**District
Management
Group**

Systems-Thinking Can Ensure All Students Can Read

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Ed reform approaches come and go, but perhaps the only area of lasting, near-universal agreement is that the ability to read and comprehend is critical. Despite this broad consensus, NAEP (National Assessment of Educational Progress) reading scores have seen few gains, only a handful of districts have fully implemented the much-lauded recommendation of the National Reading Panel published twelve years ago, and few district leaders seem satisfied with the number of children who are reading at grade level. Insufficient time, money, and training are often cited as barriers, but it may well be that the real obstacles are embedded in the very design of how districts are organized, how decisions are made, and how staffing is managed.

Most districts have a focus on literacy and many have made significant investments in materials, software, training, and coaching; yet, two-thirds of fourth graders still struggle to read.[1] While each of these components is valuable, individually they are insufficient for the task. Only by applying a systems-thinking approach—building a comprehensive approach for reading instruction and support, where all the parts work together as a coherent, reinforcing system—can districts ensure that all students will master reading. Bold and strategic leadership and management are required to reshape the existing system to implement a systems-thinking approach.

What Is Systems-Thinking?

Systems-thinking is a simple concept. It means that all the components of a plan work in concert toward achieving an overarching vision or master plan. A systems-thinking approach means (1) all the non-negotiables, by which we mean the objectives, are clearly articulated early in the process; (2) every part of the system knows what and how to change to support the non-negotiables; and (3) each component of the plan magnifies and reinforces the others, creating a "force multiplier" which dramatically accelerates the achievement of the stated objective.

Systems-thinking demands that non-negotiables remain true and uncompromised, and that it is the system that bends, changes, and restructures in service of the non-negotiables. Strong leadership, skillful management, and careful planning are essential. Making a system adapt to the non-negotiables starts with a cross-departmental, silo-free look at all the parts of the district that are impacted by the plan. Adjusting or changing schedules, staffing, training, hiring, funding, policies, procedures, customs, and incentives is often required. A comprehensive list of touchpoints and obstacles helps guide the implementation. When a district has this list in hand, the key steps to implementation become clear. This list of steps is not the typical approach of buying materials, training staff, and monitoring activities. Such an approach holds the current context in place, whereas systems-thinking requires taking sometimes dramatic actions to ensure the system will support success.

Applying systems-thinking demands strong leadership and solid management. Only a leader can see over the walls that create the organizational silos; only a leader can bring the disparate parts of an organization
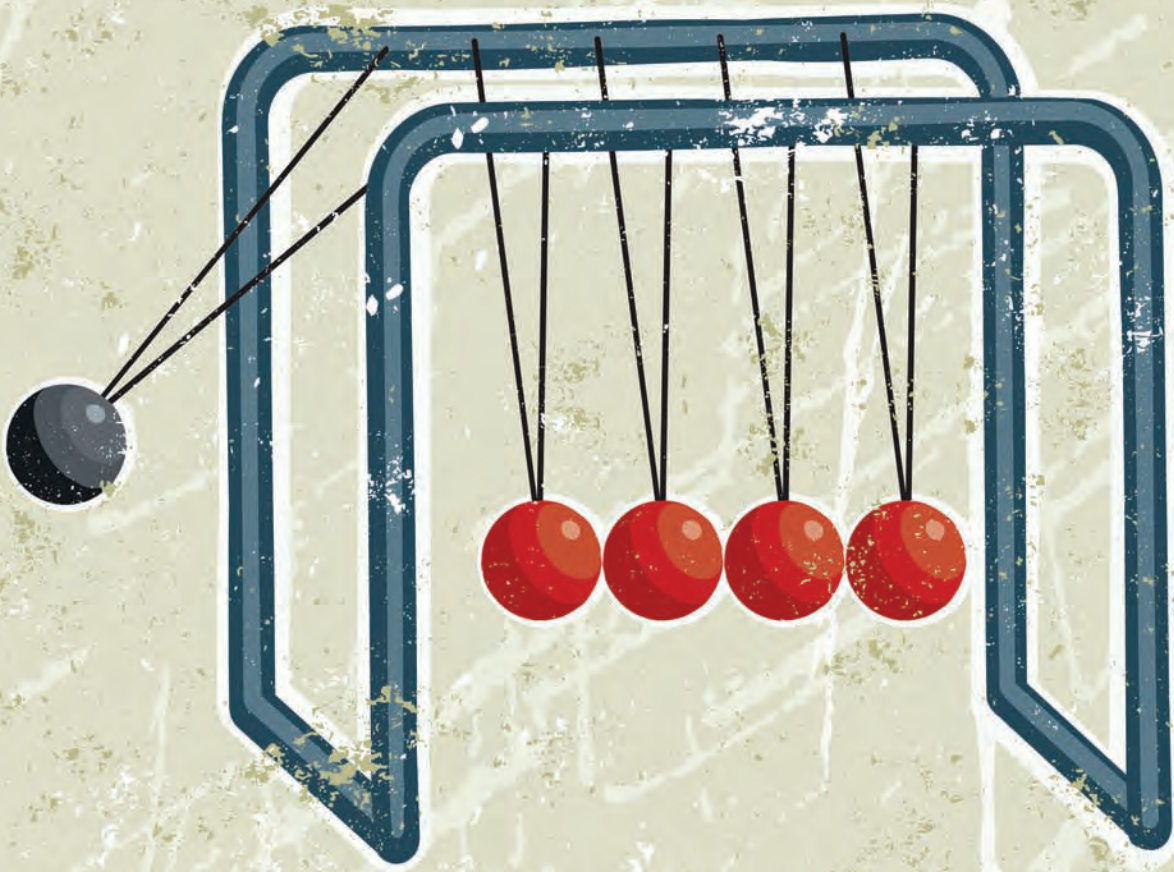
together; and only a leader has the clout to change the system to support the non-negotiables. Strong management skills are also critical. A deep understanding of day-to-day operations can help identify practices that undermine key elements of a plan. The ability to plan, schedule, coordinate, and organize can make seemingly impossible obstacles disappear.

