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Foreword

Countries around the world are implementing educational standards they hope will guide their schools to produce the high performers needed to guarantee their vision of their ability to globally compete for the highest levels of productivity. Many school systems have shown that creation of programs to address the standards have resulted in increasing academic achievement scores for many; however, not only does a gap continue to exist between students labeled as achievers and those labeled “low achievers,” but data from new assessments that focus on higher levels of thinking illustrate that the number of students on the lower end of the bell curve is increasing (Hernández & Gebeloff, 2013).

The most unfortunate collateral damage of the increasing pool of students labeled “low achievers” on these assessments is the interpretation of these results as indicative of these students’ incapacity for high levels of thinking. The underestimated (or totally ignored) reality proven by the eminent psychologist Reuven Feuerstein (and substantiated by neuroscience) is that these students are *not* incapable of high levels of thinking and performance. Instead, it is the mental processes and “habits of mind” requisite for high levels of thinking and intellectual performances that are underdeveloped.

So what is a critical root cause of this problem and what is needed to ensure the development of thinking so the vast capacity of all students can be elicited, nurtured and guided for high performance?

I have dedicated my practice to these questions and proffer one significant recognition: The focus of education on academic scores and/or global competition has steered us away from the original purpose of education upon which the word is derived; that is, to draw out and encourage high levels of thinking for activating the vast potential of an individual. This purpose of education is the catalyst for a new vision for schools, a vision that transcends the narrow focus of instruction on high test scores indicative of school achievement (where a large portion of students continue to underperform), to a vision of stimulating high levels of students’ thinking, enabling all students to recognize and act on the vast capacity of their abilities for self-actualization and personal contribution to the world.

Thinking Schools presents us with explorations into schools where such a vision is a reality. In these schools, instruction becomes instead mediation of learning designed to address the intention that every student be a deliberate, reflective, critical, and creative thinker for personal achievement. With this as the intention, explicit attention is on developing thinking to critically analyze, engage in comparative behaviors, reflect, question, critique, evaluate, forecast, and innovate. This laser focus is delivered through cognitive tools that create the neural patterns that make learning more efficient and effective and practices that cultivate habits of mind that animate the self-determination needed for

self-directed learning and high intellectual performance. The empirical evidence and neuroscience that substantiate these cognitive tools and practices are described along with guidance and insights from these Thinking Schools educators so this vision can be facilitated in every school for all students.

Paolo Freire once said the question we have to address is this: When we emancipate all students to be deliberate, reflective thinkers who question, critique, and want to take action, will educators, systems, and governments be ready for the power that will be unleashed? The answer to that question is clear: We are at a seminal point in the evolution of a global community. The paradigm of a global community negates competition among countries. In a global community, countries recognize reciprocal interests and the need and benefit of interdependence. Therefore, this new paradigm of a global community calls for Thinking Schools internationally, schools where students will be equipped to think dialectically, reflecting on the ramifications and possibilities of interdependence; schools where students will be cultivated to transform themselves to be self-actualized and make contributions to transform the world so this millennium is the one in which we achieve the global success of cooperation, high productivity globally, and innovation of efficient and effective use of our most promising and productive resource: our mind and the thinking it generates.

Yvette Jackson, Ed.D.

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Chief Executive Officer of the National Urban Alliance

REFERENCE ■

Hernández, J. C., & Gebeloff, R. (2013, August 7). Test scores sink as New York adopts tougher benchmarks. *New York Times*, http://www.nytimes.com/2013/08/08/nyregion/under-new-standards-students-see-sharp-decline-in-test-scores.html?ref=robertgebeloff&_r=0

Preface

The title of this book represents a declaration of what many people inside and outside of education from around the world now believe should be the central focus of education. Presented within these chapters is documentation showing how the *explicit* focus on thinking may become a foundation for every school, from many different vantage points and from several different countries. In one sense, our schools need to “recharter” their vision of schooling. We know that our work as educators is no longer simply about delivering more content knowledge, better technology, or more complex testing regimens. We need to explicitly develop our students’ thinking abilities so that they deepen content knowledge, build concepts, and filter the abundance of information flowing through virtual networks. The ultimate purpose of the Thinking Schools approach is to enable every student to become drivers of their own thinking and learning. We believe that for this to happen we must structure the school environment as a whole—not just in isolated classrooms and virtual mediums—so that students learn to engage interdependently and empathically with others, to become more reflective within their own, unique, ever-developing networking minds. We also believe, with our evolving understandings about the human brain, that every child needs to become more aware of—and take care of—the complex brain that hums unconsciously behind every thought, feeling, and action.

