percent of 15 year old students are feeling pressured by the school work, while the percentage in the Czech Republic is almost half smaller - 37 percent of Czech 15-year-olds feel pressured by the school work (World Health Organization 2012).

Pupils who are not liking school and are feeling pressured by school work have bigger possibility of bad school performance and engaging in health harming behaviors, such as smoking or drinking alcohol.

Survey results are, especially for Finland, rather surprising, since Finnish education system is based on the holistic approach of developing each pupil's abilities and personality and especially when taking into account their good performance on PISA tests. Finnish students are also not pressured by standardized tests and have more possibilities to choose their courses, especially compared to the Czech Republic. Considering these results and falling performance in PISA testing, it is possible that Finnish education did not respond well to the changing society. Last big reform, which was very successful, was made in 1970's and the stall after it shows its consequences today. It is evident that recent curriculum reform in 2016 was more than needed.

While the school climate in the Czech Republic looks better than the one in Finland, especially considering absenteeism and arriving to school late, one could find the reason for such difference in the core values of education systems. While Finnish system is based on trust it is possible to assume that there are less rules and penalties for arriving to school late or missing classes. The problem of children not liking school is big in both countries and the Czech Republic is aware of this problem, since creating a more motivating environment in school is one of their core goals in the new education vision for 2020.

Usage of new technologies and learning methods, including more practical and useful themes in curriculum, might bring school again closer to the students increasing their satisfaction and performance in both countries. Based on previous research it is clear, that Finland is striving towards those goals more actively than the Czech Republic.

### **6.1.3 Human Resources and quality of teaching**

Well-educated teachers are one of the primary conditions for good performance of any education system. The leaders in international comparison tests like PISA, Finland, Canada and Singapore, are focusing a lot of attention on teacher education, teaching based on collaboration, autonomy and professional responsibility, which is believed to be one of the reasons for their good performance (Sahlberg 2013).

The first step in ensuring quality teaching is high quality teacher education. In Finland only the brightest and most successful high-school students are accepted into primary education teachers programs. On approximately 700 free spots there are thousands of applicants every year and only every tenth applicant is accepted into Master's program of elementary education. In practice it is harder to get accepted to the faculty of education than law or medicine faculty in Finland. All graduates of this program receive an academic degree of same value as any other university degree, which is why they must complete their studies with a thesis. Future elementary school teachers major in education and minor in a subject taught in elementary schools, while future high school teachers master in subject they will teach and minor in another subject taught at schools. Masters' degree level is compulsory for all new teachers in public schools, except for teachers in kindergartens, where bachelor's degree is adequate. Majoring in education and not in specific subject gives Finnish teachers better understanding of child development, pedagogy, school development and leadership which they can then use at their work. Because of high standards of entry into teaching Finland has no need for measuring teacher effectiveness in later stages (Sahlberg 2013).

Sahlberg (2013) determines four aspects in which Finnish teacher education differs from the rest of the world. Because of their high education, which is the same level as lawyers or engineers, they are respected as professionals. Their degree is based on research which makes them more competent for decision making in classrooms. Furthermore, education studies have the same status as other departments enabling future teachers to develop their abilities in academic environment. Last but not least, all education programs in Finland have clinical training schools, similar to teaching hospitals for doctors, where students spend up to 15 percent of their study time.

While university degree is compulsory also for teachers in the Czech Republic the situation there is quite the opposite of that in Finland. Very few young people decide to pursue the career of a teacher, mainly because of the bad reputation of teachers in the Czech society. Before the Second World War teachers in the Czech Republic were highly respected due to their high education. However, during the communist rule, teachers were downgraded into workers with low paychecks closely connected to the ruling Communist Party, which is why they very received little support and trust from parents. After 1989 the situation did not improve much and while general paycheck levels were rising, teachers remained under-paid. Teachers were underestimated and used to earn less than majority of manual workers (Vlčková 2006b).

Bad situation of teachers was recognized already in 2001 when the famous White Book supported the improvement of teacher profession and its perception in society. Nevertheless, history left its marks and teaching profession is still not a prestigious profession in the Czech Republic. While in Finland only the best students attend pedagogical faculties in the Czech Republic the situation is opposite. The best students chose other faculties and the ratio of students from lower socio-economic classes is bigger than on other programs. Pedagogical faculties also have one of the biggest generation continuity in the country, meaning that majority of young people decide to become teachers because one of their parents were teaching as well. Because of the low paychecks students of pedagogical faculty often chose different professions after graduating. When entering the teaching profession 35 percent of teachers are reporting that they are forced to have a second job to earn more money and over one third of them leave the profession before retiring. Even today teachers earn half of what other university graduates from other fields averagely earn (Vlčková 2006b).

Looking into the structure of teachers, over 80 percent of teachers in Finland are female compared to 76,5 percent in the Czech Republic. Their average age is similar – 44,1 years in Finland and 44,2 in the Czech Republic.



Teachers in Finland are autonomous professionals with high level of professional freedom and opportunities to influence school development and their own work. They have big influence also on the national level development of education, since they are widely represented in expert groups for education policies (Finnish National Board of Education 2017). While a lot of decision-making is left to schools also in the Czech Republic, teachers do not have as much freedom of choice as in Finland.

Schools in the Czech Republic can choose their own curriculum and teaching style from the list approved by the ministry. Finnish teachers enjoy even more autonomy with their work and understand themselves as professionals who are obliged and responsible to plan their work, implement new techniques and evaluate their own work. Because of the school system decentralization in Finland, schools have a lot of autonomy developing their curriculum and teachers are directly involved in that process. Because of their involvement in curriculum making and developing new activities for teaching, they are more motivated for teaching and value their work more. They are most satisfied with freedom they are having with teaching and the influence they have on children's lives (Sahlberg 2013).

Because Finnish education system has no internal evaluation or standardized testing, teachers have free hands also in evaluation of students, which gives them more freedom to try and develop new learning techniques. That led to more relaxed atmosphere in classes when it comes to relationships between students and teachers, which are often quite informal (Sahlberg 2013). Contrary to that, the Czech Republic has a system of many standardized tests during elementary and upper secondary education and a lot of quality assurance bodies and inspections leaving less freedom to teachers.

Compared to other countries, teachers in Finland have lighter load, especially on administrative tasks. Teachers in Finland spend averagely 31,6 hours a week working, compared to 39,4 hours in the Czech Republic. Although they work less hours, they use more of that time for actual teaching. In Finland teachers averagely spend 20,6 hours teaching while in the Czech Republic teachers spend only 17,8 hours teaching, according to the TALIS survey in 2013.

