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THE HECHINGER REPORT [Lessons From Abroad](#)

Everyone aspires to be Finland, but this country beats them in two out of three subjects

With a focus on equity, Estonia has quietly joined ranks of the global education elite

SOURCE: <http://hechingerreport.org/estonia-new-finland/>

by [Sarah Butrymowicz](#) June 23, 2016

International test results released December 6 showed continued success for the small Baltic nation of Estonia. Despite being largely overlooked by educators and policy makers around the globe, Estonia ranked in the top 10 in all three subjects – math, reading and science – on the newest iteration of the Programme for International Student Assessment, or PISA. Of 72 participating countries, the former Soviet Republic was third in science and performed better than the more acclaimed Finland in both science and math.

The Hechinger Report visited Estonia in March to learn more about the country's quiet success. Here's what we learned.

TARTU, Estonia—Most educators and policymakers can rattle off a list of international educational powerhouses: Korea. Singapore. Japan. Finland.

But there's an overlooked member of the list: Estonia. Even as educators from around the world flock to Finland to discover its magic formula, Estonia, just a two-hour ferry ride away, has not aroused the same degree of interest.

That could change if the country remains on its upward trajectory. In 2012, Estonia's 15-year-olds ranked 11th in math and reading and sixth in science out of the 65 countries that participated in an international test that compares educational systems from around the world, called the Programme for International Student Assessment, or PISA.

In addition to beating out western nations such as France and Germany and essentially tying Finland in math and science, Estonia also had the smallest number of weak performers in all of Europe, about 10 percent in math and reading and 5 percent in science.

Those numbers differ markedly from how the United States is performing, which continues to be stuck in the middle of the pack in all three subjects. More than a quarter of U.S. students were low performers in math. But few people are asking what meaningful lessons we can draw from Estonia's success. In fact, many U.S. researchers and educators argue it's misleading and unhelpful to compare the United States to any top-performing country because of demographic and cultural differences.

While there is less income inequality in Estonia than in the United States — and, with 1.3 million people, the country is significantly smaller — the Baltic nation also has its share of cultural diversity. When it achieved independence from the Soviet Union 25 years ago, Estonian became the official language and the language of school instruction. Yet about a fifth of its students come from families that still speak Russian at home, and they have historically lagged behind their native-speaking counterparts on tests such as PISA.

Though its students may come from diverse backgrounds, Estonia's schools give them very similar educational experiences. In embracing students of all backgrounds and income levels, Estonia has succeeded not only on exams but on a goal that many policymakers, educators and advocates say the United States must achieve: creating an educational system based on equity. The idea is a holdover from the Soviet era and one that the country intends to keep even as it continues to grapple with how to modernize its schools and further shrink the already small achievement gaps among its students.

As a result of this commitment, Estonia's performance on PISA isn't in spite of its poor students; it's in no small part because of them.

"We have been able to keep education very even," said Jürgen Ligi, the Estonian minister of education. "It has worked."

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On the [2012 PISA math exam](#), more than a third of low-income students were among the country's top performers. Estonia had the second smallest gap in performance between its poorest and richest students out of all participating countries known as the Organization for Economic Cooperation and Development (OECD). Students in its lowest income quartile scored about as well as American students in the second highest income quartile here.

Marc Tucker, president of National Center on Education and the Economy in Washington, D.C., visited Estonia last year to find out what they're doing right. He said that, after the fall of the Iron Curtain, other former Soviet satellites, such as Hungary and the Czech Republic, transitioned to a system preferentially suited to the needs of its elites, while Estonia kept giving equal opportunities to students of all backgrounds.

"What [we] saw in Estonia was not a new education system, it was an old one," Tucker said. "By every account they did not change the system after the wall came down.... It's hardly surprising they continued to get great results."

There are many factors that may contribute to Estonia's success on PISA beyond their focus on equality. Education continues to be highly valued. Teacher autonomy is relatively high, which has been shown to [be related to better test scores](#). Teachers stay with the same students in grades one to three – or sometimes even up to sixth grade – allowing deep relationships to develop. Many officials and educators say teachers here are good at supporting students and preventing them from getting off track, in contrast to the U.S., where teachers spend a lot of time intervening to help students who have fallen behind.

But many educators said that an emphasis on giving everyone a similar educational experience is a crucial piece of the puzzle. "We really follow the straight line that everyone is equal," said Karin Lukk, principal of Tartu Kivilinna Kool, a grade 1-9 school in Estonia's second largest city. "It doesn't matter what kind of family you come from, you can still achieve a lot."

