This chapter will present the research supporting the content of the following chapters. The genesis for the research is the interest in improving learning for all students and how leaders who are successful in doing so make these improvements. Because of the accountability felt by school and district leaders today, many are not able to achieve their target improvements with small, incremental changes (first-order changes); they instead expect changes that require different actions, attitudes, and skills of everyone involved in schools. These changes—impacting how learning takes place and, perhaps, how it is measured—are referred to as second-order changes. Second-order changes are the focus of the research supporting the content in this book.

HOW DID THE RESEARCH BEGIN?

To quantify the themes encountered in my experience as a school and district administrator and consultant in schools, I began with the meta-analysis based works of Marzano, Waters, and McNulty (2005) and Waters and Marzano (2007). These studies identify leadership factors of second-order change related to gains in student achievement at the school and district level, respectively. From a rigorous review of research on principal leadership and student-achievement studies published from 1978–2001, Marzano, Waters, and McNulty (2005) found about 5,000 studies, but only sixty-nine met the criteria sought for the meta-analysis. In the
meta-analysis of these studies, the authors identified twenty-one factors of leadership. Of those, seven factors seem to be related to second-order change, or change that is deep, and that requires rethinking pedagogy or delivery of educational services. Marzano, Waters, and McNulty’s seven factors, in order of importance, are:

2. Optimizer.
3. Intellectual stimulation.
5. Monitoring/evaluating.
6. Flexibility.
7. Ideals/beliefs (p. 70).

Similar to the review and meta-analysis of studies on principal leadership, Waters and Marzano (2007) reviewed more than 4,500 titles and found twenty-seven that met the required criteria for inclusion in a study of district leadership impacting student achievement. In the meta-analysis of the studies on district leadership and student achievement, five factors were found to have a positive correlation to student achievement. These are, in this order:

1. Collaborative goal-setting process.
2. Nonnegotiable goals for achievement and instruction.
3. Board alignment with and support of district goals.
4. Monitoring the goals for achievement and instruction.
5. Use of resources to support the goals for achievement and instruction (p. 3).

Table 1.2 illustrates the relationship of district and school leadership factors.

**WHY INTERVIEW RESEARCH?**

For those who read and discuss research, the value of different methodologies inevitably comes into question. Is the meta-analysis conclusive enough for school leaders to focus on those identified factors in implementing innovation? Furthermore, many of the studies in the cited research took place in schools and districts that were radically different than the context in which schools and districts find themselves today. This reflection led me to embark on interview research with sixty-two school principals and district leaders who were identified by other leaders as having successfully implemented
second-order change. Another twenty-three leaders were recommended, but twenty-one of those did not have student-achievement data supporting the successful second-order change; therefore, I chose not to extend the invitation to be interviewed. Two others did not desire to participate in the study.

In the interview protocols (Resources A and B), most of the interview items are directly related to the factors identified by Marzano, Waters, and McNulty (2005) for the principal interview and Waters and Marzano (2007) for the district-leader interview. There is also an item on each interview protocol related to changes made to the structure, organization, professional development, and use of resources. This item was derived from experience as a school and district leader, observations of improved schools, and literature (Bolman & Deal, 2003; Leithwood, Louis, Anderson & Wahlstrom, 2004; Taylor & Collins, 2003). Generally, I did not have to ask each of the questions, since the leaders addressed the target content within the discussions. They were anxious to share what they had done and the resulting successes related to teacher and student accomplishments.

In all but two principal and one district leader interviews, I spent time in each school or district, either before or after the interview, becoming knowledgeable of the context and implementation of the second-order change. In all cases, student-achievement data was gathered to support the successful implementation of second-order change before the interview. Often, the leader provided additional data during the visit.

WHO PARTICIPATED IN THE INTERVIEWS?

Fifty principals and twelve district leaders, in ten states, were interviewed between October 2007 and April 2009. Thirty-three of the principals interviewed were in their first assignment as principal and twelve were in their second assignment as principal. These numbers may counter the thinking that the more experience principals have, the more expert they will be at leading change. Rather than experience, perhaps decision makers should ask, “What attitude, skills, and knowledge do leaders need to lead significant change in schools and districts?”

All but one district leader was a principal before moving into district-level leadership. Interestingly, these district leaders indicate that their leadership philosophies and practices have not changed from when they were principals. What did change is their expanded views and scope of responsibility, but their actions to bring about change, identified in this text as leader action themes, did not change. This commonality in the leaders’ practices, whether serving at the school or district levels, is why the leader action themes are the same for leaders working at both levels.