Freedom at their work is so important to Finnish teachers, that a lot of teachers stated, that they are willing to leave the profession if government would limit it with implying standardized testing or external inspection (Sahlberg 2013).

Based on those facts there is no wonder Finnish teachers are amongst the most satisfied teachers with their work in the world. Furthermore, teacher's union has been one of the most satisfied

profession groups in Finnish economy. According to TALIS (OECD 2013b) survey 95,3 percent of teachers stated, that advantages of being a teacher clearly outweigh disadvantages, while only 53 percent of teachers in the Czech Republic think the same. Czech teachers are amongst the least satisfied teachers of all participating countries, since the international average is at 77,4 percent of teachers thinking their job advantages outweigh disadvantages.

However, position of teachers in the Czech society does not necessarily reflect school climate, according to indicators researched by TALIS.

Table 6.3: School climate – teacher related factors in percent of lower secondary education teachers whose school principal considers the following teacher behaviors to occur at least weakly at their school

	<b>Arriving at school late</b>	<b>Absenteeism</b>	<b>Discrimination</b>
<b>Finland</b>	11,4	0,7	0,0
<b>The Czech Republic</b>	0,5	0,0	0,0
<b>Average</b>	10,9	4,7	0,3

Source: TALIS (2013).

The rates of Czech teachers arriving to school late and being absent are, based on the principals' estimation, close to zero. The rates are way lower than OECD averages and even lower than those of Finland. While all other data shows that teachers in the Czech Republic are way less satisfied with their jobs, under-paid and less respected than their Finnish colleagues, the reason for such difference in the upper rates could be again in the freedom of the Finnish education system, compared to the stiff system of the Czech Republic.

#### **6.1.4 Quality assurance**

As part of decentralization of education and ensuring more autonomy to schools Finland has a rather different quality assurance method than other countries. The country abolished all inspections already in early 1990's and has no external inspection in schools. State took the role of a guiding body more, than supervising one. Finnish education is ensuring its quality with a high level of freedom of schools and teachers, when it comes to the teaching process. Finland is more focused on providing highly educated and motivated teachers who have a strong feeling of commitment and desire to perform and evolve, rather than forcing standards and inspections on schools.

Even without inspection, Finland still cares about the performance of education system. Evaluations are done by the independent government agency called Finnish education evaluation center in the form of thematic system evaluations and learning outcomes evaluation. The learning outcomes are evaluated based on the objectives in curriculum with tests (Finnish Education Evaluation Center 2017).

Czech Republic, on the other hand, has a long history of school inspections, which are still today a big part of education system. Although every school in the Czech Republic received a status of a legal entity, and schools have a lot of autonomy, they are closely inspected by the inspection. Firstly, schools are obliged to conduct self-evaluations and secondly, Czech school inspection are carrying out direct inspections of every school in the country, including private and church schools. Regular inspections are carried out once every six years with a visit of inspectors at the school. Inspectors have the authority to go through all official documents of school, interview people, observe lessons, and gather information about learning outcomes (Czech School Inspectorate 2017).

Contrary to Finland, teachers are not obliged or encouraged to improve education quality. Since Czech schools are enjoying a lot of autonomy, principals are ultimately responsible for quality of education and schools. Other than regular inspections, Czech School Inspectorate can conduct inspections also ad hoc after receiving initiatives and complaints from parents, pupils, school employees or third persons. After every inspection reports are distributed to Czech education board, founder of the school (in most cases municipality) and the principal of the school (Czech School Inspectorate 2017).

The Czech Republic is taking the opposite direction than Finland also when it comes to nationally standardized tests. Since the Czech inspectorate has difficulties assessing learning outcomes of the students, the country is striving towards more standardized national tests on many levels of elementary and upper secondary education. While Finland is fighting against such tests to ensure autonomy to teachers and learning for skills and not tests, Czech Republic is moving towards tests in the hope of better quality assurance.

## 6.2 Outcomes of education

### 6.2.1 Dropout rates

Researching dropout rates in connection to the successfulness of education and schools is not new. Older theories (Finn 1989 *et al.* in Rumberger and Palardy 2005) discuss, that dropouts occur because of children becoming disengaged from learning and school process and lack motivation to advance their studies. On the other hand researches show, that dropout rates are closely connected to social engagement and social inclusion of students. Those who drop out of education are more likely to be unemployed, earn less money and have lesser career opportunities and are, therefore, more likely to be socially excluded. Dropout rates are also closely connected to academic performance. Christle, Jolivette and Nelson (2007) found out that schools in United States with better test performance had lower dropout rates. Furthermore, children of minority groups and families with lower income were more at risk of dropping out of education. Successfulness of education and social inclusion go hand in hand – more quality, successful and accessible education is, less people are socially excluded, which means less students will be at risk of dropping out of school.

Table 6.4: Early leavers from education – percent of population aged from 18 to 24 who completed no more than lower secondary education and are not anymore included in education

	<b>2005</b>	<b>2010</b>	<b>2016</b>
<b>Finland</b>	10,3	10,3	7,2
<b>The Czech Republic</b>	6,2	4,9	6,6
<b>EU Average</b>	15,8	14,0	10,7

Source: Eurostat (2017).

Table 6.4 shows similar picture of the Czech Republic as official data on poverty and unemployment do. The dropout rate is very low and much under EU average and under Finnish rates. This corresponds with the previous discussion of the Czech Republic having one of the highest rates of people with upper secondary education. Similarly, Finnish drop-out rate is also bellow European Union average and has been dropping in last six years. Even though the EU average of school drop-outs is lower every year, this is not the case in the Czech Republic. Percentage of drop-outs has risen for 1,7 percentage points in the last six years. In the same time, Finnish drop-out rate has lowered for over three percentage points. Growing drop-out rate

has become a problem in the Czech Republic and tackling this problem is included in the vision for education 2020.

Percentages in the table 6.4 can be connected to previously mentioned rates of pupils disliking school. Finnish drop-out rate is bigger than that of the Czech Republic, similarly as more children in Finland dislike school compared to the Czech Republic. However, both countries are managing to motivate students to stay in school better than averagely other countries in the EU, although the trend for the Czech Republic is alarming.

One of the reasons for low drop-out rates could be the recognition of education as extremely important in Finland on one hand, and proven high personal returns of education in the Czech Republic on the other hand. Furthermore the connection between high academic performance and dropout rate in Finland is not to be compared with the one measured in the United States or other countries. Finland has no standardized tests and comparisons between schools, which would create competition and push for score results. In fact, Finland is one of the countries with the least difference between student's performances in different schools which is a good example of equity and equality that Finnish education system is based on. This is not to be said for the Czech Republic, where the country is pushing towards more national tests. Furthermore, the Czech Republic is one of the countries with the highest differences in performance between schools and previously discussed problem with emergence of elite elementary schools. Those inequalities of performance and greater importance of national standardized tests could be one of the factors for growing drop-out rates in the Czech Republic.

