

# Chapter 16

## Conclusion

**Kenneth Leithwood, Jingping Sun, and Katina Pollock**

This concluding chapter provides a summary of the results reported in the book's chapters along with some reflections on those results. Also provided is a unique approach to helping practicing school leaders use the results of relevant research to guide their own decision making; this approach is illustrated using a recent, large-scale data set not yet reported elsewhere. Implications are identified for school leadership development and associations are noted between the expectations for leadership development reflected in one prominent set of school leadership standards and the contents of the book as a whole.

### 16.1 The Four Paths Framework as a Whole

As we argued in the first chapter, effective approaches to school leadership make important contributions to students' success at school; among the wide array of school conditions influencing students, school leadership is second only to classroom instruction. But leadership is not always effective and, even when it is, its influence on students is largely indirect (or mediated). Better understanding the

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K. Leithwood (✉)

Ontario Inst. for Studies in Education University of Toronto, University of Toronto,  
Toronto, ON, Canada  
e-mail: [kenneth.leithwood@utoronto.ca](mailto:kenneth.leithwood@utoronto.ca)

J. Sun

Educational Leadership, Policy and Technology Studies, The College of Education,  
University of Alabama, Box 870302, 301 Graves Hall, Tuscaloosa, AL 35487, USA  
e-mail: [jsun22@ua.edu](mailto:jsun22@ua.edu)

K. Pollock

Faculty of Education, Western University,  
1137 Western Road, London, ON N6G 1G7, Canada  
e-mail: [kpolloc7@uwo.ca](mailto:kpolloc7@uwo.ca)

nature of effective leadership and how the influence of such leadership “seeps through” families, schools and classrooms to students was the main goal of the book.

The largely indirect nature of school leadership has been acknowledged since at least the early 1980s (Bossert et al. 1982; Pitner 1988). Indeed, the concept of “paths” along which leadership “flows” is not unique to our Four Paths framework. Alluding to Pitner’s (1988) taxonomy of approaches to the study of school leadership, Hallinger and Heck explained in 1998 that a “mediated effects framework... hypothesizes that leaders achieve their effect on school outcomes through indirect paths” (Hallinger and Heck 1998, p. 167).

While acknowledging the indirect or mediated effects of school leadership, by far the largest proportion of leadership research over the past 25 years has been focused on the discovery of effective leadership practices and has neglected much inquiry about (a) which paths are most likely to carry the influence of those practices or (b) the extent to which influencing different mediators depends on mediator-specific leadership practices. Those systematic attempts that have been carried out over this period to unpack the indirect effects of school leadership included such mediators of leadership as, for example, the educational expectations of staff, teachers’ academic optimism, collaborative decision making, changes in teacher practices, teacher commitment to change and organizational learning (e.g., Mascall et al. 2008; Hallinger and Heck 1998; Geijsel et al. 2003). The Four Paths framework is the only attempt we are aware of, however, to codify mediators with a high probability of contributing to student success, as well as being susceptible to the influence of effective leadership practices. While such codification alone ignores the importance for school leaders of the context in which they find themselves, the Four Paths approach encourages school leaders to pick, from a menu of mediators on the Four Paths, those that seem most suitable for their own school improvement purposes.

### ***16.1.1 Successful Leadership Practices (Part I)***

Research methods inquiring about successful leadership provide evidence varying widely in the types of validity they address. For example, in-depth qualitative cases of individual leaders at work in their schools typically aim to provide evidence which meets high standards of internal validity but poorly reflects standards of external validity, whereas the opposite is the case for large scale quantitative studies of the effects of selected leadership practices on many schools, staffs and students. Mixed methods research aspire to evidence meeting high standards of both types of validity.

Naïve interpretations of research focused on providing high levels of internal validity encourage a “context is everything” claim about successful leadership; every school (classroom, teacher, student, leader, etc.) has unique features which demand unique responses by leaders. Extreme forms of this interpretation spin into ever more detailed features of the school and its inhabitants implying understand-

ings of what will constitute successful leadership that are eventually not open to codification. In this extreme view, even detailed case study research has no contribution to make since every case will be different in some important way. From this view, the practical experiences of leaders will always be more valuable than the results of research except possibly “action research”.

