

SMALLER
LEARNING COMMUNITIES
PROGRAM

**On-Model Implementation of Adolescent Literacy
Programs and Sustaining Their Effects**

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Introduction

Reading ... is the gatekeeper to all subjects. Reading is the new civil right in America. If you are going to engage any type of academia or the workforce or labor force, you have to be able to be a literate person and a fairly competent reader going forward. The only way that a student can move forward, that all students have the skill set to read [is that] we give them the latitude to read to learn.

This is how a central office administrator from a large urban school district responded when asked why he decided to require secondary schools to offer reading intervention programs to students who struggled with reading (Salinger et al., 2010). A district leader in another urban district gave this answer: “There is an urgency with the number of kids who are not proficient in reading... It is spreading throughout the district and [district leaders] are sensing that there is a greater need to provide support and assistance districtwide. Some of the schools that are having issues may not be Title I schools.”

The districts where these administrators work are not atypical. Reports of reading scores from the National Assessment of Educational Progress (NAEP)—known as the “Nation’s Report Card”—remind educators and the general public that even though there have been small increases in scores for some students, overall trends remain flat; the racial and ethnic gap in students’ scores also persists (National Center for Education Statistics [NCES], 2009).

According to the most recent NAEP assessment, just 75 percent of eighth-graders scored at or above the “basic” level; only 32 percent scored at the “proficient” level; and a mere 3 percent scored at the “advanced” level. Students scoring toward the lower end of the 75 percent span and those scoring “below basic” are not likely to fare well in the transition to high school, where they will be expected to master reading and writing skills needed for later success. (See Achieve, Inc., and the American Diploma Project, 2004; ACT, 2009; and NCES, 2009, p. 39, for more detail about what students can and cannot do.)

Across the country, whole districts and individual schools often adopt one or more programs to assist struggling readers. In recent years, districts and schools have adopted reading interventions that fit into a three-tiered instructional approach called Response to Intervention (RtI, www.rti4success.org). Tier 1 instruction, which takes place in the regular classroom, focuses on discipline-specific literacy strategies in content-area classes (Heller and Greenleaf, 2007). Tier 2 is a comprehensive literacy intervention for students reading 2 to 4 years below grade level. Tier 3 provides even more intensive interventions to meet students’ specific, diagnosed literacy needs.

This paper discusses the practical issues for successfully implementing adolescent literacy programs at the school district and individual school level. The primary focus is on implementing Tier 2 interventions because Tier 3 interventions usually require districts and schools to secure services from individuals who have received more intense training than is required for Tier 2 programs. However, many of the same principles of implementation would apply for those attempting to meet the needs of struggling student readers. The overall focus of the discussion is on factors that contribute to or detract from “on-model implementation,” which means a program is being carried out in a way that adheres to its core principles. These include factors such as training teachers, using program materials, understanding instructional approaches, and ensuring that students receive the suggested amount of instruction. Researchers frequently refer to this as implementation “with fidelity.” This paper draws from research on implementation fidelity in general (Carroll et al., 2007; O’Donnell, 2008; Hulleman and Cordray, 2009), on rigorous evaluations of adolescent reading programs, and on data from a descriptive study of implementation of one intervention—*READ 180*—in five urban districts (Salinger et al., 2010).

Comments from administrators from two of the five study districts opened this paper. These educators and many others working at the district offices and at middle schools within these five districts were interviewed about the challenges they faced in implementing the widely used intervention for struggling readers. They also reported on their successes integrating the program into plans to address the needs of struggling readers.

On-Model Implementation in Rigorous Studies and in “Real” Classrooms

In their search for ways to help struggling readers, district and school leaders often seek out programs that have been evaluated through rigorous, sometimes experimental, studies that compared the achievement of students receiving a program with the achievement of those who did not. These studies may include a measure of teachers’ instructional fidelity to help explain student achievement, reasoning that if teachers have not adhered to the developer’s model, it is easier to explain why the achievement of students enrolled in the program did not differ significantly from that of comparison students.

The theory underlying this use of implementation data is that if teachers teach with fidelity, their students’ achievement should be higher. Even though this makes sense at one level, fidelity data from rigorous studies—if reported at all—may not have practical relevance for practitioners who, in real-world school settings, rarely have the resources and capacity to match the experimental conditions.

