



“Coach” can mean many things: five categories of literacy coaches in Reading First





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June 2007

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U.S. Department of Education



Issues & Answers is an ongoing series of reports from short-term Fast Response Projects conducted by the regional educational laboratories on current education issues of importance at local, state, and regional levels. Fast Response Project topics change to reflect new issues, as identified through lab outreach and requests for assistance from policymakers and educators at state and local levels and from communities, businesses, parents, families, and youth. All Issues & Answers reports meet Institute of Education Sciences standards for scientifically valid research.

June 2007

This report was prepared for the Institute of Education Sciences (IES) under Contract ED-06-CO-0014 by Regional Educational Laboratory Northwest administered by Northwest Regional Educational Laboratory. The content of the publication does not necessarily reflect the views or policies of IES or the U.S. Department of Education nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

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Deussen, T., Coskie, T., Robinson, L., & Autio, E. (2007). *“Coach” can mean many things: five categories of literacy coaches in Reading First* (Issues & Answers Report, REL 2007–No. 005). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Northwest. Retrieved from <http://ies.ed.gov/ncee/edlabs>.

This report is available on the regional educational laboratory web site at <http://ies.ed.gov/ncee/edlabs>.

Summary

“Coach” can mean many things: five categories of literacy coaches in Reading First

Simply knowing that literacy coaches are in schools does not imply anything about how those individuals spend their time—there is a difference between being a coach and *doing coaching*.

Coaching has been heralded as an opportunity to provide professional development that is job-embedded, ongoing, directly related to the challenges teachers face in the classroom each day, and provided by people familiar with the context of the teachers’ work. Coaches—used in a variety of content areas but most commonly in literacy instruction—are often skilled teachers who step out of their classrooms to help other teachers become more thoughtful and more effective in their instruction. They work side-by-side with teachers in the classroom, observing, modeling, providing feedback, and planning lessons according to the needs and goals of individual teachers. At least in theory, this approach should address all the criteria of high-quality teacher professional development.

So tantalizing is the promise of coaching that in recent years states, districts, and schools across the nation, eager for a means to

strengthen instruction and student learning, have rushed to implement literacy coaching (Russo, 2004).

Because the expansion of coaching has occurred so quickly, federal, state, and local policymakers and practitioners who have little data about the effectiveness and impact of coaching must decide whether to use literacy coaches. Before the impact of coaching on student achievement can be demonstrated, however, educators need a clear picture of the qualifications and backgrounds of the people who become coaches and a description of what coaches actually do once they are in a coaching position.

This report begins to develop this picture with data from and about coaches in Reading First—a federal project to improve reading outcomes for K-3 students in 5,200 low-performing elementary schools across the nation. In the five western states for which data were available (Alaska, Arizona, Montana, Washington, and Wyoming), we found that coaches were mostly experienced teachers who were relatively inexperienced in the coaching role. We also found that the reality of how coaches

perform their jobs was more complex and varied than anticipated. In three of the five states, Reading First coaches were explicitly asked to spend 60 to 80 percent of their time in the classroom with teachers or working with teachers directly on their instruction. While coaches dedicated long hours to their jobs, they spent on average only 28 percent of their time working with teachers. This difference between the expectation of how coaches spend their time and the reality of their work has also appeared in other studies of coaching and is not unique to Reading First (Rollers, 2006; Bean and Zigmond, 2006; Knight, 2006).

Although all coaches juggled multiple responsibilities and for the most part performed the same tasks, how they allocated their time across tasks and how they understood and described the focus of their work varied widely across individuals and settings. Utilizing both a cluster analysis of survey data and a qualitative analysis of interviews, we distinguished five categories of coaches: data-oriented, student-oriented, managerial, and two teacher-oriented categories—one that

works largely with individual teachers and another that works with groups. It may be that other types of coaches also exist in other projects and settings. What we consider most important is that people who held the same job defined and performed their work in very different ways.

Contrary to expectations, the prior education and experience of coaches did not predict which coach category they belonged to. Nor did school size predict how coaches performed their jobs. What our analyses did reveal, however, was the significant relationship between the state in which a coach worked and the prevalence of particular coach categories. This relationship suggests that state guidance to Reading First schools and coaches contributed significantly to how coaches worked. Thus states, or any agency implementing educational initiatives using coaches, have both a great deal of responsibility and a great opportunity to influence what type of coach they employ to work in their schools and districts.

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Simply knowing that literacy coaches are in schools does not imply anything about how those individuals are spending their time—there is a difference between being a coach and *doing coaching*.

For years teachers have received their professional development primarily through one-shot workshops provided by external trainers on topics that may or may not connect to teachers' daily instructional practices. Research has called this model into question, finding instead that professional development should be job-embedded, ongoing, directly related to the challenges teachers face in the classroom each day, and provided or supported by people familiar with the context of the teachers' work (Guskey, 2000; Norton, 2001; Wood & McQuarrie, 1999).

Coaching has been heralded as an opportunity to provide exactly this kind of professional development for teachers (Neufeld & Roper, 2003). Coaches—used in a variety of content areas but most commonly in literacy instruction—are often

skilled teachers who step out of their classrooms to help other teachers become more thoughtful and more effective in their instruction. They work side-by-side with teachers in the classroom, observing, modeling, providing feedback, and planning lessons according to the needs and goals of individual teachers. At least in theory, this approach should address all the criteria of high-quality teacher professional development.

So tantalizing is the promise of coaching that in recent years states, districts, and schools across the nation, eager for a means to strengthen instruction and student learning, have rushed to implement literacy coaching (Russo, 2004). Although coaching is not a new approach to professional development—variants of the coaching model date back to the 1930s (Hall, 2004)—the idea was reinvigorated by the frustration with traditional workshops and the need, under the No Child Left Behind Act of 2001, to find more effective means to enhance instruction and learning. Thus we see a rapid and widespread expansion of coaching, including in large urban districts (Russo, 2004) and in the entire state of Florida (Florida Department of Education, 2006).

One of the largest initiatives using coaching has been Reading First, a federal project that aims to improve reading outcomes for students in low-performing K–3 schools. Reading First funded states, which in turn provided subgrants to districts and schools to adopt scientifically-based core reading programs, to utilize regular and standardized student assessments, and to provide interventions to struggling students. A large component of Reading First has been the professional development provided to teachers through institutes, workshops, and most prominently site-based literacy coaches. Because Reading First mandated using a reading coach to provide professional development to teachers at grantee schools, more than 5,200 schools have hired reading coaches (Moss, Jacob, Boulay, Horst, & Poulos, 2006). In addition, some districts with Reading First schools have extended parts of the model, including the use of a literacy coach, to other schools in their district (Center on

Education Policy, 2006; Deussen, Autio, Nelsestuen, Roccograndi, & Scott, 2006; Nelsestuen, Autio, & Smiley, 2006).

The upsurge in hiring coaches has prompted great professional interest in literacy coaching, and professional and trade journals are putting coaching center stage (Knight, 2006; Northwest Regional Educational Laboratory, 2006; Wren & Reed, 2005). In addition, the National Council of Teachers of English and the International Reading Association (IRA) recently established a set of standards for coaching (International Reading Association, 2004; National Council of Teachers of English, 2006) and a new clearinghouse for information about literacy coaching at the University of Colorado, Denver (National Council of Teachers of English, 2006).

Because coaching has expanded so quickly, federal, state, and local policymakers and practitioners must decide whether to use literacy coaches with little data about what coaches do and whether coaching has an impact on student learning. These are issues that research needs to address. Before coaching can be linked to differences in student achievement, a clear picture of the qualifications and backgrounds of coaches and a description of what coaches actually do are needed.

While coaches dedicated long hours to their jobs, they spent on average only 28 percent of their time with teachers

Clarity about who coaches are and what they really do in schools will provide the context for understanding research on the relationship between professional development through teacher coaching and student outcomes.

Articulating coaching roles based on implementation provides researchers and stakeholders with an informed way to discuss coaching models. It also lays the foundation for bridging the gap between existing theory and implementation.

Our research addresses two questions:

1. Who becomes a reading coach? And what background, skills, and qualifications do coaches bring to their jobs?

2. How do coaches actually perform their jobs? That is, how do they spend their time, and what do they see as their focus?

It answers these questions with data from and about Reading First coaches. The answers are relevant for Reading First—which includes about 1,550 districts and 5,200 schools across the nation (Moss et al., 2006). They are also relevant for the many other schools and districts emulating Reading First, hiring literacy coaches, or wanting to draw lessons for their own literacy initiatives.

SUMMARY OF FINDINGS AND THEIR IMPLICATIONS

In answer to the first research question—who becomes a reading coach?—we found that in the five states for which we had data (Alaska, Arizona, Montana, Washington, and Wyoming), Reading First coaches were experienced teachers, but most had little or no prior coaching background. This matters to the states, districts, and schools that hire coaches, because it suggests that most new coaches need guidance, support, and specific training in coaching.

More than half of the coaches had advanced degrees, 38 percent had advanced training specifically in literacy, and 22 percent held only bachelor's degrees. This level of preparation is lower than that recently reported for Reading First coaches in Pennsylvania (Bean & Zigmond, 2006), which found that 79 percent of Reading First coaches in that state held a master's degree or higher and 52 percent were certified as reading specialists. This suggests that when researchers study coaches, they may need to keep in mind regional variations in labor markets and educational background—our study covers the background and work of coaches in just five states and cannot be generalized to all other states. Regional variations may also be important to policymakers and practitioners at the state and district levels when hiring, planning professional development, and providing technical assistance to coaches. In some

BOX 1

Methodology

The study data. We collected data from the 203 Reading First schools in five western states (Alaska, Arizona, Montana, Washington, and Wyoming). Surveys were administered in spring 2006 to K–3 teachers and literacy coaches at all 203 schools. Response rates were high: 75 to 88 percent of teachers (depending on the

state) and more than 90 percent of coaches returned their surveys. We had complete data from 190 coaches. Interviews were conducted with 77 coaches and more than 300 K–3 teachers at 77 Reading First schools, a subset of the 203 schools in the study (see the appendix for details on the data collection).

