Contents

List of Figures ix
Foreword xii

Yvette Jackson
Preface xiv
Acknowledgments xviii
About the Editors xx
About the Contributors xxi

1. Catalyst: Thinking Schools as a Catalyst for Transformational Change
   David Hyerle 1
   Thinking Schools as a Catalyst for Transformational Change 1
   Can We Define Thinking? 4
   Summary View: Dialogue at a New Depth 24
   References and Further Readings 24

2. Imperative 26
   Editors’ Introduction 26
   Working to Avoid Intellectual Apartheid 27
   Elizabeth Dellamora
   Introduction 27
   Unintended Consequences 29
   Intellectual Apartheid in the United States 31
   The Larger Gap: Between the 20th and 21st-Century Definition of Knowledge 39
   What Is 21st-Century Learning? 41
   Thinking Schools Integrated Pathways 42
   Conclusion 53
   Questions for Enquiry 53
   References and Further Readings 54

3. Brain-Mind 56
   Editors’ Introduction 56
   Brain Mapping and Mapping Minds 56
   Kimberly Williams
   Thinking in Schools 57
   Writing On the Blank Slate 59
   The Brain in Mind 60
7. Systems

*Editors’ Introduction*

*A System Wide Vision for Thinking* 129

*Donna J. DeSiaito and Judy Morgan*

Thinking in the 21st Century 133
Thinking for Democratic Participation 140
Thinking and Learning 141
Questions for Enquiry 144
References and Further Readings 144

8. Language

*Editors’ Introduction*

*Thinking Language Learners* 145

*Estee Lopez and Larry Alper*

The Challenge 146
Reflective Practice 161
Questions for Enquiry 162
References and Further Readings 162

9. Coaching

*Editors’ Introduction*

*Improving the Quality of Teaching Through Visual Coaching and Supervision* 165

*Kathy Ernst*

The Role of Administrator as Coach 166
New Teacher Coaching in a Thinking School 168
Observation and Reflection 173
Rosa 173
Postlesson Conference: Evidence Review, Lesson Analysis, and Action Planning 176
Sheila 181
Visual Coaching and Supervision and the Use of Cognitive Maps 184
From Dependency to Interdependence and Self-Mediation 184
Thinking Maps Support Skillful Coaching and Supervision 185
Questions for Enquiry 186
References and Further Readings 186

10. Leading

*Editors’ Introduction*

*Leading Connectively* 188

*Larry Alper and David Hyerle*

Top-Down to Flat World 189
Ghosts in the Mind 192
A Case Study of Leading With Thinking Maps 194
Out of the Auditory and Into the Visual 200
The Instructive/Destructive Power of Emotions 202
Leading Connectively 204
Questions for Enquiry 205
References and Further Readings 205

11. Country 207

*Editors' Introduction*
*Thinking Schools Ethiopia* 207

Robert Price and Bereket Aweke

Thinking at a Crossroads 208
Ethiopia’s Historical Frame of Reference 210
Multidirectional Development 213
2009: First Seeds 213
2010: the Second Professional Development Visit—A Grass Roots Vision 216
2010: Professional Development Visits
  Three and Four—Organically Growing 217
2011: Visits Five and Six—Shaping the Vision 221
2013: the Future Unfolding 223
Questions for Enquiry 227
References and Further Readings 228

**Appendix** 229

**Index** 243
Editors' Introduction

Addis Ababa is the central, capital city in the country of Ethiopia that is itself becoming a crossroads for the African continent. When walking the three-mile road from the small airport to the Hilton hotel that was once the only luxury accommodation in town, you would now see block after block of land and buildings in every phase of construction interspersed with empty lots and tarp-covered homes. Quiet and welcoming coffee houses under shade trees are intermingled with shiny new office buildings and debris-strewn lots. Mules are guided alongside speeding cars and motorcycles. Many people are smiling, working hard, talking on cell phones, because this is a country that did not build a network of telephone poles in its recent phase of development; it built cell phone towers. In the far distance on the outskirts of Addis, a city of 8 million in a country of 88 million, beyond the largest medina in Africa, taking up several square miles, the new outsized African Union skyscraper stands as an obelisk alone above the fray, as a symbol of and investment in Ethiopia, known for its coffee export in the present and as an ancient cradle of humankind.

Some years ago, the Ethiopian government, realizing that they needed to move as quickly in improving education as in communication infrastructure, mandated that the traditional structure of teachers lecturing to rows of 60 forward-facing students in each classroom had to change. Immediately. They instituted a policy for reorganizing classrooms into groups of five or six, with a single student in each group being the designated group leader. While this may strike some of us as a radical, undemocratic mandate from above, on reflection, it may be considered a well-advised, reasonable shift reflecting what we know about the impact of collaborative learning, the need for students to articulate their ideas verbally to others, and a necessary awakening to the realities of the demand for guiding students right now into the interdependent networking skill of the 21st-century, global marketplace. Ethiopia and other countries around the world do not have time or the resources to slowly make changes in education over the next several generations. In schools, there is very little paper, few books, minimal professional development for teachers, and in most homes a lack of nutritional support. Many students, in reality, need food for thought, as their brains, minds, and bodies come undernourished into classrooms.

This last chapter of the book may be read as a challenge to our ideals of Thinking Schools against the hard realities of life for children in a proud country with a rich heritage that is now one of the most impoverished places on Earth. Bob Price, a global trainer and a coauthor of Growing Thinking Schools from the Inside Out (Thinking Schools International, 2011), and his colleague Bereket Aweke, a former teacher and principal in Ethiopia, have a story that they are growing together from grassroots to whole
thinking schools. The story is unfolding at this writing, because the superintendent for the Addis Public School recently gave his full commitment to growing thinking in all 300 schools in the city.

This effort will only grow from the inside out because the true development of thinking abilities is something that cannot be forced, only facilitated and mediated. Bob and Bereket bring us a moving story, not a static one. From a western perspective, we may consider that “we” are bringing something to share with the people of Ethiopia, or Malaysia, or anywhere else for that matter. But the vision of Thinking Schools is that of a different order of change and global networking: not the first-order change of tinkering with the system, or the second-order change through which new models for teaching and learning are dropped into a system. Third-order change is an engagement through which active participation, learning, sharing, documentation, and research is, as Bob and Bereket suggest, bidirectional between “outsiders” and “insiders.” People from within their own school and within their own complex histories—cultures, languages, and individual experiences—think and make change by envisioning and then planning their own journey, creating their own pathways for thinking.