In addition, trained teachers may deviate from the intended model for legitimate reasons. Some researchers even argue that overly strict adherence to a program model may inhibit local capacity to sustain the program after a study ends its field work (Roderick et al., 2009). This was true in one federally funded evaluation of two reading interventions used in ninth-grade freshman academies. District and school administrators and teachers in the study sites were interviewed 2 years after the end of implementation under study conditions to learn what had happened after program implementation was no longer funded or monitored (Somers et al., in press). Although interviewees in all 10 districts said they maintained a focus on adolescent literacy, the actual programs included in the study were still offered in only 14 of the original 34 schools. Moreover, many of the schools made modifications to the original program; for example, by increasing the number of students enrolled, shortening class time, or adding material or topics, especially in the area of test preparation. In fact, the test-preparation modification was one of the most common program changes reported in the urban district study, with one district actually suspending the reading intervention for 3 months in advance of the state test (Salinger et al., 2010).

So Many Programs to Choose From!

The marketplace of programs for struggling adolescent readers is huge. Shanahan (2005) reviewed 25 programs; Deshler and colleagues (2007) reviewed 48 widely used programs; and Slavin and colleagues (2008) included 14 in their “best evidence synthesis” of programs with substantial, rigorous effectiveness research. These three sources alone provide information on 59 distinct programs, not counting 13 “emerging” programs included in Deshler’s review. Some commercial programs focus on professional development to help teachers integrate “reading in the content areas” into Tier 1 instruction, but most are programs for Tier 2 and Tier 3 use. Slavin and colleagues (2008) provided a useful way to think about the programs by grouping them into four main categories as shown in table 1.

Table 1: Models of Reading Programs

Reading Program Categories	Description	Examples Provided by Slavin et al., 2008
Reading Curricula	Teachers provide whole-class instruction, often from a prescribed scope-and-sequence program.	<ul style="list-style-type: none"> • Language!
Mixed Methods	Students and teachers cycle through a series of different grouping patterns, such as whole group, small group, and individual work with teacher.	<ul style="list-style-type: none"> • READ 180 • Voyager Passport
Computer-Managed or Computer-Assisted Instruction (CAI)	Often referred to as a “learning system,” these programs provide individualized instruction directed toward students’ diagnosed needs.	<ul style="list-style-type: none"> • Compass Learning (formerly called Josten) • Accelerated Reader
Instructional Process Programs	The core of these programs is a focus on specific approaches, such as cooperative learning, strategy instruction, or school reform models.	<ul style="list-style-type: none"> • Peer-Assisted Learning Strategies (PALS) • Reading Apprenticeship Academic Literacy (RAAL) • Talent Development Middle School and High School

Models in Slavin’s last category, instructional process programs, start with extensive professional development so that teachers learn the foundation for and instructional principles needed to teach the focal strategies correctly. For example, professional development may have teachers practice thinking aloud so they can model reading skills or work together in small-group reciprocal teaching activities. Such professional development starts participants on a path to on-model implementation, but teachers often also need coaching as they work toward this goal.

Program reviews help practitioners sort through potential reading programs and weigh their characteristics against local factors, such as teachers’ capacity to teach complex programs; characteristics of students needing additional instruction; and funding available to purchase a basic program along with the professional development, resources, and equipment needed to sustain it.

Other issues related to instructional process models are inherent in the types of programs themselves. For example, Shanahan (2005) includes information on the “theoretical premise” and “embedded assumptions” of each program she reviewed. Programs that fail to align with the theoretical premise or philosophy about teaching and learning in a district can create dissonance among teachers who are asked to implement them. Think about the reactions of teachers whose usual approach to teaching is to give students multiple opportunities to engage with books of students’

own choice if these instructors are suddenly asked to teach a program that assumes “literacy can be taught using workbook materials that focus on a few individual skills” (Shanahan, 2005, p. 36).

Program overviews and summaries can only hint at what teachers must do to achieve on-model implementation because program use is always highly contextualized. However, research on program implementation provides guidance about local factors and contexts that district and school leaders should consider as they weigh the pros and cons of Tier 2 and Tier 3 interventions for adolescent struggling readers (Fixsen et al., 2005). These factors can contribute to both on-model implementation and the sustainability of any progress that is achieved.

Factors That Contribute To or Detract From On-Model Implementation

Four key factors inherent in all reading programs contribute to on-model implementation. They may sound straightforward but, in reality, are far more than simple requirements. District and school leaders need to consider these factors both in their initial selection of programs and throughout implementation.

Duration and Program Delivery

The first factor concerns requirements for duration and program delivery: how often and in what circumstances should the program be offered if it is to have the best chance of improving students’ reading? Most Tier 2 programs are designed for a full year of enrollment, ideally with daily classes, but some Tier 3 programs provide intense instruction for shorter periods. Although many programs can accommodate a 45- or 90-minute class session, some include specific instructional activities that require a full 90 minutes each time students and teachers meet. Fitting a reading program into a school’s complex daily schedule can be a major obstacle to on-model implementation. However, deviations from the recommended time requirements mean that students do not get the full amount of instruction that the developer considers necessary for the program to have an impact on achievement. The program choice needs to be made with due consideration of a school’s practical constraints.

