



Eliminating the Achievement Gap

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Using a community-wide approach, an early childhood literacy program is helping all children, including underserved and ELL students, learn the language fundamentals needed to succeed in school.

By the time a child from an underserved family starts kindergarten, she will likely have heard 30 million fewer words than a student from a more affluent background, according to a **1995 study by Betty Hart and Todd Risley**. It's a huge gap that puts these children at a significant disadvantage before they even walk through the school doors. Indeed, according to a **1996 study from the National Center for Education Statistics**, 46 percent of children in the United States enter kindergarten at risk of failure and a stunning 88 percent of these never catch up. Now, an early childhood literacy program is attempting to close this achievement gap by reaching kids during that critical stage from pre-school through 3rd grade.

Created by a team of professional educators, Footsteps2Brilliance® is a digital literacy application that breaks down the wall between home and school by encouraging literacy anytime anywhere. Accessible via any mobile device or computer—online or offline—the program utilizes digital books, games, and music to create an interactive platform that can be used by parents, teachers, and children working on their own. Results have been impressive, with preschool students in Napa County, for example, showing a 250 percent increase in proficiency on the Expressive Vocabulary Test (EVT) after just seven months of using the program.

Footsteps2Brilliance® at a Glance

- Comprehensive literacy application in English and Spanish for pre-K through Grade 3
- Works on any mobile device or computer for increased parental involvement
- No internet connection required after initial download
- Software license covers entire community (zip code, county, city)
- Interactive platform utilizes gaming technology
- Analytics tool provides performance breakdown by individual or group
- State and third-party testing shows significant gains among students

MODEL INNOVATION CITIES

While Footsteps2Brilliance® is certainly not the first program to promote early childhood literacy, its goals are broader and more ambitious than other initiatives. Underlying the program's approach is the premise that the foundation of academic success must be built through the efforts of the entire community—not just schools. "Model Innovation Cities" is the term used by Footsteps2Brilliance's creators to describe a partnership of schools, parents, local government, businesses, and social organizations working together to address the challenge. To support these partnerships, Footsteps2Brilliance® employs an unusual licensing model that allows everyone in a community—be it a county, city, or zip code—to download and use the literacy solution on their mobile devices.



The concept of a Model Innovation City—with its focus on reaching families with children who are still too young for school—resonates with many school superintendents who are seeing a rise in both poverty rates and the number of non-English-speaking immigrants in their districts.

"Normally, programs like this happen school by school or maybe district by district, but they don't reach all the kids who are not yet in school, which is where the achievement gap starts," said Dr. Barbara Nemko, Napa County Superintendent of Schools, which launched a county-wide initiative with Footsteps2Brilliance® in 2014, including its use in 23 preschool classes. "These kids come to school with a two-year achievement gap. To be able to do this county-wide and offer it to every family with a preschool child is so powerful in terms of where these children will be when they get to kindergarten."

Napa County is typical of the kind of demographic changes occurring in school districts nationwide. While 50 percent of the county's K-12 students are Hispanic, the percentage of preschool children who are Hispanic is much higher: 80 percent or more. "We have so many children who don't speak English and are not read to because many of their parents cannot read in Spanish," explained Nemko.

On the other side of the country, on the outskirts of Boston, Revere Public Schools has a different demographic but faces similar challenges. Of the 7,200 students in the district's 11 schools, 78 percent qualify for a reduced-price lunch, 58 percent are nonwhite, and about 50 percent don't speak English as their first language. "Revere is considered a 'Gateway City' because first-generation folks usually settle here," said Dr. Paul Dakin, Revere's superintendent. "After they're here a while, they move. We're a place that receives an immigrant population and has a relatively transient student population."

As in Napa, many of these children arrive unready for kindergarten. "The first day children walk into the Revere Public Schools kindergarten classes, the achievement gap exists," said Dakin, comparing his students with those from Wellesley Public Schools in a wealthy area of greater Boston. "Socioeconomics is part of the root cause, as well as the situations in which people live. My teachers are working to close that gap from kindergarten through grade 12. Our goal with Footsteps2Brilliance® is for the gap not to be as wide."

COMMUNITY OUTREACH

Revere's community rollout of Footsteps2Brilliance® has been underway for 18 months (the program has been in classrooms for about three years). As organizers have discovered, reaching the parents of preschoolers poses its own set of challenges, especially if they don't have another child already enrolled in school. Dakin has hired a bilingual, fulltime program coordinator to get the word out. Efforts range from putting flyers in convenience stores to running newspaper stories—the district even hung a banner across the street in front of City Hall. But Dakin realizes that partnering with other organizations in the community will ultimately pay the highest dividends.

