KEY CONCEPTS

- Uniting students from an elementary feeder pattern using a common language for thinking and learning
- Using Circle Maps and Frames of Reference for identifying author’s tone, mood, and style
- Note-taking and thinking skills development using multiple Thinking Maps®

After 10 years as a classroom teacher, I was offered two wonderful and challenging experiences, first as an elementary principal and then as a middle school principal. Through these positions I deepened my understanding of the complexity of instruction. I watched teachers lay a foundation for learning for elementary students, and as I entered my present position, I also saw that many of our middle school students needed a stronger foundation in skills to improve their learning that would stay with them throughout their educational and work careers.

My awareness of this deeper need grew over time from my classroom visits, walkthroughs, and supervision processes. I frequently heard frustrated teachers directing students to “take notes” as they were introduced to new information. I also heard my teachers lament that students didn’t know “how to think” when they were challenged with new information and concepts. Over time I realized I couldn’t recall any clear examples of explicit instruction in those two important areas—note-taking skills and thinking skills—even though teachers could well identify and articulate these problem areas.

It became clear that the very core of learning that I began to seek out was rarely found in these classrooms. I came to believe that the issue was larger than the individual teachers: They had never had a unified, consistent way of addressing thinking skills for learning that required sustained, consistent, direct, and differentiated instruction in these skills for all students across multiple years. The absent foundation was missing not because of isolated negligence, but
because of an institutional blind spot that so many schools inherit from a structural problem of schooling. We have focused on content knowledge and content-specific processes in schools. The missing piece is a quality mental resource for explicitly addressing transferable learning-processing skills that transcend any one teacher’s curriculum or the set, vertical path in a content area.

Through an event that can best be described as good fate, at a time when I was seeking solutions to these problems, I was introduced to Thinking Maps. This solution has been not a quick fix, but a systematic implementation over the past six years that has brought a unified language to this school. This is underscored by the successes I see on a daily basis and at the end of each year in test scores. In advocating for the adoption of Thinking Maps, my goal was to give individual students a set of tools they could learn as they came from different elementary school experiences and take with them as they continued their educational careers. What I did not foresee was that over the long term our campus would experience a less obvious, school-wide benefit: the development of a community language through which all of us could mature as individuals into a learning organization.

LIGHTING THE FIRE IN A MIDDLE SCHOOL SETTING

Blalack Middle School is a campus of approximately 1,100 students in Carrollton, Texas, a city just northwest of Dallas. As the city of Dallas continues to grow, Carrollton-Farmers Branch Independent School District has been quickly changing from a suburban, middle-class district that was once predominantly Caucasian to a diverse school district serving many different ethnic groups and a range of socioeconomic levels, with students in the district speaking 46 languages and dialects and representing 53 countries. Four very different elementary campuses feed into Blalack, creating a diverse mix across socioeconomic, racial, and cultural groups.

When the approximately 400 new students enter sixth grade at Blalack every year, our challenge is immediate: We must provide opportunities that allow all students to become a cohesive group—ready to learn and ready to succeed. We must help our students respect diversity and appreciate the strengths of their new classmates. Thus one characteristic of Thinking Maps that became an immediate enticement was the opportunity to develop a common language for our students. The phrase “and many shall become one” is incredibly apparent to a middle school educator. In Leadership for Differentiating Schools and Classrooms, Tomlinson and Allan (2000) identify a stark reality: Every three years, middle schools have a nearly complete turnover of their student populations and families, and thus new challenges for parental involvement.

My participation in an initial Thinking Maps training, before my faculty was trained, was an eye-opening experience. Three specific outcomes of using these tools were identified, and each has proven to be true over our years of implementation. I believe that these three outcomes have significant answers to many of the needs we have at our middle school and possibly most middle schools around this country:

• Thinking Maps help students actively process information. The use of the maps creates immediate and specific questions. In a middle school classroom, the constant challenge is maximum engagement. Used in even their most limited form, Thinking Maps ensure eight “ready” questions—questions associated with each of the eight thinking skills. Thinking Maps build a bridge from concrete knowledge to abstract concepts.

• Thinking Maps bridge the divide between concrete facts and abstract thinking as a developmental necessity for adolescents. Thinking Maps give students a flexible structure for creating their own vision of knowledge as they create their own maps from blank paper. Because no map is ever complete, this flexibility ensures that students at all levels of growth can be consistently challenged in their thinking, building from concrete information to concept formation.
Thinking Maps work as teaching, learning, and assessment tools. The flexible configurations of the maps allow all teachers to contribute to creating applications within and across content areas. Students can successfully use maps as independent learners and thinkers to organize their thoughts for note taking, on formative assessments, and on summative assessments. Many of my teachers regularly ask students to create one or several Thinking Maps to show what they know as they are developing ideas, structuring an essay, or responding to the typical questions that appear at the end of most chapters.