Naïve interpretations of research aiming at high levels of external validity nudge us toward a universalistic model of leadership practices effective in all contexts. Extreme forms of this interpretation suggest that successful leadership is not just learnable but what is learned transcends the context in which it is exercised requiring almost no thought about differences in context, no “local knowledge”. Robust research results with high levels of external validity will always outweigh practical experience in this view; people highly skilled in the exercise of externally validated successful leadership practices will be effective no matter the organizational circumstances or domain.

We hold a nuanced view about the relative value of practical experience and the results of research in the framing of leadership practices that are successful in context. Our view awards considerable importance – but not dominance – to the guidance provided by research about effective leadership practices. As Christensen and Demski (2002) argue, the usefulness of theory and research is found in the guidance it provides to organizing our thinking about some phenomenon. More specifically, our position reflected in this book, is that leadership success in most school contexts requires locally sensitive adaptations of a set of core leadership practices that are generally effective in most circumstances. Chaps. 2 and 3 of Part I of the book provide a closely related set of such “core practices”. These core practices are derived from considerable amounts of evidence gathered in many different contexts. Each of the core practices is associated with one of four domains or categories of leadership including setting directions, developing people, re-designing the organization and improving the instructional program. The *Ontario Leadership Framework* summarized in Chap. 3 includes, in addition to the four sets of core practices, an additional category entitled Securing Accountability; this is in recognition of the policy contexts in which very large proportions of school leaders now find themselves.

The most important assumption on which our position about the relative contribution of research and experience to successful practice rests is that those exercising leadership are capable of taking key features of their own organizational contexts into account when they are deciding how best to adapt, for that context, leadership practices known to be successful in many organizational circumstances. Sometimes these leaders will need help: coaching might be useful from time-to-time; professional development undoubtedly will be valuable occasionally. But these leaders are, on the whole, astute professionals and deserve enough autonomy to do the right thing. Figuring out what the right thing is and doing it is also their responsibility.

The position we have adopted on the role of context, however, remains open to evidence about variation within “contextual categories” that warrant significant differences in the responses of large groups of leaders. By contextual categories we mean unique sets of socio-cultural beliefs, norms and values influencing approaches to leadership that have been so comprehensively documented in the massive *Globe*

project (e.g., Chhokar et al. 2007; House et al. 2004). Contextual categories will sometimes also include distinctly different sets of organizing principles adopted by districts (e.g., degree of centralized decision making), demographic features of families and communities served by schools (e.g., high or low SES families) and characteristics of educational policies with widely different consequences for schools and their leaders (e.g., policies shaping how schools will be held accountable).

Hallinger (2016) has provided a comprehensive review of many such contextual categories and their consequences for leadership with which we largely agree. There is a productive role for leadership research in clarifying those contexts and clarifying what those contexts mean for leaders' adaptations of core practices, as well as the enactment of context-specific approaches to leadership.

### ***16.1.2 Rational Path (Part II)***

The Rational Path includes a large handful of variables or conditions with important consequences for students, some located in classrooms and some across the school, as a whole. Instructional leadership models persevere on a sub-set of these conditions (those in classrooms), at least by implication. Of all the experiences students have at school, most published evidence indicates that what happens in classrooms matters most (Scheerens et al. 1989; Reetzig and Creemers 2005). While a reasonable corpus of empirical evidence indicates that leadership influences classroom instruction, little evidence is available about *how* that occurs. Spillane's chapter (Chap. 4) provides one of the few sources of conceptual guidance in response to this question. Adopting a "distributed perspective", Spillane's conceptual explanation centers on the interactions among those in many roles providing leadership and both the situations in which they find themselves and those directly responsible for students' experiences in the classroom.

There is also a surprisingly small amount of evidence assessing the *relative* effects on students of instruction in comparison with other variables on the Rational Path. As we report below, results of some very recent research with this comparative potential are surprising and counter-intuitive, to say the least. So how school leaders improve instruction in schools -- the technical core of their business - and with what consequences for students - is still something of a "black box".

