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# Gauging Goodness of Fit: Teachers' Responses to Their Instructional Teams in High-Poverty Schools

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Teacher teams are increasingly common in urban schools. In this study, we analyze teachers' responses to teams in six high-poverty schools. Teachers used two criteria to assess teams' goodness of fit in meeting the demands of their work: whether their teams helped them teach better and whether the team contributed to a better school. Their responses differed notably by school, depending largely on the principal's approach to implementation. In the three schools where teachers assessed teams favorably, principals set a meaningful purpose for teachers' collaborative work, provided structural support and professional expertise for their deliberations, and established safe environments for teachers' on-the-job growth.

Rich opportunities for learning are important for all teachers. Whatever expertise they acquire in their preservice program, teachers continue to need ongoing professional learning to meet additional responsibilities and the evolving needs of their students and schools (Feiman-Nemser 2012). Continuous learning is especially vital for teachers who work in the dynamic and demanding environments of high-poverty urban schools. Students in these settings are more likely than those in low-poverty schools to be adversely affected by living

Electronically published June 20, 2017

*American Journal of Education* 123 (August 2017)

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0195-6744/2017/12304-0002\$10.00

in segregated substandard housing, encountering racism and violence, developing physical and mental illness, and experiencing high rates of family mobility, all of which have been shown to negatively affect students' learning (Berliner 2013; Dahl and Lochner 2005; Duncan and Murnane 2014; Hollins 2011; Wilkinson 2016). In addition, students in large urban districts are almost twice as likely as those in large suburban districts to be English-language learners (Council of Great City Schools 2015) and thus require greater support from teachers to access the curriculum and achieve at grade level. Given the challenges of educating large numbers of low-income students, it should be no surprise that their teachers need ongoing support and professional development throughout their careers.

Over the past 15 years, improvements in professional development—the primary means of on-the-job learning for teachers—have been uneven. The most recent reports on the topic continue to conclude that teachers experience few meaningful opportunities to learn on the job (Darling-Hammond et al. 2009; Garet et al. 2001; Gates Foundation 2014; Mehta et al. 2015; TNTP 2015). In a 1990 study, Johnson found that very few of the 125 teachers interviewed “discerned any systematic plan for professional development [in their schools]. More often they described a haphazard sequence of speeches and

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workshops addressing unrelated topics” (254). Then, 25 years later, researchers at TNTP (2015) reported similar findings, noting that only 40% of the teachers they surveyed from three large school districts and one charter school network agreed that most of the professional development they participated in was a good use of their time. This report, which characterizes professional development in these schools as “disjointed” (28), concludes, “In short, we bombard teachers with help, but most of it is not helpful—to teachers as professionals or to schools seeking better instruction” (7).

As schools have continued to search for ways to provide meaningful professional development, many have shifted to site-based professional learning opportunities, including coaching and professional learning communities (PLCs) (Gates Foundation 2014), which align with research findings about effective approaches to professional development (e.g., Borko 2004; Darling-Hammond et al. 2009; Elmore 2004; Jensen et al. 2016). Although researchers have identified examples of highly effective systems of professional development that rely on collaboration among colleagues (Jensen et al. 2016), and although school officials have set aside more time for collaborative work during the school day, teachers remain dissatisfied (Gates Foundation 2014). Despite the increasing attention to ongoing site-based learning, teachers continue to report that, in the areas where they most need support, learning opportunities are short term and decoupled from classroom instruction (Kennedy 2016; Wei et al. 2010), often leaving individual teachers to develop new instructional practices independently (Darling-Hammond et al. 2009).

Schools have increased opportunities for teacher collaboration partly in response to the growing demands of federal and state policies. These new collaborative structures (e.g., PLCs or instructional teams) are intended, in part, to provide teachers with opportunities to work together to enhance the school’s overall organizational performance (Ronfeldt et al. 2015; Talbert 2010). Specifically, increased accountability for schools under state and federal policies has dramatically increased the quantity of student achievement data available to schools, and many now expect teachers to collaborate as they seek to understand those data (Datnow 2011; Hamilton et al. 2009). Researchers have found evidence that schools with high numbers of low-performing students are now expected to establish teams in which teachers analyze assessment data (Finnigan and Daly 2012; Ronfeldt et al. 2015). Wei et al. (2010) analyzed 3 years of the Schools and Staffing Survey (SASS) and found that “elementary school teachers, urban teachers, and teachers in schools with the highest populations of low-income, minority, and LEP students” (17) had the highest rates of participation in professional development, including teacher teams. These authors suggest that this may have resulted from targeted federal funding under the No Child Left Behind Act.<sup>1</sup> Although the demands of accountability are not likely the only factor driving the increased prevalence of teams, many

schools seem to be looking to teams to achieve the organizational improvement that these laws call for.

Although teacher teams apparently are on the rise, teachers do not necessarily have the skills or support they need to work systematically and successfully with their colleagues. In many instances, teachers meet to discuss new ways to organize and present content, engage students in learning, and assess students' understanding of what they have been taught. Yet when they return to their classrooms, teachers are then left on their own to decide how to choose from the array of ideas and models discussed. These team meetings are often labeled "collaborative" or "collegial," largely because teachers, who otherwise work in isolation, convene to exchange information and ideas. Recently, Valli and Buese (2007) found that in the current context of high-stakes accountability, school officials have expanded and intensified expectations for collaboration. However, in many schools that rely on teams, teachers are not expected to function as an interdependent group by agreeing to a common purpose or committing to use similar approaches across their classes (Scribner et al. 2007). Often teachers interpret team meetings as occasions for individualized learning within a group rather than for joint inquiry and mutual accommodation. Therefore, in practice, many teams function as a collection of individuals rather than as a collective of professionals.

Yet, there is evidence that teams do have promise for improving schools. In 2009, two thirds of teachers surveyed nationally believed that "greater collaboration among teachers and school leaders would have a major impact on improving school achievement" (Markow and Pieters 2010, 9). In their analysis of 2 years of survey and administrative data for 9,000 teachers in Miami-Dade County, Ronfeldt et al. (2015) found that teachers' collaboration in instructional teams benefits both students and their teachers. These researchers surveyed teachers about their instructional teams, asking them to assess their "helpfulness" and "extensiveness" in addressing key topics, such as curriculum, instruction, and student data. They found that schools with instructional teams that were engaged in "better collaboration" also showed "higher achievement gains in both math and reading" (500). This research affirms the need to more closely examine teachers' experiences on teams to understand the school-based factors that support better collaboration.

In 1994, Hargreaves observed that when administrators require teachers to meet but provide no meaningful purpose or support for that effort, teachers become the unwitting and unwilling participants in "contrived collegiality" (186). However, scholars also point to the positive role that administrators can play when teachers collaborate for instructional improvement. Researchers such as Newmann and Wehlage (1995), Louis et al. (1996), and David and Talbert (2013) report that in schools that achieve success with students, teachers and administrators typically meet regularly to understand and improve what and

how they teach. Louis et al. (2010) also find that some principals consider their participation in teachers' collaborative efforts to be a vital part of their instructional leadership.

If teams are to serve as an effective and reliable mechanism for continuous learning and improvement, it is important to better understand how teachers experience and assess them. What factors influence their responses and their readiness—or their resistance—to invest in teamwork with their colleagues? What role, if any, do administrators play in teachers' team experiences?

## The Study

This analysis is part of a larger qualitative study focusing on teachers' work in high-poverty urban schools, where we sought to understand how teachers perceive their professional environments and what conditions they think support their best work with students. We studied six elementary and secondary schools serving large proportions of high-poverty students in one large urban district. During intensive interviews with 95 teachers and administrators, we inquired about a wide range of topics, including teachers' experiences working with colleagues. We knew from prior research that teachers repeatedly look to their colleagues as key professional resources (Drury and Baer 2011) and that they regard their ongoing relationships with colleagues as central to achieving a "sense of success" (Johnson and Birkeland 2003, 594) with students, which sustains them in teaching. However, beyond reports about teachers' general reliance on colleagues, only a small number of studies focus on teachers' responses to formal collegial structures (e.g., Little 2002; Ronfeldt et al. 2015; Talbert and McLaughlin 1994), and even fewer do so in the context of high-poverty urban schools.

