

## 21

### Principal Instructional Leadership

From Prescription to Theory to Practice

*Philip Hallinger*

*Chulalongkorn University (Thailand) and the University of Johannesburg (South Africa)*

#### 21.1 Introduction

The challenge of understanding how school principals contribute to the quality of teaching and learning has consumed scholars for half a century (e.g., Bridges, 1967; Erickson, 1979; Gross & Herriott, 1965; Leithwood, Harris, & Hopkins, 2008; Lipham, 1981; Robinson, Lloyd, & Rowe, 2008). This line of inquiry has evolved such that in 2018 there are few countries in the world where principals are not encouraged to engage actively in the role of instructional leader. Although this handbook focuses primarily on teaching, one can argue that creating conditions in the school that support quality teaching and learning is highly relevant.

This chapter examines developments in theory and research on principal instructional leadership and then seeks to elaborate on their implications for practice. It is the author's contention that the research on instructional leadership can be interpreted usefully to inform more effective strategies for improving schools (Hallinger & McCary, 1990; Leithwood et al., 2008). The chapter addresses the following questions:

- 1) What is the relationship between school leadership and learning?
- 2) What is instructional leadership?
- 3) How can instructional leadership theory be applied in practice?
- 4) What are the most productive lines of inquiry in future research on instructional leadership?

#### 21.2 Leadership and Learning

One of the most visible changes in the global landscape of education over the past half century has been the role of school leaders. During the mid-twentieth century few education systems around the world focused on the role that school leaders played in contributing to the quality of schools. Indeed, prior to 2000, the United States was arguably one of very few countries in the world where *principal instructional leadership* was viewed as important.

Belief in the importance of principal instructional leadership first gained currency in the United States during the 1960s and 1970s (e.g., Bridges, 1967; Erickson, 1979; Gross & Herriott, 1965). Taking cues from the folk wisdom of practitioners, early American scholarship on instructional leadership was more prescriptive than theoretical or empirical (see Grobman & Hynes, 1956; Miller, 1960; Uhls, 1962). This literature emphasized the importance of principals engaging this role but without offering either detailed descriptions on how to do so, or convincing evidence on the impact (Bridges, 1967; Erickson, 1979; Lipham, 1981). Bridges (1967) published one of the earliest scholarly attempts to clarify our understanding of this role.

Of the seven major task areas for which principals have responsibility, curriculum and instruction has generated the most sound and fury. On the one hand, the principal has been exhorted to exert instructional leadership, while on the other hand, he has been told flatly that such a role is beyond his or any other human being's capacity. The problem with these disputations is that the exponents of a given position have neither defined sharply what is signified by the concept of instructional leadership nor made their assumptions explicit. (Bridges, 1967, p. 136)

Scholarship on instructional leadership received a major boost with the emergence of the effective schools movement during the late 1970s (Bossert, Dwyer, Rowan, & Lee, 1982; Edmonds, 1979; Erickson, 1979). Based on studies of instructionally effective, urban elementary schools, Ron Edmonds made the following claim:

In the improving schools, the principal is more likely to be an instructional leader, more assertive in his/her institutional leadership role, more of a disciplinarian, and perhaps most of all, assumes responsibility for the evaluation of the achievement of basic objectives. (Edmonds, 1979, p. 18)

Edmonds's assertion of the importance of a specific type of principal leadership—instructional leadership—gave further impetus to scholars interested in examining if and how principals “make a difference” in schooling. During the next decade scholars joined theory building, instrument development, and the application of more powerful quantitative methods in examining the extent and nature of principal leadership effects on teaching and learning (e.g., Bamberg & Andrews, 1990; Hallinger, Bickman, & Davis, 1996; Hallinger & Murphy, 1985, 1986; Heck, 1993; Heck, Larsen, & Marcoulides, 1990; Leitner, 1994; Pitner, 1988; Pounder, Ogawa, & Adams, 1995; Van de Grift, 1990). This represented the era when instructional leadership “came of age.”

During the mid-1990s, Hallinger and Heck (1996a, 1996b, 1998) laid down new markers in the evolution of instructional leadership. Based on a synthesis of 40+ empirical studies, we concluded that *principal instructional leadership* makes a small and indirect, but significant contribution to student learning outcomes. These reviews gave further impetus to studies of principal instructional leadership, offering not only empirically grounded optimism (Hallinger & Heck, 1998), but also guidance on productive conceptual (Hallinger & Heck, 1996a) and methodological directions (Hallinger & Heck, 1996b).

As a result, empirical research in this domain gathered additional momentum following the turn of the millennium. Scholars continued to generate a rapidly accumulating body of programmatic research (e.g., Hallinger & Heck, 2010, 2011a, 2011b; Heck & Hallinger, 2009, 2014; Kruger, Witziers, & Slegers, 2007; Lee, Walker, & Chui, 2012; Leithwood & Jantzi, 2008; Leithwood, Patten, & Jantzi, 2010; Louis, Dretzkea, & Wahlstrom, 2010; Marks & Printy, 2003; May, Huff, & Goldring, 2012; May & Supovitz, 2011; Neumerski, 2013; Opdenakker & Van Damme, 2007; Rigby, 2013; Sebastian & Allensworth, 2012; Thoonen, Slegers, Oorta, & Peetsmaa, 2012; Urick & Bowers, 2011).

In recent years, this accumulation of knowledge about the nature and effects of principal instructional leadership has been the subject of additional systematic reviews of research (e.g., Bell, Bolam, & Cubillo, 2003; Day, Sammons et al., 2011; Hallinger, 2011; Leithwood et al., 2008; Mulford & Silins, 2003; Southworth, 2002) and meta-analyses (Leithwood & Sun, 2012; Robinson et al., 2008; Scheerens, 2012; Sun & Leithwood, 2015; Witziers, Bosker, & Kruger, 2003). Taken together, these syntheses of research have offered additional support for earlier propositions that principal leadership “makes a difference” in the quality of teaching and learning in schools (e.g., Bossert et al., 1982; Edmonds, 1979; Erickson, 1979; Hallinger & Heck, 1996a, 1998; Leithwood & Montgomery, 1982; Lipham, 1981). Indeed, in one of the largest studies of school leadership conducted in North America, Leithwood and colleagues claimed not to find a single case of school improvement in the absence of quality leadership (Leithwood, Louis, Wahlstrom, & Anderson, 2010). In sum, by 2018 the knowledge base on principal instructional leadership has evolved from a prescriptive artifact of American educational discourse into a maturing and increasingly convincing global body of empirically supported evidence.

### 21.2.1 How Does Leadership Impact Learning?

With that in mind, we can turn to the next question of practical and theoretical importance: “How does principal leadership impact student learning?” Researchers have tested a wide range of conceptual models in an effort to understand the “paths” through which leadership impacts teaching and learning (Hallinger & Heck, 1996a, 2010, 2011b; Heck & Hallinger, 2009, 2014; Leithwood, Patten, & Jantzi, 2010; Mulford & Silins, 2009; Robinson et al., 2008; Sebastian & Allensworth, 2012; Witziers et al., 2003). Recent results affirm earlier contentions that the effects of principal instructional leadership on student learning are *indirect* (e.g., Hallinger & Heck, 2011a, 2011b; Heck & Hallinger, 2009, 2014; Leithwood, Anderson, Mascall, & Strauss, 2010; Marks & Printy, 2003; Mulford & Silins, 2009; Robinson et al., 2008; Witziers et al., 2003). That is, principal instructional leadership achieves its effects through setting a direction for the school, organizing the learning environment, and developing teaching and learning (Hallinger & Heck 1996a; Heck & Hallinger, 2014; Leithwood et al., 2008; Sebastian & Allensworth, 2012). Moreover, among the different leadership models that have been studied, Robinson and colleagues (2008) claimed that instructional leadership has demonstrated the most consistent positive effects on learning.

These studies also affirm the influence of the school environment on the exercise of leadership. Different styles of leadership appear to be more and less appropriate depending upon the state of organizational conditions (e.g., see Belchetz & Leithwood, 2007; Bossert et al., 1982; Day et al., 2011; Duke, 2004; Goldring, Huff, May, & Camburn,

2008; Hallinger & Heck, 2011a, 2011b; Hallinger & Murphy, 1986). Thus, for example, different leadership strategies may be warranted for schools that are in decline, improving, or stable (Day & Leithwood, 2007; Hallinger & Heck, 2011b).

Although effective school leadership may be “contingent,” Belchetz and Leithwood (2007) also asserted that the global knowledge base is now capable of identifying common dimensions of effective school leadership. They suggested that leadership “practices” such as setting direction for the organization and building staff capacity for achieving the mission apply across most school contexts, but that the specific behaviors which comprise them may differ (see also Bajunid, 1996; Hallinger & Leithwood, 1996; Lee & Hallinger, 2012; Walker & Dimmock, 2002).