Table 1.1 provides more information about the participants. There were slightly more males than females, mostly at the secondary level. The majority of district leaders in the research were female. Most of the participants were white. A point of note is that one half of the participants either had earned a doctorate degree or were in a doctoral program at the time of the interview.
### Table 1.1 Demographic Variables of Participants

<table>
<thead>
<tr>
<th>Position</th>
<th>Gender</th>
<th>Race</th>
<th>Doctorate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>White</td>
</tr>
<tr>
<td>Elementary Principals N = 16</td>
<td>4</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Middle School Principals N = 12</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>K–8 Principals N = 2</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>High School Principals N = 20</td>
<td>15</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>District Leaders N = 12</td>
<td>3</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Total N = 62</td>
<td>34</td>
<td>28</td>
<td>52</td>
</tr>
</tbody>
</table>

**WHAT ACTIONS DO THESE LEADERS TAKE?**

Interview research from 2007–2009 indicates that these leaders employ the factors of second-order change identified by Marzano, Waters, and McNulty (2005) and Waters and Marzano (2007). The findings also reflect a mosaic of the recent work of Blase and Blase (2001, 2004); Reeves (2006); Wagner and Kagan (2006); Fullan (2006); DuFour (2004); and Leithwood, Louis, Anderson, and Walhstrom (2004). Content and themes of the leader responses do not have great variation, regardless of the level of the students served, demographics of the students, geographic location, characteristics of the community, nor personal characteristics or position of the leader—either at the school or district. *All students learning is the consistent priority across every interview and visit, and everything else is less important.*

Themes that emerged from the research are more precise than factors (see Table 1.2) identified by Marzano, Waters, and McNulty (2005) and Waters and Marzano (2007), reflecting the accountability faced by leaders
in 2009 and the leaders’ knowledge of contemporary research. As mentioned, the responses of both district leaders and principals are similar; therefore, I combined them into the nine leader action themes for second-order change. The intent is to show what actions the leaders perceive result in improved student achievement in their schools and districts.

Table 1.2 Relationship of Factors of Second-Order Change: District and School-Based Leadership

<table>
<thead>
<tr>
<th>School-Based Leadership</th>
<th>District Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of Curriculum, Instruction, Assessment</td>
<td>Nonnegotiable Goals for Achievement and Instruction</td>
</tr>
<tr>
<td>Optimizer</td>
<td>Use of Resources to Support Goals for Achievement and Instruction</td>
</tr>
<tr>
<td>Intellectual Stimulation</td>
<td>Collaborative Goal Setting</td>
</tr>
<tr>
<td>Change Agent</td>
<td>Use of Resources to Support Goals for Achievement and Instruction</td>
</tr>
<tr>
<td>Monitoring and Evaluating</td>
<td>Monitoring of Goals for Achievement and Instruction</td>
</tr>
<tr>
<td>Flexibility</td>
<td></td>
</tr>
<tr>
<td>Ideals and Beliefs</td>
<td>Nonnegotiable Goals for Achievement and Instruction</td>
</tr>
<tr>
<td></td>
<td>Board Alignment With and Support of District Goals for Achievement and Instruction</td>
</tr>
</tbody>
</table>


One hundred percent of those interviewed identified the first seven themes as related to their second-order change. Many of the principals identified family and community engagement to be important to their students’ improved learning. The ninth theme emerged within each of the discussions.

These themes are not listed in order of importance, but it appears that to change a culture to one focused on learning, a leader would have to take action on most of the remaining themes. Therefore, focusing the school or district culture on learning is the central concept of this text. The reader can see from Table 1.3 that it is in the center, and the other surrounding themes
support the culture on learning. The nine leader action themes for second-order change are:

1. Leaders focus the culture on learning.
2. Leaders make decisions for student learning.
3. Leaders stimulate intellectual growth.
4. Leaders invest personally in the change.
5. Leaders expect collaboration to optimize success.
7. Leaders provide the expectation and support for data-based decision making.
8. Leaders engage families in learning.
9. Leaders influence through the political environment.
The fact that leaders believe that changing the culture to focus on learning is significant tells us that it was not focused this way before they assumed the leadership position. If leaders focus the culture on learning, and if that is second-order change, how do they accomplish this culture change? The eight other leader action themes support changing the school or district culture to one focused on all students learning. These themes do not appear to take place in any order, but common sense tells us that that making decisions for student learning is a precursor that guides other leader action themes. Intellectual stimulation probably precedes the expectations of other actions.

Table 1.4 shows each theme and examples of leader actions. This table may be a helpful quick reference as each chapter is read or as a resource for collaboration with others. To what extent are these leader action themes present in your setting? What steps can be taken to implement those that you think will enhance student achievement?

