Researcher-Practitioner Partnerships: Lessons Learned From the First Year of the Middle School Intervention Project (MSIP)

Nancy J. Nelson, Ph.D., Jean Louise M. Smith, Ph.D., Hank Fien, Ph.D., and Deanne A. Crone, Ph.D.
University of Oregon, Eugene

Scott K. Baker, Ph.D.
Southern Methodist University, Dallas, Texas

Edward J. Kame'enui, Ph.D.
University of Oregon, Eugene

- **The purpose of this article is to describe a multicomponent intervention developed and implemented by a consortium of districts in the Pacific Northwest through a researcher-practitioner partnership and the process used for collaboration.**
- **The intervention was designed to increase reading proficiency and school engagement for struggling readers in middle school in order to prevent eventual school dropout; however, a rigorous evaluation of intervention impact revealed null effects.**
- **Project data indicate schools and districts planned to customize interventions to support student success, and schools' selection of specific interventions and practices varied.**
- **Results of the collaboration highlight district and school demand for formative data that can be used to improve interventions, including implementation data.**
- **The described districts' selected intervention practices and the researcher-practitioner framework provide important information for others seeking to embark on these partnerships and for administrators leading systemic implementation efforts.**

Dropout risk can be identified well before students enter high school (Roderick, 1994). For instance, among adolescents who are experiencing academic failure, the odds of graduating from high school are grim (Allensworth, 2005; Neild & Balfanz, 2006). In particular, early reading proficiency plays an important role in dropout risk: One in six students who are not proficient readers in third grade will not complete high school by age 19, a problem that is exacerbated by other risk factors (Hernandez, 2011). For high school dropouts, life opportunities are bleak. For example, students who drop out of school are at substantially higher risk for life-long difficulties associated with unemployment, poverty, illiteracy, incarceration, and chronic stress compared with students who graduate from high school (Dynarski et al., 2008). Dropouts in a single year will cost the nation nearly $319 billion in lost income, taxes, and productivity for the life of those students (Alliance for Excellent Education, 2010).

One in six students who are not proficient readers in third grade will not complete high school by age 19, a problem that is exacerbated by other risk factors (Hernandez, 2011).

The purpose of this article is to describe a multicomponent intervention developed and implemented by a consortium of districts, designed to

The research reported here was supported by the Institute of Education Sciences, U.S. Department of Education, through Grant R305E100041 to the University of Oregon. The opinions expressed are those of the authors and do not represent views of the Institute or the U.S. Department of Education.

increase reading proficiency and increase school engagement for struggling readers in middle school, in order to prevent high school dropout. In the following sections, we provide context for the dropout crisis, describe the partnership that led to the development of the multicomponent intervention framework, and instantiate similarities and differences in districts' implementation of the multicomponent intervention. Of note, participating schools and districts provided feedback through the partnership that having timely access to formative data regarding intervention implementation would permit more effective data-based decision making. We conclude by summarizing implementation findings and suggesting implications for administrators and other educators working to establish researcher-practitioner partnerships and lead systemic efforts to improve students' success in school.

Rising Standards

There is widespread agreement that new entrants into today's workforce must be prepared to meet the challenges posed by the increased technological demands of a global economy (Friedman, 2005). Not surprisingly, there has been a resounding call by parents, universities, business and community leaders, and policy makers for high school graduates who are better prepared for the full range of postsecondary opportunities—particularly advanced education (Conley, 2007). For example, the adoption of the Common Core State Standards (CCSS) that are anchored to college and career readiness is a signal that this call is being heard. In an address to the National Governor's Association, the driving force behind the CCSS, Secretary of Education Arne Duncan (2009), asserted:

> "*For too long, we've been lying to kids. We tell them they're doing fine, give them good grades, and tell them they're proficient on state tests that aren't challenging. Then they get to college and they're put into remedial classes. Or they go into the workforce and find out that they don't have the skills they need to succeed. We need standards that will get them ready for the day after they graduate. That means they must be rigorous*."

Secretary Duncan's call for more rigorous standards notwithstanding, there has been a growing realization that American jobs are requiring more education, not less, and that high school graduates are simply unprepared to successfully perform in the current job market. Many states have been instituting reforms to better prepare high school graduates by increasing the number of credits needed for graduation as well as the number of academically challenging courses students must take to graduate (Guy, Shin, Lee, & Thurlow, 2000).

Unfortunately, an unintended consequence of increasingly stringent graduation requirements and more rigorous content and performance standards is that they may actually exacerbate the already substantial high school dropout rate (Christenson, Sinclair, Lehr, & Godber, 2001). More than one million students who enter ninth grade fail to graduate with their peers on time, which, in stark terms, is the equivalent of 7,000 students dropping out of school each day of the school week (Alliance for Excellent Education, 2010). Likewise, many middle and high school students are not able to meet current achievement expectations in fundamental academic areas. For example, 64% of eighth-grade students across the nation are not yet considered "proficient" in reading, including 82% of Black and 74% of Hispanic students (National Center for Education Statistics, 2013). In light of these facts, increasing the standards for graduation without concurrently increasing the intensity and quality of our academic, behavioral, and social supports for students may, unwittingly, be a recipe for increasing the number of students who may drop out of school.

More than one million students who enter ninth grade fail to graduate with their peers on time, which, in stark terms, is the equivalent of 7,000 students dropping out of school each day of the school week (Alliance for Excellent Education, 2010).