"We have lists of all of the daycare centers in the community, all the church groups, all of the youth-service agencies, and the churches themselves," said Dakin. "Our coordinator solicits these groups, looking for folks who may not already have a child in the Revere Public Schools."

In Florida's Alachua County Public Schools, a more formalized community-building effort is underway to generate support for an early childhood initiative that focuses on the years from birth to 3rd grade. The brainchild of Dr. Owen Roberts, who took over as superintendent in July 2014, the initiative prominently features Footsteps2Brilliance®, although it's still in what Roberts calls the "proof-of-concept stage."

"I brought to the table not only the leaders in the municipality but also the University of Florida, and other not-for-profit agencies to work together on this initiative," recalled Roberts. "The intent is not only to get funding but also to create an awareness in the entire community around early learning in general. I want to reach parents who are not yet part of the pre-K system and help them understand how important it is to develop strong language systems from birth."

As part of the initial test phase, Alachua County Public Schools has rolled out Footsteps2Brilliance® in 12 pre-K classrooms, although plans for extending the program to the community at large are still in the development stages. "The implementation in the pre-K classrooms is going well," commented Roberts, noting that, at the time, the district was only 30 days into the test and needed another three to six months to gather a more complete picture of the program's success.

Revere's Dakin, meanwhile, is vigorously pushing ahead with his community rollout of Footsteps2 Brilliance® since he doesn't have the capacity to educate all the district's preschoolers in a formal setting. "I don't have space for the kids in school, and the parents don't have the money to send their kids to day care where they would get some of that education," he said. "My goal with Footsteps is to have an aggressive program for those three- and four-year-olds [outside class]."



PARENTAL INVOLVEMENT

Since preschoolers represent a large part of Footsteps2Brilliance's target audience, the program is deliberately designed for use by parents and children outside formal educational settings. Unlike many apps that operate only on a specific operating system, for example, Footsteps2Brilliance® is device agnostic: It will work on any computer or mobile device, be it a tablet or a smartphone. "You would think that some of these people in poverty wouldn't have these devices, but—believe you me—they have a smartphone of some sort," said Roberts, "although I know one parent who went out and purchased a smartphone in order to have access to the program."

Dakin has also found that a significant number of parents in his district have smartphones, if not a tablet or laptop. For those who lack any form of access, the district offers summer programming at all three elementary schools. Students can come in to use laptops or they can take the school's iPads home. To ensure that parents don't stumble over technology that may be unfamiliar, the district also provides instruction on how to use the devices.

As long as parents live within the community that's covered by the license, they can download the Footsteps2Brilliance® application for free. And, once the program is downloaded, internet access is no longer needed for it to work. This is particularly important in poor households that may not be able to afford internet service or cellular contracts with big data allowances.

"Some students don't have access at home—we get that," said Nemko. "If parents come to our workshop and download it in our Wi-Fi enabled classrooms, they can use it at home whether they have access or not. They can use Footsteps2Brilliance® in the car, the bus, at the doctor's office, in the supermarket."

By pushing literacy instruction beyond the confines of the classroom walls, superintendents are also seeing some unintended benefits, particularly among Spanish-speaking families.

"Spanish-speaking parents have indicated that they're learning English as they watch their children do the program," said Dr. Mark Edwards, superintendent of the Mooresville Graded School District, a North Carolina district with a 12 percent ELL population that is now finishing its second year using Footsteps2Brilliance®. "If they're shouldering their child, they're hearing the letters. They hear the enunciation of words, they hear how syllables come together. They are learning the language in a soft—although juvenile—way."

It's an experience that Nemko in Napa, with its large Hispanic population, confirmed. "We have parents who tell us that not only do the kids love it, but that they're learning English with their children," she said, noting that users can toggle back and forth between English and Spanish on any page. "It's a lovely unintended side effect."

CURRICULUM INTEGRATION

The Footsteps2Brilliance® literacy curriculum spans the years from preschool through 3rd grade, so it's critical that the program also work within the more structured environment of the school classroom.

In Revere, for example, Footsteps2Brilliance® has been incorporated into the district's existing reading program. During a 90-minute block, students rotate through five different stations, with four or five kids at each station. "The Footsteps2Brilliance® piece fits wonderfully into one of those 15-minute stations," said Dakin. "If you were to ask my teachers, they would say it's doing wonders."

Mooresville has also integrated Footsteps2Brilliance® into its existing teaching structure with minimal disruption. "With our on-going pedagogical design, there's a lot of emphasis on project-based learning and it has worked seamlessly for us," explained Edwards. "At the elementary level, we use centers. Footsteps2Brilliance® is one of the centers, and the students use it through a rotation."