A related consideration is the mode of program delivery: will the program be offered during the school day or after school (Moje and Tysvaer, 2010), as a supplement for English language arts (ELA), as an ELA replacement, or even as a 45-minute component of a 90-minute ELA class? Offering the reading class during the school day usually means that students will have to give up an elective or another course to make room in their schedules. A school leader, interviewed in the same descriptive study, said the selected program was “time consuming in that it becomes not just an intervention. When you spend 90 minutes per day, you have to give something else up.” It is easy to imagine

students perceived as being denied an elective course becoming resentful, even if they are told that the replacement intervention course will improve their chances of academic success.

Instructional Focus and Student Match

A second factor is the instructional focus of the program, including the pace of lessons and the scope and sequence of skills and strategies it covers. The huge variety of difficulties that struggling adolescent readers face means that no one program will meet the needs of all students; selecting an intervention, in other words, is not the same as choosing a literature anthology for all 10th-grade English classes.

Researchers at the Center for Instruction (Scammacca et al., 2007; Torgesen et al., 2007) write persuasively about the challenges that struggling adolescent readers face. These students, with their many years of schooling, have come to view reading as too difficult or confusing (Yudowitch et al., 2008). They need instruction that builds on their strengths and focuses on their weaknesses, but state reading assessments rarely provide much information about what students can and cannot do. State test scores can help schools direct students into Tier 2 or Tier 3 interventions, but screening and, often, detailed diagnostic assessments are needed to make the best match of students to interventions. Diagnostic tests in many cases require trained administrators and specialists to interpret results, but they provide detailed profiles of strengths and weaknesses. Many reading programs claim to be comprehensive enough to provide instruction in all components of reading, according to the *Report of the National Reading Panel* (National Institute of Child Health and Human Development, 2000), but the range of difficulties among struggling adolescent readers means that no one program will fit everyone's needs. Although some programs may be more versatile than others, it is important to know the target student population for which a program is intended. It would also help to know the characteristics of the students in the studies that evaluated the program's impact.

The assortment of programs on the market gives district and school leaders real choices in what to adopt. Although the urban district study focused on use of only one program, data showed that decisions about which students to enroll varied considerably across and within districts. A district leader interviewed in this study said that "anyone who does not meet grade level on the state test" was automatically enrolled in the program. Other responses at the different schools regarding who would participate in the intervention ranged from students "who passed [the] state test but have behavioral issues" to the "bubble kids [who, because they fell below passing], need extra assistance to pass the state test." A teacher in another school in this district mentioned a very holistic approach to placement: "We look at the individual kid—simply failing doesn't mean they are automatically included in [the program]. Other things are important, like band, football, PE [physical education]. If you're working with a 14-year-old young man

who really wants to play football and that's all that is keeping him in school, you have to make adjustments."

Teacher Training and Support

The third factor concerns teachers and the training and support they should receive to help them align their instruction to the program's expectations. Teaching a reading program is not the same as teaching a content area; few high school teachers have had the advanced training needed to teach reading. A principal in the urban district study expressed her standard for teacher selection, one that is probably rarely met: "I believe you have to put your very best teachers in an intervention class because the students are giving up an elective and they don't want to feel punished. It has to be good for them to be in there." In settings where the most experienced teachers are unavailable, initial training helps teachers understand the program so they can get started, but they undoubtedly also need ongoing training and support to build their effectiveness over time.

Of the 25 programs Shanahan (2005) reviewed, only 12 require teacher training; 3 offer, but do not require, training; and 10 do not specify any training at all. The nature of the training offered by the program developers ranged from 1-day workshops to familiarize teachers with programs to week-long summer training sessions followed by extensive coaching and booster training during the school year. Some training is offered online, and some, like that for Scholastic's RED online course, may be taken for graduate credit. Training for school-based coaches and administrators might also be available. In addition, many programs offer their own coaching services, with a representative of the developer making periodic visits to schools to observe and meet with teachers.

The cost of ongoing training and support might be the biggest determinant of whether schools and districts take full advantage of these services over time, but the initial investment can pay off if teachers begin to build the local capacity to implement the programs and incorporate them into their strategies for working with adolescent struggling readers.