The increased content and performance standards are challenging for many of our students but perhaps especially troublesome for students who are already struggling with academics. For example, the recently released CCSS for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects (CCSS-ELA) delineates cross-disciplinary literacy expectations that must be met for "students to be prepared to enter college and workforce training programs ready to succeed" (Common Core State

Standards Initiative, 2010). Moreover, the CCSS-ELA explicitly identifies that all students are "expected to meet each year's grade specific standards, retain or further develop skills and understandings mastered in preceding grades, and work steadily toward meeting the more general expectations described by the [College and Career Readiness] standards" (Common Core State Standards Initiative, 2010, p. 4). Certainly this is a daunting expectation for the majority of eighth-grade students across the nation currently reading below proficiency standards. Although high expectations are important for preparing students to succeed beyond high school, the demand for rigorous standards—and grade-level mastery of those standards—must be coupled with strategic implementation of far more comprehensive and enhanced support for students.

The Transition Years

We know that dropping out of high school is not the result of a single event but rather a culminating outcome based on a series of negative experiences (e.g., social, familial, academic, personal) arcing across a student's elementary, middle, and high school years (Dynarski et al., 2008). Therefore, academic support must begin both prior to high school and at critical periods of transition (Allensworth & Easton, 2007; Roderick & Camburn, 1999), such as those from elementary school to middle school and from middle to high school. These transitions across grades usually include a shift in academic and social expectations—including the transition in the size of class cohort, the schedule of classes, peer group dynamics, and changes in social status (Roderick & Camburn, 1999)—and can be particularly difficult for students who are at risk for academic failure (Dynarski et al., 2008).

Because of these many changes, students in the transition years need support across academic and behavior domains. Students who are struggling academically are also the most vulnerable for dropping out of school and therefore represent a critical group that could benefit from strategic intervention support during this time. Providing support to students who are at risk of dropping out of high school requires strategies that are comprehensive and proactive (Christenson et al., 2001; Dynarski et al., 2008), not fragmented, reactive, and piecemeal. Because academic failure and school disengagement usually co-occur, interventions should be strategic and comprehensive in nature and target both academics and student engagement (Christenson et al., 2001; Dynarski et al., 2008).

Identifying Effective Practices

Given the consequences of school dropout and the challenges encountered during the transition years, we initiated a researcher-practitioner partnership with a consortium of school districts in one state in the Pacific Northwest to conduct an evaluation that would allow for the identification of practices schools and districts can implement to promote at-risk students' success in school. Researcher-practitioner partnerships have received increased attention in recent years as a mechanism for increasing the relevance and uptake of education research in schools and classrooms. Researcher-practitioner partnerships are those that prioritize responsiveness of the research through the "inclusion of education agencies as partners from the start of the work [beginning] with the identification of the research questions, design of the project, carrying out of the research, and adoption and dissemination of the results" (Institute of Education Sciences [IES], 2015, p. 1). In addition, effective researcher-practitioner partnerships involve participants on both sides of the partnership working as agents of change across settings (Wagner, 1997).

The districts we partnered with prioritized middle school reading intervention systems and had for quite some time invested resources in this area. Through the researcher-practitioner partnership, we designed a naturalistic experiment that examined intervention implementation during the middle school transition years to rigorously evaluate the impact of districts' efforts across a 5-year period, beginning with a cohort of 6th-grade students who would be followed through 10th grade. This work involved 46 schools in five districts during 2010–2011—eighteen 6–8 schools, twenty-five K–6 schools, and three K–8 schools. All students in each school participated in the study (n = 4,802). There was considerable variability in school size, location, and student demographics. For example, the number of sixth-grade students at each school ranged from 28 to 389. There were nine schools in rural settings and 35 in urban settings. The school-level ethnic demographics ranged from 5 to 82% Hispanic, 0 to 7% African American, 14 to 92% White, 1 to 19%, Asian, and 0 to 4% other minorities. The

school-level percentage of students eligible for free and reduced-price lunch ranged from 10 to 81%.

From the outset of the project, there was unanimous agreement among the five superintendents that the focus of our collaboration should be on the transition from middle school to high school and emphasize reading intervention. Superintendents, district administrators, and principals were very interested in understanding which practices in middle school were effective for increasing student academic outcomes and, ultimately, preventing school dropout. Participating districts already had a shared focus on providing high-quality reading and school engagement interventions to students in the middle school years to increase their academic success and engagement in both the middle and high school years. Moreover, school leaders articulated a commitment for schools to use student performance data to tailor intervention efforts. In addition, the consortium of 46 schools participating in the first year of the project recognized that the majority of at-risk students in the middle grades and high school likely have long histories of negative academic experiences, including serious academic failure (Dynarski et al., 2008). They also recognized that even though there are a number of factors related to dropping out of school that are out of their control, the practices they choose to implement affect student outcomes (Roderick & Camburn, 1999). In other words, partner districts believed that comprehensive, high-quality instruction and intervention could reduce the likelihood that at-risk students would drop out of school.