While the performance of Footsteps2Brilliance® has been impressive, superintendents stress that it's just one piece of the learning puzzle and emphasize the central role of the teacher within the classroom environment. "There's no substitute for teachers and the amount of information that a teacher can gather working one-on-one or in a small group with kids," said Dakin. "Voice inflection, reading, communicating and learning how to work on a team—these could never be mimicked by this kind of educational technology."

Alachua's Roberts uses a medical analogy to describe the relationship between programs such as Footsteps2Brilliance® and teachers. "It is not the instrument that makes the difference, it's the skill and the knowledge of the doctor using the instruments in the right way that brings about healing," he said. "I think education is the same thing."



PROFESSIONAL DEVELOPMENT

Not surprisingly, these superintendents believe teaching training is a critical component of any Footsteps2Brilliance® implementation. "It's not complicated to use—a lot is just plug-and-play—but a strong dose of professional development was needed to make sure that we were ready," explained Edwards. "We took a train-the-trainer approach. We had some initial teacher leaders who really embraced the software and then helped train other teachers."

In Napa County, which comprises five school districts with 21,000 students, PD is needed on a large scale. While Footsteps2Brilliance® has been used in various classroom settings since 2011, the countywide initiative only launched at the end of February 2014. "It's not an easy transition and there has been a lot of training," said Nemko, noting that the county is attempting to train not only county teachers but parents, too. Coaching will be provided by preschool and kindergarten teachers who already have experience with Footsteps2Brilliance®.

Even with extensive PD, teachers are often reluctant to adopt new technologies or programs. Chances of adoption rise enormously, however, if teachers encounter a program that actively engages students. "We know how computer games engage a kid," said Dakin. "Footsteps2Brilliance® is engaging in the same way, except everything is focused around increasing kids' reading skills, their ability to identify letters and words, and building sentences and, ultimately, short stories. The program uses a lot of singing, as well as characters and animals that are of high interest to young kids."

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Edwards and his teaching team were particularly taken by a feature that allows students to create and publish their own books. "We were very, very impressed with how students responded to this function, and started creating their own books and authoring their own material," he said. "They really got excited about it. They saw success not only in terms of their own reading development, but they also felt a sense of accomplishment."

The fact that the program allows children to advance to the next lesson only after they have mastered the material is another major plus for teachers. "It's individualized instruction without the teacher having to do it," said Dakin. "This allows professionals in the classroom to engage kids in small groups or one-on-one as needed because they've got four or five other students occupied in a very connected way to what they're doing."

By requiring students to succeed before they proceed, the program teaches them another valuable lesson, said Nemko. "I love the fact that if a child gets a question wrong, it very patiently says, 'Whoops! Try again,'" she said. "He can get it wrong 72 times and it's still going to say, 'Whoops! Try again!' It teaches kids persistence."



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WHAT THE DATA SAYS

As heart-warming as it is to see young children excited and engaged about school, the ultimate test of any learning program lies in the data. Footsteps2Brilliance® comes with its own analytics tool that allows educators to gauge performance across a wide range of metrics, either at individual student level or as a group. "There is a world of data that we're getting," said Nemko. "We can track exactly how many words a student can read, how many books she has read, how often she answered a comprehension question correctly the first time—even how many books she has created."

Thanks to this analytics tools, Napa County was able to issue a challenge to its preschool children for them to be exposed to 1 million words collectively during the first four months of the program's launch in 2014. By the deadline of June 30, the children had surpassed 3 million words.

Results of state and third-party testing are what's earning Footsteps2Brilliance® nationwide credibility, though. In 2014, Mooresville Graded School District, which is in its second full year using the program, ranked number one in North Carolina in 3rd grade reading and math, even though it ranks 102nd out of 115 districts in funding.

"All three of our elementary schools had very strong results due to a variety of factors," said Edwards. "At the same time, South Elementary, which was the most aggressive in using Footsteps2Brilliance®, had tremendous results, even though it has the highest poverty rate and highest rate of ELL students."

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In Napa, Nemko administered the Peabody Picture Vocabulary Test (PPVT) to students in the Office of Education's preschool classes—once before Footsteps2Brilliance® was implemented and again after seven months. In the second PPVT test, 98 percent of English speakers and 79 percent of English learners performed at the six-year-old level compared with only 82 percent and 43 percent during the pre-implementation test. In the second EVT, 78 percent of English speakers and 29 percent of English learners performed at the level of five-year-olds or higher, compared with just 30 percent and 12 percent during the pre-implementation test.

