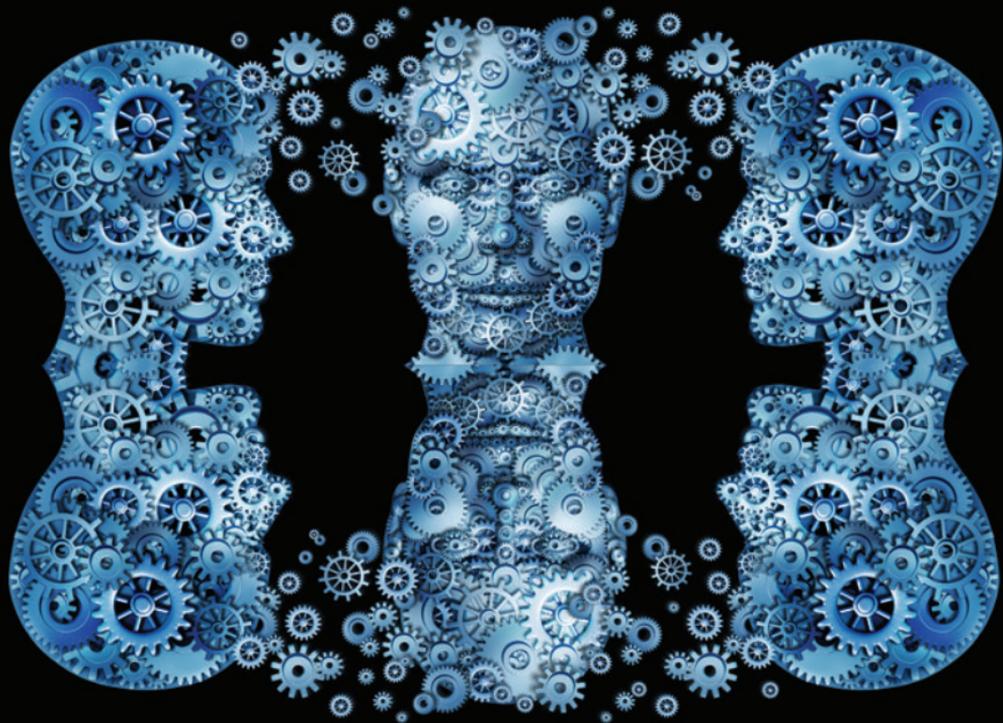


LEADERSHIP and SCHOOL QUALITY



edited by
Michael F. DiPaola &
Wayne K. Hoy

A VOLUME IN
RESEARCH AND THEORY IN EDUCATIONAL ADMINISTRATION

Leadership and School Quality

A Volume in
Research and Theory in Educational Administration

Series Editors
Michael F. DiPaola, *The College of William and Mary*
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PREFACE

Michael F. DiPaola and Wayne K. Hoy

Leadership and School Quality is the 12th volume in this series on Research and Theory in Educational Administration. As the title suggests, the chapters are organized around two critical aspects of school administration—leadership and quality.

The first chapter is a general analysis of thinking, deciding, and leading. Wayne Hoy argues that thinking is the precursor to reflective deciding, and both thinking and deciding are critical features of leading. Unfortunately, leading has become a celebrity term as well as a cliché, both of which distract from the competence, creativity, and the hard work of the task of leadership. At the heart of leading is the struggle to solve the fundamental dilemmas of organizations, complex tasks that require differentiated approaches.

The objective of this inquiry is to examine the theoretical and research bases for the critical organizational processes of thinking, deciding, and leading with the goal of synthesizing the literature into a coherent platform for effective administrative practice. Hoy develops a triarchic model of interactions among thinking, deciding, and leading and proposes seven principles as guides for practicing administrators. Concurrent thinking, choice architecture, satisficing, and the control of automatic, fast thinking are key elements in successful leadership.

In Chapter 2, Leslie Grant is concerned with assessment of teaching and learning: She contends that leadership assessment is an important responsibility for leaders at all levels in the educational system. The term “leadership assessment” is a relatively new one that serves as a complement to instructional and curriculum leadership, thus providing the three basic leadership roles of school administrators.

