How are other countries able to close the achievement gap and produce such high-achieving students?

BY JULIE DAVIS BELL

Why is it that American kids trail so many others around the world in math, science and reading? What do those countries do that we don’t? We need to know.

Amanda Ripley, author of “The Smartest Kids in the World and How They Got That Way,” sought answers to these questions by following three American students who attend schools in high-achieving countries for one year. Kim, a 15-year-old from Oklahoma, moves to Finland, using the $10,000 she raised for the adventure; Eric, an 18-year-old from a high-achieving Minnesota suburban high school, chooses a big city in South Korea; and Tom, who is 17, leaves his small town in Pennsylvania for a small village in Poland.

Through the experiences of these students, Ripley discovers changes in these countries—none of which had high-achieving students a few decades ago—that appear to be making the difference.

In Finland, the emphasis is on excellent teachers, one high-stakes exam at the end of high-school, a fair distribution of educational resources and flexibility in the school day for play and sports.

In South Korea, successful changes include high standards, high-stakes tests and a significant increase in parental involvement.

And in Poland, a mixture of well-trained teachers, a rigorous curriculum, a challenging exam to graduate and a focus on academics only—sports are not part of the school day—are making the difference.

Interest in what the United States can learn from other countries has grown over the last 20 years as American scores on international tests have stalled while other countries have passed us by.

Some people believe these international comparisons are invalid. The U.S. is more economically diverse than other countries and its complex system of educational governance is shared among the federal, state and local levels. They aren’t comparable, they argue.

Others say that looking at what these countries are doing is too intriguing to ignore and worth exploring. That’s why NCSL’s Study Group on International Education embarked on an intensive 18-month examination of educational systems in some of the world’s highest performing countries.

The bipartisan group of legislators and legislative staff, along with several private-sector partners, met with education leaders and national and international experts to learn which policies and practices were working in these countries and what lessons the states might learn from their successes.

This article is based largely on the group’s first report, “No Time to Waste: How to Build a World-Class Education System State by State.”

First, the Test

The Programme for International Student Assessment, or PISA, is the test used to compare the skills and knowledge of 15-year-old students around the world. It’s administered every three years and rotates among reading, math and science.

In the first PISA study of 32 countries in 2000, the U.S. placed 15th in reading, 19th in math and 14th in science.

Things got worse in 2012. The test included less-developed countries because of advances
they were making, and of 65 countries, American students ranked 24th in reading, 36th in math and 28th in science.

“These comparisons also hold even when controlling for poverty, homogeneity and size,” says Andreas Schleicher, the chief statistician and researcher overseeing PISA.

Most of these countries are doing better than the United States while also spending less. Except for Norway, Luxembourg and Switzerland, no other country spends as much per student than the U.S. does each year, which, in 2012, was around $10,500. With less money, these high-achieving countries have not only greatly improved their student test scores, they have also closed achievement gaps among certain populations.

PISA isn’t the only test out there. The U.S. also pays attention to the “Nation’s Report Card,” or the National Assessment of Education Progress, administered periodically to students across the country. But its results are no different. For four decades, this assessment has shown little improvement in the reading and math scores of American high school students.

Stagnant Since the 1970s

Marc Tucker, president and CEO of the National Center on Education and the Economy, has spent his career studying education and economic reform in countries and states. He says educational growth in the U.S. stopped in the 1970s.

“Our school system took its current shape a hundred years ago, when most workers needed only basic literacy,” he says. “Now, though, the jobs available in the industrialized countries to people who have only basic literacy are drying up fast, some going to developing countries and the rest going to robots and other intelligent machines that can do the work faster, more accurately and at lower cost. The majority of our high school graduates are prepared for the jobs that are disappearing, not the jobs that will be available. Those jobs will require much more education and much higher technical skills.”

It’s not necessarily due to a lack of effort. Individual reforms have focused on increasing school competitiveness through charters and vouchers, reducing class sizes, improving technology and toughening teacher accountability systems. Still, student test scores remain stagnant.

Principles From Abroad

So, what makes for successful education systems in the top-performing countries? Members of the legislative study group observed that all focused on teaching and teachers, high standards with limited but strategic tests, targeted resources, career and college options, and support during the early years.

Tucker notes that reforms in all of the top-performing countries were system-wide, and valued as key to improving the country’s economy and worldwide competitiveness.

“These countries set themselves on a course to create the system they wanted, and they did not veer from it over 25 to 30 years, refusing to be interrupted by the next election. They look at education as a system of thoughtful, continuous improvement, not as continuous experimenting with the latest fad,” says Arkansas Senator Joyce Elliott (D).
And, ironically, says Indiana Representative Robert Behning (R), “these countries were building their new systems based on the best of American research. They were paying attention to the things that our own country has ignored, or simply did not want to put in place.”