### 21.2.2 A Conceptual Model of Leadership and Learning

A broad framework that seeks to depict the means by which leadership impacts learning is presented in Figure 21.1. This depiction of the “paths” through which leadership impacts learning shares important characteristics with other extant models (e.g., Bossert et al., 1982; Hallinger & Heck, 1996a, 2010; Pitner, 1988). These shared characteristics include:

- The exercise of leadership is shaped by personal characteristics of the leader; thus, no two leaders will enact the same approaches within the same setting (Bossert et al., 1982; Hallinger & Heck, 1996a).
- Leadership strategies and effects are moderated by various features of the context in which it is exercised (Belchetz & Leithwood, 2007; Hallinger & Leithwood, 1996).
- Leadership effects are indirect as leaders act to achieve desired student learning outcomes by shaping the school culture, organizing work processes, and leading people (Hallinger & Heck, 1996a; Heck & Hallinger, 2014; Leithwood et al., 2008).
- Some leadership paths are reciprocal in nature where the principal’s actions are subject to the mutual influence of other stakeholders (Hallinger & Heck, 2011a, 2011b).

Again we wish to note that although this model of leadership effects on learning shares similarities with other proposed models, it also features notable differences.

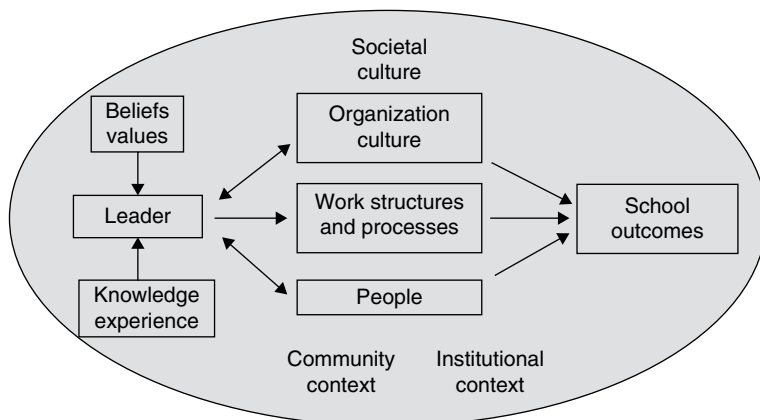


Figure 21.1 Model of leadership effects on learning.

For example, the Bossert framework (Bossert et al., 1982) included neither the societal culture as a potential moderator, nor the possibility of reciprocal effects.

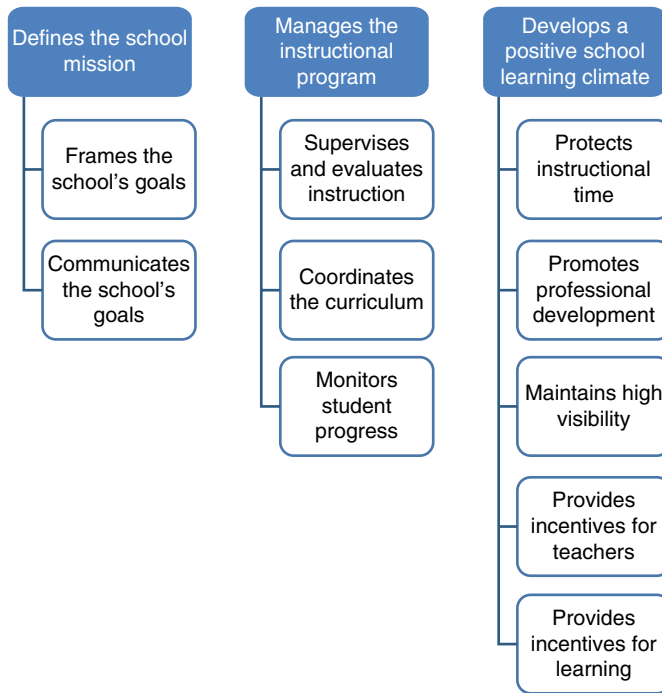
Other scholars have argued against the conceptualization of instructional leadership as a process of indirect influence (Nettles & Herrington, 2007; Silva, White, & Yoshida, 2010). Instead they have proposed that the high-stakes context for student achievement that has evolved globally since 2000 (Schoen & Fusarelli, 2008) makes a reliance on “indirect instructional leadership” (e.g., Blasé & Blasé, 1996; Hallinger & Heck, 2010; Kleine-Kracht, 1993) outmoded and insufficient in timeliness of impact. Thus, they asserted that American principals must adopt “direct instructional leadership strategies” that are designed to achieve rapid demonstrable results. This includes, for example, increasing the “density” of leadership activities that engage the principal in direct contact with students, such as coaching them for exams and motivating them to succeed (see Silva et al., 2010). It should, however, be noted that this assertion finds empirical support from only a single study in the literature.

Donaldson (2001) asserted that any proposed model of school leadership must also be capable of contributing to the achievement of the results that we desire for children and also be sustainable for the leaders themselves. With these criteria in mind, the author’s reading of the research finds only occasional, and at best very weak, empirical support for the direct approach to instructional leadership advocated by the “direct effects advocates” (see also Hallinger & Heck, 1996a; Heck & Hallinger, 2009, 2014; Neumerski, 2013; Robinson et al., 2008; Scheerens, 2012; Sebastian & Allensworth, 2012; Witziers et al., 2003). Moreover, principal time that can be devoted to instructional leadership is already at a premium (see Buttram, Mead, Loftus, & Wilson, 2006; Cuban, 1988; Dwyer, 1986; Grissom, Loeb, & Master, 2013; Hallinger & Murphy, 2012; Marshall, 2004). Thus, I conclude that direct instructional leadership is neither sustainable for the principals, nor applicable to most of the contexts in which they work.

### 21.2.3 A Summary of the Evidence on Principal Leadership Effects

Space limitations preclude the author from providing an in-depth analysis of the evidence related to the model proposed in Figure 21.2. Nonetheless, the broad trend of findings among research reviews conducted since the latter 1990s can be summarized as follows.

- Selected leader characteristics such as self-efficacy, persistence, resilience, and resourcefulness have been identified differentiating more successful from less successful principals.
- Female principals, on average, are more highly rated as instructional leaders than their male counterparts.
- Leadership effects on learning are achieved through indirect and reciprocal processes rather than through direct strategies.
- Although the indirect leadership effects of principals on student learning are usually relatively small in magnitude, they are potentially important.
- Instructional leadership yields a stronger impact on student achievement than alternative leadership foci such as strategic or transformational leadership.
- Instructional leadership functions that build staff capacity through continuous professional learning yield the strongest impact on student learning outcomes followed by mission building and instructional management functions.
- The nature of principal leadership that impacts student learning varies according to the “developmental context” of the school (e.g., improving, declining).



**Figure 21.2** Principal instructional leadership framework. *Source:* Hallinger & Murphy (1985).

- The societal and institutional contexts of schools shape both the amount of time and degree of focus on instructional leadership.
- Shared instructional leadership is increasingly supported by both empirical research and developments in school practice as a viable means of increasing the required “density of instructional leadership” needed to sustain school-wide improvement.

The author wishes to suggest that our ability to draw these conclusions from empirical research with reasonable confidence represents an advance on the state-of-the-art as it existed even 20, never mind 50 years ago. While many questions remain to be answered, the knowledge base is beginning to cohere into a set of interpretive guidelines for school leadership. By “interpretive guidelines” I mean recommendations that require “craft knowledge” in order to determine how to apply them to different contexts and situations. In the following section, I will examine how our understanding of research on instructional leadership might inform the practice of school leadership.

## 21.3 Instructional Leadership: From Theory into Practice

### 21.3.1 The PIMRS Model of Instructional Leadership

The earliest conceptual framework proposed for capturing instructional leadership was published by Hallinger and Murphy in 1985. The framework, often referred to as the PIMRS model, proposed 3 dimensions and 10 leadership functions in this leadership

role (see Figure 21.2). The PIMRS model was subsequently used to inform the development of a research instrument, the *Principal Instructional Management Rating Scale* (PIMRS) (Hallinger, 1982, 1990). Although the PIMRS conceptual model and instrument have been used extensively in research and practice, they were never intended to be employed as a “menu.” They have, however, contributed to the body of research evidence discussed in this chapter (see Hallinger & Wang, 2015; Leithwood et al., 2008; Robinson et al., 2008; Witziers et al., 2003).

### 21.3.2 Instructional Leadership in Practice

In 1990, Hallinger and McCary authored an article on the “strategic thinking of instructional leaders.” This article sought to blend what we now refer to as *strategic leadership* with emerging knowledge on principal instructional leadership. A principal (or leadership team) setting out to develop a school improvement plan or strategy needs to begin by asking a series of questions that will identify relevant conditions in the school. These include:

- What have been the goals of the school and to what extent have these been met?
- What is the trajectory of student performance results (e.g., how is performance distributed among different groups of students, and how does this compare to expected standards)?
- What are my school’s strengths and weaknesses (e.g., student engagement, curriculum and related resources, teaching quality, teacher commitment, community support, school culture and teacher collaboration, teacher knowledge, district support)?
- What threats and opportunities lie in the school and its environment, now and in the future (e.g., competition for students, impact of current or possible policy changes, changing demographics in the community, stability of resourcing, local politics)?
- What is the extent of our resources – financial and human – and how do these expand or constrain our options?
- What legal (e.g., labor laws, union contracts) and organizational conditions (district priorities, accountability systems) impact our potential courses of action?

