

# Thinking Maps

*A Language for Leading and Learning*

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## KEY CONCEPTS

- Facilitating constructivist conversations and engagement across a whole school
- A Circle Map and Tree Map for creating a unified understanding and deeper communications within a faculty
- Linking leadership and learning using Thinking Maps® for school-wide transformation

## FINDING OUR WAY

*"The question I find most compelling is this: We can now understand our schools as they exist. And, we have an improving image of what sustainable schools look like, but how do we get there from here? How do we find our way to the sustainability we yearn for?"*

—Linda Lambert (2007)

Finding our way. In New England it's not uncommon when asking for directions from one place to another to be answered matter-of-factly with the reply, "You can't get there from here." Indeed, there is rarely a straight path from here to there, and this is certainly true in our field of education, as well. The journey to a solution or decision can be quite complex and circuitous, with unexpected twists and turns. In fact, there may be multiple pathways and parallel processes at any one time, whose selection will be inspired as much by the multiple perspectives involved as by the nature of the challenges themselves. A central task of school leadership, then, is to enable educators to collectively and individually navigate these challenges and opportunities and develop a sustainable approach to engaging students in the learning process.

So, how do we "find our way," as Lambert (2007) wonders, through this complex landscape and not simply "get there" but do so in a manner that embraces the uncertainty of the journey and is inspired by the possibilities of the outcomes? How do we accomplish this in a

way that is also sustaining of the organization, where, as East Syracuse-Minoa Superintendent of Schools Donna DeSiato says, it's not about power or position, but about understanding and being understood? As David Hyerle (2009) wrote, "Consider the impact on your school or system if everyone could navigate information, communicate options, and see solutions as fluidly as they can read a GPS [global positioning system] in their cars." What internal and collective compass can be used, then, to help people chart a course through this constantly changing and emerging educational environment? And how can such a tool, if it exists, be used to design pathways that engage all members of the school community deeply in the processes of discovery, learning, and actionable decision making along the way? These were among the essential challenges we sought to address as we transferred the work with Thinking Maps from the classroom to the context of the entire school community.

Over the past eight years we have been introducing school leaders—superintendents, principals, curriculum directors, teacher leaders, and so forth—to the use of Thinking Maps for the full range of leadership practices. Thinking Maps have been used for coaching professional practice (see Chapter 17, "Mentoring Mathematics Teaching and Learning"), facilitating school-wide investigations into changing instructional practices (see Chapter 16, "Inviting Explicit Thinking"), analyzing and applying data, engaging diverse stakeholders in essential conversations at the school and community level, and more. They have been used by teacher leaders and administrators to actualize the potential of professional learning communities by enabling all members of the school community to skillfully participate in and contribute to the processes associated with professional learning communities. We have been collecting data from these experiences and the subsequent work done with the maps in the field by a variety of practitioners. The research has primarily been in the form of surveys, site visits, and interviews. We have used these methods to uncover and articulate the degree to which this particular work with Thinking Maps, as a navigational tool for leading, has had an impact on the learning and decision making throughout the community of the school and system and, ultimately, on student achievement. Our findings, to be more fully documented in an upcoming publication (Alper & Hyerle, in press), have been compelling.

Several major themes have emerged from our research. Leaders consistently expressed enthusiasm for the degree of clarity their own use of Thinking Maps provided them with related to the complex issues they were addressing with their colleagues. Many described this notion as things "becoming clearer." And, as the issues came more into focus, leaders felt they had a deeper understanding and could work more effectively with others to improve the circumstances. Notice that the emphasis here was on clarity, the ability to see deeply and communicate precisely what they were thinking. The leaders did not mention finding or having the right answers themselves as a primary benefit of their work with the Thinking Maps. Instead, they focused on the clarity of thought they achieved through the use of the maps. This, they noted, enabled them to engage their colleagues in meaningful and productive processes through which they could collectively arrive at decisions. Veronica McDermott, a former superintendent of schools in New York, expressed this very point when she wrote in a reflection, "For me, the Thinking Maps have become my wonder tool of choice as I exercise my role as a leader. They have opened up the white space that I believe is needed in an organization for real dialogue to occur. I know they enable me to slowly shift from the go-to guy with the answers to the let's-explore-this-together instigator. Soon, I found myself more interested in finding ways to elicit deep questions and to provoke discussions than I was in providing answers neatly packaged and ready for adoption."

