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# SUPPORTING LITERACY ACROSS THE SUNSHINE STATE

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## **A Study of Florida Middle School Reading Coaches**

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## Preface

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Despite recent progress in reading achievement among children in primary grades, many children are not moving beyond basic decoding skills to fluency and comprehension as they go on to higher grades, where such skills become increasingly important. To address this problem, many policymakers are identifying reading coaches—master teachers who offer on-site and ongoing instructional support for teachers—as a method of improving teacher practice and students’ literacy skills. While reading coaches are prevalent in many schools across the nation, there is little empirical evidence regarding the nature of coaching and its effectiveness in changing teacher practice and improving student achievement.

In 2006, the RAND Corporation sought to address this research gap by studying a statewide reading coach initiative in Florida. This monograph presents results from our evaluation of the implementation and impact of the reading coach program in Florida middle schools. The monograph should interest policymakers, researchers, and practitioners involved in designing, implementing, assisting, or studying reading coach programs and interventions to improve adolescent literacy.

This research was conducted within RAND Education, a unit of the RAND Corporation. Funding to carry out the work was provided by the Carnegie Corporation of New York.



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## Summary

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While the literacy skills needed to engage in the economy and public life have grown, the literacy skills of many adolescents remain low—in 2007, only 31 percent of eighth grade students performed at or above the proficient level on the National Assessment of Educational Progress (NAEP), a national assessment that informs the public about the academic achievement of elementary and secondary students in the United States. One popular approach to improving student literacy is using school-based *reading coaches*—specially trained master teachers who provide leadership for the school’s literacy program and offer on-site and ongoing support for teachers so they can improve the literacy skills of their students. While reading coaches are prevalent in many schools across the nation, there is little empirical evidence regarding the nature of coaching and its effectiveness in changing teacher practice and practically no evidence related to coaching effects on student achievement, particularly at the secondary level. Given the increasing popularity of coaching and its significant cost—in terms of financial and human resources—there is a critical need for research in this area.

In 2006–2007, RAND sought to address this research gap by studying a statewide reading coach program in Florida that is situated within a broader state-led literacy policy, the Just Read, Florida! (JRF) initiative. Established in 2001, the JRF initiative’s goal is that all students read at or above grade level by 2012. One key component of this effort has been the allocation of funds to districts to hire full-time, site-based reading coaches. To understand Florida’s reading coach program

and its implementation and effects at the middle school level, our study examined the following research questions:

1. How is the reading coach program being implemented by the state, districts, schools, and coaches?
2. What has been the impact of coaching on teachers' practice, students' achievement in reading and mathematics, and other outcomes?
3. What features of models and practices for reading coaches are associated with better outcomes?

## Methods

The study used a combination of quantitative and qualitative methods to examine the implementation and impact of Florida's reading coach program at the middle school level. To understand coaching implementation and perceived effects of coaching, we collected and analyzed data from surveys of principals, coaches, and teachers in 113 middle schools in eight large districts in Florida; interviews, focus groups, and observations in six case study schools and two case study districts; and documents and interviews with state officials and coach coordinators in all study districts. To understand the effects of coaching on student achievement, we conducted two sets of analyses. In the first longitudinal analysis, we looked across all middle grades in the state to determine whether having a state-funded coach in a school was associated with improvements in average annual achievement growth in reading and mathematics using school-by-grade-level results from the Florida Comprehensive Assessment Test (FCAT) from 1997–1998 to 2005–2006. In the second set of analyses, we examined whether variation in coaching implementation led to differential outcomes in student achievement for the schools in our study in 2006–2007 (our study year). These cross-sectional regression analyses linked our survey data with student-level FCAT data in reading and mathematics.

## Key Findings

The state defines basic goals and parameters for coaches but leaves details up to districts. The overarching goal of Florida's coaching program is to improve students' reading ability by helping teachers implement effective, research-based instruction in reading and in content areas. Aside from the requirement that coaches be full-time employees, the state does not mandate any other aspects of a coach's job but instead provides districts with a basic job description suggesting basic coach qualifications (e.g., experience teaching, knowledge of reading research and of how to work with adult learners—in this case, teachers) and ways in which the coach should operate at the school level. Specifically, the state encourages coaches to work with all teachers across content areas, with a focus on new teachers, new reading teachers, and those teaching struggling students; to prioritize their time on in-class coaching (e.g., modeling, mentoring, observing, providing feedback); and to avoid formally evaluating teachers and participating in activities that detract from work with teachers (e.g., administrative tasks, too much time administering assessments, tutoring students, substitute teaching). To encourage fidelity to the state's vision for coaching, the state provides training to coaches and principals. It also requires coaches to submit biweekly coach logs accounting for time spent and districts to submit reading plans that detail how coaches will be supported and utilized—both of which are monitored by the state.

*Districts established similar policies and supports for coaches.* In most districts, principals hired reading coaches, and they generally considered a similar set of knowledge, skills, and abilities when selecting a coach—knowledge and experience with teaching reading, interpersonal skills, communication skills, and experience working in similar contexts. Reading coaches typically received a salary commensurate with the regular teaching salary schedule, although a few districts offered supplemental income. In seven of the eight districts, principals conducted formal evaluations of coaches; across all districts, almost all coaches reported knowing what was expected of them and how their performance was evaluated. Finally, coaches generally received professional development and support from the state and district. As the

state had envisioned, all districts provided at least monthly professional development sessions for coaches. The majority of coaches reported that district-sponsored professional development activities focused on four key areas: effective reading instructional strategies, working with teachers to improve their practice, the role and responsibilities of the coach, and using student data.

*Several common concerns about recruiting and retaining high-quality coaches emerged.* Some administrators voiced concerns about a shortage of qualified candidates, turnover among coaches, and principals' ability to adequately judge the quality of coach candidates (due to a lack of background in reading). Some administrators and coaches also noted concerns about lack of adequate compensation for coaches' time and disincentives for teachers certified by the National Board for Professional Teaching Standards to serve as coaches. Several coaches reported intentions to leave their position because of rules stating that National Board teachers earn their board supplement only when working directly with students the majority of their time.

*Coaches' quality, particularly their ability to support adult learners, is positively related to several outcomes and viewed by some as an area of potential weakness.* Although principals and teachers were generally satisfied with the qualifications of their coaches, some questioned particular skills and knowledge of their coaches—most notably, their ability to support adult learners. Moreover, many coaches requested additional professional development in the area of supporting adult learners. We also found a strong association between teachers' assessments of coach quality and their reports of coach effects on their instruction. In addition, coaches' ability to support adult learners (as assessed by principals) was positively related to teacher and principal perceptions of the coach's influence. Interestingly, we also found that coaches who possessed reading graduate degrees, credentials, or endorsements were associated with higher mathematics achievement, though not with higher reading achievement.

*Coaches indicated a desire for specific kinds of professional development.* Although coaches generally held state- and district-sponsored professional development in high regard, many requested additional support for

- supporting adult learners
- teaching reading to special populations, such as English language learners (ELLs) and those needing exceptional student education (ESE)
- working with teachers to improve practice (e.g., modeling, giving feedback, organizing professional development)
- incorporating literacy across content areas.

They also placed a high value on forms of professional development involving collaboration or mentoring from coach peers (teachers' reports that other teachers influenced their practice further suggest that peer-to-peer support is highly valued). As for the timing of professional development, many coaches indicated that they would have liked more training prior to starting in their role as coach.

*The day-to-day work of coaches took many forms.* Coaches generally divided their time among many different activities, including formal work with teachers, informal coaching, coaching-related administrative duties, data analysis, and noncoaching duties. Although one-on-one work with teachers headed the list of activities on which coaches spent significant time, the majority of coaches were not spending half of their time working individually with teachers, as the state encouraged. While state sources indicate a desire for coaches to work with all content area teachers to support reading across the curriculum, our research finds that coaches are placing the greatest emphasis on reading teachers and, to a lesser extent, new teachers and teachers identified by school administrators as needing support (some of whom could be content area teachers). Coaches were much less likely to focus on supporting content area teachers in areas other than reading (English language arts, social studies, mathematics, and science); in fact, reading teachers reported much higher levels of interaction with their coaches than did social studies teachers.

*District and school administrators, coaches, and teachers identified several barriers constraining coaches' ability and opportunity to provide instructional support to many teachers.* Most notably, lack of time was seen as a serious barrier to getting into teachers' classrooms. More than half of coaches cited the large amount of time it takes to coordinate

and administer assessments as a moderate or great hindrance to their work, and about one-third felt that the school schedule did not provide teachers with adequate planning time during which they could meet with their reading coach. Approximately one-third of coaches also reported that teachers' reluctance to work with a coach was a moderate or great hindrance to their work. Slightly less than one-third of coaches and principals thought the ratio of teachers to reading coaches negatively affected their ability to coach, and many district coordinators and coaches noted the challenges involved in supporting many teachers at once.

*Most coaches viewed school and district administrators as key supports for their work.* Administrative support appears to be an important enabler of coach effectiveness. The majority of coaches believed school and district administrators were supportive of their work and clearly defined and communicated their roles and responsibilities. A minority of coaches and some district coordinators, however, voiced concerns that some principals assigned coaches duties that detracted from their ability to serve as instructional resources for teachers. Nevertheless, most case study coaches noted that they could not succeed in their work without the support of their principals and assistant principals.

*Many teachers and principals reported that the coach had positive effects on them and their schools.* The majority of reading and social studies teachers reported that the reading coach had influenced the changes made to their instruction over the course of the year. Forty-seven percent of reading teachers and 40 percent of social studies teachers characterized this influence as "moderate to great" in magnitude. Approximately two-thirds of reading and social studies teachers who had interacted with the coach believed these interactions helped them feel more confident in their ability to teach reading to students and helped them better plan and organize instruction. In addition, the vast majority of principals reported that their coaches had a positive effect on their own knowledge, a sense of community among teachers, and on students' motivation to read. A number of program features or aspects of coaching implementation were positively related to some of these perceptions of the coach's influence (when controlling for other factors). These included teachers' perceptions of coaching quality, prin-

cipals' assessments of coaches' ability to support adult learners, the time coaches spent working one-on-one with teachers and reviewing assessment data with teachers, and coaches' emphasis on integrating reading across the content areas.

*The evidence is mixed regarding the impact of coaching on achievement.* Having a state-funded coach was associated with small but significant improvements in average annual gains in reading for two of the four cohorts analyzed. For the 2003 cohort (the cohort with state funding for the longest period of time), the average, standardized effect size of coaching on annual achievement gains in reading for all middle grades was 0.06 standard deviation. After four years of implementation, we estimate that the performance of this cohort is 0.24 standardized units higher than it would have been in the absence of coaching. For the 2005 cohort, average annual growth increased 0.04 standard deviations (or 0.08 by 2006). We did not find significant effects for the 2004 and 2006 cohorts. In mathematics, we found a significant effect only for the 2003 cohort (0.04 standard deviations) and did not find significant results for the other three cohorts.

*The frequency with which coaches reviewed assessment data with teachers was associated with positive outcomes.* We found a significant, albeit small, relationship between the frequency with which the coach reviewed assessment data with reading teachers and better reading and mathematics scores. In the few schools where there were low levels of coaches reviewing assessment data, one-on-one coaching received by reading teachers was negatively associated with reading scores—a puzzling result that could indicate that individual work with teachers may not be effective without a clear focus on students' needs as identified by assessment data. As noted, teachers' perceptions of the coach's influence on their instruction were strongly related to the frequency with which the coach reviewed assessment data with social studies teachers.

*Few other coaching implementation features were associated with student achievement.* The number of years a school had a coach was significantly related to higher reading test scores, suggesting that the benefits of having a coach accrue over time. However, the magnitude of this relationship was quite small. Aside from reviewing data, very few coach activities were associated with achievement. Further, variation in

coaching implementation does not appear to have a differential impact on students with lower previous achievement scores.

## Recommendations

Based on our findings, we offer the following set of recommendations to Florida policymakers and administrators at the state, district, and in some cases, school level, as well as researchers. Although we lack definitive evidence to suggest that our findings from this study can be generalized to other states or districts, the lessons learned in Florida nonetheless may provide important insights for policymakers and practitioners interested or involved in similar coaching efforts.

*Provide guidance to school administrators in how to identify high-quality coach candidates.* Given that many middle school administrators lack a reading background, district coordinators and state administrators may want to offer support to school administrators on how to adequately judge coach candidates or directly assist in the hiring process (e.g., co-interviewing or prescreening candidates).

*Develop a pipeline of qualified candidates.* In light of principal and district coordinator concerns about finding qualified coach candidates and replacing coaches when they move on to administrative positions (a common career path), it may be useful to replicate some of the efforts underway in several of the study districts to develop a pool of qualified candidates from which to draw in future years.

*Consider offering incentives and support to attract high-quality coaches and retain them over time.* In order to attract highly qualified teachers to apply for and remain in coaching positions over time, state and local policymakers (in conjunction with teachers' associations) should consider modifying state rules and regulations to specifically allow National Board–certified teachers to retain their supplemental salary when becoming coaches. In addition, leaders should consider nonfinancial incentives for coaches to take on long-term assignments in schools and remain in coaching, including recognition for service and leadership opportunities, such as serving as mentors or trainers in the district.



*Continue professional development for coaches with some adjustments.* Our data indicate that more support is needed in the area of how to support adult learners. Coaches also requested additional support for teaching reading to special populations (ESE, ELL), working with teachers to improve practice (e.g., modeling, giving feedback, organizing professional development), and incorporating literacy across content areas. State and district leaders might also consider ways to coordinate and enhance training for newly hired coaches, especially those hired too late in the summer to attend the annual state conference and those unable to attend other offerings. District administrators might also want to pay particular attention to the format of professional development most valued by coaches: collaborating with other coaches and receiving mentoring from another coach (the latter occurred relatively infrequently).

*Encourage coaches to review assessment data with teachers.* To encourage the data analysis and support role, administrators should continue providing professional development for coaches in this area, with a particular focus on taking action in response to these results.

*Address barriers to enable coaches to work more with teachers, including more one-on-one work.* District and school leaders should consider

- freeing up time for coaches to spend in classrooms, such as minimizing administrative, assessment-related demands on coaches
- providing more planning time built into the school day for teachers to engage with the coach
- providing additional training to coaches to help them work with resistant teachers
- basing coach assignments on the needs of each school (i.e., student performance, number of inexperienced teachers), potentially allocating more than one coach to large, high-needs schools when possible.

In addition, if working one-on-one with teachers is a state and district priority, leaders should continue investments in professional development for school administrators to ensure that administrators understand the expectation that coaches make one-on-one activities a

priority and for coaches to provide strategies for developing relationships with teachers and gaining their trust to work individually with them.

*If the intent is for coaches to work with all teachers, address barriers to working across the content areas.* If policymakers want to expand coaches' work with content area teachers, they need to address such potential barriers as lack of time, high coach caseload, lack of adequate professional development focused on integrating literacy across the curriculum, and misperceptions about coaches' roles due to the frequent assignment of "reading/language arts department chair" duties. District and school administrators may also want to consider the tradeoffs of directing coaches to work with reading teachers—presumably to maximize the quality of this direct reading instruction for students—versus other content area teachers—presumably to expand opportunities for reading instruction throughout the day to reinforce or complement the instruction provided in the reading courses.

*Continue to nurture school administrator support.* Because school administrators play a pivotal role in enabling coaches to work effectively in their schools, the state and districts should continue providing education and training for administrators on the proper role of the coach and on literacy more broadly, to build a common understanding about coaching, literacy goals, and best practices.

*Continue research on coaching.* The limitations of our data suggest several fruitful avenues for future research. Although such research was not an option for our study due to the scale-up of coaches statewide in Florida, future studies of coaching in other states and districts using an experimental design would certainly benefit the field. Future researchers might also consider assessing coaching implementation and achievement over a longer period of time to allow for a more careful discernment of the relationship between coach activities and teacher and student outcomes. These longitudinal studies could focus at the coach level (examining how an individual coach's effectiveness changes as he or she gains experience); at the student level (examining the cumulative effects of students' exposure to teachers who have benefited from coaching); and at the teacher level (examining how a teacher's effectiveness changes as he or she works with a coach). To accurately assess

the impact of coaching as a teacher-level intervention, one would need data linking coaches to individual teachers and their students—data that were not available for our study. Another line of inquiry worth pursuing is a comparison of the effects of various types of coaching programs, particularly those with more versus less specificity about the content focus of coaching, the instructional practices coaches are expected to facilitate, and the process of coaching. Policymakers would also benefit from research examining the cost-effectiveness of coaching. As the field gains more evidence on the effects of coaching on teachers, schools, and students, researchers can work to determine whether the benefits of this intervention are worth the cost when compared with other interventions.



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# Abbreviations

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CCD	Common Core of Data
CRISS	Creating Independence through Student-owned Strategies
ELA	English language arts
ELL	English language learner
ESE	exceptional student education
ESOL	English to speakers of other languages
FCAT	Florida Comprehensive Assessment Test
FDOE	Florida Department of Education
FEFP	Florida Education Finance Program
FLaRE	Florida Literacy and Reading Excellence Center
FSIR	Florida Schools Indicator Report
FY	fiscal year
IRA	International Reading Association
JRF	Just Read, Florida!
LEP	limited English proficiency
NAEP	National Assessment of Educational Progress
NCES	National Center for Education Statistics
NCLB	No Child Left Behind Act

NRT	norm-referenced test
PMRN	Progress Monitoring and Reporting Network
REESOL	reading endorsement for English to speakers of other languages teachers
SSS	Sunshine State Standards



# Introduction

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## The Adolescent Literacy Problem

Possessing advanced literacy<sup>1</sup> skills is increasingly becoming a key to success. Today's economy places a premium on knowledge and skills, and most jobs require at least a high school education. The U.S. Department of Labor (2001) estimates that 70 percent of the 30 fastest-growing jobs will require some postsecondary education and 40 percent of all new jobs will require at least an associate's degree. The premium on knowledge and educational attainment translates into large and growing gaps in annual earnings, with college graduates earning more than twice as much as high school dropouts, and people with graduate or professional degrees earning three times as much as high school graduates (Alliance for Excellent Education, 2002). Further, the National Assessment of Adult Literacy finds higher literacy levels associated with greater levels of full-time employment, higher incomes, and lower levels of receipt of public assistance (Kutner et al., 2007)

Consequently, it is critical that our schools equip students with the knowledge and skills to succeed in postsecondary education and/or in the labor market. In higher education, training programs, and the workplace, students are faced with complex texts and need not only to

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<sup>1</sup> *Literacy* is commonly considered the ability to read and write. However, there are much more detailed definitions. For example, according to UNESCO (2006, p. 13), "Literacy is the ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with varying contexts. Literacy involves a continuum of learning to enable an individual to achieve his or her goals, to develop his or her knowledge and potential, and to participate fully in the wider society."

comprehend, but also to synthesize and evaluate information and communicate effectively.

Unfortunately, despite recent progress in reading achievement among children in primary grades, many children are not moving beyond basic decoding skills—deciphering words and sounding them out—to fluency and comprehension<sup>2</sup> as they move to higher grades, where such skills become increasingly important. In 2007, only 31 percent of students in grade 8 performed at or above the proficient level on the National Assessment of Educational Progress (NAEP), which informs the public about the academic achievement of elementary and secondary students in the United States. Although the NAEP sets relatively high proficiency standards, the results are still troubling—particularly for minority students. Across the nation, black and Hispanic students pass state reading assessments and meet NAEP proficiency standards at rates between 10 percentage points and 65 percentage points below those of white students (McCombs et al., 2005).

Experts agree that literacy development is a lifelong process that requires support at all educational levels and that learning to read occurs in a series of stages (IRA, 1999; Jacobs, 2008). Even after students have “learned to read” in the early elementary grades, further instruction is needed. In middle and high school, students encounter concepts in science, mathematics, and social studies coursework that require different reading approaches from those used with literary and personal narratives (the focus of early elementary reading) (see National Council of Teachers of English, 2008). In fourth grade and proceeding through the middle grades, students need to learn to be strategic readers who use reading to learn new ideas and gain knowledge from a variety of texts and disciplines. The advanced reading skills they need to learn

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<sup>2</sup> *Reading fluency* is the ability to recognize words in a text rapidly and accurately, using phrasing and emphasis in a way that makes what is read sound like spoken language. If reading is laborious and slow, it is difficult for a student to remember what has been read and to connect the text in a meaningful way with other prior knowledge. Students who are low in fluency also often show difficulty comprehending what they read. Students with poor comprehension often lack important prior knowledge about topics, including the necessary or correct background knowledge to approach the text or the necessary vocabulary to comprehend the text.

at this stage include using their background knowledge to develop a context for their reading and applying vocabulary, comprehension, and study skills to determine purposes for reading; to make predictions; to locate main ideas; to question, analyze, and synthesize text; to navigate varied text structures; to identify and clarify multiple points of view; and to acknowledge the effect of context on meaning (Jacobs, 2008). However, as deLeon (2002) eloquently points out, teaching students to read to learn is often an “orphaned responsibility” in the K–12 system. While elementary schools traditionally emphasize literacy instruction, secondary schools shift attention to the disciplines and may not spend as much time on explicit instruction in reading and writing. Further, middle and high school students generally receive instruction from content area teachers who have received minimal preservice training in how to teach reading. The assumption that students will automatically learn to read more complex, content-laden texts is particularly invalid for students who struggled when learning to read:

Unless they receive ongoing support, students who enter the fourth grade behind in reading will never catch up to their peers. And many of those who do read well going into the fourth grade will lose momentum, becoming eighth or twelfth graders who struggle to interpret a novel, follow instructions in the chemistry lab, understand important historical documents, or even get through the daily newspaper (Alliance for Excellent Education, 2007, p. 2).

## **Improving Adolescent Literacy**

Several solutions have been put forward to improve students’ literacy skills. Many educators believe that the key to addressing this problem is providing better in-service training and support to teachers to improve their capacity to teach literacy across the content areas. Given that research has found that traditional forms of professional development (e.g., short-term workshops) are often inadequate for developing teachers’ skills and changing their practice (see, e.g., Garet et al., 1999, 2001; Hawley and Valli, 1999; Showers and Joyce, 1996), policymak-

ers have looked to new forms of professional development that promote reflection on practice, collaboration, and active learning embedded within particular instructional settings (Butler et al., 2000; Darling-Hammond and McLaughlin, 1995; Elmore, 2002).

One approach that is gaining popularity is school-based *literacy or reading coaches*—specially trained master teachers who provide leadership for the school’s literacy program and offer on-site and ongoing support for teachers so they can improve the literacy skills of their students.<sup>3</sup> Unlike other staff who support reading (e.g., reading resource teachers), coaches generally do not work directly with students and in most cases serve in a nonevaluative, support role for teachers.

Coaching is increasingly a centerpiece of literacy reform policies in many schools and districts, and a few states. Florida, the site of this research, is one state that has invested considerable resources in reading coaches as a method of improving the ability of students to read across the grade levels. Federal policy, through Reading First, Striving Readers, and the No Child Left Behind Act (NCLB), has also encouraged the expansion of coaching across the country.

Initiated in 2001 as part of NCLB, the Reading First program provides funding to implement proven methods of early reading instruction to ensure that all children learn to read well by the end of third grade. The program requires a literacy coach in every participating school to support teachers in grades K–3. (U.S. Department of Education, 2006). In fiscal year (FY) 2004–2005, the federal government started to extend its support of reading programs to secondary schools by funding the Striving Readers initiative, a small-scale grant program aimed at improving the literacy skills of struggling adolescent readers in middle and high schools. Participating schools may use funds to support a literacy coach. However, the level of funding for Striving Readers is significantly lower than that provided under Reading First. In FY 2006–2007, Striving Readers provided approximately \$5 million to eight state education agencies, compared with over \$1

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<sup>3</sup> We use the term “reading coach” throughout this report for ease of reporting. Florida often refers to “reading/literacy” coaches in its documents.

billion in Reading First funding, which went to 54 state and local education agencies.

NCLB also provides added incentive for schools to consider the use of coaching. Not only do the law's requirements to disaggregate, examine, and impose sanctions based on student test results highlight the problem of adolescent literacy and the need for interventions and supports, but districts are also required to implement school improvement plans that include professional development programs for teachers—such as coaching—in schools failing to meet adequate yearly progress for two or more years.

## **Purpose of the Study**

Although reading coaches are prevalent in many schools across the nation, there is little empirical evidence regarding the nature of coaching and its effectiveness in changing teacher practice and practically no evidence related to coaching effects on student achievement. Much of the current research on coaching focuses on Reading First coaches at the elementary level (e.g., Deussen et al., 2007; Wong and Nicotera, 2006), with a few emerging studies at the high school level (e.g., Brown et al., 2006). Given the increasing popularity of coaching and its significant cost—in terms of financial and human resources—there is a critical need for research in this area, particularly at the secondary level. In 2006–2007, RAND sought to address this research gap by studying a statewide reading coach initiative in Florida. Florida offers a unique opportunity to study coaching situated within a broader, state-led literacy policy, the “Just Read, Florida!” (JRF) initiative. In particular, this study examines the implementation and impact of reading coaches in Florida middle schools. While a study of schools in one state may limit generalizability, it nonetheless offers other policymakers, funders, and educators important insights into coaching implementation and improvements.

The study provides three major contributions to research, policy, and practice. First, it assesses the impact of coaching on student achievement, thus providing much-needed empirical evidence on the critical

policy question of student effects. Second, by analyzing the nature of and variation in the use of coaches in multiple, embedded contexts, the study yields practical lessons about what policies, conditions, and supports are necessary for implementing an effective coaching system and what coaching practices are associated with stronger outcomes. Third, by focusing on coaches working in middle schools, the study offers lessons regarding how to implement effective coaching systems in secondary school settings.

Overall, we address the following research questions:

1. How is the reading coach program being implemented by the state, districts, schools, and coaches?
2. What has been the impact of coaching on teachers' practice, students' achievement, and other outcomes?
3. What features of models and practices for reading coaches are associated with better outcomes?

## Methods

As described in more detail in Chapter Three, we used a combination of quantitative and qualitative methods to examine the implementation of Florida's reading coach program; the impact of coaching on student achievement; and the impact of specific aspects of coaching on student achievement, teacher skills and knowledge, and other proximal outcomes.

We studied coaching implementation in a purposive sample of eight large districts in Florida that represent a range of approaches to, and experience with, middle school coaching in 2006–2007. In each of these eight districts, we conducted district interviews and surveyed the principal, the reading coach, five reading teachers, and five social studies teachers in a sample of participating schools ( $n = 113$ ). (Florida requires students performing below proficiency on the state reading assessment to take a reading course in the middle grades from reading teachers.) We also conducted a set of case studies in two of our study districts during the 2006–2007 school year. State-level interviews and

documents provided us with information on Florida's coaching program and supports. We analyzed survey, interview, and case study data to assess multiple facets of the state's coaching program and implementation at the state, district, school, and classroom levels.

Because the reading coach program was being implemented simultaneously in all districts in the state at the time of our study, it was impossible to conduct an experimental study to investigate effects on student achievement. Thus, we examined the link between coaching and student achievement through two distinct analyses. The first attempts to understand the treatment effect of providing coaches to schools across the state. This analysis is a longitudinal, pre-post design that includes all middle schools that employed state reading coaches from the inception of the program in 2002–2003 through 2005–2006. The second, cross-sectional, analysis links our survey data with student test scores and examines correlations among variations in coaching practice and student achievement, teacher practice, and other proximal outcomes.

## **Organization of the Monograph**

The next chapter (Chapter Two) situates the study in a broader research and policy context and describes Florida's coaching program. Chapter Three describes the research questions, conceptual framework, and methods of the study. The next two chapters detail coaching implementation—including hiring, placement, and evaluation and support provided to coaching (Chapter Four) and the role and activities of coaches (Chapter Five). Chapter Six describes the perceived effects of coaches on teachers, principals, the school, and students and investigates how variations in coaching practice correlate with those perceptions. Chapter Seven provides the results from achievement analyses, and Chapter Eight presents conclusions and policy recommendations based on the study results.





## Background on Coaching and Florida's Program

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This chapter reviews previous literature on coaching and then presents detailed information about Florida's coaching program.

### What We Know from Previous Literature on Coaching

#### Overview of Coaching

Numerous schools, districts, states, and school reform models (e.g., Accelerated Schools and America's Choice) currently employ coaching as a primary part of their professional development programs (Foltos, 2007; Galm and Perry, 2004; Russo, 2004). The word *coaching*, however, is an umbrella term that refers to several kinds of programs with different goals. For example, *change coaching* focuses on whole-school organizational improvement, *collegial coaching* strives to increase professional dialogue, and *peer coaching* features two or more colleagues working together in a reciprocal relationship to improve practice (Neufeld and Roper, 2003a; Poglinco et al., 2003; Showers and Joyce, 1996).<sup>1</sup>

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<sup>1</sup> Mentoring, a one-on-one relationship between an experienced teacher and a beginning teacher protégé, is closely linked to coaching, although Feiman-Nemser (2001) distinguishes between *educative* mentoring—which, like coaching, aims to change instructional practice—and more conventional mentoring, which focuses on emotional support, socialization, and short-term assistance. In this review, we draw on the literature on mentoring, where appropriate, to supplement the literature on coaching, since this body of research is somewhat more extensive and well established.

Most commonly, current coaching programs focus on *content coaching* or *instructional coaching*, in which on-site specialists work with classroom teachers to improve instruction in a particular content area, most often literacy (Knight, 2006). In nearly all models, instructional coaching is school-based, collaborative, and conducted one-on-one or in small groups. Unlike other staff who support reading (e.g., reading resource teachers), coaches generally serve in a nonevaluative, support role for teachers and do not directly instruct or tutor students unless used as a means to model instruction for teachers.

The design of coaching programs and the tasks assigned to coaches can vary widely. For example, some programs utilize coaches to support the implementation of particular instructional models or curricula, while others work to improve general instructional practices. Some programs employ part-time coaches who work in one or more schools, while others rely on full-time coaches placed in a single school. Still others employ teams of full-time individuals to collectively coach schools.

Regardless of design, coaching programs are intended to affect teacher knowledge, instruction, and ultimately student learning. Coaching has also been seen as an avenue for developing more distributed leadership in schools, particularly around instruction (e.g., Roridan, 2003).

While the goals for coaching are ambitious, in general, the empirical research base on coaching is not yet particularly well developed. Many practitioner-oriented articles advocate for coaching models and provide advice on implementation, yet they lack documentation of empirical evidence to support their conclusions. Nonetheless, a smaller set of rigorously documented empirical studies of coaching programs across the country provide insights into the promise and pitfalls of coaching models (e.g., Brown et al., 2006; GWU, 2001; Hightower, 2002; Neufeld and Roper, 2003a; Poglinco et al., 2003; Symonds, 2003; Wong and Nicotera, 2006). This review draws on these and other studies to provide an overview of the extant research base on coaching and the best available empirical evidence on related enablers, challenges, and outcomes.

### **Theoretical Basis for Coaching**

The traditional professional development model of one-shot workshops has come under increasing scrutiny in recent years. Research has suggested that the transfer of ideas from traditional professional development into actual instructional change and increases in student learning is extremely limited (e.g., Garet et al., 1999, 2001; Hawley and Valli, 1999; Showers and Joyce, 1996). Joyce and Showers (1996, 2002), for example, found that fewer than 15 percent of teachers actually implement new ideas from traditional professional development workshops, because they lack the knowledge needed for implementation and also lack support and feedback to guide their implementation.

Theoretical work on adult learning and teacher professional development argues that learning, knowledge, and cognition are situated in particular contexts and activities and are strongly influenced by the learner's social interactions (e.g., Perry, Walton, and Calder, 1999; Putnam and Borko, 2001). Learning theory suggests that learners should be provided with opportunities to discuss and reflect with others, to practice application of new ideas and receive feedback from an expert, and to observe modeling. Having opportunities to discuss new ideas and reflect is important because individuals signal, clarify, and negotiate meaning during conversations (Vaughan, 1996), and the opinions and perspectives of others can influence one's own understanding. Structured opportunities to practice application of new ideas and to receive feedback from an expert can also promote understanding (Lave and Wenger, 1991; Rogoff, 1990; Tharpe and Gallimore, 1988), particularly when applied to real-life tasks (Brown, Collins, and Dugrid, 1989) and when the expert coaches learners through the activity by providing support and then gradually reducing the support as the learners attempt to perform the task by themselves (Collins, Brown, and Holum, 1991; Lave and Wenger, 1991). Modeling provided by an expert can also help learners move beyond superficial understanding by providing a visualization of expert practice against which learners can compare their practice and progress (Lave, 1988).

In response to this literature, researchers have emphasized models of professional development that promote reflection on practice, collaboration, and active learning embedded within particular instructional

settings. (Butler et al., 2000; Darling-Hammond and McLaughlin, 1995; Elmore, 2002). Studies also highlight the importance of other facets of effective professional development, including the intensity in time and duration of activities, and their coherence with teachers' other experiences, including any ongoing reform efforts in their schools (Garet et al., 1999, 2001; Desimone et al., 2002; Porter et al., 2000). While research indicates that the *form* of professional development—which includes many of the variables identified in the effective professional development literature, such as time and the distribution of time, in-class interaction, and collective participation—is important, some research indicates that the *content* of the professional development is equally if not more important in predicting changes in student achievement (Kennedy, 1998). Thus, coaching itself is not a panacea, because its effectiveness will be driven by the quality of the content of that coaching.

Coaching models are designed to fit well within the broader consensus view on “best practices” in professional development. As on-site personnel who interact with teachers in their own workplaces, coaches should theoretically be able to facilitate learning that is context embedded, site specific, and sensitive to teachers' actual work experiences (Hasbrouck and Denton, 2005; Toll, 2007; Walpole and McKenna, 2004). In addition, coaches may act as schoolwide facilitators, promoting collaboration and the development of learning communities. Finally, coaches may work with teachers in their actual classrooms and with their actual students in an ongoing, hands-on way that may promote deep personal reflection.

### **Coaching Implementation**

Although theoretically coaching has great potential to affect teachers, instruction, and ultimately student learning, the literature suggests that effective implementation is quite challenging. Studies cite a number of factors that influence implementation, which are discussed below.

**Coaches' Knowledge, Skills, and Abilities.** The literature indicates that the knowledge, skills, and abilities of coaches contribute greatly to their effectiveness. First, researchers agree that if coaches are to be regarded as instructional experts, they must demonstrate a deep

understanding of instructional practice and content knowledge (Feger, Woleck, and Hickman, 2004; Neufeld and Roper, 2003a; Poglinco et al., 2003). Second, studies indicate that coaches also benefit from knowledge about cognitive theory and adult learning (Norton, 1999). As Richards (2003) notes, “effectiveness in the classroom does not always indicate a teacher who is ready for a staff development assignment.” The skill set required to successfully teach adults is not the same as that required to successfully teach children; Little (1982), for example, argues that adults want to be the originators of their own learning and that adult learning is enhanced by demonstrations of respect, trust, and concern for the learner. Third, research suggests that coaches need to develop a deep and comprehensive understanding of the reforms they are helping to implement (Neufeld et al., 2002; Poglinco et al., 2003).

Drawing on the effective professional development literature and their own experiences working with coaching programs, Neufeld and Roper (2003a) suggest the need for coaches to receive professional development in order to enhance their knowledge and skills. They suggest coherent and focused orientation programs for new coaches emphasizing the “big picture,” context, etc., with follow-up assistance in the form of coaching from mentor coaches and specific professional development differentiated by school level, extant knowledge, and skills. Other studies also confirm the importance of ongoing training as a means of improving mentoring skills (Everston and Smithey, 2000).

In addition to “hard” knowledge, numerous authors identify the importance of interpersonal skills. Studies have found that supportiveness, respectfulness, approachability, accessibility, flexibility, tactfulness, and the ability to build relationships are key characteristics of successful coaches (Brown et al., 2006; Ertmer et al., 2005; Poglinco et al., 2003; Wong and Nicotera, 2006). In a 2003 survey of 31 professional development coaches, the most frequently mentioned characteristic of an effective coach was “people skills,” including the ability to build relationships, establish trust and credibility, and tailor assistance to individual educators’ needs. Coaches themselves ranked interpersonal capabilities higher in importance than content and pedagogical knowledge; they believed they could improve their content expertise

through training but people skills would be more difficult to acquire (Ertmer et al., 2005).

**Definition of Roles and Responsibilities.** Modeling instructional practice and observing and providing feedback for teachers is typically a large part of a coach's work, but coaches may take on a variety of other roles as well, including planning and implementing formal professional development workshops; providing resources, such as materials, lesson plans, and strategies; assisting with assessment and data analysis; facilitating workgroups and committees; managing formal programs, such as induction programs; and consulting with school leaders on administrative tasks (Brown et al., 2006; Deussen et al., 2007; Feldman, 2001; Killion and Harrison, 1997; Knight, 2006; Neufeld and Roper, 2003a; Poglinco et al., 2003; Smith, 2007; Symonds, 2003; Wong and Nicotera, 2006).

Wong and Nicotera (2006) found that the roles that any given coach plays are strongly influenced by the context of his or her particular school, including the grade level, other ongoing reform efforts, and the flexibility of the coaching position as defined by the school or district. Studies of coaching programs in a number of different locales have found that a lack of clearly defined roles and responsibilities for coaches can be a significant challenge, often taking time and focus away from supporting instructional change by pulling coaches from classroom-related work to assist with administrative tasks or substitute teaching, for example (Brown et al., 2006; GWU, 2001; Marsh et al., 2005; Neufeld and Roper, 2003a; Poglinco et al. 2003; Wong and Nicotera, 2006).

**Teacher and Administrator Buy-In.** Research indicates that buy-in and support from school- and district-level educators are important enablers of coaches' work. Coggins (2005, p. 42) discusses the critical importance of legitimacy in coaches' work, noting, "In order for coaches to be successful in the new role, their leadership must be supported by the normative order of multiple groups—teachers, leaders at the school level, and leaders at the district level."

Since teachers are the ultimate implementers of any instructional change, their buy-in to the coaching program is clearly of critical importance. Yet several studies found that gaining teacher buy-in is often dif-

difficult and that teacher resistance was a major challenge (Brown et al., 2006; GWU, 2001). Several issues underlie the challenge of gaining teacher buy-in. Concerns about coaches' role (or perceived role) in evaluation can diminish coaches' effectiveness by undermining the trust necessary for an effective coaching relationship (GWU, 2001; Poglinco et al., 2003). Reporting relationships with administrators can play into such perceptions. As Neufeld and Roper (2003a) note, coaches need to have a working relationship with their school principals, which means sharing information, discussing their work and progress, and getting advice and feedback; nonetheless, such conversations may be perceived as "tattling" by teachers. Brown et al. (2006) found similar concerns about the line between evaluation and support when principals directed coaches to focus on marginal teachers. Also, new strategies and techniques presented by coaches may contradict teachers' broader belief structure about effective teaching, meaning that the two must be reconciled before changes in instruction can be expected (Gersten, Morvant, and Brengelman, 1995).

Researchers likewise identify principal support and buy-in as a vital enabler for coaching success (e.g., GWU, 2001; Neufeld and Roper, 2003a; Poglinco et al., 2003; Trubowitz, 2004). However, just as gaining teacher buy-in can prove challenging, principal support for coaching does not come automatically. Poglinco et al. (2003) found that principals sometimes doubted the "train the trainers" model and struggled with being dependent on their coaches for the roll-out of an important new instructional strategy. This is not unique to education; Geber (1992) notes that middle management in all sectors may experience the shift to coaching as a loss of control and prestige, which may cause tension.

Buy-in and support at the district level is an important enabling factor as well. Neufeld and Roper (2003a, p.16) call district-level support "the most important condition for successful coaching." Good communication and consistent messages delivered to all parties from the central office seem important. Conflicting information given to coaches, principals, and teachers was a significant source of confusion and frustration for individuals in their studies, and note that this

tended to undermine the credibility of the coach (Neufeld and Roper, 2003a; Poglinco et al., 2003).

**Time.** For coaches to be effective, they must spend time with teachers. Some research identifies more coaching hours per day and higher coach-to-teacher ratios as having a positive impact on coaching effectiveness (Neufeld and Roper, 2003a, 2003b). Not surprisingly, part-time coaches often face even more difficulties spending time with teachers (GWU, 2001). Studies have also found that difficulties in scheduling time to debrief after observations, to observe in other teachers' classrooms, or to get teachers together for conferencing or joint planning were hindrances to effective coaching (Marsh et al., 2005; Neufeld and Roper, 2003a, 2003b; Poglinco et al., 2003; Smith, 2007).

**Continuity and Stability.** Coaches need to establish trust and rapport with teachers, so it is not surprising that research has signaled the importance of continuity and coherence in the coaching relationship and finds the greatest coaching impact in schools with more coach stability (Neufeld and Roper, 2003a, 2003b).

### **Outcomes: Effects of Coaching on Teachers, Instruction, and Student Achievement**

The challenges of isolating the effects of coaching are considerable (Johnson, Berg, and Donaldson, 2005; Whisnant, Elliot, and Pynchon, 2005). To the extent that districts and schools implement coaching voluntarily—and teachers in some programs choose to participate—changes in attitudes, instructional practice, or student achievement may reflect factors other than coaching itself. In addition, coaching has often been implemented as one part of a more comprehensive reform package, which makes it difficult for researchers to evaluate the degree to which changes are caused by coaching or by other aspects of a reform, such as a new curriculum, changes in school structures or leadership, and so on (Neufeld and Roper, 2003a). To date, much of the literature has relied on anecdotal evidence or self-reported data and often provides minimal explanation of methodology employed.

With these concerns in mind, we turn to some of the reported outcomes of coaching. A number of studies have found positive effects



on instruction linked to coaching programs. In two studies, Joyce and Showers (1996, 2002) found that teachers in coaching relationships practiced new skills more frequently, applied them more appropriately in their classrooms, demonstrated clearer understanding of the purposes and uses of new skills, and showed greater retention and improvement in their use of new skills over time compared with teachers not in coaching relationships. In a review of the coaching literature from the 1980s and 1990s, Kohler, Ezell, and Paluselli (1999) report a myriad of positive outcomes, including improvements in teachers' ability to plan and organize, to provide instruction for students with disabilities, to use classroom behavior management strategies, and to address instructional objectives. Others have documented positive effects of coaching on teachers' implementation of standards and instructional strategies (Brown et al., 2006, 2007; Poglinco et al., 2003; Wong and Nicoitera, 2006). Two small-scale observational studies by Kohler and colleagues (1995, 1997) found that teachers were more likely to implement changes in instruction while being coached than while working independently and that the changes made during the coaching phase were sustained after coaching ended. More recently, authors have reported improvements in school culture and teacher collegiality and collaboration related to coaching programs (Guinney, 2001; Neufeld and Roper, 2003a; Richards, 2003).

A few studies, however, buck this trend. A study of 12 teachers and 8 coaches by Gutiérrez, Crosland, and Berlin (2001) found that teachers in coaching relationships did not change their classroom activities in substantive ways, and a study by Veenman et al. (2001) found that teachers in coaching relationships were rated as no more effective than their noncoached peers when observed by experienced teachers, despite the fact that the coached teachers had self-reported higher ratings of their own skills than had noncoached teachers.

Ultimately, the hope is that changes in school culture, attitudes, knowledge, and practice will add up to changes in student achievement. Strong links between coaching and student achievement, however, have yet to be made. Several authors report anecdotal evidence of this relationship—Guinney (2001) for example, cites “dramatic” increases in Massachusetts Comprehensive Assessment System scores in

several schools with coaches, and Richards (2003) reports that coaching produced test score gains in San Diego—but have not confirmed these findings with methodologically sound quantitative analyses. As Neufeld and Roper (2003a, p. 26) conclude, there are as yet “no hard data linking it [coaching] to student achievement.”

### **Conclusion**

Much remains uncertain regarding both the implementation and the effects of coaching models. The existing research base suggests answers to some questions, but as Russo (2004) notes, “teacher surveys and evaluation studies have thus far lagged far behind the interest in and implementation of coaching programs.” Given coaching’s considerable promise and its considerable cost, both issues bear importance for American educators and are deserving of further study.

### **Florida’s Reading Coach Program**

Florida offers a unique opportunity to study coaching as a possible solution to the adolescent literacy problem and to understand the intervention within a state-led literacy policy, the “Just Read, Florida!” (JRF) initiative. Established in September 2001 by then-Governor Jeb Bush, the initiative’s goal is that all Florida students read at or above grade level by 2012. A key component of this effort has been the allocation of funds to districts to hire reading coaches at the elementary and secondary levels, with a requirement that, at a minimum, coaches be placed in all the lowest-performing schools (i.e., those receiving an “F” on the state accountability rating system, the governor’s “A+ Plan”). Despite several changes to the structure of program funding over time and the election of a new governor in 2006, the state has continued to support the use of reading coaches throughout the state. For example, in his January 2007 inaugural address, newly elected Governor Charlie Crist asked the legislature to approve \$26 million to recruit additional coaches statewide. The following sections describe Florida’s reading coach program in more detail, including its history, vision, goals, and

philosophy; state defined roles, responsibilities, and suggested qualifications for coaches; and state policy levers and supports.