### **6.2.2 Learning outcomes – international perspective**

The question of how good certain education system is has been around for many decades. Governments, of course, want to know if the money invested in education is worth spending. For internal student performance evaluation, standardized tests were often used to monitor progress of children throughout the time and between different schools. However, those tests do not always give the most reliable information about children's abilities and their skills, since teachers often teach topics that will be included in tests, no matter how useful they are for children's lives.

In 1990's student learning became much more important in the discussion of quality and successfulness of education. Globalization connected governments so much there was a need for more comparative student performance indicators. OECD and IEA (International Association for the Evaluation of Educational Achievement) were first international

organizations to develop internationally carried tests of student learning achievements (Bernbaum and Schuch Moore 2012).

The most known and most widely acknowledge international test is PISA which is carried out every three years by OECD with over 70 participating countries in latest edition. The focus of PISA research is to measure the abilities of 15-year-old students in reading literacy, mathematics and science literacy. The idea is to measure how much knowledge have young people acquired throughout their elementary education. The first research was carried out in 2000 and latest results available are from 2015.

Second important international test is TIMSS (Trends in International Mathematics and Science Studies), which was established even before PISA, but gained less mainstream recognition. It is performed every 4 years by the IEA. Its tests are focused on students aged from 10 to 14. In 2015 sixty countries participated in testing.

The third most widely performed international test is PIRLS (Progress in International Reading Literacy Study), which is also managed by IEA and performed every 5 years. It is testing reading literacy amongst 10-year-olds and in 2011 total of 48 countries participated. Finland is taking part in all mentioned tests since their beginning and is known as a very strong performer, especially in PISA.

Table 6.5: Latest results in international tests in points achieved - PISA 2015, TIMSS 2015 and PIRLS 2011

	PISA			TIMSS <sup>6</sup>		PIRLS
	Mathematics	Reading	Science	Mathematics	Science	Reading
<b>Finland</b>	511	526	531	535	554	568
<b>The Czech Republic</b>	492	487	493	528	534	545
<b>Average</b>	490	493	493	500*	500*	500*

\*TIMSS or PIRLS Scale Center Point set at 500 points to correspond the mean of achievement distribution.

Source: OECD (2016); TIMSS and PIRLS (2017).

<sup>6</sup> Results for TIMSS 2015 in 4th grade of elementary school(10-year-olds).

Table 6.5 shows the latest results in three international learning outcomes studies. While the research discussed PISA results and trends in the Czech Republic and Finland already previously, performance in TIMSS and PIRLS, although measuring mathematics, science and reading performance, show a different picture. The Czech Republic is performing better and is only couple of points behind Finland in mathematics achievement measured by TIMSS. It is clear that Finland is still performing better, but the gap between countries is not as big as in PISA. There are couple of possible reasons for this. Firstly, PISA is measuring the performance of 15-year-olds, while the presented data from TIMSS and PIRLS are measuring literacy of 10-year-olds. While in Finland this does not make much difference, in the Czech Republic children at 15 years of age are already divided into different schools, some of them already from the age of 11. Secondly, there is a slight difference between what PISA and TIMSS are measuring. As Klieme (2016) explains, PISA is focused on measuring how well can students use their knowledge gained at school in real life situations and how well equipped are they for functioning in the society. On the other hand, TIMSS and PIRLS are trying to determine trends in mathematics, science and reading performance, and is useful as a feedback about the quality of curriculum. Furthermore, PISA tests are longer and have bigger sample on country level than TIMSS and PIRLS. Because of those differences PISA results are more often discussed in public and in parliaments.

The results show that Finnish performance in all mentioned international tests is above average, especially for European standards. There is a big gap in performance amongst East Asian countries and the rest of the world in TIMSS and PIRLS rankings. The absolute best results are Finnish students achieving in reading literacy, where Finland is ranked third amongst all participants in PIRLS research and fourth in PISA results. The area where Finland is performing the worst is mathematics. In PISA it ranked on eleventh place and even worse, on 17<sup>th</sup> place in latest TIMSS research. Not only that, mathematics is also the area where Finland is performing worse and worse every year. In three years since previous PISA research in 2012 Finnish score in mathematics dropped for ten points. TIMSS research categorized Finland as one of the five countries with lower average achievement in mathematics since last research. Even though the results are dropping, Finland is still categorized as one of the best performing countries in the world when it comes to students learning achievements.

Scores of the Czech Republic do not give a straight answer of which is the weakest point of student performance. While latest PISA results show that reading literacy is where Czech students are performing the worst, PIRLS is showing that as their strongest area. However,

more than nowadays scores, trends within those international tests tell more. The Czech Republic was listed amongst two countries where average lower achievement has been lowering since 1995 in mathematics, measured by PIRLS. In science literacy, their average remained similar throughout the years. As discussed above, results in PISA for the Czech Republic are also continuing to drop. One of the influencing factors for drop in PISA ranking in the Czech Republic and Finland is also a bigger number of participants each testing round. In 2000 there were 43 participating countries while in 2015 there were 71 countries participating in PISA, making a competition for ranking harder. Nevertheless, data on points achieved, growing inequalities and overall performance are showing that drop in performance is also a result of changes in educational quality and therefore successfulness of education.

The results themselves are not as important as the way a country perceives those results and this could be one of the biggest differences between researched countries. While Finland ranked on first places in the beginning of 2000's this was a confirmation of a very successful and quality education system. Continuous excellent results caused a big PISA boom in the country with other countries making study visits and taking Finnish system for an example. When the results started to drop, this was a huge alarm for Finland and it meant that urgent changes in education system are needed to maintain the level of quality. Finland is striving to have one of the best education systems in the world. Contrary to that, the Czech Republic has no desire to have the best education system. As Greger (2012) explains, average or even below average PISA results are in the Czech Republic perceived as good, positive and do not get any special attention from media. Greger (2012) compared the reaction of governments of the Czech Republic and Germany, since both countries scored almost same results in PISA 2009. While Germany felt that average results are a proof of a failed education system and demanded an urgent reform, the Czech Republic was satisfied with the results. Even today, there are no demands to improve education system by media, parents or political parties, and based on public opinion researches, over 60 percent of people are satisfied with education system of the Czech Republic (Greger 2012).



## 7 FINAL RESULTS OF THE COMPARATIVE ANALYSIS

Education has many influences on society, such as higher political participation, poverty reduction, social mobility improvement, reducing crime rates, and improving economic growth. Education also enables people better lives. More educated people have bigger chances of finding a job, are paid better and have lower risk of social exclusion. However, social returns of education are said to be bigger than private returns. This is why education is one of the most important parts of today's welfare systems.