**Teachers as Nation Builders**

One common denominator among top-performing countries is an emphasis on high-quality, highly trained teachers. The profession is well respected, attracts top candidates, receives purposeful training and is generously compensated. Why? Many countries view teachers as “nation builders,” essential for their economic health and vitality in the future.

“We continue to circle the mountain of high expectations because policymakers have failed to listen to the education sherpas who know how to get to the top. We need to listen to and support educators. Other countries do,” Elliott says.

Washington Representative Sharon Tomiko Santos (D) agrees.

“All of these countries prioritized the development of a highly trained and highly regarded teaching profession that recruits the strongest students into the profession, provides rigorous preparation, and supports them throughout their careers,” she says.

“In China there are very large classes with highly effective teachers. The teachers help students work in groups and provide feedback,” says Utah Senator Howard Stephenson (R). “In addition, following the lesson, a group of colleagues, including the principal, critique the teacher and offer feedback on what she could do better. Teachers are part of a group, not isolated...
in the classroom.”

In Singapore, policy actions dating from the 1990s led to the development of a comprehensive system of selecting and training educators. The National Institute of Education oversees the country’s education policy as well as the entire teaching profession, including recruitment, training, placement and professional development.

Prospective teachers in Singapore must be in the top third of their class to be admitted into a teacher training program. Teachers are required to train in an ethnic community other than their own and must work at all grade levels, as well as in rural and disadvantaged schools.

Mentors are assigned to each novice teacher and groups of teachers get together every week to discuss ways to improve their skills. Although salaries are set by the government, retention and performance bonuses are available for certain teachers.

Teaching is considered a 12-month profession, with 100 hours of professional development annually. All principals must have experience teaching.

Finland also has highly selective, centralized teacher training—with rigorous entrance requirements for its eight schools of education. Masters degrees are required, and teachers study both research and pedagogy.

**The Dilemma About Testing**

“In recent years, since No Child Left Behind, the federal government has required states to administer tests every year in grades three through eight in two subjects and again in high school in the same subjects, with high stakes for the teachers.” Tucker says. “The top-performing countries, however, require high stakes testing no more than three times in a student’s whole career, and the stakes are generally for the students, not the teachers. More frequent testing usually means less is spent on each test, so the top performers are typically getting tests that do a much better job of measuring the kinds of skills students will need in the modern workplace.”

Under the new federal Every Student Succeeds Act, state educators are given more flexibility in designing appropriate

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**Principles of a World-Class Education System**

*By NCSL’s Study Group on International Education*

Children come to school ready to learn, and extra support is given to struggling students so that all have the opportunity to achieve high standards.

- Necessary resources ensure that all children enter the first grade with the cognitive and other skills needed to master a curriculum set to high standards.
- Once students are in school, resources—especially highly effective teachers—are distributed so that students who find it harder to meet high standards are able to succeed.

A world-class teaching profession supports a world-class instructional system, where every student has access to highly effective teachers and is expected to succeed.

- The highly professional teachers are well-prepared, well-compensated and well-supported throughout their careers.
- Teachers support a well-designed instruction system that includes high standards for learning, a world-class core curriculum and high-quality assessments designed to measure complex skills.
- All students are expected to be ready for college and career, and all educators are expected to get them there.

A highly effective, intellectually rigorous system of career and technical education is available to those preferring an applied education.

- A powerful, hands-on applied curriculum is based on strong academic skills.
- The system has no “dead ends,” and pathways to university are clear and always available.
- Schools partner with employers to ensure that high standards are set for students, who receive on-the-job training and learning opportunities to enable them to reach those standards.

Individual reforms are connected and aligned as parts of a clearly and carefully designed comprehensive system.

- All policies and practices are developed to support the larger education system.
- The educational system is designed to ensure that every student meets the same goal of college or career readiness.
tests and accountability systems based on high standards. Facing a backlash over frequent student testing coming from parents, teachers and administrators alike, policymakers must again decide what tests to administer, when to give them and for what purposes.

“At this crucial point in time for education policy, legislators need to balance the lessons from top-performing countries with the direction we are headed in the states,” says Santos. And that’s a challenge.

To Centralize or Not?
Along with high-quality teachers, a systemwide approach and less emphasis on annual testing, high-performing countries all have a well-developed central department of education. Most are in charge of all levels, from elementary to university, although most give local districts the flexibility to achieve the high academic standards set by the central government.

Neither full centralization nor complete decentralization seem to be the definitive answer in these countries—the challenge is finding the right things to centralize and the right things to decentralize.