After reviewing the emergence of standards related to assessment leadership as well as the preparation and competence of school leaders in assessment, Grant develops a systems approach to assessment leadership. She calls attention to the need for a nested approach to leadership assessment, that is, a coordinated and systemic perspective on leadership at all school levels. Leaders at the school and district levels need to be on the same page with their instructional, curriculum, and assessment initiatives. Grant sketches a nested system of leadership as she examines the kind of leadership needed at each level. Finally, she makes a strong case for a leadership model grounded in the tenets of systems thinking.

In Chapter 3, David Dixon provides an empirical study of schools that examines the relationships between servant leadership, organizational citizenship, and school climate. After appraising the historical underpinnings of each of these concepts, Dixon’s research demonstrates consistent positive relations among servant leadership, organizational citizenship, and open and healthy school climate. Servant leadership is behavior that nurtures individual social and emotional development in organizations; it is grounded in compassion, collaboration, systems thinking, and moral authority.

Although Dixon’s research clearly establishes important and substantial links between servant leadership, organizational citizenship, and organizational climate, the causal pattern of these relationships is unclear. Dixon predicted that servant leadership would have a stronger relationship with organizational climate than organizational citizenship, but that was not the case. Moreover, socioeconomic status of the school plays a strong role in the relationships; the wealthier the school, the greater the degree of academic and environmental press and the greater the degree of organizational citizenship. Clearly, servant leadership and organizational citizenship are important aspects of open and healthy school climate, but the relationships are complex and need further study to explain the interactions and causal patterns of these variables.

In Chapter 4, Ross Larson and his colleagues also provide an empirical study of principal leadership, which explores leadership effects on teacher quality and mathematics achievement. The researchers examine the presence of direct and indirect effects among principal leadership, teacher quality, and student achievement in two conditions: one in which teachers and principals were receiving training in a school-based social and

emotional learning (SEL) intervention, the *Responsive Classroom* approach, and the other in which principals and teachers were using “business as usual” approaches.

This experimental study revealed that a *Responsive Classroom* approach creates conditions in which principal leadership appears to influence positively teaching quality, and, in turn, mathematics achievement. The authors theorize that a *Responsive Classroom* enhances interconnectedness among principals, teachers, and students and enables positive influences of principal leadership.

In Chapter 5, based on the instructional strategies of Hattie (2009), Kristie and Charles Wagner, explore the influence of instructional leadership behavior. Their study examined the School University Research Network (SURN), a partnership between the College of William and Mary’s School of Education and 28 K–12 school divisions. The SURN Principal Academy was designed to build principals’ knowledge of Hattie’s high-yield instructional strategies; to increase principal expertise with tools intended to collect evidence of classroom teaching and immediate feedback; and to facilitate collaborative observations to help teacher engage in reflective professional development to improve classroom performance.

The data show that the rates of instructional observations rose among participating principals in the SURN Principal Academy. Moreover, teachers who reported higher frequencies of instructional interactions with their principals also reported a greater degree of instructional change. Teachers’ perceptions of principal support were positively correlated with instructional change, as were perceptions of principal support for instruction and frequency of principal interactions. Finally, teachers led by principals in the Academy reported that feedback, support, modeling, and engagement behaviors of their principals positively influenced their instruction.

In some contrast to the earlier research studies of leadership of this book, Chapter 6 describes the importance of support for school leaders. Thomas Beatty maps a principals’ support network in an urban school district. In his qualitative study, Beatty investigated how networking promotes experienced principals’ professional growth as well as the benefits of peer dialogue. The participants—identified through purposeful selection—were nine practicing middle school principals from an urban school division in Virginia. Their experience in the job ranged from 3 to 9 years.

Beatty reports that all of the principals in the study described their jobs as fascinating and fulfilling. Moreover, most principals recounted that working with students, teachers, and parents was the most rewarding aspect of their jobs. Their roles, however, were not without challenges; in fact, the majority stated that they often felt alone and isolated, and they stressed the importance of interactions with professional peers. Strikingly, all nine of these principals emphasized the salience of trust in enabling them to

communicate authentically with their peers. Support was also of critical importance to principals; they all expressed a desire to interact with and learn from leaders who shared a common appreciation for collaboration and joint learning. In brief, the study demonstrated the significance of support networks for principals as they engage the challenges of their job. Such networks reduce their sense of isolation and enhance their professional learning. Beatty provides a series of rich narratives to illustrate these conclusions.