By answering these questions, the school’s leadership sets the stage for determining an approach to leading the improvement of teaching and learning. Fundamental to the practice of instructional leadership is the notion that no single approach will work for all schools (Hallinger & Heck, 2011a, 2011b; Hallinger & McCary, 1990; Hallinger & Murphy, 1986). The application of instructional leadership in practice must be crafted in response to an understanding of the school’s particular context. In the following sections, I will not only define and illustrate the three dimensions of the PIMRS model shown in Figure 21.2, but also elaborate on how their application could vary in different schools.

#### 21.3.2.1 Defines the School Mission

The first dimension, *Defines the School Mission*, is comprised of two functions: *Frames the School’s Goals* and *Communicates the School’s Goals*. This dimension recognizes the oft mentioned role of leaders in helping to define purpose and set a direction for the school (Sun & Leithwood, 2015). Successful schools generally have a clearly defined mission and goals that give purpose to their organization and activities (Hallinger & Heck, 2002; Murphy & Torre, 2015; Sun & Leithwood, 2015). The emphasis is on fewer

goals around which staff energy and other school resources can be mobilized. Although there is no single best approach for setting goals, the need for building staff commitment and ownership of these goals suggests the imperative for staff involvement (Bamburg & Andrews, 1990; Hallinger & Heck, 1996a, 2002; Heck et al., 1990; Leithwood et al., 2008; Murphy & Torre, 2015; Robinson et al., 2008; Sun & Leithwood, 2015).

The importance of communication of goals cannot be overstated. Kotter (1996) has asserted that goals are typically “undercommunicated by a factor of 10” in most organizations. Covey and colleagues (Covey, Merrill, & Merrill, 1995) claimed that inadequate communication of goals is responsible for the gap between vision of leaders at the top and execution by front-line staff. Both formal communication channels (e.g., goal statements, staff bulletins, articles in the principal or site council newsletter, school handbook, assemblies) and informal ones (e.g., parent conferences, teacher conferences, curricular meetings, other discussions with staff) can be used to communicate the school’s mission and goals (Barth, 1990; Hallinger & Heck, 1996a, 2002; Heck et al., 1990; Leithwood et al., 2008; Murphy & Torre, 2015; Robinson et al., 2008). However, effective communication of mission and goals occurs when leaders use them as frames of reference in the context of ongoing instructional, curricular, and budgetary decision-making.

For example, one highly successful school superintendent constantly asked the question of his staff: “How will this decision affect teaching and learning in classrooms?” It mattered not whether the decision was related to curriculum, staffing, or bus schedules, he still asked the question. Indeed, he asked this question *ad nauseam*, to the point where staff finally began to ask the question themselves, even when he was not present.

While almost all “effective organizations” are characterized by a clear and widely understood purpose, scholars have also noted some differences in how goals operate in different school contexts. Schools that are underperforming often lack a clear sense of purpose and direction (Duke & Salmonowicz, 2010; Murphy, 2008). Thus, for example, the literature on *turnaround schools* often places a strong emphasis on setting a clear direction, or mission, for the school and building awareness, understanding, and commitment to the mission (Day, 2009; Duke, 2004; Duke & Salmonowicz, 2010; Leithwood, Harris, & Strauss, 2010; Murphy, 2008; Murphy & Torre, 2015; Sun & Leithwood, 2015). This was highlighted by Hallinger and Murphy (1986) in our study of effective California elementary schools.

There was SES [socioeconomic status]-related variation with respect to the school mission in the degree to which the schools focused on mastery of basic cognitive skills versus the attainment of broader intellectual and social goals. Even though their programs were clearly academically focused, teachers in the high-SES schools were more likely than their low-SES counterparts to talk in terms of meeting the needs of the whole child.

In the low-SES schools, teachers and administrators felt a keen responsibility to focus on the mastery of cognitively oriented basic reading and math skills. The low-SES schools were also somewhat more likely to have specifically delineated goals and objectives, though this pattern was difficult to interpret. In most cases, goals were developed as a result of participation in special programs, and teachers contended that these laundry lists of objectives did not have a pronounced influence on classroom instruction. (Hallinger & Murphy, 1986, p. 338)



In sum, instructional leaders accept accountability for school performance (see Edmonds, 1979). That accountability is demonstrated, in part, by making the school's goals explicit and measurable. When widely communicated, the school's mission and goals provide a basis for decision-making and can give meaning to work of teachers as they engage in school improvement.

### 21.3.2.2 Manages the Instructional Program

The second dimension, *Manages the Instructional Program*, is comprised of three job functions concerned with “managing the technical core” of the school. These leadership functions focus on the role played by school leaders in organizing for high-quality learning, developing the quality of teaching and learning, monitoring student progress, and making adjustments to foster success. This set of functions distinguishes instructional leadership from transformational leadership (Hallinger, 2003).

One would tend to think that developing teaching quality through teacher evaluation and feedback is a central task of principals. However, decades of research suggest that this is not typically the case (Bridges, 1992; Murphy, Hallinger, & Heck, 2013). In practice, principals report that teacher evaluation represents an unproductive use of their time. The reasons for this include a lack of time, lack of expertise on the part of (some) principals, cumbersome legal frameworks that limit consequences for poor performance, resistance from teacher unions, lack of meaningful incentives for superior performance, and resistance from teachers (Bridges, 1992; Hallinger, Heck, & Murphy, 2014).

Nonetheless, over the past decade, the teacher evaluation function of the principal has attracted increased attention, especially in the United States and UK (Kimball & Milanowski, 2009). These recent attempts to reinvigorate the teacher evaluation function are characterized by two features. The first is the use of “value-added data” on the achievement progress of students to evaluate individual teachers (Murphy et al., 2013). The second is the increased use of systematic approaches to providing feedback to teachers on instruction (Goldring et al., 2015; Grissom, Kalogrides, & Loeb, 2014). We note that after a decade of implementation of the “new generation” of teacher evaluation, there remains little empirical support for its impact on teaching and learning quality (Darling-Hammond, Amrein-Beardsley, Haertel, & Rothstein, 2012; Hallinger et al., 2014; Murphy et al., 2013).

The emphasis within this instructional leadership framework lies in the use of feedback as a means of developing instructional capacity of teachers (Blasé & Blasé, 1996; Blasé & Kirby, 2009; Duke, 1990; Dwyer, Lee, Rowan, & Bossert, 1983; Goldring et al., 2015; Hattie & Timperley, 2007; Kimball & Milanowski, 2009). Thus, the principal, as well as middle-level leaders, must assume responsibility for learning how to give effective feedback and make time for this potentially important task. Neither of these prerequisites should, however, be taken for granted. Training in effective coaching techniques has seldom been taught (successfully) in university preparation programs, and principals have frequently reported difficulty making time to “get into classrooms” (Goldring et al., 2015; Grissom et al., 2013, 2014; Hallinger & Murphy, 2012; Horng, Klasik, & Loeb, 2010; Marshall, 2004).

Thus, it takes purpose, intention, interest, and self-confidence for instructional leaders to pierce the invisible barrier of the classroom. In the Wallace Foundation research on successful school leadership, Leithwood and colleagues (Leithwood, Anderson et al., 2010) found that principals did find ways to offer productive feedback to teachers.

Clayborn Knight, principal of Nesbit Elementary School in Tucker, Ga., where more than 90 percent of his 2,100 students live in poverty. Mr. Knight arrives by 6 a.m. to form his game plan for the day and handle administrative matters so he can help teachers improve instruction during the rest of the day. He roams from classroom to classroom to observe teachers, gives them informal feedback and presents model lessons. (Miller, 2015, p. 31)

We note that principals who succeed in overcoming this challenge tend to have three characteristics.

- They develop their own expertise in teaching and learning.
- They approach instructional leadership as a team responsibility, clearly delegating selected responsibilities to other members of the team.
- As in the case of Clayborn Knight noted above, they are more systematic in how they approach their time use each day, organizing activities to align with their priorities (see Hallinger & Murphy, 2012).

*Managing the Instructional Program* also involves setting the stage for learning by organizing the curriculum, setting standards, and coordinating learning activities across classrooms. Coordinating the curriculum is a shared leadership responsibility that requires the school's leadership team to maintain a "desirable" degree of alignment between the school's educational objectives, the curriculum taught in classrooms, and the assessments used to monitor student progress. In response to critics who fear that this amounts to "teaching to the test," advocates of curriculum coordination ask, "When the stakes are high, is it fair to test students on content for which they have not been taught?" Researchers have documented that the performance of students from lower SES backgrounds tends to suffer when the "taught curriculum" is not well aligned to key tests used to assess student (and school) performance (Darling-Hammond, 1995; Oakes & Wells, 1998).

