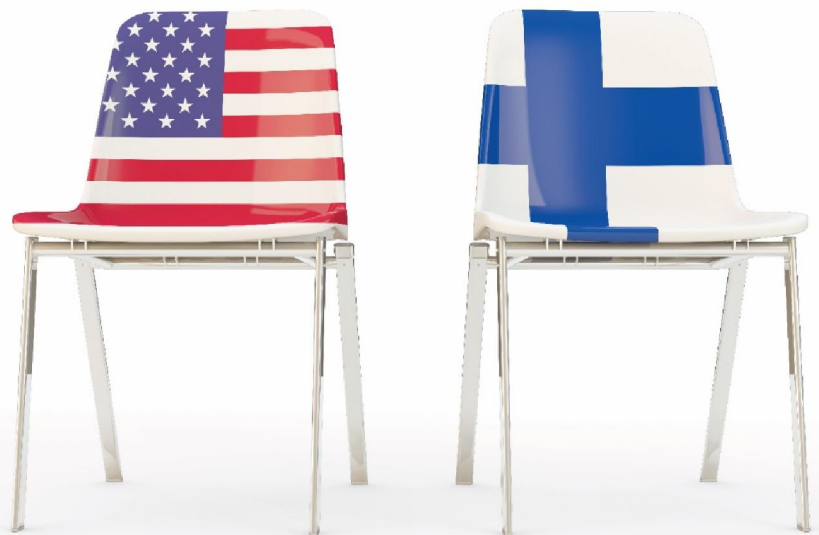


Between the US and Finland: Different Educational Systems and Their Impacts on Developing Curricula



Author:
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Abstract

A consensus exists regarding the pivotal role of education in economic development. However, there is disagreement on which policies should be implemented to achieve high quality education. Finland chose to have a public schooling with no competition from the private sector. The educational system in Finland is also highly decentralized, with schools and teachers setting their own personalized curricula and assessments; teachers are trusted, and there is little focus on accountability. In contrast, the US system focuses on fostering competition, allowing the private sector to play an important role in education, and there exist supplementary initiatives such as charter schools and school vouchers, all of which aim to increase competition. Additionally, in the US teaching and learning are standardized and there is a strong focus on assessment-based accountability. This paper aims to analyze the opposing educational systems of Finland and the US, and draws lessons for Bahrain based on this analysis.

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Between the US and Finland: What can Bahrain learn from these opposing educational systems?

1. Introduction

Everyone agrees on the pivotal role of education in economic development, as education is the foundation on which economic activity is built. The early work of Adam Smith (1776), to Robert Solow (1957) and Gary Becker (1964), and more recently, Eric Hanushek and Ludger Woessman (2007); all emphasized the importance of education in building productive human capital and economic growth. A high level of education leads to increased efficiency, job creation, and economic growth. However, there is disagreement on what policies should be implemented to achieve a high quality education. Should education be provided by the public sector, the private sector, or both? Should educational systems be centralized or decentralized? Should curricula and assessments be standardized or personalized? Should educational systems have more or less accountability? These questions are highly debated and there is probably not one correct answer. Each country has its unique set of environmental, social, cultural, and economic systems that affect the answer to these questions.

The United States and Finland have chosen opposing answers to the above questions. Finland chose to have a public schooling with no competition from the private sector. The educational system in Finland is also highly decentralized with schools and teachers setting their own personalized curriculum and assessments, teachers are trusted and there is little focus on assessment based accountability. While the US focused on fostering competition, so the private sector plays an important role in the educational system, and additional policies are introduced, such as charter schools, school vouchers, and teacher performance based pay, which all aim to increase competition. Additionally, in the US teaching and learning are standardized and there is a strong focus on assessment-based accountability.

This paper aims to analyze the opposing educational systems of Finland and the US, and draws lessons for Bahrain based on this analysis. Bahrain has always been learning and adopting educational policies

from educational top performers. The Ministry of Education in Bahrain is continuously following in detail the policies adopted in different countries such as Australia, Canada (Alberta), Singapore, South Korea, Finland, the US, and other countries. The experiences of other countries can provide many lessons for Bahrain. This does not mean that Bahrain should copy others exactly, but it does mean that it can always learn from them, and adapt what is learned to its own purposes.

The US is chosen because historically it was the unquestioned education leader in the world (Darling-Hammond, 2010). The US educational system was the object of envy and emulation by other countries (Nelson, 1990). Even today, educational policies in the US, such as increased standardization, narrowing the curriculum to focus on core subjects/knowledge, increasing high stakes accountability, and using corporate management practices are being implemented in many educational systems throughout the world, including in the UK, Australia, the Netherlands, New Zealand, and Sweden (Sahlberg, 2016).

Finland is chosen because in the 1970s, when the US educational system was shining, Finland had a mediocre educational system. However, in just a couple of decades, Finland transformed its educational system and became a global leader in education. The Finnish educational success story elevated the curiosity of educational professionals, government officials, and journalists across the globe who are all interested in learning the reason behind the Finnish success. Finland built its own unique educational policies, which proved to be highly successful. These educational policies are the complete opposite of the policies implemented in the US and many other developed countries. This paper will analyze these opposing educational systems and draw recommendations for Bahrain based on this analysis.

2. Balancing Competition and Centralization

The controversy over the best educational policy lies on whether countries should have market based education, or whether we should have the government intervene. If the government should intervene, to what extent should this intervention be? In principle, governments should not intervene unless there is a market failure. Education is classified as a merit good, meaning that the consumption of education generates net private benefits to the individual that are not fully recognized at the time of consumption. Additionally, the consumption of education generates external benefits to society that are not taken into account by the individual when deciding on how much education to consume. For example, a higher level of education is associated with greater voter turnout (Gallego, 2010) and lower crime rates (Lochner, 2004). Therefore, while markets may supply education, total supply will be insufficient to achieve a socially efficient level of consumption. As Adam Smith (1776) argued, “the expense...for education...is likewise, no doubt, beneficial to the whole society, and may, therefore, without injustice, be defrayed by the general contribution of the whole society.” Smith supported government intervention in education.

There are positive externalities to education, so potentially, education should not be left entirely to the private sector. The Coasian argument that bargaining can lead to an internalization of the externality does not apply due to the fact that the external benefits accrue at the societal level, and therefore bargaining is impractical. This is a key reason why most countries in the world have introduced a public schooling system. This section describes the educational systems of Finland and the US and shows how these two countries chose different paths. Finland chose to have a universal public schooling system where the government is responsible for providing free education for the whole population. There is no competition in the Finnish educational system yet the educational system is decentralized. On the other hand, although the US educational system is decentralized compared to many countries in the world, the US is moving closer towards centralization. Additionally, the US is adopting market-based educational policies that foster competition rather than universal public education.

2.1. The Educational System in the US

As in most countries in the world, the governance and funding of the US educational system comes primarily from the public sector. Around 90% of students at the elementary and secondary level in the US attend public schools (National Center for Education Statistics, 2018). While the remaining 10% of students attend private schooling (National Center for Education Statistics, 2018).

Educational policies in the US are usually decided at the state level rather than the federal level. The states, as well as public and private organizations, establish schools and colleges, develop curricula, and determine requirements for enrollment and graduation (US department of Education, 2019). The Federal role is to fill gaps in state and local support for education when critical national needs arise (US department of Education, 2019).