The Rational Path also includes extra - classroom conditions, conditions that influence students' experiences not only in the classroom but across the school, as a whole. As Part II of the book indicates, considerable evidence recommends leaders' attention to the status of both Academic Press or emphasis and Disciplinary Climate in their schools. Malloy and Leithwood's chapter (Chap. 5) illustrates the extent to which Academic Press can influence student learning and the value of one coordinated form of distributed leadership in providing this influence. While the impact of a school's Disciplinary Climate on students is well documented, there is little evidence about how leaders might influence it. Furthermore, we know little about the impact of other extra-classroom conditions, potentially situated on the Rational

Path, that school leaders might reasonably expect would significantly influence student learning in response to their interventions. Beverborg and his colleagues (Chap. 6), however, provide a compelling evidence suggesting that, whatever changes might be needed in the classroom and school to improve student learning, at least one set of well-documented leadership practices is likely to foster the types of teacher reflection that will contribute to the increased teacher self-efficacy and learning needed to discover and enact those changes. These leadership practices, among the core practices included in transformational leadership models, include vision building, individualized consideration and intellectual stimulation; they are encompassed in the leadership framework summarized in Chap. 2.

### ***16.1.3 Emotional Path (Part III)***

Variables or conditions on the Emotional Path are among the most frequently researched variables on all four paths. Chapters in Part III suggest at least four especially powerful teacher emotions mediating the influence of school leadership on student learning including teacher trust, collective teacher efficacy, teacher commitment, and teachers' organization citizenship behavior (which we treat as a function of "commitment"). Results reported in Part III chapters indicate that these teachers' emotions matter as much to student learning as teachers' instructional skills and practices. As a whole, the evidence in Part III recommends that school leaders pay as much attention to nurturing teachers' psychological states and well-being as to directly improving teachers' instructional practices.

The chapters in this section also indicate, not surprisingly, that some practices associated with transformational approaches to leadership are helpful for improving the status of variables on the Emotional Path. We say "not surprisingly" because transformational leadership is explicitly designed to provide the support needed to improve the quality of one's work. Tshannen-Moran and her colleagues (Chap. 8) suggest that teacher trust in leaders, "cultivates", or helps prepare, the school culture for improving student achievement; it does this, in part, by making it more possible to improve the status of other variables on the Emotional Path (e.g., collective teacher efficacy) as well as on other paths (e.g., Academic Press, Teacher Professionalism) carrying leaders influence on students. Edge and her colleagues (Chap. 9) demonstrate the considerable importance teachers attribute to their leaders' ability and willingness to care about their staff, not only about their work in schools, but also about their lives outside of school. Such care or benevolence is one of a small handful of indicators leading teachers to attribute trustworthiness to their leaders, others including indications of vulnerability, honesty, openness, competence and reliability (Handford and Leithwood 2013). Building trusting relationships with staff is clearly a key successful leadership practice.

While Part III positions teachers' inner states as mediators of leaders' influence on student learning, they are more precisely conceptualized as mediators of leaders'

influence on teachers' classroom practices. It seems likely that these emotional states have a positive influence on teachers' willingness to experiment with new forms of instruction, for example. It is also likely that these emotional states influence more subtle aspects of what students experience in their relationships with teachers such as supportive interactions, a ready willingness to help students outside the normal boundaries of classroom work, and an "upbeat" and optimistic disposition toward working with students. These more subtle aspects of teachers' behavior contribute in quite fundamental ways to the quality of teacher-student relationships so critical to student motivation (Lazowski and Hulleman 2016), engagement (Roorda et al. 2011), well-being (Neihaus and Adelson 2014) and achievement (Ahnert et al. 2013).

### ***16.1.4 Organizational Path (Part IV)***

For many years, a common focus of school leaders was focused on instruction and school organizational culture or effectiveness (primarily those on the Rational and Organizational Paths), however, very few constructs have been developed that capture the essential features of school conditions conducive to student learning. A number of concepts have been developed, such as: professional community, organizational learning, corporative learning, and healthy schools. Yet, the association of these variables with student learning is moderate, based on limited quantitative research evidence so far. Murphy's review, for example, identifies dynamic cultural and well-entrenched structural barriers that make the realization of effective professional community problematic. More significant evidence is needed regarding the conceptual, technical, and statistical constructs on student learning. In addition, there is limited research evidence illustrating the relationship and mediating roles of these variables with student learning, though their positive impacts on student learning have been documented in some research studies.