To effectively address the rich complexity and profound implications of our work, we need to have what Maxine Greene (1995) refers to as the "conversations that echo from somewhere else, some deep place." We need conversations that are rich in ideas, alive with uncertainty, and propelled by the anticipation of new learning and possibilities. With time and deliberate

attention provided to open the space—the “white space,” as McDermott described it—between and among people and the use of a common language for communicating ideas across multiple perspectives, these conversations can give full expression to people’s thoughts and imaginings. As another superintendent expressed after having used the maps extensively with his leadership team and school board, “There is no topic I feel that I can’t [use Thinking Maps to] lead a group through a constructive process in order to generate a sound decision. Regardless of the difficulty or sensitivity of the issue, I know my use of the maps will guide us successfully to a meaningful resolution.” Courageous leadership, necessary to the individual and collective confidence of the organization, is achievable when supported by tools that are genuinely empowering.

In an unpublished reflective essay titled “Leadership Journey,” Ken McGuire (2009), former principal of Bluebonnet Elementary School in Fort Worth, Texas, wrote about the effect his use of Thinking Maps had on his instructional program and on himself as a leader. In his reflection, McGuire described a process he guided his colleagues through using Thinking Maps to examine the topic of large group instruction. Using several different Thinking Maps, the faculty members surfaced their ideas about the topic. Some used a Circle Map to brainstorm all the possible settings where large group instruction would be the most appropriate choice, and others used a Tree Map to categorize other instructional strategies by content and setting. Commenting on the ensuing discussion after the groups shared their maps, McGuire observed, “The reflective dialogue about powerful instructional practices was one of the most insightful and passionate discussions we had experienced to that time.” McGuire’s use of questions and the visual representation of the thinking through the use of the maps totally engaged the faculty members and immersed them in the investigation and the conversation that followed. Commenting on the larger implications of this and subsequent experiences, he shared with the faculty members where Thinking Maps were used for their professional learning and decision making. McGuire wrote,

Reflecting on our campus today, I would have to say that both Bluebonnet and I have been transformed. As far as my leadership, I continue to work to create effective communication and collaboration, help generate shared mission and vision, conduct meaningful and purposeful professional growth, direct problem-solving strategies, collect and analyze information, and manage the business of the campus. Thinking Maps have made me much more effective in each of these areas. I now have a set of tools that establish a common language and help the staff recognize the kind of thinking we are doing. The maps provide process and help define purpose in the work of our teams and committees. As an entire school community, we are learning to think!

The quality of engagement and the meaningfulness and relevance that McGuire (2009) and his colleagues achieved through their skillful application of Thinking Maps and, consequently, their thinking processes in these experiences have been supported by comments from other leaders we have interviewed and surveyed. In addition, they have described the cohesion and other significant benefits that sharing a common language brings to their interactions around matters of deep importance. Too often, meetings devolve into a competition of ideas, a closing of doors, rather than the creation of possibilities. People are sometimes quick to adopt and defend positions. They argue, debate, and ultimately defeat or are defeated by the ideas of others in the group. At best, under these conditions, outcomes are negotiated, and the results are more like settlements. In the end, there is very little enthusiasm for the results, and the process is simply done and the task completed.

Positional discussions are clearly inadequate for promoting the depth of thinking necessary to address the complex pedagogical, moral, and ethical dimensions of the decisions teachers and administrators must make in their work. Alternatively, propositional conversations

invite people to offer their ideas for consideration, to open up thinking to be examined and enlarged upon. Such conversations demonstrate that ideas can be starting places for inquiry as opposed to end points for debate, defining school as a “home for the mind for all who dwell there” (Costa, 1991).

Our findings suggest that there is another path. The use of Thinking Maps has enabled rich, constructivist conversations to unfold in a variety of school settings. The collective and skillful use of the maps has enabled people to move beyond the borders of their individual ideas, beyond the centrality and certainty of their thinking and motivations. Multiple ways of knowing and seeing have been encouraged, and positions have given way to possibilities.

“Conversation,” wrote Donald Schön (1987), “is collective improvisation.” Like musicians, highly attuned to the sound and emotion coming from each other’s instruments, people in constructivist conversations create ideas rich in texture, depth, and dimension. Collective improvisation or skillful participation, as Lambert (2007) might refer to it, is one of the hallmarks of sustainable schools. Empowering others through the use of Thinking Maps was another of the central themes to emerge from our research. As McDermott concluded, “What I discovered in the process was the latent strengths of the individuals I worked with and the combined power of the group.” In essence, she found a way to get there.