In Nordic welfare systems education often plays role of poverty reducing mechanism and a way to provide educated labor force for economic growth. Similarly, education in communist regime had the purpose of providing labor force for planned economy but at the same time it was highly regulated and a subject of ideology totally in control of the ruling party. While Finland already in 1960's chose to follow a holistic approach of education with a purpose of developing each person's abilities, the Czech Republic in Communism used education to provide brave defenders of the nation and supporters of socialism.

Education systems of Finland and the Czech Republic developed under the circumstances, which importantly effected the systems as we know them today. The development of Finnish education system is characterized by very fast development and huge national will and consensus for educational reforms. Finland accepted few reforms, but those were very big and very successful. They developed a system based on child-centered education, freedom of institutions and freedom of choice for students. A system with no dead ends and high quality teachers, which brought them great international results. Education was also one of the main policies when successfully battling economic crisis in 1990's. However, Finland is also known for resting on laurels a bit too long and failing to adjust education system to global changes and new economic crisis in 2008. Nevertheless, new actions towards changes in education system are already being taken by the Finnish government with some changes in core understanding of education system that have never been seen before.

Contrary to Finland, the Czech Republic's education development did not start from zero. The Czech Republic has a long tradition of education already from the 14<sup>th</sup> century, having one of the biggest literacy rates already before the Second World War. After the communist ruling, education's role in society changed and development was turned into a different direction than in Finland. There was no academic freedom, education was politically and ideologically highly controlled and there was practically no freedom of schools or teachers. The education system

went through a period of constant small but confusing changes when duration of compulsory education changed every few years. The system was highly inclusive but lacked in quality. After the independence, Czech government lacked support and consensus for big education changes and continued with the trend of small changes. The biggest changes were made in higher education, where academic freedom was re-established and universities became open for enrolment. Czech education system is still today known for its early differentiation, many different upper secondary schools, and a big connection between education attainment of parents and children.

The performance of both education systems was assessed on many levels – social inclusion and distribution, inputs in education and outputs of education. While the educational structures of Finland and the Czech Republic are both moving towards more educated population, there are some major differences seen as the result of education system development. Education attainment of Finland before 1970's was much lower than in the Czech Republic which, despite huge drop, resulted in more people obtaining only elementary education in Finland than in the Czech Republic. Similarly, because of years of restricted accessibility to tertiary education, less people in the Czech Republic are highly educated, compared to Finland.

Furthermore, unemployment is much smaller, and private returns of education are larger in the Czech Republic than in Finland. Highly educated people are less likely to be unemployed in the Czech Republic than in Finland and have bigger salary compared to less educated people in the same country. While Finnish unemployment is rising in last years, the experience from 1990's, when education reforms were accepted as an action to fight economic crisis, prove that highly inclusive and successful education influences unemployment rate.

While on first sight it may seem that there is a lot less poverty in the Czech Republic than in Finland, there is an important difference between statistical indicators and experience in society. While at risk of poverty rate is indeed lower in the Czech Republic than in Finland, there are less Finns reporting to have financial problems than Czechs. Many people in the Czech Republic are not able to face unexpected financial burdens and have to make a lot of sacrifices to maintain a normal lifestyle. Since private education returns in the Czech Republic are big, it would make sense to promote enrolment to higher education to fight poverty. Looking further into social distribution of the countries, one can see that the Czech Republic has one of the highest levels of class dependency in Europe. Very little people exceed their parents' level of education. This represents a certain problem in Finland as well as inequalities are growing in the last years.

Looking at the education performance indicators directly connected with education, one can see that Finland is spending more money for education, based on percentage of GDP and money allocated per student. While the difference in school climate is not too big among countries', Finland is facing a problem with high level of absenteeism and children disliking school. Finland also has bigger problems with drop-out rates than the Czech Republic, although the trend is looking better for Finland. Finnish drop-out rates are constantly getting lower, while the Czech Republic is facing growing drop-out rates.

Analyzing quality of teaching, Finland is performing much better than the Czech Republic. Finnish teachers are enjoying very high reputation in society than Czech and their salaries are much bigger, compared to severely under-paid Czech teachers. Consequently, much bigger percentage of Finnish teachers is satisfied with their job, compared to their Czech colleagues. Only the best students in Finland become teachers, while in the Czech Republic average or below average students decide to become teachers.

Finland is doing much better also in international test comparison, where it is, despite drop in last years, topping the charts. On the other hand, the Czech Republic is performing averagely or even below average and does not focus much on those results.

It is clear that Finnish education system is more successful than Czech one, but the analysis shows, that while different development of each education system has an impact on educational performance today, there are other important factors responsible for the worse performance of the Czech Republic compared to Finland:

- A desire to create the best education system. This desire is creating one of the biggest differences between the Czech Republic and Finland. While the latter is trying to adopt changes in legislation to stay at the top, the Czech Republic is satisfied with average performance and does not intend to create the best education system in the world.
- Importance of constant adjustment of education system to the changes of society. While Finland is striving to all the time modernize education system and introduce new methods of teaching, using new technologies and focusing on individual's soft skill appreciated by the employers, the Czech Republic is slow when it comes to this. There are no constant reforms and no consensus which direction should education develop in future years.
- Importance of teachers. One of the biggest reasons for Finnish success are their teachers. Only the best students become teachers, they are highly qualified, very well paid and

very well respected in the society. They enter the profession with a desire to teach and improve the quality of teaching. They are encouraged to develop new methods and they feel obligated to improve school quality. Consequently Finland abolished all inspections and teacher satisfaction rate is very high. In the Czech Republic teachers have way worse position in society, they are so underpaid that they are forced to take extra jobs and not the most successful students become teachers. Finnish teachers are also working less, but spending bigger proportion of their working hours actually teaching, compared to the Czech teachers.

- More successful administration. While both countries were striving towards decentralization, this was much bigger success for Finland than for the Czech Republic. Finland is a country with big area and small number of inhabitants making decentralization necessary. No standardized tests, no inspection are enabling Finland to spend more education funds for education and not administration.
- Bigger input creates bigger output, meaning more money spent for education, better position of education in society and bigger respect for teachers have an influence on education system performance. As more money does not necessarily mean better education system, this reason is listed towards the end.
- Cultural differences. Finnish education system is based on trust. Trust that each teacher has a desire to improve quality of teaching and that every part of the system is striving towards better education quality, without extra inspections and regulations. The system is based on guiding and assisting more than on regulating. This huge amount of trust and little amount of regulation could not necessarily work in other countries and cultures, which is why copying Finnish education system in other countries did not produce same results as in Finland.