### History of Reading Coaches in Florida

Florida has been scaling up its reading coach initiative since 2002 (see Table 2.1). In a span of five years, the number of participating schools increased from 300 in 30 districts to more than 2,200 in 72 districts.<sup>2</sup>

**Table 2.1**  
**Florida's Reading Coach Funding and Participation, 2002–2007**

Year	Funds Awarded	Number of Participating Districts	Number of Participating Schools
2002–2003	~ \$11.99 million	30	239 elementary schools 34 middle schools 46 high schools
2003–2004	~ \$13.39 million	32	119 elementary schools 45 middle schools 52 high schools
2004–2005	\$32.11 million	66	217 elementary schools 341 middle schools 31 high schools
2005–2006	\$89 million for K–12 reading plan implementation, of which coaching is one element	73	1,198 elementary schools 529 middle schools 315 high schools
2006–2007	\$111.8 million for K–12 reading plan implementation, of which coaching is one element	72	1,445 elementary schools 532 middle schools 438 high schools

SOURCE: Just Read, Florida! office, personal communications, 2007.

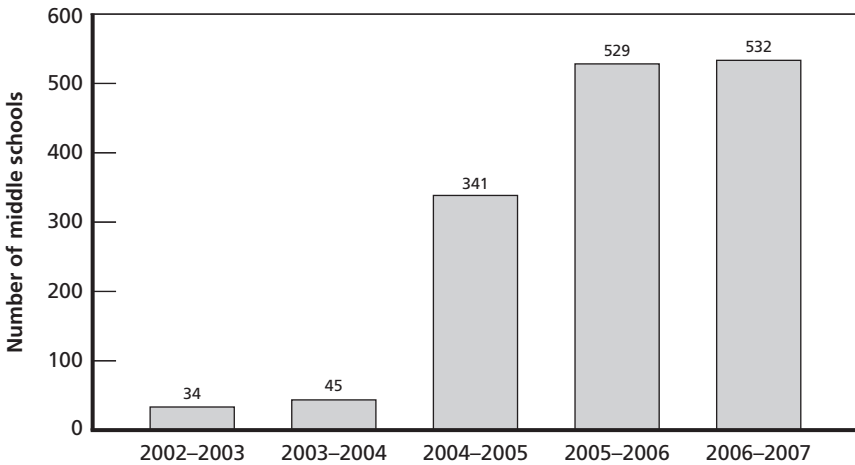
NOTES: Individual schools including grades that span multiple levels are counted more than once in the figures listed under “number of participating schools” column. For example, a K–12 school is counted as an elementary, middle, and high school. Middle schools are defined any school serving grades 6, 7, and 8 (or any combination where two or more of these grades are served). This would include K–8, K–12, and 6–12 schools.

<sup>2</sup> There are 67 county districts in Florida and 8 nontraditional districts (e.g., Florida School for Deaf and Blind in Dozier/Okeechobee). In 2006–2007, virtually all of these districts participated in the program.

Figure 2.1 shows the dramatic increase in the number of middle schools with reading coaches over time—from 34 in 2002–2003 to 532 in 2006–2007.<sup>3</sup> Over time, the state has changed the funding mechanism for the coaching program. For the first three years of the program, the state awarded funds through competitive grants initiated under the JRF initiative. In 2002–2003, Florida awarded nearly \$12 million in grants to 30 districts, which was primarily applied to the reading coach funding on behalf of elementary schools. Funding for the program increased slightly the next year to more than \$13 million and then more than doubled to \$32 million in 2004–2005, during which 66 districts and a much greater number of elementary and middle schools participated in the program.

In 2005, the state moved away from competitive grants and instead funded districts to implement the K–12 Comprehensive Research-

**Figure 2.1**  
**Number of Middle Schools with Reading Coaches, 2002–2003 Through 2006–2007**



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<sup>3</sup> According to the U.S. Department of Education’s 2005–2006 Common Core of Data, there are 779 middle schools in Florida (using Florida’s definition of any school with any two of grades 6, 7, and 8 or any combination in which two or more of these grades are served—excluding special education, vocational, and alternative/other schools).

Based Reading Plan (hereafter, K–12 reading plan). This reading allocation was to be used for several key efforts, including hiring highly qualified reading coaches; providing professional development in scientifically based reading instruction; holding summer reading camps for the lowest-performing students; and purchasing supplemental, research-based reading instructional materials. While not every school must have a reading coach, the 2006–2007 K–12 reading plan specified that

- district leaders allocate resources to hire a coach in at least their lowest-performing schools
- the number of coaches in a district increase each year
- schools be prioritized for receiving a coach based on school need.

To receive K–12 reading plan funds, the state required districts to write a plan that explained how

- leadership at the school and district level would guide their efforts
- analysis of data would drive all decisions
- professional development would be systemic throughout the districts and target individual teacher needs
- measurable student achievement goals would be established
- research-based instructional materials would be used to address student needs.

In 2005–2006, about \$89 million was distributed to districts across the state for district literacy initiatives. Although the percentage of funds spent exclusively on coaching versus other reading purposes such as instructional materials and assessments is unknown, the state reports that the majority of this allocation was typically spent on coaches.

In June 2006, Governor Bush signed the A++ Plan for Education, a reform plan that, among other things, made funds for reading a permanent allocation through the Florida Education Finance Program (FEFP). This action ensured that reading support would be funded

annually as part of the public school funding formula. The reform plan also required middle and high school students reading at the lowest levels to take an intensive reading course or equivalent course providing reading instruction (essentially 60–90 minutes of additional reading instruction daily). Students scoring at Level 1 (out of 5) on the state test (the Florida Comprehensive Assessment Test [FCAT]) in reading are required to attend a reading intervention course taught by a qualified reading teacher who has received the requisite training for the state Reading Endorsement.<sup>4</sup> Level 2 students must receive similar reading instruction in either a reading intervention course taught by a qualified reading teacher or a content area course in which the teacher has received state-approved Content Area Reading Professional Development (CAR-PD). In 2006–2007, the state awarded \$111.8 million statewide for approved district K–12 reading plans. In addition to the guidelines for the previous year, plans for 2006–2007 were also expected to ensure the provision of the intensive interventions for the lowest-performing middle and high school students.

For the 2006–2007 school year, the state estimates that 2,360 coaches were funded through local, state, and federal funds: 1,413 served in elementary schools, 526 in middle schools, and 421 in high schools. Of these coaches, 1,977 served full-time at one school, 270 served part-time in one school, and 113 served full-time but split their time between two schools. According to 2006–2007 district-reported data submitted to the state, approximately 67 percent of all middle school reading coaches in the state were funded through the state FEFP reading allocation with approximately 13 percent through federal Title I, 14 percent through state Supplemental Academic Instruction funds, and 5 percent through district general funds (Lefsky, 2006a). Regardless of funding source, all coaches received the support that the state provides to its reading coaches.

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<sup>4</sup> In 2006–2007, 19 percent of sixth graders, 17 percent of seventh graders, and 22 percent of eighth graders scored at Level 1 on the FCAT in reading. During this same year, 19 percent of sixth graders, 20 percent of seventh graders, and 29 percent of eighth graders scored at Level 2 (FDOE, 2007b).

### Key Elements of Florida's Reading Coach Program

Florida's reading coach program does not provide a specific model per se,<sup>5</sup> but instead an array of conceptual, policy, and practical supports that are intended to guide the work of a coach. Although the state defines basic goals and parameters of the coaching role, it leaves many of the details up to local districts.

**Vision.** While some other states and districts focus on literacy more broadly (including reading, writing, and fluency in how to use technology), Florida has focused on a set of K–12 reforms aimed at improving students' reading ability through research-based, effective reading instruction. In particular, Florida's reading program emphasizes five components of reading instruction—phonemic awareness, phonics, fluency, vocabulary, and comprehension—which are based on recommendations from the National Reading Panel (National Institute of Child Health and Human Development, 2000).

Over the years, the state has articulated a “formula for reading success” to guide coaching and expectations for district curricula. The formula emphasizes the five components of reading instruction; requires that teachers use assessment data to drive initial instruction and immediate intensive intervention for students needing extra assistance; and asks educators to focus on three types of assessments—screening, diagnosis, and progress monitoring. This formula was infused into the state's early request for proposals when coach funding was awarded via competitive grants.

Each district's K–12 Comprehensive Reading Plan is intended to define the local vision for literacy and be the driving force for coaching, instruction, interventions, and professional development centered around reading. Districts are required to develop and implement a plan demonstrating that all reading instruction and efforts to support it are research based. Although districts decide how to define research-based practice, the JRF office provides resources and supports to guide

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<sup>5</sup> State documents and administrators interviewed at the state and local level frequently mentioned the “state's reading coach model,” but this often referred to a job description (shown in Appendix A) and not to a delineation of the process, content, supports, and expected outcomes of reading coaching.

those decisions. Many of these resources, such as training, continue to emphasize the five components of reading and the importance of assessment and data-driven practice.

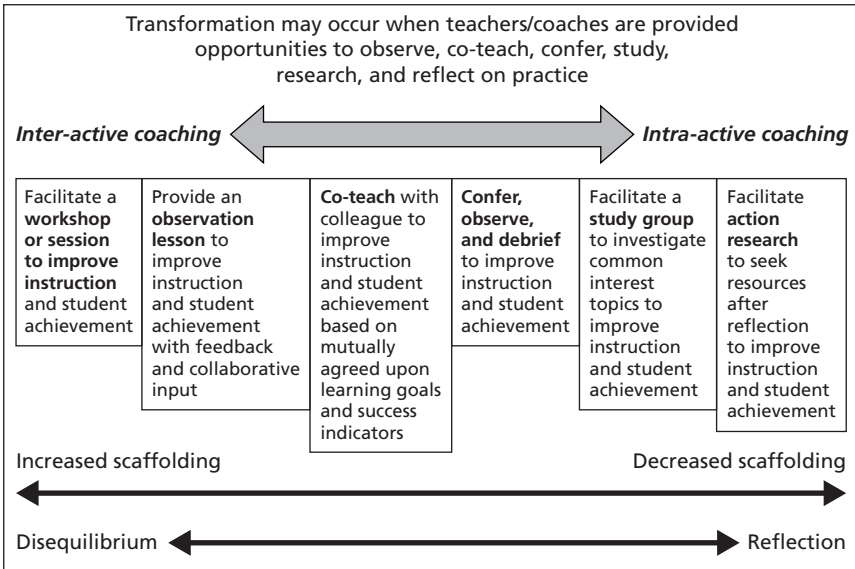
**Goals and Philosophy of the State’s Coaching Program.** According to the JRF director, the overall goal of the state’s reading coach initiative is to improve student achievement and literacy. Coaches are expected to achieve this ultimate outcome by helping teachers implement “effective, research-based instruction” in reading and in content areas and by enhancing teachers’ practice and understanding of the challenges students face in literacy. The coach is expected to build capacity at the school level to bring about improvements in student outcomes.

As for a particular philosophy, the state frequently invokes a “continuum” of coaching to describe the ways in which it envisions coaches approaching their job. This continuum, adapted from research by Puig (2002), notes that “transformation may occur when teachers/coaches are provided opportunities to observe, co-teach, confer, study, research, and reflect on practice” (Chalfant and Ryan, 2006). A diagram frequently used in state training presentations, shown in Figure 2.2, depicts two ends of a continuum: (1) “inter-active coaching,” which involves “increased scaffolding” and might include a coach facilitating a workshop to improve instruction and (2) “intra-active coaching,” which involves “decreased scaffolding” and might include a coach facilitating action research with a teacher. In between these ends, moving from (1) to (2), the coach continuum includes observation, co-teaching, observing and debriefing, and facilitating a study group.

Coaching programs in other states and districts often espouse a particular philosophy. For example, some programs emphasize a particular process in which coaches should engage with teachers—such as cognitive coaching, which asks coaches to work with teachers as colleagues or “mediators” to identify and address their particular needs through a process of planning, observing, and reflecting (Costa and Garmston, 1992). Other programs emphasize an understanding of the coach as reading expert or “technician” who possesses skills and knowledge that he or she passes on to teachers (Toll, 2007)—such as content-focused coaching. State administrators in Florida tend to view



**Figure 2.2**  
**Florida's Continuum of Coaching**



SOURCE: Chalfant and Ryan (2006). Adapted from Puig (2002).

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the “continuum of coaching” as a blend of these various philosophies. In a 2007 interview, the JRF director explained:

Basically there is a need within schools for both kinds. Not every teacher is ready for cognitive coaching. Some teachers really need that expert model of coaching depending upon where they are coming in. And we really view that as this continuum where you’ve got everything from this expert coaching all the way to action research, . . . [where] someone [is] doing this much more reflective type of coaching. That I think [is how] . . . you are really able to meet the needs of all your teachers and staff, versus going with one particular model. Because obviously you’re not going to serve a whole lot of teachers if you stick with one particular model, like expert coaching, because you are automatically going to have veteran teachers who are going to be put off by that and aren’t going to be really receptive to you coming into their classrooms and telling them how to do things. So I think our best

coaches are ones who really can adapt to the individual needs of the teachers they serve and adapt the model that way. And that is what we have tried to encourage, that it is not one particular philosophy that is going to serve the needs of all of the teachers.

**Roles and Responsibilities of the Coach.** Over the years, several definitions of the reading coach have appeared in state documents and training materials. Most of these definitions emphasize that a middle school reading coach is an on-site person who

will serve as a stable resource for professional development, progress monitoring, and student data analysis throughout a school to generate improvement in reading instruction and reading achievement. The middle school reading coach will both support and provide initial and ongoing professional development to teachers in each of the major reading components, administration and interpretation of instructional assessments, and differentiated instruction (FDOE, 2004).

According to another definition widely used in Florida, “A reading coach is a professional development liaison within the school to support, model, and continuously improve SBRR [scientifically based reading research] instructional programs in reading to assure reading improvement for all students” (Vickaryous and Slover, 2006).

As for further specifications, the K–12 Comprehensive Research-Based Reading Plan notes that any reading coach funded through the state’s FEFP reading allocation as part of the district’s plan must be a *full-time* coach. Aside from this requirement, the state does not mandate any other aspects of a coach’s job but instead provides all districts with a basic job description that they can adopt or adapt (see Appendix A). This description represents the *suggested* ways in which a coach should operate at the school level—emphasizing once again their role as providers of on-site professional development. Included in this description and other state documents are suggestions regarding several aspects of the coach job, including the following:

- **Which teachers to target.** Coaches are expected to work with all teachers—including special education (called exceptional student education [ESE] in Florida), content area, reading, and elective areas—but should focus on supporting teachers of “struggling students” and new teachers, particularly new reading teachers. State documents and training also encourage coaches who are starting work in a school to focus on what many informally call “the coalition of the willing.” That is, “Early on, coaches should focus on coaching those teachers who reach out for staff development, versus spending large amounts of time trying to convince those who are unwilling to be coached” (Lefsky, 2006b). Once coaches establish themselves at the school and a “positive message” spreads, this targeting is no longer necessary.
- **How to prioritize their work.** Although a coach’s activities include facilitating study groups, training teachers on how to use data to inform instruction, helping teachers set up classrooms, and participating on the school’s reading leadership team, to name a few, coaches are asked to focus their time and attention on in-class coaching: modeling, mentoring, observing, and providing feedback. “What we are encouraging is that at least 50 percent of their time is spent in the classroom,” said the JRF director. “So that they are actually getting contact with teachers in the classroom, modeling, side-by-side coaching, co-teaching, . . . What we do have in terms of research . . . specific to coaching is that it’s that interaction with the teacher that is of greatest value in terms of improving their performance and student performance.”
- **What activities to avoid.** The coach is asked to avoid “administrative functions” that “will confuse their role for teachers” and to limit their time administering/coordinating assessments because they “prohibit them from providing professional development to teachers” (State job description—see Appendix A). State training sessions and documents also repeatedly note that coaches should not formally evaluate teachers, directly instruct or tutor students unless such activities are used as a means to model instruction for teachers, or be used as substitute teachers. The K–12 Comprehensive Reading Plan includes the following explanation to districts:

For a reading coach to be effective, the role of the coach must be clear to school administration, teachers, and the coach. The role of the coach is not to serve as an administrator, test coordinator, or to conduct bus/lunch duty (beyond duty service that is required of classroom teachers). Coaches are not resource teachers and should only be working with small groups of students when they are modeling for teachers (FDOE, 2007a, p. 4).

**Coach Qualifications.** The state defines a basic set of qualifications for the reading coach. The coach is expected to have

- experience as a successful classroom teacher
- knowledge of scientifically based reading research
- knowledge of how to work with adult learners—i.e., teachers
- expertise in high-quality reading instruction and how to infuse reading strategies into the content areas
- strong skills in data management, communication (including presentations), time management, and interpersonal relations
- at a minimum, a bachelor’s degree.

However, the majority of these qualifications are not well specified because the state does not provide guidelines on how districts should judge the knowledge, experience, and skills of potential coaches. The state also recommends that coaches have advanced coursework in reading and that they possess or are working toward a reading endorsement or certification.<sup>6</sup> Although the qualifications appear in state documents, the state does not enforce district adherence to those guidelines. When funding was awarded via competitive grants in the early years of the

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<sup>6</sup> The state offers both a K–12 reading certification—requiring a minimum of 30 semester-graduate hours in reading or a master’s degree or higher in reading, along with a passing score on the state’s reading subject area test—and a reading endorsement that individuals “add on” to their regular certification in any subject. The reading endorsement can be obtained in many ways, but it typically involves 300 hours/points in professional development designed around six “competencies” or 15 semester hours of college credit in these same competencies or some combination of the two.

program, the state required all state-funded coaches to have Florida's reading endorsement or certification or to be working toward it, but this is not required under the new funding arrangement.

**State Policy Levers and Supports.** Although Florida does not mandate most aspects of a coach's qualifications and roles, it employs several policy levers to encourage fidelity to its vision for coaching, including the following:

- **K–12 reading plan.** As noted earlier, districts are required to submit a comprehensive plan to the state. JRF administrators review these plans and must approve them before districts receive funding. The JRF director reports that by asking districts to respond to specific questions on the plan and to participate in follow-up conversations or revisions prior to approval, and by monitoring implementation of the plans, the state focuses districts' attention on key elements and supports that are necessary for successful coaching implementation (e.g., providing leadership in defining the coach's role, ensuring that the coach is used properly, articulating job qualifications, providing adequate training and support).
- **Biweekly coach log.** All coaches, regardless of how the position is funded, are required to report how they spend their time every two weeks on the state's Web-based Progress Monitoring and Reporting Network (PMRN). According to the JRF director, the categories in which time is reported on these logs define the appropriate activities in which coaches should be engaged. In 2006–2007, the log included 12 categories: providing or facilitating professional development; planning or developing professional development; modeling lessons; coaching (e.g., observing, reflecting) in classrooms; conferencing with teachers; administering or coordinating student assessments; entering student assessment data into the PMRN; analyzing student data; attending school, district, or regional meetings regarding reading; building their own knowledge; managing reading materials; and other duties as assigned. Guidance documents for district coordinators and training materials presented to coaches emphasize a number of purposes for the log: helping information exchange, enabling formative feedback,

facilitating follow-up support for schools and coaches, providing time to reflect on how coaches spend time, and assisting the state in its efforts to support and advocate for coaches. The JRF director notes, “It has multiple purposes. I would say the greatest purpose is to serve as a tool for coaches and principals and district leadership to look at the effectiveness of the coaching model.” He adds that by monitoring these data, state and local administrators can ensure that time is being devoted to in-class activities and, if not, administrators can investigate what may be getting in the way and how to address these obstacles. As such, the log “becomes a tool to improve the model and what coaches do.”

- **Training.** In 2002, the JRF office was established to provide technical assistance on research-based reading instruction throughout the state. One aspect of this support has been the provision of summer training to coaches and administrators. Although the nature of the training has varied over time, the intent has been to provide new coaches with at least five days of professional development before starting their position (this is encouraged, not required) and further training veteran coaches and administrators on how to support reading improvement in their schools. The menu of sessions from which participants could select at the 2006 leadership conference emphasized many of the state’s key messages and desired elements of coaching—such as the role coaches are expected to play and how they are to prioritize their time.

The state expects follow-up training for secondary coaches to occur throughout the year, through both district-organized monthly meetings and participation in professional development organized by the state-sponsored Florida Literacy and Reading Excellence Center (FLaRE). In 2006–2007, FLARE coordinators were assigned to all low-performing middle and high schools in the state to provide on-site support to both coaches and other staff members. Schools not in this target group were to be invited to attend any of these training sessions at the target schools. For a target school to receive this free FLARE support, the principal had to agree to a list of “administrative assurances” that reinforced the state’s vision for coaching and the elements believed to

be important for successful implementation, such as providing release time for the coach to participate in professional development, meeting regularly with the coach and FLaRE coordinator, and establishing with the coach and FLaRE coordinator a year-long professional development calendar.

## Summary

In sum, although coaching has become a popular intervention in schools and considerable theoretical literature suggests great potential for coaching to affect instruction and learning, the empirical research base on coaching is still very limited. Studies of coaching generally have found the following:

- Coaches' knowledge, skills, and abilities contribute to their effectiveness.
- Coaches generally take on a variety of roles in addition to modeling instruction, observing, and providing feedback—for example, planning professional development, providing resources, and handling administrative tasks.
- Several factors and conditions enable coaches' work, including school and district-level buy-in and support, time, and continuity and stability.
- There is mixed evidence of coaching effects on instruction. In some studies, coaching resulted in more frequent and sustained use of new instructional skills, improved abilities to plan and organize instruction and to manage classroom behavior, greater implementation of standards, and improved school culture and teacher collaboration. A few studies, however, found no evidence of coaching influence on practice.
- To date, there is only anecdotal evidence of coaching effects on student achievement.

Florida's program provided RAND with an opportunity to build on this literature to better understand the implementation and effects

of coaching, as well as the conditions associated with positive outcomes. Despite several changes to the structure of the program funding over time, the state has supported the use of reading coaches throughout the state since 2002, with a gradual scale-up in the number of participating schools each year. The overarching goal of Florida's coaching program is to improve students' reading ability by helping teachers implement effective, research-based instruction in reading and in content areas. Aside from the requirement that coaches be full-time employees, the state does not mandate any other aspects of a coach's job but instead provides districts with a basic job description suggesting basic coach qualifications and ways in which the coach should operate at the school level. Specifically, the state encourages coaches to work with all teachers across content areas, to make in-class coaching a priority, and to avoid formally evaluating teachers and participating in activities that detract from work with teachers. To encourage fidelity to Florida's vision for coaching, the state provides training to coaches and principals. It also requires coaches to submit biweekly coach logs accounting for time spent and requires districts to submit reading plans that detail how coaches will be supported and utilized—both of which are monitored by the state.

In the next chapter we describe the methods used to examine the local implementation and effects of Florida's coaching program.



## Research Questions, Framework, and Methods

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In this chapter, we describe the research questions and conceptual framework guiding our research, along with the methodology we used to collect and analyze data on coaching in Florida middle schools.

### Research Questions

Our study sought to address three broad research questions:

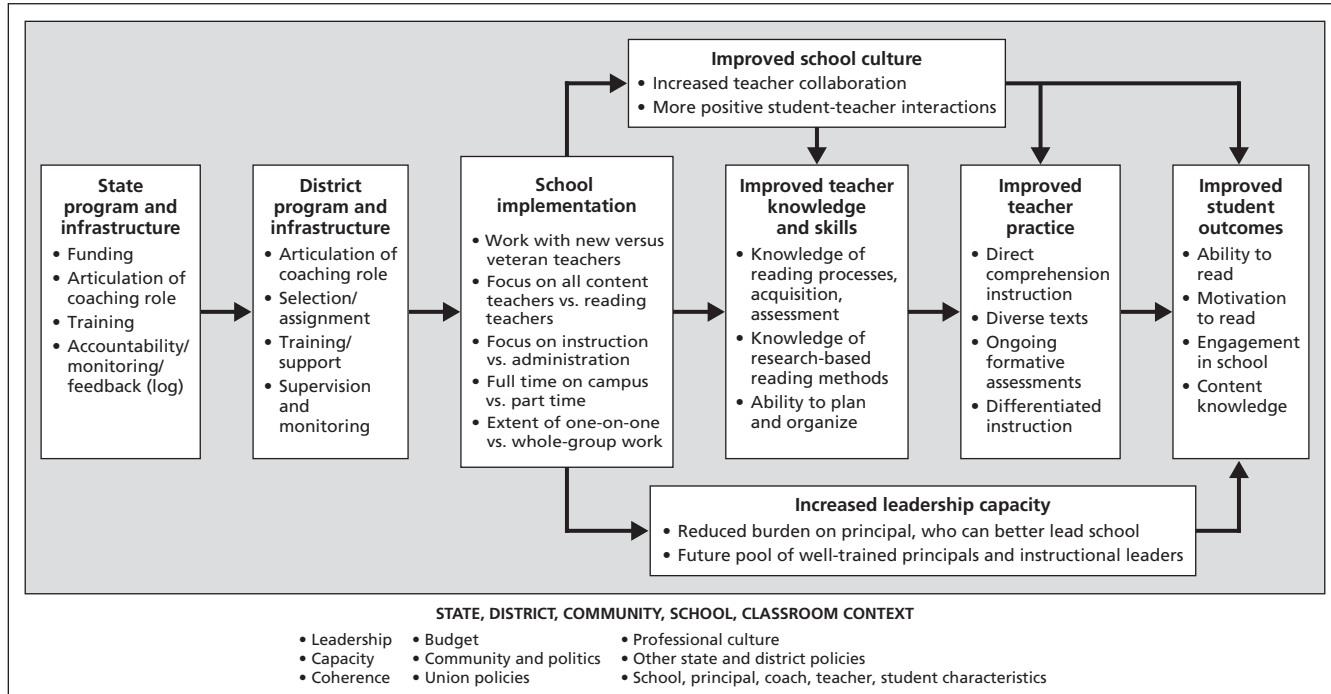
1. How is the reading coach program being implemented by the state, districts, schools, and coaches?
  - How are coaches selected, assigned, and trained? What is the nature, frequency, and quality of the training?
  - What is the nature, frequency, and focus of coaches' work with teachers in schools?
  - How does the nature, frequency, and focus of coaches' work vary by factors such as grade level, content area, school characteristics, and student body?
  - What factors enable or constrain high-quality implementation?
2. What has been the impact of coaching on outcomes, broadly defined?
  - To what extent are coaches effective at influencing teachers' practice?

- To what extent are coaches effective at influencing more-proximal measures, such as principals’ knowledge and skills, a sense of community among teachers, and student motivation to read?
  - What has been the impact on student achievement? To what extent can this be attributed to coaching?
3. What features of reading coaching models and practices are associated with better outcomes?
- What features of coaching appear to influence teachers’ practice?
  - Are there coaching practices and implementation factors that affect more-proximal measures, such as principals’ knowledge and skill, a sense of community among teachers, and student motivation to read, that have been shown to be linked to improved student performance?
  - What features of coaching are associated with improved student achievement?

## Conceptual Framework

To help answer these questions, our study design, data collection, and analysis were guided by a conceptual framework grounded in the research on coaching, as well as in the state’s implicit “theory of action” we deduced from our interviews and review of documents. As Figure 3.1 illustrates, the basic hypothesis is that increasing the expertise and availability of reading coaches to work with teachers at a school site will allow teachers to gain new knowledge and skills or enhance existing knowledge and skills, which in turn will improve their reading instruction and ultimately improve student achievement and other outcomes. For reading teachers, instruction is intended to help students develop the skills and knowledge needed to master the five components of reading: phonemic awareness, phonics, fluency, vocabulary, and comprehension. For content area teachers, reading instruction occurs in relation to the content being taught and focuses on helping students understand the structure of a text, promoting content area vocabulary, and

**Figure 3.1**  
**Conceptual Framework for Florida’s Reading Coach Program**



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building students' comprehension strategies and word identification skills (e.g., structural and contextual analysis).

The model recognizes that the state and district shape this process by articulating the roles and responsibilities of the coach, setting hiring qualifications, providing ongoing training and support to reading coaches, and monitoring their efforts. Schools also influence the coaching process by directing coaches' attention to certain priorities. For example, a principal might ask the coach to focus exclusively on new teachers. Other aspects of a coach's actual work at the school level may also influence his or her effect on teachers, such as the amount of time spent working with teachers on instruction rather than on other administrative duties. A coaching system can also affect student learning through various other intermediate outcomes, such as building school leadership capacity and enhancing school climate, which in turn might either directly affect student achievement or indirectly affect achievement through changes in teacher practice.

Finally, the framework for the study recognizes that Florida's coaching program, like all coaching programs, is embedded in a broader context that can influence coaching practice and its impact, such as other state and district policies that either support or compete with the coaching program. District leadership, capacity, and relations with unions and the broader community and school board may also impact reform efforts. These contextual factors also exist at the school level, where factors such as principal leadership, professional culture, and teacher and student mobility can enable or constrain any type of reform effort.

## **Data and Methodology**

The study uses a combination of quantitative and qualitative methods to examine the implementation and impact of Florida's reading coach program. We provide information regarding our sample, data collection, and analyses below. Appendixes B and C detail the methods and models used in the achievement analyses. Table 3.1 links our

**Table 3.1**  
**Research Questions, Sample, and Data**

Research Question	Sample	Data Source
<b>1. Implementation</b>		
Statewide	State of Florida	State interviews, documents, observations
District and school	Eight of the largest districts in the state	Interviews with district coordinators; documents
	113 participating middle schools in the study districts: principals, coach(es), five reading teachers, five social studies teachers per school	Surveys
	Two case study districts from the eight participating districts: three schools per district All coaches statewide	Site visits: interviews, focus groups, observations, documents Coach log data
<b>2. Impact of coaching</b>		
On teacher practice	113 participating middle schools	Surveys
	Two case study districts	Site visits: interviews, focus groups, observations, documents
On other intermediate outcomes	113 participating middle schools	Surveys
	Two case study districts	Site visits: interviews, focus groups, observations, documents
On student achievement	All schools in the state with grades 6, 7, and 8	FCAT results aggregated by grade level from 1997–1998 to 2005–2006 Demographic data from NCES <sup>a</sup> Common Core of Data and Florida School Indicators Report from 1997–1998 to 2005–2006
<b>3. Coaching features associated with outcomes</b>		
113 participating middle schools		FCAT scores for individual students Surveys

<sup>a</sup> National Center for Education Statistics.

research questions to the sample and data collection methods described in this chapter.

### Sample

Our longitudinal analysis of student achievement in schools with and without coaches over time included all schools with grades 6, 7, and 8 in the state. To examine coaching implementation, we selected a purposive sample of large districts in Florida that represent a range of approaches to and experience with middle school coaching.<sup>1</sup> We drew an initial sample of nine districts from among the largest twelve districts in the state (with approximately 10–45 middle schools each), based on a review of district K–12 Comprehensive Research-Based Reading Plans (2006–2007) submitted to the state, coach log data (2005–2006) obtained from the state (indicating average time spent on various categories of activities), and interviews with representatives from the Florida Literacy Coach Association and state administrators. One district declined to participate, giving us a final sample of eight districts. A few had participated in the state’s middle school coaching initiative since its inception (2002–2003), while others initiated the program more recently (2004–2005). Some districts employed part-time coaches in some schools; others employed only full-time coaches in all schools. One district hired coaches centrally at the central office; the others delegated hiring to individual schools.

**Survey Sample.** In each of the eight study districts, we randomly sampled schools from all regular and charter middle schools that employed a part-time or full-time reading coach in 2006–2007. We restricted the population of middle schools from which we sampled to include only those serving grades 6 through 8, thus excluding any schools with K–8, K–12 or 6–12 grade configurations—representing a total population of 226 schools.<sup>2</sup> In each district, we drew a random

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<sup>1</sup> As a condition of participation, all districts, schools, and individuals were promised anonymity. Thus, we do not provide specific data or details on any organizations or individuals that could inadvertently disclose their identity. We use pseudonyms for some individuals and schools throughout the report.

<sup>2</sup> One district denied access to its lowest-performing schools, which removed eight schools from the eligible population.

sample of schools proportional to district size, for a total sample of 180 schools. In the smaller districts, we sampled all middle schools; in the larger districts, we sampled 56–70 percent of middle schools. Ultimately, we recruited 113 schools to participate, representing an overall cooperation rate of 63 percent. The majority of district-level school cooperation rates were 50 percent or higher.<sup>3</sup>

In each school, we surveyed the principal, all reading coaches, and ten teachers. As a general rule, from each school roster we randomly sampled five reading teachers and five social studies teachers, stratified by grade, to obtain a representative sample that would be adequate for our analyses. We selected reading teachers because state interviews and a review of documents indicated that coaches were likely focusing much of their attention on these teachers. We selected social studies teachers to capture the perspectives of core-content area teachers who we were told were likely to interact with the coach.

**Case Study Sample.** From the eight participating districts, we selected two districts from which to collect more in-depth qualitative data and in which we were able to pretest our survey instruments. The districts selected differed both in size (the larger district oversaw approximately twice as many middle schools as the smaller one) and in their approach to coaching (e.g., one provided more intensive professional development to coaches than the other). Within each district, we selected three schools to follow over the course of the year; within each school, we selected the coach and three teachers with whom the coach had been working closely or planned to work with over the course of the year to follow. To select the schools, we asked the district coordinator supervising coaches to identify sites in which coaches were in at least their second year of coaching and had good working relationships with school staff. Given that the literature already indicates that coaches face many challenges in their first year or in unsupportive school environments, we felt it was important to locate sites in which there was a higher probability of “success” and in which we could learn more about what contributes to strong coaching imple-

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<sup>3</sup> For one district, in which the research office delayed our request to conduct the survey, we obtained a 36 percent cooperation rate.

mentation. Based on these recommendations and student achievement and demographic data from 2005–2006, we selected three schools in each of the two case study districts that represented variation in student population and performance. At the start of the school year, we asked the reading coach in each school to identify three teachers with whom he or she had been working closely or planned to work with over the course of the year. In total, these case study teachers included eight reading teachers, three social studies teachers, two science teachers, two reading/language arts teachers, one language arts teacher, one health teacher, and one special education teacher with a self-contained classroom.

## Data

**Surveys.** In the spring of 2007, we administered Web-based surveys to principals, reading coaches, and teachers in our sample of schools from the eight participating districts. The four survey instruments drew on our conceptual framework, existing literature on coaching, data collected in the first round of case study visits to schools and districts (see below), measures validated from other studies, and careful review by experts. We also pilot-tested the draft surveys with teachers, coaches, and principals, who provided us feedback about the clarity of the items. We administered the surveys from late March to mid-June. Table 3.2 shows the response rates for each group.

**Table 3.2**  
**Survey Response**

	Number Sampled	Number Ineligible <sup>a</sup>	Number Responding	Response Rate (%)
Principals	113	0	96	85
Reading coaches	124 <sup>b</sup>	0	109	88
Reading teachers	554	1	386	70
Social studies teachers	563	3	348	62

<sup>a</sup> Ineligible individuals were teachers originally identified on rosters as teaching reading or social studies who, after receiving the survey, told us they were either no longer teaching at the school or not teaching that particular subject.

<sup>b</sup> Because some schools had two full-time coaches, the number of coaches is greater than the number of schools and principals.



Teacher response rates within schools did vary somewhat, as shown in Table 3.3. However, there were no systematic differences in response rates for principals, coaches, or teachers by district, school size, school poverty level, or school performance.

To adjust for potential differences due to differential sampling and nonresponse, we created weights that reflected both the known sampling probabilities and estimated response probabilities at the school and teacher level so that our responding sample would be representative of the entire population of middle schools in the eight study districts. We used these weighted data in our cross-tabulations. Achievement models were run with unweighted data.

**Case Study Site Visits.** Researchers visited each case study school within our two case study districts three times during the 2006–2007 school year, with each school visit lasting approximately one day. To understand the nature of coaches’ work, as well as school and district environments and support for coaching, researchers interviewed the reading coach, principal, and three case study teachers at each school; observed case study teachers in their classrooms; interviewed the district coordinator(s) overseeing coaching; observed a districtwide meeting or training for the middle school reading coaches; “shadowed” some coaches; and conducted focus groups with core content area teachers. As Table 3.4 illustrates, we conducted a total of 64 interviews, 13 focus groups (with 43 teachers in total), and 28 observations over the course of the academic year.

**Table 3.3**  
**Teacher Survey Response Rates Within Schools (%)**

	Mean	Minimum	25th Percentile	50th Percentile (median)	75th Percentile	Maximum
Reading teachers	71	20	60	75	83	100
Social studies teachers	62	0	40	60	80	100

**Table 3.4**  
**Site Visit Interviews, Focus Groups, and Observations**

	Central Office and Union	Case Study Schools				
	No. of Interviews	No. of Principal or Assistant Principal Interviews	No. of Coach Interviews	No. of Case Study Teacher Interviews	No. of Teacher Focus Groups	No. of Case Study Teacher Observations
District A	3					
School 1		3	3	6	4	6
School 2		2	3	5	3	5
School 3		2	3	5	3	5
District B	2					
School 4		2	3	6	2	6
School 5		1	3	6	1	4
School 6		1	2	3	0	2
Total	5	11	17	31	13	28

NOTE: In some schools, scheduling problems and unexpected time conflicts on the day of the visit prevented researchers from completing all interviews and observations. Data collection was limited in school 6 because it did not agree to participate until later in the study.

**District and State Interviews, Observations, and Documents.** In the six non–case study districts, we conducted telephone interviews with the supervisors of middle school reading coaches to understand the history of coaching in the district; coach selection, supervision, and support; the nature of coach work; district context; and factors affecting coaching implementation. To understand state policy and guidelines with regard to reading coaches and reading in general, we interviewed staff from the Florida Department of Education’s JRF office and attended JRF’s annual leadership conference in Orlando in July 2006. Throughout the course of the study, researchers collected and reviewed documents pertaining to reading coaches and reading improvement efforts at the state, district, and school levels, including district K–12 reading plans, job descriptions, professional development materials, lesson plans, and classroom materials.

**Student Achievement Data.** For the longitudinal student achievement analysis, we obtained achievement data, aggregated by grade level on the FCAT from 1997–1998 to 2005–2006, from the Florida Department of Education (FDOE) Web site.<sup>4</sup> The data were compiled from 121 separate files (covering different years, grades, tests, and subjects) available from these Web sites.

For the cross-sectional achievement analysis that explores the effects of variation in coaching on achievement, we obtained from FDOE’s K–12 Data Warehouse FCAT score information (criterion-referenced portions for reading and math) for individual students in all schools in the state that include any of grades 6–8 from 2001–2002,<sup>5</sup> the school year prior to the first year of implementing the state’s middle school reading coach initiative, through 2006–2007. We also obtained background information for individual students—including gender, ethnicity, socioeconomic status, limited English proficiency (LEP) status, participation in special education or gifted programs, attendance, mobility, age, and grade retention history.

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<sup>4</sup> See <http://fcat.fldoe.org/fcinfopg.asp> and <http://fcat.fldoe.org/nrinfopg.asp>.

<sup>5</sup> 2001–2002 was the first year that the FCAT was administered to all students in grades 3–8.

**School Demographic Data.** We obtained school characteristics used in the statewide achievement model: schoolwide percentages of racial/ethnic groups of students (Native American, Asian, Hispanic, Black and White) and percentage of students participating in free and reduced-price lunch programs from the NCES Common Core of Data (CCD) for the 1997–1998 to 2005–2006 school years. These characteristics were supplemented with school-level data obtained from the Florida School Indicators Report, including financial information, such as total operating costs and per pupil expenditures for different groups of students; information on teacher workforce, including percentage of teachers with advanced degrees and average years’ experience; student characteristics, such as percentage of gifted students and LEP students; and disciplinary variables, including total incidents of crime and percentage of in-school and out-of-school suspensions.

**State Reading Coach Data.** To identify schools for our longitudinal analysis, the state provided us with a list of all middle schools that had a state-funded reading coach, by year (2002–2003 to 2006–2007). We also obtained “coach log” data aggregated at the state and district levels for 2006 and 2007 in order to compare our survey results on coach background and how coaches allocate their time with information from all coaches in the state. All reading coaches are required to submit this information every two weeks to describe how they spend their time in various categories, which were similar to those used in our surveys.

### **Data Analysis**

To analyze coaching implementation, we contrasted the state’s *intended* reading coach program with how the program was *enacted* by the district, school, and coaches, using a variety of quantitative and qualitative data. These data included the nature, frequency, and quality of the training coaches received; their work with teachers; and their perceived impact. We examined how coaches’ work varied by such factors as coaches’ experience and school characteristics, using simple cross-tabulations of data and Pearson’s chi-squared test to determine if these relationships were statistically significant. For the case study data, we analyzed the documents we had collected and notes and transcripts

from interviews, focus groups, and observations, along the dimensions outlined in the conceptual framework. We then developed analytic memoranda for each school visited and for each district as a whole. Finally, we integrated findings from the different data sources to identify cross-district findings and themes regarding the nature, quality, perceived impact, and potential barriers and enablers of coaching.

We examined the link between coaching and student achievement through two sets of analyses. In the first set, we looked across all middle grades in the state to determine whether having a coach in a school is associated with improvements in average annual achievement growth in reading and mathematics achievement using school-by-grade-level FCAT data from 1997–1998 to 2005–2006. This analysis is a longitudinal, pre-post design that includes all middle schools that employed state reading coaches from the inception of the program in 2002–2003 through 2005–2006. The main motivations of our statewide analysis were (1) to estimate the effects of receiving coaches for all schools in the program, not just the subset of schools included in the case study, and (2) to estimate effects to reflect the entire history of the JRF program, not just the most recent year.

In principle, we could have conducted a statewide analysis using longitudinal student-level data rather than longitudinal data aggregated to the school-by-grade level. We did not pursue that option because available resources did not permit assimilating and specifying models for a longitudinal student-level database that would cover the scope desired for the analysis, given the complexities of longitudinal data at the individual student level. On the other hand assembling the school-by-grade aggregate dataset was straightforward using publicly available information. The school-by-grade aggregate data and analysis also has some advantages beyond expediency. First, it goes back to the spring of 1998, before Florida began testing students in every grade. This permits a longer time-series of aggregate achievement information prior to the program, so that looking for changes after the program started was more straightforward. Second, it makes less stringent scaling assumptions than would be necessary by growth modeling of individual student trajectories, since the aggregate analysis only compares test scores from the same grade. Third, the treatment effects estimated from the

aggregate analysis are policy relevant in an era where school performance is defined in terms of aggregate student performance.

In the second set of analyses, we sought to understand whether variation in coaching implementation is associated with differential outcomes in student achievement for the schools in our study in 2006–2007 (our study year). These cross-sectional regression analyses link our survey data with student-level FCAT data in reading and mathematics.

### **Technical Notes**

All the figures and tables in the monograph use percentages rounded to whole numbers. As a result, percentages may add up to more than 100. To simplify the presentation, we do not report tests of statistical significance. However, as a general rule, throughout the monograph we explicitly discuss only statistically significant differences (at  $p < 0.05$ ) and use the term “significantly” to indicate such differences (e.g., reading teachers were significantly more likely than social studies teachers to . . . ). Because we are carrying out a large number of comparisons, a small percentage of the significant differences will likely be due to chance rather than to actual differences in the responses. Readers should therefore interpret the discussions of significant differences cautiously, especially in cases in which the magnitudes of the differences are small.

### **Study Limitations**

The major limitations of our study stem from data and design constraints. First, because the coaching program had been scaled up to all districts and a majority of schools in the state during the data collection year, we were unable to design the study using experimental methods that would support causal inference of the impact on student achievement. Although our longitudinal analysis of student achievement provides some evidence regarding causality, it nonetheless does not solve the fundamental design limitations. Second, given resource constraints, we were able to examine coaching implementation in only

eight moderate-to-large districts. Although this approach does not allow us to generalize to all districts in Florida, particularly smaller districts, it does allow us to describe how different models of district implementation are translated into school- and coach-level practices and classroom practice. While not all our findings are generalizable to all districts in Florida, we expect that findings on what constrained and enabled efforts in these districts may offer lessons to practitioners and policymakers throughout Florida and in other states and districts enacting programs with similar goals.

Third, due to limited resources we could survey only ten teachers across two content areas in each participating school. Clearly a sample of all teachers would have provided more-reliable estimates of coach interactions with and perceived influences on teachers throughout a school—particularly given that coaches often focus on a small subset of teachers for certain kinds of activities, such as one-on-one coaching. Thus, it is possible that our responding teachers do not accurately represent the experiences of all teachers in a school, particularly content area teachers.

Finally, our measures of teacher practice were limited in several respects. As noted above, we were unable to conduct enough meaningful classroom observations to use in an analysis of changes in teacher instruction. As a result, we relied on teachers' self-reported practices from surveys and interviews. Although prior research suggests that well-designed surveys can measure some aspects of instructional practice with a reasonable degree of accuracy (Mayer, 1999; Mullens and Gayler, 1999; Smithson and Porter, 1994), these measures tend not to be as rich or nuanced as those collected through firsthand observations. In fact, it may be possible that the absence of relationships observed in some instances stems in part from these weaknesses in our measures of practice. Further, due to budgetary constraints, we were able to administer surveys for only one year. Longitudinal data over a period of years would have enhanced our analysis of implementation and effects and provided measures of change over time. For instance, if coaching is a developmental process that changes over the course of implementation, then our cross-sectional data would not capture such changes.

Despite these limitations, the results make important contributions to a nascent body of literature on literacy coaching. Most important, this research provides empirical data on the relationship between student achievement and coaching implementation. It further illuminates the variation in implementation that occurs at the district, school, and classroom levels and will be useful to state, district, and school practitioners employing or considering employing reading coaches as a strategy to improve teacher quality and middle school students' reading ability.