### Table 1.4 Leader Action Themes for Second-Order Change

<table>
<thead>
<tr>
<th>Themes</th>
<th>Examples From Interviews</th>
</tr>
</thead>
</table>
| 1. Leaders focus the culture of the school or district on learning. | ✓ Culture is focused on learning.  
✓ High expectations are demonstrated for all (ESE, ESL, average, gifted) in curriculum, instruction, and student work.  
✓ A philosophy of inclusion is adopted in advanced classes, rather than exclusion/elitism.  
✓ Focus is on student and adult relationships.  
✓ Discussions are opened on the concepts that reflect learning, such as grading practices. |
| 2. Leaders make decisions for student learning. | ✓ Districts and schools are reorganized for effective and efficient use of time, people, space, and resources.  
✓ Teams of teachers and/or administrators are strategically revised to leverage expertise, knowledge, and attitudes.  
✓ Physical location of teachers is adjusted to facilitate collaboration.  
✓ Teacher leadership teams are changed from department or grade-level chairs to collaborative team leaders. |

(Continued)
Table 1.4 (Continued)

<table>
<thead>
<tr>
<th>Themes</th>
<th>Examples From Interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Use of time within and beyond the school day is rearranged for student results—before-school and afterschool care, tutoring, detention, and supervision time become targeted instructional time. ✓ Teachers/administrators/support staff self-select to leave, are reassigned, or are nonrenewed.</td>
<td>3. Leaders stimulate intellectual growth. ✓ Leaders easily talk about research. ✓ Leaders attend professional development and conferences with teacher teams. ✓ Accountability for results is supported with professional development. ✓ Study groups/book studies/action research focus on the target need and are led by principals, administrators, and teachers. ✓ In-house experts provide collaborative support for colleagues. ✓ Professional development evolves from workshops to voluntary study/action research teams, book studies, collegial class visits, etc. ✓ Curriculum, instruction, and assessment are studied.</td>
</tr>
<tr>
<td>✓ Leaders do not delegate student achievement. ✓ Leaders attend the professional development/professional learning community sessions/data study with administrators and teachers. ✓ Leaders visit classrooms regularly and provide feedback. ✓ Leaders have authentic conversations with subordinates about student learning and subordinate performance.</td>
<td>4. Leaders personally invest in second-order change and are involved.</td>
</tr>
<tr>
<td>✓ Leaders lead changes with the nonnegotiable of collaboration. ✓ Leaders use collaboration to support change. ✓ Leaders collaborate with one another. ✓ Leaders seek divergent thinking and feedback. ✓ Teacher teams are expected to collaborate and to provide evidence/artifacts of results. ✓ Each year, accountability for collaborating to achieve results increases.</td>
<td>5. Leaders expect collaboration and results from collaboration.</td>
</tr>
<tr>
<td>Themes</td>
<td>Examples From Interviews</td>
</tr>
<tr>
<td>--------</td>
<td>--------------------------</td>
</tr>
</tbody>
</table>
| **6. Leaders strategize for consistency to ensure that the leadership team speaks with the same voice.** | ✓ Leaders create an expectation of consistency through personal, active participation.  
✓ Leaders are purposeful and deliberate in implementing systems and structures to ensure consistency.  
✓ Leaders meet regularly with subordinate leaders to prepare them to speak with the same voice and to have a level of knowledge and skills necessary to provide consistent expectations.  
✓ Leaders meet regularly with teacher leaders to clarify misconceptions and focus the work.  
✓ Leaders regularly visit classrooms. |
| **7. Leaders provide the expectation and support for data-based decision making at the teacher level.** | ✓ Student data is used to drive budget decisions.  
✓ Accountability for results is clear.  
✓ Online instructional plans—requiring literacy strategies, high levels of questioning, and attention to individual students—are monitored.  
✓ Follow-up with individual teacher conferences takes place.  
✓ Data meetings with teacher teams are held regularly with feedback on steps taken to improve learning.  
✓ Various forms of data are used for decision making. |
| **8. Leaders engage families in the learning process.** | ✓ Parents participate in learning about how to ask about school, about assignments, etc.  
✓ School offers adult English classes for parents.  
✓ Parents learn the instructional philosophy.  
✓ Teachers call parents to invite them to events.  
✓ Technology is used to provide access for families. |
| **9. Leaders influence through the political environment.** | ✓ Leaders are transparent, public, and accountable about data, purpose, and results.  
✓ Leaders develop trust and respectful relationships.  
✓ Leveraging political environments is internal and external. |
REFLECTION

Leading change in learning is very difficult. There are many who believe that the task of improving learning for all students is overwhelming, and perhaps even impossible. By considering the leader action themes, the work to be done can be conceptualized in manageable units. Consider which leader actions are already in place or progressing. Which ones should you consider next? Perhaps steps have been taken related to particular leader actions, but the accountability or follow-through is not present. Maybe the leader needs encouragement to weather the discomfort that second-order change causes. Based on this research and years of experience, it is my belief that leaders who strategize to improve learning and implement the leader action themes will be successful. The option of only making incremental changes is not viable given accountability for student learning.

HELPFUL TERMS

**Correlation:** Statistical term that refers to a substantiated relationship between two or more variables.

**Meta-analysis:** Techniques for statistically forming generalizations across a number of studies.

**Second-order change:** Deep change that alters the system in fundamental ways, offering a dramatic shift in direction and requiring new ways of thinking and acting (Marzano, Waters, & McNulty, 2005).