Chapter 7 continues the theme of support, but from school leaders to teachers. Mary Lynne Derrington and Davis Lomascolo explored the relationship between teachers' perceptions of principal support and student achievement in reading and math in a sample of Tennessee elementary, middle, and high schools. Their study also tested the reliability and factor structure of the Principal Support Scale (PSS), a 16-item survey that was reported to be a valid and reliable measure of perceived principal support for teachers (DiPaola, 2012).

The analyses of their data revealed two strong factors of support, *instrumental* and *expressive*, which are consistent with the development of the PSS and previous study (DiPaola, 2012). Derrington and Lomascolo also found a significant positive relationship between principal support and mathematics achievement in their sample of teachers across the three school levels—previous studies on the positive relationship between principal support of teachers and student achievement (Andrews & Soder, 1987; DiPaola, 2012; O'Donnell & Whyte, 2005) were conducted only at high schools. Their study extends the prior research on principal support for teachers into K–8 schools and examines the relationship between the support principals provide to teachers and achievement of students.

In Chapter 8 we segue into studies that focus on school effectiveness. Lauren Bailes studied the relationships of four organizational factors—mindfulness, organizational citizenship behavior, organizational justice, teacher professionalism—to overall school effectiveness, as well as their collective impact on effectiveness, as measure by the School Effectiveness Index (Hoy & Ferguson, 1985). In order to develop a predictive model of school effectiveness she employed a series of regression analyses using data from her sample of 86 public elementary schools.

Bailes' analyses revealed that the four, predictor variables had a positive and significant relationship to overall effectiveness (adjusted $R^2 = .694$). However, only organizational citizenship made a positive, significant, and unique contribution to effectiveness ($\beta = .667$). As a result of her findings She argued that the more effort that teachers put into their work, beyond that which is contractually required or for which they are paid, the more effective the organization will become. She urged school leaders and teachers to shape practice and professional development so that as schools

grow in professionalism and citizenship, they are also progressing toward broader goals of organizational effectiveness.

In Chapter 9, Roxanne Mitchell and her colleagues report on a meta-analytic review they conducted to explore both the antecedents and the consequences of perceived school effectiveness. Their meta-analysis included published studies on school effectiveness that have used the index of perceived organizational effectiveness (IPOE) and its theoretical framework.

Mitchell and her team used comprehensive meta-analysis software to perform metacorrelation computations. Both fixed effects models (FEM) and mixed effects models (MEM) or random effect models (REM) were used. The researchers identified five categories of factors related to school effectiveness were: leadership, teacher characteristics, organizational features, community influence, and contextual variables. Teacher characteristics such as trust, efficacy, and collegiality had the strongest relationship with effectiveness. Additionally, there was a significant relationship between perceptions of effectiveness and student achievement in the studies analyzed.

One teacher characteristic identified as having a strong relationship with effectiveness, teacher trust, is the focus of Chapter 10. Dimitri Van Maele, Nienke Moolenaar, and Alan Daly report on their study that examined the ways in which direct relations with peers may influence teachers' perception of trust. Data from 645 educators in 37 Dutch elementary schools were analyzed using social network and multilevel analyses to determine social influences on teacher trust.

Van Maele, Moolenaar, and Daly found that both structural network characteristics (i.e., number of relationships as mentioned by the teacher) as well as relational network characteristics (i.e., level of peer trust) are significantly related to teachers' perceptions of trust in colleagues, above and beyond the influence of faculty level trust. As a result they conclude that (1) when teachers are surrounded by peers who trust their colleagues, they are more likely to trust their colleagues; (2) the more colleagues a teacher seeks out to discuss work, the more a teacher trusts his/her colleagues, and (3) the level of faculty trust positively influences individual trust in colleagues above and beyond the influence of peer trust.