We were surprised that when we asked teachers in these six schools to describe their interaction with colleagues, every teacher we interviewed reported meeting regularly with a group of colleagues about instruction. In contrast, 15 years ago, when Johnson (2004) interviewed 125 teachers from a diverse sample of schools about their work experience, teachers rarely mentioned teams, although they often spoke about informal interactions with colleagues. Therefore, although our study was not explicitly designed to examine teams, they emerged as the form of collegial interaction and on-the-job learning that teachers mentioned most often. Discovering this, we then analyzed our data to learn what teachers did as members of teams, what criteria they used to assess their teams' value, and what factors they thought contributed to the success or failure of their teams. That analysis is the focus of this article.

In what follows, we review relevant literature about teachers' on-the-job learning, moving from studies about teachers' individual learning opportunities

to studies about collaborative learning opportunities. We then explore the relationship between individual learning and organizational learning, considering the implications of this literature for the success of instructional teams. In explaining our method, we present a simple analytic framework that we used to analyze teachers' responses. Next we summarize and then examine our findings, supported by teachers' descriptions and assessments of their own teams' success in promoting both individual and organizational learning. We then identify important school-to-school differences that were apparent in teachers' assessments, with particular focus on principals' roles in teams' success. We conclude by discussing the implications of this research for policy, practice, and research.

## Literature Review

Over time, research about teachers' on-the-job learning has moved gradually from a focus on individual learning by the teacher who seeks to improve instruction in his or her own classroom to the collaborative learning of teachers across multiple classrooms who join together for individual learning and organizational improvement. Both are relevant to understanding teams today.

### *The Prospect and Potential of Collaboration*

The isolation of teachers' work is well established in the literature (Johnson 1990; Little 1990; Lortie 1975). Whether due to the historical "egg crate" (Tyack 1974, 44) nature of schools or the fact that their students are often the main source of teachers' "psychic rewards" (Lortie 1975, 101), "teachers attach great meaning to the boundaries" (Lortie 1975, 169) created by classroom walls and may not be inclined to participate in "joint work" (Little 1990). In 1993, Huberman suggested that teachers' seemingly single-minded focus on their own students is consistent with pedagogy being an artisan's craft, which is acquired and developed with practice over time. Pedagogy occurs, he wrote, "within a partitioned school, where no unit is operationally dependent on another to get its core tasks accomplished" (24). Over time, the segmented structure of school organizations has reinforced the individual orientation of traditional professional development, with teachers focusing on how best to meet their own students' needs. Taken together, these scholars' work suggests that, given the persistent, isolating structure of schools and the traditional norms of autonomy and privacy, which are deeply embedded in the teaching profession, efforts to create teams among teachers—whether to promote individual or organizational learning—may encounter substantial resistance and show disappointing results.

Others, however, report that when teachers collaborate in meaningful ways, benefits accrue not only to the individual but also to the school. For example, Rosenholtz (1989) details how a shared sense of purpose in the “high consensus schools” of her sample led to school cultures that were “learning enriched” (206), whereas she found little common purpose in “low consensus schools,” where “few teachers seemed attached to anything or anybody” (207). Rosenholtz characterized these failing schools as “learning impoverished” (207) for teachers and students alike. In a major 1995 study, Newmann and Wehlage analyzed data from 1,500 US schools that were in the process of restructuring. Follow-up site visits led the authors to conclude that teacher collaboration contributed to a sense of “collective—not just individual—responsibility” (3) for student learning and for constantly improving their teaching practice. They reported that schools benefit from having “interdependent work structures, such as teaming” (38) to encourage collaboration.

With expanded access to student achievement data under state and federal accountability policies, scholars have continued to document a positive relationship between collaboration among teachers and student achievement (David and Talbert 2013; Gallimore et al. 2009; Goddard et al. 2007; Henry 2012; Parise and Spillane 2010; Supovitz 2002; Supovitz and Christman 2005). Analyzing statewide data from North Carolina, Jackson and Bruegmann (2009) found that when a more effective teacher joins a grade level, students in all classes at that grade level make larger achievement gains in English language arts and mathematics, both initially and over time. The authors call these widespread positive effects “peer-induced learning” (87). Their findings provide further empirical support for the potential of teachers’ collaboration to create opportunities for both individual and group learning. Researchers also have found that opportunities for on-the-job learning supplement teachers’ initial preparation and positively affect student achievement (Parise and Spillane 2010). Systematic studies of professional development programs suggest that activities engaging teachers to work collaboratively at the same grade level, subject, or school are most likely to change their practice (Borko 2004; Desimone et al. 2002; Garet et al. 2001).

### *Instructional Teams in Practice*

Spurred by policy makers’ demands for school improvement over the past decade and encouraging research findings about the benefits of collaboration among teachers, many districts and schools have instituted common planning time for teachers. During regularly scheduled blocks of time, teachers are expected to meet and discuss instruction and review students’ learning. In some cases, these school-based groups are called *teams*, a label that is typically used for interdependent work groups in a broad range of organizations (Edmond-

son 2012; Hackman 2002). In other schools, they are called *professional learning communities*, a name drawn from social learning theory (Lave and Wenger 1991; Wenger et al. 2002) and recently popularized in education by DuFour (2004). Teams and PLCs share the same overall goal of improving schools through regular formal collaboration. Although we use the term *team* because those in the schools that we studied used it, our findings have relevance for all organized school-based groups of teachers who meet regularly to improve instruction and learning.

Practice has shown that creating successful instructional teams is a complex undertaking. Reformers often assume that if they create teams and provide time for them to meet, instructional improvement—as reflected in teachers' changed practices and students' increased test scores—will follow (Troen and Boles 2012). Yet, without guidance, groups of teachers do not necessarily know how to work together effectively. Instead, the external pressures and distracting incentives associated with high-stakes accountability can compel them to focus on short-term strategies for achieving higher test scores (Hargreaves and Shirley 2009; Talbert 2010), and the lure of extra time in the absence of a shared understanding about how to use it can lead teachers to spend team time talking socially, organizing shared activities such as field trips or assemblies, or preparing independently for the next class (Neil and Johnston 2005; Supovitz 2002). In other instances, teachers may balk at the idea of using the limited time in their schedules to work collaboratively with colleagues when they believe that an independent focus on their own students and instruction might be more worthwhile (Troen and Boles 2012). Both teachers and principals often point to time within the school day as an unusually valuable and scarce resource (DePaepe 2015), yet US teachers, unlike their counterparts in other countries (Jensen et al. 2016), typically have only one unscheduled period per day for planning, conferencing, and preparing for all their classes.

Nevertheless, schools differ, and researchers have repeatedly found that school context determines the effectiveness of various reforms (Bryk et al. 1999; Bryk and Schneider 2002; McLaughlin and Talbert 2001; Rosenholtz 1989; Talbert and McLaughlin 1994). This is also true of teams that are dedicated to professional learning. Specifically, researchers suggest that students benefit when teachers have a shared understanding of goals and expectations, are afforded a regular time to meet, and have access to administrators' guidance about how to work together productively (Borko 2004; Elmore 2004).

### *Research about Teams Outside of Education*

Research about teams in sectors outside of education also informs our understanding of the contexts and structures that either support or undermine school-



based teams. Research by Hackman (2002), an expert on the use of teams in the workplace, provides insights about interdependent performance teams, such as airline crews or chamber orchestras. He documents the importance of selecting appropriate team members and carefully defining their roles and tasks—two conditions that may be challenging to meet consistently within schools. Edmondson (2012), building on Hackman’s analysis, explores the “dynamic activity” of what she calls “on-the-job teaming” (42). Although she conducted research in noneducation settings, her findings are relevant to teams in schools. She distinguishes between work that can be planned and carried out independently by individuals and work that is interdependent and requires group members to make ongoing adjustments in response to new information. Edmondson argues that in unpredictable, changing organizational environments—which schools certainly are—employees must be prepared to experiment and learn as they work together. She refers to this process as “getting the work done while simultaneously working on how to do it better” (30). Drawing upon her work, we can infer that whether students learn and grow throughout their schooling depends, in part, on whether teachers simultaneously improve instruction in their classrooms and join with colleagues to improve their effectiveness across the school.

### *Individual and Organizational Learning*

Schools are not simply collections of independent classrooms and teachers. Instead, whether or not teachers realize it, their influence reaches across classroom boundaries and they function, sometimes unwittingly, as interdependent members of the larger school organization. Recognizing that interdependence is important. As Grubb (2009) observes, “If practices are specific to individual teachers rather than schoolwide, then students lurch between ineffective and effective practices and experience inconsistent teaching” (207). If a school is to effectively serve all students, its teachers must continue to develop as individual educators while also coordinating their work as colleagues to jointly address challenges that they and their students confront.