## **THINKING MAPS: A LANGUAGE FOR LEADING AND LEARNING**

Our school decided to commit to the use of a common language for teaching and learning that would extend to all curriculum areas and across all grade levels, having relevance in the multiple contexts that form the school experience. “Learning how to learn together” was stated as one of the central purposes of our school. It wasn’t a prescription for teaching and learning we were after; it was a way to facilitate the fundamental thinking processes that were inherent to learning and vital to constructing knowledge and deepening understanding. Clearly, then, a common language, a way of talking about, forming, and representing each other’s thinking, was essential to the foundation we were building to support us in this common purpose. We knew that words alone would be inadequate and not necessarily the most effective or democratic way to involve all members of the school community in this effort. Facility with language, something that challenged many of the children with whom we worked, might be a worthy educational goal, but it could not be the foundation for our school community. To enable every child to fully, authentically, and personally become engaged in the learning process, we needed a new language, a way to empower children as learners where learning is something they do rather than something that is done to them. We didn’t state all of this explicitly, but as it turned out, we knew it when we saw it. What we didn’t anticipate was how our own interactions as adult members of the community would be affected by the outcome of this search.

The language our school community decided to adopt as part of our foundation for learning was Thinking Maps. This work had immediate appeal, as it facilitated the use of language and the expression of ideas with visual forms and was designed to encourage the individual and collaborative construction of knowledge and understanding. Importantly, Thinking Maps were not prescriptive or task specific but could be applied to all areas of the curriculum and throughout the life of the school. We saw Thinking Maps as an opportunity to provide our students with tools that could help them reveal the full range and depth of their thinking. Disempowered in so many aspects of their lives outside of school and frustrated by the limitations of their language development and internal disorder, many of our students were in great need of concrete tools with which to be active and confident learners. Learning was, for many of them, an uncertain and discouraging journey. Thinking Maps, we believed, could enable

them to navigate the unknown with greater excitement for the possibilities that learning represented and more certainty in their ability to succeed. Having read and discussed excerpts from *Visual Tools for Constructing Knowledge* (Hyerle, 1996), regular and special education teachers expressed equal enthusiasm for the work. It was obvious that all our students would benefit from access to these tools and the opportunity to enhance, extend, and apply their fundamental thinking processes to learning.

Our work with Thinking Maps began with a full day of training for the entire faculty. It was evident from the beginning that the impact was going to be not only on the students but on the staff as well. Not unlike our students, we also learn by patterning information and linking ideas. We are not always confident when facing ambiguity or comfortable expressing our thoughts or considering the ideas of others. As we worked to develop our facility with Thinking Maps during that first day and in subsequent training opportunities, we became fully engaged with each other's ideas and discoveries. The visual nature of the maps allowed us to externalize our thoughts, making it easier for us to be curious about each other's points of view, identify patterns, and discover and create structures from our thinking that would otherwise not have existed. Assuming the role of learners, we experienced the maps as we hoped our students would. Time was suspended as we were inspired by the activity of generating ideas together. Diane Zimmerman (1995) describes this infusion of energy into group dynamics in this way: "When group members become excited about the emerging relevance of the conversation, the group self-organizes around the emerging concepts." Clearly, Thinking Maps were facilitating this rich communication among us by creating a safe, noncombative way to build meaning together. Our connectedness was strengthened by the thinking we were doing in concert, as insights were made and as we moved beyond the boundaries of our initial ideas. Not surprisingly, we recognized the value of the maps to our work with each other and sought to apply them more deliberately to our own interactive processes.