Instructionally effective schools place a strong emphasis on both standardized and criterion referenced testing as measures of accountability and benchmarks for improvement (Edmonds, 1979). The tests are used to diagnose programmatic and student weaknesses, to evaluate the results of changes in the school's instructional program, and to help in making classroom assignments. The principal plays a key role in this area in several ways. He or she can provide teachers with test results in a timely and usable fashion, discuss test results with teachers (individually and collectively), and provide interpretive analyses for teachers detailing the relevant test data in a concise form (Goldring & Berends, 2009; Goldring et al., 2015; Knapp, Copland, Honig, Plecki, & Portin, 2009).

Again, an example drawn from the Wallace Foundation study of successful school leadership illustrates this point.

Dewey Hensley, the principal of J. B. Atkinson Academy for Excellence in Teaching and Learning in Louisville, Ky., where nearly all of the roughly 400 students were living in poverty, used data to get teachers to own their students' performance. He lined a wall in the staff room with photos of teachers and color-coded charts showing whether their students were at grade level, below grade level or significantly below grade level. Once one of Kentucky's lowest performers, his school doubled its proficiency in reading, math and writing. (Miller, 2015, p. 31)

Our own earlier research into effective schools in California yielded similar examples. For example, in one *effective school* in a working-class neighborhood, several teachers independently volunteered that their principal knew the achievement progress of each of their students. This example is offered in this contest to reemphasize the importance of visibility and modeling as key means of “shaping” the climate of a school.

Leadership practices associated with *Managing the Instructional Program* appear to emphasize the “direct source of influence” that principals exercise over teaching quality. Yet, this perspective seems overly narrow to the author. Leithwood and colleagues (Leithwood, Anderson et al., 2010; Leithwood et al., 2008) refer to “Designing the Organization” as a key function of leadership for learning. With this in mind, the author would suggest that there are a number of organizational design decisions that fall within the dimension of *Managing the Instructional Program*.

For example, when the author took charge as Head of School at an international school in Thailand, he found that it was quite common for faculty members teaching the same subject and grade level to be teaching to different objectives, and using different textbooks and classroom assessments. A key organizational design decision was to mandate that teachers would form teaching teams and determine a common curriculum for the subject. Teachers had previously valued their autonomy above the needs of students. But results on the common exam were poor and students had complained that they were not being taught the same content in the same subject.

Several facets are worthy of note in this example. First, the decision was made by the Head of School after investigation and input from department heads and teachers. Despite the initial lack of teacher support for the decision, the school was in crisis, and it was not possible to take time to build consensus prior to implementation. Moreover, the decision was framed in line with a reorientation of our mission toward “learner-focused” classrooms.

Second, the organizational design decision set the conditions for more effective teaching and learning rather than through the Head’s direct involvement in the teaching and learning process. Third, the design decision impacted subsequent actions taken to *Coordinate the Curriculum* and *Monitor Student Progress*. Fourth, although the design decision focused on curriculum and assessment, it was also taken with the long-term objective of creating a more collaborative culture in the school. Thus, as Day (2009) documented in his research in the UK, the earlier stages of “turnaround” are often characterized by more “centralized” decision-making, a focus on performance, and restructuring (i.e., what Leithwood calls organizational design). Furthermore, consistent with Day’s model, over time our school did organically grow key features of a more “collaborative culture”.

### 21.3.2.3 Develops a Positive School Learning Climate

The culture of a school exerts a more powerful influence on the collective behavior of staff and students than any single leader (Barth, 1990; Deal & Peterson, 1999; Sarason, 1971). Thus principals must tread carefully when seeking to change the culture of a school. Thirty years ago, Saphier and King (1985) used the metaphor of “sowing the seeds of the culture.” This communicates the “mindset” the principal needs when working with the culture of the school. It highlights the fact that visible change in the culture of a school can take several years.

Through the leadership functions in this dimension, the principal provides normative support for the school’s mission, maintains positive pressure and models moral support for shared commitments to improve teaching and learning. The work of Jane Stallings

and others on allocated learning time first called attention to the importance of providing teachers with blocks of uninterrupted teaching time. Improved classroom management and instructional skills are not used to the greatest effect if teachers are frequently interrupted by announcements, tardy students, and requests from the office. The principal has control over this area through the development and enforcement of school-wide policies related to the interruption of classroom learning time (Bossert et al., 1982).

The contexts in which the principal is seen provide a key indicator to teachers and students of his or her priorities (Grissom et al., 2013). Although a significant portion of the principal's time may be out of his or her control, the principal can set priorities on how the remaining time is to be spent. Visibility on the campus and in classrooms increases the interaction between the principal and students as well as with teachers. This can have positive effects on student behavior and classroom instruction (Grissom et al., 2013; Hallinger & Murphy, 2012; Horng et al., 2010; Leithwood & Jantzi, 2000; Leithwood et al., 2008; Leithwood & Sun, 2012; Marks & Printy, 2003). When the school has a clear mission, it is the responsibility of the school's leaders to model and protect what's important, i.e., the values embedded in the mission. With this in mind, the earlier example of Clayborn Knight in the section on *Managing the Instructional Program* is equally relevant and powerful when we consider the role of leader visibility in fostering a positive school learning climate.

In the business sector, this type of visibility is also called MBWA, or "Management By Walking Around." MBWA is not "wandering around." Rather it is a means of maintaining high visibility in key locations, which can be classrooms, the lunch hall, or extra-curricular activities. What makes the "location" key is a combination of "symbolism" and intention. Symbolism refers to the interpretation of the leader's visibility in the eyes of others. Intention refers to what the leader is seeking to accomplish by being visible in a given location. This can include any or all of the following: finding problems, providing moral and practical support, building relationships, providing feedback, listening, providing correction, and gathering information.

By way of example, when we were doing research in one elementary school in California, we noticed that the principal left whatever he was doing at 11:30 sharp each morning to take tickets from students at the lunchroom. Although we had formed a perception of this principal as an excellent instructional leader, we wondered if this was an effective use of his time. When queried about this, he said: "ensuring that I take tickets at the lunchroom every day is my way of ensuring that I have a chance to say hello to every one of the 650 students and teachers in my school every day of the school year" (Hallinger & Murphy, 1986).

In a general sense, this function seeks to align goals, outcomes, and rewards in a more coordinated system of human resource management (e.g., Heneman & Milanowski, 2007). Few monetary rewards are available for principals to use with teachers. The single salary schedule and tenure system severely limit the alternatives open to principals with respect to motivating teachers. However, in schools money may only be slightly more effective than praise as an incentive. This suggests that the principal should make the best use of both formal and informal ways of providing teachers with praise and creating a positive school culture based on trust, mutual respect, and success (Barth, 1990; Knapp et al., 2009; Leithwood & Jantzi, 2000; Leithwood, Anderson et al., 2010; Leithwood & Sun, 2012).

Long before scholars started to talk about "professional learning communities," Roland Barth (1990) called attention to the importance of creating a culture of

continuous learning in schools (see also Saphier & King, 1985). Barth (1990) proposed that a key instructional leadership role of the principal lies in encouraging the learning of individual teachers as well as creating a culture of continuous development for *all learners* in the school.

Robinson and colleagues' (2008) meta-analysis also offers insight into this issue as it concerns the principal. Their results found that the principal's support for and participation in the professional learning of staff produced the largest effect size on learning outcomes of students. The principal has several ways of supporting teachers in the effort to improve instruction. He or she can arrange for, provide, or inform teachers of relevant opportunities for staff development. The principal also can involve teachers more actively in determining priorities for professional development, arrange time for meaningful teacher collaboration, and support the implementation of new skills (Day et al., 2011; Hallinger & Heck, 1996a, 2010; Hallinger, Liu, & Piyaman, 2017; Kruger et al., 2007; Liu & Hallinger, 2017; Louis et al., 2010; Robinson et al., 2008; Slegers, Geijsel, & Van den Berg, 2002; Thoonen et al., 2012).

It is possible to create a school learning climate in which academic achievement is highly valued by students. Shaping a climate of success involves providing multiple, visible opportunities for students to be rewarded and recognized for their academic achievement and improvement. The rewards need not be fancy or expensive, but students should have opportunities to be recognized for their achievement both within the classroom and before the school as a whole.

Kimberly Washington, principal of Hyattsville Middle School in Hyattsville, Md., zeroed in on behavior that interrupted teaching and learning—students who were hanging out in the halls and coming late to class. She instituted uniforms, got extra help for misbehaving students and celebrated students' accomplishments at rallies. Creating a positive culture helped cut suspensions by 90 percent from one year to the next. (Miller, 2015, p. 31)

This is an excellent illustration for this dimension. Indeed, it provides concrete examples for *Protecting Instructional Time* as well as *Providing Incentives for Learning*. As such it illustrates three important points that I have sought to illustrate in this chapter. The first is that instructional leadership is not a heroic role, but rather an accumulation of many discrete activities, decisions, and practices. Second, instructional leaders infuse their activities with intention, and that intention is linked to the same core values embedded in the school mission (Barth, 1990; Walker, 2012). Third, the PIMRS framework is simply that, a framework that helps organize our thinking. In practice, the dimensions and functions often “bleed” into one another. With these points in mind, it should be clear why no list of the behaviors or practices of “successful principals” can be used to define “effective leadership.”