Technology, Supplies, Resources, and Space

A fourth factor relates to the equipment, supplies, and resources needed to implement a program as designed. Technology is one consideration, but this does not always mean that each student must have his or her own computer for every class session. Programs fitting into Slavin and colleagues' (2008) "mixed methods" category usually require all students to work on a computer each day as one part of the instructional cycle, but only a few students must do so at one time. For individualized computer-based programs, such as Accelerated Reader, the number of computers available at a given time determines the number of students who can be served. Some programs, such as Achieve 3000, require students to have daily access to the Internet. Program

effectiveness often depends on a classroom's "technology infrastructure," and whether it allows for software upgrades and, perhaps most important, has the support staff who can troubleshoot and correct problems that invariably occur and bring instruction to a halt.

In addition to technology, reading interventions may have their own basal materials, such as workbooks or student logs, and provide a classroom library of books for instructional and independent reading. The classroom library serves two purposes: offering opportunities for students to practice emerging skills and encouraging engagement. To meet these purposes, the books and other print material offered should be at different reading levels, on wide-ranging topics, and in different genres. Materials also should be relevant to adolescents' interests. Guthrie (2008) points out that students find that "[a] relevant text is intrinsically motivating because it is 'related to me'" (p. 11). This might be true for all adolescents, but is perhaps most important for students who see little of themselves in what they read and little value in reading at all. A teacher interviewed in the urban district study highlighted the importance of building engagement: "The biggest challenge is the kids' [sense of] stigma that they've been placed in a special, remedial class, and that's all they mention: 'I don't want to be in here.'"

Unless the intervention requires very little teacher direction, such as with some computer-assisted instruction (CAI) programs, teachers need resources to help them understand instructional expectations over time, plan and deliver daily lessons, and monitor students' progress. Some program lesson plans carve out specific chunks of time for specific activities; for example, 3 minutes for start up, 10 minutes for whole-class instruction, 20 minutes for paired practice, and so forth. Teachers trying to achieve on-model implementation sometimes have difficulty adhering to such a tight schedule (Zmach et al., 2009). Other programs provide support for each day's lesson but train teachers carefully to make informed decisions about when to deviate from the specific plans, in what has been called "flexible fidelity" (Kemple et al., 2008).

Some programs also have formative and summative assessments embedded within their instructional sequence; others leave assessment decisions and procedures to teachers. When teachers have assessment materials tied to the program they teach, they are in a better position to achieve on-model implementation.

Although it might seem insignificant, physical space is an important consideration for reading interventions. Intervention programs, especially those that depend on technology and special supplies, should have a dedicated classroom that is big enough for small groups of students to work together and for teachers to provide individual instruction. This may sound like quite a luxury—especially because intervention classes may have smaller enrollments than other sections—but ample dedicated space allows teachers to adhere to grouping and instructional patterns. It also demonstrates to the students that they are attending a *real* class where their work is valued.

These four factors—program delivery and duration; the match between students and the instructional focus of a program; teacher training; and equipment, resources, and supplies—all contribute to, but do not guarantee, the achievement of the on-model implementation goal.

Five Critical Drivers of On-Model Implementation

The synthesis of implementation research by Fixsen and colleagues (2005) introduced the term “implementation drivers” to refer to factors that are “necessary to provide the core intervention components competently” (p. 28). The factors that can contribute to on-model implementation will work together most effectively if the three drivers described next are present.

Communication of Guidelines and Expectations

Staff at the school level—teachers, coaches, and principals—need clear guidelines from the district about the parameters of program use and expectations of them as they try to achieve the goal of on-model implementation. For example, if a program requires a 90-minute instructional block or use of a computer for individualized work, principals and teachers should know either that these expectations are mandatory or that they are open to discussion. Even if schools have trouble easily meeting the expectations, at least if they are clear, staff can negotiate with district leaders about whether an intervention is right for them. Guidelines and expectations are therefore the first driver of on-model implementation.

Intermediaries

The second driver is the existence of one or more individuals, at the district or school level, who can assume responsibility for communicating guidelines and expectations for overall program implementation. Fixsen and colleagues (2005) stress the value of someone with “experiential knowledge and wisdom accumulated for a series of (more or less successful) implementation attempts over many years” (p. 14). The importance of such individuals—known as “intermediaries”—quickly became clear through the interviews conducted in the urban district study. An intermediary in one district office referred to herself as the “point person for [the program] in the district’s literacy team.” The intermediary in the district, which had a K–12 literacy coordinator, said that she was “basically [the coordinator’s] ‘feet.’ I was out in the schools giving her reports as [to] who’s doing what and where they are in the implementation process.”