The ideal of schools teaching students *for, of, and about thinking* has been voiced, practiced in isolation, researched, and envisioned by many educators for decades, reaching back past the thinking skills movement in the United States and internationally during the late 20th century to John Dewey and, if you wish, back to Socrates. The educational community at large knows so much about language and cognitive development, facility with critical thinking, the independent and collaborative dimensions of learning, multiple and emotional intelligences, the neurosciences, and more recently, a bit about technologies and social media. Yet there have been few offerings of systematic, deep, and adaptable approaches supporting whole schools to make the systemic shift toward explicit teaching for what drives learning: thinking. There have been extensive research projects, theories, examples, and more convincing rhetoric about “changing mindsets” than real changes in classrooms around the world. Even the expanding use of technologies in the classroom is still primarily focused on delivering or accessing information rather than on how information can and should be processed and thought about. While this book does contain research of various forms, it is only presented in service of

Note: Before utilizing Thinking Maps™ as discussed herein, the educators highlighted in this professional book participated in required Thinking Maps™ training. Resources and training are provided by Thinking Maps™, Inc. (www.thinkingmaps.com). Thinking Maps™ is a registered trademark of Thinking Maps™, Inc.

the documented work surfacing from schools. The authors of this book are educators who are committed to systematically catalyzing, cocreating, and coaching “learning” communities that want to “thoughtfully” shift the paradigm over time toward becoming *thinking* communities.

Several abiding questions are boldly held up for your scrutiny and are met head-on throughout these writings: What are the similarities and unique differences between information and knowledge? Learning and thinking? Thought and language? Brain and mind? Please hold on to these challenging questions and your own educational background as frames of reference for considering what these authors are proposing.

The wider purpose of this book is to offer an introduction to the approach and adaptive implementation design developed by Thinking Schools International (TSI; www.thinkingschoolsinternational.com). Our work emerges from previous work, and there is nothing radically new here other than a group of people coming together to attempt to integrate what we have learned about the explicit development of thinking into a coherent, scalable, and sustainable approach for whole school change. Okay, maybe this is new!

There are eleven chapters ahead. The introductory chapter is the entry point description of the “what, why, and how” of Thinking Schools, a global initiative led by TSI. This is a group of educators who

- offer a broad *vision* of a Thinking School,
- model and train school faculty in practical *tools* for immediately beginning the shift toward a classroom and school-wide focus,
- support schools in planning a multi-year *implementation design* for making the shift, and
- work with the school to implement *student-centered models* for improving learning performance and long-term development of integrated thinking abilities, inquiry skills, and dispositions.

The TSI group is focused on working with a school faculty so that teachers, administrators, and the larger community creates and fully owns their own change processes. Key to this work is our commitment to documenting and networking schools from around the world so that they may share “best change models” as Thinking Schools. This book is one effort to document, communicate, and sustain this network.

The ten chapters following the introduction have a unique design, reflective of our interest in having multiple authors from different parts of the world, each with unique entry points for facilitating “thinking.” As editors, we decided that we would write introductory comments for each chapter that would serve to introduce you to the authors, engage you in anticipatory thinking about the topic, and make thematic connections and transitions from one chapter to the next. After each chapter, we have offered reflective questions to further propel your own thinking and for use in book studies with colleagues.

We have also given each chapter a one word heading, each of which may be thought of as questions that are essential to educators as they consider this approach:

- Chapter 1: How do we *catalyze* thinking across whole schools?
- Chapter 2: Is there a moral *imperative* for thinking schools?
- Chapter 3: How does our *brain, mind* and thus thinking develop over time?
- Chapter 4: What are broad *criteria* for thinking schools?
- Chapter 5: What has informed the *journey* of thinking schools?
- Chapter 6: How does a thinking *school* keep moving forward?
- Chapter 7: Can a school *system* make this shift toward thinking?
- Chapter 8: Where is the common ground for *language* and thinking?
- Chapter 9: How may we visually *coach* teachers' thinking?
- Chapter 10: How does *leading* thinking develop across a school?
- Chapter 11: Is a *country*-wide vision of educating for thinking possible?