## 8 CONCLUSIONS

This thesis analyzed the impact of historical development on the successfulness of the education systems of Finland and the Czech Republic. Using different indicators of education system inputs, outputs and social inclusion the thesis analyzed performance and successfulness of both education systems.

Based on the analysis, hypothesis number: *“Based on the indicators of social inclusion, education inputs and outputs, Finnish education system is performing much more successfully than one of the Czech Republic,”* can be confirmed. Finnish education system is performing much better, especially based on indicators directly connected to education in both, income and outcome sectors of education. Finnish education is especially way more successful in international tests and some aspects of ensuring social mobility, such as lowering the class dependency of individuals. Finnish education system is more funded than Czech, teachers are much more satisfied, there are more highly educated people and drop-out rates are dropping. Despite some factors where the Czech Republic performs better, such as unemployment and student satisfaction, a vast majority of indicators where Finland is performing better suggest, that Finnish education system is more successful than the Czech one.

Furthermore, the hypothesis number two: *“Communist political system after the Second World War influenced the development of education system in the Czech Republic, which resulted in education system of the Czech Republic being less successful than education system of Finland,”* can only be partially confirmed. While the era of the communist ruling indeed played a big part of the development of the Czech Education, there are also other factors, not directly connected to communist political system that can be named as reasons why the Czech education system is performing worse than Finnish.

Because of the long communist rule, the Czech Republic missed many years when education system in Finland was developing the most and Czech system was stalling and focusing on other goals. Consequences are still seen today in low percentage of people with tertiary education and big class dependency rates. Education system today is still stiff, development is based on inspections and teachers still did not gain their respect in the society back.

For the future research extending the education to pre-school education and adult education could offer an additional look on education systems. Furthermore, there are more social inclusions factors that can be researched in connection to the education, even though there is no possibility to directly measure the influence education has on those indicators. There are

many different reasons influencing a single social inclusion factor which makes direct comparison among countries hard.

No matter how praised the Finnish education system is, many problems with social inclusion and a big proportion of kids who dislike school in Finland prove, that perfect education system does not exist. Finland is also a proof that today's top education performance does not guarantee the same results tomorrow. Education system needs constant changes to keep up with fast changes in society and technology, in order to produce the outcomes individuals and economies want.

## 9 DALJŠI POVZETEK V SLOVENŠČINI

Izobraževanje ima dokazan pozitiven učinek na ekonomsko rast, zmanjševanje revščine v družbi, nižjo stopnjo kriminala ter izboljšanje socialne mobilnosti posameznikov. Znano je, da imajo ljudje z višjo izobrazbo večje možnosti za zaposlitev ter navadno tudi večje prihodke. A eno leto izobraževanja ne pomeni enako v vseh državah, saj je kvaliteta izobraževanja izjemnega pomena in mednarodne raziskave kažejo, da obstajajo velike razlike med izobraževalnimi sistemi v Evropi. Ta naloga zato naslavlja koncept uspešnost izobraževalnih sistemov v današnji družbi ter ugotavlja, v kolikšni meri je na uspešnost vplival zgodovinski razvoj. Ta vprašanja naloga zasleduje skozi primerjalno analizo dveh evropskih držav – Finske in Češke.

Razvoj izobraževalnih sistemov obeh držav je tesno povezan s politično ureditvijo po drugi svetovni vojni. Finska je uživala močan politični konsenz in široko državo blaginje, katere pomemben del je bil tudi izobraževalni sistem. Vse politike so bile usmerjene v skupen cilj – gospodarsko rast in izobraževalni sistem je bil deležen temeljite prenove že v sedemdesetih letih. Nasprotno se je češki izobraževalni sistem po drugi svetovni vojni razvijal pod popolnim nadzorom komunizma. Čeprav je bila državna ureditev s socialnega vidika zelo podobna državi blaginje in je bilo izobraževanje zelo dostopno, pa je bil češki izobraževalni sistem prepleten z ideologijo, nadzorom komunistične stranke ter željo po vzgajanju podpornikov socializma.

Za podrobno analizo uspešnosti izobraževalnih sistemov Finske in Češke dandanes je potrebno upoštevati mnogo kazalnikov, povezanih z izobraževalnim sistemom kot delom države blaginje. Izobraževanje kot socialna politika namreč vpliva na ravni brezposelnosti, revščine in vključenosti v izobraževanje. V obeh državah se raven izobrazbe državljanov povečuje. Čeprav je na Finskem večji delež ljudi z visoko izobrazbo, pa je na Češkem manj ljudi, ki imajo zgolj osnovno izobrazbo. Na to je nedvomno vplivala dolga češka tradicija izobraževanja. Čeprav ima Češka glede na indikatorje nižjo stopnjo brezposelnosti in revščine, pa avtorji opozarjajo, da je izkušnja revščine in subjektivna raven revščine na Češkem veliko večja kot na Finskem. Prav tako se Češka spopada z veliko odvisnostjo od socialno ekonomskega razreda in neenakostmi med uspehom različnih šol.

Po analizi dejavnikov neposredno povezanih z izobraževanjem je jasno, da je Finski izobraževalni sistem uspešnejši od češkega. Finska namenja večji delež BDP za izobraževanje, učitelji so boljše plačani in zelo spoštovani v družbi ter izredno zadovoljni v svojih službah. Le najboljši študenti lahko postanejo učitelji. Eden izmed največjih pokazateljev uspešnosti

finskega izobraževalnega sistema pa so mednarodno primerjalni testi, v katerih Finska posega po vrhu lestvice. Nasprotno, Češka na teh testih dosega povprečne rezultate. Učiteljski poklic na češkem ni spoštovan, vlada pa namenja skoraj polovico manj denarja na študenta, kot na Finskem. Čeprav je stopnja osipa na Češkem manjša kot na Finskem, pa se ta zadnjih nekaj let zvišuje. Kljub uspešnosti izobraževalnega sistema Finske je zadovoljstvo med učenci eno izmed najnižjih v Evropi ter nižje, kot na Češkem.

Čeprav je nedvomno res, da je potek razvoja po drugi svetovni vojni vplival na izobraževalni sistem danes, predvsem je to vidno v analizi indikatorjev socialne vključenosti, pa to ni edini razlog za večjo uspešnost finskega izobraževalnega sistema. Nenehna želja po izboljšanju ter prilagajanju spremembam v družbi, velik poudarek na izobraževanju učiteljev ter njihovi svobodi pri delu, učinkovitejša administracija ter kulturne razlike so le nekateri izmed razlogov, zakaj je Finski sistem mnogo uspešnejši od Češkega.