The role of the intermediary was at times filled by a curriculum director, the district-level adolescent literacy coordinator, or the school coach, and the intermediary’s actual title and job description varied. It would be easy to envision a teacher or even the

principal adding this task to his or her roster of activities that take place each day. While all of the intermediaries interviewed said they were overworked, they also valued the importance of their role in program implementation. In varying degrees across the five districts, these individuals communicated information from and to the program developer; central office staff; and school-based teachers, coaches, and administrators. They advised district officials, school leaders, and teachers about instructional practice; held professional-development sessions; mentored school-based literacy coaches and teachers; and monitored implementation. Though different, intermediaries in these urban districts had many things in common that helped them meet Fixsen's criteria: deep knowledge of the programs they oversaw and, often, previous experience teaching the programs themselves. Some intermediaries had received advanced training in using the programs that they could pass on to others.

In the one study district that seemed most successful at achieving on-model implementation, intermediaries emerged at both the district level and the school level. Here, the school-based literacy coaches served as a first line of implementation monitoring. Well trained in the program's instructional model, they conducted observations and provided job-embedded professional development by meeting with teachers individually and collectively to discuss concerns, brainstorm strategies to address problems, share information and updates about the program, and help integrate content-specific literacy strategies into content-area instruction. The district-based adolescent literacy coordinator—who reported to the director of reading—provided program-specific professional development to teachers and coaches. The coordinator also observed instruction and analyzed data about program use that was collected by the program's software and transmitted from the schools to a central district office server. Data then flowed from the intermediary to literacy coaches and principals at separate monthly meetings and to individual teachers as needed. The assistant superintendent of the district, referencing the implementation experience, told interviewers: “[With] the director of reading, the [adolescent literacy] coordinator, the literacy coaches in schools . . . with the structure the district has set up, you tend to [implement the program] like you're supposed to, like research says, to get gains for students.” Table 2 shows the roles played by the district- and school-based intermediaries in this district.

Table 2: The Roles of the District- and School-Based Intermediary in One Urban District

Function	District-Based Intermediary	School-Based Intermediary
Title and Role	Adolescent literacy coordinator dedicated to overseeing Tier 2 intervention at secondary level	On-site literacy coaches dedicated to providing integrated support for reading interventions and promoting literacy in the content areas
Professional Development Provided by Intermediary	<ul style="list-style-type: none"> • “Experienced teacher” refresher course • Monthly after-school cadre meetings • Training of replacement teachers 	<ul style="list-style-type: none"> • Job-embedded professional development • Technical support, including coaching • On-site teacher collaboration for intervention teachers and content-area teachers
Monitoring	<ul style="list-style-type: none"> • Implementation checks (school site visits, walk-throughs, and classroom observations) followed by feedback to principals and teachers • Data monitoring 	<ul style="list-style-type: none"> • On-site monitoring of program implementation • Synthesis and interpretation of student data
Communication	<ul style="list-style-type: none"> • Monthly meeting of literacy coaches • Monthly leadership meeting of principals • Conduit of information between developer and district and between district and schools 	<ul style="list-style-type: none"> • Feedback to teachers and principals about implementation and student data • Conduit of information between schools and district
Preparation for Intermediary Role	<ul style="list-style-type: none"> • Initial program-specific training on intervention program • Advanced training 	<ul style="list-style-type: none"> • Program-specific initial and advanced training • Co-teaching and observation with an experienced teacher • “Learning walks” with adolescent literacy coordinator and program implementation consultant • Monthly meetings organized by the district and facilitated by district intermediaries

Adapted from Salinger et al., 2010; teacher survey data; and district interviews.

Monitoring of Implementation and Student Progress

Monitoring efforts make up the second driver. The word “monitoring” may suggest negative images of people with checklists who have the primary job of ensuring compliance with some ideal behavior. Rather than fit that “gotcha” image, the monitoring that drives implementation here establishes communication loops that begin when a monitor—often the intermediary—observes teachers, identifies any deviation from the core instructional model or from sound practice for adolescent

literacy instruction (Biancarosa and Snow, 2004), determines the reason for the deviation, and then provides teachers with support and training to build capacity and improve practice. The school-based coaches interviewed for the urban district study said that teachers actually welcomed feedback when they were “off model” because they knew it would come with specific recommendations for improving their instruction.