The US is among the top countries in the world in expenditures per pupil, in 2015 the public expenditure per student in primary schools was 12,000 USD, while at the secondary level the expenditure per student was 13,000 USD (OECD, 2018a). Of the total public expenditures on education in the US, 8% were from federal sources, 47% were from state sources, and 45% were from local sources (National Center for Education Statistics, 2018). Additionally, teacher salaries in the US are among the highest in the world, with primary school teachers with fifteen years of experience earning around 62,000 USD in 2018, while upper secondary school teachers with fifteen years of experience earned around 64,000 USD (OECD, 2018b).

The US has always emphasized the importance of school choice and competition as means to increase the quality and efficiency of the educational system. Therefore, public funds have been used not only for public schools, but also towards private schools, charter schools, and home schooling: 7.1% of public schools in the US are charter schools, which are publicly funded and governed by the private sector (National Center for Education Statistics, 2019). Between 2000 and 2016, the percentage of public school students who attended charter schools increased from 1% to 6% (National Center for Education Statistics, 2019).

The US is also the first country to introduce a school voucher program. The voucher program provides parents with public funds in the form of a voucher which can be used to pay partial or full tuition in a private school. Introducing an educational voucher can potentially raise quality by increasing competition, which drives improvement in both public and private schools. Vermont's Town Tuitioning Program, launched in 1869, and Maine's Town Tuitioning Program, launched in 1873, allow students in areas with no public-schools to attend a public school in another town or any private school by paying the school tuition directly to the "receiving" school. In 1989, Wisconsin passed the nation's first modern school voucher program: The Milwaukee Parental Choice Program. Today there are 26 operating voucher programs in 15 states (Edchoice, 2019).

In addition to charter schools and school vouchers, five states in the US also offer education saving accounts, where parents who withdraw their children from publicly funded schools receive a deposit of public funds into government-authorized savings accounts. These funds can then be used towards private schooling (Edchoice, 2019). There are also five states that offer individual tax credits, where parents receive state income tax relief on educational expenses, such as private school tuition, books, supplies, computers, tutors, and transportation (Edchoice, 2019).

Although different policies, such as school vouchers and charter schools, were introduced to increase school choice and competition in the US, the federal role in education is growing in the US (US department of Education, 2019). The US is moving towards a centralized educational system, as more educational policies are being influenced by decisions made at the national level (Deboer, 2012). The federal constitution does not mention education, however, the federal government is increasingly getting involved in educational issues through the judicial system and through conditional funding (Deboer, 2012). Many educational policies are debated in the federal judicial system and the decisions made are increasingly affecting local schools.

Additionally, the Common Core State Standards (CCSS) initiative was launched in 2009, and it establishes consistent educational standards across the states in English Language Arts and Mathematics. The US educational system has been very standardized since the early 1990s, with each state having its own set of standards that students must achieve at every grade. The CCSS aims to unify

these standards so that the educational goals are homogeneous across the US. Today 41 states have adopted the CCSS (Common Core State Standards Initiative, 2019). Before the 'Every Student Succeeds Act' was passed in December 2015, the federal government offered funding depending on whether national standards are followed, therefore encouraging states to centralize their educational system. In addition to the CCSS, the Next Generation Science Standards (NGSS) were released in 2013, which set common science content standards for K-12 students. By 2018, 20 states adopted the NGSS (ArcGIS, 2018).

Along with these educational standards come federally funded common assessments, which are putting American education on the path towards a national curriculum (Burke et al., 2016). Along with these assessments comes accountability. The US Department of Education states that: "Raising academic standards for all students and measuring student achievements to hold schools accountable for educational progress are central strategies for promoting educational excellence and equity in our Nation's schools." Hence, according to the US Department of Education, developing aligned high standards and assessments across states, and an accountability system based on these assessments is the means towards improving education in the US. High stakes standardized assessments have been widely used in the US as a tool for accountability, where students, teachers, and school performance are measured based on these assessments. Some schools, districts, and states have started introducing teacher performance-based pay, where teachers are paid based on the results of their students in assessments (RAND, 2019). These assessments also provide consumers with information to make choices about where to send their children to school, hence reducing information asymmetries in the educational market, which might otherwise impede the ability of the market to facilitate an efficient allocation of resources.

Overall, we find that the US educational system is adopting free market capitalist policies. Different policies are introduced to encourage school choice and competition. However, the US educational system is also moving towards more centralization and standardization.

2.2. The Educational System in Finland

The educational system in Finland is very different from the US educational system. Instead of adopting market based policies, Finland is providing a high quality publicly financed universal education. In the early 1970s, Finland completely abolished all its fee-paying schools and instituted a nationwide comprehensive educational system. The Finnish educational system focuses on equity by eliminating all tuition fees and providing the same high quality public education to all students. Instead of encouraging competition and school choice, Finland encourages cooperation. There are no charter schools, educational vouchers, or any other forms of school choice. Students are typically allocated a place in a nearby school, though they can choose to attend another school with some restrictions (Finnish National Agency for Education, 2019a). The assumption is that collaboration, networking, and sharing ideas between schools, teachers, and students – rather than competition – is the means to raising the educational quality. Finland believes that school choice leads to segregation and increases inequality, and all students should be offered the same educational opportunities regardless of their family backgrounds (Sahlberg, 2014).

All funding for schools in Finland comes from public sources. In 2015, the public expenditure per student in primary schools was USD 9,305, while at the secondary level the expenditure per student was USD 10,482 (OECD, 2018a). This is lower than the public expenditures on students in the US and slightly higher than the OECD average. The OECD average public expenditure in 2015 was USD 8,603 per student at the primary level and USD 9,682 at the secondary level (OECD, 2018a). Teachers in Finland are also paid less than the US, with primary school teachers with 15 years of experience earning around USD 42,000 in 2018, while upper secondary school teachers with 15 years of experience earned around USD 49,000 (OECD, 2018b).

Educational policy in Finland is usually undertaken at the central level. However, educational policy reforms are undertaken after consultation with a wide range of stakeholders; with teachers and the Trade Union of Education playing a central role in policy making (The Finnish National Agency for Education, 2019b). The Finnish educational system is highly decentralized. Schools have administrative, pedagogical, and financial autonomy. Although the national core curriculum is set by

The Finnish National Agency for Education, teachers, schools and local authorities draw up their own curricula within the framework of the national core curriculum. The national standards outlined in the national core curriculum are very lean, and local authorities have substantial flexibility (Vahtivuori-Hänninen, 2014). Schools and teachers are not only free to choose their own curriculum; they are also free to choose how to assess and evaluate the performance of their students. Teachers are free to set their own work plan, and they are responsible for reflecting and evaluating their educational outcomes and devising ways for improvement.

This flexibility in curricula and assessment allows for personalization of education. Rather than having high standards of what all students should know and be able to do, Finland recognizes the individuality of students and creates personalized learning opportunities for all. There are no standardized curricula or assessments. The only standardized test in Finland is the Matriculation Exam, which is taken before graduation from upper secondary schools around the age of 18, and entitles students to continue their studies at higher education institutions. The exam is organized by a national body: the Matriculation Examination Board, and is administered at the same time in all schools nationwide. Periodically, the Ministry of Education tracks national progress by testing a few sample groups across a range of different schools (Sahlberg, 2014).

Unlike the US, Finland does not believe that holding schools and teachers accountable for student performance is the means toward improving education. Hence, there is no teacher performance-based pay in Finland. Instead of test based accountability, the Finnish educational system relies on trust given to teachers and schools. The Finnish educational authorities trust school principals and teachers to use their own professional judgment and to know what is best for their students.