Ongoing organizational learning is necessary if schools are to become more proficient and agile (Argyris and Schon 1978). In elaborating the concept of organizational learning 25 years ago, Senge (1990) explained that a learning organization relies on “systemic thinking,” which engages participants in understanding and improving how the components and processes of their organizations work. Teachers who take up such work may join with colleagues to assess students’ needs, review and refine current practices, or develop systematic social and psychological supports for students. Once they adopt new practices as a group, effective teams monitor how those practices work and, if warranted,

fine-tune them. As Senge (1990) observes, “a learning organization is continually expanding its capacity to create its future” (4).

## Research Method

This study is based on interviews with 83 teachers and 12 administrators working in six high-poverty schools in one large urban school district. It builds on earlier quantitative research (Johnson et al. 2012) examining teachers' responses to a statewide survey about their working conditions. There, we found that the social context of work—how a teacher felt about his or her principal, colleagues, and school's culture—was a strong predictor of his or her professional satisfaction, career plans, and students' achievement. In the current study, therefore, we examined those relationships in context by interviewing a variety of teachers and administrators in high-poverty schools. Our goal was to develop a rich understanding of how these schools operated and how teachers described their experiences working in them.

For this article, we were guided by the following research questions:

1. How do teachers in six high-poverty urban schools experience their work in formal instructional teams (e.g., grade-level, interdisciplinary cluster, or subject-based teams)?
  - a. What benefits do they attribute to their work in teams?
  - b. What drawbacks do teachers say are related to their work in teams?
2. What factors do teachers say influence the value of their experience in teams?

## *Sample Selection*

We conducted this qualitative study in a large urban school district in the Northeast that serves many students who live in poverty and, according to the state's accountability ratings, performs poorly compared with all other districts in the state. However, there is substantial variation in student performance among this district's schools because of differences in instructional approaches and leadership; the widely varying concentrations of students who live in poverty, who are highly mobile, or who have significant learning needs; and other factors such as rates of faculty turnover or varying length of the school day. We chose to focus on high-poverty schools within the district, purposely selecting a group that exhibited differing levels of student achievement growth

and satisfaction among teachers with their work environment (as measured by a statewide survey).

The final sample contains two traditional elementary K–5 schools, one K–8 school, one middle school, and two high schools (one traditional and one nonselective magnet). We present basic information about these schools using data from the 2010–11 school year in table 1. Compared with other schools in the district, those we selected served larger proportions of low-income students and would meet the criterion of being a high-poverty school (>75% low income) set by the Institute of Education Sciences. The schools also enrolled large proportions of minority students (>90%), although the demographic composition varied considerably across schools. Among schools in the sample, median student growth percentiles ranged from as low as the twentieth and thirty-fifth percentiles in mathematics and English language arts, respectively, to as high as the sixty-fifth and sixtieth percentiles. Generally, the student performance of these schools clustered around the fiftieth percentile.

### *Teacher and Administrator Interviews*

Six researchers designed and conducted this study. Two- and three-person teams collected data at each site, and the lead researcher participated in data collection at all six. Each researcher conducted interviews at two or more schools, which informed our cross-case analysis.

In each school, we conducted a 2-hour semistructured interview with the principal. We then interviewed a wide variety of teachers and other school-level administrators. We sought to interview a broadly representative sample of teachers within each school, including teachers with differing amounts of experience at the school and in the profession (see table 2 for descriptive statistics of the sample and table 3 for the variety of teachers' experience by school). We interviewed between 18% and 52% of the teachers in each school, depending on its size and complexity. Interviews with teachers lasted 30 to 60 minutes. Although we successfully captured a range of views from many participants, our purposeful sampling of teachers and schools prohibits us from generalizing about all teachers in the schools, the district, or beyond.

### *Data Analysis*

Following each interview, we wrote a structured thematic summary (Maxwell 2005) highlighting each respondent's views and information on a standard set of topics. These included participants' personal backgrounds, school climate, teacher policies and practices at the school, school leadership, teachers'

TABLE 1

*Selected Characteristics of the Six Sample Schools*

School Name	School Level	Principal Name	Enrollment	% Low-Income Students	% Minority Students	Student Growth Percentile: ELA	Student Growth Percentile: Math	Teachers Interviewed	Admin. Interviewed	% of All Teachers Interviewed
Angelou	Elementary	Mr. Andrews	700	90	95	35	50	10	1	18
Giovanni	Elementary	Mr. Gilmore	450	95	90	55	60	13	1	29
Morrison	Elementary/ middle	Ms. Maxwell	400	95	95	45	20	14	2	52
Stowe	Middle	Ms. Sterling	700	90	95	45	45	15	3	30
Thoreau	High	Ms. Thomas	900	80	95	50	55	20	2	29
Whitman Academy	High	Ms. Wheeler	250	85	95	60	65	11	3	46

NOTE.—To protect school confidentiality, we rounded 2010–11 school data and did not break out specific racial or ethnic groups.

TABLE 2

*Selected Characteristics of Interviewed Teachers and Administrators*

	Teachers	Administrators	Full Sample
Female (%)	78	58	76
White (%)	61	42	59
African American (%)	18	33	20
Hispanic (%)	8	17	9
Asian (%)	10	0	8
Multiracial (%)	2	8	3
Experience (average years)	12.3	16.6	12.8
0–3 years (%)	14	8	14
4–10 years (%)	46	33	44
11–25 years (%)	25	42	27
>25 years (%)	14	17	15
<i>n</i>	83	12	95

NOTE.—Experience is defined as total number of years as a classroom teacher and administrator.

experiences of colleagues, and turnover at the school. The thematic summaries and school-based memos enabled us to examine broad similarities and differences across the schools. We coded interview transcripts for central concepts (Strauss and Corbin 1998) and used a hybrid approach to developing codes (Miles and Huberman 1994). Once we had developed a preliminary list of codes, team members coded a small subset of the transcripts, individually and together, to build interrater reliability. We then coded each transcribed interview using the software ATLAS.ti.

Following coding, we developed data-analytic matrices (Miles and Huberman 1994) to explore emerging concepts and categories in the data. We then summarized emerging conclusions in analytic memos by site and across sites, checking those against our thematic summaries and the understanding of all researchers on the team.

Throughout, we were interested in understanding variation as it became apparent both within and between schools, and we used data matrices to examine the differences that we identified. We tested rival explanations and looked for disconfirming data (Miles and Huberman 1994). Our iterative process of coding, analyzing, writing analytic memos, and revising our work enabled us to rigorously test our findings.

*A Framework for Considering Teachers' Assessments of Their Teams*

Although our larger study included a wide array of topics and issues, this analysis centers on teachers' experiences with instructional teams. Based on our

TABLE 3

*Range of Teaching Experience by School Site*

SCHOOL	YEARS OF TEACHING EXPERIENCE				Range	YEARS TEACHING AT SCHOOL				Range
	<4	4-9	10-14	≥15		<4	4-9	10-14	≥15	
Angelou	1	2	0	1	.5-16	3	1	0	0	0-6
Giovanni	0	7	0	7	4-43	4	6	0	4	2-32
Morrison	5	2	3	6	1-45	6	1	4	5	1-45
Stowe	1	6	2	6	1-27	1	7	1	6	1-25
Thoreau	2	9	3	6	.5-34	3	8	3	6	.5-29
Whitman	3	7	2	2	2-22	4	10	...	...	2-9

early coding and review of the data, we developed a simple analytic framework for the purpose of analyzing the teams' goodness of fit with these teachers' needs and expectations. The term *goodness of fit* is often used to summarize how well data from a set of observations fit a statistical model. However, it has also been used by psychologists and sociologists to describe how well institutions such as preschools and day-care centers (De Schipper et al. 2004), classrooms (Vitiello et al. 2012), families (Bird et al. 2006), schools (Feagans et al. 1991), and social work training programs (Ornstein and Moses 2010) accommodate the range of behaviors and needs of the children and adults they serve.

We use the term *goodness of fit* in an organizational sense to explain how teachers in these six schools assessed their instructional teams in meeting their needs, as they perceived them. Based on the research discussed earlier, we expected teachers to judge their team experiences primarily by whether the teams supported their individual instructional needs: Did their teams help them manage the ongoing demands of their students and the curriculum? Did working with a team of colleagues yield new insights about their students' learning or their own pedagogy? Did their teams introduce them to new perspectives and instructional approaches that they considered worth their attention?