**THINKING SCHOOLS ETHIOPIA**

Robert Price and Bereket Aweke

Thinking Schools Ethiopia (www.thinkingschoolsethiopia.com) is a growing collaborative project, with the different pathways of Robert Price and Bereket Aweke coming together as common journey. These paths were begun 12,000 kilometers apart, yet now travel close together in ideas and ideals of educational thinking. Our story is unfolding as we write, a story emerging from an ancient, historic land and a country that pushes to consciously shape its own future through progressive, generational change in the beginning years of the 21st century.

There seems no time to lose in Ethiopia and in other rapidly developing countries around the world. This is also a story of educational change happening in an unlikely place (from the western world perspective), yet a powerful historical lesson and model in a time of transformational education change worldwide. Ultimately, as with the vision of Thinking Schools, it is an opportunity for multidirectional change as we have learned from each other and as countries such as the United States can learn from the experiences and exchange of ideas in Ethiopia.

### THINKING AT A CROSSROADS

**Robert Price’s Frame of Reference**

In 2009, in the United States of America, my life partner Helen and I moved to the self-titled “crossroads” city of Indianapolis. This metaphor of crossroads is reflective of my evolution of thinking, learning, and changes with life, with my educational collaborations and evolving frame of reference.

After a very long and meaningful process and shortly after moving to Indianapolis, Helen and I traveled to Ethiopia to meet and bring home our two adopted children. It was meaningful for all the obvious reasons, but
because I am an educator who has worked extensively for underserved, under-resourced students in urban schools, the adoption of Ethiopian children from a socioeconomically poor region of the world is itself deeply moving for me. We now have a multiethnic family, a “world” family.

I have always used and experimented with a range of technologies, especially the use by students of photography and video. The final phase of the actual adoption process was of course charged with emotion knowing that the transitional time in Ethiopia of bringing home a sister and brother was as powerful as giving birth. Thankfully then, just as many new parents take photos and video of the arriving child, our chosen adoption agency, Children’s Home Academy, required that we stay in the village for a full week as we came to know our new family members and the community from which they came. They also videotaped the interactions during the week, edited the moving pictures, and delivered to us and our children a video record for future reference and reflection. Our children would know the place and time from where they came.

At this time in my life, I had recently decided to build on my wide-ranging and deep experiences collaborating with the National Urban Alliance (NUA), an organization that is based on the practice of a “pedagogy of confidence.” As defined by Yvette Jackson (2012), NUA draws from a belief that all children and youth, when provided High Operational Practices, inspire and develop High Intellectual Performance within the frames of cognition, language, and culture. My initial travels to Ethiopia also coincided with my increasing involvement with Thinking Foundation and later Thinking Schools International (TSI), both organizations grounded in research and motivated by a belief that thinking approaches are a central foundation for change and balance in the educational experiences of students.

**Bereket Aweke’s Frame of Reference**

In Ethiopia, during the first decade of the 21st century, I was a recent graduate of Addis Ababa University. I was born into a family of six to parents who had minimal education but were understanding and progressive about the importance of being responsible, open minded, and respectful. Above all, they conveyed a belief in a freedom to pursue one’s passion. A sixth-grade teacher of mine sparked the ideal of intelligence and motivation that led to my success with the high school exit exams, opening the way to the university. After graduating from Addis Ababa University with a degree in biology, I discovered the available jobs were mostly in teaching. My second job was with Children’s Home Academy school and adoption agency in 2009. This coincided with Robert Price’s second trip to Ethiopia to facilitate a week-long professional development with 80 educators on thinking methodologies. It was at this week-long hands-on workshop we first met.

The initial meeting of Robert, Bereket, and Asnake Amanuel (director of Children’s Home Society and Family Services Ethiopia) was the seed of change for both personal and collaborative growth, our own individual stories and backgrounds being a sum greater than the parts. I thought to myself
that perhaps a revolution of educational practices with “growing thinking schools from the inside out” would be a catalyst that would be transformational in design, elevating the capacity of the people of Ethiopia.

### ETHIOPIA’S HISTORICAL FRAME OF REFERENCE

It is important to have a context for Ethiopia to understand the potential that is before us and the people across the country.

We share this brief history as a frame of reference for the grassroots element of our learning, and for further understanding the highly collaborative relationship we have been developing as friends and colleagues.

Ethiopia has been an independent nation since ancient times, being one of the oldest countries in the world, while most African nations in their modern form are less than a century old. A monarchy for most of its history, the Ethiopian dynasty traces its roots to the 10th century BCE. Besides being an ancient country, Ethiopia is one of the oldest sites of human existence known to scientists today. Having yielded some of humanity’s oldest traces, it is most likely the place from where *Homo sapiens* first set out for the Middle East and points beyond.

Ethiopia is now the 2nd most populous nation in Africa (and 13th largest in the world) with over 90 million people and the 10th largest by area. The capital is Addis Ababa. Ethiopia is bordered by Eritrea to the north,
South Sudan to the west, Djibouti and Somalia to the east, and Kenya to the south.

Ethiopia is one of a few African countries to have its own alphabet, in addition to its own time system and unique calendar, 7 to 8 years separating it from the Gregorian calendar. It has the largest number of UNESCO World Heritage Sites in Africa, with high-quality coffee beans being one of its top exports.

When Africa was divided up by European powers at the Berlin Conference, Ethiopia was one of only two countries that retained its independence. It was one of only four African members of the League of Nations. After a brief period of Italian occupation, Ethiopia became a charter member of the United Nations. When other African nations received their independence following World War II, many of them adopted the three bold colors of Ethiopia’s flag. Green recalls the land and hope for the future, yellow stands for peace and love, and red is symbolic of strength. The capital Addis Ababa has become the location of several international organizations focused on Africa. Ethiopia is one of the founding members of the Non-Aligned Movement (NAM), G-77 and the Organization of African Unity (OAU). Today, Addis Ababa is still the headquarters of the African Union, the Nile Basin Commission, and UNECA.