That approach starts at the very beginning. Early childhood education is free beginning at 18 months (when paid maternity or paternity leave ends). Everyone gets free lunch, meaning teachers might not know exactly what a child's background is. College is free. Private schools, although an increasing threat to public education, are still a relatively small slice of the educational system. Estonian schools are often economically integrated, so poor and rich students are frequently in the same classrooms.

Related: [Schools exacerbate the growing achievement gap between rich and poor, a 33-country study finds](#)

By comparison, in the United States, students do not get the same educational experience. Quality of childcare and schools vary widely depending on income. Families with the most money often have access to the best child-care centers and most elite colleges. Schools are often segregated both by race and income, with poor students often having fewer resources and less experienced teachers.

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The divisions for American students also occur within schools. A 2016 [study](#) by the Brookings Institute found that on average, states track three-quarters of eighth graders in math, meaning they might be put on a path in middle school that determines which level of math class they'll end up in in their final year of high school. (The study found, however, that the more tracking a state does, the better the results for those who end up in the top tier of classes.)

But for students in the lower tiers, other research suggests tracking isn't helpful. In a 2015 study, researchers analyzing PISA results and responses on student surveys about what kind of math topics they are taught have discovered that students from less affluent backgrounds in all participating countries are taught less difficult math and typically perform worse on the assessment. They [argue](#) that "the weaknesses of their math coursework actually keeps [low-income] students from catching up."

Estonia has the smallest gap out of OECD countries between low- and high-income students in the kind of math they are taught and one of the smallest gaps in performance. That 2015 study attempted to separate out how much the instruction a student receives in school contributes to their scores. If home life or other factors beyond a school's control were the sole determinant, researchers would have found no relationship. Instead, they found that, on average, in OECD countries, the students' diverse educational opportunities explained 33 percent of the difference in scores between low- and high-income students. In the United States it was 37 percent, while in Estonia it was just 16 percent.

According to the paper's co-author William Schmidt, the study's takeaway is that "inequality [in test scores] due to schooling in the US does not have to be, as there are other countries in which the percentage of such inequality is much lower."

Estonian schools follow a national curriculum that dictates what students must cover in each subject each year through ninth grade. At that point, students decide whether to go to upper secondary school for three more years, where they focus on academics, or to vocational school to prepare for a specific career. Different schools may require different

entrance exams, but students who want to go to upper secondary school almost always are able to do so, according to officials and educators.

Most students, roughly two-thirds, select upper secondary school, according to the Estonian Ministry of Education and Research. In larger schools, they may also pick an area study – like science and mathematics or humanities. That choice is based on interest, though, not prior test scores or grades. And students still take a common set of courses that makes sure students have basic skills in all subjects.

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Yet it's up to the school to figure out how all the students attain this common skill set. Estonian schools are free to separate students however they want, as long as they learn the same material in each grade. In the late 1990s, educators at Tartu Kivilinna Kool split up their students into three groups for math classes: high, average and low. At each level, the school's 950 students followed the same basic curriculum, but they moved at different speeds or, in some cases for the more advanced students, dove deeper into the material. It was a departure from what they'd done under the Soviet system.

5 percent of Estonian students were “weak” performers in science, the lowest amount in Europe.

But by 2008, they abandoned the practice. “It didn't work,” Lukk said. The lowest group “didn't develop at all. They just vegetated.”

Konguta Kool – an elementary school in a small village about an hour east of Tartu – had some success when it divided its students up into high- and low-performing groups, but ultimately didn't have the staff to keep the system.

On a sunny March day, Konguta's fifth graders were warming up for a math lesson in the school's small computer lab. They logged in to their laptops and signed on to a program to practice addition. Soon the only sound in the room was that of mouse clicks as they entered answers.

One girl's screen started as basic as possible with 1+1. Within two minutes, she was up to problems like 2589 + 1233.

The school makes use of drills like this so students can practice calculating in their heads. But teachers also try to plan lessons that connect math to real life. Stairs to the lower level of the school are marked with descending negative numbers – during the winter they use them to mark the temperature. One wall is covered with charts: results of a poll of students' favorite bread or tallies of how many times different birds have been seen in the garden.

The school generally does well on the national exam its students take at the end of sixth grade, said English teacher Katrin Libe. Those results aren't made publicly available, though; Estonian students are tested once every three years and school-level results are only published at the end of 12th grade.

And while Estonia's schools are currently benefiting from adhering to the old system, there are also changes creeping in that might disrupt its academic focus. In Konguta's teachers lounge, Libe and fifth-grade teacher Pille Granovski spoke about a recent conference they attended, where a psychologist suggested early education should focus more on emotional and social skills than starting to lay the groundwork for academics. The school has an early childhood center attached to it, which enrolls students as young as 18 months old.

“I think the learning process is quite playful [there],” Libe said.