In Chapter 11, W. Sean Kearney and Julie Gray report on their study of the impact teachers' trust in their clients (students and parents) and classroom friction on mathematics achievement of students. They argued that it is vital to identify classroom climate factors that positively affect student achievement. Kearney and Gray assessed the perceptions of 482 students and their teachers in their sample of 26 math classrooms from ten elementary schools. They calculated intraclass correlations to identify the level of variation in math achievement between classrooms, then employed

a random coefficient HLM model to identify the specific impacts that classroom friction and teacher trust in students and parents (clients) have on elementary math achievement.

Kearney and Gray found that both teacher trust in clients and classroom friction make statistically significant impacts on the variance in math achievement. They concluded that increased teacher trust and reduced levels of classroom friction may be one tool that principals and teachers can utilize to increase achievement in elementary math classrooms.

In our final chapter, Andrew Saultz explores the impact of the federal Race to the Top Program on state and district policy. Race to the Top Program established a state grant program to encourage educational reform and improve school quality. Saultz examined the changing nature of educational policy and how state and district policymakers responded to Race to the Top. He analyzed documents and conducted interviews with a broad range of decision makers at the state and district levels.

Saultz found that the majority of states altered policy surrounding teacher evaluations, caps on charter schools, and Core Content State Standards. The Race to the Top Program leveraged a small amount of money and a short policy window to shift policy areas that are historically very contentious. He also concluded that two things are not clear: (1) will any of these policy shifts actually improve educational quality; (2) will these policies have staying power in states that did not receive funds. With previous reforms, the federal government was able to mandate certain practices due to annual resource allocations. Most states will never see any additional funds from Race to the Top. If policies were passed in a response to gain revenue, some states may roll back the policies now that funds are no longer available.

This book series *Theory and Research in Educational Administration* is about understanding schools. We welcome articles and analyses that explain school organizations and administration. We are interested in the “why” questions about schools. To that end, case analyses, surveys, large data base analyses, experimental studies, and theoretical analyses are all welcome. We provide the space for authors to do comprehensive analyses where that is appropriate and useful. We believe that the *Theory and Research in Educational Administration Series* has the potential to make an important contribution to our field, but we will be successful only if our colleagues continue to join us in this mission. So join with us—let us hear from you if you have theory and research that will enlighten our understanding of schools.

ACKNOWLEDGMENTS

Sincerest thanks our colleagues who have contributed to this and previous volumes in this series. They inspire us and continue to add to our knowledge of school organizations. We would be remiss not to also thank both Diana Theisinger and Jingzhu Zhang for their assistance and suggestions. Their attention to detail was invaluable as we compiled this volume.

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CHAPTER 1

THINKING, DECIDING, AND LEADING

Sound Theory and Reflective Practice

Wayne K. Hoy

ABSTRACT

The purpose of this analysis was to examine extant theory and research on thinking, deciding, and leading, with the goal of synthesizing this literature into a coherent platform for effective administrative practice. The analysis focused on contemporary theory in social psychology, decision making, and “dilemma-based” leadership. A triarchic model of interactions among thinking, deciding, and leading was developed and seven principles were proposed as guides for practicing administrators. Concurrent thinking, choice architecture, satisficing, and the control of automatic, fast thinking are key elements in successful leadership.

This inquiry examines the interrelated concepts of thinking, deciding, and leading. Thinking is the precursor to reflective deciding, and both thinking and deciding are critical features of leading. The focus of this analysis is on

the theoretical groundings of each of the three concepts and the practical implications of their interactions for educational leaders.

THINKING

Contemporary explanations of the mind typically focus on dual-processing theories that describe two modes or systems of thinking. One mode operates fast and automatically and is an experiential system. The other is a more deliberate, rational, and analytic system (Kahneman, 2011; Stanovich & West, 2000). What is sound intuitive thinking? Are heuristics useful thinking tools? How can we harness modes of thinking into a positive force? These are the kinds of questions that will be considered in the first part of this analysis.