Education in Ethiopia had been dominated by the Ethiopian Orthodox Church for many centuries until secular education was adopted in the early 1900s. Prior to 1974, Ethiopia had an estimated illiteracy rate well above 90% and compared poorly with the rest of Africa in the funding of schools and universities. After the 1974 revolution, emphasis was placed on increasing
literacy in rural areas. Practical subjects were stressed, as was the teaching of socialism. Education received roughly 13% of the national budget in 1992. By 1995, the rate of illiteracy had dropped substantially to 64.5%. Projected adult illiteracy rates for the year 2000 stood even lower at 61.3% (males, 56.1%; females, 66.6%). As of 1999, public expenditure on education was estimated at 4.3% of GDP (Teferra & Altbach, 2003).

The current system follows very similar school expansion schemes to the rural areas as the previous 1980s system with an addition of deeper renationalization providing rural education in their own languages starting at the elementary level. The sequence of general education in Ethiopia is 6 years of primary school, 4 years of lower secondary school, and 2 years of higher secondary school, yet Ethiopia has the seventh lowest literacy rate in the world in global country rankings.

The first Growing Thinking Schools Ethiopia workshops Robert led coincided with a phase of development by the Ethiopian government’s dramatically increased focus on improving access to education. Approximately three million pupils were in primary school in the 1994–1995 school year. By 2008–2009, primary enrollment had risen to 15.5 million—an increase of over 500%. Progress had been enabled through a sustained government-led effort to reduce poverty and expand the public education system equitably. This had been backed by substantial increases in national education expenditure and aid to the sector, as well as improved planning and implementation capacity at all levels. Increased regional and local autonomy and community participation have also had a key role in expanding access to education across the country. Further development included a focus on creating a learner-centered environment. The latter often prompted participants to ask me: What does a learner-centered environment “look like”? They had mostly experienced a lecture (chalk and talk) structure that had been their norm. From the perception of UNESCO Program Director for Ethiopia, Dr. Awol Endris, the first workshops on Thinking Schools were not about incrementally improving skill development, but a change in mindsets:

I would like to see this continue in some form . . . this was a complete success . . . to have on an ongoing basis . . . for public school teachers . . . that would assist the whole education system in the country because this was a workshop about changing minds . . . acquiring a new set of beliefs about what education is all about. (http://blog.thinking-schoolsethiopia.com/?p=658)

The excitement and positive embrace of the initial six starting points for the Thinking Schools approach as described in Chapter 1 (e.g., reflective questioning, collaborative learning, visual mapping, structuring environment, collegial coaching, community building, etc.) were identified outcomes of fully participating in methods that participants were certainly aware of, but few had exposure to these strategies in practice. Also, these methods were being offered within a whole-school vision of Thinking Schools, grounded as it is in transformational, dialogical, participatory approaches that were the center of our workshops.
MULTIDIRECTIONAL DEVELOPMENT

Some of the early results of the Thinking Schools Ethiopia approach offers an “outside-the-box” view of change that might catalyze change with other nations caught “inside the box” of educational traditions that have become calcified. This is because the design is framed by the idea of collaborative development. What does this mean? International development conventionally involves first-world “developed” countries extending various forms of support to third-world countries in a unilateral relationship. Aid in the way of financial funding, scientific, and intellectual innovations often flow in one direction only, as if peoples with different cultures and who simply have less industrial and/or scientifical development do not have insights into human development. Resources and capacity in development are understood within existing structures as being only in the hands of industrialized nations. Human capacity for innovation and other human resources are often overlooked or devalued.

A model of “multidirectional collaborative development” shifts this assumption and belief system to one where all participants recognize their own capacity for aiding others. Expertise is surfaced, shared, translated, and adapted to other contexts for each partner to use as they determine what is appropriate. Examples might be in environmental protection, education, agricultural sustainability, nutrition, and leadership. If the “world is flat” as Thomas Friedman (2005) has proposed, perhaps the potential of real systems change and innovation might evolve in a seemingly unlikely place (or in reality, likely) as Ethiopia if there is a two-way, leveled collaboration.

An essential dimension of the Thinking Schools approach in Ethiopia and in projects in other parts of the world, such as the country-wide implementation in Malaysia as described in Chapter 1 by David Hyerle, is the effort to network different projects and thus gain not only multidirectional development but also multidirectional knowledge creation and development. Given its history of independence and successful commitment to raising literacy levels, perhaps Ethiopia is an ideal place to begin such an ambitious effort.

2009: FIRST SEEDS

The multiple years of collaborative development from 2009 to 2013 that we summarize here show how first seeds grew toward maturity. The very first visit to Ethiopia by Robert, during his trip for adopting his children, included a visit back to a school and medical facility started by Children’s Home Society and Family Services adoption organization in Ethiopia. After leaving Ethiopia, e-mails and sporadic phone calls were exchanged and Skype connections were made, which led to arranging professional development for the school’s entire staff at their school. Beyond that, no information had been provided regarding the expected number of participants. Bereket Aweke was one of the newly hired school staff, along with Atsede Tsehay who now continues her role with the Thinking Schools Ethiopia team.
Robert’s Frame of Reference

Over 80 Ethiopian educators worked in a highly collaborative way with me during this 5-day training in Addis Ababa, Ethiopia in August, 2009. Attendees included educators from five different schools, a local government official, several parents, and the UNESCO program director whom I met on his previous visit. It was as much an education about potential as it was a growth of ideas and ideals for the participants. The initial elements of the workshop on Monday morning set the stage for our collaboration and me being drawn to and embracing the high interest by participants. The training began with community building exercises (e.g., commonalities) for us to learn about one another while concurrently building a collaborative spirit. Commonalities processes has the group in a circle, then one person shares a personal interest or experience followed by all those who have a similar interest or experience crossing the circle.