As section 3 will discuss in detail, selection criteria for teachers are very strict in Finland. Teachers in Finland are highly qualified with a research-based teacher qualification. Additionally, there is implicit accountability in the form of expecting teachers to publish papers. Guidelines for promotion are similar to universities, where teachers are expected to publish (Tucker, 2012). Moreover, there is a high level of cooperation between teachers in Finland; teachers should spend at least 3 hours per week for planning and development work with colleagues (Sahlberg, 2014). As a result of the numerous

meetings and conferences that they attend, there is a system of tacit peer accountability, rather than formal evaluation. Overall, the Finnish educational system includes teachers, school principals, and educational authorities in the accountability process, hence offering them a sense of professional responsibility and initiative (Sahlberg, 2014).

The Finnish educational system is highly decentralized, with trust based responsibility rather than test based accountability and personalized learning rather than standardization. The Finnish educational system limits student testing to a minimum. Finland does not believe that market mechanisms are effective in improving educational outcomes. The educational system in Finland revolves around, equity, trust and cooperation rather than on competition and school choice.

3. Teachers lie at the heart of the educational system

The section above discussed the main differences in the educational systems in the US and Finland. These differences are mainly the result of differences in the roles of teachers in the two countries. Teachers in Finland are trusted to set their own curricula and assessments, and provide personalized education as they see fit, hence there are no strong top-down accountability measures. While in the US, standardization and test based accountability reflect that teachers are being controlled and held responsible for outcomes rather than trusted. This section examines the reason behind these differences, based on teacher qualifications and responsibilities.

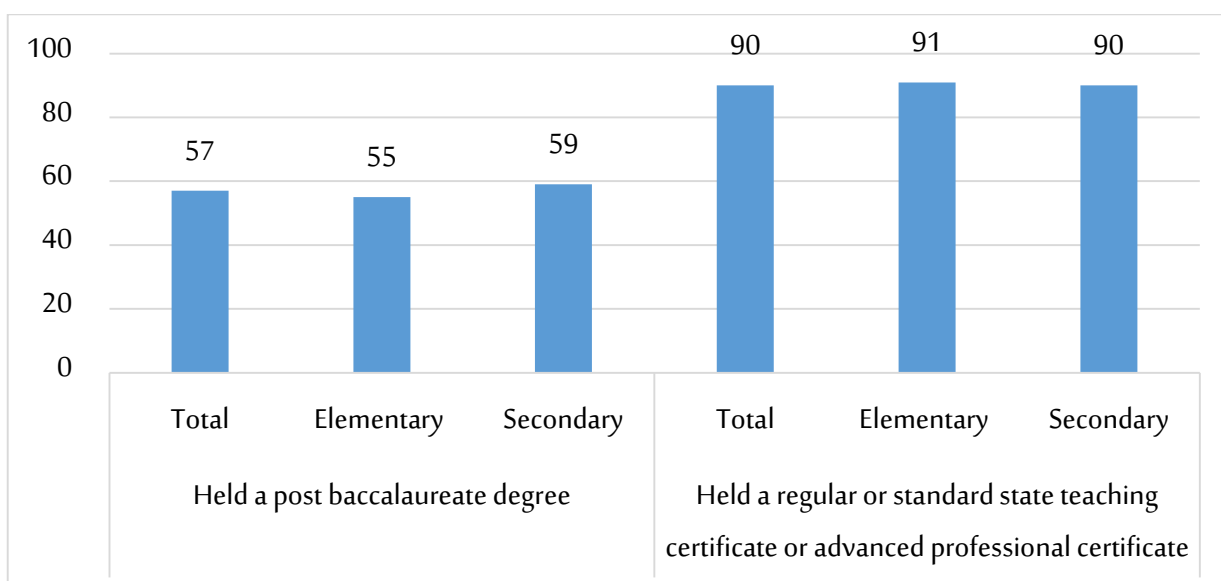
3.1. Teachers in the US

In the US, every state has its own requirements and standards that prospective teachers must meet in order to attain an initial teacher credential. Generally, most states in the US require teachers to hold at least a bachelor's degree in education, which is typically completed in four years. However, there are some teacher preparation programs that may lead to a teaching credential but not to a degree (U.S. Department of Education, 2016). When there are teacher shortages, some states approve alternative route teacher preparation programs as an alternative to four-year undergraduate education programs (U.S. Department of Education, 2016). This alternative route prepares individuals who already hold a

bachelor’s degree and expertise in a subject area to earn a teaching credential through a structured program of training and preparation. For example, the Teach for America program enrolls people with no experience in education in a five-week summer training program, and then sends them to schools to teach (Teach for America, 2012).

Figure 3.1.1. shows the percentage of public school teachers who held a post-baccalaureate degree, and the percentage who held a regular or standard state teaching certificate or advanced professional certificate, by instructional level in the US in 2015-2016. Elementary school refers to kindergarten up to the fifth grade (ages 10-11), while secondary school refers to grade 6 (ages 11-12) to grade 12 (ages 17-18). In 2015-2016, the percentage of public school teachers who held a post-baccalaureate degree – i.e. a master’s, education specialist, or doctor’s degree – was 55% for public elementary school teachers and 59% of public secondary school teachers. While in the same year, 90% percent of public school teachers held a regular or standard state teaching certificate or advanced professional certificate, 4% held a provisional or temporary certificate, 3% held a probationary certificate, 1% held no certification, and 1% held a waiver/emergency certificate (National Center for Education Statistics, 2019).

Figure 3.1.1: Percentage of public school teachers who held a post-baccalaureate degree, and the percentage who held a regular or standard state teaching certificate or advanced professional certificate, by instructional level in the US in 2015-2016



Source: National Center for Education Statistics, 2019.

Due to standardization, a predetermined curriculum, and high stakes accountability, teachers in the US have moderate autonomy. The National Center for Education Statistics (2015) explored teacher autonomy in the classroom during the 2003–04, 2007–08, and 2011–12 school years. When teachers were asked: *How much actual control do you have in your classroom at this school over the following areas of your planning and teaching?*

- 1) *Selecting textbooks and other classroom materials;*
- 2) *Selecting content, topics, and skills to be taught;*
- 3) *Selecting teaching techniques;*
- 4) *Evaluating and grading students;*
- 5) *Disciplining students; and*
- 6) *Determining the amount of homework to be assigned.*