The analyses. Surveys provided the information about coaches’

background and experience. We used the coaches’ answers to survey items that asked about the time they spent on various tasks to cluster individual coaches into five categories. The interviews provided more detailed descriptions and explanations of the five coach categories, explaining what coaches emphasized and defined as most important in their work.

places, new literacy coaches may come in with more background in reading, while in other areas, this literacy expertise must be built on the job.

Most coaches were hired from within their districts or schools. From our data, we were unable to investigate whether this was due to a preference for hiring from within or to low numbers of external applicants. Given the high standards that the International Reading Association (2004) has suggested that coaches should bring to their jobs, more attention to labor markets, coach qualifications, and recruitment and hiring practices is merited.

In answering the second question—how do coaches perform their jobs?— we found that reality deviated sharply from the expectations of Reading First state project staff. In three of the five states studied, Reading First coaches were asked to spend 60 to 80 percent of their time in the classroom with teachers or working with teachers directly on their instruction. While coaches dedicated long hours to their jobs, they spent on average only 28 percent of their time with teachers. Even though this was dramatically lower than state expectations, it is a significant portion of time in comparison to what we know about coaches in other settings. For example, the Rollers’ (2006) study found that coaches spent, on average, two to four hours a week observing, demonstrating lessons, and discussing the lessons taught and less than an hour planning lessons with teachers—for less than 15 percent of a 40-hour workweek.

While Bean and Zigmond’s study of Reading First coaches in Pennsylvania (2006) did not report percentage of time in the same way, it found that coaches spent more time on school improvement–related activities than on working with teachers in the classroom, and many coaches in the study complained that assessments and clerical tasks left them too little time to work with teachers. Outside Reading First, Knight (2006) found that coaches’ chief complaint about their job was that a long list of non-instructional tasks prevented them from working with teachers as often as they wanted.

Our study documented the other tasks that filled the 72 percent of time that coaches did *not* spend directly with teachers. Working with data took up 25 percent of coaches’ time—evenly spread among administering or overseeing assessments, managing data, and interpreting data. Meetings, student interventions, documentation, and other tasks took up the rest of the time. For some coaches, this time spent on other tasks was the result of demands placed on them by the school, district, and state. But for others, it was a way for coaches to avoid coaching teachers because they did not feel comfortable or appropriately qualified to do so. Individuals and agencies responsible for hiring, training, and evaluating coaches could provide extra support to build confidence in coaches who need it.

Although all coaches juggled multiple responsibilities and for the most part performed the same tasks, how they allocated their time across

People who hold the same job define and perform their work in very different ways

tasks and how they understood and described their focus varied widely across individuals and settings. Utilizing both a cluster analysis and a qualitative analysis, we distinguished five categories of coaches: data-oriented, student-oriented, managerial, and two teacher-oriented categories, one that works largely with individual teachers and another that works with groups.

- *Data-oriented coaches* spent on average 45 percent of their workweek on data and assessment-related tasks. They described the focus of their work as facilitating the connection between data and instruction.
- *Student-oriented coaches* spent more time than other coaches working directly with students and the least (on average just 14 percent) working with teachers. They saw students as central to what they did.
- *Managerial coaches* spent a substantial portion of their time keeping the systems running in their schools—facilitating meetings and keeping up with paperwork.
- *Teacher-oriented coaches* spent comparatively little time on paperwork and data-related tasks; they saw themselves primarily as providers of professional development for teachers. They spent between 41 and 52 percent of their time working directly with teachers. Many of them worked with small groups of teachers, and about a third of them tended to work with individual teachers.

Other types of coaches are possible in other populations or in other programs, or the same categories may show up with different frequencies in other settings. What we consider most important is that people who held the same job defined and performed their work in very different ways.

The variation in how coaches performed on the job is a meaningful consideration for the people who

hire and train coaches. Training and technical assistance for Reading First coaches is provided primarily at the state level. How coaches performed in their jobs varied significantly by state. The state differences we detected in the distribution of coach categories suggest that state policy and the professional development and technical assistance provided by the state contributed to how coaches performed their jobs. This means that states, or any agency implementing reform initiatives using coaches, have both the responsibility and the opportunity to influence what type of coach they employ to work in their schools and districts. Future research might look more closely at the link between state-provided training and guidance and the way coaches perform their jobs.

Understanding the various ways the coach's role is played out is important not only for the hiring and training agencies, but also for coaches themselves, who have demanding, time-consuming jobs. It provides them with a framework for self-assessment and can help them make decisions about how they allocate time.

Although many lessons can be learned from Reading First schools, these schools are not necessarily typical elementary schools. Besides their particular demographics (high poverty and history of low performance in reading), they have participated in a highly structured, well-funded federal program that is quite unlike other coaching initiatives in many ways. Programs that have less funding, part-time coaches, less professional development, or more school-level choice in curriculum or assessment may experience other patterns in how their coaches work. Nevertheless, we hope the descriptions in this report provide a starting point for thoughtful conversation about the job responsibilities, training, and day-to-day work of literacy coaches.

A final important lesson from this study is a caution for researchers not to assume that "coach" means only one thing—having a coach is not a uniform intervention. Simply knowing that literacy coaches are in schools does not imply anything

about how those individuals are spending their time, because there is a difference between being a coach and *doing coaching*. Researchers must define and measure what it is that coaches are doing in any study about coaching. This is particularly necessary as researchers investigate the question so many policymakers and practitioners raise: to what degree does investment in coaching make a difference in instruction and student achievement?

WHAT THE LITERATURE SAYS ABOUT COACHING—AND COACHES

For all the attention to and interest in literacy coaching, it is still relatively new as an approach to large-scale professional development, and the research on its implementation and effectiveness is just emerging. In this review, we discuss what coaching is as an activity and what coaches (people in a job that includes coaching as well as other activities) actually do. We also review what is known about the impact of coaching on teachers and on student achievement.

What is coaching?

Coaching occurs when a more knowledgeable professional works closely with another professional to increase productivity or to meet some predetermined outcome. In recent years, it has become a popular form of professional development in business and management; in the personal realm, “life coaches” work with individuals to help them clarify and achieve individual goals. In education, literacy coaches support teachers in making instructional changes or decisions in order to improve student achievement in reading and writing.

Literacy coaching is a response to criticism of more traditional professional development for teachers, which is often delivered by expert presenters over short periods of time with little or no follow-up. In fact, the key components of effective professional development for teachers described by Darling-Hammond and McLaughlin (1996) are

directly opposed to the one-shot workshop model. They argue that effective professional development is experiential, grounded in inquiry and reflection, collaborative and interactive, connected to teachers’ work with students, sustained and intensive, and connected to other aspects of school change. Ideally, coaching meets all these criteria and differentiates support to match teachers’ previous training and experience.

Within this framework, there is debate about the degree to which coaching should be directive, telling teachers how to adjust their instruction, or collegial and targeted at enhancing teacher capacity for self-reflection (Costa & Garmston, 2002; Joyce & Showers, 2002). In the directive model, the coach plays the role of an expert, identifying a teacher’s specific area of weakness or helping teachers implement a program with specific practices. In some instances, the job of a directive coach may be to ensure program fidelity. Some research suggests that teachers may be less likely to change in directive approaches, although newer teachers may be more open to this type of coaching (Gersten, Morvant, & Brengelman, 1995).

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In contrast, coaching for self-reflection is a more collaborative model in which the coach and the teacher together raise questions about the effectiveness of instruction and make decisions about changes. Reflective coaching often includes helping teachers deepen their understanding about how students learn to read and write as well as about the teacher’s role in making learning effective (Duncan, 2006; Toll, 2005). Cognitive coaching is a well-known example of reflective coaching (Costa & Garmston, 2002).

What do coaches do besides coaching?

Just as teaching is only one of many activities that teachers engage in, coaching is just one part of a

coach's job. While teachers might, for example, plan lessons, grade papers, and take recess duty in addition to teaching children, coaches take on a wide range of activities:

- Assisting teachers in implementing new curricular programs (Poglinco et al., 2003)
- Consulting with and mentoring teachers (Costa & Garmston, 2002)
- Supporting teachers as they "apply knowledge, develop skills, polish technique and deepen their understanding" (Lyons & Pinnell, 2001)
- Planning and conducting research and writing grants (Walpole & McKenna, 2004)
- Leading discussion groups (Sweeney, 2003) or study or book groups (Walpole & McKenna, 2004)

Not only do coaches have many responsibilities, but the term "coach" is used to describe many different configurations: full-time coaches assigned to a single building, full-time coaches responsible for two or more buildings, part-time coaches (especially in small schools), and teachers who provide part-time peer coaching to their colleagues. While these positions, of course, have much in common, their differences are often disregarded in the literature, making it more difficult to interpret findings about implementation success and impact on both teachers and students.

How might coaching affect teachers?

There is evidence that coaching is popular with teachers (Schwartz & McCarthy, 2003) and that teachers believe it improves their instruction and

willingness to try new approaches (Munro & Elliott, 1987; Sparks & Bruder, 1987). Evidence about coaching's impact on teacher behavior, however, is mixed. On the one hand, a number of

studies suggest that coaching can change teacher practice. For example, Showers and Joyce (1996) found that teachers receiving coaching were more likely to use new strategies and to use them appropriately than were teachers receiving more traditional professional development. Neufeld and Roper (2003) reported that teachers whose professional development includes coaching were more likely to try out the new ideas they learned. In a study in Topeka, Kansas, researchers found that within six weeks of the start of the school year, 85 percent of teachers who worked with a coach had already implemented at least one teaching practice they had learned in a summer workshop, compared with just 10 percent of teachers who did not work with a coach (Knight, 2004). In a small study of primary grade teachers, Kohler, Crilley, Shearer, and Good (1997) found that teachers instituted and sustained more changes in their instructional approach when they worked with a peer coach.