The participants quickly internalized the process and purpose (intentionality) with the whole group. We then divided into four smaller groups to practice and expand on the different community building exercises I had modeled for them, which they did with ease. I have led many extensive professional development initiatives, including here in Indianapolis and urban school districts across the United States, yet there was an unprecedented level of interest and engagement when practicing collaboratively. The participants were serious and collaborative while having a delightful time. Over time, I came to feel this cultural distinction: Ethiopians, by and large, seemed attuned to collaboration, unlike my experiences with the same activities in United States schools. This was my first inkling in this situation of the power of learning while sharing within another cultural context. This continued with hands-on use of Thinking Maps as they began to learn and share one another’s frames of reference, about themselves and about education.

The Circle Map and Frame supported them in exploring and sharing their personal history and perspectives. The participants better understood their own frame of references, realizing the importance and influence of prior knowledge, and the power of pedagogy driven by intentionality. This developed further throughout the week as we explored together through dialogue a learner-centered approach using reflective questioning (inquiry), visual mapping, collaborative learning methods, thinking skills, creative use of physical space (structuring the environment), and other foundational methods of pedagogy. The week-long training encompassed the elements that form the basic starting points for Thinking Schools as they begin to investigate broad areas of development. The six starting points of thinking that I modeled in an integrative and dialogical mode of inquiry were:

1. **Reflective Questioning** high-quality questioning and listening skills
2. **Thinking Skills** explicit use of cognitive processes
3. **Visual Mapping** the use of visual tools to map out ideas
4. **Collaborative Networking** between us in pairs, groups, schools, and global networks that includes collaborative learning; collegial coaching; and regional and global collaborations
5. Developing Dispositions characteristics, dispositions, and habits of mind are engaged

6. Structuring Environment considering how the physical space is organized and resources used

Each day’s reflections by the participants, and the final thoughts by everyone in the circle, really left me considering what I had experienced and reassessing the implications of the work we were beginning together. While I had brought something from afar in the sense of starting points for Thinking Schools, the commonalities of these entry points resonated with participants across the week as if they were culturally relevant to begin with. We seemed to be sharing universal foundations for developing thinking in support of learning, and with the deepest respect, from different points of view.

With the belief that ideas and innovation happen everywhere, I found myself considering the stagnation of education in the United States sometimes bound by often rigid testing requirements and static quality of “remediated” students, many of whom drop out of school as they remain in remedial classrooms. I reflected on the potential—seemingly against equitable odds monetarily—of change happening in a country now moving my heart. Perhaps the “pedagogy of confidence” defined by Yvette Jackson can be framed in a historical context—figuratively and literally.

Bereket’s Frame of Reference

A little before the start of the academic year, I was informed of a 1-week training by a professional from the United States. I clearly remember my first impression at the training: I thought, It is a different type of training! The training was full of activity, reflection, and demonstration. This pattern was new to a majority of the participants, and we all were dazzled. It did not take long before a few other teachers and I started to reflect and take the lead.

The training ended as it started, full of energy and excitement. For me, however, it was more than training, it was a revelation. I had been searching for a way to make my class interesting, active, and practical, and there I found it: Thinking Maps, community-building exercises, and powerful questioning techniques, were all great practical tools I could implement immediately in my classrooms with room for growth along each pathway toward a larger journey that was just coming into sight.

As trainer, Robert is an exceptional facilitator and educator. His passion for teaching and improved delivery has inspired me from that moment on. Everything he does on the training has meaning and application to my experience. He also did something foundational, instead of just leaving after the training, he tried to “seed” for sustainability (as he always does). He contacted me and all the trainees, searching for teachers to carry on his dream of improving quality education through the Thinking Schools approach.

I am a pragmatic person. The first thing I did was to try to see the background of the training and the research behind it. Luckily, there were a number of quality books Robert had brought with him for the school library, some
donated, thankfully, by Thinking Maps, Inc. and Corwin Press in the United States. I was impressed to see that the training areas were all research-based and there were a number of successful Thinking Schools already in other parts of the world. The second question I had was “Is it viable to Ethiopia’s context?”

It was!

The training had nothing to do with economic status or to a greater extent the resource availability. All it required was a paradigm shift in our thinking to use our minds and existing resources to deliver active, collaborative, and visually represented lessons. We didn’t require a new computer, a new building, or a new high-priced curriculum program (though those are welcomed and needed).

Since all my preliminary questions were answered, I was motivated to apply the training to my lessons and saw an exponential improvement in students’ activity, excitement, and creativity, all in a short period of time. My students enjoyed my class because of the collaboration among them. Applying the Thinking Maps decreased their note-taking time and created more time for reflection and discussions. The powerful questioning techniques helped increased participation and enthusiasm to learn. All in all, the 5-day training made me closer to what I had always been dreaming of—becoming an impactful teacher to my students.

2010: THE SECOND PROFESSIONAL DEVELOPMENT VISIT—A GRASSROOTS VISION

The next training included two sets of multiple-day professional development sessions: for whole schools and a leadership training for both educator groups and NGOs in Addis Ababa. Bringing forth 21st-century thinking skills continued to be the main goal in addition to developing an understanding Thinking Schools within the context of the Ethiopian culture.

Robert’s Frame of Reference

The more I collaborated with educators in Ethiopia and learned from my readings, the more I realized that often a focus is put on a physical building, statistical data, and even technologies, and less on the actual thinking methods that elevate our brain’s abilities. However, the lack of “resources” in Ethiopia—at least in the context of material possessions—leads one to develop a “guided discovery” using the best tools available. This ultimately brings the “brain” and the “human element” into the realm of focus as the best tools available for thinking. This human element is an area that may bring a wealth of understanding out of Ethiopia and to other countries through our multidirectional efforts.

This visit also included a trip to Hossana, a rural part of Ethiopia, for a 2-day training with educators. The professional development sessions included demonstration lessons with “regular” class sizes of over 50 students. As in urban Addis Ababa, the participating educators embraced the Thinking Schools Ethiopia methods with excitement and commitment within the workshops. The
students and educators readily and eagerly embraced the various methods of Thinking Schools as observed and practiced during the workshops and through their reflections during and at the conclusion of our collaborations. On my ride back to Addis Ababa, I reflected on how this could in fact be sustainable. I was not interested in merely “sprinkling” some good ideas and heading back to Indianapolis. I knew I was learning so much from these interactions. Going from the enthusiastic interest into deeply embedding educational change through practice, collaboration, and mastery takes commitment over time. And ultimately the workshops would best to be conducted in Amharic, especially regarding the participants’ collaborations and reflections with each other. While many participants spoke English as their second language competently, it was clear from my observations that the limited materials and the deeper discussions would be best in their first language. This was especially true with educators from rural parts of Ethiopia.