## 21.4 Challenges for Research and Practice

Thus far, this chapter has sought to clarify the current state-of-the-art on instructional leadership. Next I wish to consider some of the most productive targets and methods for research on instructional leadership in the coming decade. Since space limitations preclude a detailed treatment, the reader is referred to Hallinger and Wang (2015) for a more extended discussion.

### 21.4.1 Fruitful Topics for Research

Four topics seem primed for further empirical treatment. The first concerns the antecedents of principal instructional leadership. As discussed earlier, these include both personal characteristics and context factors. The personal characteristics that seem worth pursuing include leader self-efficacy, gender, and prior experience as a teacher.

Perhaps of higher priority from a practical standpoint, we need a better understanding of how instructional leadership is shaped by the needs and constraints of particular contexts. For example, how does successful instructional leadership differ in turnaround situations compared with coasting or highly successful schools? We know that successful leadership practice varies in these different organizational contexts (e.g., Belchetz & Leithwood, 2007; Day, 2009; Hallinger & Heck, 2011b; Hallinger & Murphy, 1986), but have insufficient leverage on how. This research should be informed by contingency theories already in the general leadership literature (e.g., Fiedler, 1967; Hersey & Blanchard, 1977).

Contexts for leadership can also refer to cultural settings (Bajunid, 1996; Hallinger & Leithwood, 1996). Much of the research on instructional leadership to date has been conducted in so-called “Anglo-centric” societies. Scholars have proposed that the different goals, institutional structures, and sociocultural norms within national education systems shape both role expectations for principals and the types of practices that achieve results (Walker & Dimmock, 2002). A broader set of international (i.e., single society) and cross-cultural studies is needed in order to understand if and how the practices that describe successful instructional leadership vary across different societies (Walker & Hallinger, 2015).

A second line of inquiry concerns the “paths” through which instructional leadership impacts learning. The research reviews conducted by Hallinger and Heck (1996a, 1996b, 1998) built upon earlier theoretical efforts by Bossert and colleagues (1982) and Pitner (1988) to elaborate on the theoretical paths or means by which leadership is linked to student learning outcomes. Subsequently, researchers have sought to test different models that seek to explain the nature of this relationship (see Heck & Hallinger, 2009, 2014; Leithwood et al., 2010; Neumerski, 2013; Robinson et al., 2008; Scheerens, 2012; Sebastian & Allensworth, 2012). Despite clear progress on this front, additional empirical efforts aimed at mediating paths between leadership and learning are needed. To the extent possible, these will include measures of leadership as well as teaching and learning (e.g., Heck & Hallinger, 2014), and complement traditional cross-sectional surveys with mixed methods studies that offer deeper descriptions of why principals use the paths as they do (see Hallinger & Wang, 2015).

A third line of inquiry would examine instructional leadership from sources beyond the principal (Hallinger & Heck, 2010; Heck & Hallinger, 2009; Rigby, 2013; Spillane, 2006). Ideally, these studies will not exclude the principal, but rather seek to incorporate the full set of instructional leadership resources (i.e., principal, administrative team, teacher leaders) in the school. Indeed, the tricky part of this research from a technical point of view is to gain a picture of the collective effects of leadership without losing the capacity to assess the contributions of the different parts. This is important because even when leadership is “distributed” we still wish to understand the nature of the principal’s contribution (Hallinger & Heck, 2010, 2011a, 2011b).

Finally, despite ongoing interest among the profession in issues of principal preparation and training, we have identified very few high-quality studies of “treatments” designed

to foster and support instructional leadership. By treatments I refer to the “impact” of preparation programs, discrete professional development programs, or coaching and mentoring interventions. Moreover, unlike the main body of research in this domain, this line of inquiry lends itself to experimental and quasi-experimental research methods (e.g., Goff, Guthrie, Goldring, & Bickman, 2014; Leithwood & Levin, 2008; Maag Merti, 2014; Miller, Goddard et al., 2016).

#### 21.4.2 Research Designs and Methods

The research in this domain of educational leadership and management has progressed over time, in part, through the use of more sophisticated statistical methods (Hallinger, 2011; Hallinger & Wang, 2016). Nonetheless, the field largely remains a “one trick pony” relying almost exclusively on cross-sectional surveys, a trend that has persisted since its inception as a field of scholarship in the 1960s (Bridges, 1982; Haller, 1979; Hallinger, 2011; Hallinger & Heck, 1996a, 1996b). As a field of study, we must admit that there are limits to what this type of research can yield. That is, it can only address a certain “slice” of research problems before it begins to yield diminishing returns.

It has been observed that much of the research in educational administration is conducted by doctoral students. Because the cross-sectional survey is less time-consuming and complex than some other methods, it tends to be used with the greatest frequency. Moreover, this state of affairs never seems to change (see Haller, 1979). With this in mind, the following recommendations are made with the foreknowledge that they will challenge the time, expertise, and resources of many of those who engage in empirical research in educational leadership.

First, we must acknowledge that the means through which leadership affects learning is comprised of a complex, multi-staged causal chain whereby the effects, when detected, are still in the “small range” (Hallinger & Heck, 1996a; Robinson et al., 2008; Scheerens, 2012; Witziers et al., 2003). Since the “effects” of leadership on learning unfold over time (Hallinger & Heck, 2011a), more studies need to employ longitudinal research designs. Only in the last half-dozen years have we begun to gain examples in our field (e.g., Bowers & White, 2014; Brown & Chai, 2012; Feldhoff, Radisch, & Klieme, 2014; Goff et al., 2014; Grissom et al., 2013; Hallinger & Heck, 2010, 2011a, 2011b; Heck & Hallinger, 2014; Maag Merti, 2014; May et al., 2012; Mulford & Silins, 2009; Slegers, Thoonen, Oort, & Peetsma, 2014; Thoonen et al., 2012). The results are very encouraging, and we need more studies in which the time frame is sufficient to reveal the effects of leadership on teaching and learning.

Second, our field has not yet done enough at exploring leadership through the analysis of large-scale secondary databases (e.g., PIRLS, TALIS). Admittedly, these studies often suffer the limitations of imperfect measurement of constructs. Nonetheless, the large sample sizes and, in some cases, multinational perspectives offer a different set of lenses through which to see broad trends in leadership practice (e.g., Bowers & White, 2014; Lee & Hallinger, 2012; Urick & Bowers, 2011, 2014; White & Bowers, 2011).

Third, meta-analysis represents another useful approach that has gained purchase in our field over the past dozen years (e.g., Hallinger, Li, & Wang, 2016; Leithwood & Sun, 2012; Robinson et al., 2008; Scheerens, 2012; Sun & Leithwood, 2015; Witziers et al., 2003). While conducting meta-analyses can be technically challenging, there are an increasing number of examples of meta-analytic studies being conducted as doctoral dissertations (e.g., Bulris,

2009; Hallinger et al., 2016; Leithwood & Sun, 2012). This trend should be encouraged—even for doctoral students—for topics on which a sufficient body of empirical work has been completed.

Fourth, progress in understanding the types of issues identified above (i.e., leadership paths, impact of context) will benefit greatly from the use of mixed methods research designs (Creswell, 2008). Indeed, in cases where doctoral researchers, for example, continue to rely on cross-sectional research designs in studies of leadership and learning, the utility of the results will be enhanced greatly by complementary qualitative data analysis. Thus, for example, sequential explanatory research designs (Creswell, 2008), in which the researcher selects cases for qualitative analysis based on broad-scale quantitative analysis, are well suited for addressing many of the “why” questions that are highly relevant when studying principal leadership. Again, we have some examples, but we still need more (Heck & Hallinger, 2009; Liu & Hallinger, 2017; Sammons, Davis, Day, & Gu, 2014).

Fifth, I would suggest that our field has made insufficient use of “succession studies” as a research design for examining leadership effects (Giambatista, Rowe, & Riaz, 2005; Hart, 1991; Mentzer, 1993; Miskel & Cosgrove, 1985). Succession studies use the natural turnover of leaders as an opportunity to study the differential impact of new leaders on the organization. Despite the promise shown by succession research conducted during the 1980s, there have been disappointingly few follow-up studies using this research design in educational leadership studies during subsequent decades (see Miskel & Owens, 1983; Rowan & Denk, 1984).

I understand that the tools needed to conduct meta-analyses and analyze large secondary data sets exceed the level of analytical training offered in many—if not most—doctoral programs in educational leadership. Moreover, the reasons that students continue to rely on cross-sectional surveys have changed little since Haller’s (1979) classic study of research methods in educational administration. Research designs are more frequently chosen by graduate students for pragmatic reasons than for their capacity to make “contributions to knowledge” (Haller, 1979). Nonetheless, in the interests of identifying the frontiers of knowledge in this field, I have tried to outline the methods that are best suited to move selected high-impact lines of inquiry concerned with leadership for learning forward.