## Summary

Our study examined the following research questions: (1) How is the reading coach program being implemented by the state, districts, schools, and coaches? (2) What has been the impact of coaching on teachers' practice, student achievement in reading, and other outcomes? (3) What features of reading coaching models and practices are associated with better outcomes? To answer these questions, we used a combination of quantitative and qualitative methods. To understand coaching implementation and perceived effects of coaching, we collected and analyzed data from surveys of principals, coaches, and teachers in 113 middle schools in eight large districts in Florida; interviews, focus groups, and observations in six case study schools and two case study districts; as well as documents and interviews with state officials and coach coordinators in all study districts. To understand the effects of coaching on student achievement, we conducted two sets of analyses. In the first longitudinal analysis, we looked across all middle grades in the state to determine whether having a state-funded coach in a school was associated with improvements in average annual achievement growth in reading and mathematics using school-by-grade-level results from the FCAT from 1997–1998 to 2005–2006. In the second set of analyses, we examined whether variation in coaching implementation (derived from survey data) was associated with differential outcomes in student achievement for the schools in our study in 2006–2007 (our study year).



The next two chapters detail coaching implementation—including district- and school-level supports for coaching and the day-to-day roles and activities of coaches.



## **Implementation of Florida’s Coaching Program: District and School Policies**

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Within the broad vision and parameters set by the state, local administrators had discretion to further build and specify their local coaching programs. We now examine how Florida’s reading coach program has played out at the district and school levels. We first provide an overview of district programs. We then look at hiring and placement policies; coach qualifications; compensation policies; supervision, evaluation, and monitoring practices; and professional development and support programs. Overall, we found many similarities across the districts in these overarching policies and practices.

### **Overview of District Coaching Programs**

As Table 4.1 illustrates, the eight study districts varied somewhat in the history and nature of coaching programs. A few districts received funding from the state during the first years of the coaching program (2002–2003, 2003–2004), but these early adopters generally received funding for only a handful of middle schools. By 2004–2005, all the study districts participated in the program; by 2006–2007, the year of data collection, most districts were supporting coaches in either all or most middle schools. Throughout this chapter, we will examine the nature of these coaching programs in more detail.

In terms of an overall coaching model, most districts invoked the JRF office as the guide for their local programs.

**Table 4.1**  
**Overview of Study District Coaching Programs and Select Policies**

District	First Year of State Funding for Middle School Coaches <sup>a</sup>	Proportion of Middle Schools with Coaches in 2006–2007	Who Hires and Evaluates Coaches	Coach Compensation
District A	2004–2005	All schools	Principal	Coaches compensated for working a slightly longer day than teachers
District B	2002–2003	All schools except high-performing schools; some schools have two coaches	Principal	Equivalent to teacher salary
District C	2004–2005	Most schools	Principal	Equivalent to teacher salary
District D	2003–2004	All schools	Principal	Equivalent to teacher salary, but coaches also receive stipend for mentoring new teachers
District E	2004–2005	All high-needs schools have full-time coaches; other schools have part-time coaches	Central office	Coaches receive “teacher on assignment” supplement
District F	2002–2003	Only high-needs schools	Principal	Equivalent to teacher salary
District G	2003–2004	All schools	Principal	Equivalent to teacher salary
District H	2003–2004	All schools	Principal	Equivalent to teacher salary, although some schools provide additional funding

<sup>a</sup> Some districts may have implemented coaching in middle schools before this date, but the efforts were not state funded. Before 2004–2005, only a handful of districts received state funding for middle school coaches, because the grant program had been primarily geared to the elementary school level. In most cases, districts receiving funding in 2002–2004 received funding for coaches in only a few middle schools.

Many coaching supervisors interviewed mentioned following the “state model” or “state guidelines” to shape their programs. When probed for further details of what this model or guidelines entailed, all of them cited the job description and the basic “dos and don’ts” specified in Chapter Three. Only one district coordinator commented on what she viewed as the absence of a state model and a desire for greater specificity around the coaching program. Describing the state’s approach as “haphazard,” she reported a need for a “tightened” model that included a coach plan of action and more specificity. Aside from this one interviewee, most district coordinators appeared either to be unaware of the fact that a coaching model could entail more-specified processes, content, supports, and expected coaching outcomes or to simply be satisfied with the guidance they received and the flexibility they were afforded. When describing their local programs, the majority of district coordinators cited the state’s “continuum of coaching.” Most reported emphasizing both ends of the spectrum, guiding coaches to adapt their work according to the needs of teachers and blending notions of coach as reading *expert* (e.g., content-focused coaching) and coach as someone who engages in a particular *process* with teachers (e.g., cognitive coaching). One coach supervisor described her district’s approach as a “marriage of both.” The supervisor explained:

We very much started with the content type of coaching. . . . [T]hey’re all Project CRISS<sup>1</sup> district trainers so that there was a common language for our content teachers. That was sort of a springboard. It isn’t the end of the world, but it’s a very field-leveling kind of experience for folks because you get an idea of what good reading instruction should look like, and you get some good strategy ideas from it, then the coach can spring off of that. So it was very much content-focused for a long time. And then the Just Read Florida [office] really has provided us with some opportunities to look at that cognitive coaching model and the

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<sup>1</sup> Project CRISS (Creating Independence through Student-owned Strategies) is a national program to support educators in increasing student-centered teaching, independent learning, and student achievement. Project CRISS methods of instruction, drawn from cognitive psychology and social learning research, include explanation, modeling, and reflection and can be used in all subject areas.

skills of the coach. Not just the expertise in the reading area, but the skills of the coach and the interpersonal skills and that type of thing.

This district, like several others, reported not only working with Project CRISS to support the content side of coaching, but also consultants to assist in the process or interpersonal side of coaching. Only one district articulated a preference for one end of the coaching continuum:

It is a process. We are not necessarily advocating that a coach is an expert in reading because they're not in all cases . . . some of them are building their knowledge as well. So it's a position to facilitate change in instruction in the classrooms. We don't advocate that coaches provide teachers with all the answers [but] that they lead teachers through a process of investigation.

We now turn to the specific policies and practices implemented in these districts and schools to support reading coaches.

## Hiring and Placement

As Table 4.1 illustrates, seven of the eight districts give principals and/or schools the authority to hire reading coaches. For some, lack of district capacity necessitated this arrangement: They reported not having enough central office staff to handle the hiring process for all schools. The one district that hired coaches centrally reported doing so to ensure that “the position doesn't get abused” and could be “safeguarded” against school administrators who might use the coach as a substitute teacher, for example, instead of as the intended on-site teacher resource and professional developer. Interestingly, several of the other district supervisors echoed this concern about administrator “abuse” (e.g., using coaches as administrators) and explained that they were currently looking for ways to gain more control over how coaches are utilized in schools. This tension between wanting schools to have the autonomy to select coaches that fit particular school needs

and contexts but also wanting to retain some district-level control to ensure proper utilization of this coaching resource was a theme echoed in several district-level interviews. One district coordinator identified a slightly different challenge to principal control over hiring. She argued that because most principals are not reading experts, they sometimes find it difficult to identify which coach would be the “best fit” for their school. To mitigate this challenge, this district assisted principals with interviewing and assessing the skills and knowledge of candidates.

Consistent with district reports, the majority of principals and coaches described a hiring process that involved input from all sides: 93 percent of principals in the case districts reported selecting their reading coaches to work at their schools (as opposed to districts assigning them) and 90 percent of coaches agreed or strongly agreed that they had input into their placement as a reading coach at their schools. There also appears to be agreement across districts regarding the knowledge, skills, and abilities considered when selecting a coach. Almost all principals reported considering the coaches’ knowledge of reading instruction and best practices to a great extent when hiring, while more than half cited the remaining seven criteria listed in Table 4.2, including

**Table 4.2**  
**Percentage of Principals Who Consider the Following Criteria “To a Great Extent” When Hiring a Reading Coach for Their Schools**

The coach’s knowledge of reading instruction and best practices	91
The coach’s “people skills” and ability to work well with teachers	79
The coach’s classroom teaching experience	78
The coach had or was working toward the reading endorsement	71
The coach’s oral presentation skills and ability to lead teacher groups and facilitate reflection	70
The coach’s experience working with students similar to our school’s population	68
The coach’s experience working at the middle school level	62
The coach’s previous experience working with teachers to improve their practice	62

NOTE: Response options were “not at all,” “to a small extent,” “to a moderate extent,” and “to a great extent.” Twenty-one principals reported not knowing the criteria considered; they are not included in these figures.

other indicators of coaches' knowledge of and experience with teaching reading, interpersonal skills, communication skills, and experience working in similar contexts. In case study visits, principals generally cited a similar list—although often with different emphases. For example, one principal was adamant about the importance of a coach's presentation skills and ability to communicate in “a professional manner.” In contrast, another emphasized the coach's interpersonal skills, such as “the ability to get along with teachers.”

Although principals knew what they were looking for when hiring coaches, some administrators reported that it was not always easy to find individuals with these attributes. For example, one coach supervisor noted that middle school teachers are generally not “reading people” and that middle school principals across the district have struggled to find coaches with a strong reading background. Similarly, a case study principal feared that her current reading coach was about to take on an administrative position elsewhere and that the district had not developed a strong pipeline of qualified coach candidates from which to draw. Interestingly, the central office supervisor of coaches in this district acknowledged a similar concern and reported plans to launch a new training program for interested teachers to build the capacity of a pool of “potential” coaches from which schools can select in the future. Another district was planning a similar program to create a pipeline of interested and trained coaches who would be available when openings arise.

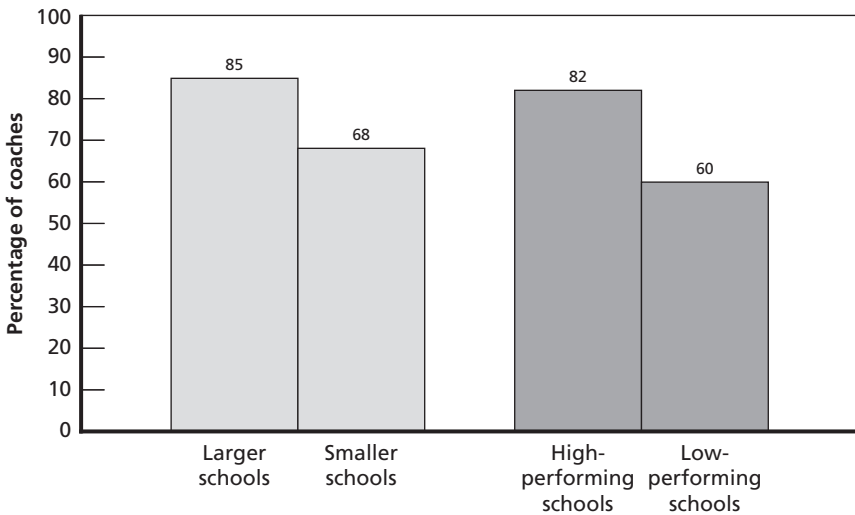
## **Coach Qualifications**

Coaches reported a wide range of experience and backgrounds. As a whole, the majority of reading coaches possessed the reading credentials state administrators and national experts identify as one important qualification for reading coaches. As the International Reading Association explains, “reading coaches should have in-depth knowledge of reading processes, acquisition, assessment, and instruction” (IRA, 2004, p. 2). Approximately 78 percent of coaches held a master's degree in reading, a reading certification, state reading endorsement,



or the state reading endorsement for English to speakers of other languages (ESOL) teachers (REESOL), with slight variation across school types. As Figure 4.1 illustrates, coaches in larger schools (more than 1,000 students) were more likely than coaches in smaller schools (1,000 students or fewer) to have one of these reading credentials, as were coaches in high-performing schools (receiving a state grade of A or B) compared with coaches in low-performing schools (receiving a C, D, or F).<sup>2</sup> Of those without one of these credentials, 72 percent were working toward the reading endorsement (e.g., those reporting partial completion of the endorsement) or may have had obtained some of this knowledge via professional development (see the later discussion).

**Figure 4.1**  
**Percentage of Coaches with a Reading Credential, by School Type**



NOTE: There were 47 smaller and 63 larger schools; 88 high-performing and 21 low-performing schools.

RAND MG762-4.1

<sup>2</sup> Note that there is some overlap in these groups. For example, 68 percent of high-performing schools were also large schools.

Looking at the various credential components separately, we see that more than two-thirds of coaches (68 percent) held master's degrees and more than half of these held master's degrees in reading (37 percent of coaches overall). Approximately one-half of coaches held elementary certifications and/or certifications in reading. Exactly half of all coaches reported having the state's reading endorsement while another 23 percent had partially completed the requirements for this endorsement. Similarly, half reported being ESOL-endorsed, which covers specific skills on how to teach non-English speakers. As illustrated in Table 4.3, the credentials of coaches in the study districts were similar to those reported statewide.<sup>3</sup>

Another widely accepted qualification for a reading coach is teaching experience—particularly, experience teaching reading and teaching at the grade level of teachers the individual will be coaching (IRA, 2004). As Table 4.4 indicates, the majority of coaches in the study districts were experienced teachers. For example, two-thirds of coaches had taught for ten or more years, while only 9 percent had taught for three years or fewer. However, not all coaches' teaching experience occurred in reading or at the middle school level: 35 percent had taught reading and 22 percent had taught at the middle school level for ten years or more. Interestingly, the teaching experience levels of coaches in the study districts differed slightly from those reported by coaches statewide. Most notably, coaches statewide appear to have less experience teaching reading: more than half of coaches statewide reported no years of teaching reading compared with 9 percent among the study sample coaches. One plausible explanation for this discrepancy is that the larger districts represented in our study sample have a larger pool of coach candidates from which to select and are more able to recruit coaches with experience reading, compared with smaller or more rural districts. Further, these small or rural districts may not have offered reading courses or instruction at the middle school level prior to the recent state requirements and thus have a smaller pool of

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<sup>3</sup> The dashes in Table 4.3 and others in this chapter indicate that, although we asked for those data on our survey, we do not have comparable data from the state.

**Table 4.3**  
**Middle School Coaches' Credentials (%)**

Credential	Study Sample	Statewide
Highest degree earned		
Bachelor's	28	37 <sup>a</sup>
Master's	68	52 <sup>a</sup>
<i>In reading</i>	37	—
<i>In another subject</i>	31	—
Doctorate	4	3 <sup>a</sup>
Areas of certification		
Elementary education (grades 1–6)	53	51
Reading (grades K–12)	51	44
English	24	32
<i>Middle grades English (grades 5–9)</i>	20	—
<i>English (grades 6–12)</i>	4	—
Middle grades social science (grades 5–9)	20	—
ESOL (grades K–12)	19	—
ESE (grades K–12)	17	12
Pre-kindergarten/primary education (age 3–grade 3)	8	8
Reading endorsement		
Endorsed—all six competences completed	50	55
Working toward/partially completed endorsement	23	19 <sup>b</sup>
Does not have/not working toward endorsement	27	26 <sup>b</sup>
ESOL endorsed	50	45
REESOL endorsed	2	—

<sup>a</sup> State figures do not total 100 percent because the state measured another category of “specialist” (not included in our data collection), which makes up the remaining 8 percent.

<sup>b</sup> State figures may measure something slightly different than what our surveys asked. Coaches report to the state which competencies they have completed. Thus, the percentage “working toward/partially completed” for the state includes coaches who have completed at least one of the six competencies; for the survey sample, this figure might include those who are working toward but have not completed their first competency. We calculated the state percentage of “do not have/not working toward” by counting all coaches who have not completed at least one of the six competencies.

**Table 4.4**  
**Middle School Coaches' Teaching Experience (%)**

	Study Sample	Statewide
<b>Years teaching (total)</b>		
0	1	0.4
1–3	8	4
4–6	17	12
7–9	17	14
10–14	17	17
15–19	14	15
20 or more	26	37
Mean	13.8 years	16.7 years
Median	12 years	15 years
<b>Years teaching reading</b>		
0	9	5.6
1–3	26	9
4–6	16	9
7–9	14	6
10–14	11	7
15–19	10	6
20 or more	14	8
Mean	9.0 years	5 years
Median	6 years	0 years
<b>Years teaching at the middle school level</b>		
0	9	—
1–3	21	—
4–6	26	—
7–9	21	—
10–14	11	—
15–19	1	—
20 or more	10	—
Mean	7.9 years	
Median	6 years	

candidates with experience teaching reading. Nevertheless, on average the general teaching experience levels of coaches statewide did not differ substantially from those in the study districts.

Similar to coaches statewide, coaches in the study districts had been working as state reading coaches for approximately three years on average (Table 4.5). About half of all coaches had two years' or less experience in this role (throughout the remainder of this report we refer to these coaches as less-experienced coaches), and the other half had three or more years' experience (hereafter more-experienced coaches). Interestingly, coach experience level did not vary by such school characteristics as size, achievement, or poverty.

Overall, most principals and teachers appear to be very satisfied with the qualifications of their reading coach. When asked to rate the knowledge and skills of their current reading coaches, most principals reported them to be strong in virtually every area cited in the literature as important requirements for coaches (IRA 2004, 2006), including their understanding of student needs and of research-based reading strategies, as well as their ability to work collaboratively with administrator and teachers, to model reading strategies, to communicate, and to analyze data (Table 4.6). The one area where more than one-third of principals did not rate coaches as strong was their understanding of how to support adult learners (as discussed in a subsequent section, this is an area where coaches wanted more support). As one principal noted at the end of the survey, "A challenge is finding the right person who

**Table 4.5**  
**Middle School Experience as Coaches (%)**

	1 Year	2 Years	3 Years	More Than 3 Years	Mean	Median
Years coaching						
At this school	22	28	30	20	2.8 years	2 years
At the middle school level	19	30	30	21	3.0 years	3 years
In total	19	28	30	23	3.1 years	3 years
State average for total years coaching	18	28	24	30	3.1 years <sup>a</sup>	2 years

<sup>a</sup> This is an approximation. Six coaches who reported coaching for more than 11 years did not specify the number of years and were counted as having coached 11 years. Thus, the mean is probably a slight underestimate.

**Table 4.6**  
**Percentage of Principals Who Rate Their Reading Coach’s Knowledge and Skills as Strong**

Understanding of the particular needs of our students at this school	91
Understanding of research-based reading strategies	89
Ability to work collaboratively with me and the school administration	87
Ability to model reading best practices for teachers	86
Ability to work collegially with teachers	82
Ability to effectively present material to and communicate with teachers	82
Ability to analyze student data	73
Understanding of how to support adult learners	63

NOTE: Response options were “weak,” “medium,” or “strong.”

can deliver the information they know to teachers in a manner that is easy for teachers to take it back into their classrooms and use it without a lot of planning. The coach may know the content, but making it ‘teacher friendly’ is a challenge.” Nevertheless, the vast majority of principals were intent on keeping their current coaches: Only 13 percent agreed or strongly agreed that their school would benefit from a new reading coach with stronger skills and knowledge.

Most teachers—regardless of whether they taught reading or social studies—also gave their reading coaches high marks on a number of quality indicators derived from the literature, as illustrated in Table 4.7. The only area in which some teachers questioned their coach’s qualifications was their understanding of certain teacher or student needs. Note that some teachers answered these questions with “don’t know/not applicable” (ranging from 4 to 14 percent of reading teacher respondents and 9 to 29 percent of social studies teacher respondents).<sup>4</sup> Of those who were able to comment, 29 percent of social studies teachers disagreed that their coach had a strong understanding of their needs as a teacher. Interestingly even fewer, 21 percent, felt the coach did not

<sup>4</sup> There is a strong correlation between teachers responding “don’t know/not applicable” and those reporting minimal contact with the reading coach (e.g., no one-on-one interaction). Teachers with limited interaction with the coach presumably felt less able to assess the qualifications of their coach.

**Table 4.7**  
**Percentage of Teachers Agreeing or Strongly Agreeing with**  
**Statements About the Quality of Their Reading Coach**

The reading coach(es) at my school . . .	Reading Teachers	Social Studies Teachers
Understands the middle school culture and student	91	97
Maintains confidentiality of what we discuss or work on together	90	96
Has strong knowledge of best practices in reading instruction	90	95
Is someone I trust to help me and provide support	82	83
Provides feedback in a nonevaluative way	80	81
Explains the research, theory, or reasons underpinning the strategies (s)/he suggests or the feedback (s)/he provides	75	79
Has a strong understanding of my needs as a teacher	81	71
<i>Has a limited understanding of the particular needs of students that I teach</i>	27	26
<i>Does not have sufficient understanding of my content area to help me with my teaching</i>	—	21

NOTES: Percentages exclude those who reported “don’t know/NA.” Italics indicate negative statements.

understand their content area. Further, slightly more than one-quarter of reading and social studies teachers reported their coach had a limited understanding of the particular needs of the students they teach.

In case study interviews and focus groups, teachers repeatedly equated coach effectiveness with experience and knowledge. In one school, teachers argued that their coach had credibility because she “did our job” and had many years of experience with and knowledge about teaching reading to diverse learners. As a result, one teacher explained, “I know it’s going to work if she suggests it.” Similarly, teachers in another school were quick to point out the vast knowledge base of their coach. “She’s the most effective reading coach I’ve worked with. She definitely knows her stuff,” said one teacher. In contrast, a perceived lack of teaching experience and knowledge in another case study school accounted for some teachers’ less-enthusiastic appraisal of their reading coach. One social studies teacher stated, “I don’t think

she had the reading background. . . . If you were to be a reading coach you'd have taught reading for years so if someone came to you, you could say 'Oh, you know what, I tried this one time.' So there is more of a background knowledge to help." As a result, many teachers in this school reported approaching experienced teachers, not the coach, for help with instructional matters. All these comments support the coaching literature, which notes that classroom background is necessary to "win the confidence and respect of the teachers they will be coaching" (Snow, Ippolito, and Schwartz, 2006, p. 48).

While knowledge and experience appear to be central to teachers' perceptions of coach quality, the coach's style or approach to working with teachers was another attribute widely cited in case study visits. For example, several teachers at one school commended the coach for "offering help without pushing it" and showing teachers "another option rather than making it feel like you're doing something wrong."

## Compensation

As Table 4.1 illustrated, in most study districts reading coaches were on the same salary schedule as classroom teachers. In a few districts, reading coaches received a supplement for either working more hours, being on special assignment, or taking on added responsibilities (e.g., serving as a formal mentor to new teachers). By all accounts, this additional salary was quite modest (e.g., in one district it equated to approximately \$1,300 a year). Several coach supervisors voiced concerns about what they viewed as inadequate compensation for coaches. One district coordinator felt that coaches needed either a supplement or an extended contract to attract more and better individuals to the position. Similarly, a coordinator in another district wanted coaches paid as administrators to properly account for the amount of work they do and to assist with retention. "They do too much to be on a teacher salary," she explained. In another district, the administrator reported that becoming a coach actually limits the salary potential for teachers because they can no longer work an extra period per day to receive additional pay (an option available to classroom teachers). Finally, one administrator



and several coaches responding to the survey noted that the coaching position dissuades teachers who have achieved certification from the National Board for Professional Teaching Standards from applying for or staying in coach positions because they would lose the supplemental salary associated with that credential. On the survey, a few board-certified coaches stated that they would be leaving coaching for this reason. One commented,

For the past two years, I have served as a coach, forfeiting thousands of dollars that I should have received as a National Board-certified teacher. If the state wants the most qualified reading coaches, they must show that they value them by at least not asking them to take a significant pay cut for doing the job. I am either going to be a classroom teacher next year or move into an assistant principal position. I love this job, but I can't afford to take the pay cut anymore. The message sent by the state tells me that I am not valued. It's very unfortunate.

One district addressed this concern by encouraging individual schools with adequate resources to offer additional funding to board-certified coaches or asking these coaches to teach one class a day, which qualified them for the supplement (but somewhat limited their time available to serve in the states' intended coaching role).<sup>5</sup>

## Supervision, Evaluation, and Monitoring

In all districts, a central office coordinator supervised coaches' work, and larger districts often employed multiple coordinators to oversee

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<sup>5</sup> Teaching one period a day might not satisfy the supplemental salary or bonus requirements for board-certified teachers in all districts. One board-certified coach noted on her survey that she must teach for 51 percent of her day, which is why she served as a part-time coach. This same coach planned to leave coaching next year because the district would no longer allow part-time coaches. State Board rules about the program state that eligibility for teaching salary bonuses require, among other things, "teaching students a majority of the time" (6A-10.60, The Dale Hickam Excellent Teaching Program, [www.flrules.org/gateway/ruleNo.asp?id=6A-10.060](http://www.flrules.org/gateway/ruleNo.asp?id=6A-10.060)). See also <http://www.fldoe.org/etp/bonuses.asp>).

and work with coaches. Most coaches were satisfied with this support. In both case study districts, coaches were overwhelmingly positive about the central office staff supervisors. One coach reported that in her first year on the job, a district coordinator provided extra support and mentoring, visiting her school at least weekly and being available via phone or email at all times. Another coach in this same district appreciated the district coordinator's philosophy of coaching and her efforts to model how to be an effective coach, often giving them ideas they could take back to their schools. A coach from the third school in this district echoed this sentiment:

[Our supervisor] has got it together. . . . Her philosophy . . . for reading is probably one of the best that I've ever been around. It has been a bit painful, but nothing that's worth having is not. But she has a very strong focus of what reading needs to look like. And she has really worked at taking us there.

In seven of the eight districts, principals conducted formal evaluations of coaches. Most coaches across the districts reported knowing what was expected of them and how their performance was evaluated (94 percent) and receiving useful feedback on their job performance from their supervisor (84 percent). Although most districts did not formally evaluate their coaches, most reported monitoring their work in some way. Half of the coach supervisors interviewed reported using the state coach logs to keep track of what coaches were doing and found them helpful for identifying areas of need or where coaches might be having difficulties. For example, one coordinator used the logs to determine the amount of time coaches were spending on areas that the district felt were "crucial to the coaching initiative and coaching model," such as time in classrooms modeling or analyzing data. If a coach was found to be spending too much time in other categories, the supervisor would then follow up with her to discuss why this was occurring and what obstacles might be getting in her way. Another district coordinator reported sharing the districtwide log results with all coaches at monthly meetings to reflect on where individuals were spending their time. She described the log as "a good catalyst for conversation." A handful of supervisors, however, reported not using or

only “sporadically” reviewing the log data. One coordinator of a larger district reported having no time to examine the results and explained, “I’m not the DOE [Department of Education] police.” Another district required coaches to submit monthly “action plans” and found these reports to be more useful than state log data for monitoring the activities of coaches. The majority of supervisors agreed, however, that the logs were effectively communicating the state’s expectation that the majority of coach time should be spent in classrooms.

At the school level, coaches in case study schools were not apt to comment on or complain about the logs, but seemed to accept them as part of their job. However, a handful of coaches responding to the open-ended question at the end of the survey complained about the amount of time it took to fill out these logs. Several principals at case study schools held strong opinions about the logs. One principal felt strongly that the logs were valuable because they prevented her from asking coaches to take on too many responsibilities outside of the coach position as defined by the categories reported therein. In contrast, another principal felt the log data were not objective and that the state should visit schools in order to more “authentically” monitor coaches’ work.

## Professional Development and Support

Coaches received support and training from a variety of different sources and at various stages of their development as a coach. In general, a slight majority of coaches (59 percent) reported receiving sufficient training from the state and/or district *prior* to taking on their position. They also reported specific evaluations of the quality of state and district training that they received *throughout* their career as a coach, as reported below.

### State Training

Many coaches participated in state-sponsored conferences. Just under half of the coaches in our case study districts (44 percent)

attended the JRF summer conference in July 2006.<sup>6</sup> Among those who attended, coaches were generally very positive about the quality of this training but had a few concerns (Table 4.8). Most coaches felt the training gave them a clear understanding of their roles and responsibilities, was not too advanced for their experience level, increased their knowledge of best practices, and recognized and built on their knowledge and experience. Some coaches, however, identified a few areas of weakness. More than half of coaches did not feel the training provided them with useful information on how to work

**Table 4.8**  
**Percentage of Coaches Agreeing or Strongly Agreeing with**  
**Statements About the State’s 2006 Just Read, Florida!**  
**Conference**

Provided me with a clear understanding of my roles and responsibilities as a middle school reading coach	85
Increased my knowledge of best practices in reading instruction	71
Recognized and built on coaches’ knowledge and experience	71
Was sufficient for preparing me for the challenges I face as a reading coach	57
Provided me with useful information on how to work with adult learners (i.e., teachers)	41
<i>Did not provide me with new information</i>	32
<i>Took time away from my schedule that could have been better spent in my home district</i>	15
<i>Was too advanced for my level of experience</i>	6

NOTE: Italics indicate negative statements.

<sup>6</sup> Unlike in past years, financial and timing constraints in the summer of 2006 prevented the state from sponsoring separate “academies” for new and veteran coaches and providing separate training for administrators, so the state combined training for administrators and coaches into one “leadership academy” along with separate two-day regional training sessions around the state. It is possible that by not offering separate training sessions for new and veteran teachers, fewer coaches attended. We do not have historical data on conference attendance to verify this hypothesis. We do know, however, that more experienced coaches were more likely to attend the 2006 conference (50 percent) than less experienced coaches (38 percent). First year coaches were least likely to attend the summer conference—82 percent did not attend. It is possible that less experienced coaches attended regional sessions organized by the state and may have been hired too late in the year to attend.

with adult learners (a finding echoed in coaches' reports about district training, as discussed below) and just under half did not feel the training was sufficient for preparing them for the challenges they faced in the job. Further, approximately one-third of coaches reported that the training did not provide them with new information.<sup>7</sup>

Interviews with administrators and coaches reflected these mixed reviews of the state training. One veteran case study coach reported that state training was tailored more for the needs of first-year coaches and therefore was not as useful as it could be. A coach supervisor from another district similarly reported that more differentiated training was needed. Yet another coach felt that the wide range of choices at the 2006 conference provided valuable flexibility in attending sessions that fit particular coach interests. For example, this coach was focusing on vocabulary for the year and therefore sought out and attended "wonderful" workshops on this topic. One new coach found the state training generally overwhelming in the amount of information presented. Another coach identified the opportunity to plan together with her principal as one of the greatest benefits of attending the JRF conference.

### **District Professional Development**

As the state envisioned, all the study districts provided at least monthly professional development opportunities for coaches. Described as either mandatory or strongly encouraged, the sessions were generally well attended by coaches. The focus of these meetings varied across and within districts over time, although most district coordinators described a strong instructional focus. For example, one district focused on a different theme each month and a different reading strategy coaches could use in their schools, such as using reading theaters to develop fluency or identifying reading materials suited for boys. Some districts focused on the coaching process (e.g., one district brought in a well-known consultant to train coaches how to ask leading questions and work with teachers), while others focused on reading strategies (e.g., one district

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<sup>7</sup> Interestingly, there were no significant differences in the perceptions of state training among less experienced versus more experienced coaches.

concentrated training throughout the year on how to support comprehension and reading across the curriculum). Several districts also focused some of this training time on the use of data and technology. Finally, most also devoted some of the monthly meeting time to disseminating district information (e.g., about assessment dates, curricular materials) and allowing coaches to share ideas. The text box on pp. 72–73 illustrates the way in which one of the case study districts utilized a monthly coach meeting.

Not all districts, however, provided training for coaches before they took on the position or in summer conferences. One district required all new coaches to attend a one-week summer institute, which was optional for all other coaches. Another district offered new-coach training only for those who could not attend the state summer institute. Two other districts provided optional summer training for coaches.

Some coach supervisors also reported other forms of support for coaches:

- **Mentoring.** Several districts paired up first-year coaches with veteran “mentor” coaches, but generally intended these arrangements to be informal. A few coach supervisors also noted that finding the time to carry out these mentoring relationships was often a challenge for both mentor and mentee.
- **Technology support.** Two districts utilized technology to further support the work of coaches. One of our two case study districts sponsored an online coach forum that provided ideas and resources for coaches to utilize in planning professional development or lessons with teachers. For example, all PowerPoint presentations utilized in district monthly meetings were posted on the Web site and coaches were encouraged to use and adapt these slides for their own school training (one of the three case study coaches greatly valued and took advantage of this resource, often modeling her monthly in-service sessions on these materials). Another district hosted a blog for coaches and issued weekly electronic memoranda with ideas, updates, and “coach of the month” profiles to facilitate sharing across the district.

- **Small groups.** One case study district assigned coaches across the district to small groups that not only met during monthly meetings to discuss and present ideas, but were also expected to meet at other times to advance their work (see text box on pp. 72–73). At times these groups met or communicated via email to complete projects or tasks assigned during the monthly meetings (e.g., preparing model lesson plans). At other times, they simply provided coaches with a group of peers to whom they could turn for advice or ideas throughout the year. District coordinators described arranging these groups so that they included coaches with a range of backgrounds, both in terms of experience level and focus of work. Interviews with coaches, however, indicate that, given time limitations, not all groups met as frequently as expected.

Consistent with district-level reports, the majority of coaches in all eight districts reported attending district-sponsored seminars or training sessions at least once or twice a month or more (Table 4.9). Aside from these district meetings, the other most frequently attended type of district-sponsored professional development was collaborating with other coaches: Sixty-five percent reported collaborating with others once or twice a month and another 12 percent reported doing so weekly. Sixty-seven percent of coaches reported that they either acted as a mentor or received mentoring from another coach. Approximately half of the coaches received mentoring, and those coaches viewed it as beneficial: Seventy-eight percent of those receiving mentoring reported that it was very valuable for their own professional development. Collaborating with other coaches was also viewed as valuable by more than 75 percent of coaches who did so. In fact, more than half of all participating coaches viewed all five types of training opportunities as very valuable.

### Case Study District Professional Development: Snapshot of a Monthly Coach Meeting

Monthly professional development sessions for middle school coaches in District A often follow a similar agenda, mixing small- and large-group activities, presentations, and discussions, as well as content that is both instructionally focused and more administrative or informational. On this day, coaches enter the room and find their seats at assigned tables or “learning communities” in which district administrators have purposely grouped coaches to include a mix of experience level and school types. Coaches are expected to participate in these small groups throughout the year in professional development sessions and other activities, as time allows. After a quick explanation of the purpose of these groups—“we are colleagues here to support each other”; “we need to share our tools”; “I want you to move forward with the mindset of collaborative coaches”—coaches participate in an icebreaker activity, sharing “two truths and a lie” with their colleagues.

Soon after, one of the district coordinators begins a PowerPoint presentation on differentiated instruction. Using an example of a “real kid,” the coordinator models how to interpret results from multiple assessments to identify this student’s reading needs and possible lessons and interventions that might address those needs, as well as how a coach might work with a teacher to develop and implement these strategies. Throughout the activity, she is explicit about her intentions—for example, explaining “my purpose is to show you the curriculum that you could put together with a teacher.” As she describes how to move “from data to a plan,” coaches regularly interject with questions and suggestions of their own. “How does the first part of the lesson look?” asks one coach; later, another coach explains the value of doing preassessments with students; still another suggests a particular series of books that might be helpful for teachers. At the end of the discussion, the administrator returns to overhead slides describing differentiated instruction and the criteria for “tiered lessons.” She then asks the coaches to use those criteria and “reflection” sheets to evaluate lessons they have prepared as “homework” for today’s meeting—lessons that they developed to use or have used with teachers at their school.

For the next 45 minutes, coaches work in groups, discussing the lessons they created, how they fit the criteria for tiered lessons that differentiate instruction for different learners, and how they would coach the teacher to take the next steps. The conversations are spirited, and coaches exchange many ideas and questions. For example, in one group, a coach who is clearly less familiar with literacy instruction receives an explanation from



another coach on the difference between fluency and comprehension and the different purposes of assessing each—"if you are fluent, you free up your mind not to decode and then you can focus on comprehending." When the whole group reconvenes, district staff assign groups homework for the next monthly meeting: to investigate four reading techniques (e.g., using varied texts, interest centers), try doing a lesson with a teacher using that technique, and decide as a small group how to share the information about the technique with the whole group at the next meeting. After a brief discussion of the assignment, staff move on to the next topic of "progress monitoring." They present a chart and worksheet with "dummy" assessment data for six students—some with clear deficiencies in fluency, others with low scores in comprehension—and ask coaches what reading level placement would be appropriate for each individual student and what instructional support they would suggest teachers offer to build each student's reading skills. After small-group discussion, coaches return to the large group to review what they decided for each student. "I would do another assessment to see if that student really has a problem or they just blew off the test," suggests one coach. "Maybe they have had no practice or exposure to the MAZE [a group-administered test that measures fluency of silent reading and low-level comprehension of passages that are like those students will encounter on the FCAT] . . . Try balanced reading, spelling books," another coach offers. To close the activity, the administrator once again explains her intent, "So my attempt here has been to model for you what to do with teachers. Go through and look for the gray area kids. Who stands out? Use it to do lesson planning and tiered lessons. Look at the data and patterns that emerge." She then moves on to some administrative matters, such as providing dates for upcoming assessments and explaining criteria and upcoming courses for the state reading endorsement program.

After lunch, several speakers come to present information on new training opportunities and reading materials. Toward the end of the day the district coach coordinator returns to a figure introduced at the start of the day that depicts a "Coaches' Carpool," meant to illuminate the expectation that in small groups coaches are "navigating the coach's path together." She then asks coaches to share in their groups their experiences participating in a carpool. The day closes with another round of small group meetings to decide how they will communicate about their next homework assignment and present their learning at the next district meeting. The administrator acknowledges that when coaches return to their schools there will be teachers lined up to talk with them and that this assignment will be "put on the back of your list," and thus coaches need to have a process in place now for how to accomplish this assignment.

**Table 4.9**  
**Percentage of Coaches Reporting Frequency and Value of District-Sponsored Activities to Support Professional Growth and Development**

	Frequency of Participation				Participants Perceiving Activity to Be Very Valuable
	Never	A Few Times a Year	Once or Twice a Month	Once a Week or More	
Attending seminars or training sessions for reading coaches in the district	2	33	62	3	68
Collaborating with other coaches (e.g., planning professional development, discussing common challenges)	4	41	43	12	78
Participating in training or receiving assistance from FLARE staff	29	53	11	7	51
Acting as a mentor to another coach	47	38	10	6	65
Receiving mentoring from another coach	47	35	15	3	78

NOTES: Response options for perceived value were “not valuable,” “minimally valuable,” “moderately valuable,” and “very valuable.” Percentage of those reporting “very valuable” exclude those who reported “NA: Did not participate.”

Coaches in case study schools appreciated district-sponsored meetings for a variety of reasons: Some reported learning new ideas and strategies to bring back to their schools and use in site-level professional development (e.g., one noted that “I walk away with actual things that can be done in the classroom”), while others valued the opportunity to talk to and share ideas with other coaches (e.g., one reported learning “teacher-friendly” strategies from colleagues to use in one of her in-service sessions, another felt her peers lent moral support and counterbalanced the isolation of working alone on a campus). A few coaches mentioned weaknesses, most notably some redundancy in the topics covered and a concern over the amount of time required off-site to attend the meetings.

As for the content of district-sponsored professional development activities, more than half of all coaches reported a major emphasis on four key areas: effective reading instructional strategies, working with teachers to improve their practice, the role and responsibilities of the coach, and analyzing and using student data. As Table 4.10 notes, many coaches reported other areas to be moderately emphasized, with a few notable exceptions. Approximately one-third of coaches reported that district professional development did not emphasize effective strategies for teaching adult learners and another 29 percent reported that it was emphasized only to a minor extent. However, approximately two-thirds of coaches reported wanting more support in this area. These reports, combined with those about the state’s training, are consistent with some principals’ views (reported earlier) that coaches may not have strong skills in this area. Two other areas that appear to receive less attention in training sessions are how to teach reading to special populations, such as ESE and English language learners (ELLs), and building a working relationship with principals—about one-half reported that district activities placed either no emphasis or a minor emphasis on each area. Interestingly, many coaches appear to be satisfied with the low level of emphasis on building relationships with principals: Approximately half said that they would not like more support in this area. In contrast, approximately three-fourths of coaches reported wanting more support in teaching reading to special populations. Two other areas in which approximately one-third of coaches wanted much

**Table 4.10**  
**Percentage of Coaches Reporting Areas Emphasized in District-Sponsored Professional Development and Areas in Which They Wanted More Support**

	Amount of Emphasis		Those Wanting More Support	
	Moderate Emphasis	Major Emphasis	Yes, a Little More	Yes, Much More
Effective reading instructional strategies	30	65	56	25
The role and responsibilities of a reading coach	30	54	40	16
Working with teachers to improve their practice (e.g., modeling instruction, providing feedback, organizing professional development)	30	54	41	40
Analyzing and using student data to improve instruction	32	52	49	21
Reading processes and acquisition: how students learn to read	34	41	55	13
Incorporating literacy across the content areas	45	40	52	33
Establishing a literacy/reading leadership team on site	35	37	41	24
Information on specific reading curricula or materials	49	35	58	15
Building relationships and trust with teachers	39	32	47	18
Building a working relationship with my principal(s)	28	23	30	22
Teaching reading to special populations—ESE, ELL	31	13	43	35
Effective strategies for teaching adult learners	26	10	35	30

NOTE: Response options for emphasis were “no emphasis,” “minor emphasis,” “moderate emphasis,” and “major emphasis.” Response options for more support were “no,” “yes, a little more,” and “yes, much more.”

more support include working with teachers to improve practice and incorporating literacy across the content areas. Interestingly, these are two areas said to be a moderate or major focus of current professional development efforts.

Not surprisingly, less-experienced coaches were significantly more likely than experienced coaches to want much more support in several of the areas listed in Table 4.10:

- the role and responsibilities of a reading coach (27 percent versus 6 percent)
- working with teachers to improve their practice (53 percent versus 29 percent)
- building a working relationship with my principal(s) (35 percent versus 10 percent)
- establishing a literacy/reading leadership team (37 percent versus 13 percent).

## Summary

Districts and schools tended to adopt similar strategies in implementing Florida's reading coach program:

- Most districts reported using state guidelines and job descriptions to specify local coaching programs and to emphasize both ends of the “coaching continuum.”
- In seven of the eight districts, principals or schools hired reading coaches. Although only one retained centralized control of hiring, several district coordinators reported concerns about balancing the need for school autonomy with a desire to retain some district-level control to ensure proper utilization of coaches. Across districts, principals generally considered a similar set of knowledge, skills, and abilities when selecting a coach—including indicators of knowledge and experience with teaching reading, interpersonal skills, communication skills, and experience working in similar contexts.

- Some school and district administrators voiced concerns about finding enough individuals with these attributes and establishing a pipeline of future coaches.
- As a whole, the majority of coaches possessed many of the qualifications state administrators and national experts identify as important for reading coaches. More than three-quarters of coaches held a master's degree in reading, a reading certification, or state reading endorsement. Two-thirds of coaches had taught for ten years or more, while only 9 percent had taught for three years or fewer. Not all coaches' experience teaching occurred in reading or at the middle school level. Although coaching experience levels (i.e., years coaching) were similar across schools of various types, coaches in some schools—larger schools and high-performing schools—were more likely than other schools—smaller schools and low-performing schools, respectively—to employ coaches with formal reading credentials. Overall, most principals and teachers were satisfied with the qualifications of their reading coaches.
- In most districts, reading coaches received a salary commensurate with a regular teaching salary schedule; only a few districts offered supplemental income. Several district supervisors and coaches voiced concerns about inadequate compensation—in particular, the loss of supplemental salary associated with National Board certification.
- In seven of the eight districts, principals conducted formal evaluations of coaches. Across all districts, almost all coaches reported knowing what was expected of them and how their performance was evaluated, and felt that they received useful feedback on their job performance.
- Coaches generally received professional development and support from the state and district. Fewer than half attended the state-sponsored annual conference; of those who did, most were positive about the quality of training. One exception was that more than half did not feel the training provided them with useful information on how to work with adult learners. As the state envisioned, all districts provided at least monthly profes-

sional development sessions for coaches. In addition to attending these meetings, most coaches also reported collaborating with other coaches at least once or twice a month or more. Coaches were most likely to rate forms of professional development that involved peer collaboration—receiving mentoring from or collaborating with coaches—as very valuable for their professional growth. The majority of coaches reported that district-sponsored professional development activities focused on four key areas: effective reading instructional strategies, working with teachers to improve their practice, the role and responsibilities of the coach, and using student data. One area in which coaches received little district attention but wanted more support was on effective strategies for teaching adult learners. Two areas said to be a moderate or major emphasis of current district-sponsored professional development but in which one-third or more of coaches still wanted much more support were working with teachers to improve practice and incorporating literacy across the content areas.

In the next chapter we probe more deeply into the experiences of reading coaches. Specifically, we examine how coaches spend their time, how they interact with teachers, and what factors and conditions help or hinder their efforts to improve reading instruction in their schools.





## **Implementation of Florida’s Coaching Program: The Day-to-Day Work of Coaches**

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Although districts and schools generally implemented similar policies and practices to support coaching, the reading coaches themselves often varied in how they carried out their roles and responsibilities. In this chapter, we examine how coaches utilized their time and interacted with teachers, and how these activities varied by coach and school characteristics. We also describe a set of factors that were reported to constrain and enable coaches’ work in schools. To illuminate the nature of coaches’ daily work, we present a series of vignettes of coaches we encountered in our case study research.

### **How Coaches Spend Their Time**

Consistent with state expectations, almost all coaches (93 percent) in the eight districts served full time at one school. This figure mirrors the statewide average for all middle school coaches: 92 percent are full time. Among the 7 percent of coaches in the study districts who served part time ( $n = 8$ ), all reported spending the rest of their time teaching at the same school or another school in the district and none reported serving as a part time coach at another school. How coaches spent their time varied somewhat in terms of the types of activities in which they engaged and the focus of this work, including the teachers they targeted and the areas of instruction they emphasized in their work with teachers.