“Centralize equitable access for kids, good learning in and out of school, and all people going into the system knowledgeable and prepared,” says Finnish education scholar Pasi Sahlberg. “Decentralize decisions about curriculum to school leadership at the local level. This unleashes the creativity of people in the schools and provides flexibility to accommodate community values.”

The State Role
Tackling education reform at the national level is difficult with our complex, fractionalized system of federal, state and local control. State-level comparisons with other countries are more realistic and appropriate.

“We learned that a better analysis for understanding how we compare internationally is to look at state performance rather than the performance of the U.S. as a whole,” says Indiana’s Behning. “Thinking about how states can create meaningful reform is much easier than thinking about how the whole country might do that.”

After all, like the top-performing countries the NCSL education group studied, states have a central education department that is chiefly responsible for setting broad standards for schools and students. States give local districts flexibility in deciding how students and schools will reach those standards. And states oversee teacher preparation, training and certification.

Several states already have begun reforms that incorporate some of these fundamental principles followed by the top-performing countries.

Delaware’s Vision
In 2006, Delaware began “Vision 2015,” a 10-year effort to develop a state plan for improving its students’ lagging educational performance.

Delaware Senator David Sokola (D), a member of the study group, used lessons he learned from the group’s experiences as examples of what’s possible. “We brought a large group of Delaware citizens together to create a 10-year vision that identifies priorities for education reform,” he says. “The process has helped us focus on long-term goals and build broad consensus about specific policies and strategies.”

The state has recently extended the effort for another 10 years. “Vision 2025” will continue the work and incorporate lessons learned from the first 10 years. The initiative has brought hundreds of Delawareans together to study high-performing states, systems and countries. Many of their 47 recommendations for improving student success have made Delaware a leader in education reform.

• Academic standards benchmarked against the world’s best.
• The most comprehensive early child-
hool education in the world.
• Strong family, community, business and civic partnerships.
• A real teacher career ladder based on skills and performance.
• Decision-making authority in the hands of principals and teachers.
• Simple and fair funding driven by the needs of individual students.
• An additional 140 hours of academic instruction a year.
• The use of year-to-year student achievement gains as an accountability cornerstone.
• A systematic way to replicate high-performing schools.

The plan was implemented in phases over several years with working groups organized to design and discuss policy priorities and options.

Kentucky’s Rising

“Kentucky Rising” is a similar statewide plan begun last year to produce a workforce that is among the world’s most highly skilled and globally competent. Representatives from all levels of education, economic development, business and labor are working on a strategy that contains many of the same elements as Delaware’s, such as strong support for preschool-aged children and their families, for at-risk students and for highly effective teachers.

Following the development of the state plan, agencies and departments will develop their own specific strategies to achieve the goals.

“The ‘Kentucky Rising’ process helped us bring people together to focus on the same elements identified in NCSL’s ‘No Time to Lose’ report,” says Ben Boggs, former Kentucky legislative staffer and member of the NCSL study group.

“Our first step was to understand the elements needed for success, followed by an analysis of our achievement gaps compared to leading PISA countries. Our next challenge is to undertake the difficult considerations of changes required—in teacher effectiveness, rigorous career and technical education, and support for struggling students and schools,” he says. “We realize that economic development begins with a well-conceived, comprehensive world-class education system.”

The Final Challenge

Every state has outstanding schools, teachers and principals who produce exceptional students who compare favorably in global assessments.

The challenge, of course, is to spread successful results statewide, to ensure that all schools are great.

There are things states can begin to do now. NCSL’s Study Group on International Education suggests beginning with these seven.

1. Build an inclusive team of state and local policymakers, teachers, principals, superintendents, unions, businesses, parents and students. State legislators can’t do this alone.
2. Study and learn from the top performers to find what’s working in their countries.
3. Create a shared, long-term, statewide vision that transcends the shifts in politics or personalities to guide the effort.
4. Develop policy benchmarks to monitor successes.
5. Get started right away on a priority area of reform. Don’t wait until all the pieces are ready.
6. Work through the inevitable messiness. Systemwide reform is always difficult.
7. Invest the time. Moving states from mediocrity to excellence takes time.

A true transformation of the American educational system and teaching profession will take a massive culture shift. This isn’t about jumping on the latest reform idea that comes along.

“Every time we hear about some new-fangled shortcut, we want to try it. Yet we ought to pay attention to the fact that our reforms are not significantly improving the opportunities of our most vulnerable students,” says Elliott. “Through systemic, long-term commitment, other countries are moving the needle for these populations. We need to do the same.”

It won’t take long to discover just how much that American needle is moving, and in what direction. The next round of PISA scores will be released any day now.

Editor’s Note: You can find a link to the complete report, “No Time to Lose,” at SL Online. The group’s second report, on how to make this kind of systemwide transformation occur in your state, will be out next year.