## 21.5 Conclusion

This chapter has traversed the landscape of research and practice on principal instructional leadership as it has evolved over the past 50 years. I have sought to document how instructional leadership has evolved from an ambiguous prescription for American principals into a more clearly defined, research-based set of globally-relevant leadership practices. Still, much work is yet to be done before we can provide focused guidance to practicing school leaders on “how to implement instructional leadership *in my school!*” Nonetheless, I am optimistic that with a continued collective effort from the global community of scholars, we will be able to provide this type of guidance in the decades to come. While this caveat will, no doubt, prove disappointing to some policymakers and practitioners, the process of building a firm knowledge base in any field takes time and educational leadership remains quite young as a field of applied research.

I would like to close the chapter on an optimistic note with a quotation from a principal in Thailand. This principal was seen by staff in Thailand’s Ministry of Education as



a maverick who did things his own way. He grew small innovative programs in his school, over time, rather than implementing ready-made, ministry-recommended programs. Yet, he succeeded in bringing his programs to fruition where many other principals did not. His reflection on what he learned along the way reprises several important lessons on leadership that I have sought to highlight in this chapter. These include the role of vision, the importance of self-efficacy, the embedding of vision in daily routines, the necessity of understanding one's context, and having the patience and persistence to see change occur.

When I started out as a principal they called me a crazy old teacher and didn't know what to do with me. But you must have faith in what you want to do. If you want people to change or to change a school, you need to grow faith in your own mind first. But once you know something's a good thing to do, you'll be able to do it. Once you have faith, you begin to pay attention to the right things, to do the things that need to be done every day.

Many of the things I tried to do with the teachers at first didn't work. It took me a couple of years—and “failures”—before I learned what different teachers and students preferred and needed. It was only after I began to understand these conditions that the seeds that I planted began to grow—and that is when we could see the school change. (P. Chantarapanya, personal communication, May 6, 2011)

## References

- Bajunid, I. A. (1996). Preliminary explorations of indigenous perspectives of educational management: The evolving Malaysian experience. *Journal of Educational Administration, 34*(5), 50–73.
- Bamburg, J., & Andrews, R. (1990). School goals, principals and achievement. *School Effectiveness and School Improvement, 2*(3), 175–191.
- Barth, R. (1990). *Improving schools from within*. San Francisco, CA: Jossey-Bass.
- Belchetz, D., & Leithwood, K. (2007). Successful leadership: Does context matter and if so, how? In C. Day & K. Leithwood (Eds.), *Successful principal leadership in times of change: An international perspective* (pp. 117–137). Dordrecht, Netherlands: Springer.
- Bell, L., Bolam, R., & Cubillo, L. (2003). *A systematic review of the impact of school headteachers and principals on student outcomes*. London, UK: EPPI-Centre, Social Science Research Unit, Institute of Education.
- Blasé, J., & Blasé, J. (1996). Principals' instructional leadership and teacher development: Teachers' perspectives. *Educational Administration Quarterly, 35*(3), 349–378.
- Blasé, J., & Kirby, P. (2009). *Bringing out the best in teachers: What effective principals do*. Thousand Oaks, CA: Corwin.
- Bossert, S., Dwyer, D., Rowan, B., & Lee, G. (1982). The instructional management role of the principal. *Educational Administration Quarterly, 18*(3), 34–64.
- Bowers, A. J., & White, B. R. (2014). Do principal preparation and teacher qualifications influence different types of school growth trajectories in Illinois? A growth mixture model analysis. *Journal of Educational Administration, 52*(5), 705–736.

- Bridges, E. M. (1967). Instructional leadership: A concept re-examined. *Journal of Educational Administration*, 5(2), 136–147.
- Bridges, E. M. (1982). Research on the school administrator: The state-of-the-art, 1967–1980. *Educational Administration Quarterly*, 18(3), 12–33.
- Bridges, E. M. (1992). *The incompetent teacher*. London, UK: Falmer Press.
- Brown, G. T., & Chai, C. (2012). Assessing instructional leadership: A longitudinal study of new principals. *Journal of Educational Administration*, 50(6), 753–772.
- Bulris, M. E. (2009). *A meta-analysis of research on the mediated effects of principal leadership on student achievement* (Unpublished doctoral dissertation). East Carolina State University, Greenville, NC.
- Buttram, J. L., Mead, H., Loftus, D., & Wilson, J. O. (2006). *Allocation of school leaders' time*. Retrieved from <http://www.dasl.udel.edu/sites/dasl.udel.edu/files/users/user10/Allocation%20of%20School%20Leaders%27%20Time.pdf>
- Covey, S. R., Merrill, A. R., & Merrill, R. R. (1995). *First things first*. New York, NY: Simon & Schuster.
- Creswell, J. W. (2008). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage.
- Cuban, L. (1988). *The managerial imperative and the practice of leadership in schools*. Albany, NY: SUNY Press.
- Darling-Hammond, L. (1995). Inequality and access to knowledge. In J. Banks & C. Banks (Eds.), *Handbook of research on multicultural education* (pp. 465–483). San Francisco, CA: Jossey-Bass.
- Darling-Hammond, L., Amrein-Beardsley, A., Haertel, E., & Rothstein, J. (2012). Evaluating teacher evaluation. *Phi Delta Kappan*, 93(6), 8–15.
- Day, C. (2009). Capacity building through layered leadership: Sustaining the turnaround. In A. Harris (Ed.), *Distributed leadership* (pp. 121–138). Buckingham, UK: Open University Press.
- Day, C., & Leithwood, K. (Eds.). (2007). *Successful principal leadership in times of change: An international perspective*. Dordrecht, Netherlands: Springer.
- Day, C., Sammons, P., Hopkins, D., Harris, A., Leithwood, K., Gu, Q., ... Kingston, A. (2011). *Successful school leadership: Linking learning and achievement*. Berkshire, UK: Open University Press.
- Deal, T. E., & Peterson, K. D. (1999). *Shaping school culture: The heart of leadership*. San Francisco, CA: Jossey-Bass.
- Donaldson, G. A. (2001). *Cultivating leadership in schools: Connecting people, purpose, and practice*. New York, NY: Teachers College Press.
- Duke, D. L. (1990). Developing teacher evaluation systems that promote professional growth. *Journal of Personnel Evaluation in Education*, 4(2), 131–144.
- Duke, D. L. (2004). The turnaround principal: High-stakes leadership, *Principal*, 84(1), 12–23.
- Duke, D. L., & Salmonowicz, M. (2010). Key decisions of a first-year “turnaround” principal. *Educational Management Administration & Leadership*, 38(1), 33–58.
- Dwyer, D. (1986). Understanding the principal's contribution to instruction. *Peabody Journal of Education*, 63(1), 3–18.
- Dwyer, D., Lee, G., Rowan, B., & Bossert, S. (1983). *The principal as instructional leader: No single vision, no simple formula*. San Francisco, CA: Far West Laboratory for Educational Research and Development.

- Edmonds, R. (1979). Effective schools for the urban poor. *Educational Leadership*, 37, 15–24.
- Erickson, D. A. (1979). Research on educational administration: The state-of-the-art. *Educational Researcher*, 8(3), 9–14.
- Feldhoff, P. T., Radisch, P. F., & Klieme, P. E. (2014). Methods in longitudinal school improvement research: State of the art. *Journal of Educational Administration*, 52(5).
- Fiedler, F. (1967). *A theory of leadership effectiveness*. New York, NY: McGraw-Hill.
- Giambatista, R. C., Rowe, W. G., & Riaz, S. (2005). Nothing succeeds like succession: A critical review of leader succession literature since 1994. *Leadership Quarterly*, 16(6), 963–991.
- Goff, P., Guthrie, E. J., Goldring, E., & Bickman, L. (2014). Changing principals' leadership through feedback and coaching. *Journal of Educational Administration*, 52(5), 682–704.
- Goldring, E., & Berends, M. (2009). *Leading with data: Pathways to improving your school*. Thousand Oaks, CA: Corwin.
- Goldring, E., Grissom, J. A., Rubin, M., Neumerski, C. M., Cannata, M., Drake, T., & Schuermann, P. (2015). Make room value added: Principals' human capital decisions and the emergence of teacher observation data. *Educational Researcher*, 44(2), 96–104.
- Goldring, E., Huff, J., May, H., & Camburn, E. (2008). School context and individual characteristics: What influences principal practice? *Journal of Educational Administration*, 46(3), 332–352.
- Grissom, J. A., Kalogrides, D., & Loeb, S. (2014). Using student test scores to measure principal performance. *Educational Evaluation and Policy Analysis*, 36(1), 1–26.
- Grissom, J. A., Loeb, S., & Master, B. (2013). Effective instructional time use for school leaders: Longitudinal evidence from observations of principals. *Educational Researcher*, 42(8), 433–444.
- Grobman, H., & Hynes, V. (1956). What makes a good principal? *NASSP Bulletin*, 40(223), 5–16.
- Gross, N., & Herriot, R. (1965). *Staff leadership in schools*. New York, NY: John Wiley & Sons, Inc.
- Haller, E. (1979). Questionnaires and the dissertation in educational administration. *Educational Administration Quarterly*, 15(1), 47–66.
- Hallinger, P. (1982, 1990). *Principal Instructional Management Rating Scale*. Sarasota, FL: Leading Development Associates.
- Hallinger, P. (2003). Leading educational change: Reflections on the practice of instructional and transformational leadership. *Cambridge Journal of Education*, 33(3), 329–351.
- Hallinger, P. (2011). A review of three decades of doctoral studies using the *Principal Instructional Management Rating Scale*: A lens on methodological progress in educational leadership. *Educational Administration Quarterly*, 47(2), 271–306.
- Hallinger, P., Bickman, L., & Davis, K. (1996). School context, principal leadership and student achievement. *Elementary School Journal*, 96(5), 498–518.
- Hallinger, P., & Heck, R. H. (1996a). Reassessing the principal's role in school effectiveness: A review of empirical research, 1980–1995. *Educational Administration Quarterly*, 32(1), 5–44.
- Hallinger, P., & Heck, R. H. (1996b). The principal's role in school effectiveness: An assessment of methodological progress, 1980–1995. In K. Leithwood et al. (Ed.), *International handbook of research in educational leadership and administration* (pp. 723–784). New York, NY: Kluwer.