### Type of Coach Activities

Case study coaches generally described themselves as wearing many hats and taking on any duties required of them to support their school and its teachers. As one coach explained,

My philosophy is: This is my school. And if my teachers or if the students in this school are having difficulty and I can help them, then my job is to help them. Whether this is with FCAT or whether this is just with reading scores or whatever. . . . I've gone to the science meetings. I've gone to the math meetings. . . . I handle schedules because if I am aware of what is going on, then I can help the teachers with the problems and I can't help them if I don't know what is going on. I really feel . . . it does not matter what it is, if it is helping the elementary kids who come over for [a schoolwide event taking place during our visit], then that is what I need to be doing at that moment.

Many teachers in the case study schools seemed well aware of the multiple tasks coaches performed and often described their coach as “pulled in a lot of directions.” Like the case study coach quoted above, the individual described in the text box exemplifies someone who acts as a “jack of all trades.” As some of the other coach profiles below illustrate, not all coaches approached their work so broadly, but instead concentrated their time on particular duties.<sup>1</sup>

Similar to this coach, coaches in all districts reported dividing their time among a wide range of activities (Table 5.1). These activities fall into six major categories, which we examine below: formal instructional work with teachers, informal coaching, coaching-related administrative work, data analysis, noncoaching administrative duties, and their own professional development (discussed previously). A person

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<sup>1</sup> This finding is consistent with other research on coaching in elementary schools. One study of Reading First coaches in five Western states found that literacy coaches tended to fit into five categories: data-oriented, student-oriented, managerial, individual teacher-oriented, and group teacher-oriented (Deussen et al., 2007).

### **Coach As “Jack of All Trades”**

Mary has been a coach at her school for three years and prior to this position was a reading teacher and department chair at the school. She is very highly regarded by teachers, who unanimously describe her as an important instructional resource. One geography teacher explains, “[Mary] tries to help everyone and wants to help everyone. She’s doing a good job of offering help without pushing it.” Her duties are multifaceted: she works with individual teachers modeling instruction (particularly for newer reading teachers, but also for several content area teachers), serves on school committees, leads department meetings for reading and English language arts teachers, presents instructional information at all-staff meetings, assists teachers with media resources, analyzes data, and oversees all reading-related testing—including data entry, training teachers how to administer diagnostic assessments, and administering individual assessments to students to determine placement into reading classes. Mary also describes a lot of her time spent on impromptu conversations with teachers to touch base on how they are or how their students are doing. On the day we shadow Mary, she interacts with many teachers. With some, she checks in on particular students’ progress. For others, she answers questions about resources. Later in the day, she reviews the student database to locate FCAT Level 1 students who have repeatedly failed a diagnostic test to identify students at risk for failing. She then meets with school counselors to make them aware of those students and explain how they might use the database to monitor their progress in reading. She also prepares data reports to present at an upcoming meeting.

As a result of this versatility and multifaceted work, several school colleagues describe Mary as “spread too thin.” Mary herself acknowledges the challenge of being pulled in a lot of directions and works hard to manage and prioritize her time. For example, she tries to be in classrooms two to three periods a day. When working individually with teachers, she avoids doing “a drive-by” and is instead committed to working with each teacher for a significant amount of time, modeling a lesson and spending time reflecting on it with the teacher, and then returning to either coteach or observe another lesson.

**Table 5.1**  
**Time Coaches Spend on Activities During a Typical Two-Week Period (%)**

Activity	5 Hours or Less	6–16 Hours	17–24 Hours	More Than 24 Hours
Working with <i>individual teachers</i> one-on-one on their instruction (including classroom observations)	19	42	23	15
Providing a “listening ear” for teachers’ concerns	25	39	25	11
Administering or coordinating student assessments (including managing assessment materials)	37	35	16	12
Analyzing and training teachers on how to analyze and use student data to inform instruction (including FCAT, MAZE, Fluency checks, student work)	50	28	14	8
Managing reading resources and materials (including ordering, budgeting, doing inventory, locating written materials as well as overseeing computer software and reading labs)	53	26	17	4
Working with <i>groups of teachers</i> on their instruction (including large-group professional development sessions)	60	27	9	3
Attending meetings or professional development sessions (not ones that you lead) in the school, district, or region	52	38	8	2
Performing noncoaching administrative duties (including lunch duty, bus duty)	75	18	6	2
Teaching or tutoring students in class or in computer labs	75	16	4	5
Substitute teaching	92	5	2	2

NOTES: Response options were “I generally do not do this every two weeks,” “a small amount (1–5 hours),” “a moderate amount (6–16 hours),” “a large amount (17–24 hours),” “a very large amount (more than 24 hours).” The first two categories were collapsed into one column above.

reporting 17 to 24 hours in a two-week period<sup>2</sup> (presumably 80 hours) on a particular activity is spending approximately 21 to 30 percent of his or her time on this activity. As described throughout this section, we discovered many differences in the reported activities of less-experienced coaches (one to two years of coaching experience) compared with those of more-experienced coaches (three or more years), particularly with regard to formal instructional work with teachers, coaching-related administrative work, and informal coaching. We also detected a few differences in the reported activities of coaches in high-performing schools (receiving state school grades of A or B) compared with those in low-performing schools (receiving C, D, or F grades).

**Formal Instructional Work with Teachers.** As intended, individual instructional work with teachers tops the list of coaches' activities, which would include observing instruction, providing feedback on instruction, and modeling. A little more than one-third of coaches reported spending 17 hours or more in the two-week window working one-on-one with teachers. However, unlike the state's expectation that half of coaches' time be spent on these "in-class coaching" activities, this did not represent the majority of most coaches' time during a typical two-week period. Only 15 percent reported spending more than 24 hours on this work, which equates to 30 percent or more of their time. More than 60 percent of coaches reported spending 16 hours or less, or 20 percent of their time, on individual instructional work.<sup>3</sup> In fact,

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<sup>2</sup> We asked for hours within a two-week period because the state logs ask coaches to report their time for this window of time and coaches were thus familiar with thinking about their work in two-week blocks.

<sup>3</sup> The time that coaches spent on individual instructional work may increase if we generously assume that time coaches spent reviewing student assessment data with teachers (a category analyzed separately in a later section) was instructionally focused (e.g., helping teachers identify strategies to address student weaknesses uncovered in data) and occurred in one-on-one interactions (as opposed to in groups) and that coaches had not already included this time in their response to the question regarding individual instructional work. If one takes the midpoint of the range of hours reported by each coach for individual work and adds it to the midpoint of the range of hours reported for data analysis, this figure provides an outside estimate of the high-end range of time spent on all one-on-one work with teachers. These calculations suggest that only 14 percent of coaches spent half of their time or more on one-on-one work (broadly defined) as encouraged by the state.

almost half of all coaches (47 percent) reported that their other responsibilities made it difficult for them to spend time in classrooms working with teachers. Coaches reported working one-on-one with 7.7 teachers on average during a typical two-week period. (Across the districts these reports ranged from no teachers to 35 teachers.)

Compared with individual-level work, coaches were generally less likely to spend time working on instruction with groups of teachers. More than half reported spending five hours or less during a typical two-week period on these types of professional development activities. As Table 5.2 illustrates, more than three-quarters of all coaches reported presenting at regularly scheduled teacher meetings—organized by the department, team, grade level, learning community, or whole school—or mandatory professional development sessions at least once or twice a month or more. In contrast, fewer than half reported facilitating or leading voluntary professional development sessions that might occur during planning periods or before or after school. Again, these patterns vary according to years of coaching experience. For example, less-experienced coaches were significantly more likely than more-experienced coaches to report never facilitating or leading voluntary professional development sessions (22 percent versus 8 percent), whereas more experienced coaches were more likely to report doing so once or twice a week or more (14 percent versus 4 percent). Similarly,

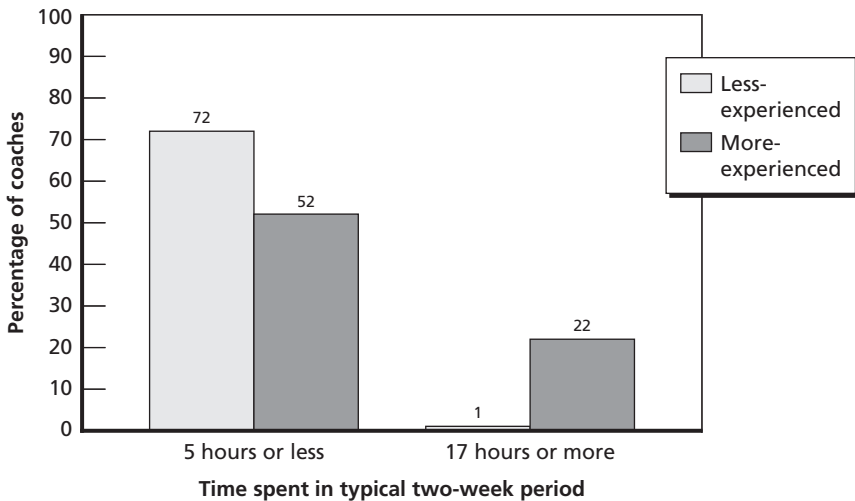
**Table 5.2**  
**Frequency of Coaches' Meetings and Professional Development Sessions with Teachers (%)**

	Never	A Few Times a Year	Once or Twice a Month	Once or Twice a Week or More
Presented at <i>regularly scheduled</i> teacher meetings or <i>mandatory</i> professional development sessions	4	15	46	36
Facilitated or led <i>voluntary</i> professional development sessions that teachers can attend if they choose	15	46	30	9

more-experienced coaches were significantly more likely to present at regularly scheduled or mandatory meetings once or twice a week or more (45 percent versus 24 percent). These voluntary sessions typically did not include the entire teacher faculty: 44 percent reported that 0–25 percent of the total teaching staff generally attended voluntary sessions, 23 percent reported that 26–50 percent attended, and 34 percent reported that more than half attended. The majority of coaches (62 percent) leading voluntary professional development sessions reported that teachers received in-service points that count toward recertification or other incentives for participating. For example, in one case study school, teachers received in-service points for completing “homework” assignments following coach-led monthly in-service sessions, such as writing up a description of and reflection on how the teacher implemented a reading strategy introduced in the training.

Overall, less experienced coaches reported spending less time working with teachers in groups. As Figure 5.1 illustrates, less-experienced coaches were significantly less likely to report spending

**Figure 5.1**  
**Time Spent Working with Groups of Teachers: Less- Versus More-Experienced Coaches**



17 hours or more working with groups of teachers on their instruction and significantly more likely than their more-experienced counterparts to report spending five hours or less—the lowest category of time—on this type of activity. Less-experienced coaches were also less likely to report presenting at mandatory *and* voluntary professional development sessions once or twice a week or more. Similar patterns emerged for more- and less-experienced coaches' reports of time spent working individually with teachers, although these differences were not statistically significant.

These patterns are consistent with reports from teachers and coaches in case study schools, who often noted that it takes time to establish relationships and trust with teachers in order to be invited into classrooms. Coaches with less experience were also more likely than more-experienced coaches to report that their other responsibilities made it difficult for them to spend time in classrooms working with teachers (56 percent versus 38 percent)—again, this difference was not statistically significant.

Another common activity in which coaches interacted with teachers was serving as a formal chair or leader of a teaching department or learning community. In fact, 69 percent reported serving as the chair or leader of the school's reading and/or language arts department. Interestingly, case study coaches varied in their opinions about the perceived utility of serving in this role. One coach noted that by attending these regularly scheduled meetings she was able to form strong relationships and communicate effectively with all reading teachers. In contrast, another coach found that this role sent the wrong message to teachers—that the coach was a supervisor instead of collaborative peer. Focus groups with teachers in this school also indicated that the department chair responsibility created a perception among other content teachers that the coach served only reading teachers, when in fact she intended to work with all teachers. One geography teacher noted, "I think structurally she is the reading department head. She is in charge of those teachers and that [department]. You almost need . . . a secondary reading coach that would focus on content area reading."

**Informal Coaching.** Three-fourths of all coaches reported spending six or more hours during a typical two-week period providing a



“listening ear” for teachers’ concerns. In fact, it was the second most frequent activity reported by coaches. Again, coaches with more years of experience were more likely to spend time listening to teachers’ concerns; however, these differences were not statistically significant. Case study visits indicate that teacher concerns varied from ones that were instructionally focused (e.g., teachers “bouncing ideas” off the coach, such as how to effectively instruct a particular student or group of students) to ones that were more personal (e.g., family issues, interpersonal conflicts with school staff). One case study coach, Judy, described in the text box on the next page, embraced these informal aspects of coaching very seriously, noting their importance not only for the general well-being of staff but also for the strength of the school’s instructional program.

**Coaching-Related Administrative Work.** Coaches also performed a variety of administrative functions that may have indirectly affected instruction. Most notably, more than two-thirds of coaches reported spending six hours or more every two-week period administering or coordinating student assessments, which could include state or local tests (this does not include time spent analyzing results, which is a separate category discussed next). In most case study schools, coaches spent significant amounts of time administering state- and district-required, individual reading assessments, such as fluency tests, to some students and inputting results from all teachers into the state’s PMRN database. In some case study schools, coaches also organized and managed the administration of the state FCAT. In fact, one coach reported taking on the official testing coordinator role at the school for all subject areas. She spent three solid weeks, eight hours a day organizing testing materials prior to testing, and then even more time during and after testing providing teachers with the materials they needed, maintaining the security of test booklets, and sending completed booklets to the state. In another school, teachers identified the FCAT administrative duties as ones that greatly competed with the intended coaching duties. “She gets pulled out of her reading role into an FCAT administrator role, which someone else could be doing,” explained one teacher.

All the case study coaches noted that the time spent on assessments was episodic (e.g., they would spend significant time during test-

### Coach As Counselor

Judy is an experienced teacher and reading coach who performs a wide range of activities at her school. What makes Judy particularly interesting is her commitment to the informal aspects of coaching and her broad interpretation of the role of reading coach to include emotional and psychosocial support for teachers. For example, Judy classifies a lot of her work as “on the sidewalk” coaching or checking in with teachers as she sees them in the hallway, library, cafeteria, or parking lot. Typically, she explains, a teacher approaches her and says “I’m having trouble with this student,” and Judy then offers some advice. Although she also devotes significant time to more-formal coaching—modeling or observing instruction in classrooms—she notes that this informal work helps build trust and relationships that facilitate the formal work.

To maximize these encounters, Judy intentionally roams the halls and rarely stays in her office for long periods of time. On the day we shadow her, Judy never sits at her desk for more than ten minutes and instead “pops in and out” of various classrooms to check in on teachers. As one teacher explains, “I can’t pass her in the hall without me stopping her or her stopping me. ‘Oh, what do you think about this?’ [she often asks me].” Judy also prides herself in locating her office in the school library, which she describes as “more psychologically accessible” to teachers than being located in the main office or in between classrooms. In this location, “people can come and go without being seen.” As a result, Judy spends a lot of time lending an ear to teachers:

*A lot of times I’m just that person they vent to. Sometimes they will come and talk over a problem . . . we’ll come to a solution or I’ll be able to recommend something or talk them through the issue until it is no longer an issue. . . . [S]ometimes I’m just that buffer, just that someone they go to and close the door and say “I’ve had it! I’m done.” . . . There are some problems that get diffused because they know they have someone they can talk to. . . . Sometimes it’s a situation that they don’t want to talk to a teacher about or feel that that teacher can’t help that, or they want someone . . . with a different perspective. . . . I guess it’s kind of like a counselor. . . . [T]hey can deal with an issue and . . . have somebody to listen to them.*

Often, the conversation and support extend beyond school matters to ones that are more personal, but nonetheless related to their ability to teach. She explains:

*I was popping into a teacher’s room yesterday because I knew she was having some really serious family problems. And I guess, that’s more like what I do. If I know that there is a difficulty going on,*

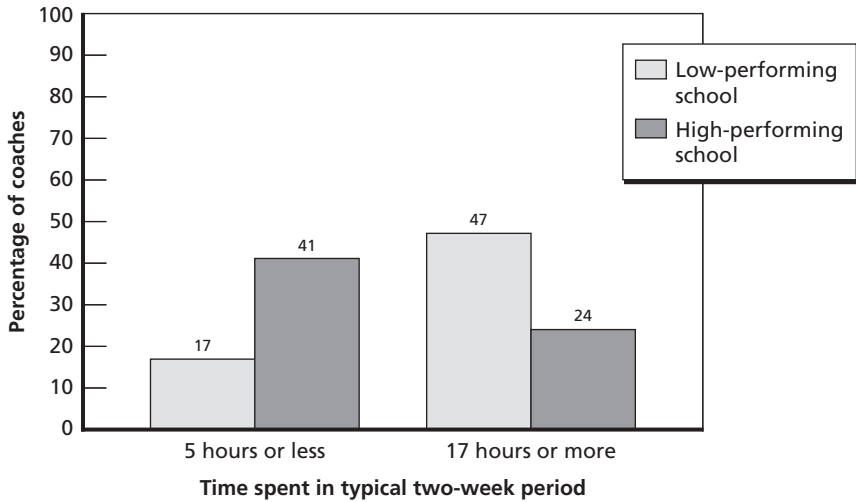
*I'm just that extra shoulder to cry on or that extra shoulder to lean on. I just make sure I'm there. [During the roughest part of that specific situation . . . , [a teacher] was literally crying with me, but when she got to the classroom, the tears were gone. So that part of the emotion was dealt with and she didn't have to go to the classroom and fall apart. . . . I try to be that little extra shoulder, so they can handle their class.*

ing periods but little time in between). For example, one coach spent 35 to 45 percent of her time on testing and data reporting at the end of the year, but noted that it was a much smaller fraction of her total time in previous months. Many case study coaches also complained about the time required for these duties—time they would have preferred to devote to in-class, one-on-one work with teachers. As discussed later, more than half the coaches in all eight districts cited the large amount of time it takes to give, score, administer, and report on assessments as a moderate-to-great hindrance to their work. In fact, this was the most frequently cited hindrance among a list of 13 other factors.

Significant differences exist between the test-related administrative activities of coaches in low- and high-performing schools. Coaches in high-performing schools—who likely have fewer students with severe reading problems and fewer students enrolled in the more intensive reading courses requiring assessments—were much less likely to report spending substantial amounts of time coordinating and administering assessments (Figure 5.2).

In addition to assessment, about half the coaches reported spending a similar amount of time—six or more hours in a typical two-week period—managing reading resources and materials, such as ordering, budgeting, doing inventory, locating print material, and overseeing computer software and reading laboratories. The case study coach described below represents one individual who focused considerable time and attention on this aspect of her job. Coaches in low-performing schools were significantly more likely to spend time on these tasks: 68 percent reported spending six or more hours managing reading resources compared with 42 percent of coaches in high-performing schools. While some of this work may be considered purely administrative (e.g., ordering books), case study coaches and teachers

**Figure 5.2**  
**Time Spent Administering and Coordinating Student Assessments:**  
**Coaches from Low-Performing Versus High-Performing Schools**



RAND MG762-5.2

in no way characterize it as trivial. For example, coaches often provided teachers with libraries of leveled books that were appropriate to the reading skills of their particular students and helped teachers locate materials that motivated students to read or connected to their particular backgrounds. One language arts teacher explained,

I got a series of books from [the reading coach]. . . . I like to use them in my class for silent reading. Because a lot of times, you know, what we're reading or the texts we are reading in class are not necessarily their interests. So children that have lower levels of reading, they need to have something that they are really interested in reading . . . and it worked out really well.

In this same school, a veteran geography teacher cited another example of the coach locating valuable supplemental material for her curriculum:

I actually used [the reading coach] this week because my problem with the knowledge level is that I was supposed to do Rome and

### Coach As Resource for Curricular Materials

Sarah is a second-year reading coach at her school with a strong postgraduate background but not a lot of experience teaching at the middle school level. Although she is making progress getting into classrooms and notes that teachers are slowly warming up to her, Sarah admits that it has been challenging. In addition to coordinating testing and other duties, she spends a significant amount of time gathering, developing, and disseminating classroom materials and resources. At the beginning of the year, Sarah helped many teachers set up their classrooms with appropriate libraries and books tailored to the reading levels of their students. As one teacher reported:

*I didn't have any way of finding appropriately leveled books for kids that were nonfiction. So I think that's one of the things, especially, that [Sarah has] helped me with, that whole thing over there [points to a set of books on a shelf]. She actually facilitated me getting them in my room.*

The teacher went on to explain the importance of these materials for motivating students to read: "It's real stuff that they are interested in, written on a level they can understand, and it helps them see that nonfiction can be interesting, can be useful, and is just as important to know how to do as reading fiction."

Throughout the year, Sarah also responds to teacher requests for supplemental curricular material, often emailing teachers links to resources on the Internet or locating printed materials from the various texts she houses in her office. "[Sarah] has been useful in helping point me in the right direction sometimes," said a new teacher, "and setting me up with materials and stuff that maybe I didn't know we had. She's been a great source for that." For example, the coach alerted her to a set of audio books, which she found to be very useful. The teacher explains:

*I didn't even know the school had a set of audio books. . . . I came in and . . . I'm thrown into the classroom and, for a while, you're just kind of treading water, and then you're, "I wonder if I could do this? And I wonder if I could do that?" You start kind of looking around. And so, one of the things that she's been helpful in is setting me up with supplies and equipment and materials, and giving me heads-up about stuff.*

Greece but it peaked at the wrong time for me . . . I have three kids who are on a third grade reading level so she went back and found me articles . . . that will work for the third-grade-and-under reader.

Finally, more than half the case study coaches also mentioned assisting or leading efforts to place students in classes and create schedules at the start or end of the year. Others reported leading or serving on their school's reading leadership team and other reading-related committees.

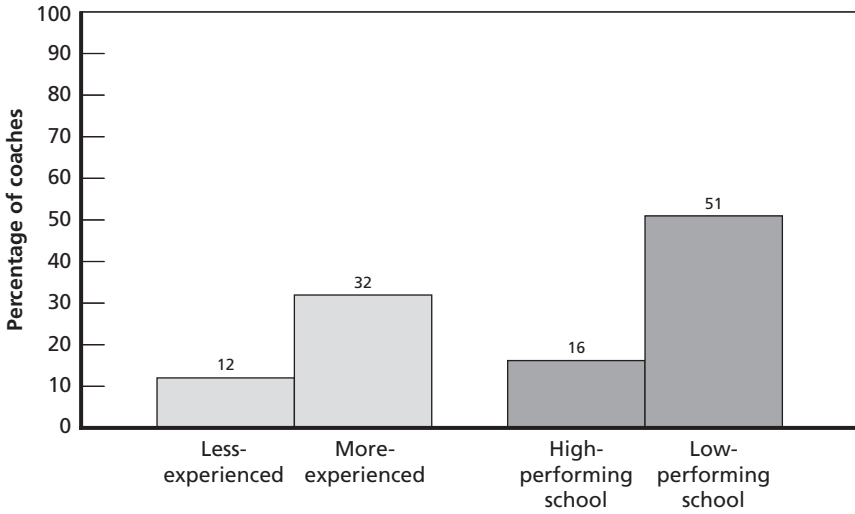
**Data Analysis.** Compared with administering and coordinating assessments, coaches were less likely to spend as much time analyzing or helping teachers analyze and use assessment results and other data to inform instruction. Nevertheless, half of all coaches spent six or more hours every two weeks on data analysis. In some case study schools, this work included presenting FCAT results to teachers in schoolwide or department meetings at the start of the year to identify student weaknesses. In other schools, the coach may have worked one-on-one with teachers to help them understand diagnostic assessment results for their students and how to use them to identify on-level reading material or appropriate instructional strategies. Similar to patterns reported previously, more-experienced coaches were significantly more likely than less-experienced coaches to spend a large amount of time on data analysis (Figure 5.3). Consistent with their reports of time spent administering assessments, coaches in low-performing schools were also much more likely than their counterparts in high-performing schools to spend time analyzing and helping teachers use the results.<sup>4</sup> The coach described in the next text box represents someone who took to heart the role of coach as data analyst and devoted significant amounts of time throughout each week to these activities.

**Other Noncoaching Duties.** Coaches generally did not report spending significant amounts of time on activities state and district coordinators discouraged or defined as "off limits." As Table 5.1 illustrates, approximately one-fourth of coaches reported spending six or more hours every two weeks performing noncoaching administrative duties such as lunch or bus duty. That same proportion reported

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<sup>4</sup> Figure 5.3 illustrates only the significant differences in coaches' reports of spending 17 hours or more. Differences in reports of coaches spending five hours or less were not statistically significant.

**Figure 5.3**  
**Coaches Spending 17 Hours or More Every Two Weeks Analyzing and Training Teachers to Analyze and Use Student Data, by Experience and School Performance**



RAND MG762-5.3

teaching or tutoring students in class or computer labs for six or more hours every two weeks. And only 9 percent of coaches reported spending that amount of time substitute teaching—in fact, 72 percent reported that they generally did not substitute teach every two weeks. Interestingly, case study coaches were somewhat mixed in their attitudes toward these “other duties.” While most preferred to defer these duties to others to maximize their available time to work with teachers, some felt it was important to show their support and act as a member of the school community. A few case study coaches worked directly with students (e.g., taking over small groups in a teacher’s class, teaching test-taking strategies) and appreciated these opportunities. Clearly, many case study teachers wanted coaches to be spending more time in this fashion.

### Coach As Data Analyst

Elaine, a seasoned reading coach in her second year at the school, uses data to drive much of her work throughout the year. At the start of the year, Elaine examined schoolwide FCAT results with members of the reading leadership team to develop a “reading treatment plan.” The plan identified several problem areas and strategies to address them, such as working on vocabulary development, establishing a reading workshop model in several classrooms, and setting up model “lab” classrooms. Periodically, Elaine also analyzes schoolwide data to evaluate various programs. For example, she examined assessment results from a reading software program that several teachers were using and reported back to school administrators on students’ strengths and weaknesses and some potential problems with the program. This analysis indicated that most students were not at the “standard productivity level” and may not have been taking the program seriously, and that teachers may not have understood how to effectively use the program. One administrator noted how valuable this analysis has been for school leaders:

*[S]he did a report for [this] reading program . . . [which] helped me out because she pinpointed what the problems were and what the students’ strengths were. She really understands those reports. She is really able to look at the data and really assess where we should be. . . . She diagnosed a problem, she took a big write-up with some solutions of things we could do or things we should do to assist with those problems and she shared that information with myself [and other administrators] and from there we met as a reading leadership development committee team and we talked about some of those things and . . . how we can integrate it into doing some other things . . . and try to make some improvements.*

Throughout the year, Elaine also helps the reading teachers review FCAT and other assessments results and understand how to use them to identify areas that need more instructional attention. For example, a sixth grade reading teacher reported that the coach not only modeled how to administer the oral reading fluency and comprehension tests, but also discussed the results with teachers:

*She diagnosed a problem, she took a big write-up with some solutions of things we could do or things we should do to assist with those problems and she shared that information with myself [and other administrators] and from there we met as a reading*



*leadership development committee team and we talked about some of those things and . . . how we can integrate it into doing some other things . . . and try to make some improvements.*

Another teacher noted that “before [Elaine] came you were basically on your own” to understand assessment results and how to adjust your teaching to address them. She explains, “we knew there was a problem but we did not know what to do. . . . She helped us to understand that we were presenting a sixth grade–level assignment to a sixth grade student who was reading on a third grade level.”

Finally, several case study coaches took on even more responsibilities that are difficult to categorize, such as writing grants and providing technological support. Some other duties might be classified as schoolwide efforts to motivate students in the area of reading and comprehension. For example, three coaches facilitated student-run, schoolwide morning television broadcasts focused on vocabulary. Another coach initiated a schoolwide “book challenge,” rewarding students for the number of books they read over the course of the year.

### **Focus of Work: Teachers**

Two of the eight district coach coordinators reported that schools had complete discretion to decide the focus of coaches’ work, both in terms of which teachers to target and what areas of instruction to emphasize. In the other six districts, coordinators often directed coaches to focus on reading teachers as their first priority and then to spend the remainder of their available time on content area teachers. Consistent with district-level direction, almost all coaches reported placing their greatest emphasis on reading teachers—teachers who instruct their own reading courses for students scoring at Level 1 and/or Level 2 on the state FCAT, using curriculum approved by their district, as laid out in their comprehensive reading plan (Table 5.3). Overall, three-fourths of all coaches also emphasized support for new teachers and more than half targeted the teachers identified by school leaders as needing support.

**Table 5.3**  
**Emphasis Placed by Coaches on Supporting Groups of Teachers (%)**

	Moderate Emphasis	Major Emphasis	One of Top Two Groups Given Most Attention
Reading teachers	15	83	74
New teachers (i.e., with less than three years of experience)	17	75	51
Teachers identified by the administration as needing support	30	56	26
Teachers whose students did not perform well on last year's FCAT or other assessments	36	39	19
ELA teachers	47	19	8
ESE teachers	39	22	5
Social studies teachers	42	9	7
ESOL teachers	32	17	10
Science teachers	32	6	3
Math teachers	19	4	2
Elective teachers	22	2	0

NOTES: Response options were "no emphasis," "minor emphasis," "moderate emphasis," and "major emphasis." A separate question asked coaches to identify which two groups of teachers from this list they gave the most attention to this year.

Coaches were less likely to place a major focus on supporting content area teachers who did not teach reading (English language arts [ELA], social studies, mathematics, and science teachers). Ten percent or fewer coaches cited them as one of their top two groups given the most attention. However, in some cases, reading teachers also had content-area teaching responsibilities—35 percent of reading teachers in our study reported teaching ELA in addition to reading. More than two-thirds of coaches placed a moderate to major emphasis on supporting ELA teachers and more than half did so with ESE teachers. Coaches were least likely to focus support on mathematics teachers and those teaching elective courses. Interestingly, there are no statistically significant differences in reported emphases among less- versus more-

experienced coaches, or among coaches new to a school versus coaches who had been at their school for several years.

Although not included in Table 5.3, principals responding to a similar survey question generally agreed with the relative rankings coaches gave to the groups of teachers they targeted—indicating a high level of communication between coaches and principals regarding the nature of coaches’ work. Thus, while the state officially encourages coaches to work with all teachers, it appears that most coaches give reading teachers priority. However, the majority of coaches appear to be also working in other content areas, possibly in a less intensive way. For example, fewer than 10 percent of coaches reported placing no emphasis on ELA (5 percent) or social studies teachers (8 percent), while slightly more reported no emphasis on science (15 percent) and math teachers (26 percent).

Some readers may wonder why coaches give priority to work with reading teachers, when these teachers presumably have expertise in teaching reading. Our survey data indicate, however, that not all reading teachers in Florida are “specialists.” Slightly under half (48 percent) of reading teachers had specialized reading credentials—either a master’s degree in reading or a reading certification or endorsement from the state. Of the more than half of reading teachers without such credentials, 69 percent reported working on obtaining either the reading certification or endorsement, as encouraged by the state. Further, although the majority of reading teachers (81 percent) had three or more years of total teaching experience, 19 percent had only one to two years of teaching experience. Finally, the median number of years teaching reading was four years: Nineteen percent had only taught reading for one year (including the year surveyed), 16 percent had taught reading for two years, and 12 percent had taught reading for three years.

### **Focus of Work: Areas of Instruction**

The study districts varied greatly in the direction they gave regarding the content of coaches’ work. Some emphasized particular elements of reading, such as comprehension or vocabulary, while others stressed the importance of using data to identify deficient areas or focusing on reading across the content areas. One district was particularly centralized

in its approach to coach work, establishing a districtwide professional development calendar that spelled out the specific topics on which all coaches were expected to focus each month. Similarly, another district asked coaches to give priority to creating better curricular alignment districtwide and ensuring that teachers implemented district reading curricula with fidelity. As noted above, two of the districts reported that schools decided entirely on their own how to focus the content of coaches' work with teachers.

Congruent with the state's vision of literacy, the majority of coaches placed major emphasis on the key components of reading instruction most relevant to middle school students—comprehension, vocabulary, and fluency—as well as the use of assessments and data analysis (Table 5.4). Fewer coaches reported a major emphasis on integrating reading across content areas (38 percent) and writing (23 percent), although the latter was more commonly cited by experienced coaches (30 percent) than by less-experienced coaches (15 percent) (the difference is not statistically significant). While not included in the table, princi-

**Table 5.4**  
**Emphasis Placed by Coaches on Supporting Instructional Areas (%)**

Area	Moderate Emphasis	Major Emphasis
Comprehension	21	79
Using assessments for screening, diagnosing, and monitoring	38	56
Vocabulary	31	62
Analyzing data to guide instructional practice	32	62
Fluency	32	61
Differentiating instruction to meet student needs	36	52
Integrating reading instruction across the content areas	44	38
Writing	40	23
Phonics and phonemic awareness	27	21
Classroom management	33	14

pals responding to a similar question generally agreed with the relative rankings coaches gave to the areas of instruction they emphasized—again, indicating a high level of communication between coaches and principals regarding the nature of coaches' work.

There were some significant differences in the reported emphases among coaches working in low- and high-poverty schools. For every area of instruction, coaches in high-poverty schools were more likely than coaches in low-poverty schools to report a major emphasis. Two of these differences were not only large but also statistically significant. Coaches in high-poverty schools were far more likely to report a major emphasis on supporting differentiation of instruction to meet student needs (65 percent versus 28 percent) and, to a lesser extent, phonics and phonemic awareness (27 percent versus 11 percent). The former difference may be due to the greater pressure on high-poverty schools to pay attention to the diverse needs of their students.

## Teachers' Reports of Coach Interaction

Teachers' reported interactions with coaches (Table 5.5) are generally consistent with the overall patterns of coach-reported activity described above. Not surprisingly, then, reading teachers were far more likely than social studies teachers to interact with the reading coach in all the ways listed in Table 5.5. Nevertheless, both reading and social studies teachers were most likely to come in contact with their coaches in meetings or professional development sessions in which the coach provided information about reading instruction. In fact, this is the only type of activity in which more than half of reading teachers reported interacting with their coach once or twice a month or more. For the remainder of activities, interactions were much less frequent: teachers typically reported engaging in them either a few times a year or never. This is especially true for social studies teachers, who had lower levels of interaction overall with their coaches: half or more had never interacted with the coach in eight of the ten relevant categories listed in Table 5.5.

**Table 5.5**  
**Teachers' Reports on Frequency of Interactions with Reading Coach (%)**

	Reading Teachers			Social Studies Teachers		
	Never	A Few Times This Year	Once or Twice a Month or More	Never	A Few Times This Year	Once or Twice a Month or More
<b>Since the beginning of the school year, my school's reading coach has . . .</b>						
Provided information about reading instruction at a professional development session or meeting that I attended	7	33	59	12	55	33
Helped me locate or create classroom resources or curricular material (e.g., books, software)	17	46	37	44	41	15
Reviewed student assessment data with me (individually or in a group)	23	49	29	50	37	12
Visited my classroom to observe my instruction	26	45	29	68	25	7
Given me feedback on my teaching or facilitated reflection on my practice	33	41	27	62	28	10
Helped me administer student assessments (e.g., fluency checks)	39	47	14	—	—	—
Assisted me with planning a lesson or curricular unit	43	36	21	64	27	9
Come to my classroom to coteach or model a lesson or reading strategy	48	36	15	70	26	4
Discussed with me how I could serve as a resource on reading instruction for less-experienced teachers	51	32	17	70	20	10
Helped me with classroom management and organization	61	27	11	82	15	3
Come to my classroom to instruct individual students	64	23	14	78	17	5

NOTES: Response options were "never," "a few times a year," "once or twice a month," and "once or twice a week or more" (the last two have been collapsed into one column above). The item regarding administering student assessments was asked only of reading teachers.

After professional development sessions, the next most likely way in which a teacher interacted with the coach was in receiving support for curricular materials or resources. More than 80 percent of reading teachers and half of social studies teachers received help from the coach with classroom resources at least a few times during the year. Data analysis was another activity in which teachers commonly reported engaging with their reading coach: Half of all reading teachers reported that their coach reviewed student assessment data with them, either in a group or individually, a few times during the year; another 29 percent did so once or twice a month or more (the figures are substantially lower for social studies teachers).

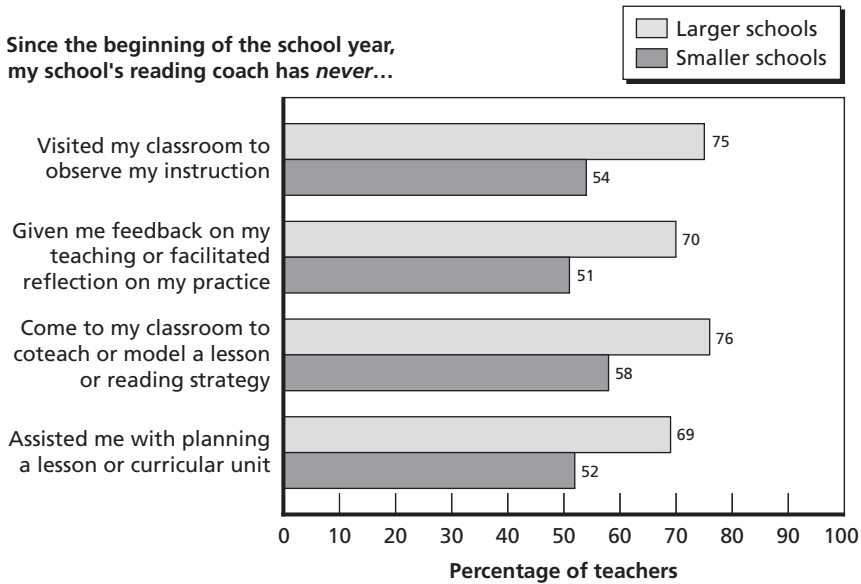
Although coaches reported spending moderate amounts of time providing instructional support to individual teachers in their classrooms, not all teachers reported receiving this type of assistance, and those who did reported receiving it only a few times during the year. More than 60 percent of social studies teachers reported never receiving the various types of one-on-one support—in the form of classroom observations, feedback on instruction, assistance with lesson planning, or modeling or coteaching. Approximately two-thirds to one-half of reading teachers received these forms of one-on-one classroom assistance, but the majority of these interactions occurred only a few times during the year. Given the often large number of teachers in each school, it is not surprising that not all teachers received frequent in-class support from the coaches. Further, coaches' reports of focusing on specific teachers needing assistance (e.g., new teachers, those identified by the principal) indicate that many coaches intentionally spent more time with some teachers as opposed to others.

Consistent with coaches' reports, approximately half of reading teachers reported that coaches helped them administer student assessments a few times during the year. Finally, teachers were least likely to report receiving help with classroom management and having their coach come to their classroom to instruct individual students—again, the latter is congruent with coaches' reports.

Teachers' reports of interactions with coaches were fairly similar across schools of various characteristics, with one exception. Social studies teachers in smaller schools were significantly more likely than

their counterparts in larger schools to report some one-on-one interaction with coaches (63 percent compared with 43 percent, respectively).<sup>5</sup> Conversely, more than half of social studies teachers in larger schools (57 percent) reported no one-on-one interaction at all during the year, while slightly more than a third (36 percent) did so in the smaller schools. Figure 5.4 breaks down these survey results by illustrating the percentage of social studies teachers reporting that they “never” interacted one-on-one with the coach in any of four distinct ways.

**Figure 5.4**  
**Percentage of Social Studies Teachers Reporting Never Interacting with Their Coach in One-on-One Interactions, by School Size**



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<sup>5</sup> We define *some one-on-one work* as the coach’s doing any of the following activities at least a few times during the year: coming to a classroom to coteach or model a lesson or reading strategy; assisting with planning a lesson or curricular unit; visiting the classroom to observe instruction or provide feedback on teaching; or facilitating reflection on the teacher’s practices.



## Perceived Constraints and Enablers

What influenced coaches' ability to work with teachers and effectively influence practice? District and school administrators, coaches, and teachers identified a wide range of factors they believed affected coaches' work. Some of these factors relate to resources or other conditions that might be shaped by school, district, or state policy, whereas others are more difficult for administrators to influence.

### Time to Work with Teachers

Perhaps the biggest factor identified as hindering coaches' efforts was the difficulty they had finding time to get into classrooms to work with teachers. More than half of coaches cited the large amount of time it takes to coordinate, report, and administer assessments as a moderate or great hindrance to their work, and slightly fewer reported that insufficient time to plan, meet, and observe teachers was a moderate to great hindrance (Table 5.6). Note that these two hindrances may be very closely related and not mutually exclusive. That is, the large amount of time coaches spend with assessments may be the reason for the insufficient time they have for planning, meeting with teachers, and visiting classrooms. Some coaches (34 percent) noted that the source of the problem related to the school schedule, which did not give teachers adequate planning time during which they could meet with their reading coach. In addition, about one-fourth also noted that lack of time impinged on their ability to develop their own knowledge and skills to apply to their work as a reading coach.

These reports are consistent with what district coordinators and case study school staff told us in interviews. For example, several coordinators noted that coaches spent too much time on testing, which took away time they had available to be in classrooms. "I see coaches being data clerks," observed one supervisor. Similarly, several case study coaches described themselves as being "spread too thin" to effectively influence teacher practice. A few complained about spending too much time off-site at meetings, while most noted how time-consuming it was to coordinate quarterly assessments. Coaches and teachers alike

**Table 5.6**  
**Percentage of Coaches Reporting Time as a Hindrance to Work**

	Not a Hindrance	Moderate or Great Hindrance
The large amount of time it takes to give, score, administer, and report on assessments	24	55
Insufficient time for me to plan professional development, meet with teachers, and visit their classrooms	29	41
Lack of teacher planning time built into the school day	36	34
Lack of time to work on my own professional growth	42	25

NOTES: Response options were “not a hindrance,” “slight hindrance,” “moderate hindrance,” and “great hindrance.” (The last two have been collapsed into one column.)

were well aware of the challenge faced in finding time for instructionally focused work. The following comments come from a coach and a teacher in the same case study school:

The only thing I would change would be to have more time to get into all the classrooms, just to sit and listen. And I don't have enough of that time. I used to have [it], but I don't. The last two years, it has really become more and more difficult for me to just go and sit in a classroom. (Coach)

Even the reading coach here . . . I think that so much time is spent, you know, finding numbers for different standardized tests or tracking the computer program FCAT Explorer. I think [the coach] is very creative. She could bring a lot to the table if some of that were removed. (Eighth grade ESOL teacher)

Similarly, 46 percent of reading teachers and 41 percent of social studies teachers reported on the survey that their coach had little time to support teachers regularly.<sup>6</sup>

<sup>6</sup> These figures do not include teachers reporting “don't know/NA” (6 percent of reading teachers, 17 percent of social studies teachers).

### **Continuity in School**

Many coaches and administrators noted the importance of time as a facilitator of coaches' ability to establish rapport and relationships of trust with teachers, and to ultimately influence practice. Many open-ended responses on the coach survey reflected this understanding:

I am welcomed in any classroom because of the relationship that has been nurtured over the past three years.

It takes time to establish a great relationship with teachers. Teachers are human, and relationships take time.

I feel that it is vital to remain at the same school because each year more progress is made in all areas of my job that I can build on for the following year.

Building relationships and trust takes time. After 2½ years I have finally done that. It is not the time to move on. This should not be a short-term assignment.

### **Teacher Turnover**

Although not measured on surveys, other sources of data indicate that turnover of teacher staff may be another hindrance to the effectiveness of coaches' work. Two case study coaches identified turnover as a major obstacle to their work. One noted that the large turnover among reading teachers hindered her ability to create a strong, experienced reading department. Similarly, the other case study coach reported that because of her need to work with so many new reading teachers she was unable to spend time with other teachers. As one coach commented at the end of the survey: "the teacher turnover . . . is a reason why I feel I am starting over each year. That is very frustrating!"

### **Teacher Attitudes**

Approximately one-third of coaches reported that teacher reluctance to work with a coach was a moderate or great hindrance to their work. Again, district coordinators and case study school staff members echoed this concern. For example, one district coordinator identified the culture of the school building as critical to facilitating a coach's effec-

tiveness, noting that in some schools teachers were unwilling to adopt new practices. Another district coordinator explained that because of potential teacher resistance, the district focused professional development for coaches on strategies to address teacher attitudes and build positive relationships:

We can't force teachers to do the kinds of things we're talking about doing, so we spend a lot of time talking about the importance of building relationships and how do you do that and what kind of verbal skills do you have, and what nonverbal skills do you communicate.

In several case study schools and on the open-ended portion of the survey, some coaches reported that veteran teachers in particular often questioned the role of the coach or the validity of coaching. As one coach reported on the survey, "I have had tremendous resistance from many of the veteran teachers on staff. . . . It's difficult to coach a teacher who doesn't want to be coached." Some of these coaches also noted that particular core content area teachers, such as mathematics teachers, do not always see the relevance of working with a reading coach. For example, one coach reported on the survey "Some teachers are more receptive than others. Generally math and PE teachers don't think they use reading or need my help."

While some content area teachers interviewed in case study schools expressed an openness to working with the coach, some admitted that given the vast amount of content they are expected to teach, incorporating new reading strategies can often be seen as yet another requirement that they cannot enthusiastically embrace.