Using research evidence as a reference, districts participating in the consortium identified three major practices they could emphasize during the middle school years to ensure a more successful transition from middle to high school: (a) provide effective literacy intervention for struggling adolescent readers, (b) provide effective intervention on student engagement in school, and (c) use student performance data to tailor interventions to student instructional needs and continuously evaluate intervention efforts. The project used a regression discontinuity design to rigorously evaluate the impact of the multicomponent intervention. That is, schools used a cut score based on student reading performance to assign students to condition, to allow researchers to conduct an evaluation that would determine whether the intervention was effective for decreasing the gap in reading achievement between students considered "on track" who did not receive the intervention and struggling readers who did receive the intervention. One benefit of the regression discontinuity design was that it permitted an evaluation of districts' existing intervention practices (i.e., the project could evaluate district implementation without requiring districts to change or restrict access to their interventions as may be necessary in other rigorous designs such as randomized controlled trials). This evaluation, which was focused on providing districts with summative information at the end of each school year about whether their intervention systems were working to improve student outcomes, was the primary intent of the researcher-practitioner partnership.

University researchers gathered student-, classroom-, school-, and district-level data using a variety of instruments to support the impact evaluation and explore which practices were most and least effective. University-hired evaluation specialists worked closely with district-hired teachers on special assignment to implement data collection activities in districts. University researchers also hired and trained data collectors to work with evaluation specialists and teachers on special assignment to ensure data collected were reliable and could be collected within reasonable time frames. Student-level data sources included extant information provided by the district (e.g., demographic information, grades, office discipline referrals, suspensions, expulsions, state assessment data, other reading performance data), student enrollment data (e.g., course schedule, intervention start and end dates, attendance), and university-administered measures of student reading performance and student engagement (i.e., a measure of oral reading fluency and engagement surveys). Classroom-level data sources included real-time classroom observations that were conducted three times per year (fall, winter, and spring) in a representative sample of English Language Arts classes and all reading intervention classes identified in each school building. Observation protocols used for classroom observations focused on three aspects of instruction: (a) fidelity of implementation (i.e., adherence to the features of the program being delivered), (b) global quality of instructional practices (e.g., classroom management, delivery of instruction, student engagement), and (c) the frequency of student-teacher interactions (e.g., practice opportunities, instances of teacher feedback). Numerous steps were

taken to ensure classroom observation data were reliable. For instance, only data collectors who met an interrater agreement standard (.85 or better) when observing with a lead observer at the beginning of the year were permitted to observe in classrooms, training review sessions were conducted throughout the year to protect against observer drift, and interrater agreement data were collected during approximately 20% of all observations throughout the year. The average interrater agreement across data collectors, sites, and the three observation waves was .92. Other classroom data sources focused on the reading interventions provided, including programs implemented, length of implementation, level of training provided to interventionists, and group size, among other features. School- and district-level information included engagement intervention tracking data, data team meeting observations, school condition assignment files, administrator surveys reporting on implementation, and school and district plans to modify interventions. These data were collected in dozens of schools and hundreds of classrooms for thousands of students across the school year.

In the following sections, we detail the three major intervention practices that comprised the multicomponent intervention, describe the rationale for focusing on each, and provide case examples of implementation in *Tables 1–3*. To support interpretation, we provide case example demographic data here: Schools A and B were located in two suburban school districts outside a major city in the Pacific Northwest. School A is a K–8 school that served 69 students in Grade 6 in 2010–2011. Student ethnicities were reported as follows: 85.1% White, 8.1% Asian, 2.7% Hispanic, 1.4% Black, and 2.7% multiple ethnicities. More than two-fifths (43.2%) of students were eligible for free and reduced-price lunch. School B is a 6–8 school that served 226 students in Grade 6 in 2010–2011. Student enrollment was 68.5% White, 0.9% Asian, 16.4% Hispanic, 1.3% Black, 2.7% American Indian/Alaskan Native, and 10.2% multiple ethnicities; 65.5% of students were eligible for free and reduced-price lunch.

Component 1: Provide Effective Intervention to Struggling Adolescent Readers

Students with reading problems are at increased risk for dropping out of school (Dynarski et al., 2008; Rumberger & Palardy, 2005). Numerous recent publications have focused on adolescent literacy and the need to provide intensive interventions for struggling adolescent readers, including, for example, the IES Practice Guide, *Improving Adolescent Literacy: Effective Classroom and Intervention Practices* (Kamil et al., 2008). The reliance on IES Practice Guides, as well as other empirically robust sources, is predicated on a simple assumption: Academic interventions in both basic skills (e.g., reading comprehension, mathematics) and content areas (e.g., science, social studies) must be effective (i.e., empirically tested), strategically designed and delivered, and include a monitoring and support system. The goal of the reading intervention component was to provide systematic and explicit reading intervention to students at risk for academic failure because of reading deficits. Reading support was designed to increase reading proficiency so that students were better able to meet the reading demands in other content-area classes and, therefore, better equipped to master rising standards across core academic areas. Thus, the consortium elected to emphasize reading interventions based on the premise that increasing students' success in reading would reduce their risk for academic failure and subsequent school dropout.

Reading support was designed to increase reading proficiency so that students were better able to meet the reading demands in other content-area classes and, therefore, better equipped to master rising standards across core academic areas.