Several teachers from Children’s Home Academy continued to be part of all the sessions in both Addis Ababa and the trip to Hossana. While Thinking Schools Ethiopia had not yet developed a clear road map for the initiative, in hindsight the roots of an initiative were forming. Several key teachers from Children’s Home Academy who would become instrumental in taking Thinking Schools Ethiopia forward as a thoughtful, sustainable initiative stepped forward. Bereket Aweke, Atsede Tsehaye, and Dagim Melese were some of the talented educators who inspired me with their youthful, idealistic spirits that sense the potential of an educational revolution. Their depth of thinking, their ability to work interdependently, and their openness as presenters, participants, and models of practice to share collaboratively enhanced the trainings. Every time they were requested to conduct a demonstration lesson at the workshop location or their classroom, be part of a collegial coaching model, and/or discuss their thoughts at coffee shop, they were superb collaborators in the true spirit of that word.

The collaborative spirit grassroots growth of Thinking Schools Ethiopia is also representative in Masresha Amanuel, the school chef who continues to be instrumental in workshop participants being fed well. His deep interest in the success of professional development goes beyond physical nourishment. His keen observations and assistance with his education colleagues in observations and reflective questions seem to model mindful and physical nourishment, which are equally important human nutrients.

2010: PROFESSIONAL DEVELOPMENT VISITS
THREE AND FOUR—ORGANICALLY GROWING

The Thinking Schools Ethiopia workshops continued, this time with participants predominantly from private schools during my next visits, as we were attempting to find starting points across different school communities. Concurrently we were seeking insights and inroads into collaborating with government public schools. This had been a primary goal from the beginning. The multiple-day workshops included more whole schools as well as leadership teams representing schools.
The project was unfolding naturally and seeming without end. Additionally, nongovernmental organizations (NGOs) with different purposes and processes became involved in the project. A professional team from an HIV/AIDS training organization signed up for and participated in five days of training after recognizing the thinking skills and methods training as effective for the organization’s work with people in the field. One revelation that these community trainers realized is that while just “giving” information on HIV/AIDS or other health services is important in the short term, the long-term development of the thinking abilities inherent in the people with whom they worked was beneficial in the long run. This would lead toward a society based not on the quick fix, but the transformation of teaching and learning across every element of society. Ultimately, people make decisions every day about their actions and behaviors, so the idea of Thinking Schools is that citizens are reflecting on their decision-making process whether it is in the field of health, education, work, or financial literacy, and for starting entrepreneurial enterprises across any field.

What was becoming very clear was the high interest in the workshops, and the identified need by educators for a more systemic implementation of a Thinking Schools approach that was adaptable by the participants rather than disconnected workshops. Over time, school teams came to the workshops, but there was minimal follow-up. At this point, there was no formal infrastructure as well as minimal methods of efficient communication. Two Ministry of Education experts attended all three different sessions. Their participation and insights from an interview conducted in 2011, shared, in part, below, were additional, instrumental elements in the growth of Thinking Schools Ethiopia.

This thinking process is a day to day activity with each individual [in all classrooms]. When applied in a government school, the people that come from different backgrounds will learn more. This training is very important to be practiced at all levels in government schools across the grades and all subjects. I suggest it is better to select a model school in different regions. In time these techniques will duplicate to all schools in the country.

—Tilahun Teshome, Ethiopia Ministry of Education Expert Daniel Abebe, Ethiopia Ministry of Education Curriculum Designer

Several of the inspiring Children’s Home Academy teachers, Bereket Aweke, Atsede Tsehay, and Dagim Melese, then became more directly involved with the training. They took the lead in conducting demonstration lessons for teachers participating in the multiple-day professional development sessions, made presentations at the workshops, and began collegial coaching with other educators in classrooms. Near the end of the fourth visit, Bereket and Masresha Amanuel were able to secure a very important “formal paper” from a local government official for inviting local government schools. The formal paper was provided and delivered to government school officials near Children’s Home Academy on a Friday. On the very next day, through grassroots lines of communication rather than official announcements, over 400 Ethiopian educators came to the workshop!
We set it up into a “theater in the round” to provide a hands-on view and highly interactive demonstrations. This brought the total of Ethiopian educators who had participated in Thinking Schools workshops to well over 2,000 people. And this was not including any of the independent “renegade” workshops presented by previous attendees that were presented out of an immediate desire to share and transfer valuable insights and techniques. We only learned about these workshops after the fact. It was apparent that quality control regarding high-quality delivery and understanding of the content was quickly becoming very important, but what we also learned was that these ideas were not “foreign” to Ethiopian educators since they were so easily transferred and instrumental to those who felt need for new ways of engaging the minds of students.

**Robert’s Frame of Reference**

The ideal of creating a sustainable change in practice continued to grow through the visits. A key element included appreciating and accessing “materials” that were naturally available. I often believe that in the United States we rely extensively on expensive “products” instead of a “guided practice” of using materials that are part of our lives. An example of modeling that practice was one session where the participants were provided handfuls of dirt to use in the development of an appropriate lesson (for different grades and disciplines) using thinking methods (e.g., visual mapping, reflective questioning, etc.) that were part of the training. The results were robust and varied—as much as the participants were—in a group that included pre-K teachers through university professors.

Parent involvement and interest also came into focus on these third and fourth visits when I held parent sessions to share more about Thinking Schools Ethiopia. Two of the hands-on sessions attracted approximately 40 parents each, and an additional session had over 100 parents in attendance. As the workshops began to expand, I invited Elizabeth Kesling, a very talented young educator from the United States whose background included collaboration in Senegal the teaching of special needs children and the early childhood approach, Reggio Emilio. These two areas required deep mediation of thinking and a strong background in alternative, formative assessments. Additionally, I felt it was important to bring into the experience a current youth vision that corresponded with the evolving leadership of Thinking Schools Ethiopia—both to expand my frame of reference and, potentially, as a key role should Thinking Schools Ethiopia grow further.