Fast and Slow Thinking

In his insightful and enlightening analysis of thinking, Daniel Kahneman (2011) examined two systems of the mind that determine how we think. In this dual-processing model of the mind, he developed and amplified what he called System 1 and System 2 thinking (Kahneman, 2011).

System 1 is the automatic, fast system. It operates quickly and effortlessly. A child darts into the roadway in front of our car; we slam on the brakes. The reaction is instantaneous, with little effort, and without any sense of voluntary control. Decisions in this system are fast and automatic.

System 2 is the effortful system. It operates deliberately by allocating effort to deal with complex problems. System 2 functions slowly, consciously, and carefully. It demands analysis, concentration, mental effort, and exertion. This is the system for careful, rational deliberation as well as complex computations. Multiplying 857 by 934 or checking the validity of an abstruse mathematical proof requires System 2 thinking. Decisions in this system are slow, orderly, effortful, and deliberate.

To be effective in everyday life, we need our thinking to engage both systems. A major function of slow, deliberate thinking is to hold in check the quick and rash impulses, the dubious biases, and the freewheeling nature of our automatic, fast thinking. But slowing down our automatic system to engage in more reflective thinking is a difficult task at best. Although most of us identify ourselves as conscious, deliberate thinkers who have sound beliefs, make careful choices, and decide what to think and how to act, the automatic system of thinking is harder to control than we believe. We all have a little voice whispering in our ear, "Slow down. You're going too fast. You're going to screw up," but this good advice usually goes unheeded.

Consider two classic examples (Frederick, 2005; Kahneman, 2011):

1. A bat and a ball cost \$1.10 in total. The bat costs a \$1.00 more than the ball. How much does the ball cost?

If you are like most people, you see this as a simple problem and quickly determine the cost of the ball is 10 cents. Not so fast. If the ball costs 10 cents and the bat a dollar more, then the bat would cost \$1.10 and the total would be bat (\$1.10) plus ball (\$0.10) equals \$1.20. How can that be? It cannot be; we have exceeded the total (\$1.10). The correct answer is the ball costs 5 cents. Most of us **do not** engage System 2 to check our answer, and that is a mistake.

2. If it takes 5 machines 5 minutes to make 5 widgets, how long would it take 100 machines to make 100 widgets?

We hear the whisper, “Be careful.” The fast answer is 100 minutes. Wrong! It takes exactly the same time for 100 machines to make 100 widgets as for 5 machines to make 5 widgets—5 minutes is the correct answer.

These two illustrations demonstrate the difficulty of having *deliberate* System 2 check and override *automatic* System 1. Overcoming the impulses of the automatic system is easier said than done. The automatic system of thinking flows easily and effortlessly. Self-control in thinking is difficult.

In short, it is impossible to completely avoid the dysfunctions produced by the fast thinking of the automatic system. Further, constant monitoring by System 2 is mind-numbing, slow, and too inefficient to serve as a substitute for System 1, especially for routine decisions. Thus the dilemma: System 1 operates too fast and is prone to mistakes, but System 2 is much too slow for routine decisions. Both fast and slow thinking are essential in everyday life. The challenge is to learn to recognize circumstances in which errors are likely and try hard to avoid major mistakes when the decisions are critically important (Kahneman, 2011).

Rational and Intuitive Thinking

Chester Barnard (1938) was one of the first scholars of administration to distinguish between *logical* and *nonlogical* processes of thinking and deciding. Logical processes refer to conscious thinking and reasoning that leads to rational conclusions in terms of goals. Alternatives are made explicit and consequences of each are calculated and evaluated in terms of the likelihood of attaining the goals. This is a rational and analytic contribution in the process of deciding.

Nonlogical thinking is rapid and without the rational process of considering alternatives, consequences, and the likelihood of goal achievement. The process is too fast for sequential analysis. This fast decision making is clearly System 1 thinking; however, not all fast thinking is nonlogical.

Intuitive thinking is often seen as mysterious and even magical thinking because it occurs quickly, without apparent logical thought, and when used by experts, is frequently correct in its conclusions. Hebert Simon (1987) was one of the first scholars to demystify intuition. In his study of expert chess players, for example, he found that grandmasters could make skillful moves in a few seconds simply by glancing at the positions on the board and then selecting the next move. In other words, they made rapid decisions with apparently little analysis; that is, they were intuitive and correct in their thinking and deciding.