Examples of how systems-thinking can create powerful results are all around us. Toyota and Southwest Airlines are two classic case studies. To create high-quality cars at low prices, Toyota changed the very way cars were designed and manufactured. In the past, the process was siloed. The creative team sketched the design, engineers detailed it, purchasing bought the parts, manufacturing assembled them, quality control inspected the cars, and dealers sold them. The process seemed logical, and everyone did his or her part. Unfortunately, the creative team didn't know their design was hard to manufacture; purchasing bought what was specified, but not what was actually needed; and when customers complained to the dealer (in America), no one at Toyota in Japan heard about the problems. As a result, Japanese cars were shunned. Toyota then created a

better system, which led to a better car. Many of the various departments were merged to ensure they worked together as a team. Parts suppliers set up shop inside the production line and inspected the quality of their parts, and customer satisfaction data became critical components of performance reviews for all managers. In short, everyone involved in the process contributed to creating a great car. Today, Toyota is the largest car manufacturer in the world.

Southwest Airlines provides another example of the application of systems-thinking. Anyone who has flown Southwest Airlines has experienced a system designed to provide reasonably priced travel and an enjoyable experience. To fit in more flights a day (a key driver of cost), the airline doesn't assign seating, which speeds boarding; and flight attendants start cleaning the cabin after just a few rows of passengers have deplaned. Every plane in the fleet is the same in order to lower maintenance costs, and very progressive human-capital policies keep the staff upbeat, non-union, and multitasking. No one element of Southwest Airline's success is a silver bullet, but each reinforces the other, and collectively they have created the ▷

most consistently profitable airline with high rates of customer satisfaction.

When a comprehensive plan is implemented in a setting that was designed to make it successful, frustrations and obstacles are replaced with the joy of the force multiplier. Many district leaders have looked back on a good idea that failed to raise achievement and see with the clarity of hindsight why results were lackluster. "We collected data, but never gave staff time to review it," or "We bought the new materials, but few of the staff had mastered the content and concepts themselves," or the perennial "We needed more time, but the day just isn't long enough." By contrast, districts

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that have raised achievement through a systems-thinking approach often extol the way each element makes the other parts more effective. Training has more impact when the staff already has skills in the topics, the data drive instruction because the reports separate scores by skill, or the calendar ensures students have sufficient time on task and teachers can plan. Systems-thinking is what makes the difference between great gains and just great effort.

Existing Structures and Practices Are Often the Obstacles

Based on the work of the National Reading Panel (NRP), the What Works Clearinghouse, and the experience of best-practice districts, the District Management Council has codified the key elements that are common to effective reading programs (Exhibit 1). It is important to note that all eight elements must be implemented in order to ensure success. All together, they collectively reinforce one another and raise achievement.