The fourth visit also found Bereket quickly shifting into the new role as the principal of one of the schools, stepping into the role of leader and liaison in Ethiopia. His involvement in this project had the potential of becoming his main focus. This also filled the growing need for better communication, because the project blossomed to a point where e-mail and occasional phone calls were not enough. Bereket was provided ongoing funding (by Thinking Foundation and myself) for a wireless card Internet connection, at a high cost compared to places like the United States. We have found Skype and other new forms of
communication to be essential tools playing an instrumental role in the current development of Thinking Schools Ethiopia.

Bereket’s Frame of Reference

My involvement with Robert grew even deeper when I became a coordinator at Children’s Home Academy. My new position also gave me the leverage of facilitating upcoming trainings within the school. We used Skype and e-mailed each other once or twice a week to discuss the developments and future plans. The new round of trainings were more significant to me because it involved more teachers and expanding to include neighboring private schools, NGO representatives, and local education officers. At the training, three teachers including myself took leading roles assisting Robert by demonstrating lessons in classrooms to the trainees. The feedback was great, and the motivation created through the demonstration carried me even further on the journey of cofounding Thinking Schools Ethiopia Program.

Here is what I found: Change is difficult! Even though the training was gaining a good reputation and regular trainings were carried out on an annual basis, the impact was minimal and fragmented because it was not systematically integrated into school systems. Moreover, focusing on fewer, mainly private schools would not bring the change we aspired for. At this point, I had deep thoughts on what my role should be on this endeavor and how this could grow to impact the many government public schools and private schools nationwide. Finally, I decided to propose to Robert and Thinking Foundation to set up the program “Thinking Schools Ethiopia” to independently work with private and government schools. My proposal got accepted, and I was granted money to start a blog, acquire Internet access, and obtain other equipment for documentation. We drew inspiration from feedback from participants, such as this selection that is representative of the positive response, especially the need to “scale up”:

The training is very good because it goes with the context of our country which has large class sizes . . .

—Dade Girma, Addis Ababa Education Bureau Expert

The training was so exceptional. Training is a means to do something so it can be scaled up. This implementation needs great commitment. The Minister of Education has already taken steps. The student grouping one to five (already in place) is the best way to coin this Thinking Schools approach. We have an opportunity . . . The teachers are the main actors of implementation.

—Sheferaw Tgiorsis, Addis Ababa Education Bureau Expert

Thinking School training’s methodology is related to the teaching and learning process which helps students to understand things easily . . .

—Fesehaye Nigusie, Addis Ababa Education Bureau Expert
We are being trained on methods to let the students exploit their potentials.

—Dade Girma, Addis Ababa Education Bureau Expert

With the groundswell rising and the obvious need for bringing a coherent plan together for scaling up and creating a sustainable impact on schools, teachers, students, and their parents, I knew I would have to shift to the next level of commitment.

2011: VISITS FIVE AND SIX—SHAPING THE VISION

What had started out through an organic beginning now was taking shape with a larger view. The idea of truly “growing thinking schools from the inside out” was now the focus. Constructing actual school buildings is important, but the transformative design of pedagogy within a building is key to transformational change. The timing also was apparent. A USAID report (funded by many international agencies) that had been recently published pointed toward the goal of a learner-centered environment as a mechanism of change with the Ethiopian education system (Asgedom, Desta, Dufera, & Leka, 2006).

Visit five included a 2-day training that included systematically using the Growing Thinking Schools from the Inside Out (www.thinkingschoolsininternational.com) facilitator’s guide written by David Hyerle and Robert Price in collaboration with five other TSI global trainers from the United States and United Kingdom. This guide, as described in the first chapter of this book, is designed to create a formal structure for engaging participants in creating their own design for change in the context with leadership teams whether in government or private schools.

The more systematic experience and minimal materials provided the participants with a hands-on application of many Thinking Schools strategies within the context of them developing a systems approach plan for their school. By every measure, it was a success. Instead of being provided a prescribed method—one size fits all—the participants were using 21st-century thinking tools themselves simultaneously to develop an understanding of the methods while actually using these very same methods to create the vision for their school as a team.

This is key: Participants used Thinking Maps, other visual tools, reflective questioning, collaborative structures, and enquiry methods for generating and organizing their ideas for defining a Thinking School. This was explicitly articulated to participants as the workshops began. We stated that one of our expectations was that they would evaluate many of the approaches as they were using them and begin thinking about which models and microstrategies would be best for their students. They were using the Growing Thinking Schools guide as a “travel guide” for their journey on educational change and success. While the plan was only the first step, it was significant in providing them with a “map” of where they could envision going.
During the week, we worked in government public schools, which included conducting demonstration lessons with students. The average class size in these schools is approximately 50 students who were structured in cooperative groupings. It is interesting to note that in 2008 the Ministry of Education had determined that, given the research, it was no longer a viable model for individual teachers to stand in front of rows of students and lecture. A radical, nationwide, comprehensive shift was mandated: Teachers would change the structure of the classroom environment from rows of children facing the teachers into cooperative groups of students facing each other. Each group was required to have a “clever” student to lead their group and respond to teachers for their respective group—most likely structured with “crowd control” in mind.

These formalized new structures for shifting from traditional straight rows of classrooms to table groups, of course, did not ensure that higher-level thinking skills happening in the groupings, or even that even rudimentary cooperative learning techniques were employed. At the same time, it was exciting for many to consider the next step: the potential of the students being physically in position for learning to occur at much higher levels of collaboration and thinking.

Our work offered an array of approaches that could elevate groups of student thinking together with common tools and strategies. Teachers in our workshops began modeling this brilliantly during lessons that included reflective questioning, collaborative learning methods, and visual mapping. The reflections of students and teachers after the lessons on the learning process, the “tools” used for learning, and their personal outcomes confirmed our observations of their interest and the effectiveness of scaffolding the thinking-skills approaches within a group structure. It was becoming apparent to us that the challenge would be to concurrently train the educators to “collaboratively learn” through collegial coaching that supported their development of insights while the students were quickly embracing thinking processes from their hands-on experiences.