“I don't know,” Granovski responded. “It is playful but you still have to start learning very early.”

Educators all over Estonia are grappling with new teaching ideas and philosophies, trying to reconcile them with the more rigid system they went through. This discussion is not unlike conversations in America as most states shift to the Common Core State Standards, which have led to major changes in how teachers structure their lessons to demand higher order thinking.

Estonia's traditional educational system still often favors more teacher-centered classrooms and emphasizes learning facts over developing soft skills. It's generally served the country well when it comes to testing, so there is a reluctance to change entirely.

“My problem is whether we can keep [the test results] when stressing creativity,” Ligi said. “Will it be in some conflict?”

But throughout the country, policymakers and educators are talking about the need to produce students who can do more than score well on a test, perhaps go on to become entrepreneurs and creative leaders. Educators are also concerned that focusing on the average student and bringing up low-achievers to that standard comes at the expense of pushing gifted students further.

Estonian education philosophy needs to change and is changing, many educators said, to one that puts more focus on students as individuals and has them drive more of what happens in the classroom.

Yet it can be hard to get teachers to give up on the traditional ways, let alone attract good recruits for the teaching profession when pay is still among the lowest in Europe. Even though teacher training has been completely overhauled at Tartu University to place more emphasis on how to teach students critical thinking and communication and less on content knowledge, officials there say it's taking a while to trickle down into the classroom.

And a rise in the charts hasn't bred compliance, among teachers or students. In [PISA student surveys](#), two-thirds of Estonian students said they are happy at their school, one of the lowest levels in OECD countries.

Estonian PISA Coordinator Gunda Tire says Estonians are complainers by nature, so they'll respond differently to a question about happiness than, say, Americans would. (Nearly 80 percent of U.S. students said they were happy at school on the survey.)

That cultural attitude leaves them with a constant drive to keep improving their schools. "Nothing is ever good enough," Tire said. "No one would say the school system is doing fine."

This story was produced by The Hechinger Report, a nonprofit, independent news website focused on inequality and innovation in education. Read more about [Lessons from Abroad](#). Unlike [most of our stories](#), this piece is an exclusive collaboration and may not be republished without permission.

the Atlantic This story also appeared in *The Atlantic*.

THE HECHINGER REPORT

OPINION: How Finland broke every rule — and created a top school system

It's not just a "Nordic thing"

SOURCE: <http://hechingerreport.org/how-finland-broke-every-rule-and-created-a-top-school-system/>

by [William Doyle](#) February 18, 2016

Spend five minutes in Jussi Hietava's fourth-grade math class in remote, rural Finland, and you may learn all you need to know about education reform — if you want results, try doing the opposite of what American "education reformers" think we should do in classrooms.

Instead of control, competition, stress, standardized testing, screen-based schools and loosened teacher qualifications, try warmth, collaboration, and highly professionalized, teacher-led encouragement and assessment.

At the University of Eastern Finland's Normaalkoulu teacher training school in Joensuu, Finland, you can see [Hietava's students](#) enjoying the cutting-edge concept of "personalized learning."

But this is not a tale of classroom computers. While the school has the latest technology, there isn't a tablet or smartphone in sight, just a smart board and a teacher's desktop.

Screens can only deliver simulations of personalized learning, this is the real thing, pushed to the absolute limit.

This is the story of the quiet, daily, flesh-and-blood miracles that are achieved by [Hietava](#) and teachers the world over, in countless face-to-face and over-the-shoulder interactions with schoolchildren.

Often, Hietava does two things simultaneously: both mentoring young student teachers and teaching his fourth grade class.

"Finland's historic achievements in delivering educational excellence and equity to its children are the result of a national love of childhood, a profound respect for teachers as trusted professionals, and a deep understanding of how children learn best."

Hietava sets the classroom atmosphere. Children are allowed to slouch, wiggle and giggle from time to time if they want to, since that's what children are biologically engineered to do, in Finland, America, Asia and everywhere else.

This is a flagship in the "ultimate charter school network" – Finland's public schools.

Here, as in any other Finnish school, teachers are not strait-jacketed by bureaucrats, scripts or excessive regulations, but have the freedom to innovate and experiment as teams of trusted professionals.

Here, in contrast to the atmosphere in American public schools, Hietava and his colleagues are encouraged to constantly experiment with new approaches to improve learning.

Hietava's latest innovations are with pilot-testing "self-assessments," where his students write daily narratives on their learning and progress; and with "peer assessments," a striking concept where children are carefully guided to offer positive feedback and constructive suggestions to each other.