Yet other studies raise questions about the efficacy of coaching. In a study in the Netherlands, Veenman, Denessen, Gerrits, and Kenter (2001) found that teachers who had been coached expressed higher levels of confidence in their teaching, but were not rated as more effective than teachers who had not received coaching. A small study by Gutierrez, Crosland, and Berlin (2001) concluded that coaching experiences did not help teachers fundamentally change their work in the classroom. This study, based on a review of surveys, interview data, and video-taped instruction, found that coaching focused on transmitting particular strategies often did not help teachers understand when or how to choose one instructional strategy rather than another. Additional studies, employing rigorous methodologies, will be needed to help make sense of some of these equivocal findings.

Despite questions about the impact of coaching on instructional practice, coaching does appear to have a positive impact on teacher collaboration (Schwartz & McCarthy, 2003). Enhanced collaboration is important because seeing how other teachers work helps teachers gauge their own skills, promotes reflection on how they can

While evidence indicates coaching is popular with teachers, evidence about coaching's impact on teacher behavior is mixed

improve (Stigler & Hiebert, 1999), and may foster critical inquiry into the connection between teaching practice and student outcomes (Lieberman, 1995; Lord, 1994). But the same researchers who point out the importance of collaboration also note that it requires a great investment of time on a regular basis. In practice, shortage of time is cited as one of the most pressing challenges for coaches—insufficient time for coaches to attend to all teachers and for teachers to meet with coaches to confer about observations (Bean & Zigmond, 2006; Knight, 2006; Schwartz & McCarthy, 2003).

How might coaching affect student achievement?

Proponents of coaching argue that there is good reason to expect that well-implemented coaching can improve instruction and student achievement. Based on the findings that teachers are more likely to adopt new practices if they have been coached (Knight, 2004; Neufeld & Roper, 2003; Showers & Joyce, 1996), advocates argue that coaching, properly implemented, will alter and deepen teacher practice (Darling-Hammond, 2000).

While some data suggest a potential connection between coaching and increased student achievement, there are to date no rigorous scientific data that definitively demonstrate it (Greene, 2004; Poglinco et al., 2003). A number of evaluations and self-reports do posit a link between coaching and student outcomes, such as Norton's (2001) documentation of the positive results of the statewide Alabama Reading Initiative (ARI) on the literacy of seventh-grade students. Also, researchers from the Foundation for California Early Literacy Learning (Schwartz & McCarthy, 2003) have reported that teachers perceived a positive effect on student achievement linked to coaching. Likewise, Lyons and Pinnell (2001) saw a connection between literacy coaching and increased achievement in reading and writing. None of these studies, however, employed rigorous methodologies that could establish a causal link between coaching and student achievement. Future studies, such as the Institute of Education Sciences (2006) study on the impact of coaching on teacher practice

and student achievement in early reading, will be needed to determine the effectiveness of coaching on student outcomes.

Literacy coaching under Reading First

In response to coaching's promise of targeted, ongoing professional development for teachers, Reading First mandated the use of reading coaches at grantee schools. Other Reading First requirements include schoolwide adoption of a core reading program and common reading assessments, the use of assessment data to make instructional decisions, and interventions for students at risk of reading difficulties. These components—and the very presence of mandated structures—provide Reading First coaches both support and challenges that may be somewhat different from those of coaches in other settings.

About two years into the implementation of Reading First at the school level, the IRA (2004) released guidelines on the role and qualifications of the reading coach, including recommendations to policymakers, administrators, reading specialists, and coaches. The IRA accepts Dole's (2004) definition of the coach as someone who “supports teachers in their daily work,” both informally (engaging in conversations, participating in study groups) and more formally (modeling, co-teaching lessons, conducting lesson studies with teachers). In order to be effective, coaches should a) be excellent teachers at the level they are coaching; b) have in-depth knowledge about reading processes, acquisition, instruction, and assessment (the kind of knowledge that comes from completion of a master's degree, reading certification, or intensive, yearlong training for new coaches); c) have experience working with teachers to improve their practice; d) be excellent presenters and familiar with presenting to teacher conferences and leading teacher groups; and e)

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have experience or preparation for observing and modeling in a classroom and providing constructive feedback to teachers. The IRA recommends that only teachers meeting all five of these criteria be hired as reading coaches.

Teachers generally find demonstration lessons given by their coach to be useful but, in some places, complain that this help occurs far too infrequently

These are demanding standards that may be hard for projects to meet when hiring new coaches. Even if the IRA guidelines had been available at the outset of Reading First, the standard might have proved particularly challenging for a project that greatly increased the nationwide demand

for reading coaches at the elementary level. These hiring challenges may be particularly acute in communities with smaller pools of qualified applicants or less access to advanced training opportunities. Empirical research is needed to document the preparation, assigned roles, and actual use of time on the job for the thousands of individuals hired as Reading First coaches in the past three years.

Empirical data on Reading First are beginning to be released. The interim evaluation report on the implementation of Reading First (Moss et al., 2006) provides the best overall national picture of Reading First coaching to date. It notes, for example, that more than a third of schools (38 percent) are served by coaches who work less than full time, and 11 percent of coaches serve more than one school. Most coaches reported that the following activities were "absolutely central to their work": providing professional development (94 percent), coaching school staff (91 percent), organizing professional development for K–3 teachers (87 percent), compiling reading assessment data (88 percent), and administering and coordinating reading assessments (87 percent). The report also summarizes coaches' ratings of the importance of various activities—more than 75 percent of coaches rated nine of the 10 activities asked about as "absolutely central." What the report does not explore is how coaches balance the demands of these "absolutely central" priorities

nor does it examine whether real time and effort correspond to coaches' perceptions of what is important.

Initial findings from non-representative national samples and from particular locales are beginning to be released (Bean & Zigmond, 2006; Roller, 2006). These findings suggest that the educational and specific literacy preparation of coaches vary widely. They also note that coaches spend comparatively small percentages of their time observing teachers and conferring with them about their instruction. Teachers generally find demonstration lessons given by their coach to be useful but, in some places, complain that this help occurs far too infrequently and that coaches do not return to classrooms to fulfill promises of help (Alvermann, Commeyras, Cramer, & Harnish, 2005); in some places, a third of teachers reported that they "never" worked with their coach or just "once or a few times a year" (Deussen et al., 2006). On the other hand, there are places where 75 percent of teachers report working with their coaches at least once a month (Autio, Nelsestuen, & Deussen, 2006).

Our study looks more closely at Reading First coaches in five western states: Alaska, Arizona, Montana, Washington, and Wyoming. These states were awarded Reading First grants between August 2002 and September 2003. Implementation in the first cohort of schools, and thus Reading First coaching, began either during the 2003/04 school year or in the summer of 2004. Arizona, Montana, and Washington brought on an additional cohort of schools in subsequent years.

As coaches began their work in Reading First schools, they often found that their roles were only vaguely described, especially among those in the first cohort of schools. For example, in the first year (2003/04), some Arizona coaches complained of not receiving a job description until near the end of the school year. And at the end of the first year of implementation in Alaska Reading First schools, only 36 percent of coaches agreed that "my role as coach is clearly defined" (Smiley,

2006). Expectations became clearer over time, however. As new cohorts of schools joined the program in the second and third years of implementation, more explicit responsibilities and expectations were laid out. New Arizona coaches reported seeing their job description when they were hired. By the end of the second year of implementation in Alaska, 85 percent of coaches agreed that their role was clearly defined (Smiley, 2006).

Training and guidance for new coaches was provided primarily at the state level, and sometimes at the district level. Initially, state and district agencies had to design much of this training and guidance themselves, often with little on which to base their decisions. Four of the five states in this study began implementing Reading First before the IRA had established guidelines for the hiring of coaches. The National Center for Reading First Technical Assistance released a binder for coaches entitled “Leading for Reading Success: An Introductory Guide for Reading First Coaches” in early 2005, but that was nearly two years after most coaches had been hired in these states. Before 2005 Reading First coaches pieced together the best guidance they could, learning from one another and often, as they said, “building the airplane while flying it.”

Training for coaches in these five states took place at annual multi-day summer institutes, regular monthly or bimonthly statewide videoconferences, and ongoing building-level visits from a technical assistance provider. Additional guidance came in the form of state documents or monitoring instruments, such as implementation checklists (used in Arizona), school reading improvement plans (used in Montana), or bimonthly to-do lists (provided in Washington during the first year).

State guidance to coaches had certain commonalities across states. For example, coaches in different states often received a portion of their training from the same external consultants (for example, Anita Archer’s workshops on student engagement or Jan Hasbrouck’s training for coaches), and they reported reading many of the same books, such as

Overcoming Dyslexia (Shaywitz, 2003) or *Bringing Words to Life* (Beck, McKeown, & Lucas, 2002).

At the same time, there were notable differences in what states asked coaches to do. For example, some states expected that coaches spend a specific percentage of time in the classroom working with teachers, sometimes as high as 60 percent (Montana and Wyoming) to 80 percent of their time (Arizona). Other states focused on defining the data component of the position (Alaska and, beginning in the second year, Washington), emphasizing the development of coach capacity to manipulate and understand reading assessment data as a vehicle for targeting student needs and changing teacher practice. In contrast, Arizona funded an assessment coordinator position in most schools to take the lead in assessment use in the school, greatly reducing expectations for coaches’ involvement in assessment.