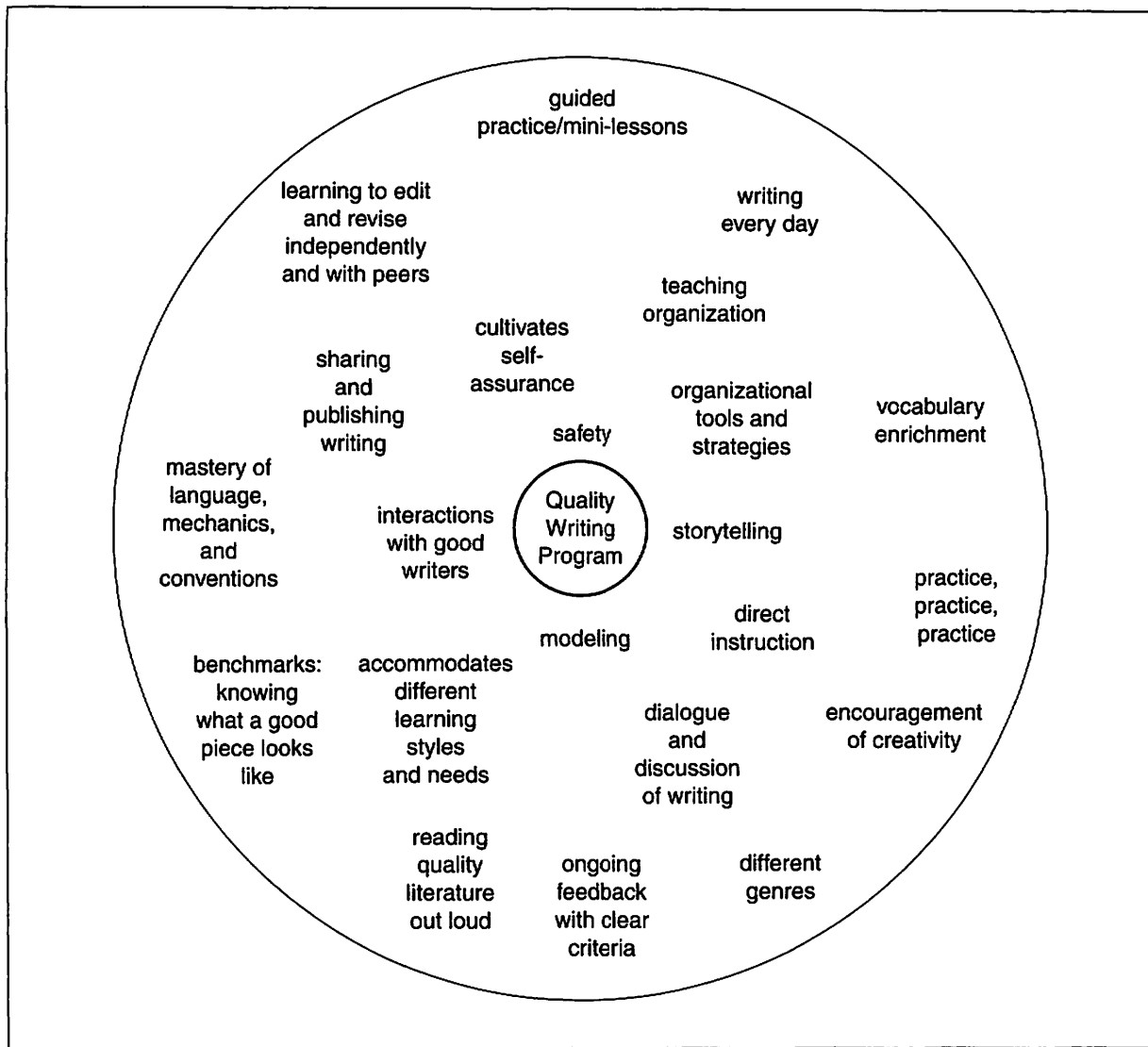
## EXAMINING OUR PRACTICES

The first major task we undertook using the maps as a tool to facilitate our thinking and decision making was the development of our writing program. Our Action Planning Team, which included teachers, parents, and administrators, had determined from state and local assessment data and teacher input that our students' level of performance in writing was not where we believed it could be. We acknowledged, too, that together we had not given enough attention to the area of writing and that our approach to teaching writing, across grades and in content areas, lacked coherence and connectedness. The recent introduction of Thinking Maps into our school reinforced our belief in common experiences upon which our students could construct new knowledge and develop their confidence and independence as learners. How, then, we asked, could we apply this to the area of writing? We decided to use Thinking Maps to guide this inquiry and to assist us in establishing a strong foundation upon which to design our program.

At a subsequent staff meeting, we used a Circle Map (see Figure 18.1), one of the Thinking Maps for defining things in context, to begin our process of responding to the question "What does a quality writing program look like?" People were asked to write five thoughts on individual pieces of paper that were then placed on a board with the question in the center. The group was invited to look at the collection of ideas before discussing them. Just as writing down the ideas before placing them in the Circle Map gave people a chance to formulate their ideas, this silent viewing gave each staff member an opportunity to consider the range of thinking before entering into conversation. Having the Circle Map to look at together gave us a common place to direct our attention and a central focus, the question, for our thinking. We followed this activity with an opportunity for people to ask questions of clarification, give fuller expression to their ideas, and share their individual frames of reference. Not only were staff members involved as regular and special educators, but several teachers in the group

were writers themselves, adding another dimension to the reasons for their thinking. This aspect of the maps, the surfacing of multiple frames of reference, would continue to evolve for us as an important tool for looking beyond the surface of things to appreciate their full meaning and significance.