In the first year of the project, participating districts implemented a range of curricula and materials and allocated varying amounts of instructional time to reading interventions. Some schools selected to implement a schoolwide reading class differentiated by student need, whereas other schools provided reading intervention during flex periods or time otherwise dedicated to elective courses. To ensure a rigorous evaluation of the intervention was possible, the consortium of participating districts agreed to the following set of common, critical features of reading interventions that each of their middle schools would implement:

- standardized assessment procedures for identifying students who need reading support;

Table 1: Common, critical reading intervention features

Feature	School A	School B
Assessment procedures for identifying students who need reading support	Served 22% of students in reading intervention	Served 26% of students in reading intervention
The use of evidence-based strategies for targeting important basic reading, vocabulary, and reading comprehension skills	100% Published programs 0% Teacher developed Programs emphasized: • 30% Basic reading • 33% Comprehension • 19% Other types of literacy instruction, including grammar, spelling, and vocabulary	78% Published programs 22% Teacher developed Programs emphasized: • 17% Basic reading • 29% Comprehension • 41% Other types of literacy instruction, including grammar, spelling, and vocabulary
Adequate training to deliver intervention	100% of teachers were trained to deliver program	100% of teachers were trained to deliver program
Adequate instructional time	• Dedicated reading class for all students who did not pass the state assessment, plus an additional reading intervention for students identified for support • Interventions met 5.00 times per week, for an average of 260.00 minutes per week	• Flex period used to provide reading intervention for students identified for support • Interventions met 4.75 times per week, for an average of 205.63 minutes per week
Procedures for monitoring student progress on targeted skills	Dynamic Indicators of Basic Early Literacy Skills Oral Reading Fluency	EasyCBM Passage Reading Fluency

- the use of evidence-based strategies for targeting important basic reading, vocabulary and reading comprehension skills;
- adequate training to deliver intervention;
- adequate instructional time; and
- procedures for monitoring student progress on targeted skills.

Participating schools identified students in need of reading support by evaluating student performance on the reading portion of the fifth-grade state reading assessment (Oregon Assessment of Knowledge and Skills) administered the prior year and a measure of oral reading fluency. In the regression discontinuity design, using a rank-ordered list of combined z-scores, schools set their own cut score according to the number of students each school had resources to serve in the intervention condition (c.f. Crone et al., 2016, for more information about regression discontinuity procedures in the study). School A, for example, identified 22% of students (n = 15) to receive the intervention, whereas School B identified 26% of students (n = 58) for the intervention. Project-wide, 1,184 intervention students and 3,618 comparison students participated in 2010–2011.

The most commonly used reading intervention programs project-wide were Language! (26 schools; Greene, 2004), Rewards (14 schools; Archer, Gleason, & Vachon, 2000), Corrective Reading (9 schools; Engelmann, Carnine, & Johnson, 1988), and Read Naturally (9 schools; Ihnot, Mastoff, Gavin, & Hendrickson, 2001). In total, 23 published programs were used across the 46 schools. For additional similarities and differences in the way schools operationalized the reading intervention component of the comprehensive intervention, see the examples for School A and School B in *Table 1*.

Component 2: Provide Effective Intervention on Student Engagement in School

Student engagement in school has been targeted as an essential intervention component in dropout prevention research, especially during the transition period between middle and high school (Christenson et al., 2001; Dynarski et al., 2008). School engagement includes both psychological engagement (e.g., a student's sense of belonging in school) and behavioral engagement (e.g., attending class on time, completing assignments, not engaging in problem behavior). Research indicates that students who feel connected to at least one adult in school are less likely to drop out of school, demonstrate severe problem behaviors, or engage in criminal activities and dangerous social activities, such as drug and alcohol use (Dynarski et al., 2008). In a survey of 467 students who dropped

Table 2: Common, critical engagement intervention features

Feature	School A	School B
Every student placed in the reading intervention also participates in a school engagement intervention that involves a check-in with a supportive adult on a regular basis	0% Group-based intervention 100% Individual intervention Interventions met for 38.00 weeks, 1.00 time per week, and 7.00 minutes per day, with an average of 3.50 students per leader	22% Group-based intervention 78% Individual intervention Interventions met for 25.14 weeks, 2.28 times per week, and 82.63 minutes per day, with an average of 5.35 students per leader
Students receive regular, constructive feedback on behavioral or academic performance	The focus of interventions was: 0% Academic 0% Social/behavioral 100% Combined academic and social/behavioral 0% Recreational 0% Service/leadership	The focus of interventions was: 11% Academic 0% Social/behavioral 78% Combined academic and social/behavioral 11% Recreational 0% Service/leadership
Data are collected on the student's behavioral and psychological engagement in school	Data were collected on school attendance (97%), office discipline referrals (0.23 per student), and a self-report measure of engagement in school (Student Engagement Instrument, school $M = 99.91$)	Data were collected on school attendance (90%), office discipline referrals (1.56 per student), and a self-report measure of engagement in school (Student Engagement Instrument, school $M = 110.21$)

out of high school, students reported a variety of reasons for dropping out, many that were related to students' personal experiences in school (Bridgeland, DiIulio, & Morison, 2006). In the survey, 33% reported that there was not one staff member who personally cared about their success, and 43% reported that there was not one staff member they could talk to about school-related problems (Bridgeland et al., 2006). Accordingly, when planning the features of the comprehensive intervention, the consortium of districts indicated interest in including an engagement intervention component to reduce school dropout, with a focus on increasing students' sense of belonging and connections to adults in their school.

Research indicates that students who feel connected to at least one adult in school are less likely to drop out of school, demonstrate severe problem behaviors, or engage in criminal activities and dangerous social activities, such as drug and alcohol use (Dynarski et al., 2008).