The ideal communication loop for maintaining on-model implementation includes not only monitoring and feedback but also collaboration as coaches and teams of teachers work together to increase their understanding of the programs they teach. This becomes an important form of job-embedded professional development and peer coaching. Fixsen and colleagues (2005) maintain that in business, only about 10 percent of what is taught during initial training actually transfers to implementation; it is on-the-job coaching that enhances practice. The same applies in school settings; indeed, in their classic study, Joyce and Showers (1987; 2002) found that teachers are able to transfer very little of the content of stand-alone professional development to actual practice. When professional development includes theory, demonstrations, and practice with corrective feedback, the likelihood of transfer is increased, but when this kind of training is followed by job-embedded coaching, 90 percent of teachers are able to transfer new skills to their actual teaching practices.

Monitoring student progress is important too—as long as progress-monitoring data are used to make instructional decisions and teachers actually differentiate their instruction to meet students’ needs. Many, but not all, programs include some assessment tools, ranging from a full complement of screening and progress-monitoring tests to free-recall tasks to informal quizzes for teachers to administer (Shanahan, 2005). Interventions that include a computer component often allow teachers to track students’ time and performance through a daily or weekly record of achievement that can guide decisions about what other instruction to offer. CAI programs may make these instructional decisions dynamically by evaluating students’ performance and moving instruction forward or providing some review.

Data for individual students also help teachers and schools make correct decisions about when students should exit from an intervention program. Sometimes the only data point used for this decision is the score on the state test, when actual program data might be a better indicator of progress. Interviewees in one urban district spoke about “ping-pong” students: participants in a reading intervention whose standardized test scores qualified them to exit from the program but who—after a school year without additional support to maintain reading growth—saw their test scores again fall below the designated marker for mandatory enrollment in an intensive reading program. Back they go into another year of specialized reading instruction, after what was probably a frustrating year of trying to apply skills and strategies they had not fully mastered. One must wonder whether data from these students’ reading program might have suggested the need for additional support to sustain their progress.

Few of the district leaders interviewed in the urban district study could provide specific criteria by which to gauge the success of the program they used. One district leader said simply: “If scores go up even more, [we] will be super satisfied. If they don’t show improvement on the [state] tests this year, some people won’t be happy.” But state test data alone are not enough, especially when determining whether programs should continue or be replaced by another program. Other information, including students’ progress that tracks with actual program data, will be important measures of intervention success. District and school leaders must look beyond the estimates programs provide about how much growth, on average, students will make in a year to determine realistic growth targets for each student. The key word is “realistic”—this acknowledges that local factors can influence actual student progress. Student data—in aggregate or disaggregated by subgroup—that indicate a failure to meet local growth targets should prompt a careful look at all aspects of program implementation.

Causes of less-than-anticipated growth can be wide ranging and complex and might even be intermingled. Some issues to consider include whether:

- schools are enrolling Tier 3 students in classes designed for a Tier 2 intervention;
- a program requiring 90 minutes is being offered for only 50 minutes each day;
- teachers are new to the program and need more professional development or coaching than the program has provided; and
- teachers have all the program materials and are using them as intended.

It is also entirely possible that the program is just not right for a particular group of students, for example, students with limited English proficiency. When two or more programs are used in the same school or district, comparing their results might also be beneficial, as long as the characteristics and needs of students in the programs being compared are similar.

Student performance in content-area courses, however difficult to measure definitively, is another gauge—perhaps the ultimate measure—of success. Reading interventions should increase students’ abilities to participate actively in coursework, to learn required content, and to make sense of assignments. Grades may not rise precipitously, but passing grades mean the credit accumulation that brings students closer and closer to high school graduation.

Time

Time is the final driver of on-model implementation. When introducing any new program, Fixsen and colleagues (2005) caution that “implementation is a process, not an

event. Implementation will not happen all at once or proceed smoothly, at least not at first” (p. 15). A principal in one of the urban district schools seemed to understand this because, when asked to comment on how well the particular program was working in his school, he said, “I’m not seeing huge gains. I wasn’t expecting to see huge gains. I believe in incremental gains over a period of time.”

Achieving full implementation may take 2 to 4 years, yet many rigorous experimental studies measure impact after only 1 year of training and program use. The value of descriptive research that investigates implementation in natural settings is that data can track what has happened over a longer period of time. Data from the urban district study strongly suggest three distinct phases each with specific factors that work together for successful implementation as shown in table 3.