**Figure 18.1** Quality Writing Program Circle Map



The next step in this process was to see the connections between and among the ideas we generated. We used a Tree Map to categorize and group the information and did so, again, initially without conversation. People were invited to move the papers on which individual ideas were written into clusters of related content. As they were formed, these clusters could be added to or changed as people made new connections and certain groupings became apparent. The discussion that followed gave us another opportunity to consider the information, this time in categories, to identify connections and add what might be missing. The Tree Map included items related to content and pedagogy, desired student performance outcomes, and qualities associated with being a writer. What we had created in this process was an agreed-upon set of criteria that we would use to evaluate various approaches to teaching writing.

Using the maps as a tool for how to think about this task gave us a way to see, understand, and value each other's ideas. From the beginning, the focus was as much on how we wanted to think about this topic as it was on what we thought about the topic. Consequently, people could remain comfortable with the formative nature of the conversation, knowing that we were building toward a common understanding and shared set of guiding principles for designing our school's approach to teaching writing.

Our use of the maps began to extend into other aspects of our work together and not always in response to major undertakings. They were useful in grade-level meetings, committee work, and, in general, any context where the facilitation of thinking could lead to richer, more meaningful, and productive interactions between and among the people in our school community. "How do we want to think about this?" became the leading question for many of the conversations we were having. In response, one or several of the maps would be identified as the appropriate tool to assist us in these conversations. Our library-media specialist, Andra Horton, observed, "Thinking Maps help us to harness ideas and put them together in powerful ways." As a result, we were able to enter these conversations knowing there was a way to get to the final destination without needing to know what that was from the start. "It's the difference," said Horton, "between seeing a pyramid and knowing how to build it."

Our school's capacity to respond to serious challenges was strengthened by our ability to effectively engage with each other in the face of difficult issues. No community is entirely free of problems or conflict, and this was true for our school as well. The character and, ultimately, the success of a community are often defined not by the issues themselves but by how the people within it, individually and collectively, respond to the challenges. As a group, our staff had always been inclined to confront our issues. We tried to view challenges as opportunities to strengthen our school and do better work with children. We also felt an obligation to model for our students the same personal and collective efficacy we wanted them to develop. "Freedom," wrote Greene (1978), "involves the capacity to assess situations in such a way that lacks can be defined, openings identified, and possibilities revealed." Taking constructive action requires having the tools to do so. We began to see Thinking Maps as an essential tool to draw upon in response to the complex and sometimes confounding issues we typically faced. Not only did we have the desire to respond, but now we had, in the maps, additional resources to help us do so more effectively.