In order to ensure that grantee schools were implementing Reading First as planned, some states asked schools to provide substantial documentation of their activities—sometimes this work was assigned to coaches. In Montana, coaches were asked to compile binders of the year’s activities and complete implementation checklists and to submit notes from study groups. In Arizona, schools were asked to provide detailed documentation of reading meetings (attendance, agendas, and notes), and in some cases the record keeping fell to the coach. These record-keeping requirements were probably more demanding than what literacy coaches in non-Reading First settings typically encounter.

When individual Reading First coaches were hired, they were usually the school’s first coach. In the subsequent two to three years, as coaches balanced external expectations with their own skills and the demands of the local context,

Before 2005 Reading First coaches pieced together the best guidance they could, learning from one another and often, as they said, “building the airplane while flying it”

they essentially defined the term “coach” for themselves and for the teachers with whom they worked.

WHAT OUR RESEARCH FINDS

Building on the findings of previous literature, our study looks at who becomes a Reading First coach and how coaches actually spend their time.

Who becomes a Reading First coach?

Demographic data obtained through the surveys provided a picture of coaches’ background and experience (table 1). In general, reading coaches were experienced teachers who brought little or no previous coaching experience to their position; in fact, more than two-thirds (70 percent) had no coaching experience prior to Reading First.¹ Many of the 30 percent of coaches with prior coaching experience, usually between one and three years, had only ever coached in their current school—not surprising, given that the widespread use of coaches is a recent phenomenon.

On the other hand, coaches brought substantial teaching experience to their position, an average of 17 years. Many had 20 or more years of experience, and it was rare that coaches had fewer than five years of teaching experience.

In terms of educational background, 38 percent had advanced training in literacy (a reading certification or a masters’ degree in reading). Half (54 percent) had a master’s degree in an area other

than reading; some had this as well as advanced training in literacy. About one-fifth (22 percent) held only a bachelor’s degree.

While some reading coaches were hired externally, from somewhere as close as a neighboring school or as distant as another state, most (61 percent) were hired from within the school. These internal

hires had worked at their current school for an average of 10 years. Reading coaches in urban locations were more likely to be an external hire and new to their building. In rural areas, where the pool of qualified applicants may have been smaller, it was more common for coaches to be experienced teachers hired from within.

Almost all coaches (93 percent) reported working full-time in their positions. A few (11 percent) reported that there was another literacy coach in their building who also worked with K–3 reading teachers.

What do Reading First coaches actually do?

On the spring surveys, most coaches reported that they tended to work long hours—49 hours a week, on average for full-time coaches; some reported routinely working 60–70 hours a week. Coaches also reported the average number of hours a week they spent on distinct tasks that comprise the bulk of their job responsibilities. To standardize across respondents, who might work very different numbers of hours a week, these responses were converted to percentage of time spent on each task a week. These findings, averaged across the 190 coaches with complete data, are presented in table 2.

On average, coaches spent 26 percent of their workweek actually coaching K–3 teachers: observing K–3 teachers, providing feedback, demonstrating lessons, or training groups of teachers (often at grade-level and staff meetings). Although Reading First coaches were supposed to focus on K–3 teachers, some reported coaching teachers in grades 4–6 as well. When this time was included, the percentage of time devoted to coaching increased to 28 percent. These figures indicate that state expectations that coaches should spend 60–80 percent of their time working directly with teachers were far removed from the reality of most coaches’ work.

The table also shows that data- and assessment-related work consumed, on average, the same proportion of the workweek as direct coaching activities:

Some states expected coaches to spend a specific percentage of time in the classroom working with teachers, while others focused on defining the data component of the position

TABLE 1

Reading coach demographics

	N	Min	Max	Mean	SD
Years prior coaching experience	184	0	10	0.79	1.58
Years prior teaching experience	185	1	42	16.69	9.20
Years prior experience at current school (in any capacity)	185	1	40	8.32	7.99
	N	Percentage of coaches			
With prior coaching experience	184	30			
Without prior coaching experience	184	70			
Working full-time	189	91			
Working part-time	189	7			
Working with another K–3 literacy coach in current school	184	11			
With five or fewer years prior teaching experience	185	11			
With bachelor's degree only ^a	168	22			
With advanced training in literacy	168	38			
With master's degree in area other than reading	168	54			
Hired from within	185	61			
Hired externally	185	34			

a. Arizona coaches did not provide information on their educational background on the 2006 surveys. For the educational background variables, only data from four states were included.

TABLE 2

Mean percentage of time spent on tasks, all coaches (N = 190)

	Percentage of time
One-on-one coaching (K–3)	21
Group coaching (K–3)	5
Coaching out-of-grade	2
<i>Subtotal: Coaching</i>	<i>28</i>
Administering/coordinating assessments	8
Managing data (entering, charting)	8
Using/interpreting data	9
<i>Subtotal: Data & assessment</i>	<i>25</i>
Planning interventions	6
Providing interventions directly	4
<i>Subtotal: Interventions</i>	<i>10</i>
Planning for/attending meetings	14
Attending professional development	5
Paperwork	11
Unrelated (subbing, bus duty, etc.)	6
<i>Subtotal: Other</i>	<i>36</i>

another 25 percent of their time. Data-related work included administering or coordinating student

assessments, entering data, creating charts, and reviewing reading assessment data.

TABLE 3
Mean percentage of time on activities and between group differences by coach category

	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	ANOVA		Post-hoc test
	<i>Data-oriented</i>	<i>Student-oriented</i>	<i>Managerial</i>	<i>Teacher-oriented (group)</i>	<i>Teacher-oriented (individual)</i>	F (4, 185)	p	
One-on-one coaching (K-3)	14	10	19	25	48	80.13	.000	5>1***, 5>2***, 5>3***, 5>4***, 4>1***, 4>2***, 4>3*, 3>2***
Group coaching (K-3)	3	4	5	10	3	25.08	.000	4>1***, 4>2***, 4>3***, 4>5***
Coaching out-of-grade	1	2	2	6	1	7.34	.000	4>1***, 4>2**, 4>3**, 4>5**
<i>Subtotal: Coaching</i>	<i>18</i>	<i>16</i>	<i>25</i>	<i>41</i>	<i>52</i>	<i>88.04</i>	<i>.000</i>	<i>5>1***, 5>2***, 5>3***, 5>4***, 4>1***, 4>2***, 4>3***, 3>1*, 3>2***</i>
Administering/ coordinating assessments	13	11	7	7	3	13.96	.000	1>3***, 1>4***, 1>5***, 2>3**, 2>4**, 2>5***
Managing data (entering, charting)	16	8	6	7	3	26.67	.000	1>2***, 1>3***, 1>4***, 1>5***, 2>5**, 4>5*
Using/interpreting data	16	8	10	8	5	23.25	.000	1>2***, 1>3***, 1>4***, 1>5***, 3>5***, 4>5*
<i>Subtotal: Data & assessment</i>	<i>45</i>	<i>27</i>	<i>23</i>	<i>23</i>	<i>11</i>	<i>52.27</i>	<i>.000</i>	<i>1>2***, 1>3***, 1>4***, 1>5***, 2>5***, 3>5***, 4>5***</i>
Planning interventions	8	6	5	6	4	2.87	0.24	1>5*
Providing interventions directly	2	12	2	2	3	32.06	.000	2>1***, 2>3***, 2>4***, 2>5***
<i>Subtotal: Interventions</i>	<i>10</i>	<i>18</i>	<i>7</i>	<i>8</i>	<i>7</i>	<i>19.05</i>	<i>.000</i>	<i>2>1**, 2>3***, 2>4***, 2>5***</i>
Planning for/attending meetings	12	12	18	14	10	10.49	.000	3>1***, 3>2***, 3>4*, 3>5***
Attending professional development	3	4	5	5	3	3.52	.008	
Paperwork	10	10	17	6	12	23.59	.000	3>1***, 3>2***, 3>4***, 3>5*, 2>4**, 5>4**
Unrelated (subbing, bus duty, etc.)	3	12	5	4	4	11.70	.000	2>1***, 2>3***, 2>4***, 2>5**
<i>Subtotal: Other tasks</i>	<i>28</i>	<i>38</i>	<i>45</i>	<i>29</i>	<i>29</i>			
Number of coaches	28	45	55	41	21			
Percentage of coaches (N = 190)	15%	24%	29%	21%	11%			

* p < .05 ** p < .01 *** p < .001

Planning for and attending meetings took up the next largest block of coaches' time (14 percent). This was closely followed by paperwork (11 percent) and interventions (10 percent), both planning for them and, in some cases, delivering them directly.

These data show that coaches held multifaceted positions with a complex array of responsibilities. They also show that coaches spent almost as much time, on average, on data-related activities as they did actually coaching teachers. But what the overall averages obscure is the very large variation in responses across coaches. Some coaches said they spent no time on assessment-related work; others spent as much as 50 percent of their time on data and assessment. The overall averages also fail to make clear the common patterns in use of time among subgroups of coaches.

To more thoroughly address the research question of how coaches actually spend their time on the job, a cluster analysis was conducted to create different categories of coaches based upon the percentage of time they spent on particular tasks. These results are shown in table 3, which presents the five coach categories, the mean percentage of time that individuals within each category spent on particular aspects of their position, and between group differences across the categories.

Data-oriented coaches. We called the first coach category “data-oriented” due to coaches' focus on data and assessment tasks; almost half their workweek (45 percent) was spent on such responsibilities, including administration and coordination of assessment, data management, and use/interpretation of data. This was significantly greater than all other clusters ($p < .001$). In comparison, data-oriented coaches spent less than half as much of their workweek directly coaching teachers (18 percent). As the last line in table 3 indicates, 15 percent of coaches in our study fell into this category.