Table 3: Inputs to On-Model Implementation of Reading Programs for Adolescents

Central Task	District-Level Inputs	School-Level Inputs
Phase 1: Early Implementation		
Establishing Sense of Need and Building Buy-In	<ul style="list-style-type: none"> • Recognition of the needs of adolescent struggling readers • Committed funding and resources to identify appropriate programs for possible adoption or to build on strong foundation of support for program adoption • Establishment of clear guidelines and expectations for program use 	<ul style="list-style-type: none"> • Recognition by school staff of need for services for struggling readers • Establishment of initial criteria for enrollment in class
Phase 2: Ongoing Implementation		
Establishing On-Model Implementation Practices	<ul style="list-style-type: none"> • Clear guidelines and expectations for on-model implementation, including student placement into programs • Criteria for student exit and metrics for determining program success • Support for initial and ongoing professional development • Systematic monitoring of districtwide implementation • Systematic monitoring of districtwide student progress • Identification of an “intermediary” to build and maintain capacity through communication, monitoring, and professional development 	<ul style="list-style-type: none"> • Understanding of and adherence to guidelines for implementation • Adherence to student placement guidelines and student exit criteria • Initial and ongoing professional development • Opportunities for collaboration and communication among school-based staff • Coaching and job-embedded professional development • Systematic monitoring of school-level implementation • Systematic monitoring of school-level student progress
Phase 3: Sustaining Implementation		
Supporting On-Model Implementation and Sustaining Positive Results	<ul style="list-style-type: none"> • Ongoing presence of one or more intermediaries to provide training, monitoring, and communication • Continued guidelines and expectations for implementation • Continued monitoring of districtwide implementation and student progress • Retraining of replacement teachers as needed 	<ul style="list-style-type: none"> • Ongoing training, professional development, and coaching • Continued efforts to monitor school-level implementation • Continued efforts to monitor school-level student progress • Ongoing opportunities for collaboration and coaching

Adapted from Salinger et al., 2010; teacher survey data; and district interviews.

As illustrated, the foundation includes a general sense of readiness for change that comes from recognizing that too many adolescents struggle with reading. Buy-in for specific reading programs has to be grounded in the belief that these students can be helped to achieve at greater levels. Although test scores are often the primary impetus for adopting reading interventions, a district leader in one of the urban districts voiced a more forward-looking reason:

Studying the data showed us that the district had a great need to do something, especially for the older age population. Students learn to read in K–3. After that, they read to learn, but that has not been happening the way it should, and the district had to do something. They cannot write [students] off because they are everyone’s future.

During the second phase, the program really gets going by establishing routines and building capacity. Intermediaries come into their own during this phase because their capacity with the program and their credibility with school-based staff are constantly growing. Ideally, teachers gain confidence in their ability to make an impact on students’ reading. A teacher in the urban district study, who taught the target Tier 2 program and also a Tier 3 program, described her work in this way:

You know these [skills that] kids are supposed to get, but [the program] kind of breaks [them] down into steps [and] gives me a way to build up to the things I know students need. [Teaching these programs has] made me look at details instead of the big picture. Because I do teach [another] program ... I notice the same strategies coming up I taught in the regular classroom for many years too and I see where these things scaffold and build, and it has really been an eye opener for me to see how [students] can get the foundation for the things that prepare them for the future.

The final stage, which will be discussed next, should be marked by strong local capacity for on-model implementation, deep understanding of the program and of the diverse needs of struggling readers, and commitment to improving students’ performance on standardized tests and in content-area classes.

Sustainability

As shown in table 3, the final phase of implementation should be one of stability, which is marked by strong capacity within districts and schools to carry forward with the program and to provide a thoughtfully selected, well-run array of interventions for struggling readers. Reaching the goal of self-sustaining, on-model implementation depends on the presence of several factors and on overcoming specific challenges.

Intermediaries play as strong a role during the sustainability phase as they did during the second phase of implementation. Building local capacity and ensuring that implementation goes well continue to be their primary mission. Their deep knowledge of programs makes them appropriate for selecting new or replacement staff and ensuring that teachers or coaches who are new to a program understand its core principles. They are still the key link for communication with the program developers, district office staff, and schools.

It is the intermediaries who inform teachers and coaches about changes in programs, help teachers replace materials when needed, or secure technology help when computers do not perform. They continue to evaluate implementation and student progress and provide feedback as needed to address problems that arise. This evaluation role becomes more extensive during the sustainability phase because it now includes paying attention to whether existing programs are indeed working as well as expected. A district leader in one urban district study site described the tasks performed by the intermediary and those still on the to-do list this way:

She visits classrooms, reviews progress reports on reading fluency and reading development, meets with school office staff, provides regular implementation updates, [and] meets individually with principals to review results. She needs to strengthen program benchmarks, student time on computer, [and] days spent in class. She is going to provide alerts and progress reports [to district and school staff] at more frequent intervals.