Based on the literature about schoolwide improvement discussed earlier and our initial analysis of the data, we anticipated that teachers might expect more than individual benefits from working on teams. These urban schools were under considerable pressure to improve, both because of their students' extensive needs and because of the state's accountability system. Therefore, we thought that teachers might be attentive to whether their teams contributed to a better school overall. For example, did teams help teachers coordinate curriculum and instruction so that all students would benefit from a coherent instructional program? Did they help teachers to address schoolwide student achievement goals? Did they support teachers in developing partnerships with families across the school?

With those concerns in mind, we created a simple framework (fig. 1) to illustrate possible combinations of individual and organizational learning that teachers might experience. We found that teachers were attentive to both the individual and the organizational benefits of teams and assessed their experiences with two criteria in mind: (1) Does my team help me to teach better? (2) Does it help us improve the school?

Because teachers consistently report that they value collaborative work (Drury and Baer 2011), we expected them to endorse team experiences that provide high levels of individual learning that contribute to achieving greater instructional success with their students (quadrants I and II of fig. 1). However, we did not know whether teachers would prefer team experiences such as those in quadrant I (high individual and high organizational learning) over those in quadrant II (high individual and low organizational learning) as they assessed

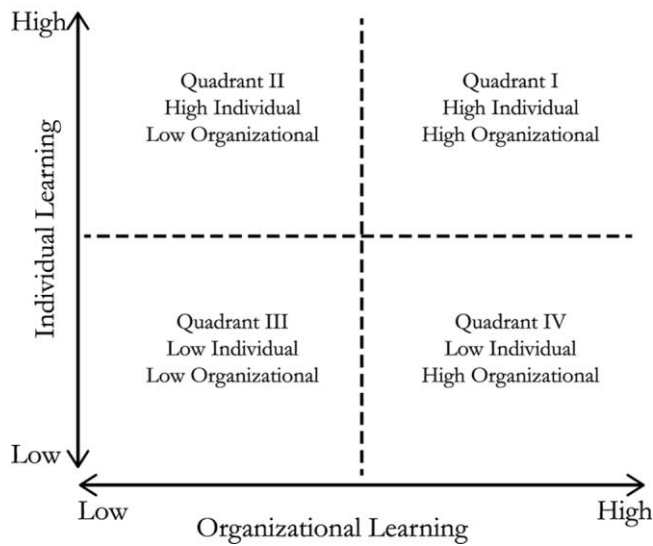


FIG. 1.—Goodness of fit: The four quadrants of individual and organizational learning.

the learning opportunities of their teams. We expected that teachers would say that meeting with a team that provided neither individual nor organizational learning (quadrant III) was not worth their time. Yet, we wondered whether some teachers might see benefits in teams that focused on organizational improvement but provided no individual learning (quadrant IV).

### Findings

Teachers in our study widely endorsed the potential of teams to support their instruction and to increase their schools' instructional capacity and effectiveness, yet they offered varying assessments of their own teams' success. Given that they were committing at least an hour of their scarce noninstructional time each week to team meetings, those we interviewed not only expected to learn as individuals during team time but also expected their collaboration to have benefits beyond their classrooms, whether in their grade levels, clusters, subject areas, or throughout the school. In some cases, we saw variation in how teams functioned within schools. However, far more striking were the school-to-school differences. Notably, in only three of the six schools we studied did



teachers consistently report that both criteria were met and that their teams provided a good fit with their learning needs. Based on teachers' and administrators' accounts, we concluded that this school-based variation resulted from differences in the overall purpose, goals, activities, and structure of teams, all of which were substantially influenced by the principal.

*Common Responses across the Sample of Teachers*

All teachers we interviewed were assigned to at least one instructional team with colleagues who shared a grade level, subject, group of students, or specialized assignment, such as special education. Team size varied considerably, as did the purposes behind teams' work, which are highlighted in the case descriptions. The teams were scheduled to meet at least weekly during the instructional day, which stands in marked contrast to the quick, informal approach that typified many collegial interactions reported in the literature over the past 20 years (Bidwell 2001; Bidwell and Yasumoto 1999; Talbert and McLaughlin 1994; Yasumoto et al. 2001). Notably, all participants said that they saw value in teams as a mechanism for learning, although many teachers pointed to experiences that interfered with their teams reaching their potential.

Teachers from all schools in the sample explained that collaboration was vital for meeting the new or changing demands of their work, both within and beyond their classrooms. They expressed a commitment to meeting their students' needs but also said that state officials could sanction or close their schools for low performance, which led them to focus on improving instruction for their own students and on performance across the school. Teachers offered various reasons for their positive assessments of teams. They noted that team meetings allowed them to share resources, discuss particular students, or explore approaches to challenging classroom situations that would benefit their own students and those in other classes. Teachers said that they were very willing to commit time to team meetings when they could see the payoff of their investment.

Overall, teachers in these schools suggested that team meetings were beneficial when they provided opportunities for high levels of both individual and organizational learning (quadrant I of the framework). For example, Angelou Elementary School was committed to effectively implementing required curricula.<sup>2</sup> One teacher described how coplanning during team meetings supported her and her colleagues as they created learning centers, which were central to the new kindergarten curriculum. This collective work benefited the individual teacher and the students in her classroom while simultaneously helping all teachers align instruction across the grade, in keeping with the school's strategy for improvement.

### *Gauging Goodness of Fit*

In some cases, teachers thought that their team meetings focused excessively and ineffectively on organizational improvement while neglecting individual learning (quadrant IV). One math teacher from Stowe Middle School objected to being required to attend team meetings that focused on raising test scores because they offered him no help in how to teach math. Another math teacher from Thoreau High School said that although the school's new focus on departmental meetings seemed good in theory, she found it of little practical use because her team's analysis of test data lagged 2 or 3 weeks behind current instruction, long past when she had analyzed the results and moved on in her curriculum. She thought that team meetings advanced neither individual nor organizational learning (quadrant III).

### *School Context Mattered: Examining Specific School Cases*

Across all six schools, teachers assessed their teams' goodness of fit with their individual and organizational learning needs. We found some variation within schools, but differences between schools were far more prominent. As prior research suggests, we found that various features of the school context explain much about the perceived value of teams. As noted, Edmondson's (2012) research in nonschool settings points to the importance of an organization's leader, who shapes the experience and potential success of teams. Consequently, in considering what influenced the teachers' experiences on teams, we paid special attention to what principals did to shape and guide the work of instructional teams in their schools.

### *Teams That Were a Good Fit for Individual and Organizational Learning*

At three schools—Angelou Elementary, Morrison K–8, and Giovanni Elementary—teachers said that their grade-level teams supported their individual instructional needs while advancing the schools' overall strategies for improvement. Thus, these teams met the dual criteria for good fit. Although teams undertook different types of work at each of these schools, and administrators had different styles for supporting this work, teachers found great value in their team experiences, noting that their learning in teams was key to their professional growth and that this work also linked directly to school-level improvement efforts.

*Curricular planning at Angelou Elementary.*—Angelou Elementary was in the first year of a state-mandated reorganization due to the school's failure to increase rates of student growth. The school's improvement plan included weekly grade-level team meetings to support teachers' implementation of the district's re-

quired curricula. The focus of all efforts at the school was on improving student outcomes to prevent potential state takeover or school closure. Thus, teachers saw teams as contributing to their individual success in implementing the curriculum and sustaining the life of their school.

Most teachers welcomed having a regular opportunity to work together with peers and administrators as they planned how to implement district curricula and refined their pedagogical approaches. One Angelou teacher described the atmosphere of teams as a place where “everyone [is] willing to help.” Teams provided opportunities for teachers at the school to test new ideas, to gain feedback about and insight into the curriculum from colleagues, and to coplan instruction. One fourth-grade teacher described how the new curricular consistency across classrooms allowed her to learn from colleagues’ experiences teaching the same content: “It’s nice. Most of us are at similar points in the curriculums so, ‘Oh, today I taught lesson 4.5, did you?’ Or, ‘How did that go for you when you taught that?’”

Angelou teachers felt that their colleagues were often the best source of knowledge about curriculum or content, so they would turn to them for insight and expertise. Although teachers set the agenda and facilitated their own team meetings, they perceived the administrators, who often attended their meetings, to be generally supportive and helpful. Overall, teachers at Angelou saw team meetings as providing a good fit at both the individual and organizational levels. Teachers saw team meetings not only as opportunities to improve their own practice but also as key to helping the school advance its efforts to improve the curriculum.

*Focusing on individual needs at Morrison K–8.*—Although Morrison K–8 was a school that had been recognized for its excellence in the past, at the time of this study, it was struggling to achieve levels of student performance that matched this earlier success. Teachers at Morrison prided themselves on knowing and meeting the needs of each student. The school’s small size and the collegial relationships among teachers meant that teachers and administrators were aware of their struggling students and could use team meetings to solve problems together. Some characterized team meetings as opportunities to create a “safety net” to better meet students’ needs.