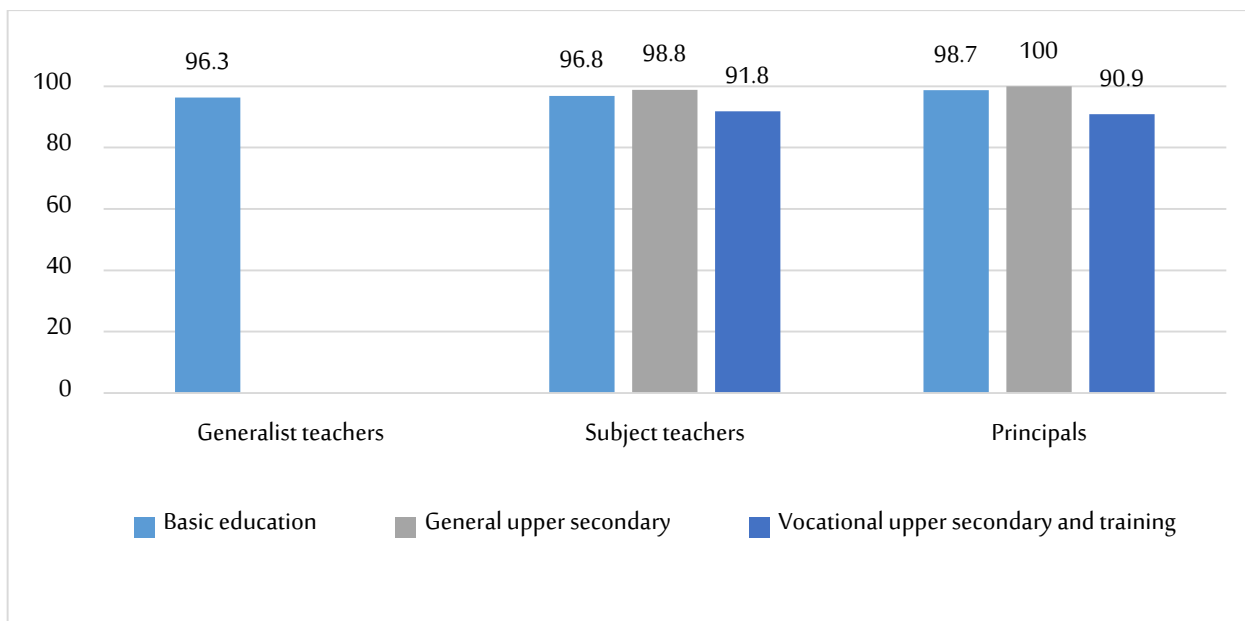
The majority of teachers perceived moderate autonomy across areas in all three survey years, with US teachers having the lowest autonomy in selecting textbooks and other classroom materials, and selecting content, topics, and skills to be taught. Additionally, the level of autonomy that teachers have across the selected years has fallen, with teachers having lower autonomy in 2011-2012 than they did in 2003-2004.

3.2. Teachers in Finland

In Finland, all teachers for all levels of education are required to complete a 5 year research-based educational program that includes a Bachelor's and a Master's degree (Finnish National Agency for Education, 2019c). However, typically the average graduation time for teachers in Finland is over 6 years (Sahlberg, 2014). Teachers for grades 1-6 must obtain a master's level in education science, while teachers for higher grades must obtain a Masters in the subject taught. The most common path to becoming a teacher is taking a concurrent degree, with pedagogical training integrated into a subject specific master's program (Paronen & Lappi, 2018). However, pedagogical training may also be completed after obtaining an initial qualification (Paronen & Lappi, 2018).

Figure 3.2.1 shows the percentage of qualified teachers and principals by instructional level in Finland in 2016. Basic education refers to the nine years of compulsory education from the first to ninth grade, from the age of 7 to 16. After completing basic education, students wishing to continue their education can choose between general upper secondary school or vocational upper secondary and training school. Generalist teachers only teach pre-primary and grades 1-6, and 96% of generalist teachers are qualified; while the percentage of qualified subject teachers is 97% at the basic education level, 99% at the general upper secondary level, and 92% for the vocational upper secondary level. Similar levels of certification are found for school principals. These numbers correspond to the percentage of teachers who are certified, where the certification in Finland is a 5 year master’s degree. Therefore, when comparing data in Figure 3.2.1 to data in Figure 3.1.1, we find that more than 90% of teachers in Finland hold a master’s degree, compared to 57% of teachers in the US who hold a post-baccalaureate degree.

Figure 3.2.1: Percentage of qualified teachers and principals by instructional level in Finland in 2016



Source: Finnish National Agency For Education

Teachers are highly respected and trusted in the Finnish society, and the teaching career is the most attractive career in Finland (Sahlberg, 2014). Teacher education in Finland is very competitive and academically challenging (Sahlberg, 2014). Finland has strict control over the quality of applicants who

enter teacher education, and only the best candidates are accepted (Sahlberg, 2014). Additionally, the teacher education program in Finland is research-based, where the educational theories, research methods, and practices are all equally important in teacher education. The stringent acceptance criteria explain the aforementioned trust that is afforded to teachers. Furthermore, teacher representatives participate in preparing the national core curricula, and each teacher takes part in preparing the local or school-specific curriculum (Paronen & Lappi, 2018).

Teachers in Finland are trusted to use their own professional judgement to choose how and what to teach. They are also free to choose the learning materials used and their own methods and frequency of assessment for their students (Paronen & Lappi, 2018). There is strong public confidence in teachers in Finland, and parents trust teachers in providing the best education to their children, the same way that they would trust a doctor or lawyer (Sahlberg, 2014).

4. Comparing the educational system in Bahrain to the US and Finland's educational systems

Sections 2 and 3 described the main differences between the educational systems in the US and Finland. Before analyzing these opposing educational systems this section provides a short description of the educational system in Bahrain and compares it to that in the US and Finland.

Like the US, there are public schools and private schools in Bahrain. Students in public schools are typically allocated a school that is in the same area of their residence, however, students have the freedom to change their school. There are numerous private schools in Bahrain that offer a variety of different curricula, resulting in a wide variety of school choices for private school students. However, there are no other school choice programs that offer alternatives for public school students, such as charter schools or educational voucher programs like those in the US.

In the academic year 2017-2018, 37% of students at the primary level (grades 1-6) attended private schools, while the percentage of students who attended private schools at lower secondary level (grades 7-9), and upper secondary general level (grades 10-12) was 29% and 24% respectively. The

remaining students attended public schools (Ministry of Education, Bahrain, 2019). The percentage of students attending private schools in Bahrain is higher than the percentage in the US, and is obviously higher than Finland.

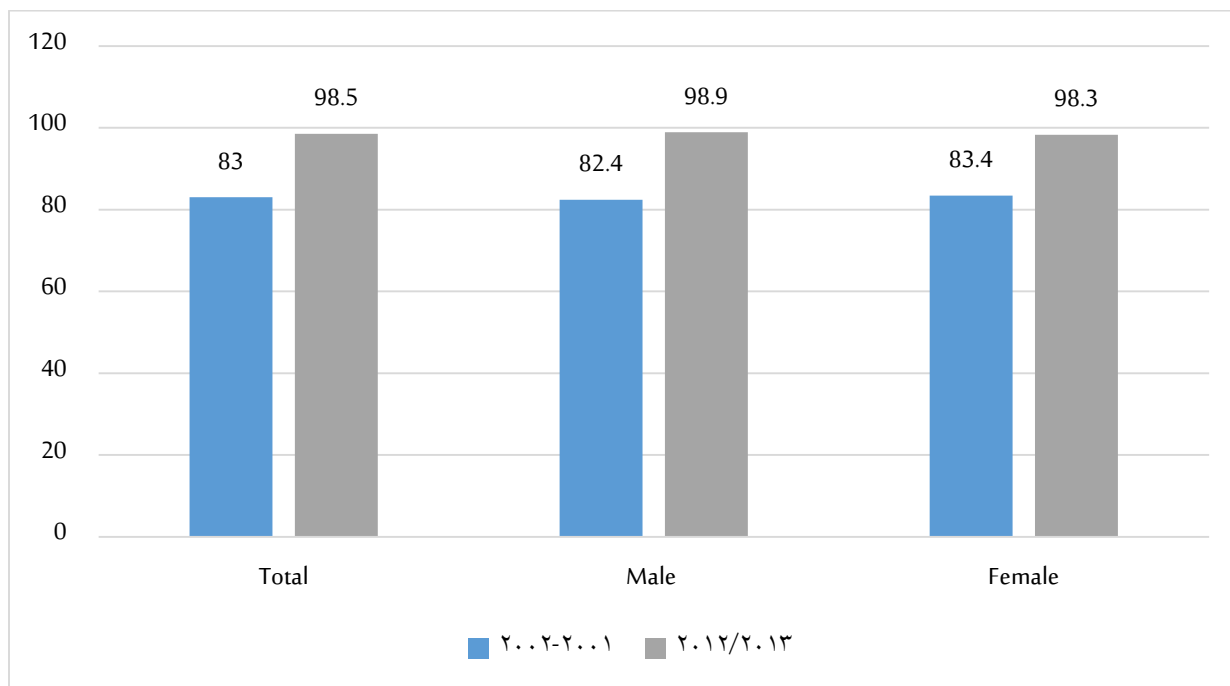
The public educational system in Bahrain is centralized. The Ministry of Education is responsible for setting the national curriculum, providing the learning materials, and setting assessments. The curricula for all grades and all subjects in public schools is set up by the Directorate of Curricula under the Ministry of Education. Textbooks, together with accompanying student guides, and student exercise books used in public schools are produced directly by the Ministry of Education (Naumann et al., 2018). All students in public schools are assessed by internal assessments set by the school and external assessments set by the Ministry of Education (Naumann et al., 2018). Curricula and assessments are highly standardized, with a limited scope for personalized learning. Overall the public school system in Bahrain is more centralized and standardized than that in the US and Finland.