But, when many district leaders review the list of best practices, we often hear, "This is common sense, and we do many of these already." These practices may resonate as common sense, but, in our work with more than 50 districts across the country, we have found that faithfully implementing all eight of these practices isn't very common. Although most districts want to do "whatever it takes" to help struggling students, in many districts, the reading instruction offered is in direct conflict with these best practices. This is not because districts disagree with the plan or think they have something better, but because preserving the traditional schedule, maintaining staffing patterns, or maintaining teacher independence takes precedence. The reading practices bend and twist to fit the district rather than the context changing to allow the reading best practices to exist in their pure, effective form.

A DMC review of school districts across the country reveals that many districts embrace the non-negotiables, but the system distorts and undermines them. For example:

• Silos, rather than systems-thinking, too often drive reading instruction. One of the most striking examples is that a single school might have seven different reading programs, materials, and staff—one program for general education and separate programs for remediation, special education, ELL, Title I, and the language part of speech and language, as well as programs required by a specific grant. In short, the systems in the district actually prevent the district from providing what they know to be needed.

• Reading remediation is rarely integrated with daily classroom instruction because time for collaboration between classroom teachers, reading teachers, and special education teachers to integrate curricula, assessments, and programs isn't scheduled regularly during the week, and each group is assigned different professional development.

• Although districts often assess reading at the secondary level and know that many students in those grades can't read well, they maintain traditional course offerings that don't include reading instruction.

• Perhaps the greatest variance from systems-thinking occurs in districts that know and often state that teacher quality is the key driver to student learning but assign almost anyone to teach reading. Many veteran classroom teachers have no formal training in how to teach reading. Even fewer special education teachers, who often provide reading intervention, have any

training in the teaching of reading. In many districts, reading support isn't even provided by a teacher but is delegated to a paraprofessional or parent volunteer.

Districts that have made large gains in student achievement have embraced a systems-thinking approach that cuts across and connects multiple departments, funding sources, grade levels, scheduling priorities, and data systems. Ensuring that all students can read becomes the guiding light, and all aspects of the district bend and conform to support it, rather than the reading effort twisting and turning to navigate the current structures, schedules, and staff.

Keys to Success: Four Districts That Model Systems-Thinking

Four districts exemplify the systems-thinking approach to reading and provide valuable lessons—Montgomery County Public Schools (MD), Arlington Public Schools (MA), Simsbury Public Schools (CT), and the School District of Lancaster (PA). In Montgomery County, the approach reduced the third-grade reading gap by 29%; in Arlington, the number of struggling readers has been reduced by 68% since the district was redesigned to support their reading non-negotiable; in Simsbury, over a third of struggling readers reached grade-level proficiency in just one year; and in Lancaster, plans are being rolled out to provide direct, intensive reading support to over 50% of secondary students during a time of deep budget cuts. Although each of these districts faced its own set of obstacles during implementation, their leadership made the objective of improving reading a non-negotiable, and took difficult and bold steps to implement changes to the existing system. They exemplify the adoption of a systems-thinking mindset, and below, we highlight six commonalities that led to their success.

1. Strong leadership from the top is critical.

All four exemplary districts had very strong support from the superintendent. Whether the leadership is hands-on or hands-off, in all cases the superintendent and the assistant superintendent forced the system to align with the reading best practices, rather than allowing existing structures to water them down. Leadership from the top is essential because, in most districts, only the superintendent and/or the assistant superintendent has decision-making powers that ▷

EXHIBIT 1

Best Practices for Effective Reading Programs:
Is your district doing all of these?

These eight best practices are common elements to effective reading programs. However, all eight must be implemented, and implemented well, in order to ensure success. Accomplishing even seven of the eight practices yields little benefit. All together, they collectively reinforce one another and raise achievement.
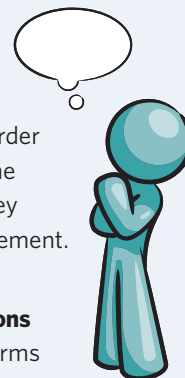
1. Set clear and rigorous grade-level expectations for reading proficiency. Define in unambiguous terms what constitutes grade-level proficiency.