Student-oriented coaches. The second category of “student-oriented” coaches spend a disproportionate share of time providing interventions

directly to students (12 percent, four to six times as much as the other categories). This was significantly greater than all other categories ($p < .001$). Although the average proportion of time that these coaches spent working directly with teachers (16 percent) was similar to that of data-oriented coaches, they were distinguished by not sharing the first cluster's time on data-related tasks. Furthermore, the qualitative data (discussed below) revealed that these coaches' focus, even when in the classroom, was on the activities of *students*, rather than *teachers*. Twenty-four percent of coaches fell into this category.

Managerial coaches. We referred to coaches in the third coach category as “managerial” because of the disproportionate share of time they spent on paperwork and meetings. This stood out as practically as well as statistically significant; while other groups spent roughly 20 percent of their time (one day in a five-day workweek) on these activities, managerial coaches spent 35 percent of their time on these activities—or almost two days in a five-day workweek. Furthermore, the qualitative data (presented below) revealed that these coaches viewed their position through the lens of their managerial and organizational responsibilities.

Teacher-oriented coaches. Coaches in both the fourth and fifth coach categories spent the most time working with teachers in a coaching role: these activities comprised 41 and 52 percent of the workweek for coaches in these groups, respectively. The two categories differed primarily in the mechanism by which this coaching was delivered. Coaches in the fourth category spent less time working one-on-one with teachers and more time working with teachers in a group setting. This was significantly greater than the other four categories ($p < .001$). For this reason, we referred to this cluster as “teacher-oriented (group).” These coaches also spent more time working with “out-of-grade” teachers (those teaching grades 4–6, the intermediate grades beyond the scope of Reading First). About a fifth of coaches (21 percent) were in this category.

Coaches in the fifth category, in contrast, delivered the majority of their coaching to individual teachers. Again, this was significantly more than the other four clusters ($p < .001$), prompting the name "teacher-oriented (individual)" for this group of coaches.

We refer back to table 3 throughout the next section, which turns to the qualitative interview data to describe each of these coach categories in greater detail.

What do the coach categories look like in practice?

Because the number of hours a week alone does not fully describe the effort and emphasis coaches put into their work and because of the inherent limitations of self-report data, we turned to the coach and teacher interviews from the 77 site visits to provide richer descriptions of the different categories of coaches. These interviews did not focus on the amount of time spent (except in passing reference, such as "spending all my time on the data") but rather on the primary activities that coaches undertook and what they felt were the major components of their job, as well as teachers' views of how their coaches worked with them. We combined the coach and teacher interviews to create school-level codes indicating the category that each coach seemed to fit best. It is important to note that even though the majority of coaches all do similar activities, both the cluster analysis and the qualitative analysis identified distinct categories of approaches to performing the job of coach. We then looked at the overlap of the survey analysis and the qualitative findings to create descriptions of each type of coach.

For data-oriented coaches, the collection, organization, and use of student assessment data defined their jobs

Data-oriented coaches. Coaches in this first category were focused primarily on student assessment data. On average, they spent 45 percent of their workweek on data and assessment-related tasks (see table 3). This was more than twice

as much time as they reported working directly with teachers (18 percent).

For data-oriented coaches, the collection, organization, and use of student assessment data defined their jobs. One coach described her job in this way, "I help people implement the program with a higher level of refinement, which means a big job is to get data to the people and make sure our instructional decisions are linked to the kids and their data." For many data-oriented coaches, this work was important because it provided the objective information needed to guide a multitude of other decisions about how teachers should work with students.

Data-oriented coaches spent, on average, about 13 percent of their time administering student assessments. These coaches often took on a great deal of the coordination of administration, sometimes because they wanted to help teachers and sometimes because they did not trust others to properly administer the tests. One coach noted, "Teacher scoring isn't good enough for them to do the benchmark assessments quite yet. We constantly re-train and re-direct."

Even more than assessment administration, these coaches emphasized entering, managing, and charting data. They reported spending 16 percent of their time, on average, on these tasks. (In contrast, they reported spending about 14 percent of their time providing one-on-one coaching to teachers.) They also reported spending 16 percent of their time on using and interpreting data.

Because of their focus on data, these coaches appreciated professional development that helped them in their data-related responsibilities. They particularly valued sessions such as setting up for assessment administration, learning to analyze data with the principal, and using curriculum-based evidence. One coach enjoyed the assessment training, "especially the analyzing and looking at data in several different ways" and said it was "very key for us in bumping up our instruction."

Not surprisingly, teachers in schools with these coaches said that the bulk of their interactions with the coach were "focused on assessments."

Another group of teachers noted that their coach “keeps us in line, keeps encouraging us to update the scores and get students on level.” Sometimes teachers said that their coaches were better at depicting “where the kids are” than they were at helping teachers develop an understanding of how to move students forward. In many schools, coaches in this category posted enormous wall charts showing where each student was located in a group or created highly visible hallway displays of student progress. Coaches often felt that schools were paying attention to the learning of each student in a way they had not in the past.

Coaches in this group also devoted a substantial amount of their time to the use of data—that is, interpreting and sharing results and making decisions based on outcomes. They described spending time meeting with teachers and, as a group, discussing student assessment outcomes. A coach explained: “Having that focus on the data analysis is what makes the collaboration happen . . . Every other week we have team meetings where I see it happening; we look at the data.”

It was common for coaches to work collaboratively with teachers to use data to group students (within the classroom or for additional intervention outside the reading block). In fact, several of the coaches in this category felt that their biggest accomplishments were using data to group students effectively for interventions. A coach at a school where two coaches shared the position said, “That is a strength for us; we spend a lot of time helping teachers group students.” At a few schools, coaches made grouping decisions on their own.

Some coaches who fell into the data-oriented category were not happy about the amount of time that data-related work took. As one coach exclaimed about student data, “There is no end to it!” Another coach said the worst part of her job was “to get on top of the progress monitoring because we had a very large group to assess.”

At the same time, other data-oriented coaches felt that carefully interpreting assessment results

with teachers was the best way to convince them that change was needed and could be effective. Some argued that improving assessment results was the tool to win over initially skeptical teachers and create cohesive support for Reading First in their schools. As one coach explained, “In the last two years, our teachers have just seen that we are moving kids. Every year we are tightening up and adjusting our instruction and we have watched the number of kids at benchmark and at grade level grow. Seeing the success . . . It is amazing.”

Student-oriented coaches.

A second category was distinguished by the amount of time coaches spent working directly with students and the comparatively small amount of time, in contrast, they spent working with teachers. This was even more evident in the way they defined their

work, placing students at the center. Although all the coaches had student achievement as the ultimate goal of their work, the coaches in this cluster were more likely to describe their daily tasks by emphasizing their work with students. These coaches were more likely to assess students directly, to use the results to organize interventions, and to provide interventions themselves. Those three tasks alone took up, on average, about a third of these coaches’ workweek (see table 3).

Like the data-oriented coaches, this group of coaches spent a good deal of time regularly collecting student assessment data (about 11 percent of the workweek). One coach explained that, “I enjoy doing assessments, seeing where kids are, tracking progress, and helping them get the help needed.” Coaches in this group used assessment data to refine the interventions for students, to reconfigure staffing for student interventions, and to develop flexible groupings within classrooms—in this sense they were quite similar to data-oriented coaches.

Student-oriented coaches are distinguished by the amount of time they spend working directly with students and the comparatively small amount of time, in contrast, they spend working with teachers

What made this category stand out from the others is these coaches also delivered interventions directly to students, spending on average 12 percent of their time on this task. One student-oriented coach told us, "Because we are a small school, I do a lot of the tutoring." She described working with students in the Title I program and substituting for absent teachers. In a few instances, coaches even taught regularly scheduled portions of the reading block. In one school the coach taught the third-graders for the first half of the school year because the teacher was "difficult to work with" and the students were "way behind."

In general, this direct work with students ran counter to Reading First guidelines, which in each of these five states told coaches to work with teachers rather than with students. Some coaches knew they were pushing the limits of their role, while others defended their work with students, explaining that it was an indirect way to work with teachers. For example, some coaches described teaching students as "push-coaching," a kind of gentle modeling of instruction to teachers who did not welcome modeling. As one coach described it, she and a teacher each took a reading group within the same classroom, working at tables alongside one another. This provided the teacher a chance to see the coach in action, while also giving the coach a chance to observe whether the teacher took up some of the instructional strategies introduced at grade-level meetings. This coach said, "It is amazing how much teachers pick up in little lulls when you are at their side. You work side-by-side in the room, and after school you meet and discuss and you modify it. You plan with them continuously. You say, 'Did this work for you? It didn't for me. Let's try something different tomorrow.' We are learning side by side."

On average, coaches in this category reported spending just 10 percent of their time on one-on-one coaching and another 4 percent on coaching groups of teachers, the least of any of the five categories. In addition to the time that work with students took up, these coaches were pulled away to work on activities unrelated to Reading

First, such as bus duty, meeting with school boards, or substituting for an absent teacher twice as often as coaches in other categories.

Why did these coaches, charged with providing professional development to teachers, spend so little time working directly with teachers? The answer was not the same in all cases. Some coaches chose to focus on work with students or allowed themselves to get pulled into unrelated work because they were less comfortable with the role of coaching teachers in classrooms. One coach described herself as "an infant" in terms of coaching teachers. For others, working with students was a way to earn legitimacy in the eyes of the teachers, as this coach explained: "I didn't feel that teachers would listen to me unless I demonstrated I was one of them. I needed to be with the kids and see what was going on."

Other coaches clung to the direct work with students because it was part of what they had always loved about being in schools. These coaches said they "needed a dose of kids" and felt "so responsible for children"—as one coach explained, "That's the problem with having been a classroom teacher." They cared about students and often had deep knowledge of the primary children in their school. Some argued that this made them better resources to teachers. One coach summed it up this way, "I know every kid. When a teacher comes to me with a concern about a kid, I know them, and we can talk about it."