By this point, with workshops growing in number and quality, several serendipitous occurrences opened the groundwork to working on a larger scale. Asnake Amanuel, the director of Children’s Home Society and Family Services Ethiopia, decided to leave the organization he started to found a new organization to further realize his visions—creating the social entrepreneur organization, Eminence Social Entrepreneurs, in Addis Ababa. It was agreed on that Thinking Schools Ethiopia would become a part of Eminence, providing potential logistical support. (For a clear definition and process for developing and supporting “social entrepreneurs,” visit www.ashoka.org.)

Concurrently, we arranged a visit with the Head of Addis Ababa Bureau of Education (AABE). Meetings in Ethiopia often happen at the moment of availability, and this was no different. We met with Dr. Dilamo Otore Ferenje, the Head (superintendent) of the AABE during Robert’s fifth visit. It was clear from our discussions that Dilamo was attracted to the Thinking Schools approach and the potential for it to be integrated within Addis Ababa government schools. He requested a proposal. The proposal threaded the next step—both a revision and
a presentation by Bereket to several experts from the AABE who had been selected by Dilamo. This presentation led to a request for government experts to be part of a training and to fully evaluate the approach. Below are some of the reflections and understanding of the implications of this work that continued to propel us forward toward a wider expansion of Thinking Schools Ethiopia:

If we start this thinking skills from early childhood when they are really expert in those skills . . . we’ll have a different kind of generation, a generation—a generation who really takes and solves problems . . .

—Ermias Sebsibe, School of Nations Executive Team

Growing Thinking Schools is concerned in transforming schools from traditional methodology to a methodology which involves the thinking process . . . In your implementation design you have collaborative networks where we should meet, talk and share.

—Atsede Tsehaye, Thinking Schools Ethiopia

These experiences and feedback led to an agreement with the Bureau of Education of Government Schools of Addis Ababa to begin a formal pilot for 30 schools, with the expectations and announcement of scaling up to the whole-school system of 300+ schools within a year. Additionally, a small number of rural government schools in close proximity to Addis Ababa were in the plan to become part of the Thinking Schools Ethiopia initiative. Dilamo Otore Ferenje, the superintendent of all Addis Ababa public schools, announced the short-term plan and the long-term vision:

This training is a pilot project (late 2012 training with AAEB expert team), next we’ll go to schools (2013). We will train teachers and principals. Gradually the program will be at a national level. Let alone your job or other businesses, the Thinking Schools approach and methods helps even in our day to day life . . .

Essential to this design is the collaborative training of additional master Ethiopian facilitators to build the capacity of Thinking Schools Ethiopia Eminence with a goal to achieve and sustain the scale it has envisioned for this project.

2013: THE FUTURE UNFOLDING

In addition to regular professional development for whole schools with Thinking Schools, there are a number of concurrent developments that are the epicenter for large-scale change:

• the Addis Ababa Education Bureau, which governs over 300 large government schools in the Ethiopian capital, recently had its expert team trained by Robert Price and the Thinking Schools Ethiopia team. The next
step in implementing “Growing Thinking Schools” is with all 300 Addis Ababa Education Bureau schools. Initially the leadership teams will participate in the same Growing Thinking Schools from the Inside Out training, then implementing the approach with their whole school collaborating with Thinking Schools Ethiopia.

- regular ongoing professional development with private schools
- collaborations with NGOs who have a keen interest in education, multiple region-wide rural projects, and a variety of education organizations
- continuing translation of training guides into local native dialects
- continuing use of video for documentation, reflection, and blended training
- UNESCO’s written endorsement of Thinking Schools Ethiopia as progressive modern education practices
- revision and a second edition translation of the guides into Amharic

Of course, too often professional development in most places around the world becomes reduced to a dry presentation of a plethora of strategies to teachers—like seeds thrown in the wind—that are then “tried out” without being aligned with an articulated foundation of core values and beliefs—and a vision. With this project growing from the ground up, we have been planting the seeds together. All too often, many programs are started without an integrative approach, with many of the participants never attaining a mastery level of any of the elements—a mile wide and an inch deep. A goal of TSI is to assist schools in explicitly surfacing the background beliefs held by participants and then codesigning a thinking school environment reflecting the needs of their school. Additionally, important components of the initiative include documentation, action research, assessment, and sharing across the global network of Thinking Schools as part of multidirectional development cross culturally.

During the past year, Thinking Schools Ethiopia continues to build capacity and structure toward a vision of a significant educational evolution, if not revolution in thinking. It is change that builds on evolutionary, historical roots of humankind in Ethiopia. What separates humans from other forms of life is our evolved capacities to not just think and respond, but to think about our thinking and problem solve at very high levels of sophistication. So it is the ideal of Thinking Schools to focus on the development and enrichment of our reflective, collaborative abilities for the betterment of our world.

The ideals of the Thinking Schools initiatives having begun in different places around the world, based on these broad areas of belief, focusing our forward vision toward the immediate academic needs and long-term sustainability of a process of growing thinking in a new generation of students and educators. This vision has been confidently embodied by many educators across Ethiopia and well represented by Dagim Melese, an educator in Addis Ababa:

The most fundamental cultural shift is acknowledging the importance of Ethiopian minds in terms of creating knowledge, habits and practices of airing views and ideas as regards academic contents by students. The recognition of the actual values are among the important things that are
conceived, at least by me, for sustainable change to be established in Ethiopian schools to embrace the most powerful ideals of the Thinking Schools Ethiopia projects.

Thinking Schools Ethiopia is evolving, growing, and unfolding as we write these words. An example of the impact of Thinking Schools while transitioning to a larger scale is the current collaboration with Bikolos Nur Academy, a school in Addis Ababa with 700 students and 54 teachers. Recently, in March 2013, the whole staff of Bikolos Nur participated in 4 days of Thinking Schools training including the use of Thinking Maps and Reflective Questioning. The following student and teacher reflections provide an insight to the immediate and potential impact of the Thinking Schools Ethiopia approach. These reflections, 1 month into implementing Thinking Schools approach including Thinking Maps with the whole school, are similar to reflections heard since the first workshops. But the reflections reveal a more evolved manner of understanding consistent with the Thinking Schools Ethiopia initiative as it continues to evolve, grow, and unfold itself.