Although teachers were held accountable for improving student outcomes, they felt safe asking for support from administrators during team meetings, and that contributed to the value that teachers found in these experiences. As one teacher put it, “It’s the support, that you have that time to say, ‘Hey I need help with this.’” Administrators valued the expertise of their teaching staff and saw teachers serving as resources for one another. Most of Morrison’s teachers and administrators described team meetings that focused on data and assessments. Team meetings, then, provided teachers opportunities to gain what one teacher called “traction” on students’ social-emotional and learning needs. Teachers

were satisfied and experienced a sense of fit because team meetings supported both their individual instructional concerns, with a focus on how better to address specific students' needs, and the school's overall focus on improving outcomes for all students.

*Leadership and psychological safety at Giovanni.*—Mr. Gilmore, principal at Giovanni for nearly a decade, had created grade-level teams in which teachers could explore new approaches to instruction. During team meetings, teachers used protocols to examine student work, analyzed video recordings of their colleagues' teaching, shared and tried out instructional approaches that they had learned at formal professional development sessions, and investigated how to use and adapt required curricula to meet students' needs. The work on teams contributed to teachers' individual improvement and simultaneously addressed the school's larger goal of providing consistent, high-quality instruction across grades.

For example, several teachers from Giovanni's fifth-grade team described their team's small-scale professional development about reading comprehension. The team watched videos about reading comprehension strategies and then planned to conduct teaching and observation cycles. One teacher explained, "[We] plan lessons together and then . . . we've been teaching sample lessons, and the principal's there, and we all kind of give each other feedback. . . . We'll talk about what strategies we used, what we could do to improve it."

Principal Gilmore featured prominently in teachers' descriptions of teams. He arranged and protected time in the schedule for weekly meetings, signaling the importance of their work together. Having served as an instructional coach before becoming principal, he was an active participant in meetings, and teachers highly respected him for his expertise. He encouraged teachers to use team time to learn new practices, to discuss how best to implement new pedagogies, and to puzzle over schoolwide problems and possible solutions.

Teachers who described teams at Giovanni as being a vital part of the school's professional culture (and many did) noted that, overall, their voices were heard and their views were influential. Gilmore created a setting characterized by "psychological safety" (Edmondson 2012) in team meetings, where teachers could question or challenge not only each other's ideas but also the principal's. He said, "A first-grade group will say to me, 'I don't care what you say, Mr. G., . . . they're not ready for 'small moments' [a strategy in teaching writing] in first grade. They don't know how to write a sentence. Could we please teach them the structure of the language?'"

Principal Gilmore and his teachers were motivated in their collaborative and challenging work by a strong commitment to increasing opportunities for their students as they progressed through school. Teachers appreciated their principal's effectiveness in creating an environment for teams that, as Edmondson (2012) writes, "support[s] collaboration and encourages persistence" (102).

*Teams That Were a Poor Fit for Individual and Organizational Learning*

In three of the schools we studied—Stowe, Thoreau, and Whitman—we found that teams, overall, were a poor fit for individual and organizational learning. Just as there is much to learn from understanding why teams worked well in some schools, it is instructive to understand why, despite good intentions, teams failed to win teachers' support in others. Within each of these three schools, teachers' experiences on teams appeared to vary markedly, with some small pockets of success but many more disappointing results.

*Narrow purpose and micromanagement at Stowe Middle School.*—In contrast to the positive accounts from teachers at Angelou, Morrison, and Giovanni, teachers at Stowe Middle School criticized how their teams functioned. Many said that their administrators had framed a narrow instrumental purpose for teams' work: raising students' test scores. As one said, the principal had "an agenda based on test scores. So everything is about test scores." Stowe's teachers, like those at the other schools, said that they remained committed to doing whatever it might take to help their students succeed, and some recalled a time when they had worked together to design and revise curriculum. However, their time was currently "micromanaged," as more than one teacher said, by administrators and external consultants, leaving them little freedom to explore what they thought was important. Instead, they were required to focus exclusively on interventions to improve the performance of students who appeared to be on the brink of failing state tests.

One teacher explained that his team's assignments and required paperwork "can seem disjointed or unrelated to what I'm going through during the day." As a result, "We never have enough time to meet and . . . [meaningful conversation] just gets lost in the shuffle." Others reported that team time was consumed by discussions of logistics, as one teacher explained, "getting the kids downstairs quickly and efficiently. It's about forms; it's about the assembly. . . . For the most part, it is not educationally focused." From teachers' perspectives, these activities squandered scarce time that could have been used better for work with colleagues, whose views they valued.

Stowe's teachers also said that team meetings discouraged the safe exploration of difficult issues. As one teacher said, feedback to the principal often "goes in one ear and out the other." Another said that teachers were apprehensive about objecting to how team time was used because the principal could "make someone's life hard" if a teacher questioned her agenda. Edmondson (2012) might say that teams at Stowe had a "defensive" purpose because the administration wanted teachers to improve poor test scores so that the school could avoid punitive sanctions. The principal did not define an "aspirational" purpose for their work, such as adopting new beliefs about students as learners.

In Edmondson's (2012) terms, Stowe's teachers were treated as "supporting actors," required to implement the strategies of outside "technical experts" (102). Although the principal's vision for teams at Stowe seems to have been tightly focused on organizational learning, for many teachers, the presence of these requirements without the opportunity for input or flexibility led to failed team experiences, both for them as individuals and for the school as an organization. Ultimately, teams at Stowe represented an imposed organizational structure rather than an opportunity for organizational or individual learning. Instead of being inspired by administrators to collaborate for everyone's benefit, teachers widely experienced team meetings as disconnected events to be endured.

*Contested purposes for teams at Thoreau High School.*—Ms. Thomas was a relatively new principal when she introduced departmental teams at Thoreau, a comprehensive high school serving approximately 900 students. When we interviewed teachers several years after her arrival, their responses to these teams were decidedly mixed. Since the 1990s, teachers and students at Thoreau had worked in small learning communities (SLCs), in which a cohort of students were taught by a single interdisciplinary team of teachers who met frequently to share information about their students and curriculum and to plan events. However, Thomas and some other administrators and teachers at the school thought that the SLCs perpetuated inequities among subgroups of students. They hoped that a departmental structure would create instructional consistency across the school and provide opportunities for ongoing professional development for teachers.

By introducing departmental teams, Thomas intended to create opportunities that would meet both individual and organizational needs, but the teachers we interviewed offered conflicting assessments of their experiences with these teams. Most said that their departmental teams offered little individual learning and few experiences that might improve the department or school.

Teachers often contrasted their experiences on departmental and SLC teams, which they generally saw as far more successful. In their view, discussions during SLC team meetings benefited not only their own practice but also the work of the SLC as a whole because teachers could collaborate about how to best serve all of their SLC students. One English teacher said that SLC meetings "really focused on my needs as a teacher and my students' needs." Like many Thoreau teachers, particularly those with more experience, this teacher was invested in the SLC structure and distrusted Thomas's efforts to move away from SLC-based experiences for students toward a more consistent schoolwide program supported by subject-based teams. Thomas said that she had found it hard as a leader to "both respect and support [teachers'] primary loyalty to the small learning community and insist that they [start] feeling like part of a whole school."

Some teachers, especially those with less teaching experience, appreciated what they learned in departmental teams (or what they thought they might learn if the teams functioned well). For example, a sixth-year science teacher appreciated the chance to work closely with another science teacher to “compare notes” and share resources: “She is very good at getting kids to work together and that is something I’ve been, slowly, slowly trying to get better and better at. She has some great ideas and so I feel like I have grown as a teacher in the way I interact with students.” Yet, such favorable comments were not common in our interviews. Notably, those who endorsed the departmental structure did so because it provided opportunities for individual learning, not because it contributed to a better school. At the time of our interviews (several years into the reform), these learning opportunities had yet to influence the larger organization and achieve Thomas’s intended purpose of changing schoolwide practices and culture. Overall, most of Thoreau’s teachers thought that departmental teams were a poor fit for most of their on-the-job learning needs. Although they provided some benefits at the individual level, they did not yet serve the organizational purpose of reducing barriers among teachers or inequities across the school.