## 10 LITERATURE

1. Abrams, Bradley F. 1997. *The Struggle for the Soul of the Nation: Czech Culture and the Rise of Communism*, Maryland: Rowman and Littlefield Publishers.
2. Anisimov, O. 1950. The Soviet System of Education. *The Russian Review* 9 (2): 87–97.
3. Antikainen, Ari. 2006. In Search of the Nordic Model in Education. *Scandinavian Journal of Educational Research* 50 (3): 229–243.
4. Antikainen, Ari and Anne Luukkainen. 2008. *Twenty-five Years of Education Reform Initiatives in Finland*. Joensuu: University of Joensuu, Department of Sociology.
5. Atkinson, Anthony B, Eric Marlier and Brian Nolan. 2004. Indicators and Targets for Social Inclusion in the European Union. *Journal of Common Market Studies* 42 (1): 47–75.
6. Belfield, Clive R and Henry M. Levin. 2008. *The Price We Pay: Economic and Social Consequences of Inadequate Education*. Washington, D.C.: Brookings Institution Press.
7. Bernbaum, Marcia and Audrey-Marie Schuh Moore. 2012. *Examining the Role of International Achievement Tests in Education Policy Reform: National Education Reform and Student Learning in Five Countries*. Washington, D.C.: USAID.
8. Berryman, Sue E. 2000. *Hidden Challenges to Education Systems in Transition Economies*, Washington: World Bank.
9. Blomgren. Jenni, Heikki Hiillamo, Olli Kangas and Mikko Niemelä. 2014. Finland: Growing Inequality with Contested Consequences in *Changing Inequalities and Societal Impacts in Rich Countries. Thirty Countries' Experiences*, eds. Brian Nolan, Wiemer Salverda, Daniele Checchi, Ive Marx, Abigail McKnight, Istvan György Toth and Herman van de Werfhorst, 222–248. New York: Oxford University Press.
10. Chase, Robert S. 1997. Markets for Communist Human Capital: Returns to Education and Experience in the Czech Republic and Slovakia. *ILR Review* 51 (3): 401–423.
11. Christle, Christine A, Kristine Jolivette and Michael C. Nelson. 2007. School Characteristics Related to High School Dropout Rates. Remedial and special education. *Remedial and Special Education* 28 (6): 325–339.
12. *Czech School Inspectorate*. Available at: [www.csicr.cz](http://www.csicr.cz) (3 August, 2017).
13. *Czech statistical office*. Available at: [www.czso.cz](http://www.czso.cz) (15 July, 2017).
14. Darden, Keith and Anna Grzymala-Busse. 2006. The Great Divide. Literacy, Nationalism and the Communist Collapse. *World Politics* 59: 83–115.

15. Erola, Jani, Sanni Jalonen and Hannu Lahti. 2016. Parental education, class and income over early life course and children's achievement. In *Research in Social Stratification and Mobility* 44: 33–43.
16. *European Central Bank*. Available at: [www.ecb.europa.eu](http://www.ecb.europa.eu) (5 January, 2017).
17. *European Commission- Education and Training*. Available at: [ec.europa.eu/education/](http://ec.europa.eu/education/) (12 December, 2016).
18. *European Schoolnet: Pan-European Policy Experiment with Tablets*. Available at: [creative.eun.org](http://creative.eun.org) (5 July, 2017).
19. Esping-Andersen, Gosta. 2008. *Three Worlds of Welfare Capitalism*, New Jersey: Princeton University Press.
20. European Parliament. 1996. *Social Policy in Finland: An Overview*. Directorate-General for Research. Available at: [http://www.europarl.europa.eu/workingpapers/soci/w9/market\\_en.htm](http://www.europarl.europa.eu/workingpapers/soci/w9/market_en.htm) (25 January, 2017).
21. *Eurostat. European statistics database*. Available at: <http://ec.europa.eu/eurostat/web/main/home> (13 January, 2017).
22. *Finnish Education Evaluation Centre*. Available at: [www.karvi.fi](http://www.karvi.fi) (10 August, 2017).
23. *Finnish Ministry of Education and Culture*. Available at: <http://www.minedu.fi/> (9 November, 2016).
24. Finnish National Board of Education. 2016. *Teachers in Finland – trusted professionals*. Available at: [http://www.oph.fi/download/148962\\_Teachers\\_in\\_Finland.pdf](http://www.oph.fi/download/148962_Teachers_in_Finland.pdf) (22 December, 2016).
25. Finish statistical database. 2017. Available at: [http://www.stat.fi/index\\_en.html](http://www.stat.fi/index_en.html) (4 January, 2017).
26. Finnish National Board of Education. 2017. *Finnish Education in a Nutshell*. Available at: [http://www.oph.fi/download/146428\\_Finnish\\_Education\\_in\\_a\\_Nutshell.pdf](http://www.oph.fi/download/146428_Finnish_Education_in_a_Nutshell.pdf) (22 March, 2017).
27. --- 2017a. *Learning and competence 2020*. Available at: [http://www.oph.fi/download/135542\\_learning\\_and\\_competence\\_2020.pdf](http://www.oph.fi/download/135542_learning_and_competence_2020.pdf) (5 March, 2017).
28. Flabbi, Luca, Stefano Paternostro and Erwin Tiongson. 2007. Returns to Education in the Economic Transition: A Systematic Assessment Using Comparable Data. *Economics of education review* 27 (6): 724–740.
29. Gawidak, Ihor. 1989. *Czechoslovakia: a country study*, Washington: Federal Research Division, Library of Congress.