Another defining feature of the planned engagement intervention was that it would support the transition to high school, because this transition represents a major antecedent to dropping out of school for many students (Alspaugh, 1998). The schools in the consortium implemented a range of practices specifically aimed at preparing students for the transition from middle to high school. Examples of these practices include (a) student visit(s) to the high school, (b) identifying adult contacts in the high school who can support the student's transition, (c) identifying extracurricular school activities the student might become involved in, and (d) linking students with positive peer support groups at the high school.

During the course of the project, the districts agreed to implement several common and critical elements of student engagement interventions for students who were also receiving reading intervention:

- Every student placed in the reading intervention also participates in a school engagement intervention.
- Students check-in with a supportive adult on a regular basis—daily, weekly, or monthly depending on student need.
- Students receive regular, constructive feedback on behavioral or academic performance.
- Data are collected on students' behavioral and psychological engagement in school.

In 2010–2011, the consortium of schools employed a range of school engagement interventions designed to increase student engagement in sixth grade, in preparation for the transition to high school, including social skills groups, homework clubs, athletic teams, student clubs and committees, and individual or

group counseling, among other possibilities. The most commonly reported engagement interventions were participation in sports or games, individual check-in, individual or group counseling, participation in arts or music, and homework club or study hall. See *Table 2* for additional similarities and differences in the way schools operationalized the engagement intervention component of the comprehensive intervention.

The most commonly reported engagement interventions were participation in sports or games, individual check-in, individual or group counseling, participation in arts or music, and homework club or study hall.

Component 3: Using Data to Tailor Interventions and Continuously Evaluate Intervention Efforts

Virtually every major recommendation for improving reading outcomes for struggling adolescent readers, as well as improving school engagement for students who are at risk for dropping out of school, includes data-based decision making as an essential component (e.g., Dynarski et al., 2008; Kamil et al., 2008). These recent IES Practice Guides include the following specific recommendations for using data: (a) use data from diagnostic assessments to determine areas of instructional support (Kamil et al., 2008), (b) use data to accurately define and assess problems (Dynarski et al., 2008), (c) use data to frequently monitor the progress of at-risk students (Kamil et al., 2008), and (d) use summative data to examine program impact (Kamil et al., 2008). In addition, researchers have identified indicators of school engagement and disengagement, such as attendance, academic performance, and problem behaviors, which are highly predictive of a student's likelihood of school completion and could be used as rich data sources in educational and intervention planning.

Schools can be thought of as "data rich" because they have a number of data sources available for use by teams seeking to make informed decisions about the interventions they provide to students. Participating districts supported the notion that they should meet regularly to discuss and use data to support student engagement and reading achievement by refining the interventions and approaches they had adopted for this purpose. The districts agreed to implement the following common and critical elements of data-based decision making during the middle school intervention years of the project:

- School-based systems are in place to collect and manage academic and behavioral data.
- Data teams meet to review student-level data on reading and engagement interventions at least once per term.
- Data team membership includes key stakeholders so that the team has the authority to make instructional decisions and action plans.

To support students during the transition years, schools used data to (a) identify students at risk for dropping out of school, (b) individualize intervention support, and (c) continuously evaluate and improve systems of support. It should be noted that these were data schools were collecting on their own—not data collected by research staff to conduct the evaluation. For example, school-based teams used progress-monitoring data to evaluate and, if necessary, modify intervention supports in an ongoing manner. This interplay of using data for intervention planning and modification was used as a means of establishing a continuous feedback loop for improving practice. However, across participating schools and districts, there was variability in the number of times data teams met, the composition of the teams, the purposes of the teams (e.g., academic focused, behavior focused, or both), and the protocols they used to make decisions. See *Table 3* for additional similarities and differences in the way schools operationalized data-based decision making as a component of the comprehensive intervention.

Lessons Learned by Districts and Action Planning

In the summer following the first project year, leaders from each district and school gathered for a project institute to review school and district data collected by the research team for the evaluation; examine intervention outcomes by school, district, and consortium; develop action plans to refine the sixth-grade intervention; and prepare for intervention implementation with the cohort of students in seventh grade. University researchers facilitating the institute provided the consortium three prompts to guide

Table 3: Common, critical data-based decision-making features

Feature	School A	School B
School-based systems are in place to collect and manage academic and behavioral data	School-based Middle School Intervention Project team developed to review academic and behavioral data for students identified in the intervention group	Sixth-grade teachers and specialists reviewed data and planned instruction for all sixth-grade students during a dedicated collaboration period
Data teams meet to review student-level intervention data at least once per term	Met 9 times in 2010–2011 for an average of 62 minutes per meeting	Met 54 times in 2010–2011 for an average of 45 minutes per meeting
Data team membership includes key stakeholders (e.g., reading teacher, administrator, etc.) so that the team has the authority to make instructional decisions and action plans	On average, seven school staff members attended each meeting; staff members attended meetings as follows (percentage of meetings attended): • Administrator (50%) • Counselor (0%) • Teacher (50%) • Other specialists (100%)	On average, five school staff members attended each meeting; staff members attended meetings as follows (percentage of meetings attended): • Administrator (0%) • Counselor (0%) • Teacher (100%) • Other specialists (100%)

districts' action plan development: (a) use your district's data to identify several strengths of your intervention, (b) use your district's data to identify several areas for improvement, and (c) identify three goals for your district, matched to strategies for implementing stated goals, and data sources that will provide evidence goals have been met.