## SEEING OPENINGS AND OPPORTUNITIES

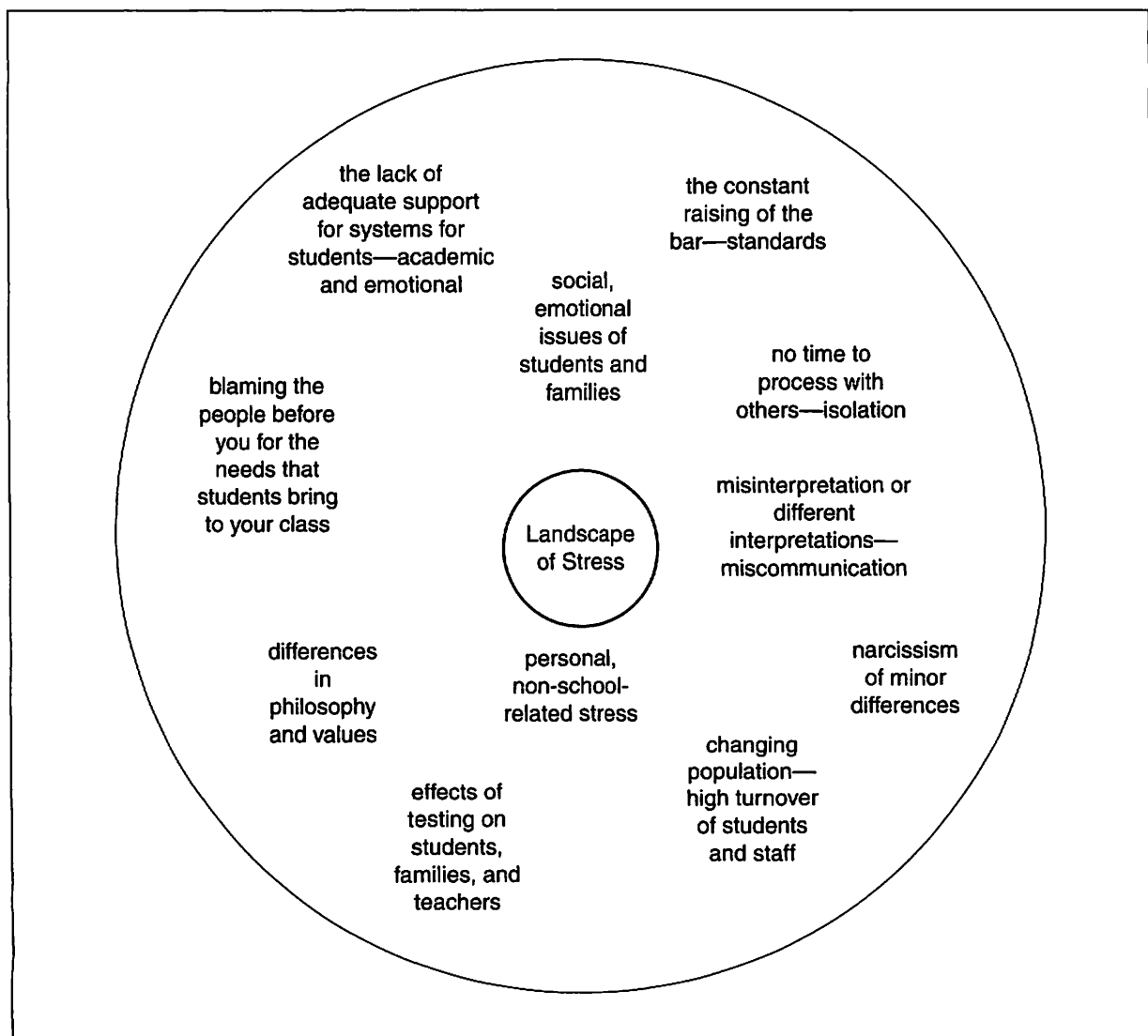
School communities are living organisms and exhibit the full range of emotions of the people within them. Stress is not only specific to the individuals within the community but can, in its many manifestations, begin to characterize the entire environment. Our school's Coordinating Committee, a representative group of staff members that meets weekly to guide the overall direction of our school, recognized that this was starting to happen in our school. With input from the staff, the Coordinating Committee determined that this issue needed to be addressed. These staff members realized that this was delicate territory we were entering, with the very real potential for things to get worse before they improved. Conversations about stress can provoke anxiety, exaggerate differences, and lead to finger-pointing. The committee members knew that we needed a thoughtfully designed process that would enable people to name and give definition to what they were experiencing. The process also needed to be restorative and transforming. We needed more than a group hug and certainly wanted to avoid adding to the existing tension.

Once again, we saw Thinking Maps as an ideal tool for helping us address this challenge. By providing a place for people to express the holism of their thinking, the maps locate ideas in each person's humanness. They provide people with a way of identifying where they are in their thought processes and a compass for navigating the journey ahead. As one staff member

expressed, "Thinking Maps enable us to make the transition from the place we started to what we don't yet know." The ability of the maps to give people the confidence to go forward would prove to be especially important as we worked on an issue with such a high level of risk inherent in it.

We began the process with a question, as we try to do before entering any discussion or line of inquiry. "What are the land mines in the landscape of your professional work?" we asked. The imagery was purposely chosen to affirm the powerful component of people's feelings and to acknowledge the seriousness of the issue. After doing an individual Circle Map to define this for themselves and frame it within the context of their own experiences, people then joined small groups to share and combine their thoughts into a common Circle Map as shown in Figure 18.2. As these initial conversations unfolded, people became less guarded while giving each other support and recognizing similarities in their experiences. What evolved was a shared reality, a group narrative woven together from the feelings, thoughts, and events from each person's life. We had good reason to be hopeful that we could repair what had been damaged and, in Greene's (1978) words, "move through the openings, to try to pursue real possibilities." The maps effectively opened space between and among us, allowing us to see what was there and to imagine how it could be different.

**Figure 18.2** Landscape of Stress Circle Map





With the different Circle Maps displayed on the walls of the room, we talked about what we noticed and the ways in which our assumptions were being challenged. During the process our thinking about the problem changed, and our appreciation for each other deepened. Next, the Coordinating Committee took the Circle Maps and used a Tree Map (see Figure 18.3) to group the information into categories. The committee chose titles for the categories that represented the individual items and gave the staff a way to think about the actions people could take, individually and collectively, to strengthen our school community. In preparation for the next meeting, the committee sent a memo to staff members with the Tree Map attached. The memo concluded by saying,

In preparation for our next combined staff meeting on Thursday, we ask that you give thought to the following two questions: In what way might I act, particularly in the Personal and Interpersonal categories, that can contribute to the strengthening of our school community? What concrete steps can we take to “repair” the lacks, particularly in the areas where we have the greatest degree of control—Personal, Interpersonal, and Systems? While we ask that you give equal weight to each of these questions, it is only the second that we will discuss at the meeting. It is our hope and expectation that your consideration of the first will be ongoing and that in doing so, each of us will be mindful of the impact our actions have on our collective ability to make real the possibilities we identify and the vision we have for our school community.