EARLY LEVELS OF CHANGE AND CONCERN

In Taking Charge of Change (Hord, Rutherford, Huling-Austin, & Hall, 1987), considered by some to be the seminal work on change in education, the authors introduce the concerns-based adoption model (CBAM). In this model, a levels-of-use continuum gauges how people are using an innovation, from nonuse and orientation, through the middle stages of preparation and mechanical and routine use, to the upper stages of refinement, integration, and renewal. Our implementation of Thinking Maps has followed such a pattern.

In the early stages, the comfort level and range of implementation varied. Some teachers jumped in with full excitement and energy, while many teachers quickly moved from a level of orientation to a level of refinement and even integration within a very short period of time. Others were more reluctant. Their inconsistent use caused them to remain at the routine level. Nonetheless, as the implementation was campus-wide, all teachers incorporated the maps into their classrooms in varying degrees because of the training that was focused on students' developing automaticity with the tools.

The student-centered dimension of implementing the maps was never more evident than when one of our administrators confiscated a "slam book" early in the school year. A slam book begins when middle school students identify their "best friend for life." Using a notebook, the students begin corresponding on a regular basis, usually passing the notebook to one another in the cafeteria or hallway. At one point, an administrator came into possession of a slam book and found three high-quality examples of Thinking Maps as shown in Figures 12.1a-c. The student had begun the process of planning a party by identifying her "perfect circle" of friends by using a Circle Map and then used two Tree Maps to organize couples. As an administrator
I could not have been more excited. I had been seeking an initiative through which adolescent students could learn tools for independently organizing notes and applying thinking skills, and I had found these tools.
COMMUNICATION FOR DIFFERENTIATION

All of these early events helped us to shift to the real challenge of implementation: moving from igniting the fire for a new initiative to fanning the flame. To increase effectiveness, the fanning process had to be ongoing, promote excitement, and document successes. In Leadership for Differentiating Schools and Classrooms, Tomlinson and Allan (2000) address the importance of communication as a factor in sustaining change. The issue of communication is addressed as it specifically pertains to parents and the public. The five qualities of effective communication are that communication should avoid jargon and focus on effects for students, be consistent, be persistent, be interactive, and take many forms. An exemplar of these interdependent qualities is clearly shown through the sustained efforts of implementing Thinking Maps at our school.

1. Avoid Jargon and Focus on Effects for Students

In this era of standards-based, test-driven education, it is important that we not lose sight of the fact that students must be given opportunities to be successful and leave us prepared to be successful at the next level. Educators in Texas and around the country are often driven by concerns about test results and the No Child Left Behind initiative. It is reassuring that we support our students to use Thinking Maps, knowing that these skills enable them to deeply process information and ensuring that these same tools directly impact their performance on state and other standardized tests. To verify this understanding with our staff, we used a professional development opportunity to review specific state curriculum standards and identify specific Thinking Maps that can be used to teach and assess each standard.

Teachers were asked to review the curriculum for the subject and grade level that they teach. For each curriculum indicator (or standard), teachers were asked to identify the underlying thinking skill and Thinking Map(s) that would be helpful in ensuring that students mastered the indicator. One example comes from Jennifer Farlow, a sixth-grade social studies teacher, and her students. By using the Tree Map as presented in Figure 12.2, students were

**Figure 12.2 Social Studies Developing Countries Tree Map**

<table>
<thead>
<tr>
<th>Developed</th>
<th>Developing</th>
<th>Underdeveloped</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factories abound</td>
<td>Some factories</td>
<td>Few factories</td>
</tr>
<tr>
<td>Huge, commercial farms</td>
<td>Some commercial farms</td>
<td>Subsistence farming</td>
</tr>
<tr>
<td>Technology—electric, modern</td>
<td>More electricity and electronic technology</td>
<td>Tools for farming, man-made, not much electronic tools</td>
</tr>
<tr>
<td>Education, access to education</td>
<td>Some access to school</td>
<td>No access to education</td>
</tr>
</tbody>
</table>
able to categorize information and get a visual depiction (and understanding) of three stages of economic development as they apply to countries. They were also able to clearly see specific factors of production as they apply to these stages. Using Bloom’s (1956) Taxonomy of Educational Objectives as a guide, teachers were also able to identify the kind of thinking required by students in test questions and the direct application of the maps by students to the curriculum indicators that must be mastered.

2. Be Consistent

While we encourage creative use and flexibility of the maps, we also ensure that the common visual language has the consistency that enables complex applications. For example, when a question concerning sequencing is asked in a test situation—such as “What are the steps in the process of a bill becoming a law?”—we want students to identify the Flow Map as a common tool for understanding this process.

Brittnie Bragg, a language arts teacher, shared two examples that she regularly uses in her classroom. As students come into her room each day, they are asked to complete a warm-up Thinking Map on something they learned, read, or did in the previous class period. Over time, the directions progress from her assigning a specific Thinking Map to her instructions to “use any of the eight Thinking Maps to show me something you remember from the story we read last class period.” These warm-up activities provide opportunities for practicing the maps and for practicing fluent, autonomous transfer of thought processes.