To achieve accountability, Bahrain has taken a different path than that of the US and Finland. Unlike the US, Bahrain does not focus on high stakes assessment-based accountability measures, such as teacher performance-based pay. Bahrain also does not have complete trust and self-evaluation by teachers and schools such as Finland. Instead Bahrain has setup an independent accountability body: Bahrain Education and Training Quality Authority (BQA). BQA sets performance standards and carries out objective reviews on the performance of students, classes, and schools, and evaluates students' learning progress against the national curriculum. It carries out standardized National Examinations in four core subjects – Arabic, English, Mathematics and Science, for grades 3, 6, and 9 – as well as National Examinations in Arabic, English, and problem-solving for grade 12. Additionally, schools are reviewed and assessed on a four-point scale: 'outstanding', 'good', 'satisfactory', or 'inadequate'. BQA is an evaluative authority, not an executive one; in its school review reports, it outlines the strength and areas for improvement, and presents some recommendations for each school. The school then has to take the responsibility to set its action plans for improvement (BQA, 2019).

Like the US, teachers in Bahrain should have at least a bachelor's degree, which typically takes 4 years to complete. Teachers for grades 1 to 6, are required to hold a bachelor's degree in education. Teachers

for intermediate and secondary school (grade 6-12) are required to have a bachelor's degree in the same subject they are teaching and a postgraduate diploma in education. Figure 4.1 shows the percentage of school teachers in Bahrain who hold at least a bachelor's degree (educational and non-educational) in 2001-2002 and 2012-2013. Figure 4.1 shows that there has been a significant improvement in teacher qualification in Bahrain; in 2001-2002, around 17% of teachers did not hold a bachelor's degree, in 2012-2013 this number fell to 1.5%.

Figure 4.1: Percentage of teachers who held a baccalaureate degree or a higher qualification in 2001-2002 and 2012-2013.



Source: Ministry of Education, Bahrain

Unlike Finland, teachers in Bahrain do not have the freedom to choose what to teach and what teaching material to use. Teachers in Bahrain teach a fixed national curriculum and use the teaching material provided by the Ministry of Education. The degree of autonomy teachers have in Bahrain is low compared to Finland. Overall the educational system in Bahrain is closer to the US, rather than the Finnish system. The educational system in Bahrain has competition from the private sector, and is centralized with standardized curricula and assessments.

5. Which educational system works best?

After comparing the educational systems in the US, Finland, and Bahrain, this section aims to analyze the performance of these systems. Comparing the performance of different educational systems can give a general idea of which one works best, yet identifying the best educational system is a very difficult task, as the contexts can be very different. It is extremely difficult to evaluate which educational policy works best as policies such as school choice, charter schools, educational vouchers, high-stakes accountability, personalized learning, standardization, and teacher autonomy are highly debated among scholars, and there is no mutual agreement on which policy works best. Additionally, each country has its own unique social environment, demographics, and culture, hence a policy that might be effective in one country might fail in another.

International assessments, such as the Programme for International Student Assessment (PISA), Trends in International Mathematics and Science Study (TIMSS), and Progress in International Reading Literacy Study (PIRLS) do a good job trying to bypass this problem, yet the issue of context remains. This section compares the performance of the US, Finland, and Bahrain in these assessments. Although each of these assessments is imperfect, together these assessments provide a good idea of the quality of education in these countries.

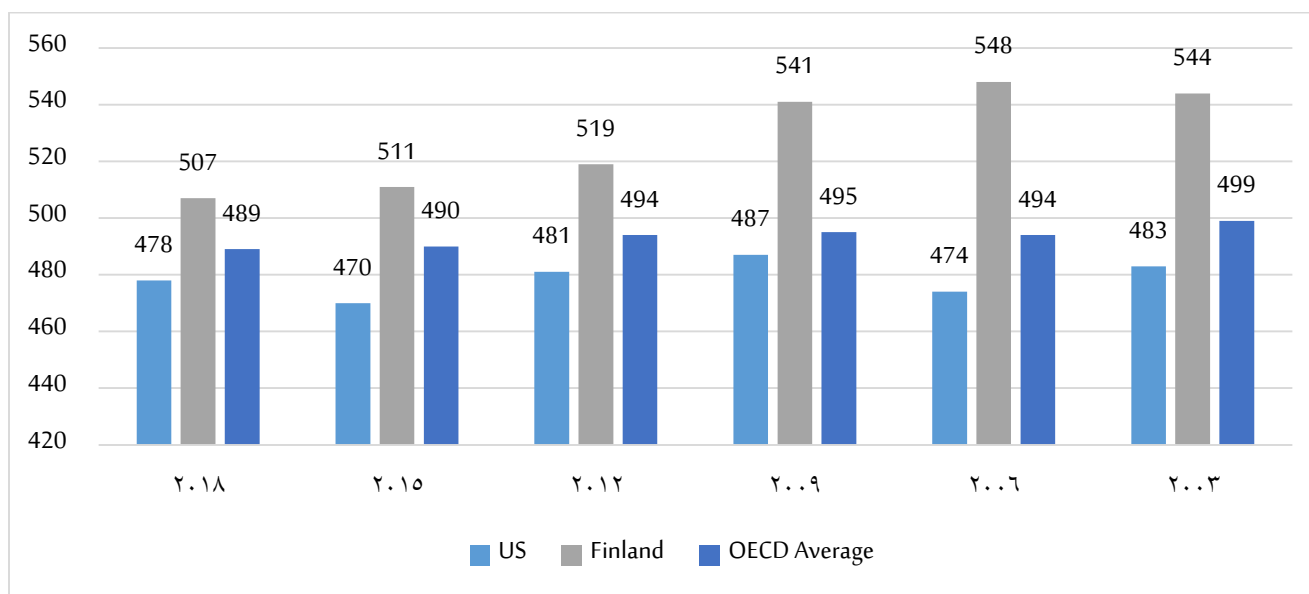
PISA is an international study by the Organization for Economic Co-operation and Development (OECD), and it evaluates the performance of different educational systems in the world based on the performance of 15 year old students in mathematics, reading, and science. PISA assessments take place every three years starting from the year 2000. Since 2000, more than 90 countries have participated in PISA (OECD, 2019).