2. Conduct frequent measurement of student achievement and growth, and adjust instruction accordingly. Assessments should take place three or four times a year for all students, and much more often for struggling students. If progress slows, new strategies must be quickly deployed.

3. Identify struggling readers starting in kindergarten. Waiting until the end of first grade or until the first state tests at the end of third grade is much too late.

4. Ensure balanced core instruction in the five areas of reading (phonemic awareness, phonics, fluency, vocabulary, and comprehension) as part of a 90-minute literacy block each day. All five components are critical and cannot be covered in less time.

5. Provide immediate and intensive additional instruction for struggling readers, averaging 30 minutes a day and using more than one pedagogical strategy. Some students will need more time to learn, and a few extra periods a week is not sufficient.

6. Explicitly teach phonics in the early grades and comprehension in the later grades. Many students master sounds and understanding through practice, but struggling students need direct instruction in these topics.

7. Connect remediation and intervention seamlessly to each day's core instruction. Extra help is more helpful when it connects to the core instruction.

8. Don't settle for anything less than a highly skilled teacher of reading. The teacher's expertise has more influence on student outcomes than any other item in this list.

Source: DMC

transcend building and departmental lines and can remove the structural barriers.

Jerry Weast, former superintendent of Montgomery County Public Schools (MCPS), personally championed the effort, often stating, "It's not a program, it's a system of thinking. You have to take the same old bottle of time and resources and put in new wine of a clear and compelling goal-aligned people, systems and structures, and innovation and monitoring."[2]

In Simsbury Public Schools, Superintendent Diane Ullman's unwavering support for the literacy initiative also proved to be critical. Whether it was getting stakeholder buy-in or rethinking staffing, she never hesitated to communicate tough messages or make tough decisions, as long as it meant that her students would learn to be good readers. She would allow no past practices to get in the way.

2. Human-capital decisions and strategy must be based on student needs, not history.

What seems obvious—that the neediest students need the most talented teachers—can be a high hurdle in many districts. According to this non-negotiable, regardless of teachers' job title or certification, only skilled teachers of reading should deliver reading instruction. This standard required the exemplary districts to honestly review the skill sets of all teachers and paraprofessionals across the district and make sweeping changes.

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When Simsbury Public Schools decided that it would assign only teachers skilled in the teaching of reading to give reading instruction, it was a bit surprised by what its review revealed. The Early Literacy Intervention Program, its largest reading effort in grades 1-3,

was being delivered primarily by paraprofessionals, most of whom did not possess any training in the instruction of reading. Students with special needs, most of whom had reading challenges, received support from special education teachers, who also had limited training in teaching reading. Simsbury Public Schools conducted detailed inventories and rigorous interviews of teachers across the district. An elite group of reading experts was then built from general education teachers, special education teachers, speech and language pathologists, reading specialists, and new hires. This new team would provide all remediation instruction and coaching of classroom teachers. The district did not rely on certification as proof of skill but rather used detailed interviews, observations, and the teaching of model lessons. To make room in its roster for additional reading teachers, the district had to reduce or reassign staff who were not skilled enough to teach struggling readers. The willingness to move staff based on the best way to serve students separates the exemplary districts from the rest.

In the School District of Lancaster, approximately 50% of secondary students struggled to read, and the district decided to provide intensive new reading classes. Systems-thinking kept this bold idea from failure. The likely teachers—English teachers and special education teachers—had no training or experience in teaching reading. Some of the planning team rushed to an age-old solution to addressing skill gaps in existing teachers: "Let's provide professional development." The idea was to train the existing staff to become reading teachers. While expedient and less painful than the alternatives, this approach is a perfect example of distorting a good idea to fit the status quo. The reading experts the district wanted for their most needy readers would ideally have a passion for teaching reading, a master's degree in reading, and/or extensive experience successfully teaching reading. These types of training and skills take years to acquire, but in the best of cases, the district could provide only a few days of training in the summer and a few afternoons during the school year. They realized that if a candidate with the background of many of the existing staff applied for the new positions, he or she wouldn't even be interviewed, let alone hired. The district decided to cut existing staff through attrition and reassignment, and hire teachers who already had the needed skills. Although this change is one that many districts typically avoid, the superintendent

insisted, "In all our efforts, we had one over-arching non-negotiable: all students should be able to read. Nothing can get in the way of this."

3. Districts must be the master of the schedule, not its servant.

Finding the time for the core literacy block and extra help five days a week is a common challenge and finding any time for reading at the secondary level can be an obstacle. Rarely will the existing schedule provide for such a large commitment of time.

