

# Preface

## **BRAIN-COMPATIBLE INSTRUCTIONAL LEADERSHIP**

A shift occurred in the 1980s when a body of research found that principals of effective schools were instructional leaders (Brookover & Lezotte, 1982). Since then, evidence of the importance of instructional leadership at schools continues to mount. The role of principal has shifted from that of manager-administrator to instructional leader. How might we define an instructional leader? There are critical skills and knowledge that set an instructional leader apart from a manager-administrator.

Instructional leaders who understand how people learn hold the potential to be game-changers. They can better recognize effective methods, communicate and calibrate what effective learning looks and sounds like to others, and finally, support teachers in their continuing professional growth (Elmore, City, Fiarman, & Teitel, 2009; Fullan, 2001; Reeves, 2006).

Some of the roles inherent to an instructional leader include resource provider, instructional resource, good communicator, and visible presence in the classroom (Whitaker, 1997). Some of the skills required of an instructional leader include interpersonal, research and evaluation, planning, and observational (Phillips, 2002). Taken together, these roles and skills help to transform a school leader into an instructional and learning leader.

Imagine an instructional leader that is an expert in how people learn. How might that impact a school? First, the instructional leader would be comfortable and confident with one of the most important tasks of an instructional leader, the task of observing teaching and learning in the classroom. In the event the observation

is occurring with colleagues, the level of competence and confidence that an instructional leader possesses may add a beneficial spark that leads to creative problem solving and adaptive action, as opposed to hand-wringing. This level of comfort and confidence probably means that teachers and students become accustomed to the principal stopping by, unannounced, to get a glimpse of what and how students are learning on any given day and to keep his or her finger on the pulse of the learning going on in classrooms. Instructional leaders that understand how people learn are leaders who can use their own guiding principles as a compass, instead of having to rely forever on a checklist of strategies from a publisher far, far away. These instructional leaders are able to take what is happening in the classroom and find the next level of work required in order to continuously improve. They are able to record meaningful information from classroom visits that can act as springboards for future conversations that can make a difference (Elmore et al., 2009; Marshall, 2009). Because they understand how people learn, they understand how to give feedback in a productive and effective way, and they understand where teachers are on the continuum to become masterful instructors, therefore, the path to improvement is lit.

To understand how people learn, we must examine and develop understandings and become comfortable with the learning organ. We must come to understand the brain. That black box is the originator of thought, of responses, of learning. And in education, learning is what it's all about.

## **WHY THIS BOOK? WHY NOW?**

Instructional leaders need resources that speak to the most important and high leverage issue at hand—student learning. This book provides the information to incorporate the knowledge, skills, and steps to becoming a masterful instructional leader at a school site. By marrying the fields of cognitive science, neuroscience, educational leadership, and instruction, this book provides a cohesive framework to understand how the brain learns and how an instructional leader can use this information to improve student achievement.

Never before have educators been charged with such a complex and worthy task of leaving no child behind with regard to

educational progress. Complex challenges call for thoughtful solutions. No checklist or publisher-made form is going to provide the kind of information and data an instructional leader needs to serve as solutions for our unique contexts. Becoming learned about what we are all here for, which is learning, will serve as a solution.

### **What Makes This Book Unique?**

This book provides a framework for understanding five elements that play crucial roles in how we learn. These five elements are as follows: (a) the impact of emotions on learning, (b) memory systems at work, (c) attention and engagement, (d) the power of processing, and (e) feedback for learning. Instructional leaders will discover things, such as why people remember some kinds of information better than others and how and why the emotional environment in a classroom can make or break critical thinking. This book breaks down ways people learn as seen through the eyes of an instructional leader. Using contexts that are familiar to educators, readers will broaden their understanding of critical features of lessons, activities, and classroom management. The book provides processes and protocols for instructional leaders to share their understanding of how the brain learns with teachers and other colleagues.

### **Organization of the Book**

There are six chapters in the book. The first chapter acts as a brain primer, orienting the reader to structures, functions, and vocabulary of neuroscience. The next five chapters each explain a learning principle in detail and apply it to a classroom and staffroom setting. This is done through vignettes and educational scenarios. Each chapter begins by tapping the readers' prior knowledge about the topic and then relating it through stories and analogies. The neuroscience behind each principle is examined next, using unambiguous language and real-world examples that exemplify the principle. This enables instructional leaders to begin to make connections and integrate the new information with their current mental model. Overt links are made throughout each chapter with regard to how this information fits into the instructional leader's toolkit. Each chapter contains resources for the instructional leader

to use with teachers. Rubrics, checklists, charts, and tables provided will allow instructional leaders avenues to incorporate new understandings in the classroom and staffroom. Each chapter provides a section linking the learning principle to the knowledge and skills of an effective instructional leader. Each chapter also provides formative assessment questions to allow readers to measure progress in their learning. Questions that might be used in a study group to extend readers' thinking with regard to each principle close each chapter.

This book will equip the instructional leader to develop necessary knowledge and skills to understand how our brains learn and recall information and what kinds of things teachers can do to encourage and elicit powerful learning and recall. The reader will learn how to spot effective instruction and student engagement in classrooms that are compatible with how the brain learns, as well as instruction that may run counter to what we know is brain compatible. Materials will be provided for the instructional leader that will assist in recording and measuring effective instruction as well as communicating with and supporting teachers who are struggling with instruction.

This book was written with the instructional leader in mind. Now, more than ever, our leaders need to understand not only what constitutes best instructional practices in the classroom but how to filter the effective from the ineffective, the mediocre from the superior, the good from the bad, and the bad from the ugly. My hope is that this book provides instructional leaders a solid framework for understanding how we can use principles from neuroscience to engage our colleagues, our teachers, and our students in relevant, robust learning.