### ***16.1.5 Family Path (Part V)***

Our own experience working with schools suggests that the majority of teachers and school administrators feel uncomfortable working with parents outside the relatively narrow confines of the school's walls. This is the case in spite of a long line of research making the case for greater collaboration between schools and families (e.g., Jeynes 2011) and greater attention to families by school leaders (Goldring and Rallis 2000).

While significant attention is given by many schools to such in-school initiatives as communicating to parents about school expectations and activities, arranging events that parents are expected to attend and developing parent volunteer programs, few of these school-driven activities have much impact on student learning, although

they do serve other important purposes). Yet variables or conditions in the home explain an equal or larger proportion of variation in student achievement across schools, as compared with many better known school-based variables and conditions (Coleman 1998; Jeynes 2011). In Chap. 1, for example, we reported that our initial test of the Four Paths Framework found effects on student math and language achievement of variables on the Family Path to be about the same as, or slightly larger than, the effects of variables on the Rational and Emotional Paths and greater than variables on the Organizational Path. With substantial effects on student success at school but as-yet limited attention by schools, influencing key variables on the Family Path should be considered “low hanging fruit” for leaders’ school improvement initiatives (big effects without big costs).

The two chapters in this section of the book clarify which features of the home are likely to be the most productive focus for schools to nurture. Elements of a broader family educational culture, these features include parent expectations for their students’ success at school, parents’ social and intellectual capital about schooling and forms of child-parent communications in the home. In Chap. 14, Jeynes provided a comprehensive synthesis of evidence about the impact of each of these three family conditions and others while Chap. 15 provides evidence from a large-scale quasi-experimental field study about the ability of schools to significantly influence these conditions specifically in families struggling to provide supportive educational cultures for their children. To be clear, leaders’ efforts to influence key conditions on the Family Path need not and should not target all families in any school and in some schools very few families may be in need of the school’s support in the home. Identifying families that could benefit from school support and providing this support is an important contribution to achieving equity across a school’s student population.

### ***16.1.6 Using Evidence from Research to Help Guide Leaders’ Decisions***

We return here to our earlier argument that a primary responsibility of leadership research is to identify successful practices with high levels of generalizability or “external validity” and that a primary responsibility of practicing school leaders is to adapt and enact those externally valid practices in ways that are “ecologically valid”, that is, in ways that reflect the nature and demands of their own schools’ context. This general argument has two important caveats.

The first caveat acknowledges that if available research results comprehensively addressed the myriad circumstances, problems and interactions faced by practicing leaders, our argument would seem to privilege research-based knowledge over local knowledge in practicing leaders’ decision making. But research results are actually available to serve as guides for only a minor portion of those decisions. So our first caveat is that, for those decisions about which there is relevant robust research

evidence, practicing leaders should use such evidence as one source of guidance in making their decisions; they should certainly avoid making decisions that fly in the face of robust research evidence. On decisions about which there is little relevant research evidence – a very large proportion of their decisions - leadership practitioners' existing expertise and local knowledge should “carry the day”.

The second caveat to our general argument acknowledges that a great deal of research evidence potentially relevant to practicing leaders' decision making is extremely difficult to use well. This caveat is not about interpreting technically complex statistical analyses or arcane theoretical frameworks, as challenging as that may be. Rather, it is about determining the most promising focus of leadership efforts, *all things equal* (that is, temporarily leaving aside considerations about the unique features of the leaders' context). For example, the chapters in this book as a whole provide a considerable amount of high quality evidence about both successful leadership practices and characteristics of schools, classrooms and families that contribute significantly to the success of students. But identifying the relative effects of these characteristics on student success, given the concerted efforts of leaders, remains a tenuous business at best. *All other things equal, should I focus on building trust among staff, parents and students or improving the disciplinary climate across my school or nurturing my colleagues collective sense of efficacy or working more closely with some parents to enhance the educational culture of their homes or ..... etc.* Evidence in the book to this point has provided no direct way of reliably answering this question. So in this final section of this final chapter we illustrate one way of making the results of relevant research a more transparent and useable source of guidance for school leaders.