### **Role Clarity**

As noted earlier, past research on coaching programs has found that a lack of clearly defined roles and responsibilities for coaches can be a significant challenge (Brown et al., 2006; Wong and Nicotera, 2006; Neufeld and Roper, 2003a; GWU, 2001; Poglinco et al., 2003). In Florida, individuals at all levels reported efforts to clearly define the position of coach, and some achieved more success than others. At the district level, virtually all the supervisors interviewed repeated the

state’s job description and state messages about what activities are off limits, such as excessive administrative duties and substitute teaching. As noted earlier, most coaches reported that state- and district-sponsored training focused on delineating the proper roles and responsibilities of coaches. And these efforts appeared to pay off, at least for coaches. Almost all coaches and principals agreed or strongly agreed that the district clearly defined and communicated the roles and responsibilities of reading coaches to everyone in the district (Table 5.7). Nevertheless, about one-quarter of coaches (27 percent) and principals (25 percent) reported that teachers at their school did not understand the role of the reading coach.<sup>7</sup> As one coach explained in the open-ended portion of the survey, “I feel that my role as a reading coach is often misunderstood by other members of the faculty.” At some schools, the breakdown in communication may be occurring at the school level. As Table 5.7 illustrates, 31 percent disagreed with the statement that their head principal clearly defined and communicated the roles and responsibilities of the coach to school staff.

**Table 5.7**  
**Percentage of Coaches and Principals Agreeing or Strongly Agreeing with Statements About Communicating Roles and Responsibilities**

	Coaches	Principals
My district clearly defines and communicates the roles and responsibilities of reading coaches to everyone in the district	90	87
The head principal at my school clearly defines and communicates the roles and responsibilities of a reading coach to everyone in the school	69	NA

Interview and survey data suggest that lack of role clarity created problems for some coaches. On the open-ended portion of the survey, one coach explained its effect on interpersonal relations and overall buy-in:

<sup>7</sup> The surveys asked principals and teachers slightly different questions. Coaches were asked the extent to which they agree or disagree with the statement “Teachers at this school do not understand my role here,” while principals were asked the extent to which they agree or disagree with the statement “Many teachers do not understand the role of the reading coach.”

I feel there have been delays and confusion about specific positions. As a team, this confusion caused dissention and distrust. Different factions among the staff were created with covert behaviors rampant. There needed to be a joining together of policies and a feeling that “everyone was in” and important to the whole. A “hit the ground running” policy might have helped with team spirit; especially if everyone was clear about job duties and expectations.

Other coaches identified tension arising from being perceived by teachers as an administrator when they were intended to be peers. In fact, approximately one-fourth of coaches reported on the survey that the tension of being caught in the middle between teachers and administrators was a moderate or great hindrance to their work. Interestingly, this topic emerged in our visits to all six case study schools. For some coaches, the tension derived from school administrators who pushed the limits of their role, asking them to provide evaluative feedback or operate in ways that mirrored an administrator. For example, one coach was required to carry a walkie-talkie, which sent the wrong signal to teachers. “If you’re carrying a walkie-talkie,” said the coach, “you’re an administrator.” In another school, administrators asked the coach to provide them with feedback on the quality of instruction observed in classrooms. This coach feared that teachers’ doors would shut if they viewed her as someone who reported back to administrators. She explained, “I’ll probably go in [to a classroom of a teacher identified by administrators as needing observation] and check and see just exactly what’s going on. But I don’t like to go in right away if somebody else has already been there . . . because I don’t want to have that connection that I’m any way an administrator.” Another coach reported spending a lot of time negotiating her role with teachers who often misunderstood her level of authority: “. . . reading coaches, even though we’re instructional, we are not in the classroom but we’re not administration either. We’re kind of stuck in the middle.” She added,

They [teachers] feel like I am above them but I am not. And they will come to me in that respect and . . . they are asking me for permission to do something. And I am like “well you need to talk

to [the principal].” I am constantly saying “I am not your supervisor. I am on the same level,” and they will say, “No you are not.” So sometimes that creates a little tension.

Finally, a coach from another school reported that as a coach “you don’t truly belong anywhere” and that she lacked the authority to step in and resolve certain problems—authority that she desperately wanted. However, she noted that any change to her role would need to achieve a delicate balance of authority—enough to make things happen yet not too much authority that would move her away from being a trusted peer who was seen as nonevaluative. She believed that a media or ESE specialist served as the right model.

### **School Administrator Support**

As alluded to earlier in this chapter, district coordinators in at least four districts voiced concerns that some principals “misused” coaches or assigned them duties that detracted from their ability to serve as instructional resources for teachers. Most also attested to the need for better education and buy-in among school administrators to counteract this potential obstacle. For example, one district recognized that the principal “makes all the difference” and therefore provided not only training to principals on the proper role of the coach, but also more-general professional development on literacy to ensure that they understood literacy goals, basic principals, and best practices.

In contrast to the concerns of district coordinators, most coaches described their head principals as very supportive of their work. For example, 85 percent agreed or strongly agreed that their head principal provided the leadership and support they needed to perform their job as a reading coach. A minority of coaches cited potential problems. For example, 22 percent reported that the principal often asked them to perform duties that were outside of the appropriate coaching role. Reports from case study schools mirrored this set of opinions. Only one case study coach wanted more support from her principal, particularly enforcement and follow-up to ensure that teachers embraced what the coach was teaching. In contrast, four coaches specifically mentioned that their principals and assistant principals contributed to their suc-

cess in the school. As one explained, administrators “can make or break your job as a reading coach because we fall in that gray area.” Similarly, another coach appreciated that her principal protected her from performing extraneous duties. In fact, this principal proudly noted her commitment to providing this leeway: “It is a rarity for me to ask her to do something extra because I know that she is one person on campus that can truly get it done. . . . I want her to continue to make her whole focus academic as much as possible.” Similarly, one of the most frequent themes found in the open-ended survey responses was praise for administrative support. “Success at a school does not happen in isolation,” wrote one coach. “I am really fortunate to work with a group of dedicated professionals; starting from the top with administration.”

### **Central Office Support**

Coaches generally characterized central office staff as supportive of their work and valued the professional development opportunities they offered. Further, almost all agreed or strongly agreed that their districts gave them necessary guidance on how to improve reading instruction and performance in their schools (92 percent) and that their districts conveyed clear and consistent goals and strategies for improving reading (97 percent).

At the same time, a minority of coaches cited their district as a potential hindrance to their work. More than one-quarter (28 percent) reported that frequent changes in district policy and priorities were a moderate or great hindrance to their work. And 20 percent reported that the district asked them to communicate and enforce district messages and initiatives in ways that pulled them away from more important work that could be done to improve reading at their schools.

### **Coach-Teacher Ratio**

Interestingly, most coaches did not report that the coach-teacher ratio negatively affected their ability to coach. As Table 5.8 illustrates, more than half of coaches reported that the large number of teachers they were expected to support was not at all a hindrance to their work. Principals, however, were slightly more likely to identify the coach-teacher



**Table 5.8**  
**Percentage of Coaches and Principals Identifying as a**  
**Hindrance the Large Number of Teachers the Coach Is**  
**Expected to Support**

	Not a Hindrance	Slight Hindrance	Moderate or Great Hindrance
Coaches	54	17	29
Principals	30	41	29

NOTES: Response options were “not a hindrance,” “slight hindrance,” “moderate hindrance,” and “great hindrance.” (The last two have been collapsed into one column.)

ratio as a hindrance to improving the reading performance of students. Only 30 percent of principals reported that it was not at all a hindrance.<sup>8</sup>

Although many coaches did not report the ratio as a hindrance on the survey, it is fair to say that many district coordinators and coaches interviewed in case study schools clearly noted the challenges involved in supporting many teachers. Several district coordinators, for example, felt that the job was too large for one person. They would have liked to hire two coaches per school had they been given the resources. “It’s hard to get to all of them [teachers],” reported one case study coach. As a result, most coaches tended to place a priority on certain individuals or groups of teachers (as reported earlier).

## Summary

Across the study districts, coaches’ day-to-day work took on many forms:

<sup>8</sup> Principals were asked the extent to which this was a hindrance to overall efforts in the school to improve students’ reading performance. Coaches were asked the extent to which this was a hindrance to their work as a reading coach. In interpreting this question, it is possible that coaches felt that overall they were doing a good job and that the number of teachers did not affect their ability to carry out their various responsibilities. If the survey question had asked them what specifically hindered their ability to work one-on-one with teachers or spend more time assisting teachers with instruction, they might have responded differently.

- Coaches generally divided their time among many different activities, including formal work with teachers, informal coaching, coaching-related administrative duties, data analysis, and other noncoaching duties. Although individual instructional work with teachers topped the list of activities to which coaches gave significant time, the reported time spent on these one-on-one activities generally did not represent half of their overall time, as the state encouraged. Consistent with state and district expectations, coaches generally did not report spending significant amounts of time on discouraged activities, such as performing lunch or bus duty, working directly with students, or substitute teaching.
- Almost all coaches placed a priority on work with reading teachers (who in many cases were not specialized or experienced reading instructors); a majority also emphasized support for new teachers and teachers identified by school administrators as needing support. Coaches were much less likely to focus on supporting content area teachers who did not teach reading (ELA, social studies, mathematics, and science teachers). The majority of coaches also emphasized several of the state's key components of reading, including comprehension, vocabulary, and fluency, as well as using assessments and analyzing data.
- Reading teachers were far more likely than social studies teachers to interact with the reading coach. In fact, social studies teachers reported very low levels of interaction overall with their coach. Both reading and social studies teachers were most likely to come in contact with their coach in meetings or professional development sessions where the coach presented information about reading instruction. Not all teachers received in-class support from coaches, and those who did received it only a few times during the year.
- Some coach activities varied by the experience level of coaches. More-experienced coaches spent significantly more time than less-experienced coaches analyzing data and working with groups of teachers (both in mandatory and voluntary professional development sessions).

- Some coach activities also varied significantly by school characteristics.
  - Social studies teachers in smaller schools were significantly more likely than their counterparts in larger schools to interact one-on-one with their coach.
  - Coaches in low-performing schools spent much more time than coaches in high-performing schools administering and coordinating assessments and analyzing data.
  - Coaches in high-poverty schools were more likely than coaches in low-poverty schools to emphasize differentiating instruction and phonics and phonemic awareness.
- District and school administrators, coaches, and teachers identified a range of factors that they believed influenced coaches' work. Most notably, lack of time was seen as a serious barrier to getting into teachers' classrooms. More than half of coaches cited the large amount of time it takes to coordinate and administer assessments as a moderate or great hindrance to their work. In contrast, the majority of coaches believed that school and district administrators were supportive of their work and clearly defined and communicated their roles and responsibilities. Most coaches also did not find that the teacher-coach ratio negatively affected their ability to coach, although some data suggest that it might influence some of their activities.

The next two chapters examine the impact of coaches on schools, administrators, teachers, and students. In the second of these chapters, we return to some of the survey data presented in this chapter and the previous chapter to analyze how variations in coaching policies and practices relate to a range of outcomes for teachers and students. For example, we explore whether coaches who give more time to certain activities (e.g., data analysis, one-on-one work with teachers) are associated with better outcomes. Similarly, we examine whether coaches with more experience coaching or coaching at the same school are associated with better outcomes than coaches with less experience. But first, in the next chapter, we describe principal and teacher perceptions of the effects of reading coaches.



## **Perceived Influence of the Coach on Teachers, Principals, School Climate, and Students**

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As discussed in Chapter Two, effective reading coaches are expected to improve teachers' classroom instruction, a school's reading program, and potentially the school climate and student motivation to read, which can all in turn improve student achievement. In this chapter, we examine some of these proximal outcomes. Specifically, we analyze how principals and teachers believe the coach's work influences teachers, the principal, the school, and students. We first present descriptive results from our principal and teacher surveys and use case study data to illustrate these various outcomes and relationships. We then present results from models that investigate how certain coaching implementation factors are associated with these perceptions when other factors are held constant.

### **Descriptive Findings**

#### **Perceived Influence of the Coach on Teachers**

The reading coach is expected to work with teachers to help support them and to improve their use of appropriate reading strategies. In this section, we examine coaches' influence on teacher practice in several ways: (1) perceptions of the overall influence of coaches on instruction among all teachers surveyed; (2) perceptions of coaches' influence among teachers who interacted with the coach; and (3) teachers'

reported changes in reading instructional strategies in general. We also describe other influences on teachers and their instruction.

**Perceptions of Coach's Influence Among All Teachers.** When asked directly to what extent the coach influenced any changes the teachers made to their instruction over the course of the year, 47 percent of all reading teachers and 40 percent of all social studies teachers reported that the reading coach had influenced them to make changes to their instruction to a moderate or great extent (Table 6.1).<sup>1</sup> The similarity in responses across these two groups of teachers is somewhat surprising given reports from both coaches and teachers indicating that coaches spent more time working with reading teachers than social studies teachers. Teachers in our case study schools described how working with the coach had enhanced their teaching methods:

When I first started teaching, I never would have done a word map. Reading in a content area was minimal. Now, working with the coach, I'm looking for articles they can read—things that they can actually read and put into a word processor. (Elective teacher)

[The coach] creates these charts where she has all of her classes on them. And then you get to look and see the differences [in student test scores]. She even puts the assessment in the scanner and she will show us how many of our kids got number one wrong—so that we can make instructional decisions. She is teaching us how to make instructional decisions based on assessment. It's not just okay that they took the test and these people failed it. She teaches us how to group kids for small groups for DI [direct instruction] lessons. . . . I found out a lot of my kids were not getting the main idea. So, I had four kids that were not getting it. So she told me that I needed to put those kids together. I did a small group lesson up here [at her desk]. (Reading teacher)

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<sup>1</sup> This survey question followed a previous multi-item question asking teachers to think about the ways in which their teaching in general was different at the end of the year compared with the beginning of the year and the extent to which they made a series of changes to their teaching over the course of the year (see Table 6.3 for this list of instructional changes). Thus, their reports of coach influence were anchored in an understanding of this list of changes.

**Table 6.1**  
**Percentages of Reading Teachers and Social Studies Teachers Reporting the Extent of Influence the Coach Had on Changes in Their Instruction over the Past Year**

	Not at All	To a Small Extent	To a Moderate Extent	To a Great Extent
Reading teachers	24	29	24	23
Social studies teacher	34	26	23	17

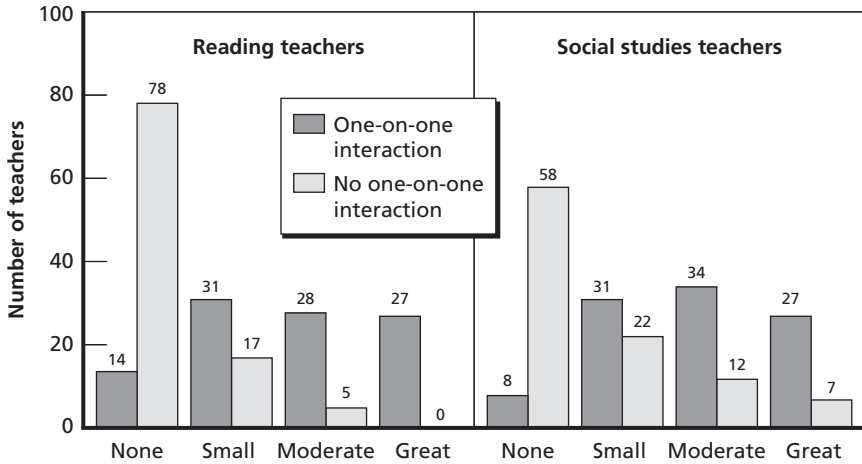
A minority of reading teachers (24 percent) and social studies teachers (34 percent) noted that the coach did not influence their instructional change at all.<sup>2</sup>

Teachers' perceptions of the coach's influence varied by the nature of their interactions with the coach (Figure 6.1). Teachers with a one-on-one experience<sup>3</sup> were significantly more likely than teachers without this interaction to attribute changes in their instruction to working with the coach. For instance, 27 percent of reading teachers and social studies teachers who worked one-on-one with the coach reported that the reading coach had influenced changes in their instruction to a great extent, compared with none of the reading teachers and 7 percent of the social studies teachers who did not work one-on-one with the coach. Interestingly, social studies teachers are more likely than reading teachers to report a change in their instruction after limited exposure to the coach—only 22 percent of reading teachers without one-on-one interaction reported any level of change in instruction because of the coach, compared with 41 percent of social studies teachers.

<sup>2</sup> Only 2 percent of reading teachers and 5 percent of social studies teachers reported not making any of the changes in instruction asked about on our survey over the course of the year—these teachers are included in the percentage of teachers reporting that the coach did not influence changes in their instruction at all.

<sup>3</sup> As discussed in Chapter Five, we define one-on-one work as work that is individually and instructionally focused to include the coach: coming to a classroom to co-teach or model a lesson or reading strategy; assisting with planning a lesson or curricular unit; visiting the classroom to observe instruction; or providing feedback on their teaching or facilitating reflection on their practices at least a few times during the year.

**Figure 6.1**  
**Percentage of Reading and Social Studies Teachers Reporting the Extent of Influence the Coach Had on Changes in Their Instruction, by One-on-One Experience with the Coach**



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The relationship between one-on-one interaction and perceived effects is not particularly surprising given what we know about how coaches focus their time and attention, as discussed in the previous chapter. One would not expect teachers who have interacted with the coach only in the context of a brief staff meeting, for example, to report big effects on their practice. In addition, given that many reading coaches often intentionally start working with a “coalition of the willing” and struggling reading teachers, teachers working one-on-one with the coach may be those most open to working with the coach or most in need of assistance—and therefore more likely to experience changes. Conversely, it is possible that teachers who have not worked one-on-one with the coach are those who are more proficient or more resistant and therefore had less potential or need to make changes.

**Perceptions of Coach’s Influence Among Teachers Who Interacted with the Coach.** Of those who had interacted with their coach in some way over the course of the year, two-thirds of reading and social



studies teachers<sup>4</sup> reported that this experience helped them better plan and organize instruction (Table 6.2). Again, case study teachers echoed this finding:

Before the FCAT, I had her develop a graphic organizer that would help my kids with the extended-response questions. She demonstrated power notes, which are good for extended response . . . so I use her a lot for lesson planning ideas. (Reading teacher)

She has enhanced it [my teaching], and kept it focused. . . . I was looking for a lesson plan to do during an observation, and I went to her and said "You got any plays that I could do?" And she dug out about five different books on Reader's Theatre, so . . . I copied the plays that I wanted to do; I did three different plays in each class. Now look how much that's covering—that's covering reading, it's covering oral expression, and body language . . . so no matter what kind of learner I have, they could be engaged in that with no problem. It also went further in that it promoted cooperative learning. (Reading teacher)

In addition to helping teachers directly with their instruction, the coach may influence teachers' practice in more subtle ways. Over 60 percent of reading and social studies teachers who had worked with the

**Table 6.2**  
**Percentage of Reading Teachers and Social Studies Teachers Agreeing or Strongly Agreeing with Statements About the Result of Their Work with the Reading Coach**

As a result of my work with our school's reading coach(es) this year . . .	Reading Teachers	Social Studies Teachers
I feel more confident in my ability to teach reading to students	68	63
I am better able to plan and organize my instruction	66	66

<sup>4</sup> The vast majority of teachers surveyed (97 percent of reading teachers and 86 percent of social studies teachers) had interacted with the coach in some way over the course of the year.

coach reported that the reading coach made them feel more confident in their ability to teach reading to students. Teachers in some of our case study schools described how their coach empowers—giving them confidence to try new teaching practices.

She has motivated me. I feel empowered—that is the word I need. Like before, I did not have confidence. That is why I went back to school because I felt like I was a lousy reading teacher and I'm not doing a good job. And she empowers me. . . . I feel like I am a kid. She'll come in and see me do something good and she'll say, "Oh that's good." "Let's talk about how we can make that better." "I like the way you did that." Okay then she'll say, "What do you think about this?" "Let's try this and see how this works." She empowers me. I feel like I can do this—I got it. (Reading teacher)

But it's great having her in here, because . . . I can handle the science. The science isn't a problem. It's the instruction that's the issue, and that's something that's all across the board, with everyone, especially in reading. That's what we have to focus on most. I mean, they always say, "we're all reading teachers"—though none of us really feel it, but she really helps out in that department, where you feel kind of lost in teaching the reading. That's what she's here for. (Science teacher)

Some teachers discussed how the coach reminded them of and reinforced their use of best practices:

She is really good about reinforcing what I do. . . . [She is] kind of like my cheerleader. You know you're doing a good job and this is what the kids need. She builds up my self-esteem as a reading teacher, which I really appreciate because at least I know I am on the right path. (Reading teacher)

Well some of [the reading strategies demonstrated by the coach] I have done, but you know sometimes you do it so long you stop thinking about it and when she brings it up . . . like Think Aloud,

how when you are modeling something you actually talk about what is in your head and how you think it out so that the kids can realize, “Oh wait, we do have to think these things out, and how do we do it?” So I’ve become aware . . . in the last couple of weeks that I do it and that I should do it more. Mostly it is like that. We know it, but sometimes we forget about it, and it is a nice reminder, and we become more cognizant of it. (Geography teacher)

Even though coaches were significantly more likely to work with reading teachers than content teachers (as discussed in Chapter Five), social studies teachers who worked with the coach were just as likely as reading teachers who had this experience to attribute positive changes to working with the reading coach. In fact, in our case studies we found that coaches can greatly influence the practice of teachers who are not reading teachers. In the text box on the next page is a profile of Mr. Casey, a health and physical education teacher who had worked with the coach one-on-one in the previous year. The coach taught him to incorporate reading strategies into his health curriculum, and Mr. Casey credited the coach with providing him “all the tools to teach literacy.”

Again, we found that teachers’ perceptions of the coach’s influence varied by the nature of their interactions with the coach. For example, teachers who worked one-on-one with the reading coach were significantly more likely to attribute positive changes in their practice to the reading coach than teachers who did not have this experience (Figure 6.2 on p. 126). The differences were large and significant.

**Teachers’ Reported Changes to Specific Reading Instructional Strategies.** As one method to understand coaches’ influence on specific reading practices, we first assessed any changes teachers made in their instruction in general over the course of the year—changes that may or may not be attributable to the coach per se. These data provide an important overall picture of how teachers are adjusting their reading instruction over time.

### Mr. Casey: Incorporating Reading Strategies into Content Instruction

Mr. Casey is a health and physical education teacher. In today's health lesson, he starts his instruction on first aid by creating a KWL chart, which asks students to define what they know (K) about a topic, what they want (W) to know, and what they have learned (L) after the instruction, a technique which supports student comprehension.

Mr. Casey: What is first aid?

Student: When someone's hurt, you help them.

[Mr. Casey draws a KWL chart on the board]

Mr. Casey: Tell me what you know about first aid? [He writes the following words on the board under the "K" column as students call them out and discuss the responses: *You can help. You can save a life: Have a first aid-kit—and everyone should know how to use your first aid kit. Necessary skill (babysitting). Required for certain jobs. Deals with body fluids.*]

Mr. Casey: Why do you need to be so careful around body fluids? What can happen if body fluids enter your body?

Student: AIDS.

Mr. Casey: Yes, HIV. We'll talk about universal protection and how you want gloves to prevent HIV and hepatitis. . . . What do we want to know? [He writes down responses under the "W" column as students call them out: *Do teachers need to know it? How to do it? Who invented the tools? How old? And where? Why is it used? What would happen with no first aid?*] . . . My hope is that by the end of the first lesson, you'll be able to perform first aid, either for yourself or your younger brother or sister.

Mr. Casey helps students build fluency, as he asks them to read aloud a series of PowerPoint slides. By focusing students on the important information on the slides, he helps bolster comprehension:

[Slide read aloud by students]: In an emergency, first aid is the care given to a person who becomes injured or ill until regular medical care can be supplied. The most important time in an emergency is the first five minutes. You need to remain calm and follow the first-aid steps that we will discuss today.

Mr. Casey: What are the 10 words that give you the most information? [On the white board is the title "What are the 10 most important words?" and Mr. Casey proceeds to write down students'

responses: *Emergency, injured, first 5 minutes, first aid, medical care, remain calm, be supplied, the most important first aid steps, care, discuss, injury, ill*]

Mr. Casey explicitly explains his techniques and encourages students while correcting them:

Mr. Casey: The reason why we're doing this is because we're trying to grasp what the most important words are in the first slide so that we can gain an understanding of what's important when we read.

[Reading from the list]: Care, injury/injured, ill, first five minutes.

Why do you think "first five minutes" is so important?

Student: To prevent them from dying.

Student: To prevent things from becoming worse . . .

Student: It takes five minutes to send a message to the brain.

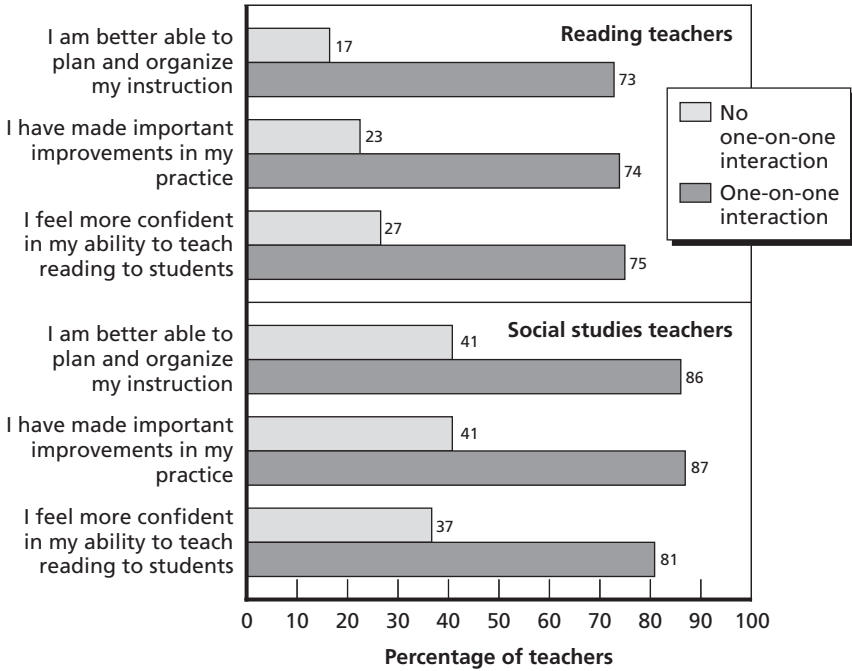
Mr. Casey: No, it's not. It's much quicker than five minutes. But I appreciate the thought. Let's go on to other important words. Someone said this: remain calm.

Mr. Casey continues the class in this way, actively engaging students and using techniques that support comprehension, vocabulary development, and fluency.

Regardless of whether they worked with a coach or not, the vast majority of reading and social studies teachers reported making a number of specific changes to their instruction aimed at improving students' reading abilities over the course of the year (Table 6.3). Only 2 percent of reading and 5 percent of social studies teachers reported making none of these changes. The most prevalent change noted by both reading and social studies teachers was taking into account students' reading abilities more often when designing tasks and assigning work. A little over half of reading and social studies teachers reported making a moderate or great change to their instruction in this way, and only 20 percent of teachers reported not making any change to this aspect of instruction. Another practice associated with differentiated instruction—tailoring instruction to account for different students' abilities—was a popular change as well—42–45 percent of teachers reported making a moderate or great change in this area.

Many teachers reported making changes to instructional techniques that would help students with reading comprehension. For

**Figure 6.2**  
**Percentage of Reading Teachers and Social Studies Teachers Agreeing or Strongly Agreeing with Statements About the Result of Their Work with the Reading Coach, by One-on-One Experience**



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example, over a third of teachers reported having made a moderate or great change to introducing and reviewing vocabulary more frequently, introducing texts more thoroughly, using more methods of teaching vocabulary that go beyond looking up a word in the dictionary; asking for students to answer or generate more questions about the readings; and having students use graphic organizers more often. Over a third of reading and social studies teachers also reported asking students to read texts aloud in class more frequently, a practice which helps improve fluency.

**Table 6.3**  
**Percentage of Reading Teachers and Social Studies Teachers Reporting Changes in Instruction over the School Year**

Change in Instruction	Reading Teachers		Social Studies Teachers	
	No Change	Moderate or Great Change	No Change	Moderate or Great Change
I take into account students' reading abilities/levels more often when designing tasks and assigning work	20	53	20	52
I tailor my instruction to account for different student abilities (e.g., groups, assigning different assignments or texts)	23	42	21	45
I allow students to select more of what they read	30	34	50	20
I introduce texts more thoroughly, providing students background knowledge about the text we will read	29	48	21	45
I ask for students to answer or generate more questions about the readings	22	45	20	44
I work to connect the readings to students' existing knowledge and lives more often	30	43	22	37
I use more methods of teaching vocabulary that go beyond looking up a word in the dictionary or the back of the book	25	43	22	44
I introduce and review vocabulary more frequently	40	37	31	41
I have students use graphic organizers more often to help them sort out their ideas about texts	30	35	29	40
I reorganize my classroom to better promote learning	23	46	33	33
I ask students to read texts out loud in class more frequently	36	40	34	34
I assign more homework that involves reading	48	23	36	31
I assign more homework that involves writing	46	21	36	32

NOTE: Response categories were "no change," "small change," "moderate change," and "great change."

For reading teachers who had worked with the coach, these reported changes are associated with the nature of teacher-coach interactions. Reading teachers who had one-on-one experience with the coach were significantly more likely than their peers without that experience to report various changes in their instruction to a moderate or great extent (Figure 6.3). For instance, half of reading teachers who had a one-on-one experience reported introducing texts more thoroughly to a moderate or great extent, compared with 32 percent of reading teachers who did not have a one-on-one experience. This difference was not found for social studies teachers. As discussed earlier, because coaches tried to focus on the lower-performing or newer reading teachers (see Chapter Five), it is likely that the reading teachers who worked one-on-one with the reading coach had a greater need to change many aspects of their instruction, compared with reading teachers who did not have a one-on-one experience with the coach.

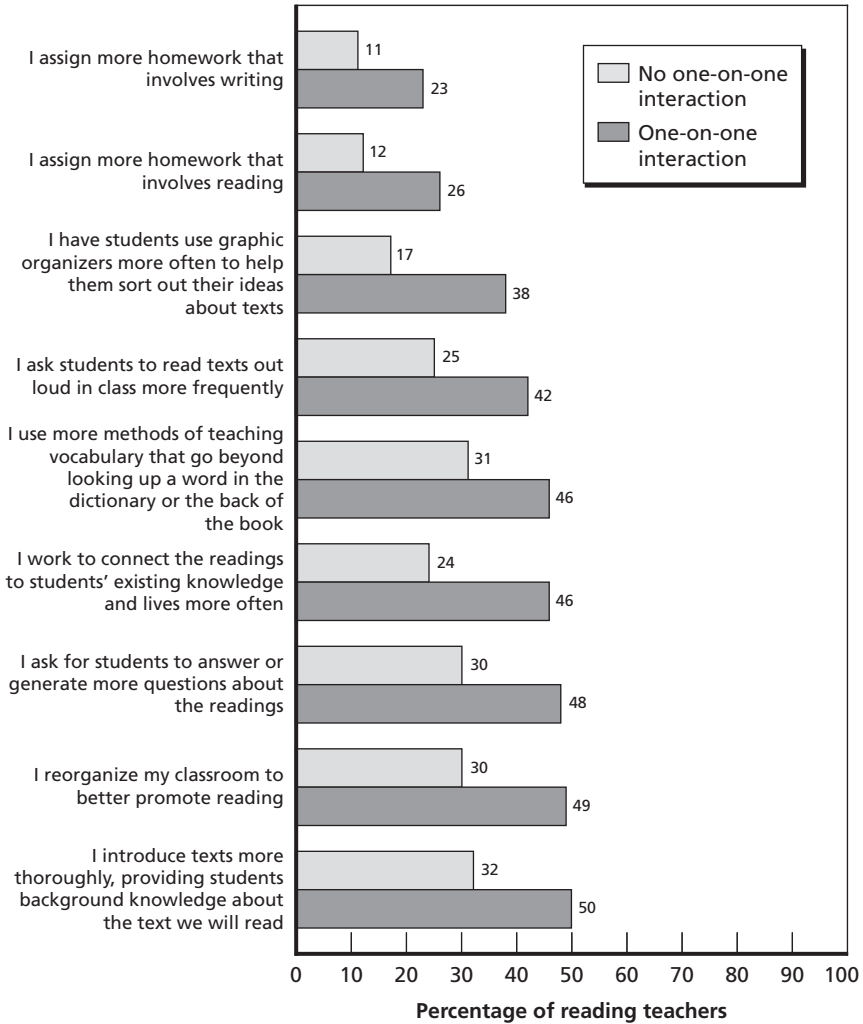
**Other Influences on Teacher Practice.** While many teachers clearly believe that the coach influenced their instructional changes, they also identified other school staff who influenced improvements in their instruction over the course of a year—most notably, other teachers (Table 6.4). In fact, reading teachers were just as likely to report that other teachers influenced changes in their instruction to a moderate or great extent as they were to identify reading coaches as an influence (47 percent in both cases).

These other individuals often provided assistance similar to that provided by the reading coach, such as help with lesson planning and data analysis. Although more teachers reported receiving such assistance from the reading coach than from teachers or administrators (with a few exceptions), these reports nevertheless indicate that other teachers, in particular, clearly serve as instructional support and a resource. For example, majorities of reading and social studies teachers reported that other teachers

- provided information about reading instruction at a professional development session or meeting that they attended (60 percent of social studies teachers and 69 percent of reading teachers)



**Figure 6.3**  
**Percentage of Reading Teachers Reporting Changes in Instructional Practice over the School Year to a Moderate or Great Extent, by One-on-One Interaction with the Reading Coach**



- reviewed student assessment data with them (individually or in a group) (47 percent of social studies teachers and 59 percent of reading teachers)
- helped them locate or create classroom resources or curricular material (e.g., books, software) (58 percent of social studies teachers and 69 percent of reading teachers).

**Table 6.4**  
**Percentage of Reading Teachers and Social Studies Teachers Reporting Extent to Which Various Individuals Influenced Changes in Their Instruction This Year**

	Reading Teachers		Social Studies Teachers	
	Not at All	To a Moderate or Great Extent	Not at All	To a Moderate or Great Extent
The reading/literacy coach(es) in my school	24	47	33	40
Other teachers	20	47	15	49
External trainers or instructors	34	35	47	25
School administrators (e.g., head principal, assistant principals)	39	28	38	26
District staff	46	27	57	17
Other instructional coaches in my school	55	24	49	24

NOTE: Response categories were "not at all," "small extent," "moderate extent," and "great extent."

These results suggest that collaboration around instruction, regardless of whether the teacher collaborates with another teacher or a coach, may have a powerful influence on teachers' instruction. However, the reports of other influences on teachers' instruction should not be viewed as an indicator of coaches' failure to affect instruction. The goal of coaching is not to be the sole influence over teachers. Further, although it is likely that other staff members influence teachers independent of any actions taken by the coach, it is also plausible that coaches

indirectly contribute to these interactions with other individuals. In fact, at full implementation, reading coaches are intended to facilitate connections among staff and create a learning community. In our case study visits, we found examples of how reading coaches helped facilitate teachers' exchange of knowledge. For instance, one coach had formed a book study group in which teachers regularly shared information and knowledge with one another. One reading teacher described how this book study provided her the opportunity to learn from another reading teacher:

Actually, it was talking about what to do with kids who were too embarrassed to read out loud, because their reading is so poor. And we had a really good discussion about that, and Mr. Cooper, . . . a reading teacher here, was talking about how he sets up with his kids ahead of time the climate where this is not a place where you make fun of people. Everybody has something that they don't like about themselves. . . . So it was just kind of that idea . . . . [It is] more of a management thing than a reading thing, I guess, but to make that comfortable for everybody, so that you feel like you can pipe up and say something, or try to read out loud, without being embarrassed about it. . . . I really liked the way the conversation happened, and it made me feel more comfortable with trying to ask kids. Because I would feel bad if the kid couldn't read very well out loud, but they need to practice it. And if I don't give them that chance, then I'm not helping them out. So to find ways that I can get them to feel more comfortable about it, I found that useful.

We also saw coaches guide teachers to a number of staff resources to meet their instructional needs. For instance, one of the teachers we observed changed a specific aspect of her instruction after the coach recommended that she attend a workshop and observe an experienced teacher practicing this technique (see the next text box).

We now turn to discussing the influence that the coach can have on the principal, the school, and students.

### Ms. Kelly: Working to Strengthen Instruction

Ms. Kelly is a second-year reading teacher who is working with her school's reading coach. At the beginning of the school year, we observe her conduct a guided oral reading of the play *Othello* with her lower-level reading class. While the beginning of a guided reading typically includes an introduction to the passage and its purpose; Ms. Kelly starts the lesson by reading directly from a teachers' manual.

Ms. Kelly: This is the objective for today. Students will have the opportunity to read. Understanding for motivation is very important in the focus. Students have to think about jealousy. [Seeming to realize that she should not read directly from the manual, Ms. Kelly shifts gears.] Okay, everyone needs to be on page four. The words in orange are the real words of Shakespeare. You will read that. Let's start. Narrator.

Most of the text in the students' booklets includes paraphrasing of the play in black print with a few sentences of original text highlighted in orange. As the lesson continues, some students choose to read the orange text and others do not. During the lesson, Ms. Kelly misses several opportunities to define important vocabulary words, even when asked:

Student: What is "solemnly" [written in the script before the line she is supposed to read]?

Ms. Kelly does not respond, even though she is standing right next to the student.

Throughout the lesson, she also misses opportunities to support proper pronunciation (e.g., many students mispronounce "Othello" repeatedly) and to discuss the story to enhance comprehension. She does, however, provide guidance on intonation, though many students do not seem to understand the content:

Ms. Kelly: In the caption, when it says "bitterly" you need to change your voice and act angry . . . now try it again.

When we return at the end of the school year, Ms. Kelly discusses oral guided reading as an aspect of her teaching that she changed over the course of the year because of her work with the reading coach. After the reading coach observed Ms. Kelly conducting a whole group read-aloud, the coach recommended that she attend a workshop on oral guided reading and suggested that in her lowest-level reading courses she conduct guided reading only with small groups (as opposed to the entire class). After Ms. Kelly attended the workshop, the reading coach also suggested that she observe a more-experienced teacher to better understand how to implement small guided reading groups in her classroom.

Reflecting back on the Othello lesson we observed, she admits that it was “too much for them.” While she insists on maintaining high expectations for her low-level readers, she attests to taking a “more gradual” approach to oral reading, for example, having students read new text silently along with a CD recording in the whole group, followed by read-alouds in small groups.

### Perceived Influence of the Coach on the Principal

The vast majority of principals agreed or strongly agreed that the coach had helped them in a number of respects (Table 6.5). Over 80 percent agreed or strongly agreed that the reading coach had deepened their understanding of reading and reading best practices; helped them identify effective reading instruction in classrooms; and helped them better comment on and provide feedback to teachers about classroom instruction.

**Table 6.5**  
**Percentage of Principals Agreeing or Strongly Agreeing with**  
**Statements About How the Coach Has Influenced Them**

Our reading coach has . . .	Agree	Strongly Agree
Deepened my understanding of reading and reading best practices	41	45
Helped me identify effective reading instruction in classrooms	38	46
Helped me better comment on and provide feedback to teachers about classroom instruction	48	35
Helped me to be more collaborative with my staff	37	36
Led the reading initiatives at our school, enabling me to focus on other areas of need	35	49

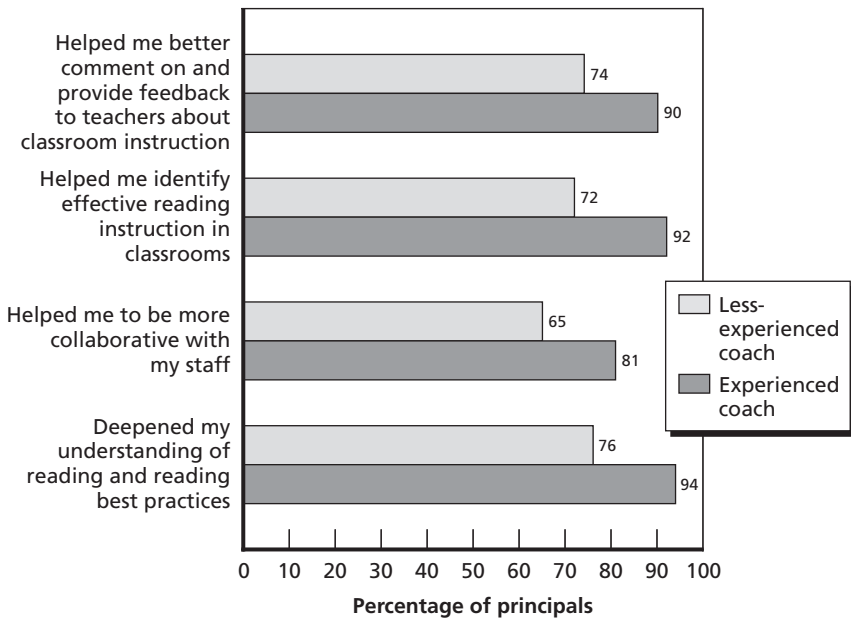
NOTE: Response categories were “strongly disagree,” “disagree,” “agree,” and “strongly agree.”

In addition to building principal knowledge, 84 percent of principals reported that having the coach lead the school’s reading initiatives enabled them to focus on other areas of need. Principals in our case study schools described relying on the coach to lead the school’s reading initiatives. One assistant principal described how he worked hand in hand with the coach to good effect:

Since I came here we've been working a lot together. . . . I'm not the expert when it comes to the actual content of everything. I have a general knowledge about everything. My thing is the big picture for the whole group. I put the plans out there and then I tap into the resources: "Okay, you're the expert in this area. Let's bring this together, let's see how we can make this work." We talk about strategies, we talk about things [in] that role we can share. (Assistant principal)

We found that coaching experience and expertise matters to principals' perceptions. Principals of schools with an experienced coach (three or more years of coaching experience) were significantly more likely than principals of schools with a less-experienced coach (less than three years of experience) to report positive effects (see Figure 6.4).

**Figure 6.4**  
**Percentage of Principals Agreeing or Strongly Agreeing with Statements About the Impact of the Coach on the Principal, by Coach Experience**



### **Perceived Influence of the Coach on the School**

Principals generally agreed that the coach influenced their schools in positive ways. As a principal in one of our case study schools noted, “it would be suicide” for the school to lose the reading coach position.

Almost all principals agreed or strongly agreed that the coach had a positive impact on the quality of reading professional development offered to teachers (91 percent) (Table 6.6). Principals responding to our survey described how the reading coach enhanced professional development and teaching:

Having our reading coach has been a true blessing! She has mentored our new teachers on almost a daily basis. She has trained and coached our seasoned teachers with using reading strategies in the content area. She holds regular reading in-services, sends out emails with instructional resources, challenges the teachers to share best practices, etc. Staff development is at a premium due to having our reading coach. It is an invaluable position.

Our reading coach has made a great impact on the reading program at our school. She has trained teachers in the areas of data analysis, assessment, and prescriptive teaching, and has worked with new teachers in a variety of ways.

We are very fortunate to have a very skilled reading coach who takes a lead in facilitating professional development activities for our faculty. In addition, she is an effective mentor for our reading personnel as well as new classroom teachers.

Over 80 percent of principals agreed or strongly agreed that the reading coach had helped build a strong sense of community in the school. In one of our case study schools, a teacher explained, “I think she [the coach] has brought us closer because we are on different grade levels and we would hardly associate with each other, but now we are like a little family.”

**Table 6.6**  
**Percentage of Principals Agreeing or Strongly Agreeing with**  
**Statements About the Impact of the Coach on the School**

Our reading coach has . . .	Agree	Strongly Agree
Improved the quality of reading professional development offered to teachers at this school	38	53
Built a strong sense of community among teachers in this school	52	32

NOTE: Response categories were “strongly disagree,” “disagree,” “agree,” and “strongly agree.”

### Perceived Influence of the Coach on Students

Almost all principals held positive views about the influence of the coach on students, whereas teachers’ views were mixed. The vast majority (90 percent) of principals believed that the coach’s work had improved student motivation to read (Table 6.7); however, only 56 percent of reading teachers and 49 percent of social studies teachers believed that their work with the coach had influenced their own students’ motivation to read. This difference in perception could be because coaches can have a schoolwide impact on students’ motivation to read that goes beyond their work with teachers. For instance, in one of our case study schools, we were told that the coach had made a tremendous impact on students’ motivation to read by instituting a book challenge with rewards. As one reading teacher remarked, “She is creating a culture. . . . I think

**Table 6.7**  
**Percentage of Principals Agreeing or Strongly Agreeing**  
**with Statements About the Impact of the Coach on**  
**Students**

Our reading coach has . . .	Agree	Strongly Agree
Improved students’ reading skills	34	58
Improved students’ motivation to read	41	49

NOTE: Response categories were “strongly disagree,” “disagree,” “agree,” and “strongly agree.”



that the whole culture is starting to change—like it's okay to read. It's good to read.”

As Table 6.7 illustrates, the vast majority of principals also viewed the coach as having improved students' reading skills (92 percent). We investigate the influence of the coach on students' reading achievement in the next two chapters.

## Modeling Results

This section examines the relationship between coaching implementation factors and certain perceived outcomes, when controlling for other factors. We first present our modeling approach, followed by results.

### Modeling Approach

We employ least squares regression analyses to model various school-level predictors of four proximal outcomes—perceived influence on teacher practice; on principals' knowledge and skills; on school community; and on student motivation to read.<sup>5</sup> Table 6.8 presents the proximal outcomes that we modeled and their definitions, including the means and standard deviations.