The first PISA ranked Finland number one in all three academic domains—reading literacy, mathematics, and science – among participating OECD countries. Finland remained a top performer in 2003 and 2006, Finnish results in PISA started declining in 2009, nevertheless, Finland still remains among the top performers in PISA. In 2015 – the most recent PISA results published – Finland’s educational system ranked 8th among participating countries. In 2015, out of 71 participating

countries, Finland ranked 12th in mathematics, 5th in science, and 4th in reading. While the US has always been a mid-weight contender. In 2015, the US ranked 31st among the participating countries in PISA. The US ranked 39th in mathematics, 25th in science, and 24th in reading.

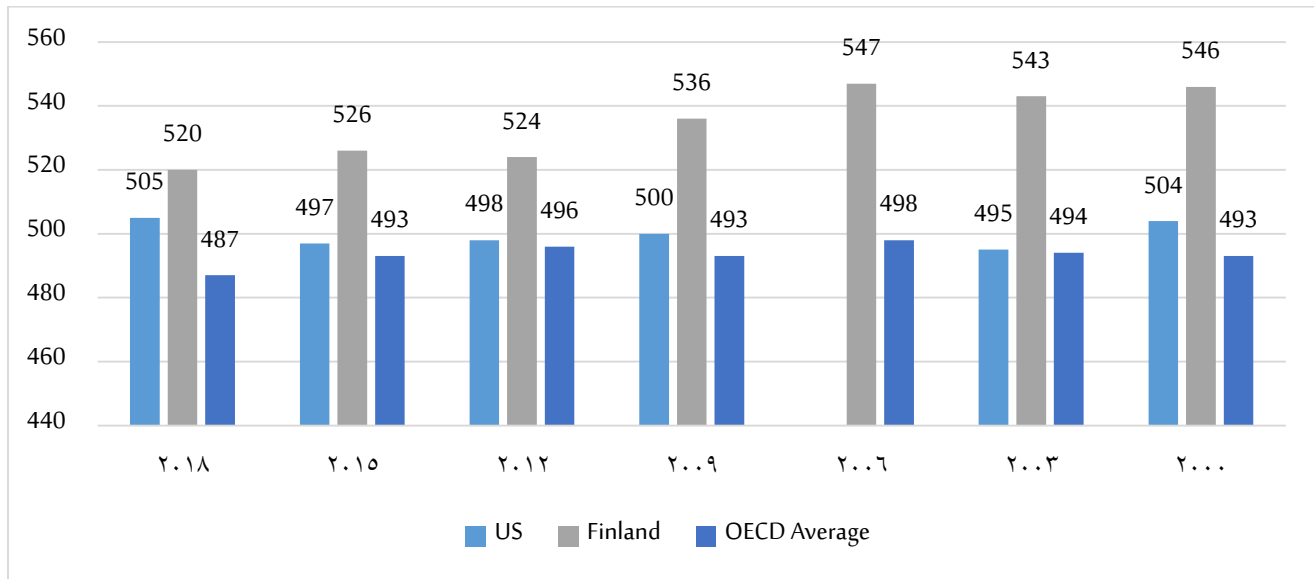
Figures 5.1, 5.2, and 5.3 show the average mathematics, reading, and science scores since 2003. Across all three subject domains and across all the years, we find that Finland scored well above the OECD average, while the US scored close to the OECD average. In mathematics, the US scored lower than the OECD average across all years. In reading, the US scored slightly higher than the OECD average across all years, while in science, the US scored around average.