30. Glenn, Charles L. 1995. *Educational Freedom in Eastern Europe*, Washington: Cato Institute.
31. Greger, David. 2012. When Pisa Does Not Matter? The Case of the Czech Republic and Germany. *Human Affairs* 22: 31–42.
32. Grek, Sotiria. 2009. *Governing by Numbers*, Edinburgh: Research Explorer, University of Edinburgh.
33. Hanushek, Eric and Wössmann Ludger. 2007. The Role of Education Quality for Economic Growth. *World Bank Policy Research Working Paper No. 4122*. Available at: <https://ssrn.com/abstract=960379> (13 November, 2016).
34. Holmes, Leslie. 2009. *Communism. A very short introduction*, New York: Oxford University Press.
35. Holmström, Bengt, Sixten Korkman and Matti Pohjola. 2014. *The nature of Finland's economic crisis and the prerequisites for growth*, Helsinki: Valitoneuvoston Kanslia.
36. Inglot, Tomasz. 2008. *Welfare states in East Central Europe, 1919 – 2004*. Cambridge: Cambridge University Press.
37. --- 2009. *Czech Republic, Hungary, Poland and Slovakia: Adaptation and Reform of the Post-Communist Emergency state Welfares in Post-communist Welfare Pathways*, New York: Palgrave Macmillan.
38. Lelkes, Orsolya and Eszter Zolyomi. 2008. *Policy across Europe: The Latest Evidence Using the EU-SILC Survey*. Strasbourg: Policy Brief, European Center.
39. Liškova, Veronika. 2008. *Vyvoj a komparace českého a nemeckého vzdelavaciho system*. Ba thesis. Brno: Masaryk University.
40. Jalava, Marja. 2013. The Finnish Model of Higher Education Access: Does Egalitarianism Square with Excellence? In Meyer, Heinz-Dietrich and others. *Fairness in Access to Higher Education in a Global Perspective*, Boston: Sense Publishers.
41. Janacek, Kamil. 1994. Unemployment in Czechoslovakia and the Czech Republic. *Eastern European Economics* 32: 55–68.
42. Janatova, Hana. 2011. *Inequalities in the Czech Republic. A country profile using EU statistics*, SZU. Available at: [https://ec.europa.eu/health/sites/health/files/social\\_determinants/docs/ev\\_20110405\\_co19\\_en.pdf](https://ec.europa.eu/health/sites/health/files/social_determinants/docs/ev_20110405_co19_en.pdf) (25 August, 2017).
43. Kahanec, Martin, Martin Guzi, Monika Martišková, Michal Palenik, Filip Pretold and Zuzana Sibertova. 2012. GINI Growing Inequalities' Impact. *Growing Inequalities and Their Impacts in the Czech Republic and Slovakia*. Available at: [83](http://gini-</a></li>
</ol>
</div>
<div data-bbox=)

- research.org/system/uploads/511/original/Czech\_Slovak.pdf?1377869960 (5 July, 2017).
44. Kangas, Olli and Jon Kvist. 2014. *Utopia or dystopia? Well-being in the Nordic Welfare States*, Odense: Forsakrings Kassen.
  45. Katzorova, Denisa, Janku Sidiropulu, Radim Marada and Arnost Svoboda. 2008. Country Report on Education: Czech Republic. *Edumigrom Background Papers*. Budapest: Roma education fund.
  46. Klieme, Eckhard. 2016. *TIMSS 2015 and PISA 2015. How are they related on the country level?* Berlin: German Institute for International Educational Research. Available at: [https://www.dipf.de/de/forschung/publikationen/pdf-publikationen/Klieme\\_TIMSS2015andPISA2015.pdf](https://www.dipf.de/de/forschung/publikationen/pdf-publikationen/Klieme_TIMSS2015andPISA2015.pdf) (7 August, 2017).
  47. Kupiainen, Sirkku, Jarkko Hautamäki and Tommi Karjalainen. 2009. *The Finnish education system and PISA*. Helsinki: Ministry of Education Publications.
  48. Kvist, Jon and Bent Greve. 2011. Has the Nordic Welfare Model Been Transformed? *Social Policy and Administration*. 45 (2): 146–160.
  49. Lendvai, Noemi. 2009. *Variety of Post-Communist Welfare: Europeanisation and Emerging Welfare Regimes in the New EU States*, Bristol: University of Bristol.
  50. Lochner, Lance and Enrico Moretti. 2003. The Effect of Education on Crime: Evidence from Prison Inmates, Arrests, and Self-Reports. *The American Economic Review* 94 (1): 155–189.
  51. Marlier, Eric and Brian Nolan. 2004. Indicators and Targets for Social Inclusion in the European Union. *Journal of Common Market Studies* 42 (1): 47–75.
  52. McDermott, Kevin. 2015. *Communist Czechoslovakia 1945-89. A Political and Social History*, New York: Palgrave Macmillan.
  53. Melin, Harri. and Heikki Laurinolli. 2014. *Economic crisis highlighted class divisions. Research and Study*. Tampere: University of Tampere. Available at: <http://researchandstudy.uta.fi/2014/02/28/economic-crisis-highlighted-class-divisions> (18 January, 2017).
  54. Melin, Harri. *Social Inequalities in Finland*, Tampere: Department of Social Research. University of Tampere.
  55. Mikkonen, Juha. 2013. The Politics of Poverty in Finland. *Social Alternatives* 32 (1): 24–30.

56. Mill, John Stuart. 1843. *A System of Logic, Ratiocinative and Inductive: Being a Connected View of the Principles of Evidence and the Methods of Scientific Investigation*, London: John W. Parker, West Strand.
57. Ministry of Education, Youth and Sports Czech Republic. Available at: <http://www.msmt.cz/> (5 June, 2017).
58. Ministry of Education, Youth and Sports Czech Republic. 2011. *The Education System in the Czech Republic*. Available at: <http://www.msmt.cz/file/27043/download/> (11 June, 2017).
59. National Center on Education and the Economy. 2006. *Profile of the Czech Republic's Education System*. Available at: <http://www.ncee.org/wp-content/uploads/2013/10/Czech-Education-System.pdf> (9 July, 2017).
60. Nelson, Eshe. 2017. Why does the Czech Republic have the lowest unemployment in the EU? *Quartz media*. 3 August. Available at: <https://qz.com/1044383/why-does-the-czech-republic-have-the-lowest-unemployment-rate-in-the-eu/> (10 August, 2017).
61. Smith, Mark K. 1997. *Plato on Education*. Available at: <http://infed.org/mobi/plato-on-education/> (22 March, 2017).
62. O'Brennan, Lindsey and Bradshaw Catherine. 2013. *Importance of school climate. National Education Association, research brief*. Available at: [https://www.nea.org/assets/docs/15584\\_Bully\\_Free\\_Research\\_Brief-4pg.pdf](https://www.nea.org/assets/docs/15584_Bully_Free_Research_Brief-4pg.pdf) (8 March 2017).
63. OECD. 2010. Finland: Slow and Steady Reform for Consistently High Results in *Strong performers and successful reformers in education: Lessons from PISA for the United States*, Paris: OECD Publishing.
64. --- 2013a. *Education Policy Outlook: Finland*. Available at: [http://www.oecd.org/edu/EDUCATION%20POLICY%20OUTLOOK%20FINLAND\\_EN.pdf](http://www.oecd.org/edu/EDUCATION%20POLICY%20OUTLOOK%20FINLAND_EN.pdf) (5 January, 2017).
65. --- 2013b. *Education Policy Outlook: Czech Republic*. Available at: [http://www.oecd.org/edu/EDUCATION%20POLICY%20OUTLOOK%20CZECH%20REPUBLIC\\_EN.pdf](http://www.oecd.org/edu/EDUCATION%20POLICY%20OUTLOOK%20CZECH%20REPUBLIC_EN.pdf) (7 July, 2017).
66. --- 2015. *Czech Republic: Education at a glance 2015: OECD Indicators*. Available at: [http://www.keepeek.com/Digital-Asset-Management/oecd/education/education-at-a-glance-2015/czech-republic\\_eag-2015-51-en#page1](http://www.keepeek.com/Digital-Asset-Management/oecd/education/education-at-a-glance-2015/czech-republic_eag-2015-51-en#page1) (17 July, 2017).
67. --- 2016a. *Pisa. Results in Focus*. Available at: <https://www.oecd.org/pisa/pisa-2015-results-in-focus.pdf> (3 March, 2017).