A second example stretches the students to even higher levels of thinking. In teaching and reviewing the challenging concept of recognizing the author’s style, tone, and mood, Mrs. Bragg asks students to create a Circle Map divided into three parts as shown in Figure 12.3. In the center circle, the students write the title of the story. One third of the circle is segmented for style, one for tone, and one for mood. The students are directed to define each of the three

![Figure 12.3 Tone, Mood, and Style in Language Arts Circle Map](image-url)
components as they are used in the story and, in the Frame of Reference, prove their definitions by identifying direct quotes or examples from the story to support their thoughts. Such an example underscores the importance of developing a common and consistent vocabulary in a middle school setting for foundational thinking skills and tools. Even with a common district curriculum, the abstract concepts of author’s tone, mood, and style lend themselves to a variety of instructional interpretations across the four elementary schools that feed into our community.

3. Be Persistent

Persistence as a habit of mind (Costa & Kallick, 2000) for improved thinking and communication has been vital to the success of our campus implementation. Our efforts with Thinking Maps have been sustained over a period of six years, and to achieve this, several publicly stated expectations are emphasized and acted upon each year.

First, implementation is school-wide. All students, Grades 6 through 8, are reintroduced to the eight cognitive skills and maps during the first six weeks of every school year. Second, all teachers new to the campus are required to complete the introductory “Day One” Thinking Maps session conducted by a certified trainer. Third, the campus principal participates in all training. As active participants in training, campus administrators are positioned to serve as coaches in supporting teachers to sustain implementation.

4. Be Interactive in Implementation

The quality of implementation is sustained by interaction among all stakeholders in the process. Over the past six years, discussions have occurred within departments, in leadership teams, and in planning groups regarding the effectiveness of the maps. Teachers have assumed ownership of the implementation as they have created activities for classroom instruction. A yearly campus improvement plan, developed by a team of teachers and parents, includes specific references to the use of the maps throughout the instructional program.

In recent years, map activities have been used for our own leadership and professional development tools. For example, we have used the tools for a study of current professional literature, data disaggregation of state test scores, and school-wide goal setting. In the past few years, an ongoing process of “plan, implement, study, and revise” resulted in the adoption of the Thinking Maps language by the elementary campuses that feed into Blalack. Each year, a transition meeting of elementary fifth-grade teachers and middle school sixth-grade teachers is held, and Blalack sixth-grade teachers excitedly share the benefits of the Thinking Maps and the contribution they make to helping students achieve at higher levels. As a result, all of the feeder elementary campuses moved toward implementation, and now almost all students entering Blalack as sixth graders are Thinking Maps veterans.

5. Use Many Different Forms for Sharing and Celebrating

A visitor to our campus cannot leave without seeing the maps affixed to classroom bulletin boards, sprinkled throughout student notebooks, and displayed throughout the hallways. The integrated use of Thinking Maps software (Hyerle & Gray Matter Software, 2007) ensures that students can apply their knowledge in new ways and save an electronic portfolio of their thinking and content knowledge. Parent newsletters are another form of communication that is frequently used.

The power of sharing with parents surfaced during a Thinking Maps training I conducted for paraprofessionals who assist at-risk students in our inclusive classrooms. One of the Learning Center managers, who happened to be the parent of a former Blalack student, came to ask
for a clarification of something that was discussed. During the conversation, she asked me if her daughter would be able to tell her what Thinking Maps were. Being a proud principal, I assured her that that would be the case. A few days later, I happened to see this parent again, and she excitedly shared with me that her daughter could indeed identify the maps as well as the thinking process for each map. My confidence in these maps as tools that would stay with students beyond our school was cemented.

FEEDING THE FIRE: CONFIDENCE AND CONTINUED SUCCESS

As our campus population has continued to change and our challenges have grown, the success levels of our students have continued to rise. This feeds the fire and our confidence as teachers, students, and administrators. Our teachers are ensuring that every child is challenged to succeed and is given the internal, intrinsic mental resources to contribute to that success. Mary LeRoy, a math teacher at Blalack and a Thinking Maps trainer, expressed this belief:

When I see a student who has had a history of struggling with math attack a problem with confidence, both the student and I feel the success. Thinking Maps have created this confidence in many of my students. The maps have given my students a means of organization and a strategy to set up and solve a multistep problem, outline a project, and much more. Once upon a time, a struggling student would see a math test as a white sheet of paper with black letters and numbers and an automatic failure. Now, the same student sees the same test as separate problems, each giving a clue to the map to be used.

From that day, over seven years ago, when I realized that the twin problems voiced by teachers about the lack of note-taking and thinking skills by students might be resolved through Thinking Maps, I never imagined that this focus on fundamental thinking processes as tools could, from the ground up, help transform our school into a much richer learning organization. It took perseverance as educators to see the forest of diverse students also as individual trees growing with common needs. This common language enabled a student with special needs, who was struggling with a task assigned by his teacher in another math class, to finally look to the teacher with a simple question: “Can I use a Thinking Map to get started?”

REFERENCES