Figure 5.1: Average mathematics score in PISA



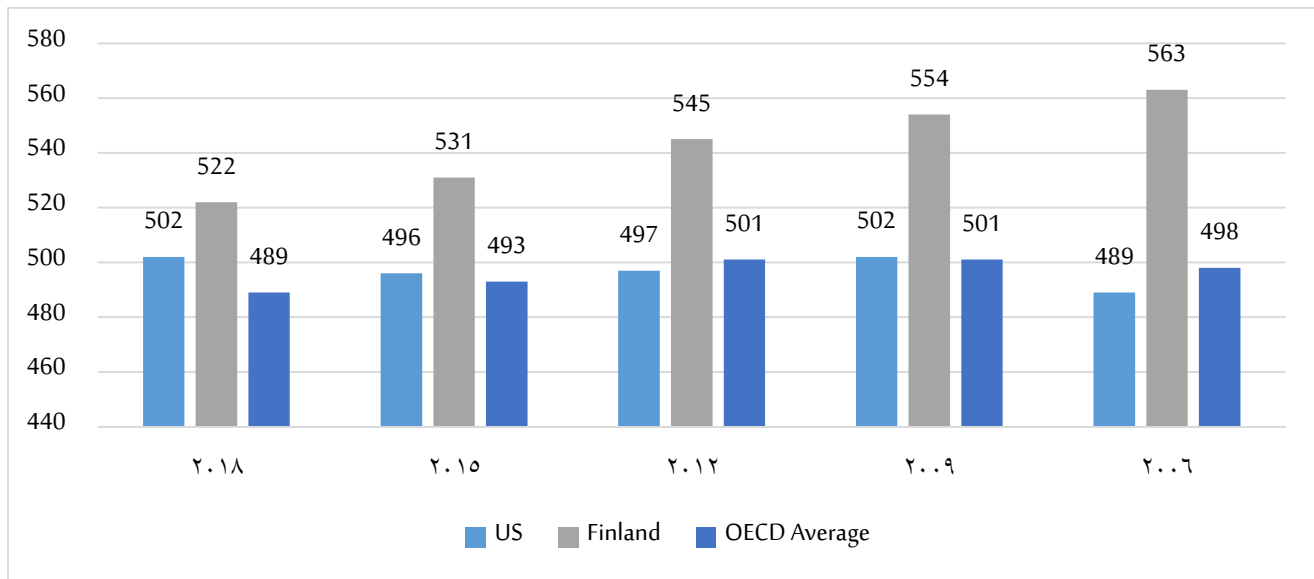
Source: OECD

Figure 5.2: Average reading score in PISA



Source: OECD

Figure 5.3: Average Science score in PISA

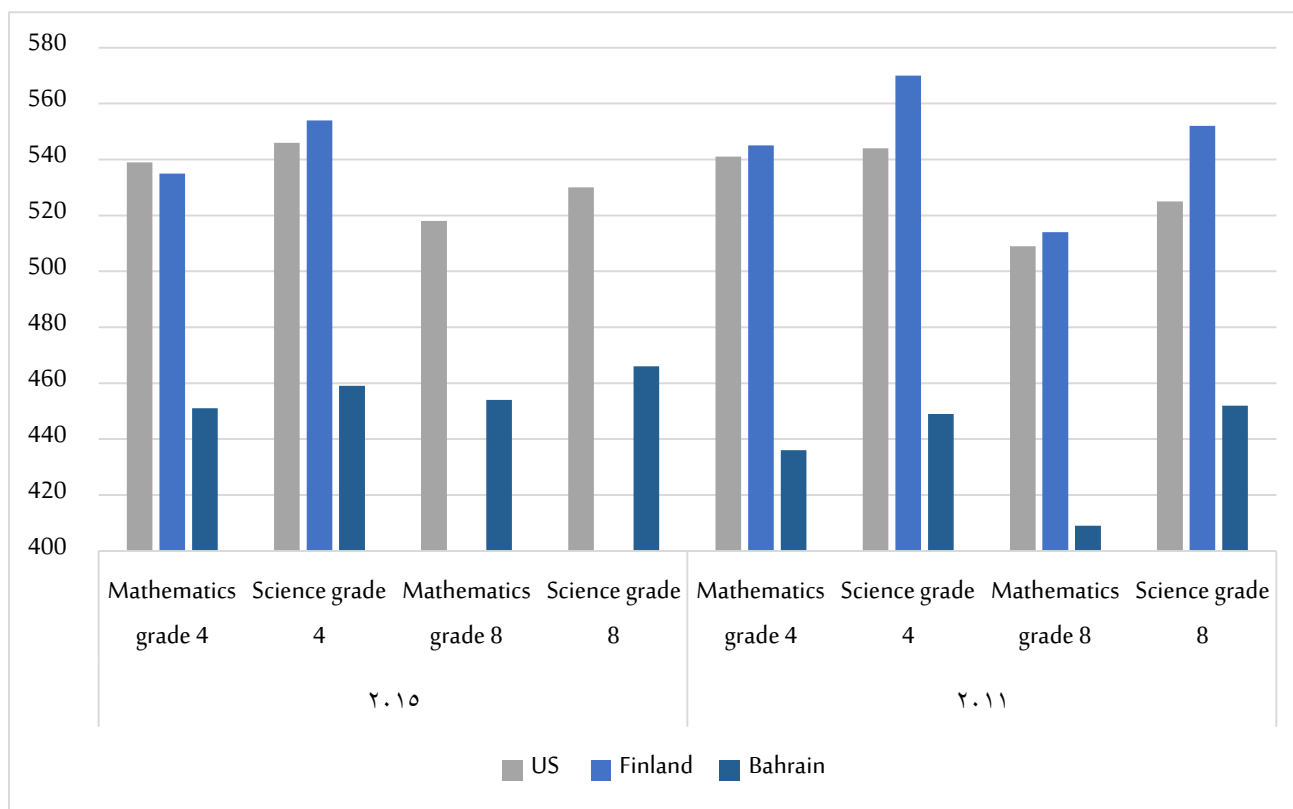


Source: OECD

Similar to PISA, the International Association for the Evaluation of Educational Achievement conducts international assessments in mathematics and science: TIMSS; and in reading: PIRLS. TIMSS assesses the achievement of fourth grade and eighth grade students every four years since 1995. The TIMSS achievement scales are based on the 1995 results, where the scale has a range of 0 to 1000 points, and 500 points have been chosen as the mean of overall achievement in 1995. The 500 center point is used as a point of reference that remains constant throughout all assessments. Figure 5.4 compares the

achievements of the US, Finland, and Bahrain in the two most recent assessment years. In 2011, Finland was a top performer and outperformed the US in both mathematics and science for both age cohorts. The US and Finland both were top performers and scored above the 500 center point, while Bahrain scored below 500. In 2015, only fourth graders in Finland participated in TIMSS. For fourth grade students, the US slightly outperformed Finland in mathematics, while Finland scored higher than the US in science. Again in 2015, the US and Finland scored significantly higher than Bahrain.

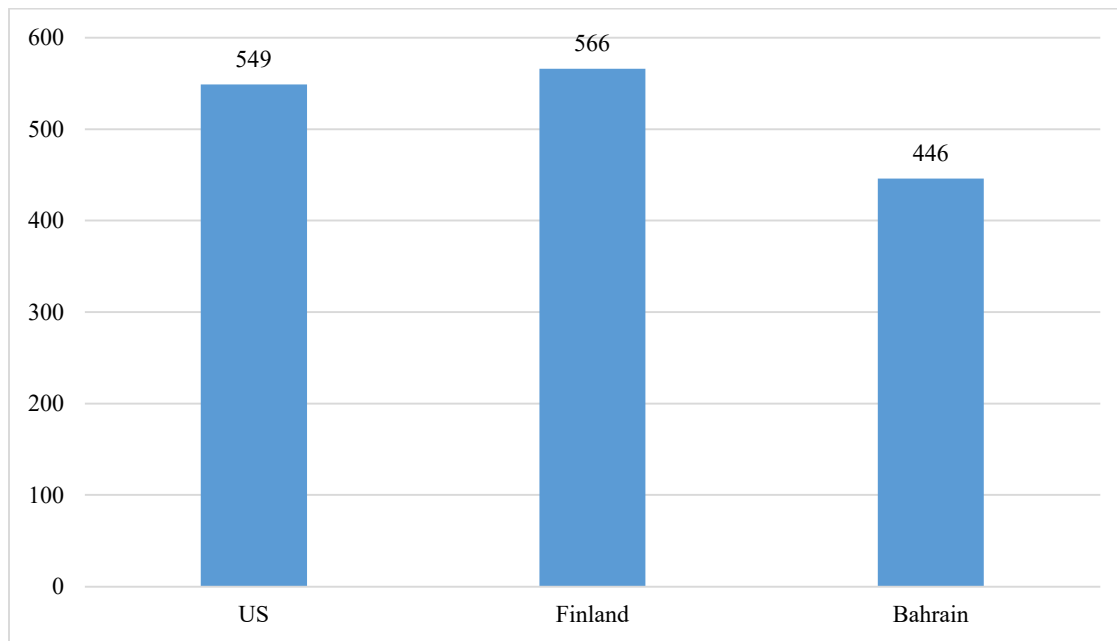
Figure 5.4: Average score in TIMSS



Source: TIMSS & PIRLS International Study Center

PIRLS was inaugurated in 2001, and it assesses the reading skills of students in the fourth grade. PIRLS is conducted every five years, and 2016 is the fourth PIRLS assessment and the only year where the US, Finland, and Bahrain have all participated. The results of PIRLS in 2016 are displayed in figure 5.5. The results are similar to those found in PISA and TIMSS, where Finland scores the highest, followed by the US, while Bahrain scores the lowest among the three countries.

Figure 5.5: Average score in PIRLS in 2016



Source: TIMSS & PIRLS International Study Center

Together, these international assessments show that the Finnish educational system is working well and can be considered as one of the best educational systems in the world. The US educational system is also relatively good, performing close to the OECD average. Bahrain has achieved significant improvements in its educational system in the past years, yet its educational performance is lower than that in Finland and the US. The next section discusses how Bahrain can improve its educational system based on lessons from the Finnish and American educational systems.

6. Recommendations for Bahrain

The aim of this paper is not to analyze whether the Finnish or the American educational system works best and hence recommend that Bahrain should adopt one system over the other. Instead, the aim of this paper is to describe these two opposing educational systems and identify lessons from both.

Advocates of school choice usually argue that school choice leads to increased competition, and hence leads to increases in school productivity (Hoxby, 2003). The notion is that market forces are more efficient than government planning in tackling social issues. School choice forces schools to compete among themselves for students, and the resulting market pressures will make schools more responsive to the needs of students, more innovative, and will lead to overall improvement in the quality of education. This is the main reasoning behind the different school choice policies in the US.

The empirical evidence of school choice is mixed, as different respected scholars have reached very different conclusions. Generally, the research on charter schools shows that charters perform similarly to traditional public schools. For example, in 2009, the Center for Research on Educational Outcomes (CREDO), studied the performance of 16 states in the US and found that 17% of charter schools outperformed local district schools, 46% performed similarly, and 37% performed worse than local district schools. While research on vouchers showed a slightly positive impact. For example, While Witte, 2001; Howell et al., 2006; Wolf et al., 2009 all show small or marginal effects of vouchers on test scores, while finding positive effects on other variables such as parents satisfaction and perception of school safety. Within school choice models, there are successful cases as well as seriously flawed ones. However, these mixed empirical findings suggest that simply legislating school choice programs will not necessarily lead to a positive impact on achievement.