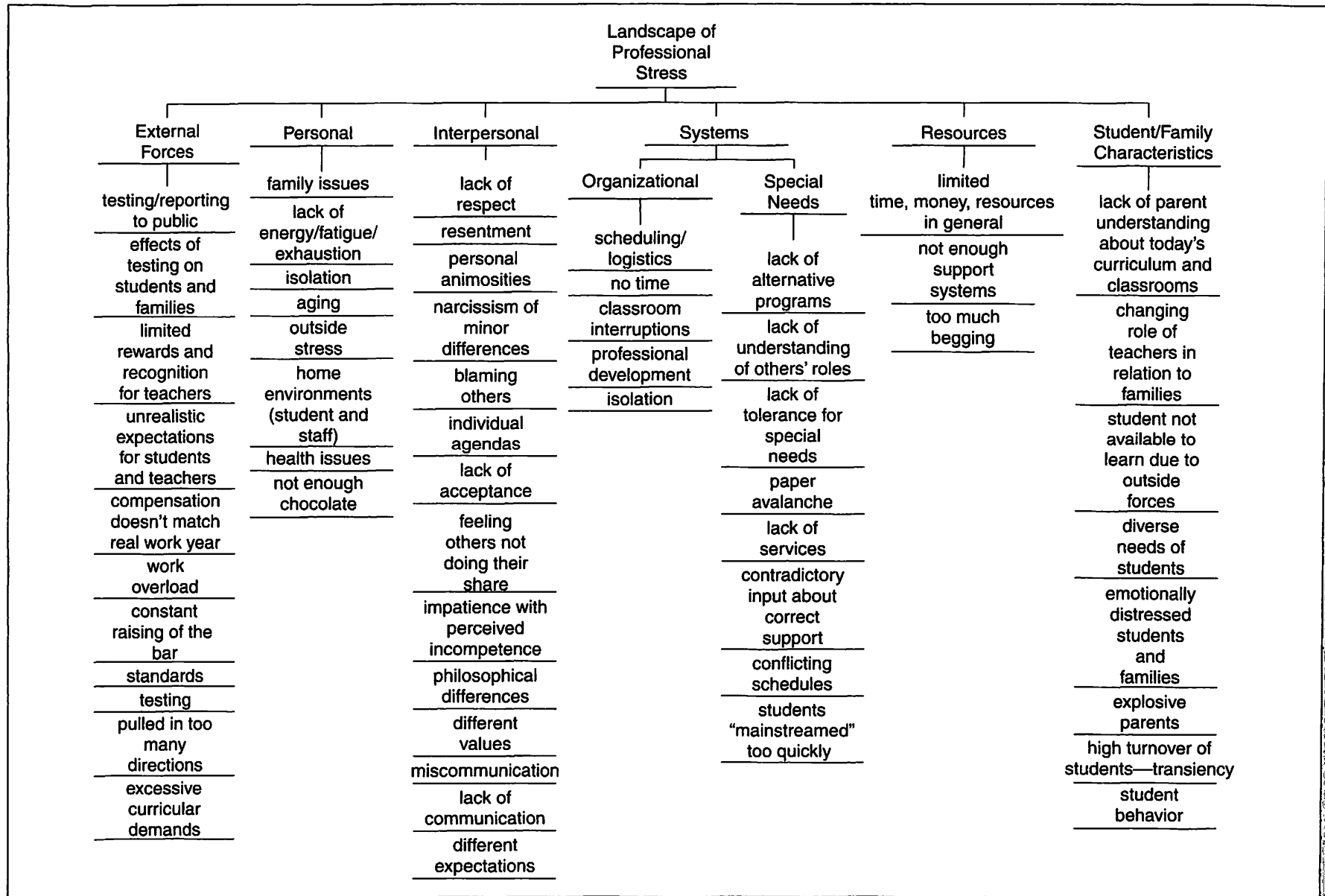
At the next meeting, we asked staff to respond to the Tree Map and tell us whether it accurately reflected the conversation we had at the previous meeting. We were then able to generate possible action steps and give further direction to the Coordinating Committee to develop a comprehensive plan for the staff to consider and, ultimately, to implement. It seemed that we had successfully taken charge of a difficult situation and could move ahead with a shared sense of purpose and a demonstrated commitment to the well-being of our school.