In the context of the state's recent commitment to the CCSS, across the project, districts agreed that they wanted to focus the seventh-grade intervention on continuing to provide reading and engagement interventions to struggling readers but wanted to focus the bulk of their energy on improving the alignment between core English Language Arts instruction and the CCSS. The rationale for doing so was premised on the amount of time struggling readers spent in these classes during the school day, in addition to their participation in reading interventions. Also, based on research supporting the importance of systematic and explicit vocabulary instruction for adolescents (e.g., Kamil et al., 2008), districts agreed they wanted to implement professional development and measure their practices in this area. See *Table 4* for sample district-level action plans, elucidating additional similarities and differences in districts' approaches.

Intervention Impact, Implications, and Next Steps

Despite districts' best efforts, the effect of the comprehensive, multicomponent intervention was null in 2010–2011. That is, for the sixth-grade year, participating districts did not succeed in significantly reducing the gap in student performance between students assigned to the intervention and students assigned to the comparison group (c.f. Crone et al., 2016, for a full description of the study design and analysis). It should be noted that the fidelity of implementation does not appear to be a major factor limiting the effectiveness of school interventions, as ratings of fidelity collected during classroom observations suggest moderate to high adherence to interventions implemented by instructors. It is possible, however, that there was misalignment between interventions selected and the research base on effective reading interventions or that the interventions districts intended to implement were not the same as those instructors employed in the classroom. There are a number of possible explanations for the lack of intervention impact, which we are exploring as a research team and sharing with participating districts as findings are realized. We continue to disseminate summative findings for each project year with district partners through frequent meetings and annual institutes, sharing results evaluating the overall impact of the intervention, the district impact, and descriptive information for each of our data sources.

Throughout the project, our district partners have made requests for analyses to examine other research questions of interest, and where resources allow (e.g., requested analyses are common across districts), we have provided districts with these data. What has emerged consistently in our meetings with districts is

Table 4: District action plans developed at project institute 2011

Feature	District 1	District 2
Areas of strength	1. Using data for instructional decisions 2. Range of reading interventions in place 3. Focus on developing independent proficient readers 4. High school administrators involved to keep a K–12 focus 5. Strong district support	1. Classroom quality ratings were strong, especially for representation of content and student engagement 2. Strong structure and process ratings for data team meetings 3. Outcome data are great! Saw improvements in oral reading fluency scores, office discipline referrals, attendance, and Oregon Assessment of Knowledge and Skills
Areas for improvement	1. Systematic and explicit vocabulary instruction 2. Discussion and questioning strategies 3. Teacher modeling of skills 4. Increase the amount and quality of student writing 5. Teach students to examine their own data and set learning goals	1. Students in interventions have more office discipline referrals than comparison students 2. Increase opportunities for student responses during instruction and strengthen classroom engagement strategies in light of pending higher class sizes 3. In English Language Arts, need for more focus on checks for understanding and adjusting instruction accordingly 4. Need more writing within reading interventions 5. Be more systematic about following through on action plans established in data team meetings
Goal 1	Increase the number and quality of extended classroom discussions of text meaning and interpretation	Increase strategies used to engage students in instruction both in English Language Arts and interventions classes
Strategy	• Provide professional development on discussion and questioning techniques and strategies • Teach students to use discussion protocols	• Work with principal to make it a schoolwide focus • Teacher-led professional development on specific strategies • Provide structure for ongoing support • Find volunteers to model student engagement strategies in videos to share • Increase teacher toolbox (something to take away)
Evidence	• Observation, with emphasis on efferent discussion and student roles • Student work: written summaries	• Observation data
Goal 2	Provide students with explicit vocabulary instruction in reading, English Language Arts, and content area classes	Decrease the number of office discipline referrals for students in interventions
Strategy	• Provide professional development to teachers on the selection of vocabulary words and explicit vocabulary instruction • Dedicate a portion of the classroom lesson to explicit vocabulary instruction	• Review and evaluate the effectiveness of student engagement interventions last year: Did they make a difference? • Every 4–6 weeks, look at correlation between what student engagement interventions a kid had compared with office discipline referrals and adjust
Evidence	• Sharing examples of student work • Staff conversations/observations	• Schoolwide information system data
Goal 3	Increase the use of teacher modeling desired skills and strategies in the classroom	Ensure that student intervention goals are reviewed and modified regularly at data meetings
Strategy	• Provide professional development • Observe teacher modeling in classrooms • Model by thinking out loud with the text	• Ensure there is time in the agenda for review • Minutes include who is going to do what by when and these are reviewed at predetermined time
Evidence	• Observation • Teacher reflection on teacher observation • Improvement on outcome measures	• Data team observations

that school staff want to receive timely, formative, actionable data. Although the project was designed to provide a summative evaluation of intervention impact, districts have indicated there are data we are collecting that would be useful to them during the school year, to support their ability to systematically and strategically adjust intervention delivery to maximize benefit for students, instead of waiting until the end of the year to find out whether their interventions were effective. With this focus in mind, we are considering how we can better support our consortium of districts and other districts alike to develop mechanisms that allow them to formatively examine intervention implementation along with student progress data to make improved decisions about their programs and practices.