*Misalignment with organizational purpose and strategy at Whitman Academy.*—Whitman Academy, a magnet school that enrolled 250 students from across the city, had no special admission requirements, yet students scored higher than those of most demographically similar schools in the district. The school’s founding principal, Ms. Wheeler, credited Whitman’s success to its teachers and administrators, who went to great lengths to know each student well and to customize the academic program to meet his or her needs. She and her team of administrators celebrated individual initiative and creativity among both teachers and students. To ensure that teachers would remain engaged and enthusiastic about their students’ learning, Wheeler encouraged teachers to create unique elective courses, such as biotechnology and Latin American history, which reflected their own and their students’ current interests. These specialized courses encouraged Whitman’s teachers to focus on their own instruction rather than a broader curriculum.

However, Whitman’s teachers were not isolated. They met weekly with administrators as a faculty-of-the whole to review the school’s program and to explore opportunities for improving it. The focus of these meetings was on organizational improvement, not individual learning. Teachers appreciated having that chance to develop student-centered supports or to envision new and more effective ways to organize their school and the learning experiences they offered. But most were unenthusiastic about participating in the recently established meetings for departmental teams, which seemed to run counter to the school’s highly individualized approach to teaching and learning. At Whitman,

where few teachers taught the same course, instructional improvement was largely assumed to be the responsibility of the individual teacher.

Few Whitman teachers reported learning much in departmental team meetings that helped them to improve their instruction, as shown by this physics teacher's comment: "I think they make us have meetings, just to have meetings." Similarly, a history teacher said she wanted "meaningful discussion with fellow teachers about what you are teaching," which she found impossible when few teachers in any department taught the same course or relied on similar content or pedagogy.

One exception to this general lack of enthusiasm for subject-based teams was the English department, whose teachers said they learned a great deal during weekly team meetings. However, they explained that this occurred more by chance than by design; several teachers just happened to work well together and to see value in sequencing and aligning what they taught. A teacher described her team as one of the best at the school, noting that she felt "lucky" compared with other teachers: "We work incredibly well together. We share materials. We set the bar really high." However, the benefits of collaboration experienced within the English department did not extend beyond this group of five. Teams were not perceived as a way to move forward on schoolwide purposes or practices.

Although Whitman was the highest achieving school of those we studied, teams were not a key component of its success, although teachers' collaboration during weekly full faculty meetings appeared to be. Edmondson's (2012) findings about the role of the manager in motivating team members help to explain this. Teachers in most departments saw no link between teams and the principal's strategy for instructional improvement, which relied on marrying teachers' individual academic interests and expertise with students' unique interests and needs. As a result, teachers generally perceived teams at Whitman to be misaligned with the school's mission and, therefore, a poor fit for their learning needs as individuals and as a school. In the context of accountability, where teams often are introduced to increase professional learning schoolwide, Whitman reminds us that any school's approach to improvement must be aligned with its mission and curricular strategy, taking into account current values, practices, accomplishments, and ongoing needs.

## Conclusion

As we systematically reviewed teachers' assessments of their teams, we found notable differences by school. Features of the school context and the principal's role in guiding the work of teams most fully explained teachers' responses. Based on her research, Edmondson (2012) explains that when teams are effective in other sectors, such as product design and health care, the manager sets an "as-



pirational” purpose for their work, encourages team members to learn rather than to simply “execute” a task, and provides a “psychologically safe” environment in which members can explore possibilities and take risks. Similarly, we found that in schools where teachers reported that their teams provided worthwhile individual and organizational learning, principals were active in setting worthy purposes, encouraging learning through collaboration, and ensuring that teachers could safely express opposing views or explore new approaches.

Although many school reformers believe that they know how to improve low-performing schools, most would agree that effective, sustained improvements cannot be planned and executed by an assembly line of teachers. Effective implementation depends on the judgments and activities of professionals, both as individuals and as groups, who create, test, and adjust strategies as they go. Teacher teams provide one means of doing this work.

The cellular organization of schools and teachers’ reliance on their students to fuel and reward their efforts can make it challenging to engage teachers in serious sustained collegial efforts that reach beyond their classrooms. In the past decade, accountability policies that impose sanctions for poor school outcomes, combined with teachers’ genuine concern about their students’ future academic success, have expanded teachers’ readiness to work jointly with colleagues. They do this not only to improve their own teaching but also to meet organizational improvement goals, ensuring that students succeed throughout the school.

What, then, promotes and supports teachers’ collaboration with their colleagues when it is intended to improve student learning? At three schools we learned that teachers engaged in teams because they recognized opportunities to develop their own practices and to improve students’ learning opportunities and experiences throughout the school. Unlike the take-it-or-leave-it approach of much professional development, teachers at these schools saw their work on teams as dynamic, ongoing, and supported by their schools’ administrators.

In stark contrast, at the three schools where teachers resisted or resented the expectation that they work in teams, administrators failed to convince them that teams were meaningful structures for school improvement. Teachers in high-poverty schools that enroll many students with complex needs function within dynamic and uncertain environments that present high demands for ongoing learning. Like Edmondson (2012), we found that the actions of principals and other key administrators explained much about how and how well teams functioned in response to these demands.

In the three schools where teachers reported that teams worked well and provided a good fit for individual and organizational learning needs, the principals participated in the work, and teachers appreciated their presence. Teachers did not say that the principals told them what to do or how to think. Often,

administrators participated as teachers' "crucial partners" (Edmondson 2012) rather than as either lofty and removed managers or punitive micromanaging supervisors.

Finally, principals were essential in creating safe environments where teachers might candidly examine and improve their practice. Teachers at Giovanni, Angelou, Morrison, and Whitman did not find participating in team meetings to be a risky experience, psychologically or socially. Overall, the principals of these schools were encouraging and managed to convey that teams would provide a protected space for professional inquiry. However, at Stowe and Thoreau, some teachers reported that speaking up about their concerns was frowned on, and they feared the possible consequences of objecting to the team structures mandated by their principals.

### *Implications for Research, Policy, and Practice*

Recent high-stakes accountability policies have generated new interest in improving the skills and aligning the efforts of teachers throughout schools, especially those in high-poverty communities. We are only beginning to understand how teams work in these settings and what supports them, although it is clear that the school context is crucial and the principal's role pivotal. This study and other research about teacher teams provide groundwork for subsequent studies and guidance for both policy making and practice.

### *Research*

There is much to be learned about how to evaluate the effectiveness of instructional teams across all school contexts; future research can benefit from considering how teams support both individual and organizational learning. For example, we found that teachers valued some combination of individual and organizational learning, but it was not clear what weights they would assign to each component. In addition, we could not determine whether or how their expectations differed by individual characteristics (e.g., preservice preparation or years of experience) or contextual factors (e.g., school size or level). These remain to be explored. Although we found that teams provided a good fit in the elementary and K–8 schools of our sample, we found a poor fit overall in the two secondary schools. However, we do not think that this was because of school level but rather because of leadership practices and the academic focus and structure of these schools. Further investigation into the work of teams in middle and high schools could contribute to a better understanding of how teams work for teachers at those levels.

Principals who want to promote better instruction schoolwide can learn a great deal from this study about how to partner with teachers in framing the work of teams, keeping the focus on both individual and organizational learning and ensuring that teams remain safe settings for exploration and improvement. However, we still need to examine much more closely how principals with various approaches to leadership enact (or fail to enact) these promising practices. Intensive case studies of teams in a sample of high-poverty schools that are known to succeed in serving students of color could provide valuable detailed models for leadership practice.

Surveys conducted within schools, across schools of the same district, and across schools in several districts could provide a much more comprehensive, yet targeted, understanding of teachers' experience with, and assessment of, instructional teams. This study and the framework we developed to analyze data provide a foundation for other researchers who might explore subsequent questions about how best to use limited time and human resources in professional collaboration.

### *Policy*

Accountability policies, which reward or sanction schools based on the school's effectiveness with all students, have been a strong driver of the growth of instructional teams over the past decade, even though most policies do not require their formation or fund the time they demand. State and local agencies or foundations might consider supporting pilot programs to systematically develop teacher teams. These could provide training for principals and teacher leaders and sites for ongoing study of the teams' work. This leadership training and research could explore and extend our findings about the key role that principals play in creating and sustaining teams. Furthermore, this research could not only assess whether teams provide a good fit for individual and organizational learning but also allow principals and researchers to reflect continuously and systematically about teams' growth and success (or lack thereof).

### *Practice*

This research contributes to the gradually growing body of practical knowledge about the central role that formal school leaders play in the development and success of teams. As Edmondson's (2012) work suggests and the cases in this study confirm, the principal is key in framing the purpose of teams, encouraging a focus on learning as a way to improve performance, and ensuring that teams provide a safe space for examining current practice and exploring new options.