Results like these give superintendents hope that school districts—working in conjunction with their communities—can indeed erase the achievement gap that threatens the future of millions of poor and first-generation immigrant children. As Edwards said of his district's literacy efforts, "We believe that if we can have every student on reading level by the end of the 3rd grade—if we can erase the gap by 4th grade—we're really setting the stage for student success."

Early Childhood Literacy: Meet the Pacesetters

The superintendents profiled here have all implemented Footsteps2Brilliance® in their districts, recognizing that early childhood literacy is key to success in school. Despite geographic and size differences, their districts share common challenges: a majority of students come from impoverished households, and many have large populations of English language learners. Here's what these superintendents have to say about their experiences with the F2B program:

Superintendent & District	District Size and Socioeconomic Profile	Experience with Footsteps2Brilliance®
Melba Luciano School District of Osceola County, FL	58,203 students 70% free/reduced lunch 18% ELL	"87% of our students are entering kindergarten without the foundational skills needed for success. We are using Footsteps2Brilliance® as a countywide strategy to remedy this situation. It is allowing us to bring all stakeholders in the community together to support early literacy."
Dr. David DeRuosi Malden Public Schools, MA	6,649 students 57% free/reduced lunch 19% ELL	"F2B gives students access to high-quality, engaging literacy activities that allow us to extend learning beyond our school walls and help families become partners in their children's education. It takes learning to a new level."
Ann Mahi Nanakuli-Waianae Complex Area, Honolulu, HI	8,200 students 79% free/reduced lunch 4% ELL	"The Nanakuli-Waianae Complex Area has created a community-wide early learning strategy with F2B that leverages mobile devices to increase our students' academic vocabulary. In just two years, our students have read nearly 400,000 books and 120 million words, which has positively impacted their readiness to learn."
Dr. Catherine Magouryk Manassas City Public Schools, VA	7,500 students 60% free/reduced lunch 33% ELL	"Through the F2B partnership, MCPS will provide a springboard for all students, whether or not there is the physical capacity to bring them into the pre-K classroom. When kindergarten students come to school with a strong literacy background, they have more opportunity to be successful academically."

Early Childhood Literacy: Meet the Pacesetters

Superintendent & District	District Size and Socioeconomic Profile	Experience with Footsteps2Brilliance®
Dr. Diana Greene Manatee County School District, FL	47,400 students 59% free/reduced lunch 12% ELL	"Literacy is a priority for Manatee County. We are partnering with Footsteps2Brilliance® to support our grade-level reading initiative and to ensure equitable access for our pre-K children and their parents."
Dr. Brenda Hess Russell County Public Schools, VA	3,921 students 64% free/reduced lunch Less than 1% ELL	"The F2B program has completely transformed our way of providing 'intervention' and 'reading remediation and practice' to all our students in our primary grades—pre-K through 3rd grade. The F2B program is so 'kid friendly' that our students don't even know the extensive depth of their learning as they work through the stories and skills available. I highly recommend it for all primary students."
Greg Magnuson Buena Park School District, Buena Park, CA	5,100 students in pre-K through Grade 8. 77% free/reduced lunch 40% ELL	"Our theme is 'Improving the Lives of our Students and Families.' Our partnership with F2B helps us accelerate vocabulary and language acquisition for our youngest students and will provide a resource for higher English-literacy levels for all residents of our community."
Jim Jolicoeur Leominster Public Schools, MA	6,256 students 50% free/reduced lunch 6% ELL	"F2B is unique in that it provides the flexibility to diffuse innovation in learning over a wide population of students via a portable app that can be accessed from any mobile device. It allows students to have fun in increasing their vocabulary, comprehension, and reading skills, while also providing parents with the ability to engage in literacy skills with their children, despite busy work, school, and personal schedules."



Footsteps2Brilliance®

Footsteps2Brilliance® is a pre-K through 3rd grade literacy solution that utilizes mobile technology to connect school, home, and the community for academic success. Its Mobile Technology Platform allows comprehensive literacy apps to be accessed online or offline from any mobile device (Apple or Android) or traditional computer. This enables school districts, for the first time ever, to leverage the mobile devices that parents already own to create Model Innovation Cities.

The Footsteps2Brilliance® Model Innovation City license creates a turnkey, citywide literacy solution. It allows school districts and the cities that they support to cost effectively scale award winning pre-K through 3rd grade literacy curriculum to every family within their jurisdiction, without spending additional monies on hardware, infrastructure, or maintenance. It also empowers parents with the tools they need to be able to share responsibility for their children's academic success.

For more information, email info@footsteps2brilliance.com or call 202-338-1223.

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