I really think that Thinking maps make a big difference in my life because before I really didn’t read my books much because it takes too much time to understand. Now I am interested to open my exercise books making Thinking Maps to actually study and know what I am reading. We can be independent and learn by ourselves, because Thinking Maps are our teachers. They make everything easy so that we can read and remember—it makes you visualize things. Thinking Maps capture our thinking in our mind.

—Hannan Abdulfetah, Grade 9 Student

Thinking Maps have helped me a lot in studying. Next year I am taking [the] national exam. I am preparing my summaries using Thinking Maps because it is taking a shorter time with Thinking Maps. It is more effective because by looking at the circles and the other maps, I can remember what is inside and that makes it easier for me to study.

—Abdurahemen Kassim, Grade 9 Student

We are using the maps very effectively and the class is now more student centered with everybody participating. The eight Thinking Maps are so helpful because we can do our work easily—for example our book is a huge book so it is tiresome and consumes much time. But you can use a piece of paper and draw maps and easily analyze the things about the subject in few minutes. When we do Thinking Maps in group work everybody is participating, so it is going to be fun and interesting.

—Hussien Abdulnessir, Grade 9 Student

Thinking Maps are very easy to use and to remember. Before when we work in groups there was not much argument but now we can easily visualize things and remember what you see in pictures in the mind.
These maps are like pictures and have different designs and [are] very easy to remember.

—Sabontu Ali, Grade 9 Student

I really want to thank the thinkers who give us Thinking Maps and make us think to ourselves and for our students. Thinking Maps are very helpful. I have spent many years teaching chemistry and I have been trying many methods to visualize chemistry to students. The Thinking Maps made everything clear in these first 2–3 weeks after the training.

—Adefres Zerihun, Vice Director and Chemistry Teacher

Thinking Maps makes our life easier and help us impart lessons which were difficult to comprehend. The students have accepted Thinking Maps in a very special way and related to the maps. I hope the Thinking Maps will go on so that we can give them what they deserve and we can get from you what we deserve.

—Huda Seid, Vice Director and English Teacher

Starting with the Thinking Schools training, I understood that the training and the Thinking Maps is participatory. We were at the training on a Friday and started implementing Thinking Maps on Monday. The training has helped me a lot because before I had hard time delivering my subject to my students. But after learning the Thinking Maps and introducing the eight Thinking Maps to my students, my subject is understood more easily. We are always told about student centered teaching but it is with Thinking Maps I could involve all types of learners in my class. This is also the policy of our country and if we regularly implement them and get reference materials, we can even do better. Both the staff and the students have loved it and we thank you.

—Mohammed Awol, Social sciences Teacher

I have used all the Thinking Maps except the Bridge Map in my grade 3 lessons. I am very excited. My students love the Thinking Maps and are internalizing the maps. The Thinking Maps are helping us to identify the level of the students. For example, some students remain in the circle map and others apply the other maps achieving higher order thinking in Blooms Taxonomy. So generally I am very happy as the Thinking Maps assist us in effective teaching methodology and students. Recent result have shown slight increment of growth from last quarter over a period of three weeks.

—Usman Mohammed, Grade 3 Science Teacher

Thinking Schools Ethiopia is very interesting starting from the training. The Thinking Maps make our minds visualize information. In this short time students are referring to and using the Thinking Maps more than
the previous methods. All students are more active than the previously because they can easily understand the topics and remember what they are learning.

—Zewdu Hailu, Vice Director and Physics Teacher

As good friends and colleagues who have grown together, we are now on a journey together with others on the team and continuing to build the potential toward a common vision, in the context at hand, and with collaborative processes. It is a journey that keenly sharpens our dispositions, expanding insightful collaborations, literally and figuratively mapping paths (sometimes inside and sometimes outside the box) while continually looking forward to the next steps. It is a story of growing together as educators with a common passion for nurturing the capacities within every child.

As we continuously learn from two young Ethiopian children, adopted, now growing up and going to schools in Indianapolis—they have adapted as they dance and swim and learn in a new culture—because of the common human capacities to think, question, and inquire deeply, while reflecting and engaging the world around them with open minds and hearts.

<table>
<thead>
<tr>
<th>QUESTIONS FOR ENQUIRY</th>
</tr>
</thead>
</table>

In support of the project Price and Bereket led in Addis Ababa, UNESCO Program Director Dr. Awol Endris was quoted in this chapter as crediting its impact to the idea that “this was a workshop about changing minds... acquiring a new set of beliefs about what education is all about.” Coauthor Bereket himself stated that “all it required was a paradigm shift in our thinking...” Ernst made similar observations in Chapter 9, as did Dellamora in Chapter 2 and Hyerle in Chapter 1. Changing individual or collective mindsets is not an easy thing to accomplish. Having read other chapters in this book about developing “thinking schools,” what are some of the key approaches that were used that made it possible for such fundamental and necessary shifts in beliefs about teaching and learning, teachers and learners, to occur? What other approaches would you recommend?

One of Bereket’s key insights regarding how to maximize the impact of the work being conducted in Ethiopia was the need for systemic change. In the early stages of this process, he observed that, despite several trainings in which people were highly engaged, “...the impact was minimal and fragmented as it was not systematically integrated into school systems.” As you reflect back on the chapters in this book, including the one you just completed, what were some effective strategies for whole-school change that might be applicable to your setting?

How did the designs of the various training sessions influence how participants viewed the work and the challenges and/or opportunities before them? As you think back over the multiple sessions that were conducted in this project, how might you characterize the central purpose of each stage in the process?

During the “Open Education” movement in the United States, many school districts built new school buildings without internal walls dividing classrooms. Many of those efforts failed or were as ineffective as the Ethiopian government’s belief that simply requiring teachers to no (Continued)
longer “stand and deliver” would automatically ensure a change in pedagogy and result in improved learning for students. And yet existing structures, unless changed or simply challenged, can remain impediments to the change that is truly needed. What are some of the other conventions related to education today that would be worthwhile calling into question and why? To borrow from Maxine Greene, how might you imagine education, “as if it could be otherwise,” to better serve our students and world today?

## REFERENCES AND FURTHER READINGS