**Selection of Coaching Implementation Variables.** All the coaching implementation variables examined in these models are derived from survey data—some employ single items and others are scales constructed from multiple items. As we could use only the 86 schools that provided survey responses from both the principal and the coach, we selected a fairly parsimonious set of program features identified as important in prior research and in our own survey findings. Table 6.9 presents the predictor variables in our model and their definitions, and Table 6.10 presents the means and standard deviations for these independent variables. We focus on indicators of coach skill, knowledge, and ability,

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<sup>5</sup> These models use unstandardized variables to ease the interpretation for the reader. For example, if a model predicted a coefficient of 0.05 for years teaching experience, it would indicate that each year of teaching experience would increase the value of the dependent variable, holding other factors constant, by 0.05.

**Table 6.8**  
**Definitions of Modeled Proximal Outcomes**

Constructs	Definitions
Perceived influence on teacher practice Source: Teacher surveys	To what extent did the coach influence any changes made to your instruction over the course of the year? Measured on a four-point scale ("not at all," "to a small extent," "to a moderate extent," "to a great extent"). This variable has a mean of 2.3 and a standard deviation of 0.6.
Perceived influence on principals' knowledge and skills scale (alpha = 0.91 <sup>a</sup> ) Source: Principal survey	To what extent do you agree or disagree with the following statements about your school's reading/literacy coach? Our reading/literacy coach(es) has . . . deepened my understanding of reading and reading best practices helped me identify effective reading instruction in classrooms helped me better comment on and provide feedback to teachers about classroom instruction helped me to be more collaborative with my staff. Measured on a four-point scale ("strongly disagree," "disagree," "agree," "strongly agree"). This variable has a mean of 3.1 and a standard deviation of 0.7.
Perceived influence on school community Source: Principal survey	To what extent do you agree or disagree with the following statements about your school's reading/literacy coach? Our reading/literacy coach(es) has . . . built a strong sense of community among teachers in this school. Measured on a four-point scale ("strongly disagree," "disagree," "agree," "strongly agree"). This variable has a mean of 3.1 and a standard deviation of 0.75.
Perceived influence on school community Source: Principal Survey	To what extent do you agree or disagree with the following statements about your school's reading/literacy coach? Our reading/literacy coach(es) has . . . built a strong sense of community among teachers in this school.

**Table 6.8—continued**

Constructs	Definitions
Perceived influence on student motivation to read Source: Teacher surveys	Measured on a four-point scale ("strongly disagree," "disagree," "agree," "strongly agree"). This variable has a mean of 3.1 and a standard deviation of 0.75.  To what extent do you agree or disagree with the following statements about your school's reading/literacy coach? As a result of my work with our school's reading/literacy coach(es) this year . . . my students are more motivated to read. Measured on a four-point scale ("strongly disagree," "disagree," "agree," "strongly agree"). This variable has a mean of 2.4 and a standard deviation of 0.45.

<sup>a</sup> Cronbach's alpha indicates how well a set of items measures a single latent construct. It has a maximum value of 1 and increases as the correlations between the items measuring the construct increase.

**Table 6.9**  
**Definitions of Predictor Variables Used in the Models**

Constructs	Definitions
<b>Coach Expertise and Experience</b>	
Reading credential Source: Coach survey	Defined as coach having a master's degree in reading, a reading certification, state reading endorsement, or combined state reading/ESOL endorsement.
Years teaching reading Source: Coach survey	Defined as total years experience teaching reading and serving as a reading specialist or reading resource teacher.
Perceived coach quality scale (alpha = 0.91) Source: Teacher surveys	The reading/literacy coach(es) at my school . . . has strong knowledge of best practices in reading instruction <i>has a limited understanding of the particular needs of students that I teach</i> has a strong understanding of my needs as a teacher helps me adapt my teaching practices according to analysis of student achievement data (e.g., test results) maintains confidentiality of what we discuss or work on together understands the middle school culture and student

Table 6.9—continued

Constructs	Definitions
	<p>The reading/literacy coach(es) at my school . . .(continued)  <i>has little time to regularly support teachers</i>  is someone I trust to help me and provide support  provides feedback in a nonevaluative way  explains the research, theory, or reasons underpinning  the strategies (s)/he suggests or the feedback (s)/he  provides  (social studies teacher only) <i>does not have sufficient  understanding of my content area to help me with my  teaching.</i></p> <p>Measured on a four-point scale with an additional “don’t  know/NA” option (“strongly disagree,” “disagree,”  “agree,” “strongly agree,” “don’t know/NA”).</p> <p>Statements in italics were reverse coded.</p>
<p>Ability to support adult  learners</p> <p>Source: Principal survey</p>	<p>How would you rate your reading/literacy coach’s  knowledge and skills in the following area? If your school  has more than one reading coach, answer the question for  the reading coaches as a team.</p> <p>Understanding of how to support adult learners</p> <p>Measured on a three-point scale (“weak,” “medium,”  “strong”).</p>
<p>Coach confidence scale  (alpha = 0.59)</p> <p>Source: Coach survey</p>	<p>To what extent do you agree or disagree with the  following statements about your work as a reading/  literacy coach?</p> <p>I feel confident in my ability to support teachers with  reading instruction.</p> <p><i>I do not feel prepared to help content area teachers  incorporate reading strategies into their classrooms.</i>  (reverse coded).</p> <p>Measured on a four-point scale (“strongly disagree,”  “disagree,” “agree,” “strongly agree”).</p>
<p>More-experienced  coach</p> <p>Source: Coach survey</p>	<p>Defined as having been a coach for three or more years  (yes/no).</p>
<p><b>Coach Activities</b></p>	
<p>Focus on integrating  instruction across  content areas</p> <p>Source: Coach survey</p>	<p>Considering all of the work you have done with teachers  this school year, how much emphasis did you place on  supporting the following area of instruction?</p> <p>Integrating reading instruction across the content  areas.</p> <p>Measured on a four-point scale (“no emphasis,” “minor  emphasis,” “moderate emphasis,” “major emphasis”).</p>

**Table 6.9—continued**

Constructs	Definitions
Time spent working with individual teachers Source: Coach survey	During a typical two-week period this academic year (2006–2007), approximately how much time did you spend on the following activity? Working with individual teachers one-on-one on their instruction (including classroom observations). Measured on a five-point scale (“I generally do not do this every two weeks,” “a small amount” [1–5 hours], “a moderate amount” [6–16 hours], “a large amount” [17–24 hours], “a very large amount” [more than 24 hours]).
Time spent working with groups of teachers Source: Coach survey	During a typical two-week period this academic year (2006–2007), approximately how much time did you spend on the following activity? Working with groups of teachers on their instruction (including large-group professional development sessions). Measured on a five-point scale (“I generally do not do this every two weeks,”) “a small amount” [1–5 hours], “a moderate amount” [6–16 hours], “a large amount” [17–24 hours], “a very large amount” [more than 24 hours]).
Time spent administering assessments Source: Coach survey	During a typical two-week period this academic year (2006–2007), approximately how much time did you spend on the following activity? Administering or coordinating student assessments (including managing assessment materials). Measured on a five-point scale (“I generally do not do this every two weeks,” “a small amount” [1–5 hours], “a moderate amount” [6–16 hours], “a large amount” [17–24 hours], “a very large amount” [more than 24 hours]).
Time spent training teachers to use assessment data Source: Coach survey	During a typical two-week period this academic year (2006–2007), approximately how much time did you spend on the following activity? Analyzing and training teachers on how to analyze and use student data to inform instruction (including FCAT, MAZE, fluency checks, student work). Measured on a five-point scale (“I generally do not do this every two weeks,” “a small amount” [1–5 hours], “a moderate amount” [6–16 hours], “a large amount” [17–24 hours], “a very large amount” [more than 24 hours]).
Reviewed assessment data with coach Source: Teacher surveys	How often has your school’s reading/literacy coach(es) performed the following actions? Since the beginning of the school year, my school’s reading/literacy coach(es) has . . . reviewed student assessment data with me (individually or in a group). Measured on a four-point scale (“never,” “a few times this year,” “once or twice a month,” “once or twice a week or more”).

**Table 6.9—continued**

Constructs	Definitions
<p>Received individual coaching scale (alpha = 0.88)</p> <p>Source: Teacher surveys</p>	<p>How often has your school's reading/literacy coach(es) performed the following actions?</p> <p>Since the beginning of the school year, my school's reading/literacy coach(es) has . . .</p> <ul style="list-style-type: none"> <li>come to my classroom to co-teach or model a lesson or reading strategy</li> <li>assisted me with planning a lesson or curricular unit</li> <li>visited my classroom to observe my instruction</li> <li>given me feedback on my teaching or facilitated reflection on my practice.</li> </ul> <p>Measured on a four-point scale ("never," "a few times this year," "once or twice a month," "once or twice a week or more").</p>
<b>Context for Coaching</b>	
<p>Number of years the school has had a coach</p> <p>Source: Principal survey</p>	<p>For how many years (including this year as one) has your school had a reading/literacy coach?</p>
<p>Coach caseload</p> <p>Sources: Principal survey and Common Core of Data</p>	<p>log (number of students per coach)</p> <p>Note: Ideally we would have used a measure of teacher-to-coach ratio; however, we did not have reliable data to construct such a variable. Given that the ratio of students to teachers generally does not vary considerably across schools, the student-to-coach ratio is a useful proxy.</p>
<p>Percentage of new teachers in the school</p> <p>Source: Principal survey</p>	<p>A new teacher is defined as someone teaching less than three years.</p>
<p>Principal leadership scale (alpha = 0.94)</p> <p>Source: Teacher surveys</p>	<p>The head principal at my school . . .</p> <ul style="list-style-type: none"> <li>communicates a clear academic vision for my school</li> <li>sets high standards for teaching</li> <li>encourages teachers to review the Sunshine State standards and incorporate them into our teaching</li> <li>helps teachers adapt our curriculum based on an analysis of FCAT test results</li> <li>expects all staff to work with the reading coach to reflect on and improve their teaching</li> <li>ensures that teachers have sufficient time for professional development</li> <li>enforces school rules for student conduct and backs me up when needed.</li> </ul>

**Table 6.9—continued**

Constructs	Definitions
	The head principal at my school . . . (continued) makes the school run smoothly is someone I trust at his/her word. Measured on a four-point scale ("strongly disagree," "disagree," "agree," "strongly agree").

<sup>a</sup> Cronbach's alpha indicates how well a set of items measures a single latent construct. It has a maximum value of 1 and increases as the correlations between the items measuring the construct increase.

**Table 6.10  
Means and Standard Deviations of Predictor Variables Used in the Models**

Variable	Mean	Standard Deviation
Reading credential	0.79	0.39
Years teaching reading	11.2	9.67
Perceived coach quality	3.03	0.41
Ability to support adult learners	2.50	0.61
Coach confidence	3.54	0.45
More-experienced coach	0.49	0.49
Focus on integrating instruction across content areas	3.15	0.75
Time spent working with individual teachers (coach report)	3.22	0.92
Time spent working with groups of teacher (coach report)	2.36	0.92
Time spent administering assessments (coach report)	2.83	1.12
Time spent training teachers to use assessment data (coach report)	2.54	1.04
Reviewed assessment data with coach (reading teacher report)	2.14	0.59
Reviewed assessment data with coach (social studies teacher report)	1.65	0.50
Received individual coaching (reading teacher report)	1.88	0.51
Received individual coaching (social studies teacher report)	1.49	0.42
Number of years the school has had a coach	4.01	2.18
Coach caseload	6.97	0.50
Percentage of new teachers in the school	27.36	16.02
Principal leadership	3.14	0.36

including their reading credential status, experience teaching reading, ability with adult learners, whether or not they are a more experienced coach, their confidence or self-efficacy, and teachers' perceptions of coaches' overall quality; and school contextual factors that may enable or hinder coaches' work including coach caseload, the percentage of new teachers in the school, the number of years the school had a coach, and principal leadership.

We also include measures of coaches' activities and the focus of their work from both the teacher and coach surveys. The coach surveys directly ask how coaches spent their time, while the teacher surveys ask about the frequency of various coach-teacher interactions. Each source of information has strengths and limitations. Although coaches' reports might be more reliable, they do not give an accurate indication of the breadth of their work with teachers. Aggregated teacher responses provide a more reliable measure of the breadth of coaches' work throughout the school; however, teachers' reports may be a "noisy" measure of the typical interactions teachers have with the coach, especially if there is substantial variation in teacher-coach interactions within a school. This problem is exacerbated by teacher nonresponse, which further reduces the degree to which the teacher reports we have are representative of all teachers in a school. Our approach was therefore to estimate one set of models that uses the coaches' self-reports for information on coach activities and another that uses the teachers' reports. Both sets of models reported throughout this chapter and the next include variables drawn from mixed sources (coach, principal, and teacher survey data), as described in Table 6.9. They differ only in the source of data used to construct the coaching activity variables: Model 1 includes coach activity variables as reported by coaches, and Model 2 includes coach activity variables as reported by teachers.

For models based on coaches' reports of activities, we use measures of focus on integrating instruction across content areas and the time spent on the following activities—working with individual teachers, working with groups of teachers, administering assessments, and training teachers to use assessment data. For models based on teachers'



reports of coach activities with them, we use measures of focus on integrating instruction across content areas, receipt of individual coaching, and training on the use of assessment data. Since coaches may vary in how they work with reading and social studies teachers, we estimate models separating these teacher respondent groups.

## Model Results

**Coaches' Influence over Teachers' Instructional Changes.** We use all teachers' reports of the coaches' influence on their instructional changes as a measure of broad coach influence across the school. Because this measure includes all teachers in the school, regardless of whether or how they interacted with the coach, it captures a sense of the extent and intensity of coach-teacher interactions, as well as the perceived impact of coaching activity on instruction. As such, a number of implementation factors were significantly related to this outcome (Table 6.11).

- Teachers' overall views about coaches' quality had a positive association with their perceptions of coaches' influence. This suggests that, on average, teachers who reported higher ratings of their coaches' knowledge and skills reported more positive perceptions of coaches' influence (controlling for other variables in the model).
- Principals' ratings about one particular aspect of coaches' knowledge—understanding how to support adult learners—was also positively related to teachers' perceptions of coaches' influence. That is, teachers who reported more-positive perceptions of the coaches' influence were in schools where the coach had a higher level of understanding regarding support for adult learners (as reported by the principal).
- Two measures of past experience were significantly associated with this outcome variable: more-experienced coaches had a positive, albeit small relationship, and years that coaches spent teaching reading had a very small, negative relationship with teachers'

**Table 6.11**  
**Results from Models of the Perceived Level of Coaches' Influence on**  
**Changes in Teachers' Instruction**

Variable	Model 1	Model 2
Reading credential	-0.090 (0.121)	-0.037 (0.093)
Years teaching reading	-0.009 (0.006)	-0.009* (0.005)
Perceived coach quality	0.878*** (0.126)	0.391** (0.120)
Ability to support adult learners	0.104 (0.077)	0.132* (0.060)
Coach confidence	-0.181 (0.101)	-0.123 (0.078)
More experienced coach	0.124 (0.104)	0.161* (0.079)
Focus on integrating instruction across content areas	0.084 (0.073)	0.130* (0.054)
Time spent working with individual teachers (coach report)	0.118* (0.052)	
Time spent working with groups of teachers (coach report)	0.079 (0.058)	
Time spent administering assessments (coach report)	-0.123* (0.055)	
Time spent training teachers to use assessment data (coach report)	0.027 (0.061)	
Reviewed assessment data with coach (reading teacher report)		-0.035 (0.089)
Reviewed assessment data with coach (social studies teacher report)		0.355*** (0.098)
Received individual coaching (reading teacher report)		0.510*** (0.099)
Received individual coaching (social studies teacher report)		0.053 (0.133)
Number of years the school had a coach	-0.010 (0.023)	-0.013 (0.017)
Coach caseload	-0.196* (0.094)	-0.084 (0.073)
Percentage of new teachers in the school	0.004 (0.003)	0.003 (0.002)
Principal leadership	0.116 (0.141)	0.117 (0.111)

\* Significant at the 0.05 level, \*\*significant at the 0.01 level; \*\*\*significant at the 0.001 level. NOTE: Standard errors are given in parentheses.

reports of influence. Although the former relationship is understandable and is predicted by the literature, the latter finding is counterintuitive. One possible explanation is that those teaching for many years become “set in their ways” and use strategies that work when teaching children and youth but that are not effective for teaching adults. Also, it is important to remember that unlike the rest of the state, the vast majority of coaches in our sample had experience teaching reading. Because of this, years teaching reading is a continuous variable. We were unable to model whether having *any* experience teaching reading versus *no* experience teaching reading was related to perceived influence over instruction, which may have produced a different result.

- The extent to which coaches emphasized integrating reading instruction across content areas had a positive relationship with perceptions of influence.
- Certain types of coach-teacher interactions were related to perceptions of influence. The frequency with which the coach helped social studies teachers review assessment data had a strong positive association with perceptions of coaches’ influence on instructional change. Similarly, the frequency with which the coach worked one-on-one with reading teachers had a positive association with perceptions of their influence. Coaches’ reports of one-on-one work were also positively related to teachers’ perceptions of influence (although the magnitude is much smaller than that of the teacher-reported variable).
- The amount of time coaches spent administering and coordinating student assessments was negatively related to teachers’ perceptions of influence (although the magnitude of this association is quite small). That is, teachers who reported more-negative perceptions of coach influence were in schools where the coach reported spending more time on administering assessments.
- Higher coach caseload had a negative association with perceptions of influence over changes in instruction. That is, in schools with

more students (our proxy for teachers) per coach, teachers were less likely to report that the coach influenced their instruction.

**Perceived Influence of Coaches on Principals' Knowledge and Skills.** To understand the perceived influence of the coach on principals' knowledge and skills, we created a scale based on principals' responses to four questions (Table 6.8). Principals' ratings about a coach's ability to support adult learners was a significant predictor of their overall assessment of coach influence on their instructional knowledge and skills (Table 6.12). That is, principals who rated their coach as having higher levels of understanding how to support adult learners reported more positive perceptions of the coach's influence on them as instructional leaders. Interestingly, none of the other coaching implementation variables were associated with principal perceptions of influence, including coach experience, teachers' overall assessment of coach quality, and how coaches spent their time.

**Perceived Influence of Coaches on School Community.** Many principals reported that coaches had helped build a strong sense of community among teachers in their school. Again we found a positive relationship between principal ratings of coach ability to support adult learners and principal assessment of coach influence over school community, when controlling for other factors (Table 6.13). However, none of the other coaching implementation variables was associated with this perceived outcome.

**Perceived Influence of Coaches on Students' Motivation to Read.** Teachers' assessments of coach influence on their students' motivation to read were correlated with teachers' perceptions of coach quality (Table 6.14). The time coaches reported working one-on-one with teachers also had a positive, albeit small association with perceptions of coach influence on student motivation. In the model run with teacher-reported activities, the coefficient for the number of years the school had a coach achieves statistical significance.

**Table 6.12**  
**Results from Models of the Perceived Level of Coaches' Influence on**  
**Principals' Knowledge and Skill**

Variable	Model 1	Model 2
Reading credential	0.166 (0.214)	0.152 (0.212)
Years teaching reading	0.013 (0.011)	0.010 (0.010)
Perceived coach quality	0.007 (0.223)	0.091 (0.273)
Ability to support adult learners	0.428** (0.136)	0.387** (0.136)
Coach confidence	-0.079 (0.178)	-0.110 (0.178)
More-experienced coach	0.206 (0.184)	0.235 (0.180)
Focus on integrating instruction across content areas	0.202 (0.129)	0.151 (0.123)
Time spent working with individual teachers (coach report)	-0.102 (0.092)	
Time spent working with groups of teachers (coach report)	0.030 (0.102)	
Time spent administering assessments (coach report)	0.092 (0.098)	
Time spent training teachers to use assessment data (coach report)	-0.057 (0.108)	
Reviewed assessment data with coach (reading teacher report)		-0.026 (0.202)
Reviewed assessment data with coach (social studies teacher report)		-0.070 (0.222)
Received individual coaching (reading teacher report)		-0.131 (0.224)
Received individual coaching (social studies teacher report)		0.112 (0.303)
Number of years the school had a coach	0.031 (0.040)	0.039 (0.040)
Coach caseload	-0.116 (0.166)	-0.118 (0.165)
Percentage of new teachers in the school	0.005 (0.005)	0.005 (0.005)
Principal leadership	0.101 (0.250)	0.117 (0.253)

\* Significant at the 0.05 level, \*\*significant at the 0.01 level; \*\*\*significant at the 0.001 level. NOTE: Standard errors are given in parentheses.

**Table 6.13**  
**Results from Models of the Perceived Level of Coaches' Influence on School Community**

Variable	Model 1	Model 2
Reading credential	0.230 (0.218)	0.217 (0.214)
Years teaching reading	0.012 (0.011)	0.012 (0.010)
Perceived coach quality	0.057 (0.226)	0.146 (0.275)
Ability to support adult learners	0.553*** (0.139)	0.497*** (0.137)
Coach confidence	-0.210 (0.181)	-0.208 (0.180)
More-experienced coach	0.073 (0.187)	0.128 (0.182)
Focus on integrating instruction across content areas	0.117 (0.131)	0.037 (0.124)
Time spent working with individual teachers (coach report)	-0.015 (0.093)	
Time spent working with groups of teachers (coach report)	0.015 (0.104)	
Time spent administering assessments (coach report)	0.110 (0.099)	
Time spent training teachers to use assessment data (coach report)	-0.028 (0.110)	
Reviewed assessment data with coach (reading teacher report)		-0.020 (0.204)
Reviewed assessment data with coach (social studies teacher report)		-0.133 (0.224)
Received individual coaching (reading teacher report)		-0.119 (0.227)
Received individual coaching (social studies teacher report)		0.229 (0.307)
Number of years the school has had a coach	-0.039 (0.041)	-0.028 (0.040)
Coach caseload	0.185 (0.169)	0.148 (0.167)
Percentage of new teachers in the school	0.008 (0.005)	0.007 (0.005)
Principal leadership	0.100 (0.254)	0.112 (0.256)

\* Significant at the 0.05 level, \*\*significant at the 0.01 level; \*\*\*significant at the 0.001 level. NOTE: Standard errors are given in parentheses.

**Table 6.14**  
**Results from Models of the Perceived Level of Coaches' Influence on**  
**Students' Motivation to Read**

Variable	Model 1	Model 2
Reading credential	-0.037 (0.094)	0.009 (0.089)
Years teaching reading	-0.001 (0.005)	0.001 (0.004)
Perceived coach quality	0.653*** (0.098)	0.412*** (0.114)
Ability to support adult learners	-0.012 (0.060)	0.001 (0.057)
Coach confidence	0.047 (0.078)	0.096 (0.075)
More-experienced coach	0.041 (0.081)	0.036 (0.076)
Focus on integrating instruction across content areas	-0.074 (0.056)	-0.053 (0.052)
Time spent working with individual teachers (coach report)	0.083* (0.040)	
Time spent working with groups of teachers (coach report)	0.024 (0.045)	
Time spent administering assessments (coach report)	-0.083 (0.043)	
Time spent training teachers to use assessment data (coach report)	0.051 (0.048)	
Reviewed assessment data with coach (reading teacher report)		0.006 (0.085)
Reviewed assessment data with coach (social studies teacher report)		0.131 (0.093)
Received individual coaching (reading teacher report)		0.186 (0.094)
Received individual coaching (social studies teacher report)		0.130 (0.127)
Number of years the school has had a coach	0.033	0.034* (0.017)
Coach caseload	0.041 (0.073)	0.081 (0.069)
Percentage of new teachers in the school	-0.001 (0.002)	-0.001 (0.002)
Principal leadership	0.150 (0.110)	0.158 (0.106)

\*Significant at the 0.05 level; \*\*significant at the 0.01 level; \*\*\*significant at the 0.001 level. NOTE: Standard errors are given in parentheses.

## Conclusion

This chapter described how teachers and principals view the work of the coach and its influence over teachers' practice, principals' reading knowledge and work, the school, and students. Overall, we found the following:

- Almost half of all reading teachers and 40 percent of all social studies teachers reported that the reading coach had influenced them to change their instruction to a moderate or great extent, while a minority (24–34 percent) reported that the changes they made to their instruction were not influenced by the coach.
- Approximately two-thirds of reading and social studies teachers who had interacted with the coach believed these interactions had a number of positive effects, such as helping them feel more confident in their ability to teach reading to students and helping them better plan and organize instruction. Only half of teachers who worked with the coach thought their work with the coach had influenced their own students' motivation to read.
- Teachers who had a one-on-one interaction with the coach were significantly more likely than teachers without this experience to attribute improvements in their instruction to the coach.
- In addition to coaches, teachers also were reported to serve as a major influence on the instruction of their peers.
- Principals were overwhelmingly positive about their reading coaches. The vast majority of principals reported that their coaches had a positive impact on their own knowledge, such as deepening their understanding of reading, and that coaches positively influenced the school climate, students' reading skills, and students' motivation to read.

A number of program features or aspects of coaching implementation were related to perceptions of coach influence when controlling for other factors. In particular,



- Teachers' perceptions of coaches' quality were associated with teachers' reports of influence on their instruction and of influence on student motivation to read.
- Coaches' ability to support adult learners (as reported by principals) was positively related to teachers' perceptions of coaches' influence on instruction, as well as principals' assessments of coaches' influence on their knowledge and skills, on the school climate, and students.
- More-experienced coaches had a small, positive relationship with teachers' reports of coaches' influence over their instruction, whereas years coaches spent teaching reading had a very small, negative relationship with those reports. One possible explanation is that those teaching for a long time become "set in their ways" and use strategies that work well with students but are ineffective with adults.
- One-on-one teacher-coach interactions (as reported by teachers, and in some cases coaches) were associated with perceptions of coaches' influence on instruction and (albeit on a smaller magnitude) with teachers' perceptions of coaches' influence on student motivation to read. Cross-tabulations indicate that teachers who worked one-on-one with the coach were significantly more likely than teachers without this type of contact with the coach to report making specific instructional changes during the year aimed at improving student reading.
- A variety of other types of coach activities helped predict teachers' perceptions of coaches' influence over changes in their practice. These perceptions were related to the frequency with which social studies teachers reported that the coach reviewed assessment data with them. Coaches' emphasis on integrating reading across content areas had a small positive association with perceptions of influence. Conversely, the amount of time coaches spent administering and coordinating student assessments, along with coach caseload, was negatively related to teachers' perceptions of influence (although the magnitude of these associations was small).

- The number of years a school had a coach had a small positive association with teachers' reports of the coach's influence on student motivation to read.

Overall, teachers and principals tended to feel that the coach had a number of positive effects on them and their schools. The next chapter investigates whether coaches have affected students' achievement scores.

## The Impact of Coaching on Student Achievement

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Ultimately, coaching is intended to improve student learning. However, establishing the link between coaching and student achievement is inherently difficult, given that coaching is often only one intervention among others in a school's effort to improve reading. In this chapter, we examine the link between coaching and student achievement through two sets of analyses. In the first, we look across all middle schools in the state to determine whether having a coach in a school is associated with school-level improvements in average annual achievement growth in reading and mathematics. This analysis is a longitudinal, pre-post design that includes all middle schools that employed state reading coaches from the inception of the program in 2002–2003 through 2005–2006. In the second set of analyses, we seek to understand whether variation in coaching implementation leads to differential outcomes in student achievement for the schools in our study in 2006–2007 (the study year). These cross-sectional regression analyses examine the relationships between student achievement and various measures of implementation derived from survey data, along with a set of controls.

### **Longitudinal, Statewide Analysis: Do Schools Make Higher Average Annual Achievement Gains After Receiving a State-Funded Coach?**

In this section, we examine general achievement trends in the middle grades (grades 6, 7, and 8) across the state of Florida, in those schools

receiving state funding for a coach (hereafter, *coached schools*), and in schools that did not have a coach as of 2006. We then present results of our statistical models that estimate the extent to which having a coach has contributed to these trends in student achievement in coached schools.

### **Achievement Trends in Florida and Coached Schools**

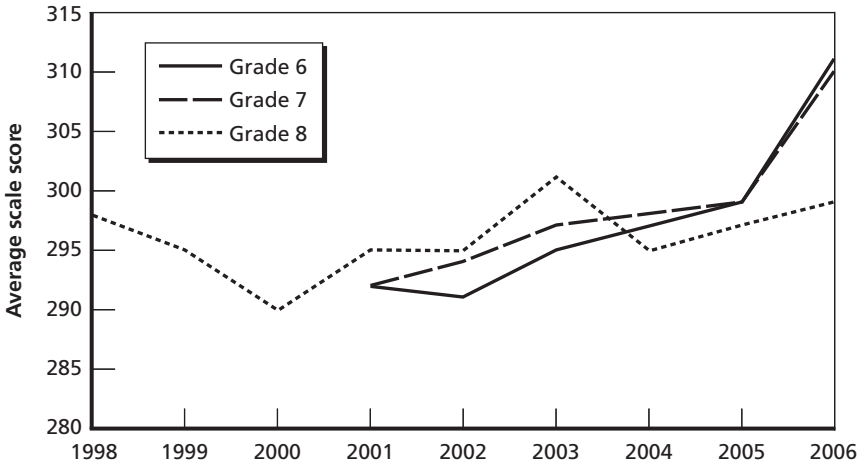
As described earlier, coaching is one piece of the Just Read, Florida! initiative, which aims to improve students' reading achievement. Since the inception of the Just Read, Florida! initiative in 2001, reading achievement in Florida has increased. Statewide, student achievement in grades 6 and 7 improved between 2000–2001 and 2005–2006 (Figure 7.1). The means scale score on the FCAT Sunshine State Standards (SSS) test<sup>1</sup> in reading for grade 6 increased 19 points, from 292 to 311, and the mean scale score for grade 7 increased 18 points. Achievement in grade 8 has remained relatively stable, increasing only 4 points over this time period. Because Florida has used the FCAT in grade 8 since 1998 (which is not the case for grades 6 and 7), we can see that in 2006, the grade 8 mean scale score was only one point above the 1998 mean scale score. To provide a point of reference in interpreting these trends over time, the average standard deviation in reading SSS scale scores for the middle grades during this period was approximately 60 points.

As described in Chapter Two, the state began funding coaches in 2002–2003 through a competitive grant process, which specified that reading coaches should be placed in the lowest-performing schools. As coach funding ramped up over time and all districts received funds for coaches, more and more schools across the state, including higher-performing schools, received coaches. Thus, cohorts of schools in our analysis (cohort is defined by the spring in which the school first received

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<sup>1</sup> The FCAT consists of two separately scored portions—a criterion-referenced test that measures student performance relative to the Sunshine State Standards and a norm-referenced test (NRT) that examines performance of students relative to national norms. Throughout this chapter we focus on the SSS portion of the FCAT because the SSS test is the key test of interest to Florida educators and policymakers since it is used as a measure in the state accountability system. Further, the NRT changed from the SAT9 to the SAT10 in 2004, making it an unreliable longitudinal measure.

**Figure 7.1**  
**Performance on FCAT Reading Sunshine State Standards Test, All Middle School Students Statewide, 2001–2006**



SOURCE: Florida Department of Education (2006).

NOTE: The trend line for each grade level starts the year in which the state began administering the FCAT: 1997–1998 for grade 8 and 2000–2001 for grades 6 and 7.

RAND MG762-7.1

the state-funded coach) differ by size and achievement level each year.<sup>2</sup> The 2003 cohort included 67 schools that had a sixth grade and 41 schools that had seventh and eighth grades (Table 7.1). Note that for this cohort, 2003 represents the first year the school received a coach; these schools continued to have coaches through 2006.<sup>3</sup> The 2004 cohort was the smallest (30–34 schools); the 2005 and 2006 cohorts were significantly larger.

The average reading achievement in the early cohorts of coached schools was far lower than that of other schools in the state. For example, as Figure 7.2 shows, reading achievement for sixth grade students

<sup>2</sup> The numbers and data presented refer to the schools included in our analysis. Some schools with a coach dropped from the analysis sample due to missing data. See Appendix C for details regarding how the analysis sample was generated.

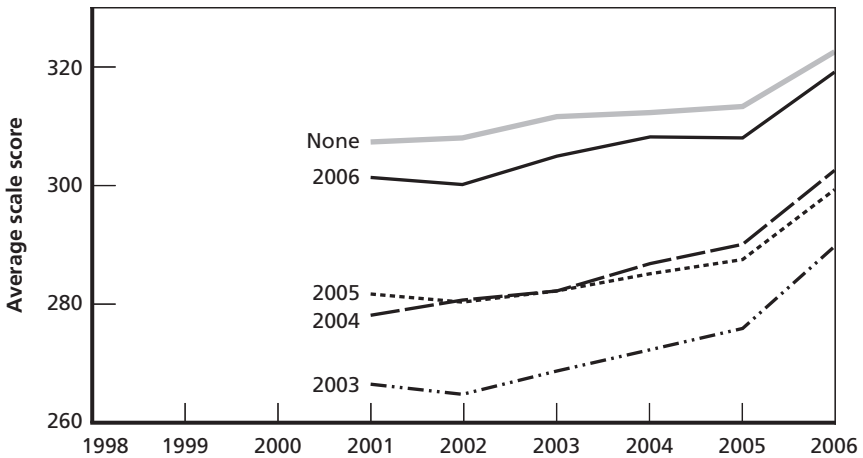
<sup>3</sup> In a few isolated cases, schools did not continue to have a coach over time. See Appendix C for the number of these schools and how they were treated in our analysis.

**Table 7.1**  
**Number of Schools with State-Funded Reading Coach**  
**in Each Cohort, by Grade (as included in the Achievement**  
**Analysis)**

Grade	Cohorts of Schools with Coaches				Schools Without Coaches
	2003	2004	2005	2006	
6	67	34	262	255	315
7	41	30	270	199	253
8	41	30	268	197	251

NOTES: The number of schools in each grade differs due to different grade configurations of schools (e.g., K-6, 6-8, K-12). Schools without coaches are those schools that did not have a state-funded reading coach as of 2006.

**Figure 7.2**  
**Sixth Grade Reading Achievement Scores by Cohort, Scale Scores on SSS**  
**Portion of the FCAT, 2001-2006**



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in the 2003 cohort was substantially below that of students in the other coaching cohorts and in schools that had not received a coach by 2006. In contrast, the 2006 cohort had the highest average achievement among the four coaching cohorts, which was only modestly

below the average achievement of sixth graders in schools that had not received a coach by 2006. We observe similar achievement patterns for grades 7 and 8 (Table 7.2).

While the performance gap between coached and noncoached schools persisted over time, it decreased during the posttreatment period (Table 7.2). Throughout this chapter we use the term *treatment* to represent the intervention: receipt of a state-funded reading coach. For instance, in 2002, the 2003 cohort's average reading performance was 43 points (approximately 0.67 standard deviation units) below the average performance of schools that did not receive a coach (as of 2006). By 2006, the difference in reading achievement between the 2003 cohort and uncoached schools was 33 points—a 10-point closing of the gap.

The number of points by which this achievement gap decreased varied by cohort. This gap decreased by 6–10 points for the 2003 cohort (the lowest performing and the longest-treated cohort), by 3–10 points for the 2004 cohort; by 4–7 points for the 2005 cohort; and by 0–1 point for the 2006 cohort (the highest-performing cohort that had only implemented coaching for one year).

While it is evident that schools that received a coach made some improvements in reading achievement over time and also narrowed the gap between coached and noncoached schools, we cannot be certain that these gains were caused by the presence of the reading coach, *per se*. The fundamental problem of attributing changes in achievement to coaching is that the initial student achievement level in schools that received coaches was markedly different than that of schools that did not, particularly in the early years of the program. Ideally, the goal is to infer what the achievement of coached schools would have been in the absence of coaching and to compare this to their actual performance with coaching. Because noncoached schools are so different from coached schools, simple descriptive statistics on achievement are not likely to provide an accurate indicator of this hypothetical performance without statistical adjustments. The next sections describe our modeling approach and the results, which estimate the extent to which we can attribute these improvements in achievement to reading coaches.

**Table 7.2**  
**FCAT Reading Sunshine State Standards Test Average Scale Scores, by Coaching Cohort, 2002–2006**

	2002	2003	2004	2005	2006	Pretreatment Difference in Average Performance Between Cohort and Schools Without a Coach	Difference in Average Performance Between Cohort and Schools Without a Coach in 2006
<b>Grade 6</b>							
2003 cohort	265	269	272	276	290	-43	-33
2004 cohort	281	282	287	290	303	-30	-20
2005 cohort	280	282	285	288	300	-27	-23
2006 cohort	300	305	308	308	319	-5	-4
Schools without coaches	308	312	312	313	323		
<b>Grade 7</b>							
2003 cohort	266	270	273	274	289	-43	-33
2004 cohort	282	287	290	289	303	-25	-19
2005 cohort	284	286	287	288	300	-25	-22
2006 cohort	306	309	311	310	320	-2	-2
Schools without coaches	309	312	312	312	322		
<b>Grade 8</b>							
2003 cohort	269	276	267	274	277	-39	-33
2004 cohort	281	291	285	289	291	-22	-19
2005 cohort	286	291	285	288	290	-24	-20
2006 cohort	306	312	307	307	309	-1	-1
Schools without coaches	308	313	309	308	310		

NOTE: *Schools without coaches* are defined as those schools that did not have a state-funded reading coach as of 2006.



## Statewide Modeling Approach

To control for stable school-level characteristics related to achievement that might bias the coaching estimate, we used an interrupted time series design (Shadish, Cook, and Campbell, 2002) in which post-treatment outcomes for individual schools can be compared to their outcomes prior to treatment. Comparing schools to themselves pre- and posttreatment controls for stable, unobservable characteristics of schools that are related to achievement (e.g., neighborhood influences). We also include adjustments for observable time-varying characteristics of schools (e.g., schoolwide percentages of racial/ethnic groups of students, percentage of students participating in free and reduced-price lunch programs) to provide further safeguards against bias. The analysis is strengthened by the fact that different cohorts received coaches during different years, which helps to safeguard against potential biasing due to events that occurred at a single point in time. However, confounding variables, such as principal leadership, that might be correlated both with receiving a coach and with achievement outcomes still pose validity threats. For instance, if schools were systematically selected to receive a coach based on an unmeasured factor such as strong principal leadership, which was related to achievement, it would be unclear whether a change in achievement was due to the coach or to this unmeasured factor. Therefore, results should be interpreted cautiously.

Using FCAT data from 1998 to 2006, we estimated the coaching effects via a fixed-effect-on-gains regression model, which controls for unobserved stable school-by-grade-level characteristics related to achievement growth. We utilized a fixed-effect-on-gains specification rather than a levels specification because there was some evidence that coached and noncoached schools had differential pretreatment growth rates (Appendix B). The fixed-effects-on-gains approach heuristically identifies treatment effects by comparing within-school changes in achievement gains before and after treatment to within-school changes of nonparticipating schools over similar time periods. This comparison is unaffected by stable differences in growth rates between schools (or in our case, school-by-grade) regardless of whether or not they can be

explained by observable school characteristics. Our analysis examined changes in gains for groups of students before and after the school received a coach, rather than achievement gains of individual students across grades.

In addition to fixed effects, our analysis also controlled for observable time-varying school characteristics. The characteristics include schoolwide percentages of racial/ethnic groups of students; percentage of students participating in free and reduced-price lunch programs; financial information, including total operating costs and per pupil expenditures for different groups of students; information on teacher workforce, including percentage of teachers with advanced degrees and average years experience; student characteristics, such as percentage of gifted students and ELLs; and disciplinary variables, including total incidents of crime and percentage of in-school and out-of-school suspensions.

We do not include 2007 data because, by 2007, the majority of middle schools in the state had received a reading coach. By using data up to 2005–2006, the analysis includes a more balanced representation of treated and nontreated schools and thus can provide the most information about program effects. In addition, at the time of the analysis, no 2007 data on the time-varying school characteristics used in the model were available.

We use two measures of achievement—FCAT SSS reading and mathematics scores. We model mathematics outcomes for two reasons. The first is that improved reading skills may also improve students' mathematics scores on the FCAT. The FCAT mathematics section is a text-heavy assessment, which includes many word problems as well as performance tasks in which students must solve a problem and explain their methods used, so better reading skills could lead to improved mathematics test scores. The second reason for including mathematics in our analysis is that the impact reading coaches have on mathematics scores, if it exists, would likely be no larger than the impact of the reading coach on students' reading scores. Accordingly, if the analysis found significantly larger results for mathematics than for reading, it would be evidence of uncontrolled bias in the results.

The main motivations of our statewide analysis are (1) to estimate the effects of receiving coaches for all schools in the program, not just the subset of schools included in the case study and (2) to estimate effects to reflect the entire history of the JRF program, not just the most-recent year. In principle, a statewide analysis could have been conducted using longitudinal student-level data rather than longitudinal data aggregated to the school-by-grade level. We did not pursue that option because available resources did not permit assimilating and specifying models for a longitudinal student-level database that would have the scope desired for the analysis, given the complexities of longitudinal data at the individual student level. On the other hand, assembling the school-by-grade aggregate dataset was straightforward using publicly available information.

The school-by-grade aggregate data and analysis has some advantages beyond expediency as well. First, it goes back to the spring of 1998, before Florida began testing students in every grade. This permits a longer time-series of aggregate achievement information prior to the program, which makes looking for changes after the program more straightforward. Second, it makes less-stringent scaling assumptions than would be necessary by growth modeling of individual student trajectories, since the aggregate analysis compares test scores only from the same grade. Third, the treatment effects estimated from the aggregate analysis are relevant to policy in an era when school performance is defined in terms of aggregate student performance.

Further, concern about the volatility of school-level aggregates is not a serious concern here because treatment effects are identified by averaging schools pre- and posttreatment and averaging across groups of schools.

Appendix B provides data, further details about the model specification, and full model results (including coefficients for control variables).

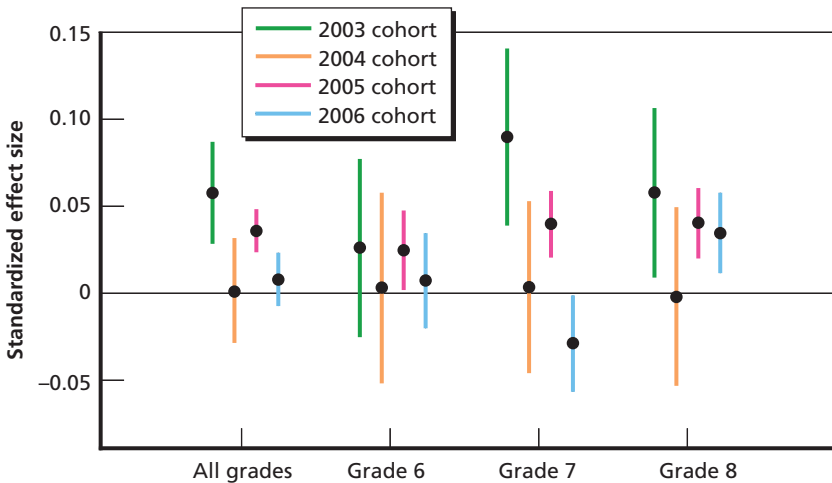
### **Statewide Coaching Effects**

**Reading.** Overall, we found mixed results in terms of the impact of coaching on achievement. Having a state-funded coach was associated with small but statistically significant improvements in average annual

gains in reading on the FCAT SSS test for the 2003 and 2005 middle-grades cohorts, but no statistically significant associations were found for the 2004 and 2006 cohorts. Figure 7.3 shows the point estimates and confidence intervals around those estimates for the various cohorts in reading. The estimates are expressed in standard deviation units of the FCAT reading SSS scale scores at the student level; this scale is comparable to standardized effect sizes commonly used in achievement analyses conducted at the individual student level. For the 2003 cohort, the standardized effect size of coaching on reading achievement for all middle grades is 0.06. Under the model, this is interpreted as the average causal effect of coaching (for the 2003 cohort of coached schools) on their annual growth rate in achievement. In other words, the model estimates that the 2003 cohort schools are growing 0.06 standardized units faster than they would have grown in the absence of coaching.

This estimate is a weighted average effect that combines grades 6, 7, and 8. For the 2003 cohort, the standardized effect size was positive for all three grades but significant only for grades 7 and 8.

**Figure 7.3**  
**Standardized Effect Size on FCAT Reading Sunshine State Standards Test**  
**Associated with Coaching, by Cohort and Grade**



Because these effect sizes represent a shift in average annual growth year, they accrue over time, so in 2006, after four years of implementation, the model estimates that the 2003 cohort's performance as a group is 0.24 standardized units higher than it would have been in the absence of coaching ( $0.06$  average effect size  $\times$  4 years of treatment). While the model estimates these annual gains for these first four years of having a coach (the outcome years modeled), we cannot say that these effects would continue to accrue indefinitely. It is possible that there is a leveling effect after some point of implementation.

For the 2005 cohort, average annual growth increased significantly by approximately 0.04 standard deviations. The effect sizes in grade 6, 7, and 8 were all positive and significant.