In the School District of Lancaster, providing time to teach reading at the secondary level almost killed the effort. At first glance, it seemed impossible to create time without jeopardizing the middle schools' commitment to a team-teaching structure and team meetings. To foster a sense of community, the middle schools had traditionally built their schedules to allow a team of teachers to serve the same group of students and to minimize the students' transitions between classes. How could an extra 45 minutes of intervention be scheduled? How could the reading teacher be a part of the student's team of teachers? To tackle this question, the district first had to commit to the belief that the needs of students should drive the schedule, instead of letting the schedule drive what is offered.

Grounded in this belief, the middle school principals sat down together to hash out a schedule that allowed for extra time on task while preserving a team-teaching philosophy. Many times, the goal seemed impossible, but it was non-negotiable. When one principal, a very talented scheduler, created a model that both preserved the teams and provided the extra time at his school, the momentum shifted. Eventually, all the middle schools opted to mirror the exact same schedule, which made possible for the first time middle school teams that could actually cross multiple schools, because all team members could have the same free periods to meet.

In the Arlington Public Schools, incorporating extra reading time in elementary classrooms meant rethinking dozens of programs that had claims on students' schedules. Health, gifted and talented, fire safety, bullying prevention, the science guy, Mr. Owl, speech and language services, and many other small programs were scheduled by principals and central office throughout the day, which seldom left large blocks of time for reading.

In reality, reading was taught in the space unscheduled by all the other programs.

The district reversed the process. Core reading and reading intervention was scheduled first, and everything else had to fit around it. The reading time was sacrosanct. This was technically easy, but politically difficult. The many small programs and assemblies all had strong and vocal champions. They often complained that it seemed that reading was more important than their program, to which the superintendent replied, "Yes, reading is job one for the district, and our schedule will reflect this."

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In addition to the students' daily schedules, the district also changed the school year calendar to reinforce its commitment to reading. Every year, each elementary building explicitly set aside two days for "data and service review meetings" dedicated to reviewing reading data and deciding on reading intervention groupings. On these days, the students would operate on a special schedule to free all teachers in each grade to meet with the principal for the data reviews. Over time, some schools even created tightly aligned grade-level schedules so that students could switch core teachers for targeted instruction, which was possible because all teachers in the same grade taught reading at the same time.

4. Consistency of implementation matters more than the materials or curriculum.

Many districts start the process of improving reading outcomes by asking, "What are the best programs and materials we can buy?" The exemplary districts downplayed that question. They recognized that nearly all of the available materials are decent, and knew from firsthand experience that past purchases of curricula ▷

didn't often lead to big gains in learning. They knew that a systems-thinking approach mattered more than which publisher they purchased from. But they also recognized that it would be too difficult to align the district's context, policies, and structures if the reading programs varied by school. If the system is going to bend to meet the needs of the reading program, it can't twist in 20 different ways to accommodate many different programs; and if the central office is going to support the effort, it can't support multiple efforts—one is hard enough! The best approach is to use the same reading program from teacher to teacher and from building to building.

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The Montgomery County Public Schools strongly believed that consistency matters. It recognized that learning gains are maximized if students experience minimal transitions between grades and schools. Thus, a consistent curriculum and a system of common assessments were instituted across the district. The MCPS Curriculum Framework was developed to define a single curriculum that would be taught, learned, and assessed for every grade.

In the Arlington Public Schools, there were six separate reading programs before the district unified the reading curriculum. Depending on the student's profile, a given student could be participating in three to four different reading programs at the same time. To eliminate this lack of consistency and coherence, the district consolidated the six reading programs under a single reading director and department, which was created specifically for this purpose. Having a single program allowed for extensive training of all reading staff in the same chosen program. Classroom reading materials and approaches were rewritten to match the new intervention curriculum. Curricula across reading levels and intervention tiers were integrated so that there would be consistency in the language used in all reading instruction.

For Arlington, an unforeseen benefit of a single, consistent approach was the ease with which the reading effort could be fine-tuned. If some teachers had difficulty with one aspect or another, or if some students failed to benefit, improvements could quickly be rolled out across the district, even before other staff or students experienced the problem. Better yet, as some teachers or schools mastered implementation, they could teach and share with others in the district. Pockets of success quickly became success district-wide. The force multiplier of systems-thinking was in full effect.