This illustration uses a large, quantitative data set collected through surveys of teachers and school leaders in more than 100 elementary and secondary schools whose leaders were associated with the Rice University Entrepreneurship Program (REEP) in Texas. Collected through a collaboration between REEP staff (Lawrence Kohn) and two editors of this book (Leithwood and Sun), and explicitly guided by the Four Paths framework, these data provided evidence about most of the variables describe in earlier sections of the book. The main purpose for collecting the data was to provide individual schools with evidence about the status of the Four Path variables in their schools and the association between those variables and student achievement in each of the schools. These results were then used by school leaders and teachers as part of their ongoing school improvement work.

Evidence of student achievement in each school was provided by the state's testing program, the *Texas STAAR Percentage at Phase-in Satisfactory Standard or Above*, combing all subjects and all grades. The measure of school leadership practices included in the teacher survey was based on the *Ontario Leadership Framework* summarized in Chap. 3. Variables on each of the Four Paths, 14 in total, were measured with surveys of both teachers and school leaders in each of the participating schools. Appropriate controls for student disadvantage were included as part of the data collection.

For the purpose of illustrating how to make relevant research a more transparent and usable source of guidance for school leaders, the full REEP data set were used



**Table 16.1** The power index

Paths and variables	Impact of leadership on each variable	Impact of each variable on student learning	Power index
<b>Rational path</b>			
Classroom instruction	.47	.02	<b>.01</b>
Use of instructional time in the classroom	.41	.42	<b>.17</b>
Academic press	.71	.42	<b>.30</b>
Disciplinary climate	.56	.56	<b>.31</b>
<b>Emotional path</b>			
Teacher trust in others	.80	.50	<b>.40</b>
Collective teacher efficacy	.69	.52	<b>.36</b>
Teacher commitment	.69	.30	<b>.21</b>
Organizational citizenship behavior	.32	.39	<b>.15</b>
<b>Organizational path</b>			
Safe and orderly environment	.76	.44	<b>.33</b>
Collaborative structures & cultures	.78	.25	<b>.20</b>
Organization of planning. & instructional time	.77	.24	<b>.18</b>
<b>Family path</b>			
Parental expectations for child's school success	.47	.64	<b>.30</b>
Parents social & intellectual capital about schooling	.43	.68	<b>.29</b>
Forms of communication between parents and child	.45	.61	<b>.27</b>

to calculate a “power index”. First, the correlation between the measure of leadership and the measures of each of the Four Path variables were calculated. Then correlations between each of the Four Path Variables and student achievement were calculated. These two sets of correlations were combined (multiplied) to represent a power index as reported in Table 16.1.

A comparison of indices across combinations of leadership practices and Four Path variables serves as a form of guidance for one critical set of school leader decisions. For example, the power index suggests that leaders’ engagement in efforts to improve *Teacher Trust* and *Teacher Collective Efficacy* in their schools may be the most powerful paths to improved student achievement whereas, surprisingly, leaders’ engagement in efforts to improve *Classroom Instruction* may have almost no impact on student achievement. This result prompted considerable further exploration about how to explain these results among those in schools providing the data, although there was little quarrel that the survey measured a legitimate conception of effective classroom instruction (those teacher survey items appear in the box below).

My teaching is explicitly guided by the goals that I intend to accomplish with my students.

I constantly monitor my students' progress to make sure that they are actively engaged in meaningful learning

I provide prompt, informative feedback to my students.

I analyze my students' achievement results and provide differentiated instruction.

My instructional strategies enable students to construct their own knowledge

My students have significant opportunities to learn collaboratively.