Principals can use these cases and the lessons they offer to reflect on their own efforts to introduce and support teachers' instructional teams.

One legitimate concern is that principals, with their ever-expanding responsibilities, do not have the time to meet regularly with teams. In the schools we studied, some principals were successful in defining the purpose of teams, setting the environments in which they worked, and supporting their work along the way. For various reasons, others were not. Principals might designate and supervise teacher leaders to guide the work of teams if they have the relevant instructional expertise and experience and if other conditions for teams' success, such as an aspirational purpose and psychological safety, are met. Although principals' engagement may be less hands-on in some schools than others, it appears that these formal school leaders will continue to be crucial partners in determining how and how well teams work in schools.

Edmondson (2012) reminds us that teaming is unnatural for many organizations, especially those accustomed to operating as traditional hierarchies, where authorities are expected to know best and subordinates are expected to follow orders. Within the knowledge economy, however, organizations that succeed are those that learn and continuously benefit from the skills and insights of all members. Historically, individual teachers have been expected to rely on their own devices to improve their practice, by attending intermittent professional development events, talking with students, and reflecting on their own successes and failures. Today, teams provide a promising approach for teachers and their schools to benefit from their colleagues' knowledge, expertise, creativity, and commitment. Schools that capitalize effectively on teams will increase their instructional capacity and, ultimately, their students' success.

## Notes

We are indebted to all the teachers and school administrators who generously participated in this study. We thank the school district for permitting us to conduct the research. We also are grateful to the Ford Foundation and the Bill and Melinda Gates Foundation for their financial support. All views presented here are our own.

1. No Child Left Behind (NCLB) Act of 2001, Pub. L. No. 107-110, § 115, Stat. 1425 (2002).
2. All names in this article are pseudonyms.

## References

- Argyris, Chris, and Donald A. Schon. 1978. *Organizational Learning: A Theory of Action Approach*. Reading, MA: Addison-Wesley.
- Berliner, David. 2013. "Effects of Inequality and Poverty vs. Teachers and Schooling on America's Youth." *Teachers College Record* 115 (12): 1-26.

- Bidwell, Charles E. 2001. "Analyzing Schools as Organizations: Long-Term Permanence and Short-Term Change." *Sociology of Education* (Extra Issue): 100–114.
- Bidwell, Charles E., and Jeffrey Y. Yasumoto. 1999. "The Collegial Focus: Teaching Fields, Collegial Relationships, and Instructional Practice in American High Schools." *Sociology of Education* 72 (October): 234–56.
- Bird, Amy, Elaine Reese, and Gail Tripp. 2006. "Parent–Child Talk about Past Emotional Events: Associations with Child Temperament and Goodness-of-Fit." *Journal of Cognition and Development* 7 (2): 189–210.
- Borko, Hilda. 2004. "Professional Development and Teacher Learning: Mapping the Terrain." *Educational Researcher* 33 (November): 3–15.
- Bryk, Anthony, Eric Camburn, and Karen Seashore Louis. 1999. "Professional Community in Chicago Elementary Schools: Facilitating Factors and Organizational Consequences." *Educational Administration Quarterly* 35 (December): 751–81.
- Bryk, Anthony S., and Barbara L. Schneider. 2002. *Trust in Schools: A Core Resource for Improvement*. New York: Russell Sage.
- Council of Great City Schools. 2015. *Annual Report: 2014–2015*. Washington, DC: Council of Great City Schools.
- Dahl, Gordon B., and Lance Lochner. 2005. "The Impact of Family Income on Child Achievement." Report no. w11279, National Bureau of Economic Research, Cambridge, MA.
- Darling-Hammond, Linda, Ruth Chung Wei, Alethea Andree, Nikole Richardson, and Stelios Orphanos. 2009. *Professional Learning in the Learning Profession: A Status Report on Teacher Development in the United States and Abroad*. Washington, DC: National Staff Development Council.
- Datnow, Amanda. 2011. "Collaboration and Contrived Collegiality: Revisiting Hargreaves in the Age of Accountability." *Journal of Educational Change* 12 (2): 147–58.
- David, Jane L., and Joan E. Talbert. 2013. *Turning Around a High-Poverty District: Learning from Sanger*. San Francisco: Cowell.
- DePaepe, James. 2015. *CWU Teacher Time Study: How Washington Public School Teachers Spend Their Work Days*. Report, Central Washington University, <https://www.cwu.edu/sites/default/files/images/teachertimestudy.pdf>.
- De Schipper, J. Clazien, Louis Willem Cornelis Tavecchio, Marinus H. van Ijzendoorn, and Jantien van Zeijl. 2004. "Goodness-of-Fit in Center Day Care: Relations of Temperament, Stability, and Quality of Care with the Child's Adjustment." *Early Childhood Research Quarterly* 19 (2): 257–72.
- Desimone, Laura M., Andrew C. Porter, Michael S. Garet, Kwang Suk Yoon, and Beatrice F. Birman. 2002. "Effects of Professional Development on Teachers' Instruction: Results from a Three-Year Longitudinal Study." *Educational Evaluation and Policy Analysis* 24 (June): 81–112.
- Drury, Darrel, and Justin Baer. 2011. *The American Public School Teacher: Past, Present, and Future*. Cambridge, MA: Harvard Education Press.
- DuFour, Richard. 2004. "What Is a Professional Learning Community?" *Educational Leadership* 61 (May): 6–11.
- Duncan, Greg J., and Richard J. Murnane. 2014. *Restoring Opportunity: The Crisis of Inequality and the Challenge for American Education*. Cambridge, MA: Harvard Education Press.
- Edmondson, Amy C. 2012. *Teaming: How Organizations Learn, Innovate, and Compete in the Knowledge Economy*. San Francisco: Jossey-Bass.
- Elmore, Richard F. 2004. *School Reform from the Inside Out: Policy, Practice, and Performance*. Cambridge, MA: Harvard Education Press.

- Feagans, Lynne V., Ann M. Merriwether, and Diane Haldane. 1991. "Goodness of Fit in the Home: Its Relationship to School Behavior and Achievement in Children with Learning Disabilities." *Journal of Learning Disabilities* 24 (7): 413–20.
- Feiman-Nemser, Sharon. 2012. *Teachers as Learners*. Cambridge, MA: Harvard Education Press.
- Finnigan, Kara S., and Alan J. Daly. 2012. "Mind the Gap: Organizational Learning and Improvement in an Underperforming Urban System." *American Journal of Education* 119 (1): 41–71.
- Gallimore, Ronald, Bradley A. Ermeling, William M. Saunders, and Claude Goldenberg. 2009. "Moving the Learning of Teaching Closer to Practice: Teacher Education Implications of School-Based Inquiry Teams." *Elementary School Journal* 109 (May): 537–53.
- Garet, Michael S., Andrew C. Porter, Laura Desimone, Beatrice F. Birman, and Kwang Suk Yoon. 2001. "What Makes Professional Development Effective? Results from a National Sample of Teachers." *American Educational Research Journal* 38 (December): 915–45.
- Gates Foundation. 2014. *Teachers Know Best: Teachers' Views on Professional Development*. Seattle: Gates Foundation.
- Goddard, Yvonne L., Roger D. Goddard, and Megan Tschannen-Moran. 2007. "A Theoretical and Empirical Investigation of Teacher Collaboration for School Improvement and Student Achievement in Public Elementary Schools." *Teachers College Record* 109 (4): 877–96.
- Grubb, W. Norton. 2009. *The Money Myth: School Resources, Outcomes, and Equity*. New York: Russell Sage.
- Hackman, Richard J. 2002. *Leading Teams: Setting the Stage for Great Performances*. Boston: Harvard Business School.
- Hamilton, Laura, Richard Halverson, Sharnell S. Jackson, Ellen Mandinach, Jonathan A. Supovitz, Jeffrey C. Wayman, Cassandra Pickens, Emma Sama Martin, and Jennifer L. Steele. 2009. *Using Student Achievement Data to Support Instructional Decision Making*. Washington, DC: US Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance.
- Hargreaves, Andy. 1994. *Changing Teachers, Changing Times: Teachers' Work and Culture in the Postmodern Age*. New York: Teachers College Press.
- Hargreaves, Andy, and Dennis Shirley. 2009. *The Fourth Way: The Inspiring Future for Educational Change*. Thousand Oaks, CA: Corwin.
- Henry, Susan. 2012. "Instructional Conversations: A Qualitative Exploration of Differences in Elementary Teams Teachers' Discussions." EdD diss., Harvard Graduate School of Education.
- Hollins, Etta R. 2011. *Learning to Teach in Urban Schools: The Transition from Preparation to Practice*. Florence, KY: Routledge.
- Huberman, Michael. 1993. "The Model of the Independent Artisan in Teachers' Professional Relations." In *Teachers' Work: Individuals, Colleagues, and Contexts*, ed. Judith Warren Little and Milbrey Wallin McLaughlin. New York: Teachers College Press.
- Jackson, C. Kirabo, and Elias Bruegmann. 2009. "Teaching Students and Teaching Each Other: The Importance of Peer Learning for Teachers." *American Economic Journal: Applied Economics* 1 (4): 85–108.
- Jensen, Ben, Julie Sonnemann, Katie Roberts-Hull, and Amélie Hunter. 2016. *Beyond PD: Teacher Professional Learning in High-Performing Systems*. Washington, DC: National Center on Education and the Economy.