Districts' interest in better understanding the effectiveness of their intervention practices underscores the importance of evaluating the effectiveness of existing practices.

Districts' interest in better understanding the effectiveness of their intervention practices underscores the importance of evaluating the effectiveness of existing practices. In the first year of the middle school intervention project, our analyses of the impact of district intervention practices on sixth-grade outcomes indicate that the multicomponent intervention was not effective for struggling readers; it did not significantly close the gap between struggling and on-track readers on the state reading assessment or a measure of oral reading fluency. Like our school district partners, we believe high-quality interventions can make a difference for students, but our schools are struggling to use them to affect important student outcomes. This finding is consistent with other evidence evaluating the effectiveness of interventions implemented in authentic school settings. Evidence from the Striving Readers initiative, for example, indicates that schools and districts are struggling to take reading interventions that have demonstrated efficacy under tightly controlled conditions and implement them at scale with the same effects (Abt Associates, 2009). By developing research capacity within districts and conducting naturalistic experiments that evaluate the impact of existing practices, school systems are better equipped to determine where and how to invest resources to improve student outcomes.

Evidence from the Striving Readers initiative indicates that schools and districts are struggling to take reading interventions that have demonstrated efficacy under tightly controlled conditions and implement them at scale with the same effects (Abt Associates, 2009).

Similarly, Christenson et al. (2001) noted, "we know considerably more about who drops out than we do about the essential intervention components for whom and under what conditions" (p. 471). To further examine this issue and support the translation of research into practice, the IES of the U.S. Department of Education is funding research, including the current project, to examine implementation at scale and the development of researcher-practitioner partnerships designed to support uptake of evidence-based practices in schools. Fortunately, the richness of the data set we have—which includes precise estimates of intervention dosage, direct observations of classroom instruction and data team meetings, and student academic and behavioral data, among hundreds of other attributes of schools, classrooms, and students—can be further examined to assess whether interventions in schools that implemented certain features were more successful for improving reading achievement than in schools in which those features were not implemented. The richness of the data we have collected in partnership with our consortium of districts has the potential to substantively contribute to understanding about what works and does not in authentic middle school settings, where teachers and administrators adopt and drive programs and practices.

Conclusion

The middle school and high school years are turbulent for many students, but especially so for students who have experienced years of academic failure and are

becoming increasingly disconnected from school. By providing systemic and comprehensive interventions when early warning signs of academic difficulty and student disengagement appear, we can shore up supports for students who are at significant risk for dropping out of school. Importantly, research demonstrates we can also improve their academic success (Kamil et al., 2008) and significantly ensure that the odds are in their favor for high school graduation, advanced postsecondary educational experiences, and high-quality employment opportunities (Dynarski et al., 2008).

The described 5-year intervention project, situated in school examples during the first year of implementation, provides important information for administrators and other education leaders seeking to embark on researcher-practitioner partnerships and implement systemic efforts to improve reading achievement and school engagement. It is our aim that others can learn from our collaboration and evaluation efforts (e.g., collective idea development, district and university staff given dedicated time to work together, a focus on collecting detailed and reliable formative and summative data, university-district meetings to share results and develop action plans), to improve upon methods and mechanisms to evaluate intervention implementation in authentic settings and support the translation of research into practice.

References

Abt Associates. (2009). *Summary of 2009 Striving Readers Projects*. Washington, DC: U.S. Department of Education, Office of Elementary and Secondary Education. Retrieved from http://www2.ed.gov/programs/strivingreaders/2009cohortprojectprofiles.pdf

Allensworth, E.M. (2005). *Graduation and dropout trends in Chicago: A look at cohorts of students from 1991 through 2004* (report highlights). Chicago: Consortium on Chicago School Research. Retrieved from http://files.eric.ed.gov/fulltext/ED486035.pdf

Allensworth, E.M., & Easton, J.Q. (2007). *What matters for staying on-track and graduating in Chicago public high schools* (research report). Chicago: Consortium on Chicago School Research. Retrieved from https://ccsr.uchicago.edu/sites/default/files/publications/07%20What%20Matters%20Final.pdf

Alliance for Excellent Education. (2010). *High school dropouts in America. Fact sheet*. Washington, DC: Alliance for Excellent Education.

Alspaugh, J.W. (1998). Achievement loss associated with the transition to middle school and high school. *Journal of Educational Research, 92*, 20–25. doi: 10.1080/00220679809597572

Archer, A.L., Gleason, M.M., & Vachon, V.L. (2000). *Rewards: Reading, excellence, word attack and rate development strategies*. Logmont, CO: Sopris West Educational Services.

Bridgeland, J.M., DiIulio, J.J., & Morison, K.B. (2006). *The silent epidemic perspectives of high school dropouts*. Washington, DC: Civic Enterprises, LLC. Retrieved from http://www.civicenterprises.net/pdfs/thesilentepidemic3-06.pdf

Christenson, S.L., Sinclair, M.F., Lehr, C.A., & Godber, Y. (2001). Promoting successful school completion: Critical conceptual and methodological guidelines. *School Psychology Quarterly, 16*, 468–484.