When this group of coaches talked about additional training they desired, their wishes were of two types. First, they wanted more training on specific literacy content, such as vocabulary and comprehension, because it supported their direct work with students. Second, they wanted more training on how to coach teachers, which could help them shift some of their focus from students to teachers.

Managerial coaches. Although the coaches in this category spent more time working directly with teachers than coaches in the first two clusters

(about 25 percent of their time), they spent even more on managing systems, facilitating meetings, and keeping up with projects and paperwork (about 35 percent of their time; see table 3). This type of coach focused on keeping the multiple elements of the program running smoothly at their schools. In some ways, this group was characterized by coaches who multitasked and spread their time more evenly over a wider range of activities. When asked about their role, however, these coaches highlighted the work they did to meet perceived grant expectations for monitoring, organizing, and documenting.

Some of the monitoring and documenting tasks involved student data. These coaches were similar to student-oriented coaches in the amount of time they spent on collecting, managing, and using the data on student progress; these tasks took nearly a quarter of their workweek. Coaches were mixed on whether they felt this data work was a good use of their time. Some found it problematic, such as the coach who said the worst part of her job was the “large amounts of time required for giving DIBELS three times a year and analyzing the data.” But for others, doing the student assessment was a way of supporting Reading First.

Like coaches in some of the other categories, managerial coaches spent a good deal of time working with teachers on their instruction—on average, 19 percent of their time was spent doing one-on-one coaching and another 5 percent working with groups of teachers. On top of that work, they reported another 18 percent of their time went to facilitating and planning meetings, including data-related meetings and study groups. These coaches supported teachers by obtaining and sharing articles summarizing the latest research and expectations from the state or finding curriculum and classroom materials. One coach said her job was “to develop teachers to be the best teachers they can be, to be a support and resource to them.”

Perhaps what most differentiates these coaches is the focus on being a “resource” to teachers rather than working with them directly. Some

managerial coaches said they supported teachers by obtaining and sharing articles summarizing the latest research and expectations from the state or finding curriculum and classroom materials. Others described finding ways to support teachers administratively, such as running interference for teachers or helping to protect their time. For example, a group of teachers in one school said that their coach had positively impacted their instruction by bringing the interruptions that had been occurring during reading time “to a complete halt.”

Just as a subset of student-oriented coaches admitted working with students because they were uncomfortable working directly with teachers, a subset of the coaches in the managerial category may have sought alternative ways to support teachers in order to avoid the one-on-one classroom coaching. For example, one coach confessed that she “was not very good” at handling any kind of resistance from teachers and preferred to find other things to do.

Managerial coaches were pulled away from their jobs to take on other duties, such as substituting or monitoring the cafeteria, although not as often as the student-oriented coaches. One coach was asked to leave her coaching work to do a lot of things, including “making travel arrangements for the principal, going to school board meetings to get the community involved, providing direct interventions, subbing, doing all the progress monitoring, and organizing family fun night.” These demands tended to be a source of frustration for some managerial coaches.

In fact, a number of coaches in this group were not happy about the many tasks that kept them busy. Some felt “bogged down” with paperwork and found themselves spending a lot of time on documentation and keeping “big fat books.” One

When asked about their role, managerial coaches highlighted the work they did to meet perceived grant expectations for monitoring, organizing, and documenting

coach described her position as “being in middle management” while another said, “at times it feels like I just push papers.” Perhaps because they felt overwhelmed with multiple demands, managerial coaches appreciated components of professional development or state meetings that clarified for them in explicit terms what the Reading First program expectations were, such as “how much time you need to spend on this, this, and this” or “what is coming down the pipe.”

Despite the commonly held image of the coach observing and conferring with an individual teacher, not all teacher-oriented coaches spent their time coaching one-on-one

Teacher-oriented coaches (group and individual). Coaches in the fourth and fifth categories are most similar to the literature’s description of reading coaches.

About a third of the coaches in our study fell into one of the teacher-oriented categories (group or individual), both of which emphasized direct work with teachers to

develop teacher understanding of literacy development and skill in delivering instruction.

As shown in table 3, these coaches spent little time on data-based tasks, paperwork, or unrelated activities, particularly when compared with the other types of coaches. They also spent a relatively small amount of time either planning for or directly providing student interventions (a total of 7–8 percent of their time).

When teacher-oriented coaches described their positions, they focused on teacher professional development. Some of the tasks these coaches listed as part of their work included showing teachers how to implement the core curriculum, observing in classrooms and providing feedback, demonstrating good teaching, providing in-service training and other professional development (such as study groups), facilitating teacher meetings, helping teachers use data to pinpoint areas for instructional improvement, and acting as a resource for both information and materials.

These coaches described thinking carefully about choosing the teachers with whom they would

work. They invited teachers to come to them if they needed help, but they also relied on their classroom observations (and those of the principal) to give them insights as to which teachers needed assistance. They also used their knowledge of students to make decisions: “You go where your need is . . . I spend more time in ‘strategic’ classrooms,” explained one coach.² Although some of these coaches admitted it was easier to work with teachers who invited them or who were comfortable working with the coach, they also made an effort to work with more challenging teachers. One coach said that she kept a check-off sheet and observation form to “ensure that I see all teachers . . . I try to make time for them when they need me.”

When working with teachers in classrooms to “improve instruction and best practices,” teacher-oriented coaches were deeply engaged with the work of teaching and learning. As one coach explained, they often used the “I do, we do, you do,” model, which provided a gradual release of responsibility for instruction from the coach to the teacher. After an area of instruction had been identified for improvement (either by the teacher or the coach), the coach began by providing some in-service training and then modeling for the teacher in the classroom. Occasionally the coach arranged for the teacher to see another teacher model an aspect of instruction, and the coach and teacher observed together and talked about what they saw. To get the teacher started, sometimes the coach and teacher co-taught. When the coach and teacher felt it was time, the teacher took over the instruction, with the coach using “whisper coaching” and providing feedback. This kind of scaffolding ensured that the teacher was ready to take over, but many of these coaches continued to follow up with regular observations and feedback.

As a measure of how important working directly with teachers was to these coaches, almost all mentioned that they would like more professional development in this area. They wanted to widen their repertoire of skills and deepen their knowledge of adult learning and support. Several especially mentioned wanting to see experts in action.

One coach noted that she would like “to go into an actual school and have someone demonstrate. Let coaches observe in the classroom as someone models or gives teachers feedback . . . modeling in a real school situation.”

Group vs. individual coaching. Despite the commonly held image of the coach observing and conferring with an individual teacher, not all teacher-oriented coaches spent their time coaching one-on-one. Coaches in the “individual” category spent nearly half their work week (48 percent) delivering one-on-one coaching to individual teachers and only a small amount of time (3 percent) working with groups of teachers. These coaches also spent dramatically less time working with assessment data (11 percent) than any other category of coach. In contrast, coaches in the “group” category spent about 25 percent of their time with individual teachers but used another 10 percent of their time coaching groups—and spent substantially more time (23 percent) working with data. The group coaching approach was the more common of the two approaches.

Coaches and teachers reported that group coaching often occurred during grade-level meetings. They described how, prior to the meetings, the coach often observed individual teachers. All feedback was generalized to address overall trends, and coaches provided that feedback to teachers “as a whole group.” One teacher described the way coaching worked at her school in this way: “We have grade-level meetings at least once a month and the reading coach helps us with new ideas and feedback about how to improve our teaching.”

For some coaches a group approach was used because it was perceived as “less threatening” or to “provide assistance to those teachers who refused to be observed in their classes.” For others, group coaching was an extension of a collaborative culture of professional development in literacy and team members supported each other in change. One teacher provided an example of how individuals in her school participated in group coaching, “I might have a problem with a specific student . . .

usually what happens is that I bring the challenge to a grade-level meeting and we discuss it.” In a few schools, coaches described deliberately using group coaching as a transition into a form of peer coaching, in which teachers “do role playing and learn from each other.” Coaches might work with a teacher to brainstorm a solution a problem, try it out in the classroom, and then together “present it at a staff meeting, share it with everyone as a refresher.”

Directive vs. reflective coaching. Another variant among teacher-oriented coaches was the tone and content of their interactions with teachers. Some coaches took a very directive approach, some utilized a reflective approach, and many varied between reflective and directive depending on the circumstance.

Directive coaches acted as “experts” and encouraged teachers to teach in a particular way. They often provided direct recommendations, or even mandates, about the changes that a teacher needed to make. Fidelity of implementation of the core reading program was often a primary concern for directive coaches. Sometimes teachers asked for specific guidance (“How am I supposed to do this?”) and the directive coach provided the answer. At other times, the coaches initiated the interaction, targeting a specific teacher because they noted a teacher weakness or because the principal noticed a problem and asked the coach to address it. In such instances, directive coaches often provided explicit direction (or remediation) in an area of instruction.

A teacher explained how it worked in her school: “You can ask about something you aren’t sure of or she can come in and observe instruction. The reading coach will share with teachers what can be improved . . . teachers don’t have hours and hours

One teacher said of her coach, “She can be directive if needed. She’ll just tell us what works, but also ask what we think . . . she can also facilitate reflective thinking when appropriate.”

to reflect, but if the reading coach is looking for something specific she'll steer the teacher in the right direction." Although this sometimes created conflicts with teachers who disliked being told what to do, other teachers appreciated direct and explicit messages from the coach.