Intermediaries, in conjunction with other leaders, help build and sustain local systems to improve the achievement of struggling readers and the specific programs used to offer those services. Thus, they may decide to fine-tune the delivery of services, perhaps by increasing the opportunities teachers have to talk to one another about their students or by increasing professional development. Likewise, they may decide that the system for addressing students' needs is strong as a whole but that one program in use in the district does not perform as well as another. Such a decision could initiate the search for a replacement program that might better serve teachers and students.

Understanding and using data become even more important as intermediaries and other leaders work to sustain systems of support for struggling readers and on-model implementation of intervention programs. Data help decisionmakers determine whether programs are working, whether students and programs are well matched, whether teachers know what they are doing, and whether changes need to be made to delivery systems or to the programs themselves. The best intermediaries in the urban district study were those who had a strong understanding of the data and who were most effective in bringing administrators, coaches, and teachers into conversations about data. A recent descriptive study of regional literacy coaches in Florida found the same thing: the most effective coaches were the ones who focused discussions with school-based staff on data about teachers' teaching and students' achievement (Marsh et al., 2008).

Major hobgoblins of sustainability are teacher and student mobility (Hartman, 2002; Marvel et al., 2006). Intermediaries build capacity; professional development builds an understanding of programs and of students' needs; and schools and districts invest time and money in building systems that can help students overcome literacy challenges. These investments are predicated on the belief that professional knowledge will grow

over time and achievement gaps will narrow. However, when district- or school-level staff leave their positions, part of the accumulated reading and instructional “capital” leaves too. New teachers must be identified, trained, and coached. If the system created during phase 2 of implementation is resilient, and districts and schools are fully supportive of the importance of services for struggling readers, even this obstacle to sustainability can be overcome. But if staff need to start over to build knowledge and capacity, program implementation and achievement gains will suffer.

What is also often forgotten is that students who participate in reading programs accumulate “reading capital” in the form of more sophisticated strategies for taking meaning from what they read. Ideally, they should gain confidence in their reading so that they engage more actively in content-area coursework. If students move from one school to another within a district—especially to a school with no intervention services or with a different instructional approach—they may lose the advantages gained during the reading intervention. Like the ping-pong students mentioned earlier, such mobile pupils may slide backward, both in their grasp of reading strategies and in their confidence to apply them. Indeed, research has shown that high student mobility can have widespread consequences—for students who move, for those who stay behind, and for teachers and schools as a whole (Hartman, 2002). Students with histories of high mobility tend to have lower achievement levels, which may result in a higher likelihood of dropping out. Nonmobile students and teachers also are affected because, as students move in and out of intervention programs, considerable time is lost in the scramble to catch up on what has already been covered.

Although there is no real way to guard against mobility, the best protection against its effects is to build a sturdy, resilient infrastructure and a commitment to providing well-implemented, appropriate interventions for struggling readers. Limiting the number of interventions offered districtwide can help too by reducing variability in programs and thus decreasing the chances that students who move from school to school will receive inconsistent instruction that ultimately erodes their skills and confidence. Likewise, if intervention teachers are required to master only a limited number of programs, they can move more freely within a district. This could lead to a cadre of the best teachers being assigned to teach reading classes at high-need schools—a development that the principal quoted above said was the ideal scenario. If the strongest teachers move to the schools most in need, they become school-based intermediaries who can build capacity, ensure effective implementation, and achieve the greatest gains.

Conclusion

District and school leaders who adopt intervention programs understand that adherence to the programs' core principles increases the likelihood of positive outcomes for students. They also know—or quickly learn—that factors at the district and school levels influence whether and how this goal can be achieved. The urban district study provided the following important lessons for district and school leaders, regardless of district size or demographics:

- Effective implementation takes time and seems to progress in three phases.
- Clear guidelines about expectations, including training for teachers and student assignment to programs, contribute to implementation success.
- Monitoring of program implementation and student progress is essential throughout all phases because this information helps identify factors that can inhibit implementation success.
- The presence of a knowledgeable “intermediary” at the district or school level increases the likelihood that program benefits are accomplished and are sustainable.
- Data about program implementation and student progress are essential to gauging the success of program implementation—and determining whether programs should be replaced.
- Above all, no one program will work for all struggling readers.

It is also important for district and school leaders to remember that addressing the needs of struggling students is challenging work best accomplished within flexible, multilevel systems. Such systems support the development of local capacity to meet the needs of students at many academic levels, monitor the impact of programs on student achievement, and make corrections when specific programs fail to meet expectations for student improvement. It is equally important that all educators remember that the ultimate goal is for struggling readers to learn skills and strategies that they can apply in content-area classes.

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