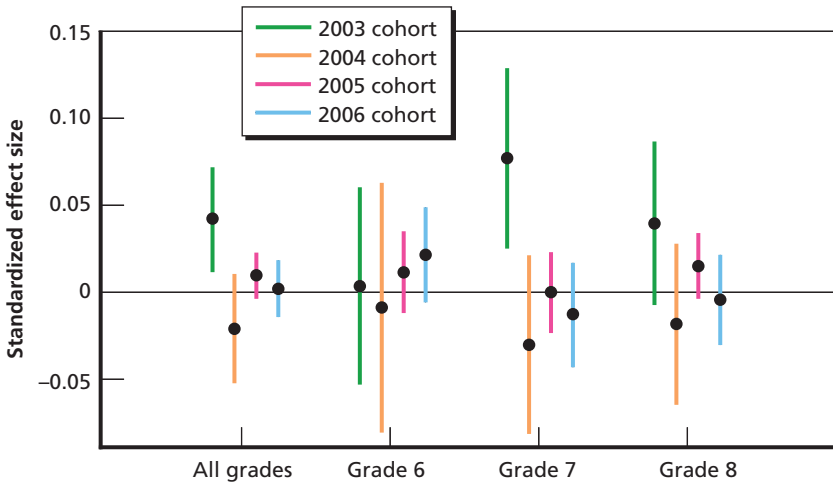
While we found statistically significant effects of coaching on reading achievement for two cohorts, we found no significant effects of coaching on reading achievement for the 2004 and 2006 cohorts. Estimates for the 2004 cohort are effectively zero on average and in all three grades. The effect size is not significant for the 2006 cohort on average, and the only grade with a significant effect is grade 8. For the 2006 cohort, implementation had been under way for only one year. Thus, it could be too early to see significant changes for this cohort. Studies of a variety of different education initiatives have found a pattern of slow early progress followed by gains after several years. For instance, Harris and Sass (2007) found that the impact of teachers' professional development on student achievement in the middle grades occurred in the three years after teachers had undergone professional development—not in the same year. Research on comprehensive school reform has also demonstrated a positive relationship between length of implementation and student achievement (Slavin et al., 1994; Ross, Nunnery, and Smith, 1996; Catterall, 1995). However, it is unclear why coaching had no effect on reading achievement for the 2004 cohort.

**Mathematics.** Our results indicate that there is no consistent association between reading coaches and improvements in mathematics scores. A significant association between coaching and mathematics achievement (effect size = 0.04) was found only for the 2003 cohort, the lowest-performing cohort, which had been implementing coaching for the longest period of time (Figure 7.4). Further, the only significant-

effect size for the 2003 cohort was in grade 7. We found no significant differences in any other cohort.

Our analysis examined the effect of receiving a state-funded coach over time and across the various school cohorts, without respect to the nature or quality of implementation. We found no consistent evidence regarding the impact of coaching on achievement across cohorts. Because schools tend to simultaneously implement a number of strategies and programs aimed at improving student achievement in reading, it could be that all these various efforts greatly reduce our ability to isolate the impact of coaching. It is also possible that differences in quality of implementation in the overall sample mask benefits that coaching has for some schools with high-quality coaches. As we know from the survey findings, coaches' roles and activities vary significantly from

**Figure 7.4**  
**Standardized Effect Size on FCAT Mathematics Sunshine State Standards Test Associated with Coaching, by Cohort and Grade**



school to school. It is also likely that the effect of coaching varies across teachers as a function of teacher attributes and the nature of teacher-coach interactions (which our data do not allow us to investigate). Our next analysis seeks to understand the relationship between variation in coaching implementation and student achievement outcomes.

## **Cross Sectional Analysis in Study Schools: Are Certain Coaching Features and Practices Associated with Improvements in Student Achievement?**

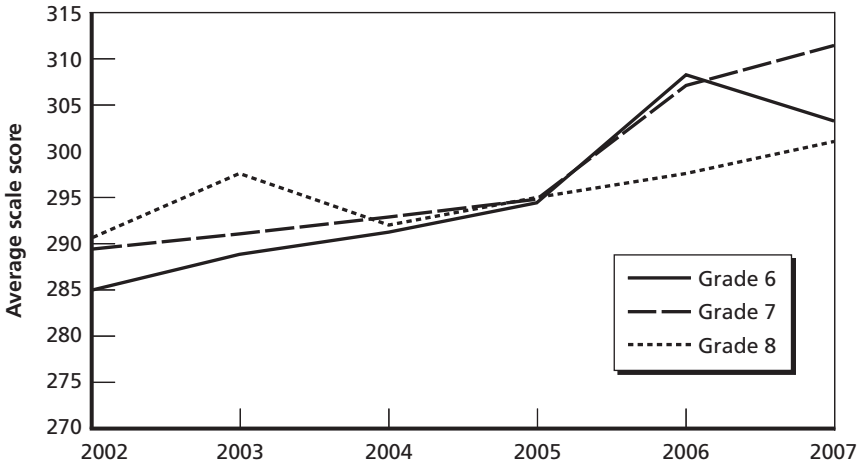
### **Achievement Trends in Study Schools**

As described earlier, between 2001–2002 and 2005–2006, statewide reading scores improved in grades 6 and 7 and slightly for grade 8. We found this to be the case as well for the schools in our study (Figure 7.5). In general, schools in our study performed on par with the state average on the FCAT reading SSS test (2–7 points above, depending on year and grade). In 2007, reading scores for our study schools in grades 7 and 8 continued to improve, while grade 6 scores declined, which is similar to the general trends across the state (not shown).

### **Cross-Sectional Modeling Approach**

**Model Estimation Approach.** To understand associations between coaching implementation and achievement, we estimated a set of one-way random-effects linear models using our survey data and student-level achievement data obtained through the Florida Department of Education. In these models, student achievement in reading and mathematics on the 2007 FCAT SSS test were modeled as a function of coaching program features during the 2006–2007 school year and other school and student characteristics. Achievement scores were modeled as a z-score with a mean of 0 and a standard deviation of 1. Measures of coach implementation come from surveys and are the same as those examined in the previous chapter (see Table 6.9). For this analysis, all coaching implementation measures were aggregated

**Figure 7.5**  
**Trends in Performance on FCAT Sunshine State Standards for Study**  
**Schools, 2002–2007**



SOURCE: Derived from student-level micro-data provided by the Florida Department of Education.

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to the school level since we do not have any way of linking individual students to teachers who worked with the coach.

For consistent estimates of the effects of various aspects of coaching implementation to be obtained, omitted influences on student achievement must be unrelated to coaching implementation variables. This condition would not be met if schools with coaches who engaged more intensively in a particular coaching activity were different in some unobservable way that was related to student achievement. For example, schools where coaches spend more time with individual teachers rather than coaching groups of teachers might be schools where students have weaker reading skills or schools where the coach-student ratio is larger. So, to truly understand the relationship between the time coaches spend working individually with teachers and student outcomes, it is very important to control for school and student characteristics that might be associated with both the coaching program and student achievement. Fortunately, the principal and teacher surveys collect information on other aspects of the school context includ-



ing the percentage of new teachers, the number of coaches a school has, the years of experience the coaches have, and teachers' perception of the principal's leadership. Our models also control for student characteristics including gender, ethnicity (Hispanic, African American, other), limited English proficiency, special education, percentage of school days attended, free-lunch eligibility, reduced-price lunch eligibility, grade retention, and grade level. We also control for school-level covariates including the number of students enrolled in the school, the percentage of students eligible for free or reduced lunch, and the percentage of minority students in the school.

In addition to student demographic and program participation variables, we control for student prior achievement by including fourth grade test scores in the model.<sup>4</sup> Thus, the estimates we obtained reflect the association between aspects of the coaching program and achievement relative to students' baseline performance observed in fourth grade, when they were in a different school that either had no reading coach or a totally different coaching program. Thus, even if the nature of the coaching program differs by whether a school has higher- or lower-achieving students, our estimates will still be unbiased so long as the coaching program is unrelated to the potential gains between fourth grade and middle school.

Since we used principal, coach, and teacher survey results in these models, we could only use the subset of schools for which we had received completed principal and coach surveys (we had teacher surveys for all schools in our sample) and that were in the student achievement database. This reduced the number of schools in our analysis to 86 schools. The number of student observations in our model is 71,234. Appendix C provides additional technical details on the modeling and the full set of model results (including estimates for control variables).

A limitation of this analysis is that we created some of our school-wide measures from teacher survey responses, and, due to budgetary constraints, only surveyed reading and social studies teachers. It is possible that teachers in these two subjects do not fully represent the expe-

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<sup>4</sup> The reading scale score mean was 312.3 with a standard deviation of 55.1, and the mathematics scale score mean was 306.6 with a standard deviation of 59.3.

rience of the population of teachers in the school. Further, as discussed earlier, this is a cross-sectional analysis that examines the effects of coaching on student achievement in one year only. The full impact of coaching may be better measured over time, particularly if the full effects of coaching are lagged or grow over time.

### **Relationship Between Coaching Program Features and Reading Achievement**

Table 7.3 shows the results of the models of reading achievement. Similar to the previous chapter, both sets of models reported throughout this section include variables drawn from mixed sources (coach, principal, and teacher survey data), as described in Table 6.9. They differ only in the source of data used to construct the coach activity variables: Model 1 includes coach activity variables as reported by coaches, and Model 2 includes coach activity variables as reported by teachers. Across all specifications, the number of years a school has had a coach is significantly related to higher reading test scores. This finding is consistent with our prior achievement analysis, which found gains that accrued over time. It could be that schools need time to set up the structures that enable a coach to focus on instruction and/or to allow teachers to become open and willing to working with the coach. Or, teachers may need time to internalize the new information and incorporate new techniques into their teaching practice, which in turn affect student performance. It is also possible that the more years the school has a coach, the more years students are exposed to coached teachers, which cumulatively affects their learning. The magnitude of this effect, however, is very small. For example, in the model with coach activities captured by the coach self-reports, an additional year of the coaching program is associated with a 0.011 standard deviation increase in reading test scores (holding other factors constant).

The only other program feature that we found significantly and positively related to better reading scores is the frequency with which reading teachers reported that the coach reviewed assessment data with them (either individually or in a group). The point estimate indicates that a one-unit increase in the scale used to measure how often the coach reviewed assessment data with the reading teachers increases reading

**Table 7.3**  
**Results from Models of Reading Achievement, Reading and Social Studies**  
**Teachers' Reports of Work with the Coach Reported Separately**

Variable	Model 1	Model 2
Reading credential	0.001 (0.002)	0.007 (0.018)
Years teaching reading	-0.001 (0.001)	-0.002* (0.001)
Perceived coach quality	-0.006 (0.021)	-0.032 (0.024)
Ability to support adult learners	0.001 (0.012)	0.001 (0.011)
Coach confidence	0.014 (0.017)	0.021 (0.016)
More-experienced coach	0.005 (0.018)	-0.012 (0.017)
Focus on integrating instruction across content areas	-0.007 (0.013)	0.004 (0.011)
Time spent working with individual teachers (coach report)	0.008 (0.009)	
Time spent working with groups of teachers (coach report)	-0.014 (0.010)	
Time spent administering assessments (coach report)	-0.017 (0.009)	
Time spent training teachers to use assessment data (coach report)	0.015 (0.011)	
Reviewed assessment data with coach (reading teacher report)		0.082*** (0.019)
Reviewed assessment data with coach (social studies teacher report)		0.023 (0.019)
Received individual coaching (reading teacher report)		-0.061*** (0.018)
Received individual coaching (social studies teacher report)		-0.020 (0.027)
Number of years the school has had a coach	0.009* (0.004)	0.010** (0.004)
Coach caseload	0.034 (0.030)	0.043 (0.024)
Percentage of new teachers in the school	-0.000 (0.001)	0.000 (0.000)
Principal leadership	0.044 (0.023)	0.029 (0.020)

\* Significant at the 0.05 level, \*\*significant at the 0.01 level; \*\*\*significant at the 0.001 level. NOTES: All models include controls for student and school characteristics, which are not shown here but are included in Appendix C. Variable values are not standardized. Standard errors are given in parentheses.

achievement by 0.082 standard deviations. The standard deviation of this scale is 0.613, implying that an increase of one standard deviation leads to an improvement of reading achievement of 0.05 standard deviations, which is also a fairly small effect. Social studies teachers' reports of reviewing assessment data with the coach were also positively related to reading scores, but the estimated relationship was smaller than it was for reading teachers and not statistically significant.

How often reading teachers report receiving one-on-one coaching is negatively associated with reading achievement. This result is surprising because the program's theory of action posits that coaching is effective when coaches are able to work with individual teachers on issues related to classroom instruction. Further, our models of proximal outcomes found that teachers who worked one-on-one with the coach were more positive about the impact of the coach than were teachers who did not have this experience, holding other factors constant.

How do we make sense of these puzzling results? First, when we estimated models where only one of these two program features was included, the results indicate that the coefficient on reviewed data remains positive and statistically significant (although it is smaller in magnitude), whereas the coefficient on individual coaching is very small and not statistically significant, which implies that this is not a robust finding for individual coaching. Second, teacher reports of individual coaching and reviewing assessment data are highly correlated with each other (the correlation coefficient is 0.7), so there is limited variation with which to separately identify the effects of these two program features. Thus, the separate effects were estimated from only a small number of schools in which individual coaching is relatively high but reviewed assessment data is low. It is true that reading achievement in these schools is lower than it is in observationally similar schools. However, schools with relatively high levels of individual coaching generally are schools where coaches review assessment data with teachers relatively frequently, and in these schools, achievement also tends to be high. It could be that this finding indicates that the content of individual coaching is important. In other words, if individual coaching is

done without including a review of student data, it may not be as effective as when these two are done in concert.

Interestingly, the number of years a coach had previously taught reading has a very small, negative relationship with student achievement in reading (in Model 2 only), controlling for other factors. This is similar to the findings from our models of perceived impact on teachers' instruction. Remember that, unlike the state as a whole, few coaches in our sample had no prior experience teaching reading, so we were unable to model whether having any experience teaching reading versus no experience teaching reading was related to student achievement, which may have produced a different result.

### **Relationship Between Coaching Program Features and Reading Achievement of Low-Performing Students**

Since a goal of the coaching program is to help reduce achievement gaps, an interesting question is whether program features affect achievement differentially for students with weaker reading skills. To address this issue, we limited the sample to students with low fourth grade reading scores (specifically, students who scored in the bottom quartile of the fourth grade reading test score distribution). If, in fact, particular features of coaching had a more pronounced effect on low-achieving students, we would expect to see substantially larger coefficients in these models compared to those reported earlier in Table 7.3. Yet, as Table 7.4 illustrates, none of the coefficients appears to be substantially larger. For example, the positive association between middle school reading scores and the frequency with which the coach reviewed assessment data with the reading teachers is of nearly the same magnitude as it is in the full sample. Further, the number of years the school had a coach is not statistically related to reading achievement. (Interestingly, teacher perception of principal leadership is significantly associated with higher test scores for these students in the model with the coach reports.) These results suggest that certain coaching features do not have a differential impact on students with lower previous achievement scores.

**Table 7.4**  
**Results from Models of Reading Achievement for Low-Achieving Students**

Variable	Model 1	Model 2
Reading credential	0.021 (0.032)	0.013 (0.032)
Years teaching reading	-0.000 (0.002)	-0.002 (0.001)
Perceived coach quality	-0.026 (0.032)	-0.052 (0.041)
Ability to support adult learners	0.030 (0.019)	0.028 (0.019)
Coach confidence	-0.014 (0.027)	-0.007 (0.026)
More-experienced coach	0.010 (0.028)	-0.007 (0.028)
Focus on integrating instruction across content areas	-0.029 (0.019)	-0.016 (0.018)
Time spent working with individual teachers (coach report)	0.013 (0.015)	
Time spent working with groups of teachers (coach report)	-0.029 (0.016)	
Time spent administering assessments (coach report)	-0.016 (0.015)	
Time spent training teachers to use assessment data (coach report)	0.001 (0.017)	
Reviewed assessment data with coach (reading teacher report)		0.083* (0.032)
Reviewed assessment data with coach (social studies teacher report)		0.029 (0.033)
Received individual coaching (reading teacher report)		-0.041 (0.032)
Received individual coaching (social studies teacher report)		-0.053 (0.045)
Number of years the school has had a coach	0.010 (0.006)	0.007 (0.006)
Coach caseload	0.061 (0.045)	0.079 (0.041)
Percent of new teachers in the school	-0.001 (0.001)	-0.000 (0.001)
Principal leadership	0.079* (0.036)	0.059 (0.036)

\*Significant at the 0.05 level, \*\*significant at the 0.01 level; \*\*\*significant at the 0.001 level. NOTES: All models include controls for student and school characteristics, which are not shown here but are included in Appendix C. Variable values are not standardized. Standard errors are given in parentheses.

### **Relationship Between Coaching Program Features and Mathematics Achievement**

Due to the text-rich nature of the mathematics FCAT, the reading coach program might also improve mathematics achievement. To see what program features are associated with higher mathematics test scores, we estimated similar models for mathematics achievement to those just described for reading achievement (Table 7.5).

As with reading achievement, none of the coach self-reports about activities are significantly related to mathematics achievement. In the models with teacher reports of coaches' activities, we again found a positive relationship between the coach reviewing assessment data with the reading teacher and achievement. The magnitude of this association is similar to that for reading achievement, although it is slightly smaller.

We found that a coach's experience teaching reading has a very small but negative association with student achievement in mathematics (in Model 2 only), which mirrors our findings for reading. However, unlike what we found in models of reading achievement, coaches' reading credentials had a small, positive association with mathematics-achievement (in both models). One possible explanation is that coaches who possess these reading credentials have a greater understanding of the reading process and therefore have better success communicating it to content area teachers. These findings are consistent with what is commonly cited in the coaching arena as an important contributor to a coach's effectiveness (see Neufeld and Roper, 2003a; Norton, 1999).

There is one other notable difference between the reading and mathematics achievement models: The coach caseload is significant and positively associated with achievement. This is a counterintuitive finding because one would not expect a larger caseload to be associated with higher mathematics achievement.

**Table 7.5**  
**Results from Models of Mathematics Achievement**

Variable	Model 1	Model 2
Reading credential	0.072** (0.025)	0.062* (0.025)
Years teaching reading	-0.002 (0.001)	-0.003* (0.001)
Perceived coach quality	-0.040 (0.027)	-0.060 (0.034)
Ability to support adult learners	-0.022 (0.015)	-0.017 (0.015)
Coach confidence	-0.017 (0.022)	-0.005 (0.022)
More-experienced coach	-0.021 (0.023)	-0.024 (0.024)
Focus on integrating instruction across content areas	0.010 (0.016)	0.018 (0.016)
Time spent working with individual teachers (coach report)	0.012 (0.012)	
Time spent working with groups of teachers (coach report)	0.001 (0.013)	
Time spent administering assessments (coach report)	-0.017 (0.011)	
Time spent training teachers to use assessment data (coach report)	-0.000 (0.014)	
Reviewed assessment data with coach (reading teacher report)		0.073** (0.028)
Reviewed assessment data with coach (social studies teacher report)		-0.031 (0.027)
Received individual coaching (reading teacher report)		-0.029 (0.026)
Received individual coaching (social studies teacher report)		0.002 (0.039)
Number of years the school has had a coach	0.008 (0.005)	0.007 (0.005)
Coach caseload	0.055 (0.038)	0.081* (0.035)
Percentage of new teachers in the school	-0.001 (0.001)	-0.001 (0.001)
Principal leadership	0.060* (0.028)	0.045 (0.028)

\* Significant at the 0.05 level, \*\*significant at the 0.01 level; \*\*\*significant at the 0.001 level. NOTES: All models include controls for student and school characteristics, which are not shown here but are included in Appendix C. Variable values are not standardized. Standard errors are given in parentheses.



## Conclusions

This chapter described the relationship between coaching and student achievement through two distinct analyses (1) a longitudinal analysis that examined the link between receiving a state-funded coach and student achievement gains for students in all middle grades statewide and (2) a cross-sectional analysis that examined the association between coaching variation (as measured through surveys) and achievement in our study sample in 2007. Overall, we found the following:

- There is mixed evidence of coaching effects on achievement. Having a state-funded coach was associated with small but significant improvements in average annual gains as measured by the FCAT SSS reading test for the 2003 and 2005 cohorts, which continued to accrue on an annual basis. No significant associations were found for the 2004 and 2006 cohorts. Although it may have been too early to discern the impact of coaching on the 2006 cohort, it is unclear why there were no associations between coaching and achievement for the 2004 cohort. Results indicate that the 2003 cohort made significant gains in mathematics as well; however, we did not find this to be the case for any other cohort.
- Only a few coaching implementation factors were positively associated with achievement. The number of years a school had a coach was associated with improved reading achievement (though the effect was very small), as was reviewing assessment data with reading teachers. Coaches' reading credentials had a small, positive association with mathematics achievement.
- In the few schools where there were low levels of reviewing assessment data, individual coaching of reading teachers (as measured by teachers' reports) was negatively associated with reading and mathematics achievement.
- Coaches' experience teaching reading was negatively related to achievement in reading and mathematics (though the effects were quite small), controlling for other factors. One hypothesis for this finding is that teachers with many years of experience teaching children become set in their ways and continue to use teaching

strategies that were effective with children but that are not effective with adults.

- Various features of coaching implementation do not have a differential impact on low-achieving students.

When interpreting these findings, one should keep in mind the limitations of our data and analysis. In the statewide achievement analysis, we lack any data on implementation. Thus, the estimates from this analysis provide an indication of only the overall “treatment” effect, regardless of how coaching was implemented. For the analysis examining the relationship between implementation and achievement, our measures of schoolwide implementation may be limited by the fact that we surveyed only reading and social studies teachers and tracked implementation and achievement for only one year.

## Conclusions and Recommendations

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This study was designed to evaluate the implementation and impact of Florida middle school reading coaches. Drawing on survey, student achievement, and case study data from eight districts in 2006–2007, along with longitudinal student achievement data from all middle grades in the state, we examined the state and district infrastructure supporting coaching; the implementation of coaching at the district and school levels; the effects of coaches on principals, teachers, and students; and the program features associated with these effects. In this final chapter, we summarize our key findings and present a set of recommendations for policymakers and future research.

### Key Findings

*Districts established similar policies and supports for coaches.* In most districts, principals hired the reading coaches, and they generally considered a similar set of knowledge, skills, and abilities when selecting a coach—knowledge and experience with teaching reading, interpersonal skills, communication skills, and experience working in similar contexts. Reading coaches typically received a salary commensurate with a regular teaching salary schedule, although a few districts offered supplemental income. In seven of the eight districts, principals conducted formal evaluations of coaches; across all districts, almost all coaches reported knowing what was expected of them and how their performance was evaluated. Finally, coaches generally received professional development and support from the state and district. As the state

envisioned, all districts provided at least monthly professional development sessions for coaches. The majority of coaches reported that district-sponsored professional development activities focused on four key areas: effective reading instructional strategies, working with teachers to improve their practice, the role and responsibilities of the coach, and using student data.

*Several common concerns about recruiting and retaining high-quality coaches emerged.* Some administrators voiced concerns about a shortage of qualified candidates, turnover among coaches, and principals' ability to adequately judge the quality of coach candidates (due to a lack of background in reading). Some administrators and coaches also noted concerns about lack of adequate compensation for coaches' time and disincentives for teachers certified by the National Board for Professional Teaching Standards to serve as coaches. Several coaches reported intentions to leave their position because of rules stating that National Board teachers can earn their board supplement only when working directly with students the majority of the time.

*Coaches' quality, particularly the ability to support adult learners, is positively related to several outcomes and viewed by some as an area of potential weakness.* Although principals and teachers were generally satisfied with the qualifications of their coaches, some questioned particular skills and knowledge of their coaches—most notably their ability to support adult learners. Moreover, many coaches requested additional professional development in the area of supporting adult learners. We also found a strong association between teachers' assessments of coach quality and their reports of coach effects on their instruction. In addition, coaches' ability to support adult learners (assessed by principals) was positively related to teacher and principal perceptions of the coach's influence. Interestingly, we also found that coaches who possessed reading graduate degrees, credentials, or endorsements were associated with higher mathematics achievement, though not with higher reading achievement. These findings provide some limited evidence supporting what is commonly cited in the coaching arena as an important contributor to coach effectiveness (see Neufeld and Roper, 2003a, Norton, 1999).

*Coaches indicated a desire for specific kinds of professional development.* Although coaches generally held state- and district-sponsored professional development in high regard, many requested additional support in the following areas:

- supporting adult learners
- teaching reading to special populations (ESE, ELL)
- working with teachers to improve practice (e.g., modeling, giving feedback, organizing professional development)
- incorporating literacy across the content areas.

They also placed a high value on forms of professional development involving collaboration or mentoring from coach peers (teachers' reports that other teachers influenced their practice further suggest that peer-to-peer support is highly valued). As for the timing of professional development, many coaches indicated that they would have liked more training prior to starting in their role as coach. Only a slight majority of coaches (59 percent) reported receiving sufficient training from the state and/or district *prior* to taking on their position. Further, 82 percent of first-year coaches in 2006–2007 did not attend the state summer institute prior to taking on their job (although many may have attended regional training), likely due in large part to late hiring.

*The day-to-day work of coaches took on many forms.* Coaches generally divided their time among many different activities, including formal work with teachers, informal coaching, coaching-related administrative duties, data analysis, and noncoaching duties. Although one-on-one work with teachers headed the list of activities on which coaches spent significant time, the majority of coaches were not spending half their time working individually with teachers, as the state encouraged. While state sources indicate a desire for coaches to work with all content area teachers to support reading across the curriculum, we found that coaches are placing the greatest emphasis on reading teachers and to a lesser extent, new teachers and teachers identified by school administrators as needing support (some of whom could be content area teachers). Coaches were much less likely to focus on supporting content area teachers in areas other than reading (English language

arts, social studies, mathematics, and science teachers). In fact, reading teachers reported much higher levels of interaction with their coaches than did social studies teachers.

*District and school administrators, coaches, and teachers identified several barriers constraining coaches' ability and opportunity to provide instructional support to many teachers.* Most notably, lack of time was seen as a serious barrier to getting into teachers' classrooms—a finding that echoes past research (e.g., Marsh et al., 2005; Neufeld and Roper, 2003a, 2003b; Smith 2007). More than half of coaches cited the large amount of time it takes to coordinate and administer assessments as a moderate or great hindrance to their work, and about one-third felt that the school schedule did not provide teachers with adequate planning time during which they could meet with their reading coach. Approximately one-third of coaches also reported that teachers' reluctance to work with a coach was a moderate or great hindrance to their work. Slightly less than one-third of coaches and principals thought the ratio of teachers to reading coaches negatively affected their ability to coach, and many district coordinators and coaches noted the challenges involved in supporting many teachers at once.

*Most coaches viewed school and district administrators as key supports for their work.* As reported in past research (Trubowitz, 2004; GWU, 2001; Poglinco et al., 2003, Neufeld and Roper, 2003a), administrative support appears to be an important enabler of coach effectiveness. The majority of coaches believed school and district administrators were supportive of their work and clearly defined and communicated their roles and responsibilities, which prior research has shown to be vital to coaching effectiveness (e.g., Trubowitz, 2004; GWU, 2001; Poglinco et al., 2003; Neufeld and Roper, 2003a). A minority of coaches and some district coordinators, however, voiced concerns that some principals assigned coaches duties that detracted from their ability to serve as instructional resources for teachers. Nevertheless, most case study coaches noted that they could not succeed in their work without the support of their principals and assistant principals.

*Many teachers and principals reported that the coach had positive effects on them and their schools.* The majority of reading and social studies teachers reported that the reading coach had influenced the

changes made to their instruction over the course of the year. Forty-seven percent of reading teachers and 40 percent of social studies teachers characterized this influence as “moderate to great” in magnitude. Approximately two-thirds of reading and social studies teachers who had interacted with the coach believed these interactions helped them feel more confident in their ability to teach reading to students and helped them better plan and organize instruction. In addition, the vast majority of principals reported that their coaches had a positive effect on their own knowledge, the school climate, and on students’ motivation to read. A number of program features or aspects of coaching implementation were positively related to some of these perceptions of the coach’s influence (when controlling for other factors), including teachers’ perceptions of coaching quality, principals’ assessments of coaches’ ability to support adult learners, the time coaches spent working one-on-one with teachers and reviewing assessment data with teachers, and coaches’ emphasis on integrating reading across the content areas.

*The evidence is mixed regarding the impact of coaching on achievement.* Having a state-funded coach was associated with small but significant improvements in average annual gains in reading for two of the four cohorts analyzed. For the 2003 cohort (the cohort with state funding for longest period of time), the average, standardized effect size of coaching on annual achievement gains in reading for all middle grades was 0.06. After four years of implementation, we estimate that the performance of this cohort is 0.24 standardized units higher than it would have been in the absence of coaching. For the 2005 cohort, average annual growth increased 0.04 standard deviations (or 0.08 by 2006). We did not find significant effects for the 2004 and 2006 cohorts. In mathematics, we found a significant effect only for the 2003 cohort (0.04 standard deviations) and did not find significant results for the other three cohorts.

*The frequency with which coaches reviewed assessment data with teachers was associated with positive outcomes.* We found a significant, albeit small relationship between the frequency with which the coach reviewed assessment data with reading teachers and better reading and mathematics scores. In the few schools where there were low levels of

coaches reviewing assessment data, one-on-one coaching received by reading teachers was negatively associated with reading scores—a puzzling result that could indicate that individual work with teachers may not be effective without a clear focus on students' needs as identified by assessment data. As noted, teachers' perceptions of the coach's influence on their instruction were strongly related to the frequency with which the coaches reviewed assessment data with social studies teachers.

*Few other coaching implementation features were associated with student achievement.* The number of years a school had a coach was significantly related to higher reading test scores, suggesting that the benefits of having a coach accrue over time. However, the magnitude of this relationship was quite small. Aside from reviewing data, very few coach activities were associated with achievement. Further, variation in coaching implementation does not appear to have a differential impact on students with lower previous achievement scores.

## **Recommendations for Policy and Practice**

Based on our findings, we offer the following set of recommendations to Florida policymakers and administrators at the state, district, and, in some cases, school level. Readers should keep in mind that coaching in Florida may be distinct from similar interventions in some other districts and states due to the presence of reading teachers and reading courses in middle schools. Coaches in Florida middle schools often give priority to work with these reading teachers. In contrast, middle school literacy coaches in other locales may view content area teachers as their primary target audience. Content area teachers may have a different set of skills and background than reading teachers and may view the expectation of incorporating reading into their instruction as competing with their need to cover their core content. Despite the possible difference in primary target audience, however, coaches in Florida face many of the same goals, pressures, and constraints as coaches elsewhere—similar to those noted in the wider literature on coaching. Thus, even though we lack definitive evidence to suggest that our findings from this study can be generalized to other states or districts, the



experiences and effects of Florida's reading coaches nonetheless may provide important insights for policymakers and practitioners interested or involved in similar coaching efforts. In particular, we issue recommendations in four key areas: supporting coach quality, enabling certain types of coach activities, prioritizing work and targeting teachers, and providing broader contextual support.

### **Supporting Coach Quality**

To further support coach quality and attract and maintain a qualified coaching corps, state and district policymakers and administrators should consider several potential avenues of action.

*Provide guidance to school administrators in how to identify high-quality coach candidates.* Although there is general agreement among principals on what to look for when hiring, district coordinators and state administrators may want to offer support to principals and assistant principals on how to adequately judge candidates on these criteria—particularly the criteria spelled out in the state's job description that is widely used across the districts. Given that many middle school administrators do not have a reading background (as one district coordinator aptly pointed out), they may not know how to evaluate candidates' knowledge of research-based reading instruction or their skills in integrating reading across the curriculum. As such, state and district administrators might provide training to principals or they may want to directly assist in the hiring process, as some of our study district coordinators reported doing (e.g., co-interviewing candidates, prescreening candidates).

*Develop a pipeline of qualified candidates.* Given principal and district coordinator concerns about identifying qualified coaching candidates—particularly teachers with experience teaching reading at the middle school level—and replacing coaches when they move on to administrative positions (a common career path), it may be useful to replicate some of the efforts under way in several of the study districts to develop a pool of qualified candidates from which to draw in future years. As noted previously, two districts were launching training programs for interested teachers. By building the capacity of potential coaches during the school year and summer, these districts intend to

have a constant supply of qualified coaches available when new positions open.

*Consider offering incentives and support to attract high-quality coaches and retain them over time.* To attract highly qualified teachers to apply for and remain in coaching positions over time, state and local policymakers (in conjunction with teachers' associations) should consider modifying state rules and regulations to specifically allow teachers certified by the National Board of Professional Teaching Standards to retain their supplemental salary when becoming coaches. North Carolina did this in an effort to encourage its National Board teachers to seek and remain in coaching positions. In addition, if turnover remains a concern of many district and school administrators, these leaders should consider nonfinancial incentives for coaches to take on long-term assignments in schools and remain in coaching, including recognition for service and leadership opportunities, such as serving as mentors or trainers in the district. Given that support from school administrators was also frequently cited by coaches as essential to their sense of satisfaction and efficacy, continued efforts are also warranted to ensure that principals and assistant principals understand the coaching position.

*Continue professional development for coaches with some adjustments.* Our data indicate that more support is needed in the area of how to support adult learners. The ability to teach adult learners is often cited as a requisite qualification for coaches and essential to their effectiveness (Snow, Ippolito, and Schwartz, 2006; Toll, 2005); not surprisingly, it is also a qualification endorsed by the state of Florida. The state and districts can enhance coaches' capacity in this area by first defining what it means to be competent in working with adult learners (e.g., what are the required knowledge and skills) and then identifying effective modes of instilling this knowledge and these skills in coaches via high-quality state- and district-sponsored professional development.

The state and districts should also consider offering more professional development on the other topics in which coaches requested additional support. These are teaching reading to special populations, working with teachers to improve practice (e.g., modeling, giving feed-

back, organizing professional development), and incorporating literacy across the content areas.

State and district leaders might also consider ways to coordinate and enhance training for new coach hires, especially those hired too late in the summer to attend the annual state conference and unable to attend other offerings. For example, the state might provide professional development modules to be used by districts. Administrators might also want to survey new coaches at the end of their first year to identify what they would have wanted to know prior to starting their job and how best this information or these skills could have been provided to them.

Districts may want to pay particular attention to the format of professional development most valued by coaches: collaborating with other coaches and receiving mentoring from another coach (the latter occurred relatively infrequently). If ongoing connection with, and learning from, peers is viewed as valuable, then administrators should consider how they can enable these types of interactions (e.g., formalizing a mentor program, dedicating time for collaboration).

### **Enabling Certain Types of Coach Activities**

*Encourage coaches to review assessment data with teachers.* Given that coaches' reviewing assessment results with teachers mattered to several types of outcomes, administrators might want to consider what makes this type of activity so important and how to encourage more of it. Our case study data in this project and evidence from other research suggest that what makes this practice effective is not just helping teachers interpret the data (which may be particularly important for content area teachers, many of whom lack a deep understanding of fluency, comprehension, etc.) but also helping them identify instructional strategies in response to these data. Analyzing data and taking action based on data are two different tasks. Taking action is often more challenging and requires more creativity than does analysis. Yet to date, taking action generally receives less attention, particularly in the professional development provided to educators (Marsh et al., 2006). Other research confirms the importance of providing training on how to use data and to connect them to practice (Black and Wiliam, 1998; Mason, 2002;

Supovitz and Klein, 2003). Thus, coaches may be bridging this important divide for teachers, helping them identify students' strengths and weaknesses and providing them with specific reading strategies aligned with their needs. Further, as learning theory predicts, teachers may be more likely to apply new skills and practices when they have a solid understanding of the reasons behind their use and why they are important.

To encourage this data analyst and support role, administrators should continue providing professional development for coaches in these areas, with a particular focus on taking action in response to these results. The case study district highlighted in Chapter Four provides a good example of the in-depth training and support that districts can provide to coaches in the area of data use. Important questions to answer before designing such professional development include the following: What types of data are important (e.g., state tests scores, diagnostic assessment results, observational data on quality of instruction)? What is the most effective way to engage with teachers in this activity (e.g., individually, in groups)? What tools would assist coaches in their data work with teachers (e.g., user-friendly displays of student data, templates to help analyze individual student data)? What specific reading strategies are recommended to align with students' specific needs?

*Address barriers to enable coaches to work more with teachers.* District and school leaders should attend to several factors that may be constraining coaches' ability and opportunities to provide instructional support to teachers. First, policymakers and administrators should consider ways to free up more time for coaches to spend in classrooms. For example, there may be easy steps to take to minimize administrative, assessment-related demands on coaches (which our analysis also indicates are negatively associated with teacher perceptions of the coach's influence on instruction). For instance, can other school staff do more of this administrative work? Could volunteers or temporary staff be trained to input the results into the PMRN system? It also behooves school, district, and state leaders to discourage coaches from participating in excessive, non-reading-related assessment tasks (e.g., cases where coaches served as the FCAT coordinators for all subjects across the school).

Second, a lack of planning time built into the school day may be minimizing opportunities for coaches to work individually with teachers. Obviously, addressing this barrier would require structural policy changes at the school or district level to make teachers more available to participate in one-on-one work.

Third, given that teachers' resistance or a lack of rapport between coach and teachers may constrain coaches' ability to provide support to all teachers, administrators may want to consider some of the suggestions listed under coach quality above, such as ensuring that principals know how to hire high-quality coaches, providing professional development focused on how to develop relationships with teachers and build trust, and linking new coaches with mentors who have faced similar situations.

Finally, in some cases the coach caseload may be too large to allow coaches enough time to work with all teachers needing support if a school has a lot of new teachers or teachers who are new to reading (recall the median number of teachers per middle school was 65). While higher coach caseload had a negative association with perceptions of influence over teacher practice, it was not associated with reading achievement (and was positively related to mathematics achievement). Nevertheless the issue remains important if in fact state policymakers want coaches to prioritize their time working directly with teachers and to improve instruction across the school. Obviously, actions pertaining to coach caseload involve difficult resource decisions. Leaders should consider the needs of each school (i.e., student performance, the number of inexperienced teachers) when assigning coaches and consider allocating more than one coach to large, high-needs schools when possible.

If the state and district want coaches to spend half of their time working one-on-one with teachers, then barriers to doing so need to be addressed. While our analysis did not find a positive relationship between one-on-one work and student achievement, this form of coach-teacher interaction is highly valued at all levels of the system. As noted, coaches' one-on-one work appears to matter to teachers—it is strongly associated with perceptions of influence on teachers and on student motivation to read—yet many teachers do not get to work with

the coach in this way and many coaches do not spend the majority of their time doing this type of work. Although more research is needed to understand why one-on-one work is not occurring more frequently, our data indicate that many of the factors cited above contribute to this problem and deserve attention, including lack of time, teacher-coach relationships, and coach caseload. In addition, state and district leaders should continue investments in professional development for school administrators—to ensure that administrators understand the expectation that coaches prioritize one-on-one activities and encourage teachers to be open to working individually with coaches—and for coaches—to provide strategies and techniques for developing relationships with teachers and gaining their trust to work individually with them.

### **Prioritizing Work and Targeting Teachers**

*If the intent is for coaches to work with all teachers, address barriers to working across the content areas.* If the state wants coaches to work with all teachers and since we have some evidence that suggests coaches working across content areas are perceived to have more positive effects on teachers than those who do not, then policymakers should consider adopting policies and practices that better facilitate coach interactions with content area teachers. In particular, they need to address the following potential barriers to coaches' expanded work with all teachers:

- Lack of time may inhibit this cross-curricular work. In case studies, coaches frequently expressed a desire to branch out and work with content area teachers but admitted not having the time to do so. Some of the suggestions mentioned earlier might address this issue (e.g., assigning administrative assessment duties to someone other than the coach). Lack of teacher time might also contribute to this problem and could be addressed by greater administrative support to free up time for teachers to meet across content areas or in content area groups with coaches.
- Coaches' caseload may also constrain their ability to work with content area teachers. This could be addressed through the dif-

ferential allocation of coaches based on school size and student need.

- Misperceptions about coaches' roles could contribute to their limited work with content area teachers. As several case study coaches and teachers explained, coaches serving as “department chairs” for reading and/or language arts—69 percent of those surveyed—may be perceived by other teachers in the school as resources intended exclusively for teachers in those departments. To avoid this confusing signal to content area teachers, administrators may want to reconsider assigning the department chair responsibility and title to coaches.
- More training and support focused on integrating literacy across the content areas could help coaches identify effective methods of reaching out to content area teachers and reading strategies that can be easily integrated into their existing curricula. As noted, many social studies teachers in our study felt constrained in their ability to devote a lot of time to reading instruction and felt a primary responsibility to teach their core content. Thus, professional development should take into consideration these realities when helping coaches expand their work beyond reading teachers.
- District and school administrators may want to consider the trade-offs of directing coaches to work with reading teachers—presumably to maximize the quality of this direct reading instruction for students—versus other content area teachers—presumably to expand opportunities for reading instruction throughout the day to reinforce or complement the instruction provided in the reading courses.

### **Providing Broader Contextual Support**

*Continue to nurture school administrators' support.* Our findings suggest that school administrators play a pivotal role in enabling coaches to work effectively in their schools. Therefore, the state and districts should continue providing education and training for administrators, not only on the proper role of the coach but also on literacy more broadly, to build a common understanding about coaching, literacy goals, basic principles, and best practices.

### Recommendations for Future Research

Researchers are faced with many options when evaluating the effects of literacy coaching. Our statewide longitudinal analysis examined the effect of a school's having a coach on achievement gains, and our cross-sectional analysis assessed the relative effects of variations in coaching implementation on student achievement in a single year. Although these results provide useful information for policymakers and practitioners, the limitations of our data suggest several fruitful avenues for future researchers:

*If possible, use an experimental design to investigate effects on student achievement.* Because the reading coach program in Florida was being implemented simultaneously in all districts in the state at the time of our study, we were unable to conduct a study with an experimental design. Future research in other states and districts using such a method would certainly benefit the field.

*Consider assessing coaching implementation and achievement over a longer period of time than a year.* This type of longitudinal coaching study could allow for a more careful discernment of the relationship between coaches' activities and teacher and student outcomes. In particular, if the effect of coaching on student achievement grows over time, a longitudinal analysis would be more sensitive to determining the relationship between coach activities and student outcomes. Such longitudinal studies could be focused at the coach level (examining how an individual coach's effectiveness changes as he or she gains experience); at the student level (examining the cumulative effects of students' exposure to teachers who have benefited from coaching); and at the teacher level (examining how teachers' effectiveness changes as they work with a coach). Research with more-direct observational measures of teacher practice would also add depth to our understanding of how coaches influence instruction, a critical intermediate outcome of coaching. Further, researchers may consider using measures of achievement beyond state standardized tests, such as specific reading assessments that provide more-detailed information about specific reading skills and abilities.

*Collect data linking coaches to individual teachers and their students, in addition to schoolwide achievement.* To accurately assess the impact



of coaching as a teacher-level intervention, one would need this kind of data—data that were not available for our study but might be in the future, as the Just Read, Florida! office recently began collecting information from coaches on the specific teachers with whom they are working one-on-one. Although this micro-level assessment of coaching effects would certainly inform the field, it may not be the most useful type of information to inform policy decisions. Coaching is clearly a resource-intensive intervention that is expected to affect schoolwide achievement. For example, what should policymakers make of the research finding that test scores improve for students in a select number of classrooms in which the teacher worked intensively with the coach but not for the school overall? To justify funding for coaching programs, policymakers clearly need a continued assessment of coaching's effects on schools.

*Compare the effects of various types of coaching programs.* Florida's program provides relatively little specificity about the content focus of coaching, the specific instructional practices it expects coaches to facilitate, and the ways in which coaches are expected to engage with teachers. It may be useful to compare Florida's program with other programs having highly specified models and theories of action, to determine the relative impact of these various approaches. Similarly, it may be worth comparing the effects of models that rely on individual coaching with models that emphasize group or team coaching.

*Conduct research examining the costs and benefits of coaching.* This would also help policymakers who face difficult decisions tied to trade-offs in funding various types of interventions. As the field gains more evidence concerning the effects of coaching on teachers, schools, and students, researchers can work to determine whether this intervention's benefits are worth the cost when compared with other interventions.



## 2006–2007 Florida Reading Coach Position Description<sup>1</sup>

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The reading/literacy coach will serve as a stable resource for professional development throughout a school to generate improvement in reading and literacy instruction and student achievement.

Coaches will support and provide initial and ongoing professional development to teachers in:

- each of the major reading components, as needed, based on an analysis of student performance data.
- administration and analysis of instructional assessments.
- providing differentiated instruction and intensive intervention.

Coaches will:

- model effective instructional strategies for teachers.
- facilitate study groups.
- train teachers in data analysis and using data to differentiate instruction.
- coach and mentor colleagues.
- provide daily support to classroom teachers.

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<sup>1</sup> This material was taken from the Just Read, Florida! Web site: [http://www.justreadflorida.com/Reading\\_Plans/Examples/CoachModel.pdf](http://www.justreadflorida.com/Reading_Plans/Examples/CoachModel.pdf)

- work with teachers to ensure that research-based reading programs (comprehensive core reading programs, supplemental reading programs and comprehensive intervention reading programs) are implemented with fidelity.
- help to increase instructional density to meet the needs of all students.
- help lead and support reading leadership teams at their school(s).
- continue to increase their knowledge base in best practices in reading instruction, intervention, and instructional reading strategies.
- report their coach logs biweekly through the Progress Monitoring and Reporting Network (PMRN).

While the reading coach should not be assigned a regular classroom teaching assignment, they are expected to work with students in whole and small group instruction in the context of modeling and coaching in other teachers' classrooms. This should occur as frequently as possible, given the relative impact on teacher knowledge and practice compared to other roles and duties of the coach. A coach may be utilized as a part-time coach in two different schools and still be considered a full-time coach.