Common Core State Standards Initiative. (2010). *Common core standards for English language arts & literacy in history/social studies, science, and technical subjects*. Washington, DC: Common Core State Standars Initiative. Retrieved from http://www.corestandards.org/wp-content/uploads/ELA_Standards.pdf

Conley, D.T. (2007). *Redefining college readiness*. Eugene, OR: Educational Policy Improvement Center. Retrieved from http://files.eric.ed.gov/fulltext/ED539251.pdf

Crone, D.A., Stoolmiller, M.L., Baker, S.K., Fien, H., Turtura, J., Strand Cary, M., … Kame'enui, E.J. (2016). *The Middle School Intervention Project (MSIP): Use of regression discontinuity to evaluate a multi-component intervention for struggling readers in middle school*. Unpublished manuscript.

Duncan, A. (2009, June). States will lead the way toward reform. In: 2009 Governors Education (Chair), *Governors education*. Symposium paper conducted at the James B. Hunt Institute for Educational Leadership and Policy and the NGA Center for Best Practices Conference, Durham, NC. Retrieved from http://www.eric.ed.gov/ERICWebPortal/contentdelivery/servlet/ERICServlet?accno=ED506068

Dynarski, M., Clarke, L., Cobb, B., Finn, J., Rumberger, R.W., & Smink, J. (2008). *Dropout prevention: A practice guide* (Technical Report No. NCES 2008-4025). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.

Engelmann, S., Carnine, D., & Johnson, G. (1988). *Corrective reading*. Chicago: SRA.

Friedman, T.L. (2005). *The world is flat: A brief history of the 21st century*. New York: Farrar, Strauss, and Giroux.

Greene, J.F. (2004). *Language! A literacy intervention curriculum* (3rd ed.). Logmont, CO: Sopris West.

Guy, B., Shin, H., Lee, S.-Y., & Thurlow, M. (2000). State graduation requirements for students with and without disabilities. In D. R. Johnson & E. J. Emanuel (Eds.),

Issues influencing the future of transition programs and services in the United States (pp. 85–110). Minneapolis, MN: National Transition Network, Institute on Community Integration (UAP), University of Minnesota.

Hernandez, D.J. (2011). *Double jeopardy: How third-grade reading skills and poverty influence high school graduation*. New York: Department of Sociology Hunter College and the Graduate Center, City University of New York, Annie E. Casey Foundation.

Ihnot, C., Mastoff, J., Gavin, J., & Hendrickson, L. (2001). *Read Naturally®*. St. Paul, MN: Read Naturally, Inc.

Institute of Education Sciences. (2015). *Partnerships and collaborations focused on problems of practice or policy.* U.S. Department of Education, CFDA 84.305H.

Kamil, M.L., Borman, G., Dole, J., Kral, C.C., Salinger, T., & Torgesen, J. (2008). *Improving adolescent literacy: Effective classroom and intervention practices: A practice guide* (No. NCEE #2008-4027). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from http://ies.ed.gov/ncee/wwc

National Center for Education Statistics. (2013). *The nation's record card: A first look: 2013 mathematics and reading* (Report No. NCES 2014-451). Washington, DC: National Center for Education Statistics, Institute of Education Sciences. Retrieved from http://nces.ed.gov/nationsreportcard/subject/publications/main2013/pdf/2014451.pdf

Neild, R.C., & Balfanz, R. (2006). *Unfulfilled promise: The dimensions and characteristic's of Philadelphia's dropout crisis, 2000-2005*. Philadelphia: Philadelphia Youth Network; University of Pennsylvania; Johns Hopkins University. Retrieved from http://files.eric.ed.gov/fulltext/ED538341.pdf

Roderick, M. (1994). Grade retention and school dropout: Investigating the association. *American Educational Research Journal, 31*, 729–759. doi: 10.3102/00028312031004729

Roderick, M., & Camburn, E. (1999). Risk and recovery from course failure in the early years of high school. *American Educational Research Journal, 36*, 303–343. doi: 10.3102/00028312036002303

Rumberger, R.W., & Palardy, G.J. (2005). Test scores, dropout rates, and transfer rates as alternative indicators of high school performance. *American Educational Research Journal, 42*, 3–42. doi: 10.3102/00028312042001003

Wagner, J. (1997). The unavoidable intervention of educational research: A framework for reconsidering researcher-practitioner cooperation. *Educational Researcher, 26*(7), 13–22.

About the Authors

Nancy J. Nelson is a research assistant professor at the Center on Teaching and Learning, 5292 University of Oregon, Eugene, OR 97403. Email: nnelson3@uoregon.edu

Jean Louise M. Smith is a research assistant professor at the Center on Teaching and Learning, 5292 University of Oregon, Eugene, OR 97403. Email: jmercier@uoregon.edu

Hank Fien is an associate professor in the School Psychology Program and the director of the Center on Teaching and Learning, 5292 University of Oregon, Eugene, OR 97403. Email: ffien@uoregon.edu

Deanne A. Crone is a research associate at the Center on Teaching and Learning, 5292 University of Oregon, Eugene, OR 97403. Email: deanne@uoregon.edu

Scott K. Baker is executive director of the Center on Research and Evaluation, Southern Methodist University, Expressway Tower, 6116 N. Central Expressway, Suite 400, Dallas, TX 75206. Email: skbaker@mail.smu.edu

Edward J. Kame'enui is Dean-Knight professor of special education and founding director of the Center on Teaching and Learning, 5292 University of Oregon, Eugene, OR 97403. Email: ekamee@uoregon.edu