I use data to identify weaknesses in my students' academic skills and develop interventions to remediate or reteach

I supplement my face-to-face instruction in schools with technology-facilitated assignments reinforcing what has been learned in class interventions to remediate or reteach

I supplement my face-to-face instruction in schools with technology-facilitated assignments reinforcing what has been learned in class

This power index does not, of course, take account of other contingencies legitimately influencing school leaders' choices such as degree of environmental turbulence, organizational size or the demands of specific policies. But it is a precise way of helping leaders understand the nature of the guidance provided by research relevant to their school improvement decisions. As we argued earlier, absent something comparable to the calculation of a power index, a large proportion of available research is difficult to use by school leaders wanting to be evidence informed.

### ***16.1.7 Some Implications for Leadership Development***

Leadership development programs, especially principal preparation programs, have come under intense criticism over the past 15 years. These criticisms have included, for example, issues concerning context, the recruitment and selection of candidates, curriculum content, the qualifications and experience of those providing instruction, types of pedagogy used, program organization, and student assessment practices (Crow and Whiteman 2016). During this same period, however, considerable effort has been made, especially in the U.S. to identify the characteristics of exemplary leadership development programs (Young 2015; Jacobson et al. 2015). Particularly relevant to the Four Paths framework explored in this book is the conclusion of a major study of exemplary programs by Darling-Hammond and her colleagues. This study “found that along with research-based content ‘curricular coherence linking goals, learning activities, and assessments around a set of shared values, beliefs and

knowledge about effective organizational practice was evident in exemplary programs” (quoted in Crow and Whiteman 2016, p. 126).

The Four Paths framework, including the core leadership practices summarized in Part I of this book, provide coherent curriculum content for that portion of a school leader preparation program concerned with school improvement and student success at school. While effective leadership practices in Part I have been organized around four categories of core leadership practices, most of these practices are also included, for example, in the new U.S. *Professional Standards for Educational Leaders* (2015) used to guide the many principal preparation programs offered by U.S. universities. One section of the new U.S. standards entitled “What is the link between educational leadership and student learning?” explains that:

The 2015 Standards embody a research- and practice-based understanding of the relationship between educational leadership and student learning. Improving student learning takes a holistic view of leadership. In all realms of their work, educational leaders must focus on how they are promoting the learning, achievement, development, and well-being of each student. The 2015 Standards reflect interdependent domains, qualities and values of leadership work that research and practice suggest are integral to student success:

1. Mission, Vision, and Core Values
2. Ethics and Professional Norms
3. Equity and Cultural Responsiveness
4. Curriculum, Instruction and Assessment
5. Community of Care and Support for Students
6. Professional Capacity of School Personnel
7. Professional Community for Teachers and Staff
8. Meaningful Engagement of Families and Community
9. Operations and Management
10. School Improvement

Of these ten standards and their more detailed specification, only number 2 (*Ethics and Professional Norms*) is not fully reflected in the core practices described in Part II of the book. This standard, however, includes six more detailed expectations, of which three are also part of the core practices described in Part II of the book:

- (b) Act according to and promote the professional norms of integrity, fairness, transparency, trust, collaboration, perseverance, learning, and continuous improvement.
- (c) Place children at the center of education and accept responsibility for each student’s academic success and well-being.
- (e) Lead with interpersonal and communication skill, social-emotional insight, and understanding of all students’ and staff members’ backgrounds and cultures. (page 10)

The account of how leadership influences student learning in the new U.S. standards (Please see Figure 1 on page 5) reflects a “direct effects” model of school

leadership influence, a conception clearly inconsistent with the now very large body of evidence about the indirect effects of most school leadership influence and the systematic outline of leadership mediators as described in our Four Paths model.

The Four Paths model, then, encompasses almost all of the new U.S. standards and provides considerable additional guidance about how the leadership practices identified by the standards might actually be enacted by school leaders to influence student learning, guidance largely absent from the U.S. standards themselves. Knowledge about variables on each of the four paths would help prepare candidates for both diagnosing school needs and designing effective school improvement processes. Chapters included in each section of the book could be used to deepen candidates' understandings about each of the conditions or variables on the Four Paths and the more specific leadership practices likely to improve those conditions.

While the genesis of the Four Paths framework was a large-scale project aimed at further developing the capacities of existing school principals, we recommend this framework as a partial solution to some of the central problems associated with the initial preparation of school principals, as well as the further education of all those - no matter official role - who find themselves exercising leadership in their schools.

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