But upon closer scrutiny, such intuition is a result expert knowledge and experience (Epstein, 2010; Klein, 2003; Simon, 1987, 1992). Intuitive thinking is based upon associations and pattern recognition. Simon (1992) succinctly explains: “The situation has provided a cue: this cue has given the expert access to information stored in memory, and the information provides the answer. *Intuition is nothing more and nothing less than recognition*” (p. 155, emphasis added).

Intuition is an enigma, even among experts, because they know but cannot explain *how* they know. Experts have great difficulty explaining the thinking undergirding their spontaneous behavior: for example, chess masters’ rapid moves on the chess board (Simon, 1987); firefighters’ sudden urge to escape a burning house just before it collapses (Kahneman, 2011); art experts’ strong “gut feelings” of a fake (Gladwell, 2005); and expert pilots’ experience of “leemers”—feeling things are not quite right (Weick & Suttcliffe, 2001). Kahneman (2011) cogently observes that the major message of Simon’s (1987) conclusion about intuition is the “mystery of knowing without knowing” is not a unique feature of intuition, but rather “it is the norm of mental life” (p. 237).

In summary, intuition by experts is not merely automatic thinking. On the contrary, such intuition involves rapid, automatic thinking (System 1) as well as slower, rational thinking (System 2). In the first phase, an initial plan automatically comes to mind with the use of associative cues and memory, followed by a more deliberate process in which the plan is quickly and mentally simulated and checked to see if it will work (Simon, 1987). It seems likely that experts, in contrast to novices, use the time gained by their knowledge, experience, and automaticity to engage their deliberate system for a quick validity check of their initial plan. Not surprisingly, sound administrative thinking is a function of fast, automatic thinking as well as slow, deliberate thinking. The challenges are to find the right blend

of both, depending on the situation, and to slow down automatic thinking when the decisions are critical.

Heuristics and Fast Thinking

Closely related to automatic, fast thinking are heuristics. Heuristics are simple processes that help find quick, but imperfect, answers to difficult problems; they often take the form of simple rules of thumb that guide thinking and enable rapid and efficient decision making. For example, the rule in blackjack to “hit on 16 and stick on 17” is a heuristic that accelerates and simplifies thinking. In this case the heuristic is useful and efficient, but many heuristics for complicated administrative thinking are misleading and produce poor judgments.

Let us consider a few heuristics and their accompanying traps. The *recognition heuristic* is the tendency to infer a higher value (e.g., stronger, faster, better) to that which is familiar. Sometimes this heuristic works fine, but often it is misleading. People seize upon the familiar, stop thinking, and do not search among the unfamiliar options; they simply do not consider novel and creative ideas. Fast thinking encouraged by the familiar undermines creative thinking and often prematurely stops analysis.

The *availability heuristic* is the tendency to base judgments on information already available to the individual. Although what an individual immediately knows is fast, it is also limiting. Further, this heuristic causes people to overestimate the frequencies of events and to make errors (Tversky & Kahneman, 1974). What is immediately available in memory is often inadequate and sometimes misleading.

The *representative heuristic* is the tendency to see others as the typical stereotype that they represent. For example, an accountant is viewed as smart, precise, and introverted. Even though such quick judgments are incomplete and often in error, they are quite common (Tversky & Kahneman, 1981).

The *affect heuristic* is the tendency to let personal likes and dislikes determine beliefs. For example, political preferences influence the arguments that are persuasive. If you are a political conservative, you will likely believe that government programs are intrusive and ineffectual. Although your mind may not be completely closed to reasonable argument to the contrary, the tendency is to seize upon evidence that confirms your bias.

There are plenty of other heuristics that are used in thinking, but these illustrations should demonstrate how the mind, especially fast System 1, uses quick shortcuts as to make judgments. Although heuristics are helpful in simplifying and enhancing speed, as problems become more complex, shortcuts become increasingly more tempting, but also more laden with traps and more likely to mislead. The deliberate, analytic system has difficulty