- Johnson, Susan Moore. 1990. *Teachers at Work: Achieving Success in Our Schools*. New York: Basic.
- Johnson, Susan Moore. 2004. *Finders and Keepers: Helping New Teachers Survive and Thrive in Our Schools*. San Francisco: Jossey-Bass.
- Johnson, Susan Moore, and Sarah E. Birkeland. 2003. "Pursuing a 'Sense of Success': New Teachers Explain Their Career Decisions." *American Educational Research Journal* 40 (3): 581–617.
- Johnson, Susan Moore, Matthew A. Kraft, and John P. Papay. 2012. "How Context Matters in High Needs Schools: The Effects of Teachers' Working Conditions on Their Professional Satisfaction and Their Students' Achievement." *Teachers College Record* 114 (10): 1–39.
- Kennedy, Mary M. 2016. "How Does Professional Development Improve Teaching?" *Review of Educational Research* 86 (4): 945–80.
- Lave, Jean, and Etienne Wenger. 1991. *Situated Learning: Legitimate Peripheral Participation*. New York: Cambridge University Press.
- Little, Judith Warren. 1990. "The Persistence of Privacy: Autonomy and Initiative in Teachers' Professional Relations." *Teachers College Record* 91 (4): 509–36.
- Little, Judith Warren. 2002. "Locating Learning in Teachers' Communities of Practice: Opening Up Problems of Analysis in Records of Everyday Work." *Teaching and Teacher Education* 18 (November): 917–46.
- Lortie, Dan C. 1975. *Schoolteacher: A Sociological Study*. 2nd ed. Chicago: University of Chicago Press.
- Louis, Karen Seashore, Kenneth Leithwood, Kyla Wahlstrom, and Stephen Anderson. 2010. *Investigating the Links to Improved Student Learning: Final Report of Research Findings*. New York: Wallace Foundation. [http://conservancy.umn.edu/bitstream/handle/11299/140885/Learning-from-Leadership\\_Final-Research-Report\\_July-2010.pdf?sequence=1&isAllowed=y](http://conservancy.umn.edu/bitstream/handle/11299/140885/Learning-from-Leadership_Final-Research-Report_July-2010.pdf?sequence=1&isAllowed=y).
- Louis, Karen Seashore, Helen M. Marks, and Sharon Kruse. 1996. "Teachers' Professional Communities in Restructuring Schools." *American Educational Research Journal* 33 (December): 757–98.
- Markow, Dana, and Andrea Pieters. 2010. *The MetLife Survey of the American Teacher: Collaborating for Student Success*. New York: MetLife Foundation.
- Maxwell, Joseph. A. 2005. *Qualitative Research Design: An Interpretive Approach*. 2nd ed. Thousand Oaks, CA: Sage.
- McLaughlin, Milbrey W., and Joan E. Talbert. 2001. *Professional Communities and the Work of High School Teaching*. Chicago: University of Chicago Press.
- Mehta, Jal, Victoria Theisen-Homer, David Braslow, and Adina Lopatin. 2015. *From Quicksand to Solid Ground: Building a Foundation to Support Quality Teaching*. Cambridge, MA: Transforming Teaching.
- Miles, Matthew B., and A. Michael Huberman. 1994. *Qualitative Data Analysis: An Expanded Sourcebook*. 2nd ed. Newbury, NJ: Sage.
- Neil, Peter, and John Johnston. 2005. "An Approach to Analysing Professional Discourse in a School Self-Evaluation Project." *Research in Education* 73 (May): 73–86.
- Newmann, Fred M., and Gary G. Wehlage. 1995. *Successful School Restructuring*. Madison: University of Wisconsin–Madison, Center on Organization and Restructuring of Schools.
- Ornstein, Eric D., and Helene Moses. 2010. "Goodness of Fit: A Relational Approach to Field Instruction." *Journal of Teaching in Social Work* 30 (1): 101–14.
- Parise, Leigh M., and James P. Spillane. 2010. "Teacher Learning and Instructional Change: How Formal and On-the-Job Learning Opportunities Predict Change in Elementary School Teachers' Practice." *Elementary School Journal* 110 (March): 323–46.



- Ronfeldt, Matthew, Susanna Owens Farmer, Kiel McQueen, and Jason A. Grissom. 2015. "Teacher Collaboration in Instructional Teams and Student Achievement." *American Educational Research Journal* 52 (3): 475–514.
- Rosenholtz, Susan J. 1989. *Teacher's Workplace: The Social Organization of Schools*. Reading, MA: Addison-Wesley Longman.
- Scribner, Jay P., Keith R. Sawyer, Sheldon T. Watson, and Vicki L. Myers. 2007. "Teacher Teams and Distributed Leadership: A Study of Group Discourse and Collaboration." *Educational Administration Quarterly* 43 (February): 67–100.
- Senge, Peter M. 1990. *The Fifth Discipline: The Art and Practice of the Learning Organization*. New York: Doubleday.
- Strauss, Anselm, and Juliet Corbin. 1998. *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. 2nd ed. Newbury Park, NJ: Sage.
- Supovitz, Jonathan A. 2002. "Developing Communities of Instructional Practice." *Teachers College Record* 104 (December): 1591–626.
- Supovitz, Jonathan A., and Jolley B. Christman. 2005. "Small Learning Communities that Actually Learn: Lessons for School Leaders." *Phi Delta Kappan* 86 (May): 649–51.
- Talbert, Joan E. 2010. "Professional Learning Communities at the Crossroads: How Systems Hinder or Engender Change." In *Second International Handbook of Educational Change*, ed. Andy Hargreaves, Anne Lieberman, Michael Fullan, and David Hopkins. Dordrecht: Springer.
- Talbert, Joan E., and Milbrey W. McLaughlin. 1994. "Teacher Professionalism in Local School Contexts." *American Journal of Education* 102 (February): 123–53.
- TNTP. 2015. *The Mirage: Confronting the Hard Truth about our Quest for Teacher Development*. New York: TNTP.
- Troen, Vivian, and Katherine C. Boles. 2012. *The Power of Teacher Teams: With Cases, Analyses, and Strategies for Success*. Thousand Oaks, CA: Corwin.
- Tyack, David B. 1974. *The One Best System: A History of American Urban Education*. Cambridge, MA: Harvard University Press.
- Valli, Linda, and Daria Buese. 2007. "The Changing Roles of Teachers in an Era of High-Stakes Accountability." *American Educational Research Journal* 44 (November): 519–58.
- Vitiello, Virginia E., Olga Moas, Heather A. Henderson, Daryl B. Greenfield, and Pelin M. Munis. 2012. "Goodness of Fit between Children and Classrooms: Effects of Child Temperament and Preschool Classroom Quality on Achievement Trajectories." *Early Education and Development* 23 (3): 302–22.
- Wei, Ruth Chung, Linda Darling-Hammond, and Frank Adamson. 2010. *Professional Development in the United States: Trends and Challenges*. Dallas: National Staff Development Council.
- Wenger, Etienne, Richard A. McDermott, and William M. Snyder. 2002. *Cultivating Communities of Practice: A Guide to Managing Knowledge*. Boston: Harvard Business School Press.
- Wilkinson, Irene G. 2016. "Why Some Children Come to School with 'Baggage': The Effects of Trauma Due to Poverty, Attachment Disruption and Disconnection on Social Skills and Relationships." *Canadian Journal of Family and Youth* 8 (1): 173–203.
- Yasumoto, Jeffrey Y., Kazuaki Uekawa, and Charles E. Bidwell. 2001. "The Collegial Focus and Student Achievement." *Sociology of Education* 74 (July): 81–209.