No relationship existed between years of coaching experience, teaching experience, or advanced literacy training with coaching category

Coaches who took a more reflective approach attempted to have teachers initiate the instructional conversation, or asked the teachers what they would like to work on. One teacher said of her coach, "She typically starts with a question and will ask something like, 'What did you think of that

last lesson? How did it work for you?'" Many used cognitive coaching techniques as an attempt to move the teacher forward. In addition to asking questions, one coach described working "to draw the question out of her so it's not just me telling her. I listened for her to make a comment that I could tag off of." In some cases, reflective coaches avoided providing direction in an attempt to minimize conflict—hence the coach who reportedly told teachers, "Everyone is doing great!" But many teachers found that this approach helped them quickly become comfortable with the coaching process.

In practice, the same coach often used both directive and reflective approaches, depending on the situation. One teacher said of her coach, "She can be directive if needed. She'll just tell us what works, but also ask what we think . . . she can also facilitate reflective thinking when appropriate." They knew when to provide direct assistance and intervention, and they also knew when it was important to scaffold the support through reflective techniques. These coaches were more directive with teachers who were newer or who had asked a specific question, and they were more reflective with teachers who had more experience or who were more resistant. Alternatively, these coaches might take different approaches at different times with the same teacher. A teacher noted that her coach, "is mostly reflective and allows

us to come up with our own solutions, but there are times that she is directive with me, which I appreciate!"

Coaches in this category tended to care very much about the teachers with whom they were working and had genuine respect for them, which helped them develop effective professional relationships with the teachers. One coach reported, for example, "I take into account the real-life issues they have to deal with and their style of teaching. I help them grow in their own right and not a cookie-cutter way. I don't try to mold them into something they are not." They wanted the teachers to "take ownership and become empowered with knowledge" and hoped to "empower teachers to create sustainability." While the coaches were very focused on teacher growth, they did not forget that the ultimate goal was "making changes for kids." Most teachers appreciated this careful attention to their work, especially when it was clear that the coach valued them as professionals and recognized their strengths as well as areas for improvement. As one group of teachers claimed, "Because of [the coach], we're better teachers."

Relationship of coach categories to other characteristics

From both the survey and the interview data, distinct categories of coaches clearly emerged. Having identified five distinctive categories of coaches, we next explored three areas that we expected might be associated with the category of coach in a school: the state in which coaches worked, school size, and the educational background and experience of coaches.

Because Reading First project staff at the state level organize, plan, and sometimes deliver professional development and technical assistance to coaches in Reading First schools, we hypothesized that the state in which coaches worked might be associated with the way in which coaches performed their job. Our first analyses therefore looked at the relationship between the five states included in the study and coach category, using a chi-square test. These results are presented in table 4.

Analysis revealed that there was a significant relationship between state and coach cluster in three of five states that we were able to test (chi-square $p < .01$).³ This is perhaps attributable to the different ways that the states structured their programs and the direction given by state-provided professional development and technical assistance. For example, there were very few data-oriented coaches in the only state in which Reading First paid for part-time assessment coordinators; in this state (Arizona), assessment coordinators took on responsibility for administering assessments and managing and interpreting data, leaving coaches more time to spend in classrooms with teachers. Perhaps not surprisingly, this state also had the highest proportion of teacher-oriented coaches. A variety of state-specific resources, conditions, and emphases in training combined to make the

student-oriented coach category more prevalent in Montana, while Washington had a much higher percentage of data-oriented coaches than did other states.

We next examined whether school size had a relationship to coach category. We suspected that coaches at smaller schools, who had fewer teachers to coach, might have more time left in the day to spend directly with students (student-oriented) or on project management tasks (managerial). We measured school size in two ways: student enrollment and number of teachers. Our findings, however, indicated that there was no significant relationship between coach category and K–3 enrollment (table 5). Although the overall relationship between coach category and number of teachers was marginally

TABLE 4
Distribution of coach categories within each state

	Cluster 1 <i>Data-oriented</i>	Cluster 2 <i>Student-oriented</i>	Cluster 3 <i>Managerial</i>	Cluster 4 <i>Teacher-oriented (group)</i>	Cluster 5 <i>Teacher-oriented (individual)</i>	Total	χ^2
Alaska	1	3	6	1	2	13	n/a3
Arizona	3	9	19	19	16	66	14.91**
Montana	5	17	5	6	0	33	12.46**
Washington	19	16	19	12	2	68	14.79**
Wyoming	0	0	6	3	1	10	n/a3

* $p < .05$ ** $p < .01$ *** $p < .001$

TABLE 5
Mean school size and between group differences by coach category

	Cluster 1 <i>Data-oriented</i>	Cluster 2 <i>Student-oriented</i>	Cluster 3 <i>Managerial</i>	Cluster 4 <i>Teacher-oriented (group)</i>	Cluster 5 <i>Teacher-oriented (individual)</i>	ANOVA F (4, 173) p
Mean K–3 enrollment	280	259	263	340	325	1.59 .178
	Cluster 1 <i>Data-oriented</i>	Cluster 2 <i>Student-oriented</i>	Cluster 3 <i>Managerial</i>	Cluster 4 <i>Teacher-oriented (group)</i>	Cluster 5 <i>Teacher-oriented (individual)</i>	ANOVA F (4, 184) p
Mean number of teachers	13.2	12.1	11.5	15.2	15.4	2.56 .040

significant, post-hoc testing revealed no significant differences between specific categories. This continued to hold true even when we converted K–3 enrollment into a categorical variable and ran a chi-square analysis (data not shown). It may be, however, that we were unable to detect a relationship to school size because in our sample, two-thirds of schools were medium-sized (K–3 enrollment between 200 and 500).

Finally, we investigated the possible relationship between prior experience and training and how coaches spent their time or what they emphasized

in their work. For example, was someone with previous coaching experience more likely to emphasize working with teachers? Our analyses revealed that this was not the case: no relationship existed between years of coaching experience, teaching experience, or advanced literacy training with coaching category. These findings are presented in tables 6 and 7. We also grouped coaches by their years of previous teaching experience (1–3, 4–5, 6–15, and more than 16) and ran a chi-square test for differences among categories, but again we found no significant relationship (data not shown).

TABLE 6

Mean coach years of experience and between group differences by coach category

	Cluster 1 <i>Data-oriented</i>	Cluster 2 <i>Student-oriented</i>	Cluster 3 <i>Managerial</i>	Cluster 4 <i>Teacher-oriented (group)</i>	Cluster 5 <i>Teacher-oriented (individual)</i>	ANOVA F (4, 178) p	
Mean years coaching experience prior to Reading First	1.00	0.80	0.55	0.74	1.20	.774	.544
Mean years teaching experience	17.38	18.69	15.40	15.85	16.75	.908	.461

TABLE 7

Distribution of advanced literacy training by coach category

	Cluster 1 <i>Data-oriented</i>	Cluster 2 <i>Student-oriented</i>	Cluster 3 <i>Managerial</i>	Cluster 4 <i>Teacher-oriented (group)</i>	Cluster 5 <i>Teacher-oriented (individual)</i>	Total ^a	χ^2
Number with advanced literacy training	12	17	16	12	7	64	0.80
Number without advanced literacy training	16	25	31	21	10	103	

a. The total N for Table 7 is 167, smaller than in the other tables because Arizona coaches did not provide information on their educational background on the 2006 surveys. For this variable alone, only data from four states were included.

NOTES

1. Note that a few coaches did not complete the section of the survey asking about their educational background and experience; hence the *N* for this portion of the study was slightly lower (184–185 rather than 190 coaches).
2. Many coaches in these Reading First schools, all of which used the *Dynamic Indicators of Basic Early Literacy Skills*, or DIBELS, to assess students, frequently borrowed from the DIBELS' categories of “benchmark,” “strategic,” and “intensive” student groups to describe teachers and their needs for assistance. “Strategic” teachers needed specific, targeted assistance to help them meet expectations.
3. Two of the states (Alaska and Wyoming) did not meet the data requirement of the chi-square test that no more than 20 percent of the categories should have expected frequencies of less than 5. Chi-square values are therefore not reliable for these states and are not reported.

APPENDIX METHODS

The purpose of this study is to describe coaching in Reading First schools in five western states—Alaska, Arizona, Montana, Washington, and Wyoming. This includes describing who becomes a reading coach, including the background skills and qualifications they bring to the position. It also includes how they actually perform their jobs; specifically, how they spend their time and what they see as their focus. To answer these questions, this study employs descriptive, mixed methods approach, utilizing existing data from the statewide evaluations of Reading First in those five states.

Setting and participants

Across the five western states in our study, there were 203 Reading First grantees in the 2005/06 school year. Schools were almost uniformly high-poverty, with an average of 77 percent of students eligible for free- or reduced-price lunch. They included both urban (41 percent) and rural (28 percent) schools, as well as others in between: urban fringe (21 percent) and town (11 percent). Almost half of the schools (48 percent) were small, serving fewer than 300 students; only a few (9 percent) were very large, serving more than 500 students. At least 32 percent of students across the 203 schools were considered English language learners.¹

Data sources

Surveys

This report relied primarily on data from surveys administered to K–3 teachers and, especially, literacy coaches at all 203 Reading First schools across the five states. A team of evaluators at REL Northwest developed the Reading First surveys to address the roles, activities, and perceptions of reading coaches and teachers. Surveys were administered each spring over multiple years beginning in 2004; for most of the analyses in this report, the 2006 data were used. At times the

earlier data were employed to determine longitudinal information, such as whether the coach had changed between 2004 and 2006.

The surveys included more than 200 items designed to measure attitudes and practices in Reading First schools. A portion of items measured attitudes using a five-point Likert scale while other items used ordinal rating scales to measure the frequency or intensity of activities. The surveys also included a few descriptive checklist items about roles and practices. This study drew from a series of items that asked coaches to report the number of hours they spent on 16 tasks. As with most self-report data, coaches' responses about the way they spent their time could have been influenced by their beliefs about how they should spend it. The confidentiality of the surveys likely helped encourage accurate reporting. In addition, we noted substantial variation in responses, which led us to believe that not all coaches completed the series of items based on a preconceived notion of what they should do. Although the surveys differed slightly from state to state, key items about coaching, preparation, and demographics were included in all versions.