- Hallinger, P., & Heck, R. H. (1998). Exploring the principal's contribution to school effectiveness: 1980–1995. *School Effectiveness and School Improvement*, 9(2), 157–191.
- Hallinger, P., & Heck, R. H. (2002). What do you call people with visions? The role of vision, mission and goals in school leadership and improvement. In K. Leithwood, P. Hallinger et al. (Eds.), *The handbook of educational leadership and administration* (2nd ed.). Dordrecht, Netherlands: Kluwer.
- Hallinger, P., & Heck, R. H. (2010). Collaborative leadership and school improvement: Understanding the impact on school capacity and student learning. *School Leadership and Management*, 30(2), 95–110.
- Hallinger, P., & Heck, R. H. (2011a). Conceptual and methodological issues in studying school leadership effects as a reciprocal process. *School Effectiveness and School Improvement*, 22(2), 149–173.
- Hallinger, P., & Heck, R. H. (2011b). Exploring the journey of school improvement: Classifying and analyzing patterns of change in school improvement processes and learning outcomes. *School Effectiveness and School Improvement*, 22(1), 1–27.
- Hallinger, P., Heck, R. H., & Murphy, J. (2014). Teacher evaluation and school improvement: An analysis of the evidence. *Educational Assessment, Evaluation and Accountability*, 26(1), 5–28.
- Hallinger, P., & Leithwood, K. (1996). Culture and educational administration. *Journal of Educational Administration*, 34(5), 4–11.
- Hallinger, P., Li, D., & Wang, W. C. (2016). Gender differences in instructional leadership: A meta-analytic review of studies using the principal instructional management rating scale. *Educational Administration Quarterly*, 52(4), 567–601.
- Hallinger, P., Liu, S., & Piyaman, P. (2017). Does principal leadership make a difference in teacher professional learning? A comparative study China and Thailand. *Compare: A Journal of Comparative and International Education*, 1–17.
- Hallinger, P., & McCary, M. (1990). Developing the strategic thinking of instructional leaders. *Elementary School Journal*, 91(2), 90–108.
- Hallinger, P., & Murphy, J. F. (1985). Assessing the instructional leadership behavior of principals. *Elementary School Journal*, 86(2), 217–248.
- Hallinger, P., & Murphy, J. F. (1986). The social context of effective schools. *American Journal of Education*, 94(3), 328–355.
- Hallinger, P., & Murphy, J. F. (2012). Running on empty? Finding the time and capacity to lead learning. *NASSP Bulletin*, 97, 5–21.
- Hallinger, P., & Wang, W.-C. (2015). *Assessing instructional leadership with the Principal Instructional Management Rating Scale*. Dordrecht, Netherlands: Springer.
- Hart, A. W. (1991). Leader succession and socialization: A synthesis. *Review of Educational Research*, 61(4), 451–474.
- Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81–112.
- Heck, R. H. (1993). School context, principal leadership, and achievement: The case of secondary schools in Singapore. *Urban Review*, 25(2), 151–166.
- Heck, R. H., & Hallinger, P. (2009). Assessing the contribution of distributed leadership to school improvement and growth in math achievement. *American Educational Research Journal*, 46, 626–658.
- Heck, R. H., & Hallinger, P. (2014). Modeling the effects of school leadership on teaching and learning over time. *Journal of Educational Administration*, 52(5), 653–681.

- Heck, R. H., Larsen, T., & Marcoulides, G. (1990). Instructional leadership and student achievement: Validation of a causal model. *Educational Administration Quarterly*, 26(2), 94–125.
- Heneman III, H., & Milanowski, A. T. (2007). *Assessing human resource alignment: The foundation for building total teacher quality improvement*. Madison, WI: Consortium for Policy Research in Education.
- Hersey, P., & Blanchard, K. H. (1977). *Management of organizational behavior: Utilizing human resources* (3rd ed.). Englewood Cliffs, NJ: Prentice Hall.
- Hornig, E. L., Klasik, D., & Loeb, S. (2010). Principal's time use and school effectiveness. *American Journal of Education*, 116(4), 491–523.
- Kimball, S. M., & Milanowski, A. T. (2009). Examining teacher evaluation validity and leadership decision making within a standards-based evaluation system. *Educational Administration Quarterly*, 45(1), 34–70.
- Kleine-Kracht, P. (1993). Indirect instructional leadership: An administrator's choice. *Educational Administration Quarterly*, 18(4), 1–29.
- Knapp, M., Copland, M., Honig, M., Plecki, M., & Portin, B. (2009). *Learning-focused leadership and leadership support: Meaning and practice in urban systems*. Seattle, WA: Center for the Study of Teaching and Policy, University of Washington.
- Kotter, J. (1996). *Leading change*. Boston, MA: Harvard Business School Press.
- Kruger, M., Witziers, B., & Slegers, P. (2007). The impact of school leadership on school level factors: Validation of a causal model. *School Effectiveness and School Improvement*, 18(1), 1–20.
- Lee, M. S., & Hallinger, P. (2012). Exploring the impact of national context on principals' time use: Economic development, societal culture, and educational system. *School Effectiveness and School Improvement*, 23(4), 461–482.
- Lee, M. S., Walker, A., & Chui, Y. L. (2012). Contrasting effects of instructional leadership practices on student learning in a high accountability context. *Journal of Educational Administration*, 50(5), 586–611.
- Leithwood, K., Anderson, S., Mascall, B., & Strauss, T. (2010). School leaders' influences on student learning: The four paths. In T. Bush, L. Bell, & D. Middlewood (Eds.), *The principles of educational leadership and management*. London, UK: Sage.
- Leithwood, K., Harris, A., & Hopkins, D. (2008). Seven strong claims about successful school leadership. *School Leadership and Management*, 28(1), 27–42.
- Leithwood, K., Harris, A., & Strauss, T. (2010). *Leading school turnaround: How successful leaders transform low-performing schools*. Hoboken, NJ: John Wiley & Sons, Inc.
- Leithwood, K., & Jantzi, D. (2000). The effects of transformational leadership on organizational conditions and student engagement with the school. *Journal of Educational Administration*, 38(2), 112–129.
- Leithwood, K., & Jantzi, D. (2008). Linking leadership to student learning: The contributions of leader efficacy. *Educational Administration Quarterly*, 44(4), 496–528.
- Leithwood, K., & Levin, B. (2008). Understanding and assessing the impact of leadership development. In J. Lumby, G. Crow, & P. Pashiardis (Eds.), *International handbook on the preparation and development of school leaders* (pp. 280–300). London, UK: Taylor & Francis.
- Leithwood, K., Louis, K. S., Wahlstrom, K., & Anderson, S. (2010). *Learning from leadership: Investigating the links to improved student learning*. Minneapolis, MN:

- Center for Applied Research and Educational Improvement/University of Minnesota, Ontario Institute for Studies in Education/University of Toronto.
- Leithwood, K., & Montgomery, D. (1982). The role of the elementary principal in program improvement. *Review of Educational Research*, 52(3), 309–339.
- Leithwood, K., Patten, S., & Jantzi, D. (2010). Testing a conception of how school leadership influences student learning. *Educational Administration Quarterly*, 46(5), 671–706.
- Leithwood, K., & Sun, J. P. (2012). The nature and effects of transformational school leadership: A meta-analytic review of unpublished research. *Educational Administration Quarterly*, 48(3), 387–423.
- Leitner, D. (1994). Do principals affect student outcomes: An organizational perspective. *School Effectiveness and School Improvement*, 5(3), 219–238.
- Lipham, J. (1981). *Effective principal, effective school*. Reston, VA: National Association of Secondary School Principals.
- Liu, S., & Hallinger, P. (2017). Leading Teacher Learning in China: A Mixed Methods Study of Successful School Leadership. In K. Leithwood, J. Sun and K. Pollock (Eds.). *How school leadership influences student learning: The four paths* (pp. 279–303). Dordrecht, The Netherlands: Springer.
- Louis, K. S., Dretzke, B., & Wahlstrom, K. (2010). How does leadership affect student achievement? Results from a national US survey. *School Effectiveness and School Improvement*, 21(3), 315–336.
- Maag Merti, K. (2014). Conducting intervention studies on school improvement: An analysis of possibilities and constraints based on an intervention study of teacher cooperation. *Journal of Educational Administration*, 52(5), 590–616.
- Marks, H., & Printy, S. (2003). Principal leadership and school performance: An integration of transformational and instructional leadership. *Educational Administration Quarterly*, 39(3), 370–397.
- Marshall, K. (2004). How I recovered from HSPS (Hyperactive Superficial Principal Syndrome): A progress report. *Phi Delta Kappan*, 84(9), 701–709.
- May, H., Huff, J., & Goldring, E. (2012). A longitudinal study of principals' activities and student performance. *School Effectiveness and School Improvement*, 23(4), 417–439.
- May, H., & Supovitz, J. (2011). The scope of principal efforts to improve instruction. *Educational Administration Quarterly*, 47(2) 332–352.
- Mentzer, M. S. (1993). The leader succession–performance relationship in a non-profit organization. *Canadian Review of Sociology/Revue canadienne de sociologie*, 30(2), 191–204.
- Miller, G. (1960, April). What is the role of the principal in developing good relationships with staff? *Proceedings of the Annual Meeting of the National Association of Secondary School Principals*, 19–22.
- Miller, W. (2015, April 17). Want reform? Principals matter too. *New York Times*, p. A31.
- Miller, R. J., Goddard, R. D., Kim, M., Jacob, R., Goddard, Y., & Schroeder, P. (2016). Can professional development improve school leadership? Results from a randomized control trial assessing the impact of MCREL's Balanced Leadership Program on principals in rural Michigan schools. *Educational Administration Quarterly*, 52(4), 531–566.
- Miskel, C., & Cosgrove, D. (1985). Leader succession in school settings. *Review of Educational Research*, 55(1), 87–105.
- Miskel, C., & Owens, M. (1983). *Principal succession and changes in school coupling and effectiveness*. Paper presented at the Annual Meeting of the American Educational Research Association, Montreal, Quebec, Canada.

- Mulford, B., & Silins, H. (2003). Leadership for organisational learning and improved student outcomes: What do we know? *Cambridge Journal of Education*, 33(2), 157–183.
- Mulford, B., & Silins, H. (2009). Revised models and conceptualization of successful school principalship in Tasmania. In B. Mulford & B. Edmunds (Eds.), *Successful school principalship in Tasmania*. Launceston, Tasmania: Faculty of Education, University of Tasmania.
- Murphy, J. (2008). The place of leadership in turnaround schools: Insights from organizational recovery in the public and private sectors. *Journal of Educational Administration*, 46(1), 74–98.
- Murphy, J. F., Hallinger, P., & Heck, R. H. (2013). Leading via teacher evaluation: The case of missing clothes? *Educational Researcher*, 42(6), 349–354.
- Murphy, J. F., & Torre, D. (2015). Vision: Essential scaffolding. *Educational Management Administration & Leadership*, 43(2), 177–197.
- Nettles, S., & Herrington, C. (2007). Revisiting the importance of the direct effects of school leadership on student achievement: The implications for school improvement policy. *Peabody Journal of Education*, 82(4), 724–736.
- Neumerski, C. M. (2013). Rethinking instructional leadership, a review: What do we know about principal, teacher, and coach instructional leadership, and where should we go from here? *Educational Administration Quarterly*, 49(2), 310–347.
- Oakes, J., & Wells, A. S. (1998). Detracking for high student achievement. *Educational Leadership*, 55, 38–41.
- Opdenakker, M., & Van Damme, J. (2007). Do school context, student composition and school leadership affect school practice and outcomes in secondary education? *British Educational Research Journal*, 33(2), 179–206.
- Pitner, N. (1988). The study of administrator effects and effectiveness. In N. Boyan (Ed.), *Handbook of research in educational administration* (pp. 106–132). New York, NY: Longman.
- Pounder, D. G., Ogawa, R. T., & Adams, E. A. (1995). Leadership as an organization-wide phenomena: Its impact on school performance. *Educational Administration Quarterly*, 31(4), 564–588.
- Rigby, J. G. (2013). Three logics of instructional leadership. *Educational Administration Quarterly*, 50(4), 610–644.
- Robinson, V., Lloyd, C., & Rowe, K. (2008). The impact of leadership on student outcomes: An analysis of the differential effects of leadership types. *Educational Administration Quarterly*, 44(5), 564–588.
- Rowan, B., & Denk, C. E. (1984). Management succession, school socioeconomic context, and basic skills achievement. *American Educational Research Journal*, 21(3), 517–537.
- Sammons, P., Davis, S., Day, C., & Gu, Q. (2014). Using mixed methods to investigate school improvement and the role of leadership: An example of a longitudinal study in England. *Journal of Educational Administration*, 52(5), 565–589.
- Saphier, J., & King, M. (1985). Good seeds grow in strong cultures. *Educational Leadership*, 42(6), 67–74.
- Sarason, S. B. (1971). *The culture of the school and the problem of change*. Boston, MA: Allyn & Bacon.
- Scheerens, J. (2012). *School leadership effects revisited*. Dordrecht, Netherlands: Springer.
- Schoen, L., & Fusarelli, L. (2008). Innovation, NCLB, and the fear factor: The challenge of leading 21st-century schools in an era of accountability. *Educational Policy*, 22, 181–203.

- Sebastian, J., & Allensworth, E. (2012). The influence of principal leadership on classroom instruction and student learning: A study of mediated pathways to learning. *Educational Administration Quarterly*, 48(4), 626–663.
- Silva, J. P., White, G. P., & Yoshida, R. K. (2010). The direct effects of principal–student discussions on eighth grade students’ gains in reading achievement: An experimental study. *Educational Administration Quarterly*, 47(5), 772–793.
- Slegers, P., Geijsel, F., & Van den Berg, R. (2002). Conditions fostering educational change. In K. Leithwood (Ed.), *Second international handbook of educational leadership and administration* (pp. 75–102). Dordrecht, Netherlands: Kluwer Academic.
- Slegers, P., Thoonen, E. J., Oort, F., & Peetsma, T. (2014). Changing classroom practices: The role of school-wide capacity for sustainable improvement. *Journal of Educational Administration*, 52(5), 617–652.
- Southworth, G. (2002). Instructional leadership in schools: Reflections and empirical evidence. *School Leadership and Management*, 22(1), 73–92.
- Spillane, J. P. (2006). *Distributed leadership*. San Francisco, CA: Jossey-Bass.
- Sun, J. P., & Leithwood, K. (2015). Direction-setting school leadership practices: A meta-analytical review of evidence about their influence. *School Effectiveness and School Improvement*, 26(4), 499–523.
- Thoonen, E., Slegers, P., Oorta, F., & Peetsmaa, T. (2012). Building school-wide capacity for improvement: The role of leadership, school organizational conditions, and teacher factors. *School Effectiveness and School Improvement*, 23(4), 441–460.
- Uhls, H. (1962). What’s important Mr. Principal? *NASSP Bulletin*, 46(273), 108–111.
- Urlick, A., & Bowers, A. J. (2011). What influences principals’ perceptions of academic climate? A nationally representative study of the direct effects of perception on climate. *Leadership and Policy in Schools*, 10(3), 322–348.
- Urlick, A., & Bowers, A. J. (2014). What are the different types of principals across the United States? A latent class analysis of principal perception of leadership. *Educational Administration Quarterly*, 50(1), 96–134.
- Van de Grift, W. (1990). Educational leadership and academic achievement in elementary education. *School Effectiveness and School Improvement*, 1(3), 26–40.
- Walker, A. D. (2012). Leaders seeking resonance: Managing the connectors that bind schools. *International Journal of Leadership in Education*, 15(2), 237–253.
- Walker, A. D., & Dimmock, C. (2002). Moving school leadership beyond its narrow boundaries: Developing a cross-cultural approach. In K. Leithwood & P. Hallinger (Eds.), *Second international handbook of educational leadership and administration* (pp. 67–204). Dordrecht, Netherlands: Springer.
- Walker, A., & Hallinger, P. (2015). A synthesis of reviews of research on principal leadership in East Asia. *Journal of Educational Administration*, 53(4), 554–570.
- White, B. R., & Bowers, A. J. (2011). *Principal effects in Illinois: A research brief* (Policy Research: IERC 2011–2013). Illinois Education Research Council.
- Witziers, B., Bosker, R., & Kruger, M. (2003). Educational leadership and student achievement: The elusive search for an association. *Educational Administration Quarterly*, 34(3), 398–425.