Having Thinking Maps as a tool to conduct these difficult conversations was reassuring and empowering to people. Deb Abbott, a third-grade teacher in our school, said, “By seeing your thinking, you can examine it, and you don’t have to stop there.” The reassurance comes, in part, from the maps’ ability to help us formulate and capture our thinking and pursue the next level of thought beyond the familiar. “You’re not going to forget it [your thoughts],” said Abbott. “You can reflect on it and build on it.” When done collaboratively, the use of the maps can enable a group to build and strengthen its connections, even when confronted with issues that could easily pull it apart.

## CONSTRUCTIVIST CONVERSATIONS

The ability of people to make meaning together, visualize the unknown, and formulate effective action is vital to the success of any organization. In today’s school environment, where change is not an event but an ever-present reality, it is imperative that people develop the individual and collective capacity to process information, transform it into new understandings, and shape their futures. Constructivist conversations awaken people to possibilities and help them give shape to ideas not yet fully formed. The collaborative nature of these conversations helps organizations build an identity around a common purpose. Constructivist conversations provide a way for members of the learning community to share their individual frames of reference and develop trust and confidence in themselves and each other. The construction of knowledge and meaning is not solely an individual activity but is, more powerfully, a social one. In this way, groups of people interact to interpret, reflect upon,

**Figure 18.3 Landscape of Professional Stress Tree Map**



and examine each other's ideas and experiences. As people experience uncertainty together in this context, ambiguity is embraced as the realm of possibility. Trust, respect, and collegiality develop through collective engagement with compelling ideas and the collaborative meaning-making process.

Constructivist conversations, according to Lambert (1995), "serve as the medium for the reciprocal processes that enable participants in a school community to construct meaning toward a common purpose about teaching and learning." As a consequence of such a dynamic, members are more likely to feel proud of their association with the organization, be committed to its work, and become inspired to think beyond the familiar. In this way, the organization is transformed into a generative community, one in which new ways of thinking are encouraged and novel ideas are formed.

During the past year, well over 200 school leaders have participated in a two-day seminar using the text *Thinking Maps: Leading With a New Language* (Alper & Hyerle, in press). This seminar guides participants in the understanding and application of Thinking Maps as a 21st-century language for surfacing and communicating the breadth and depth of people's ideas and for building meaningful and sustainable solutions together. The story of one of these school leaders captures the transformational potential of Thinking Maps as she reflects, in an e-mail, on the impact that this work had on her leadership and the implications for the entire school community and, in particular, for the students:

Well, I did it! Today was the test of using my plan to address issues around Professional Climate in our school! No, to be honest . . . I almost chickened out last night and then again this morning. In the end, though, I stuck with the original plan and I can't begin to tell you how powerful the experience was! My staff approached the tasks with honesty and openness. Using Thinking Maps we were able to get all the issues out on the table in a respectful manner. Some of the stuff was painful. I just kept going. By the end of the morning we had developed ideas and plans, people were sharing and working together, there were even tears! For the remainder of the day I have received positive feedback, praise, and thanks for my work. Even one person who came in unwilling to join our circled tables and sat isolated from the group ultimately pulled her chair in and ate lunch with us, worked with a team to solve a scheduling issue, and thanked me! . . . We are approaching our school year in a positive, can-do atmosphere and our students will only benefit.

This experience shows that constructivist conversations require leaders who have the tools to enlist people's participation. "Good leaders," said Horton, "are in control of keeping a constructive focus while keeping people engaged."

David Hawkins (1973) describes the importance of having "some third thing . . . in which they can join in outward projection" to move people beyond self-consciousness and the conventions of their thinking. This third thing can open the space for possibilities to exist and be jointly constructed. Thinking Maps become the third corner of Hawkins's "I-Thou-It" triangle and provide us with the "common engrossment for discussion." The use of Thinking Maps promotes curiosity, thinking in action, and collaboration. They give us the confidence to embrace complexity and deepen our appreciation for each other's ideas and experiences.

On the most fundamental level, Thinking Maps help us to have the conversations that truly make a difference in how we think and in what we are able to do with our ideas. In the context of the profusion of challenges we face as educators, these tools are essential to the pursuit of our collective ideals and aspirations. "All we can do," wrote Greene (1995), "is cultivate multiple ways of seeing and multiple dialogues in a world where nothing stays the same."

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