Survey response rates were high; in 2006, 97 percent of schools returned surveys. In each state, between 75 and 88 percent of teachers and over 90 percent of coaches returned their surveys, providing us with complete data from a total of 190 coaches.

Interviews

Also in spring 2006, interview data were collected from 77 (38 percent) of the Reading First schools across the five states. Interviews were conducted with 77 reading coaches, 77 principals, and more than 300 teachers (one per grade level at each school, selected randomly). Interviews at most schools (57) were conducted during in-person site visits; interviews at some (20) were conducted over the telephone. As shown in table A1, the process for selecting the schools for qualitative data collection varied across the five states, depending on the needs and preferences of the state project

TABLE A1
Interview sample size and selection method by state

State	Number (percentage within state) of Reading First schools selected	2006 selection method
Alaska	6 (50%)	Random selection of two schools within each of three districts for site visits.
Arizona	27 (37%)	Remaining schools that had not been visited in previous two years were selected for site visits.
Montana	16 (48%)	Half cohort 1 schools randomly selected for telephone interviews. Roughly half of cohort 2 schools randomly selected for site visits.
Washington	20 (28%)	Random selection of 20 schools for site visits.
Wyoming	10 (100%)	All schools selected for telephone interviews.

staff. In Alaska, the state asked that each of the three participating districts be visited each year; within each district, we randomly selected two schools to visit. In Arizona, we visited one-third of the 73 schools each year for three years. The first year, schools were deliberately selected to represent a variety of student demographics; in the second year, half of the schools that were not yet visited were randomly selected; and in the third year (spring 2006, the data used for this report), the remaining one-third of schools were visited. In Montana, half of cohort 1 schools (10 of 20 schools) were randomly selected for telephone interviews, and almost half of cohort 2 schools (6 out of a total of 13) were randomly selected for site visits; telephone interviews utilized the exact same protocols as the on-site visits. In Washington, 20 schools were randomly selected from a pool of 72. In Wyoming, telephone interviews were conducted with coaches, principals, and teachers at all 10 schools.

The different sampling plans in the five states mean that the states were differentially represented in our qualitative database. We believe that this did not undermine the validity of findings, however, since the interviews were not used to calculate frequencies of observed coaching categories, but rather to validate and explain the survey data.

A semi-structured protocol was used to ask coaches questions about their roles and responsibilities as well as the successes and challenges

of their job; interviews ran for an average of 90 minutes. Coaches were asked to describe in detail how they selected teachers with whom to work, how they decided on the content of their work with teachers, and how they worked with resistant teachers.

Additionally, interviews with principals (typically 60 minutes in length) included questions about Reading First professional development, technical assistance, implementation, and sustainability. In focus groups, each lasting about 45 minutes, teachers were asked to describe how they worked with their reading coach and to provide specific examples of their experiences.

School demographic data

School demographic information was obtained from the U.S. Department of Education National Center for Education Statistics (NCES) Common Core of Data's Public Elementary/Secondary School Universe Survey, 2003–2004 (vol. 1a). This NCES data set provided basic information and descriptive statistics on all elementary schools, their students, and their teachers.

Data analyses

This study used both quantitative analyses of the survey data and qualitative analyses of the interviews. Combining the two allowed us to better understand how coaches spent their time as

well as what they emphasized and valued as they performed their jobs.

Quantitative analyses

First we conducted basic descriptive analyses on variables in the coach surveys from 2006, providing us with summary statistics about the education, prior experience, length of workweeks, and percentage of time spent on different job responsibilities. Variation in the last of these, time spent on different job responsibilities, led us to take a closer look at this variable.

Cluster analysis was then used to profile coaches based upon the percentage of time they devoted to the different responsibilities of the job. Cluster analysis refers to a wide variety of numerical procedures that can be used to create a classification scheme for individuals based upon identified variables. It uncovers patterns in the underlying structure of data and allows for construction of groups based upon these patterns. Cluster analysis assigns individuals to categories in a manner to maximize within-group similarity and between-group differences. It does not require knowledge of group membership ahead of time, but instead derives the classification rule empirically.

Cluster analysis does not employ a typical statistical test of significance, but rather uses algorithms that put cases into clusters according to similarity rules. Cluster analysis methods are used most often when researchers are developing a typology or classification; this is frequently combined with the goal of data exploration (Aldenderfer & Blashfield, 1984). Our study utilized cluster analysis for these exact purposes: to derive a scheme to classify coaches according to how they spent their time in schools. This allowed us to explore in greater depth our question of how coaches actually spent their time on the job, revealing patterns and variations across different groups of coaches.

We used the spring 2006 survey data for the cluster analyses. The variables upon which the analysis was based were coaches' self-reports

on the amount of time they spent on each of 16 distinct tasks. These tasks were originally identified in previous literature on coaching, in qualitative findings from previous evaluations, as well as review of job descriptions and expectations (Costa & Garmston, 2002; Walpole & McKenna, 2004; Deussen, Autio, Nelsestuen, Roccograndi, & Vale, 2005; Nelsestuen, Vale, Autio, & Deussen, 2005). These 16 survey items were further collapsed into 12 tasks as shown in table A2. To standardize across respondents, whose total working hours per week varied, hours spent were converted to percentage of time spent on each task per week.

The cluster analyses for this study were performed with the SPSS 13.0 statistical computer package (SPSS Inc., 2006) using the two-step method, which groups cases into pre-clusters and then applies standard hierarchical clustering. The cluster solution was validated by significance tests on the variables used to create the clusters. One-way ANOVAs found statistically significant differences across the five coach categories for 11 of the 12 variables (see table 1 in Findings). A post-hoc analysis of each ANOVA was conducted using the Scheffe method to determine which categories were significantly different from one another and the direction of the relationship.

Finally, we examined the relationships, if any, between the coach category and other characteristics we suspected might be associated with the way coaches performed their jobs: the state in which they worked, the size of the school, and their own educational background. These relationships were tested for statistical significance using the chi-square or one-way analysis of variance, as appropriate. The nature of the data meant we could not assess the direction of the relationships.

Qualitative analysis

The qualitative analysis utilized interview data from the 77 site visits to further describe and understand the emergent coach categories. In addition, they helped to counterbalance the limitations always present in self-report data by

TABLE A2

Coaching tasks

Task area	Variable(s)	Survey question item(s)
Coaching	One-on-one coaching (K–3)	<ul style="list-style-type: none"> Observing, demonstrating or providing feedback to individual teachers in grades K–3
	Group coaching (K–3)	<ul style="list-style-type: none"> Training groups of teachers in grades K–3
	Coaching out of grade	<ul style="list-style-type: none"> Observing, demonstrating or providing feedback to individual teachers in grades 4–6 Training groups of teachers in grades 4–6
Assessment	Administering/coordinating assessments	<ul style="list-style-type: none"> Coordinating or administering reading assessments
	Managing data	<ul style="list-style-type: none"> Managing data (entering data, creating charts, etc.)
	Using/interpreting data	<ul style="list-style-type: none"> Reviewing and using reading assessment data
Interventions	Planning interventions	<ul style="list-style-type: none"> Planning interventions
	Providing interventions directly	<ul style="list-style-type: none"> Providing interventions directly to students
Other	Attending professional development	<ul style="list-style-type: none"> Attending professional development
	Paperwork	<ul style="list-style-type: none"> Paperwork
	Planning for/attending meetings	<ul style="list-style-type: none"> Planning for meetings Attending meetings
	Unrelated (subbing, bus duty, etc.)	<ul style="list-style-type: none"> Covering or subbing for teachers Bus/recess duty Other

incorporating information from teacher focus groups and in-depth interviews with a subset of coaches. The initial framework for analysis was informed by early cluster analysis findings. The data were coded to track the types of activities coaches engaged in and the different components of their job that they emphasized or that teachers and principals perceived that they emphasized. A list of initial codes related to the clusters was developed. Two of the investigators coded a common set of interviews to establish reliability and to revise the codes to include additional items arising out of the data. Inter-rater reliability was 90 percent. In the case of discrepancies, the investigators reviewed the transcripts and codes to reach mutual agreement. All the 77 site visits were coded using the qualitative software program Atlas-ti (Muhr, 2004).

After coding, data displays (Miles & Huberman, 1994) were created to review relationships between data types (surveys, interviews, demographics). We reviewed interviews from schools that exemplified the work of each of the coach types.

In addition, all interview data were examined for disconfirming evidence. Review of these data provided further insight into how coaches spent their time, what they emphasized and defined as most important in their work. The greater level of detail provided in the interviews allowed us to flesh out the descriptions of what Reading First coaches actually did in schools. What we did *not* do is count the number of coaches or teachers who reported particular ways of working or certain types of challenges. We resisted this for two reasons. First, our sample of schools included in the qualitative data set was unbalanced across the states (see table A1). Second, in some cases we made use of information that interviewees volunteered because the topic was important to them, rather than because they were specifically asked. Therefore the information obtained was not always parallel across schools.

Limitations

There were some important limitations to our data on how coaches spent their time that may

have influenced our findings. For example, coaches were asked to indicate the time they spent planning for and attending meetings. Those categories did not distinguish between grade-level meetings, where direct coaching may occur, and other unrelated meetings. While the category "coaching groups of teachers" was meant to capture coaching at grade-level meetings, it was not made explicit in the survey item. Future research should distinguish more clearly between

meetings that contribute to coaching and those that do not.

Note

1. Percentage of English language learners is based upon spring 2006 student demographic data from the *Dynamic Indicators of Basic Early Literacy Skills* (DIBELS) database, utilized at all schools in the study.

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