Instead of school choice, at the turn of the 21st century, there was a renewed interest in teacher professionalism as the key to improving student achievement (Schleicher, 2018). This is what Finland focused on to raise the productivity of its schools. Instead of school choice, Finland chose to apply a comprehensive and egalitarian public schooling. Finland achieved a world class educational system by eliminating all private schools and providing a high quality universal educational system for all.

Although eliminating private schools in Finland proved to be a very successful policy, this does not mean that Bahrain should follow Finland's footsteps and eliminate private schools. Instead, Bahrain should focus on raising the quality of public schools to make them equally attractive as private schools.

Rather than utilizing competition as a means to raising productivity, Finland chose to attract high quality teachers by elevating the status of the teaching profession. Many studies have identified the centrality of teacher quality to student performance (Darling Hammond, 2000; Hanushek, 2006; Harris, 2011). Barber and Mourshed (2007) compared 25 school systems across the world with the 10 top-performing school systems, and identified the following features as the main characteristics and qualities of the best: (i) making the teaching profession attractive to high quality candidates and conducting a rigorous selection process for entry; (ii) promoting effective and continuing professional development of teachers and principals; and (iii) targeting support for the academic needs of every child.

Therefore, no matter how much school choice and competition a country has, as long as the quality of the teachers lags behind, student performance will also lag. As Andreas Schleicher states: "The quality of an education system can never exceed the quality of its teachers. So attracting developing and retaining the best teachers is the greatest challenge education systems have to face" (2018, p.79). Schleicher (2018) also identified the following factors to attract high quality candidates to the teaching profession: i) social status associated with the job; ii) the contributions a candidate feels he or she can make while on the job; and iii) the extent to which the work is financially and intellectually rewarding. Finland has focused on these areas. Teachers in Finland are highly respected and have a high social status equal to that of doctors and lawyers. Teachers in Finland also have a large degree of autonomy, with independent working environments where they feel dignified and are able to fulfill their moral purposes in schools. Additionally, the teaching job in Finland is intellectually rewarding as teachers engage in school improvement, curriculum planning, and personal professional development during their working hours.

Finland was able to become a top performer in education on a global scale due to the high professionalism of its teachers. Teaching degrees are very competitive and academically challenging.

Finland is found in the top ranks in international assessments such as PISA, TIMSS, and PIRLS because it is one of the few countries in the world where the average teacher has better numeracy and literacy skills than the average college graduate. While in most other countries including the US, teacher's skills are similar to those of an average person with a college degree (Hanushek et al., 2014).

Therefore, attracting, developing, and retaining high quality teachers should lie at the heart of any future educational reform in Bahrain. Bahrain should focus its effort on developing teachers, which are the most important resource in schools. In 2006, Bahrain launched its educational reform project, and one of the main pillars of the reform project was improving the quality of teachers by attracting better candidates for the teaching profession, and training existing teachers and principals. In this context, in 2008, the Bahrain Teachers College (BTC) was established. The college aims to raise the level of education and training of teachers in Bahrain, with graduate teachers committed to learning and self-development for life, and the development of professional behaviors and providing global best practices and teaching strategies based on research. The establishment of BTC lead to an increase in the quality of teachers in Bahrain. These efforts have to continue. Bahrain needs to continue its focus on making the teaching profession attractive to high quality candidates. This can be achieved by raising the requirements of becoming a teacher, such that the brightest students choose to become teachers. By raising the bar to enter the teaching profession, people with low aptitude for teaching and low academic performance are discouraged from becoming teachers.

Secondly, the teaching degrees offered in Bahrain should be continuously improved. When a teaching degree is intellectually challenging and stimulating, it will attract those students with the highest potential to learn. Forging a good reputation of teaching degrees will also make the teaching degree more respected in society, hence increasing the social status of teachers and the occupational prestige of becoming a teacher in Bahrain, which in turn would also result in attracting the best candidates to the profession. Bahrain should focus on developing educational policies that support the development and recruitment of indigenous teachers, as Bahrain currently relies heavily on foreign teachers. Although significant improvement in teacher qualification has been achieved in Bahrain as shown in figure 4.1, these efforts should continue.

Additionally, as a result of technological innovations and new media, the educational system should consistently change to keep up with these developments. This, in addition to the long careers of many teachers, make a high quality teacher's degree not enough. Instead, teachers' development must be viewed in terms of lifelong learning. Therefore, Bahrain should also focus on promoting effective and continuing professional development of teachers. Finland focused on developing the research skills in its teacher education programs so that these research skills allow them to be lifelong learners and grow in their profession. Therefore, another step that Bahrain can take is to include more research in its teacher education programs.

Teacher professionalism is the corner stone of educational excellence. Eraut (1994), explains that professionalism embodies appealing values, trustworthiness, integrity, and autonomy. While Helsby (1999) asserts that professionalism implies not only special expertise, but also altruistic concern to improve practice. Therefore, autonomy and the freedom of teachers to engage in school improvement and curriculum planning are an important part of teacher professionalism. This is especially important as many who choose to become teachers do so to make a difference in society. As professionals, teachers should have a voice and an important impact in school decisions.

A high quality teacher education, together with ongoing professional development, allow teachers to experience professional autonomy, prestige, respect, and trust. On the other hand, high levels of centralization and standardization of curricula and assessments limit teacher autonomy. Increasing teacher autonomy and including teachers in school decision making can enhance teachers' commitment, expertise, and ultimately, student achievement (Marks & Louis, 1997). Teachers autonomy has been a cornerstone of the success of the Finnish educational system.

In Bahrain, teacher autonomy cannot be increased without first raising the quality of teachers, since only high quality teachers can be trusted to make good decisions on selecting topics to be taught, teaching techniques, and evaluation methods. Therefore, although decentralization, teacher autonomy, and personalized learning can lead to significant improvement in student achievements, they cannot be applied in Bahrain unless the quality of teachers is raised. Only after teachers are selected, taught, and trained in a highly competitive, intellectually challenging, and stimulating

environment can they fully become true professionals, able to not only choose the best methods of teaching and assessments, but also to continuously evaluate their performance and devise methods of improvement in their classrooms and in the schools as a whole.

7. Conclusion

In the introduction, the following questions were asked: Should education be provided by the public sector or the private sector? Should educational systems be centralized or decentralized? Should curricula and assessments be standardized or personalized? Should educational systems have more or less accountability? This paper aimed to answer these questions by comparing the American and Finnish educational systems, and based on this analysis, lessons are drawn for Bahrain. Although there are no definitive answers to the questions raised above, based on the analysis provided in this paper, we can generally say that Finland was able to achieve high quality education by having the public sector provide all of the country's education. School choice does not necessarily result in overall improvement in educational performance, as outlined by numerous studies of the US school choice programs. Additionally, educational systems cannot be decentralized, with personalized teaching as opposed to standardized curricula, and with weak forms of accountability as opposed to strong assessment-based accountability, without having high quality teachers. Therefore, the main recommendation of this paper is that Bahrain should focus on raising the quality of public schools so that they become equally attractive as private schools. This can be done through attracting, developing, and retaining high quality teachers, through a national policy framework which is forward thinking, robust, and student-centered.

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