5. Collecting and using data is part of every aspect, not a separate activity.

All four exemplary districts emphasized the use of data and deployed data effectively. The last 5 to 10 years have seen an explosion of districts *collecting* lots of data, but often it is isolated from everything else. Many teachers lament, "Today we give the assessments, then we look at the results; then I can finally get back to what I was doing before all these interruptions." The exemplary districts collected modest amounts of student data but acted more deliberately. Data is used to inform practice.

In Simsbury Public Schools, the number of assessments dropped by more than half, but the data had more power. Before the new program, teachers constantly assessed students by using many tools, but each teacher then interpreted the results at his or her discretion. There was no uniform measure of students being on grade level or not, and no automatic intervention based on assessment results. Both changed in the new model.

Montgomery County had a laser-like focus on using data to drive instruction, create a system of accountability, and set higher goals. Teachers were expected to analyze students' progress on standards and benchmarks during regular school team meetings. They kept records and created reports that were color-coded and aggregated so that weaknesses and trends could easily be identified and acted upon. At the school level, principals expected to have easy access to every teacher's class data-monitoring sheets during every classroom visit and to find evidence of data-driven instruction at any time of the day. At the district and community levels, data reports were publicly published to track whether or not progress was being made.[3]

6. Shifting funds from existing or unrelated efforts eliminates the need for "new money" and provides long-term sustainability.

In today's difficult financial environment, it is unlikely that districts will be able to institute a new reading program that requires additional money. Three of the exemplary districts, however, implemented best-practice reading efforts during times of deep budget cuts or frozen spending, even though significant increases in the number of skilled reading teachers were required.

At first, many in the leadership team in Simsbury doubted they could afford a large increase in reading teachers and that the program could ever happen absent a large grant. However, the superintendent believed that if reading was a top priority for student learning, it also had to be a top priority for the district's limited funds. Based on the number of struggling elementary readers identified (about 17%) and the desired caseload per reading teacher (35 students), the district determined the necessary number of reading teachers. This number became a non-negotiable even though the budget it required was large and seemed impossible.

The district then inventoried all of its current spending that targeted academic support to elementary students. This included coaches, tutors, speech therapists (only those working with mild language issues), para-professionals (only those providing academic support), and special education inclusion teachers. What they learned was shocking—current spending on elementary academic support was five times greater than what the reading program would cost!

Taking systems-thinking to its fullest, the district also redesigned its behavior support program to fund its reading efforts. What is the connection between behavior and reading? A very inefficient and only modestly effective approach to behavior management reduced funds available for everything else, including reading support. With fixed budgets, every expense is related to every other expense.

In the Arlington Public Schools, hiring additional reading teachers also required a systems-thinking approach to funding and prioritization. The district raised athletic fees, reduced the number of central office administrators, and more tightly managed high school class sizes. With more efficient use of funds elsewhere, the district was able to provide students with a dramatically expanded reading effort.

All Students Can Read and Systems-Thinking Makes It Possible

As seen from the examples, effective reading programs can be realized only when districts start thinking about reading as a part of the whole system, instead of in isolation. Moreover, these districts allowed reading-related decisions to change other parts of the system, rather than watering them down to fit the existing system. Teaching reading was declared to be one of the most important roles for each district, and they matched bold words with bold deeds by shaping the district to support what they knew was needed.

As these examples demonstrate, it is bold, strategic, and strong leadership and management that allowed the necessary changes to the existing systems to take place so that best practices could be applied. The systems-thinking approach unleashed the force multiplier, with each component of the plan magnifying and reinforcing the other, which dramatically accelerated achievement of the stated objective. Overcoming the obstacles posed by the status quo can require dramatic actions, but it is only by taking a systems-thinking approach and breaking down the silos that success can take hold.

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[1] Annie E. Casey Foundation, *Early Warning! Why Reading by the End of Third Grade Matters*, 2010, http://www.aecf.org/~/media/Pubs/Initiatives/KIDS%20 COUNT/123/2010KCSpecReport/Special%20Report%20Executive%20Summary.pdf.

[2] Geoff Marietta, Foundation for Child Development, *Lessons for PreK-3rd from Montgomery County Public Schools*, 2010, http://fcd-us.org/resources/ lessons-prek-3rd-montgomery-county-public-schools.

[3] Ibid.