As you will find across these chapters, the Thinking Schools approach has a structured yet adaptable design based on the central concern for developing every member of the school community as better thinkers for problem solving, decision making, and making productive changes needed around the world. This design was also created so that many schools within a region or country may be “scaled up” and be sustainable over time through face-to-face and virtual networking.

It is premature to announce that the Thinking Schools approach is an unequivocal “proven” success, but case studies, student- and school-wide performance results, and many other indicators of success presented in this book are strong indicators and are showing ways forward to improvements. A recent partnership is one proof of concept on a very large scale. The Malaysian education system is now in its second year of a five-year plan. It is a comprehensive, countrywide effort to transform *all* its 10,000 public schools from a lecture/rote learning format toward becoming Thinking Schools, using its own uniquely designed iTHINK approach. The Malaysian Ministry of Education, in conjunction with the Prime Minister’s Office of Innovation, is creating a blended professional development model and an integrated layering of the three student-centered models offered with support from TSI that will be used by learners daily as they think more deeply and learn academic content.

A team of educators conducting follow-up visits in a school in Kuala Lumpur (one of 10 showcase schools geographically spread across the county) found promising results very soon and a structure for sustaining change. Eight months before, this team had seen in each of the 10 schools most teachers standing and lecturing in front of rows of students. Students were quietly working or boisterous but with very little deep academic interaction and minimal explicit engagement or improvement of their thinking. Mostly lower level questions were being asked, and verbal and written repetition was the norm for memorizing information linked to tests. These were content-driven, teacher-focused

classrooms by an outdated design established long ago. Actually, this was the norm across Malaysia . . . *and much of the world*. What was observed during these return visits was a transformation: Students were in pairs and groups, actively mapping out the content together using visual tools (the Thinking Maps model in this case), with a very high level of engagement. There was a joy in learning that teachers and administrators expressed was a 180° shift. It was also obvious, as these visitations continued and further reporting and evidence was offered, that this was not a “showcase” in the sense of a mocked-up performance: When queried, it was clear that students had truly learned more about how to think better in order to learn better.

So does the Thinking Schools process work? The approach works only when each school plans its own the journey of transformation over time, not as an “outsider” quick fix for short-term performance pressures. Some schools have moved faster and deeper than others. Others will slowly shift, all finding their own pace of change.

Much of this book does describe in detail the positive outcomes and some of the pitfalls. The process and the “products” are found within case studies, assessments, surveys, and direct feedback from over 90 schools that have been accredited after creating their own design based on broad criteria for a Thinking School (see *Report on Thinking Schools* at www.thinkingschoolsinternational.com). It is important that, though many schools are focused on thinking for learning, this does not mean their unique character and public identity is solely determined by the term *thinking schools*.

The dramatic changes that can happen in some places such as in these Malaysian schools does tell us something we all intuitively know: The human qualities of thinking already exist in every person—students, teachers, administrators alike. The sculptor Michelangelo believed that carving from stone was a process of “releasing” from the rock the form that was already inherent within. Unlike other sculptors, he worked freehand, allowing the figures to be freed from the stone. Along the entry hallway to his carving *The David*, Michelangelo offers us a series of half-carved stones, jagged, uncertain figures seeming to emerge on their own as if they were held, as their title decrees, as *Prisoners* . . . all for us to view before looking up to his inspiring masterpiece of a human form.

Here is a metaphor for *growing thinking students from the inside out*. This is a vision held in this book for Thinking Schools: A range of ways of thinking, of abilities and dispositions in every child, are developed with care, artfully and with explicit, refined attention over time, as we give children the tools for unveiling their own forms of thinking evolving from their developing minds in dynamic interaction with the minds of others. In resonance with our time, here is a wonderful quote from Maxine Greene’s (1995) *Releasing the Imagination*:

In my view, the classroom situation most provocative of thoughtfulness and critical consciousness is the one in which teachers and learners find themselves conducting a kind of collaborative search, each from her or his own lived situation. (p. 23)