68. --- 2016b. *PISA 2015 results (Volume 1): Excellence and Equity in Education*. Available at: <http://www.oecd.org/education/pisa-2015-results-volume-i-9789264266490-en.htm> (12 January, 2017).
69. Psacharopoulos, George and Harry Anthony Patrinos. 2004. Returns to Investment in Education: A Further Update. *Educational Economics* 12 (2): 111–134.
70. PIRLS. 2017. *International results in reading PIRLS 2011*. Available at: <http://timssandpirls.bc.edu/pirls2011/international-results-pirls.html> (22 March, 2017).
71. Predotova, Dana. 2014. *Histori školství od roku 1945 do současnosti. History of Education since 1945 to Present*, Ba thesis. Olomouc: Palacky University Olomouc.
72. Rumberger, Russel W and Gregory J. Palardy. 2005. Test Scores, Dropout Rates and Transfer Rates as Alternative Indicators of High School Performance. *American Educational Research Journal* 24 (1): 3–42.
73. Sahlberg, Pasi. 2006. Education Reform for Raising Economic Competitiveness. *Journal of Educational Change* 7 (4): 259–287.
74. --- 2009. *A short history of educational reform in Finland*, Helsinki: University of Helsinki.
75. ---2011a. The Fourth Way of Finland. *Journal of Educational Change* 12(2): 173–185.
76. --- 2011b. PISA in Finland: An Education Miracle or an Obstacle to Change? *Centre for Educational Policy Studies Journal* 1 (3): 119–140.
77. --- 2012. *Quality and Equity in Finnish Schools. School Administrator September 2012*. Available at: [https://pasisahlberg.com/wp-content/uploads/2013/01/Qualit\\_and\\_Equity\\_SA\\_2012.pdf](https://pasisahlberg.com/wp-content/uploads/2013/01/Qualit_and_Equity_SA_2012.pdf) (7 March, 2017).
78. Scheerens, Jaap, Hans Luyten and Jan Van Ravens. 2011. Measuring educational quality by means of indicators. Perspectives on educational quality. *Springerbriefs in Education* 1: 35–50.
79. Soby, Martin. 2015. Finnish education system. *Nordic Journal of Digital Literacy* 9 (2): 64–68.
80. Šebkova, Helena. 2006. *Tertiary education in the Czech Republic. Country Background Report for OECD Thematic Review of Tertiary Education*, Prague: Centre for Higher Education Studies. Available at: [http://www.csvs.cz/projekty/2006\\_OECD/OECD%20final.pdf](http://www.csvs.cz/projekty/2006_OECD/OECD%20final.pdf) (3 July, 2017).
81. TIMSS. 2017. *International Results TIMSS 2015*. Available at: <http://timssandpirls.bc.edu/timss2015/> (5 March, 2017).

82. Tomlinson, Sally. 2005. *Education in a Post Welfare Society*, Buckingham: Open University Press.
83. UNESCO. 2017a. *Education: Expenditure on education as percent of GDP (from government sources)*. Database. Available at: <http://data.uis.unesco.org/?queryid=181> (11 March, 2017).
84. --- 2017b. *Country Based Statistics: Czech Republic*. Available at: [http://www.ibe.unesco.org/fileadmin/user\\_upload/archive/Countries/WDE/2006/CENTRAL\\_and\\_EASTERN\\_EUROPE/Czech\\_Republic/Czech\\_Republic.htm](http://www.ibe.unesco.org/fileadmin/user_upload/archive/Countries/WDE/2006/CENTRAL_and_EASTERN_EUROPE/Czech_Republic/Czech_Republic.htm) (3 July, 2017).
85. United Nations Human Development Reports. 2017. Available at: <http://hdr.undp.org> (11 August, 2017).
86. Välimaa, Jussi, David Hoffman and Mira Huusko. 2007. The Bologna Process in Finland. *Perspectives from the Basic Units*. Jyväskylä: University of Jyväskylä.
87. Van der Berg, Servaas. 2008. Poverty and education. *Education policy series* 10 (28), Paris: OECD Publishing.
88. Večerník, Jiri. 2004. Who Is Poor in the Czech Republic? The Changing Structure and Faces of Poverty after 1989. *Czech Sociological Review* 40 (6): 807–833.
89. Vlčková, Katerina. 2006a. *Development of the Czech Education*, Brno: Masaryk University. Available at: [https://is.muni.cz/el/1441/podzim2006/PdZZ\\_CES/um/CDROM\\_DevelopmentEducation\\_EN.pdf?lang=en](https://is.muni.cz/el/1441/podzim2006/PdZZ_CES/um/CDROM_DevelopmentEducation_EN.pdf?lang=en) (11 June, 2017).
90. --- 2006b. *Being a Teacher in the Czech Republic*. Masaryk University. Available at: [https://is.muni.cz/el/1441/podzim2006/PdZZ\\_CES/um/CDROM\\_Lehrer\\_EN.pdf](https://is.muni.cz/el/1441/podzim2006/PdZZ_CES/um/CDROM_Lehrer_EN.pdf) (3 August, 2017).
91. Voorhis, Van. 2002. Different Types of Welfare States? A methodological Deconstruction of Comparative Research. *The Journal of Sociology and Social Welfare* 29 (4): 3–18.
92. World Health Organization. 2012. *Social determinants of health and well-being among young people. International report from the 2009/2010 survey*. Available at: [http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0003/163857/Social-determinants-of-health-and-well-being-among-young-people.pdf](http://www.euro.who.int/__data/assets/pdf_file/0003/163857/Social-determinants-of-health-and-well-being-among-young-people.pdf) (9 March, 2017).
93. Yle. 2014. *Poverty in Finland on Rise*. Available at: [http://yle.fi/uutiset/osasto/news/poverty\\_in\\_finland\\_on\\_rise/8340717](http://yle.fi/uutiset/osasto/news/poverty_in_finland_on_rise/8340717) (30 January, 2017).