The reading coach is responsible for working with **all** teachers (including ESE, content area, and elective areas) in the school they serve; however, they must prioritize their time to those teachers, activities, and roles that will have the greatest impact on student achievement, namely coaching and mentoring in classrooms.

The reading/literacy walkthroughs that are discussed in the K–12 Comprehensive Reading Plan require that the principal or a designated administrator conduct the walkthrough. Coaches should not be asked to perform administrative functions that will confuse their role for teachers. Districts are highly encouraged to limit the time reading/literacy coaches spend administering or coordinating assessments, as these tasks prohibit them from providing professional development to teachers.

## QUALIFICATIONS (Districts are free to add to these basic qualifications)

Coaches are expected to have experience as successful classroom teachers. Coaches are expected to exhibit knowledge of scientifically based reading research, special expertise in quality reading instruction and infusing reading strategies into content area instruction, and data management skills. They should have a strong knowledge base in working with adult learners. Coaches should be excellent communicators with outstanding presentation, interpersonal, and time management skills. The coach must have a minimum of a bachelor's degree and advanced coursework in reading is highly recommended. It is strongly encouraged that the coach become endorsed or K–12 certified in the area of reading or be working toward endorsement or K–12 certification. The coach should be employed the entire teacher contract year or for an extended contract period where necessary to provide adequate planning time for professional development activities.



## Data and Modeling in the Statewide Achievement Analysis

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### Data Sources

Statewide analyses were based on the linkage of four different data sources: achievement data, school characteristics from NCES Common Core of Data, school characteristics from the Florida Schools Indicator Report (FSIR), and coaching information provided by the JRF office. We describe each of these sources here. Table B.1 lists the school characteristic variables obtained from the CCD and FSIR that were used in the modeling.

### Achievement Data

Analyses were carried out at the school level, separately by grade, using repeated measures of average achievement on the FCAT from successive cohorts of students attending public schools in Florida during the nine-year period of 1997–1998 to 2005–2006. All data are publicly available and were obtained from the FDOE Web site (specifically, <http://fcat.fldoe.org/fcinfofg.asp> and <http://fcat.fldoe.org/nrinfofg.asp>). The data were compiled from 121 separate files (covering different years, grades, tests, and subjects) available from these URLs.

The FCAT consists of two separately scored portions—a criterion-referenced test that measures student performance relative to the Sunshine State Standards (SSS), and a norm-referenced test that examines performance of students relative to national norms. Our analysis considers both reading and mathematics achievement, as measured by the SSS portion of the FCAT. We focus on the SSS portion

because it is the accountability test used by the state and because the NRT changed in 2004, making longitudinal analyses using this measure unreliable. The SSS portion of the FCAT was first administered during the 1997–1998 school year, the first year of the analysis. From that school year until 1999–2000, among grades 3–8 and reading and mathematics, it was administered in reading for grades 4 and 8 and in mathematics for grades 5 and 8. Beginning in the 2000–2001 school year, it was administered in both subjects for all grades 3–8.

For the SSS test in each of mathematics and reading, our measures are average scale scores. Starting in the 2001–2002 school year, FDOE also reported on the Web “developmental scale scores” for the SSS in addition to the basic scale scores that have been provided since the test’s inception in 1997–1998. The developmental scale scores are intended to allow the measurement of change in achievement across grades for individual students. We opted not to use the developmental scale scores in the analysis, because using the basic scale scores gave us a consistently measured longitudinal outcome for the duration of our analysis while the developmental scale scores are available for only a portion of the data series. We judged that consistency of measurement was more important than any benefit that the developmental scale scores would provide to our analysis. The statewide analysis is not examining growth in achievement of individual students across grades, but rather changes in achievement for groups of students before and after the coaching intervention. Also, within a given grade, year, and subject, the developmental scale scores are linearly related to the basic scale scores, and so the conclusions of our linear models for the basic scale scores are not likely to be sensitive to this decision.

### **NCES Common Core of Data**

We obtained school characteristics from the NCES Common Core of Data from the 1997–1998 to 2005–2006 school years for all schools in Florida that intersected with the grade range of our analysis. The CCD includes both time-invariant and time-varying school information, with the time-varying information being most important for the achievement analysis. The variables we used include schoolwide percentages of racial/ethnic groups of students (Native American, Asian,



Hispanic, Black, and White) and percentage of students participating in free and reduced price lunch programs (Table B.1).

### **Florida School Indicators Report (FSIR) Data**

These are school-level data collected annually by FDOE on a variety of school characteristics not covered by the CCD. An interface to download the data by school level (elementary and middle) and school year is provided at <http://data.fldoe.org/fsir/>, from which we obtained the data from school years 1997–1998 through 2005–2006. Table B.1 lists FSIR variables that we included in the achievement analyses. Notably, the data contain financial information, including total operating costs and per pupil expenditures for different groups of students; information on teacher workforce, including percentage of teachers with advanced degrees and average years' experience; student characteristics, such as percentage of gifted students and LEP students; and disciplinary variables, including total incidents of crime and percentage of in-school and out-of-school suspensions. Like the CCD variables, these variables are used in our analyses as time-varying covariates. In the small percentage of cases with missing data (e.g., approximately 7 percent of records were missing gifted-student status in a year), we use conditional mean imputation to impute plausible values for these missing variables, conditional on all of the other covariates available from the data, including the coaching indicators as well as the values of the missing variable (e.g., gifted status) from the same school in other years<sup>1</sup> by way of school fixed effects. We performed sensitivity tests that strongly suggest that the imputation of data had no impact on our substantive findings about the effects of reading coaches.

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<sup>1</sup> Because this variable is so important for predicting the missing values, we carried out the imputation only for the schools in which percentage gifted students was available in at least one other year. This was true for all but a handful of the schools ever missing percentage gifted.

**Table B.1**  
**CCD and FSIR Variables Included in the Models as**  
**Time-Varying Covariates**

Variable	Source
Percent Asian/Pacific Islander	CCD
Percent Hispanic	CCD
Percent Black Non-Hispanic	CCD
Percent White Non-Hispanic	CCD
Percent free or reduced-price lunch	CCD
Percent absent 21+ days	FSIR
Percent ESE	FSIR
Percent gifted	FSIR
Percent LEP	FSIR
Percent mobility	FSIR
Percent in-school suspensions	FSIR
Percent out-of-school suspensions	FSIR
Percent staff that is instructional	FSIR
Percent teachers with advanced degrees	FSIR
Average teacher years of experience	FSIR
Total membership	FSIR
Total incidents of crime and violence *	FSIR
Total operating costs *	FSIR
Per-pupil expenditures (exceptional) *	FSIR
Per-pupil expenditures (regular) *	FSIR
Per-pupil expenditures (at-risk) *	FSIR

NOTE: Variables marked with an asterisk were transformed by the function  $f(x) = \log(1 + x)$ , which maps zeros to zeros and mitigates the extremely heavy right tails of the distributions of these variables.

### Coaching Data

To identify schools for our longitudinal analysis, the state provided us with a list of all middle schools that had a state-funded reading coach, by year (2002–2003 to 2006–2007).

## Definition of School Population

We define our base population of schools as *any* school with a sixth, seventh, or eighth grade and at least one reading score reported in the achievement data available from the FDOE Web site for at least one year during the period 1997–1998 to 2005–2006. The condition of having at least one reading score is almost identical to the condition of having at least one score from either reading or math, as only a trivial number of schools met the condition for math but not reading. The restriction to reading seemed most sensible since reading achievement is the primary outcome of the analysis. The number of middle schools in this base population is 1,223. According to the coaching data we received from JRF, 670 of these schools had a reading coach funded by JRF funds for at least one school year during the years 2002–2003 (beginning of the program) to 2005–2006 (end of the analysis). After merging all our data sources, we were left with 987 schools in our analysis; of those, 644 were schools that had a reading coach during the analysis time period. A large number of schools that were “lost” during the merging of data sources were nontraditional schools (e.g., career academies, special education schools, alternative schools for juvenile offenders, etc). Table B.2 shows the spring year of the first academic year in which schools in our analysis sample were reported to have received a JRF coach, broken out by grade. Although Table B.2 indicates the first year of JRF coaching, it is not always the case that once a school received a coach, the coach was maintained into future years. In fact, a few schools (approximately 6 percent of middle schools) had pat-

**Table B.2**  
**Number of Schools with State-Funded Reading Coach**  
**in Each Cohort, by Grade (as included in the**  
**Achievement Analysis)**

Grade	Cohorts of Schools with Coaches				Schools Without Coaches
	2003	2004	2005	2006	
6	67	34	262	255	315
7	41	30	270	199	253
8	41	30	268	197	251

terns that indicate intermittent coaching. We discuss how we treated the lack of monotonicity in coaching patterns in the Analysis section.

## **Analysis of the Impacts of Coaching on Achievement**

### **Approach**

Because the FCAT has been in place since 1997–1998, and JRF coaching did not begin until 2002–2003, we conducted an analysis of the impacts of coaching on achievement using an interrupted time series design where outcomes for individual schools after participation can be compared to their outcomes prior to participation. The analysis is strengthened by the fact that different cohorts received coaches during different years, which helps to safeguard against potential biasing due to events that occurred at a single point in time.

Although coaching assignment occurs at the school level, we conducted our achievement analyses at the school-by-grade level. This is preferable to analysis at the school level because it avoids difficulties of schools with nonstandard grade configurations, it does not require the questionable assumptions underlying the aggregation of test scores across grades, and it permits straightforward exploration of variation in effects across students of different grade levels.

As discussed in Chapter Seven, we estimated the coaching effects via fixed-effects-on-gains regression models, which control for stable school-by-grade-level characteristics related to achievement growth that might otherwise bias the inferences. We opted for a fixed-effects-on-gains specification rather than a fixed-effects-on-levels specification because there was some evidence that coached schools had had different growth patterns prior to receiving coaches than noncoached schools. Even if we had made the model conditional on the time-varying covariate information obtained from the CCD and FSIR, using a fixed-effects-on-levels specification for groups with different pretreatment achievement trajectories would have produced biased estimates. We assessed differential pretreatment growth as follows. For each cohort, we defined a treatment indicator as being in that cohort. We then created a restricted dataset that included gains on the FCAT

SSS reading test for all years up through the spring year immediately prior to the first year of coaching for that cohort, for all schools who were either in the cohort, in a future cohort, or in the “Never” cohort. We did not include records for previous cohorts because these outcomes are posttreatment for those schools. So, for example, for the 2004 cohort, we included gains up through the spring of 2003 for all schools in the 2004, 2005, 2006, and “Never” cohorts, but not for the 2003 cohort because 2003 gains for this cohort reflect coaching. We then regressed the gains for these schools on (grade  $\times$  year) fixed effects, year-to-year changes in the time-varying covariates from the CCD and FSIR, the treatment indicator, and (school  $\times$  grade) random effects. The coefficient on the treatment indicator provides the average difference in pretreatment growth for the coached schools of the cohort relative to schools without coaches, controlling for grade and year trends and the effects of time-varying covariates, and allowing for clustering of growth by (school  $\times$  grade). For schools with grades 6–8, these coefficients were statistically significant and negative for the 2003 and 2005 cohorts, and not statistically different than zero for the 2004 and 2006 cohorts. If coached and noncoached schools differ on pretreatment growth, the fixed effects on gains specification controls for these differences, and if coached and noncoached schools do not differ on pretreatment growth, the fixed effects on gains specification may be inefficient but will not introduce bias. For consistency in the model specification across cohorts, we thus opted for the fixed effects on gains specification for the analysis.

### Model Specification

The basic model we use to assess the effects of coaching on achievement outcomes in a particular grade is given in the following equation:

$$Y_{igt} - Y_{igt-1} = \mu_{gt} + \alpha_{ig} + C - X_{igt-1}^T \beta_g + \delta_g h_t(C_{i03}, \dots, C_{it}) + \varepsilon_{igt}.$$

We let  $t$  take on the values 99, ..., 06 corresponding to the spring years of the school years included in the analysis and for which annual gains are available.  $Y_{igt}$  denotes the average achievement outcome for

students in school  $i$  in grade  $g$  in year  $t$ , and  $Y_{igt} - Y_{igt-1}$  denotes the associated annual gain score. As discussed previously, we consider SSS reading and mathematics outcomes. Overall time trends are denoted by  $\mu_{gt}$ , and the school-grade fixed effects are denoted by  $\alpha_{ig}$ . Time-varying school-by-grade characteristics are given by  $X_{igt}$ . We include these covariates in the specification as annual differenced values with parameter  $\beta_g$ , consistent with a structural model for the level scores that includes the effects of these covariates with time-invariant effects. The  $X_{igt}$  consist of information obtained from the CCD and FSIR databases described previously. For the most part, these variables are actually school-by-year information rather than school-by-grade-by-year information, with the exception of some of the FSIR variables that were merged separately to middle school grades when information was provided at that level of disaggregation. Table B.3 presents the means and standard deviations of the variables used in the statewide analysis as they were included in the regression model specification. Note that these variables are on a differenced scale—i.e., as annual changes from one school year to the next. As a result, many of the means are negative for variables that are positive by definition.

The coaching indicators for schools are given by  $C_{it}$ , taking on the value 0 for all  $t$  in 99, ..., 02 and then taking on the value 1 in those years 03, 04, 05, and 06 during which school  $i$  had a JRF coach. The term  $h_t(C_{i03}, \dots, C_{it})$  indicates some function of the coaching indicators from 2003 up to year  $t$ ; exactly what function depends on the particular specification of the model, which we discuss in detail below. The main restriction on  $h_t$  is that it depend on the coaching indicators only up to and including time  $t$ . That is, we assume that the outcomes for a school-by-grade at a given year  $t$  depend on coaching through the coaching history only up through and including year  $t$ , and are not a function of future coaching status indicators. As such,  $h_t$  is identically zero for all  $t$  in 99, ..., 02. The simplest case of  $h_t$  is  $h_t$  equal to  $C_{it}$  itself. A more complicated alternative that we consider to deal with the intermittent patterns is what we refer to as the “intent to treat” indicators  $h_t$  equal to 1 if any current or previous  $C_{it}$  is equal to 1. That is,  $h_t$  indicates whether or not the school ever had a coach in any prior year, or has a coach in the current year.

Associated with  $h_t$  is the unknown parameter  $\delta_g$ , which is the main target of inference for a particular choice of  $h_t$ . As described later, we estimate separate values of  $\delta_g$  for the different cohorts of schools so that we can investigate whether coaching has been more or less effective in the different cohorts. Finally, the residual errors are given by  $\varepsilon_{igt}$ . We let the variance of this error term depend on the number of students on which the aggregate score for that school, grade and year was based, and we use precision weighting in the regression estimation. For each grade, we also allow the possibility that residual errors are clustered by district and year, capturing any districtwide practices or other circumstances that would induce correlation in achievement gains in a given year for schools sharing a district. This clustering is used to adjust the standard errors of our estimates.

**Table B.3**  
**Means and Standard Deviations of Variables Used in the Statewide Analysis, by Grade**

Variable	Grade	Mean	Standard Deviation
SSS score (math)	6	299.80	29.93
SSS score (reading)	6	296.83	27.04
Number of students tested (math)	6	251.16	170.81
Number of students tested (reading)	6	251.34	170.96
Gains in SSS scores (math)	6	3.66	11.83
Gains in SSS scores (reading)	6	3.24	10.85
Total operating cost	6	0.05	0.09
Per-pupil expenditures (at-risk)	6	-0.03	2.44
Per-pupil expenditures (exceptional)	6	0.06	0.14
Per-pupil expenditures (regular)	6	0.05	0.11
Percent absent 21+ days	6	-0.27	4.13
Percent disabilities	6	-0.09	2.36
Percent gifted	6	0.06	3.35
Percent LEP	6	0.16	3.35
Percent mobility	6	3.44	10.35
Percent staff that is instructional	6	0.84	10.62
Percent in-school suspensions	6	-0.09	7.58

**Table B.3—continued**

<b>Variable</b>	<b>Grade</b>	<b>Mean</b>	<b>Standard Deviation</b>
Percent out-of-school suspensions	6	-0.09	5.66
Percent teachers with advanced degrees	6	0.22	8.73
Total incidents of crime and violence	6	-0.07	0.90
Total membership	6	-8.78	155.19
Average teacher years of experience	6	0.14	1.63
Percent Asian/Pacific Islander	6	0.04	0.54
Percent Hispanic	6	0.78	1.96
Percent African American Non-Hispanic	6	0.20	2.70
Percent White Non-Hispanic	6	-1.02	2.67
Percent free or reduced-price lunch	6	0.62	8.54
SSS score (math)	7	294.60	28.54
SSS score (reading)	7	296.62	26.33
Number of students tested (math)	7	288.75	176.30
Number of students tested (reading)	7	288.97	176.41
Gains in SSS scores (math)	7	3.16	9.94
Gains in SSS scores (reading)	7	3.58	10.80
Total operating cost	7	0.05	0.08
Per-pupil expenditures (at-risk)	7	-0.07	2.35
Per-pupil expenditures (exceptional)	7	0.06	0.14
Per-pupil expenditures (regular)	7	0.05	0.10
Percent absent 21+ days	7	-0.25	4.38
Percent ESE	7	-0.17	2.32
Percent gifted	7	0.04	3.51
Percent LEP	7	0.13	2.08
Percent mobility	7	3.32	10.30
Percent staff that is instructional	7	0.94	10.99
Percent in-school suspensions	7	-0.18	8.52
Percent out-of-school suspensions	7	-0.15	6.23
Percent teachers with advanced degrees	7	0.27	8.76
Total incidents of crime and violence	7	-0.09	0.85
Total membership	7	-4.95	116.73
Average teacher years of experience	7	0.11	1.59



**Table B.3—continued**

<b>Variable</b>	<b>Grade</b>	<b>Mean</b>	<b>Standard Deviation</b>
Percent Asian/Pacific Islander	7	0.03	0.56
Percent Hispanic	7	0.83	2.05
Percent African American Non-Hispanic	7	0.22	2.91
Percent White Non-Hispanic	7	-1.09	2.89
Percent free or reduced-price lunch	7	0.65	7.98
SSS score (math)	8	304.38	25.93
SSS score (reading)	8	293.70	24.82
Number of students tested (math)	8	283.58	169.23
Number of students tested (reading)	8	283.68	169.29
Gains in SSS scores (math)	8	2.02	9.91
Gains in SSS scores (reading)	8	0.50	10.39
Total operating cost	8	0.05	0.08
Per-pupil expenditures (at-risk)	8	-0.05	2.24
Per-pupil expenditures (exceptional)	8	0.06	0.14
Per-pupil expenditures (regular)	8	0.05	0.11
Percent absent 21+ days	8	-0.34	4.51
Percent ESE	8	-0.12	2.25
Percent gifted	8	0.05	3.34
Percent LEP	8	0.14	1.86
Percent mobility	8	2.67	10.23
Percent staff that is instructional	8	0.66	10.00
Percent in-school suspensions	8	-0.13	8.71
Percent out-of-school suspensions	8	-0.11	6.13
Percent teachers with advanced degrees	8	0.13	8.18
Total incidents of crime and violence	8	-0.08	0.86
Total membership	8	-4.27	112.81
Average teacher years of experience	8	0.12	1.65
Percent Asian/Pacific Islander	8	0.03	0.55
Percent Hispanic	8	0.78	2.00
Percent African American Non-Hispanic	8	0.23	2.91
Percent White Non-Hispanic	8	-1.05	2.94
Percent free or reduced-price lunch	8	0.71	8.11

NOTE: Percent Native American from the CCD was the omitted race/ethnicity category.

## Challenges and Solutions

**Changes in Coaching Patterns.** From an analysis standpoint, ideally, once a school had a coach, that school would have a coach through all years of the analysis (i.e., would have a monotone coaching pattern). However, this was not the case for all schools. The challenge of the lack of monotonicity is that outcomes in years without a coach occurring after year(s) in which a coach was present cannot be considered truly coach-free outcomes. In principle, coaching should have systemic effects on teaching practices that could manifest in years after coaching even if no coach was actually present in those years. However, it also is reasonable to expect that if coaching has an effect, sustained exposure to coaching should have more pronounced effects than intermittent exposure. Although it may be possible to disentangle these two effects (the “baseline” effect of ever having a coach versus the “ongoing” effect of continued coaching) by capitalizing on the intermittent patterns, we do not attempt this type of analysis. Such an analysis would lack power because of the predominance of monotone patterns in our data.

We thus decided to treat the lack of monotonicity as a sensitivity analysis in which we consider two types of coaching variables (functions  $h_t$  noted previously): the coaching indicators themselves and the “intent to treat” coaching indicators that take on the value 1 for all years equal to or greater than the first reported instance of a JRF coach in a given school. The distinction between these two specifications had a negligible effect on our main findings. Across grades, cohorts, subjects, and test types, estimates using the pure coaching indicators were correlated at 0.97 with estimates using the intent to treat coaching indicators. All findings we report are based on the intent to treat coaching indicators.

**Large Imbalance in Cohort Size.** As indicated in Table B.2, the cohort sizes are extremely different. The 2003 and 2004 cohorts are an order of magnitude smaller than the 2005 and 2006 cohorts. If we had estimated average effects of coaching without regard to cohort, the estimates would have been driven in large part by the later cohorts. This is problematic for two reasons. First, as discussed in the body of the report, the later cohorts are substantially higher achieving than earlier cohorts. Policymakers interested in coaching are probably most

concerned with whether coaching is effective at raising achievement in historically low-achieving schools. Thus having the estimates driven by results for schools that are at or above average achievement would have obscured potential heterogeneity in treatment effects that could demonstrate particularly strong effects for low-achieving schools. Second, having the estimates dominated by the later cohorts by definition obscures potential cumulative impacts of coaching, because long-term data are not available on the later cohorts. If the effects of coaching take time to become manifest, this would not be reflected in the estimates of the effects. Thus, we focused most of our attention on specifications that estimate separate effects of coaching by cohort. This allowed us to examine the combined effect of heterogeneity in treatment effects and the potential for increased impacts in years after treatment. It is important to note, however, that the analysis is not able to separate these factors cleanly because they are inherently confounded by the implementation of the program—schools that have had coaches the longest, and therefore provide the best information about the cumulative effects of coaching, were also the lowest performing at the outset.

### **Full Model Results**

Results for the full model specification are shown in Tables B.4–B.9. The coefficients presented in these tables are not standardized; they are on the scale of the SSS test. The conversion to standardized effect sizes was post hoc. Coefficients that were dropped from the model because of collinearity (which were always some subset of the grade  $\times$  year fixed effects) are not presented in the tables. All the control variables are modeled as the annual change in the variable (e.g., percent Hispanic this year minus percent Hispanic last year). Although all models included controls for all years for which we had data, the coefficients on the year variables are fundamentally uninterpretable because they are the result of an arbitrary decision made by the software to deal with unidentified parameters. Consequently, they are not presented in the tables.

**Table B.4**  
**Unstandardized Reading Achievement Results for Grade 6**

Variable	Estimate	Robust Standard Error
2003 cohort	1.62	1.58
2004 cohort	0.20	1.69
2005 cohort	1.53*	0.68
2006 cohort	0.45	0.83
Percent Asian	1.06	0.89
Percent Hispanic	0.28	0.84
Percent African American	0.22	0.82
Percent White	0.66	0.82
Percent free and reduced-price lunch	-0.03	0.03
Total operating costs	-2.33	8.96
Per-pupil expenditures (at-risk)	0.00	0.06
Per-pupil expenditures (exceptional)	4.99	3.28
Per-pupil expenditures (regular)	7.32	5.78
Percent absent 21+ days	-0.03	0.04
Percent ESE	-0.60***	0.12
Percent gifted	0.83***	0.17
Percent LEP	-0.11	0.09
Percent mobility	0.05	0.09
Percent staff that is instructional	0.05	0.06
Percent in-school suspensions	-0.01	0.02
Percent out-of-school suspensions	-0.10*	0.04
Percent of teachers with advanced degrees	-0.04	0.05
Total incidents of crime and violence	0.51	0.31
Total membership	0.00	0.00
Average teacher years of experience	-0.02	0.20
Constant	8.22***	1.07

\* Significant at the 0.05 level, \*\*significant at the 0.01 level; \*\*\*significant at the 0.001 level.

NOTE: All time-varying school characteristics were included as annual changes.

**Table B.5**  
**Unstandardized Reading Achievement Results for Grade 7**

Variable	Estimate	Robust Standard Error
2003 cohort	5.64***	1.60
2004 cohort	0.22	1.55
2005 cohort	2.50***	0.58
2006 cohort	-1.81*	0.85
Percent Asian	0.34	0.90
Percent Hispanic	0.09	0.75
Percent African American	-0.06	0.73
Percent White	0.24	0.73
Percent free and reduced-price lunch	-0.01	0.03
Total operating costs	11.05	8.51
Per-pupil expenditures (at-risk)	-0.08	0.09
Per-pupil expenditures (exceptional)	-1.76	2.95
Per-pupil expenditures (regular)	-3.04	4.96
Percent absent 21+ days	-0.16***	0.04
Percent ESE	-0.41***	0.12
Percent gifted	0.50*	0.22
Percent LEP	-0.09	0.11
Percent mobility	0.12	0.11
Percent staff that is instructional	0.09	0.06
Percent in-school suspensions	-0.01	0.02
Percent out-of-school suspensions	0.04	0.05
Percent of teachers with advanced degrees	-0.01	0.04
Total incidents of crime and violence	-0.27	0.28
Total membership	0.00	0.00
Average teacher years of experience	0.11	0.16
Constant	9.24***	0.77

\* Significant at the 0.05 level, \*\*significant at the 0.01 level; \*\*\*significant at the 0.001 level.

NOTE: All time-varying school characteristics were included as annual changes.

**Table B.6**  
**Unstandardized Reading Achievement Results for Grade 8**

Variable	Estimate	Robust Standard Error
2003 cohort	3.41*	1.44
2004 cohort	-0.10	1.50
2005 cohort	2.38***	0.58
2006 cohort	2.06**	0.67
Percent Asian	0.34	0.63
Percent Hispanic	-0.11	0.60
Percent African American	0.08	0.58
Percent White	0.35	0.58
Percent free and reduced-price lunch	-0.03	0.02
Total operating costs	14.94*	6.88
Per-pupil expenditures (at-risk)	0.07	0.07
Per-pupil expenditures (exceptional)	-4.04	2.42
Per-pupil expenditures (regular)	-7.70	4.34
Percent absent 21+ days	-0.03	0.04
Percent ESE	-0.51***	0.09
Percent gifted	0.53**	0.14
Percent LEP	-0.19	0.12
Percent mobility	0.01	0.04
Percent staff that is instructional	0.06	0.05
Percent in-school suspensions	-0.03	0.02
Percent out-of-school suspensions	-0.10	0.04
Percent of teachers with advanced degrees	-0.03	0.03
Total incidents of crime and violence	-0.04	0.21
Total membership	0.00	0.00
Average teacher years of experience	0.09	0.10
Constant	-2.16**	0.72

\* Significant at the 0.05 level, \*\*significant at the 0.01 level; \*\*\*significant at the 0.001 level.

NOTE: All time-varying school characteristics were included as annual changes.

**Table B.7**  
**Unstandardized Mathematics Achievement Results for Grade 6**

Variable	Estimate	Robust Standard Error
2003 cohort	0.23	1.82
2004 cohort	-0.56	2.32
2005 cohort	0.74	0.74
2006 cohort	1.38	0.86
Percent Asian	0.03	1.00
Percent Hispanic	-0.64	0.95
Percent African American	-0.96	0.94
Percent White	-0.39	0.94
Percent free and reduced-price lunch	-0.04	0.03
Total operating costs	17.18	10.69
Per-pupil expenditures (at-risk)	-0.01	0.08
Per-pupil expenditures (exceptional)	-2.33	4.03
Per-pupil expenditures (regular)	-2.34	6.37
Percent absent 21+ days	-0.04	0.04
Percent ESE	-0.79***	0.13
Percent gifted	0.74***	0.21
Percent LEP	-0.09	0.11
Percent mobility	-0.12	0.11
Percent staff that is instructional	0.09	0.07
Percent in-school suspensions	-0.02	0.02
Percent out-of-school suspensions	0.01	0.06
Percent of teachers with advanced degrees	-0.06	0.04
Total incidents of crime and violence	0.29	0.37
Total membership	0.00	0.00
Average teacher years of experience	0.04	0.18
Constant	-1.70*	0.82

\* Significant at the 0.05 level, \*\*significant at the 0.01 level; \*\*\*significant at the 0.001 level.

NOTE: All time-varying school characteristics were included as annual changes.

**Table B.8**  
**Unstandardized Mathematics Achievement Results for Grade 7**

Variable	Estimate	Robust Standard Error
2003 cohort	4.81***	1.61
2004 cohort	-1.88	1.60
2005 cohort	-0.01	0.71
2006 cohort	-0.80	0.92
Percent Asian	-1.04	1.01
Percent Hispanic	-1.82*	0.90
Percent African American	-1.98*	0.91
Percent White	-1.55	0.90
Percent free and reduced-price lunch	-0.01	0.03
Total operating costs	11.91	6.28
Per-pupil expenditures (at-risk)	-0.06	0.08
Per-pupil expenditures (exceptional)	-1.80	2.58
Per-pupil expenditures (regular)	-5.58	3.49
Percent absent 21+ days	-0.12***	0.04
Percent ESE	-0.28*	0.12
Percent gifted	0.70***	0.19
Percent LEP	0.12	0.10
Percent mobility	0.05	0.15
Percent staff that is instructional	0.15	0.06
Percent in-school suspensions	0.00	0.02
Percent out-of-school suspensions	0.05	0.05
Percent of teachers with advanced degrees	0.00	0.04
Total incidents of crime and violence	-0.13	0.29
Total membership	0.00	0.00
Average teacher years of experience	0.04	0.19
Constant	2.48***	0.71

\* Significant at the 0.05 level, \*\*significant at the 0.01 level; \*\*\*significant at the 0.001 level.

NOTE: All time-varying school characteristics were included as annual changes.



**Table B.9**  
**Unstandardized Mathematics Achievement Results for Grade 8**

Variable	Estimate	Robust Standard Error
2003 cohort	2.19	1.29
2004 cohort	-1.01	1.27
2005 cohort	0.84	0.50
2006 cohort	-0.23	0.69
Percent Asian	-0.25	0.66
Percent Hispanic	-0.39	0.63
Percent African American	-0.49	0.61
Percent White	-0.12	0.62
Percent free and reduced-price lunch	-0.02	0.02
Total operating costs	-4.76	6.19
Per-pupil expenditures (at-risk)	0.06	0.05
Per-pupil expenditures (exceptional)	2.80	2.27
Per-pupil expenditures (regular)	4.55	3.94
Percent absent 21+ days	-0.11**	0.04
Percent ESE	-0.39***	0.08
Percent gifted	0.53***	0.15
Percent LEP	-0.23*	0.10
Percent mobility	0.07*	0.03
Percent staff that is instructional	0.01	0.04
Percent in-school suspensions	-0.03*	0.02
Percent out-of-school suspensions	-0.06*	0.03
Percent of teachers with advanced degrees	0.01	0.03
Total incidents of crime and violence	-0.23	0.17
Total membership	0.00	0.00
Average teacher years of experience	0.08	0.11
Constant	3.44***	0.92

\* Significant at the 0.05 level, \*\*significant at the 0.01 level; \*\*\*significant at the 0.001 level.

NOTE: All time-varying school characteristics were included as annual changes.



## **Modeling the Coaching Implementation–Student Achievement Link**

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This appendix describes the data sources and modeling estimation techniques used in the analyses that link coaching implementation and student achievement.

### **Data Sources**

These analyses used student-level data on enrollment, demographics, and student achievement contained on the state of Florida’s administrative files linked to information collected as part of a survey of selected middle schools. Both of these data sources are described here.

#### **Student-Level Data**

We used statewide student-level data for academic years 2001–2002 through 2006–2007 (six years). Each annual file contains information for all students enrolled during a particular year in grades 3 through 8. These datasets include scale scores on the state’s accountability exam (the FCAT) for both reading and math. In addition to achievement scores, these files also have information on basic demographics, the school in which a student is enrolled, attendance, and participation in service programs such as ESE, LEP, or free or reduced-price lunch.

### **Survey Data**

We use our survey data from principals, coaches, social studies teachers, and reading teachers as measures of various aspects of the coaching program. As described in Chapter Three, of the 180 schools that were sampled, 113 agreed to participate and in fact returned surveys (63 percent school-level cooperation rate). Response rates in cooperating schools for the principal and coach surveys were 85 percent (96 completed surveys) and 88 percent (109 out of 124 coaches completed surveys and 101 schools had a completed survey from at least one coach), and responses to both questionnaires were returned in 77 percent of schools (87 completed coach and principal surveys). At least one teacher in all 113 schools that participated in the survey returned a questionnaire. However, teacher response rates did vary across schools. On average, the response rate for reading teachers (within a school) was 71 percent, and it was 62 percent for social studies teachers.

### **Analysis Sample**

The basis for our analysis sample was generated by selecting student records from the 2006–2007 statewide data who were in one of the 113 schools that participated in the survey. There were no data in the student file for two of these schools, so they were excluded from subsequent analysis. In the 111 remaining schools, there were 108,301 students.

Because the analysis used items that were collected from all three questionnaires, we had to exclude students in schools with no coach or principal survey responses. Dropping students from these schools reduced the sample size to 85,022. We then eliminated 530 students who did not have valid reading scores, and 63 students who had missing values for demographic and program participation variables that were used as controls in the analyses.

As we describe below, we used test scores received in fourth grade to provide a “baseline” against which performance in middle school could be assessed. Note that we were able to find scores for students even if they resided in a different district from where they attended school in 2006–2007, provided they had been in a Florida public school. To locate fourth grade scores for students in our sample, we

first identified fourth grade records in every year from 2002–2006. Because of grade repetition, some students had multiple fourth grade test scores. In these cases, we selected the most recent fourth grade record. Next, we searched through the stacked fourth grade dataset for records matching our analysis dataset. We were able to locate records for 84.3 percent of the sample, resulting in a final sample size of 71,234.

## Model of Student Achievement

### Structural Statistical Model

Student achievement is modeled as a function of coaching program features, other school characteristics, and student characteristics. Formally, this model can be expressed by the equation:

$$Y_{is} = C_s\beta + X_{is}\delta + Z_s\alpha + \mu_s + \varepsilon_{is}$$

where

- $Y_{is}$  represents the test score of student  $i$  in school  $s$
- $C_s$  is a vector containing different measures of the coaching program in school  $s$ .
- $X_{is}$  is a vector of student characteristics.
- $Z_s$  is a vector of school (noncoaching) characteristics.
- $\mu_s$  is a random term measuring the influence of unobserved factors in school  $s$ .
- $\varepsilon_{is}$  is a random term measuring the influence of unobserved factors common to all students in school  $s$ .

The parameter of interest is  $\beta$ , which captures the effect of the coaching program features on student achievement. To obtain consistent estimates of  $\beta$ , omitted determinants of student achievement (denoted by  $\mu_s + \varepsilon_{igt}$ ) must be unrelated to the coaching variables,  $C_s$ . This would not be true if schools with coaches who engaged more intensively in a particular coaching activity were different in some unobservable way that was related to student achievement. For example, schools where coaches spend more time with individual teachers

rather than coaching groups of teachers might be schools where students have weaker reading skills or in schools where the coach per student ratio is larger.

Thus, it is very important to control for school and student characteristics that might be associated with both the coaching program and student achievement. Fortunately, the principal and teacher surveys collect information on other aspects of the school context including the percentage of new teachers, the number of coaches a school has, the years of experience the coaches have, and teacher perception of the principal's leadership. Our models also control for student characteristics including gender, ethnicity (Hispanic, African American, other), LEP, ESE, percent of school days attended, free lunch eligibility, reduced-price lunch eligibility, grade retention, and grade indicator variables. We also control for school-level covariates including the number of students enrolled in the school, the percent of students eligible for free or reduced-price lunch, and the percent of minority students in the school.

In addition to student demographic and program participation variables, we also control for fourth grade test scores. Thus, the estimates we obtain reflect the association between aspects of the coaching program and achievement relative to their baseline performance observed in fourth grade when they were in a different school that had either no reading coach or a totally different coaching program. Thus, even if the nature of the coaching program differs by whether a school has higher- or lower-achieving students, our estimates will still be consistent so long as the coaching program is unrelated to the potential gains between fourth grade and middle school.

We estimate the structural equation by one-way random-effects linear regression using the "xtreg" command in STATA version 9.2.

### **Full Model Results**

Results for the full model specification follow in Tables C.1–C.3.

**Table C.1**  
**Full Results from Models of Reading Achievement**

Variable	Model 1	Model 2
Reading credential	0.001 (0.002)	0.007 (0.018)
Years teaching reading	-0.001 (0.001)	-0.002* (0.001)
Perceived coach quality	-0.006 (0.021)	-0.032 (0.024)
Ability to support adult learners	0.001 (0.012)	0.001 (0.011)
Coach confidence	0.014 (0.017)	0.021 (0.016)
More-experienced coach	0.005 (0.018)	-0.012 (0.017)
Focus on integrating instruction across content areas	-0.007 (0.013)	0.004 (0.011)
Time spent working with individual teachers (coach report)	0.008 (0.009)	
Time spent working with groups of teachers (coach report)	-0.014 (0.010)	
Time spent administering assessments (coach report)	-0.017 (0.009)	
Time spent training teachers to use assessment data (coach report)	0.015 (0.011)	
Reviewed assessment data with coach (reading teacher report)		0.082*** (0.019)
Reviewed assessment data with coach (social studies teacher report)		0.023 (0.019)
Received individual coaching (reading teacher report)		-0.061*** (0.018)
Received individual coaching (social studies teacher report)		-0.020 (0.027)
Number of years the school has had a coach	0.009* (0.004)	0.010** (0.004)
Coach caseload	0.034 (0.030)	0.043 (0.024)
Percent of new teachers in the school	-0.000 (0.001)	0.000 (0.000)

Table C.1—continued

Variable	Model 1	Model 2
Principal leadership	0.044 (0.023)	0.029 (0.020)
Number of students	-0.000 (0.000)	-0.000 (0.000)
Male	-0.095*** (0.005)	-0.095*** (0.005)
Black	-0.094*** (0.007)	-0.095*** (0.007)
Hispanic	-0.004 (0.008)	-0.004 (0.008)
LEP	0.076*** (0.007)	0.076*** (0.007)
ESE	0.025*** (0.006)	0.025*** (0.006)
Percent days absent	-0.976*** (0.043)	-0.977*** (0.043)
Student eligible for free lunch	-0.083*** (0.006)	-0.083*** (0.006)
Student eligible for reduced-price lunch	-0.052*** (0.007)	-0.052*** (0.007)
Retained in grade	0.027* (0.011)	0.027* (0.011)
Percent of students in school receiving free or reduced-price lunch	-0.003*** (0.001)	-0.002*** (0.001)
Percent of minority students in school	0.001 (0.000)	0.000 (0.000)
Grade 6	-0.056*** (0.006)	-0.056*** (0.006)
Grade 7	0.123*** (0.006)	0.123*** (0.006)
4th grade reading scale score	0.009*** (0.000)	0.009*** (0.000)
4th grade math scale score	0.003*** (0.000)	0.003*** (0.000)
Intercept	-4.042*** (0.222)	-4.092*** (0.171)

\*Significant at the 0.05 level, \*\*significant at the 0.01 level; \*\*\*significant at the 0.001 level.

NOTE: Standard errors are given in parentheses.



**Table C.2**  
**Full Results from Models of Reading Achievement for**  
**Low-Achieving Students**

<b>Variable</b>	<b>Model 1</b>	<b>Model 2</b>
Reading credential	0.021 (0.032)	0.013 (0.032)
Years teaching reading	–0.000 (0.002)	–0.002 (0.001)
Perceived coach quality	–0.026 (0.032)	–0.052 (0.041)
Ability to support adult learners	0.030 (0.019)	0.028 (0.019)
Coach confidence	–0.014 (0.027)	–0.007 (0.026)
More-experienced coach	0.010 (0.028)	–0.007 (0.028)
Focus on integrating instruction across content areas	–0.029 (0.019)	–0.016 (0.018)
Time spent working with individual teachers (coach report)	0.013 (0.015)	
Time spent working with groups of teachers (coach report)	–0.029 (0.016)	
Time spent administering assessments (coach report)	–0.016 (0.015)	
Time spent training teachers to use assessment data (coach report)	0.001 (0.017)	
Reviewed assessment data with coach (reading teacher report)		0.083* (0.032)
Reviewed assessment data with coach (social studies teacher report)		0.029 (0.033)
Received individual coaching (reading teacher report)		–0.041 (0.032)
Received individual coaching (social studies teacher report)		–0.053 (0.045)
Number of years the school has had a coach	0.010 (0.006)	0.007 (0.006)
Coach caseload	0.061 (0.045)	0.079 (0.041)
Percent of new teachers in the school	–0.001 (0.001)	–0.000 (0.001)
Principal leadership	0.079* (0.036)	0.059 (0.036)

**Table C.2—continued**

<b>Variable</b>	<b>Model 1</b>	<b>Model 2</b>
Number of students	-0.000 (0.000)	-0.000 (0.000)
Male	-0.093*** (0.012)	-0.093*** (0.012)
Black	-0.134*** (0.018)	-0.135*** (0.018)
Hispanic	-0.040* (0.020)	-0.040* (0.020)
LEP	0.094*** (0.017)	0.093*** (0.017)
ESE	-0.330*** (0.014)	-0.330*** (0.014)
Percent days absent	-0.934*** (0.085)	-0.938*** (0.085)
Student eligible for free lunch	-0.053*** (0.016)	-0.052*** (0.016)
Student eligible for reduced lunch	-0.012 (0.019)	-0.012 (0.019)
Retained in grade	-0.006	-0.006
Percent of students in school receiving free or reduced-price lunch	-0.005*** (0.001)	-0.004*** (0.001)
Percent of minority students in school	0.002** (0.001)	0.001 (0.001)
Grade 6	-0.094*** (0.015)	-0.094*** (0.015)
Grade 7	0.157*** (0.014)	0.157*** (0.014)
4th grade reading scale score	0.005*** (0.000)	0.005*** (0.000)
4th grade math scale score	0.002*** (0.000)	0.002*** (0.000)
Intercept	-2.766*** (0.343)	-2.871*** (0.292)

\*Significant at the 0.05 level, \*\*significant at the 0.01 level; \*\*\*significant at the 0.001 level.

NOTE: Standard errors are given in parentheses.

**Table C.3**  
**Full Results from Models of Mathematics Achievement**

Variable	Model 1	Model 2
Reading credential	0.072** (0.025)	0.062* (0.025)
Years teaching reading	–0.002 (0.001)	–0.003* (0.001)
Perceived coach quality	–0.040 (0.027)	–0.060 (0.034)
Ability to support adult learners	–0.022 (0.015)	–0.017 (0.015)
Coach confidence	–0.017 (0.022)	–0.005 (0.022)
More-experienced coach	–0.021 (0.023)	–0.024 (0.024)
Focus on integrating instruction across content areas	0.010 (0.016)	0.018 (0.016)
Time spent working with individual teachers (coach report)	0.012 (0.012)	
Time spent working with groups of teachers (coach report)	0.001 (0.013)	
Time spent administering assessments (coach report)	–0.017 (0.011)	
Time spent training teachers to use assessment data (coach report)	–0.000 (0.014)	
Reviewed assessment data with coach (reading teacher report)		0.073** (0.028)
Reviewed assessment data with coach (social studies teacher report)		–0.031 (0.027)
Received individual coaching (reading teacher report)		–0.029 (0.026)
Received individual coaching (social studies teacher report)		0.002 (0.039)
Number of years the school had a coach	0.008 (0.005)	0.007 (0.005)
Coach caseload	0.055 (0.038)	0.081* (0.035)
Percent of new teachers in the school	–0.001 (0.001)	–0.001 (0.001)
Principal leadership	0.060* (0.028)	0.045 (0.028)
Number of students	–0.000	–0.000

Table C.3—continued

Variable	Model 1	Model 2
Male	-0.028*** (0.005)	-0.028*** (0.005)
Black	-0.142*** (0.007)	-0.142*** (0.007)
Hispanic	-0.028*** (0.007)	-0.027*** (0.007)
LEP	0.094*** (0.007)	0.093*** (0.007)
ESE	-0.047*** (0.006)	-0.047*** (0.006)
Percent days absent	-1.581*** (0.042)	-1.581*** (0.042)
Student eligible for free lunch	-0.062*** (0.006)	-0.062*** (0.006)
Student eligible for reduced-price lunch	-0.019** (0.007)	-0.019** (0.007)
Retained in grade	-0.025* (0.011)	-0.025* (0.011)
Percent of students in school receiving free or reduced-price lunch	-0.004*** (0.001)	-0.003** (0.001)*
Percent of minority students in school	0.002** (0.001)	0.001 (0.001)
Grade 6	-0.181*** (0.005)	-0.181*** (0.005)
Grade 7	-0.125*** (0.006)	-0.125*** (0.006)
4th grade reading scale score	0.003*** (0.000)	0.003*** (0.000)
4th grade math scale score	0.009*** (0.000)	0.009*** (0.000)
Intercept	-3.695*** (0.280)	-3.837*** (0.242)

\*Significant at the .05 level, \*\*significant at the .01 level; \*\*\*significant at the .001 level.

NOTE: Standard errors are given in parentheses.

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