The 37 year-old Hietava, a school dad and Finnish champion golfer in his spare time, has trained scores of teachers. Unlike in America, where thousands of teacher positions in inner cities are filled by candidates with five or six weeks of summer training, no teacher in Finland is allowed to lead a primary school class without a master's degree in education, with specialization in research and classroom practice, from one of this small nation's eleven elite graduate schools of education.

As a boy, Hietava dreamed of becoming a fighter pilot, but he grew so tall that he couldn't safely eject from an aircraft without injuring his legs. So he entered an even more respected profession, teaching, which is the most admired job in Finland next to medical doctors.

I am "embedded" at this university as a Fulbright Scholar and university lecturer, as a classroom observer, and as the father of a second grader who attends this school.

How did I wind up here in Europe's biggest national forest, on the edge of the Western world in Joensuu, Finland, the last, farthest-east sizable town in the EU before you hit the guard towers of the Russian border?

In 2012, while helping civil rights hero James Meredith write his memoir "[A Mission From God](#)," we interviewed a panel of America's greatest education experts and asked them for their ideas on improving America's public schools.

One of the experts, the famed Professor Howard Gardner of the Harvard University Graduate School of Education, told us, "Learn from Finland, which has the most effective schools and which does just about the opposite of what we are doing in the United States. You can read about what Finland has accomplished in '[Finnish Lessons](#)' by Pasi Sahlberg."

I read the book and met with Sahlberg, a former Finnish math teacher who is now also at Harvard's education school as Visiting Professor.

After speaking with him I decided I had to give my own now-eight-year old child a public school experience in what seemed to be the most child-centered, most evidence-based, and most effective primary school system in the world.

Now, after watching Jussi Hietava and other Finnish educators in action for five months, I have come to realize that Finland's historic achievements in delivering educational excellence and equity to its children are the result of a national love of childhood, a profound respect for teachers as trusted professionals, and a deep understanding of how children learn best.

Children at this and other Finnish public schools are given not only basic subject instruction in math, language and science, but learning-through-play-based preschools and kindergartens, training in second languages, arts, crafts, music, physical education, ethics, and, amazingly, as many as four outdoor free-play breaks per day, each lasting 15 minutes between classes, no matter how cold or wet the weather is. Educators and parents here believe that these breaks are a powerful engine of learning that improves almost all the "metrics" that matter most for children in school – executive function, concentration and cognitive focus, behavior, well-being, attendance, physical health, and yes, test scores, too.

The homework load for children in Finland varies by teacher, but is lighter overall than most other developed countries. This insight is supported by research, which has found little academic benefit in childhood for any more than brief sessions of homework until around high school.

There are some who argue that since Finland has less socio-economic diversity than, for example, the United States, there's little to learn here. But Finland's success is not a "Nordic thing," since Finland significantly out-achieves its "cultural control group" countries like Norway and Sweden on international benchmarks. And Finland's size, immigration and income levels are roughly similar to those of a number of American states, where the bulk of education policy is implemented.

There are also those who would argue that this kind of approach wouldn't work in America's inner city schools, which instead need "no excuses," boot-camp drilling-and-discipline, relentless standardized test prep, Stakhanovian workloads and stress-and-fear-based "rigor."

But what if the opposite is true?

What if many of Finland's educational practices are not cultural quirks or non-replicable national idiosyncrasies — but are instead bare-minimum global best practices that all our children urgently need, especially those children in high-poverty schools?

Finland has, like any other nation, a unique culture. But it has identified, often by studying historical educational research and practices that originated in the United States, many fundamental childhood education insights that can inspire, and be tested and adapted by, any other nation.

As Pasi Sahlberg has pointed out, "If you come to Finland, you'll see how great American schools could be."

Finland's education system is hardly perfect, and its schools and society are entering a period of huge budget and social pressures. Reading levels among children have dropped off. Some advanced learners feel bored in school. Finland has launched an expensive, high-risk national push toward universal digitalization and tabletization of childhood education that has little basis in evidence and flies in the face of a recent major [OECD](#) study that found very little academic benefit for school children from most classroom technology.

But as a parent or prospective parent, I have spent time in many of the most prestigious private schools in New York City and toured many of the city's public school classrooms, in the largest public school system in the world. And I am convinced that the primary school education my child is getting in the Normaalikoulu in Joensuu is on a par with, or far surpasses, that available at any other school I've seen.

I have a suggestion for every philanthropist, parent, educator and policymaker in the world who wants to improve children's education.

Start by coming to Finland. Spend some time sitting in the back of Jussi Hietava's classroom, or any other Finnish classroom.

If you look closely and open your mind, you may see the School of Tomorrow.

William Doyle is a 2015-2016 Fulbright Scholar and New York Times bestselling author from New York City on the faculty of the University of Eastern Finland, and father of an eight year old who attends a Finnish public school.

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