Excellence in Teaching
Mastering the Quantum Learning System

Establishing a Strong Foundation
a Quantum Learning Webinar

800.527.5321 • www.QuantumLearning.com

©2015 Quantum Learning
“quantum”

interactions

that transform energy into radiance

Quantum Learning

Quantum Learning is a research-based education system that orchestrates core components to achieve desired results.
The Quantum Learning System is a powerful research-based educational methodology that increases your effectiveness and improves your students’ performance through the orchestration of four core components.

**FOUNDATION**
*Create an aligned community of learners.*

Foundation is the context of the classroom and aligns everyone toward a common vision. Alignment is achieved through procedures and rules that clearly define expectations, values, and goals for teachers and students. This creates a culture of learning where students understand classroom procedures and know how to interact with each other and with their teacher to experience successful learning. Important foundation initiatives include the 8 Keys of Excellence and skills that inspire and motivate students to become effective learners. Foundation is a core component of the Quantum Learning System.

**ATMOSPHERE**
*Create a positive and respectful emotional climate where students feel safe to take cognitive risks.*

Atmosphere plays a significant role in the affective domain of learning. It’s the general feeling you create in your classroom—students feel safe and supported and have a strong sense of belonging. The development of character-building life skills promotes respect and rapport—between the teacher and the students and also among the students. The tone of the class is “down to business,” yet comfortable and motivating. Every effort is acknowledged—all learning and achievements are celebrated. Atmosphere is a core component of the Quantum Learning System.

**ENVIRONMENT**
*Create a physical space that supports the classroom culture and enhances learning.*

Environment is the utilization of physical space to support a culture of learning. The ideal classroom environment is inviting, comfortable, and stimulating. Because everything in the classroom sends a message about what is important, the environment is purposefully arranged with careful consideration of how to best maximize the conditions within the classroom. Affirmation and content posters, student work, and class agreements visually support the culture and cognition of a QL classroom. Managing the environment to maximize its support of learning is a continual process. Environment is a core component of the Quantum Learning System.

**DESIGN & DELIVERY**
*Create and facilitate meaningful learning.*

In addition to the brain-considerate crafting of effective lessons, design intertwines the elements of student buy-in, connecting content to prior knowledge, and the transfer of learning to real-life situations. Activities that allow students to demonstrate their learning and allow teachers to assess student progress are vital elements. Delivery is the facilitation of the designed lesson. Effective delivery maximizes students’ participation, comprehension, and competency, and provides a multisensory, efficient and focused learning experience. Elements of delivery include questioning and discussion skills that increase participation and accountability, giving effective directions, maximizing student attention, purposeful use of voice, and essential communication strategies. Design & Delivery is a core component of the Quantum Learning System.

©2015 Quantum Learning
When we artfully

the four components of

and

it creates a ____________________________
in us as ___________________________
and in our ____________________________.
WHAT IS A LEARNING SYSTEM?

Similar to the Quantum Learning System, the brain’s natural learning systems are open systems with consistent structures and functions.

Our brains contain mechanisms that allow us to survive. These survival mechanisms form the basis of the brain’s natural learning systems. As a result, the human brain has six major learning systems we employ in varying combinations to help us better understand ourselves and each other as learners, doers, thinkers, lovers, and problem solvers (Given, 2002).

The Physiology of a System

A neuron has two types of appendages connected to its cell body. On one side are short finger-like dendrites that receive messages while on the other side is an axon that sends messages to receiving dendrites. Axons can be short or very long.

The brain’s billions of neurons and trillions of synaptic connections constantly release chemicals and in the process neurons link together via synaptic connections to form neural modules and circuits. When a sufficient number of neurons “reach out” to other modules, circuits are formed. Neuronal circuits link together to perform a specific function, like seeing or hearing or noticing and responding to danger. These circuits form networks and networks that process similar input are called systems.

Whatever the process for getting there, neurons that function together to perform similar functions are systems, and humans are genetically wired for the development of at least six major learning systems that allow us to:

1. interact with others and show empathy (Social)
2. express and understand emotions (Emotional)
3. problem solve based on inferences (Implicit)
4. think, problem solve and make decisions (Cognitive)
5. receive sensory input, move and control our actions (Physical)
6. reflect on what has happened, what may happen, and what we would like to do differently (Reflective)
Foundation: an aligned community of learners who know how to effectively interact with one another.

<table>
<thead>
<tr>
<th>Foundation</th>
<th>Atmosphere</th>
<th>Environment</th>
<th>Design &amp; Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Overt**

**Clear**

**Consistent**

In what ways can I be more overt, clear, and consistent with my classroom expectations?
Agreements are simple, concrete guidelines for how we interact with each other.

- establish expectations about attitudes and actions
- create a common language
- align with our shared vision

Make the most of every moment.

participate to gain the most value
- stay focused
- minimize distractions
- participate

What agreement do we or will we live by in my classroom?

- ____________________________________________
  - ____________________________________________
  - ____________________________________________

- ____________________________________________
  - ____________________________________________
  - ____________________________________________

- ____________________________________________
  - ____________________________________________
  - ____________________________________________
The 8 Keys of Excellence are a set of guiding principles that build our inner core of character.

**INTEGRITY**  
*Match behavior with values*  
Demonstrate your positive personal values in all you do and say. Be sincere and real.

**FAILURE LEADS TO SUCCESS**  
*Learn from mistakes*  
View failures as feedback that provides you with the information you need to learn, grow, and succeed.

**SPEAK WITH GOOD PURPOSE**  
*Speak honestly and kindly*  
Think before you speak. Make sure your intention is positive and your words are sincere.

**THIS IS IT!**  
*Make the most of every moment*  
Focus your attention on the present moment. Keep a positive attitude.

**COMMITTMENT**  
*Make your dreams happen*  
Take positive action. Follow your vision without wavering.

**OWNERSHIP**  
*Take responsibility for actions*  
Be responsible for your thoughts, feelings, words, and actions. “Own” the choices you make and the results that follow.

**FLEXIBILITY**  
*Be willing to do things differently*  
Recognize what's not working and be willing to change what you're doing to achieve your goal.

**BALANCE**  
*Live your best life*  
Be mindful of self and others while focusing on what’s meaningful and important in your life. Inner happiness and fulfillment come when your mind, body, and emotions are nurtured by the choices you make.
<table>
<thead>
<tr>
<th><strong>8 KEYS OF EXCELLENCE SELF CHECK</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foundation</strong></td>
</tr>
<tr>
<td>Always</td>
</tr>
</tbody>
</table>

**Integrity**
I have positive personal values.  
My words and behavior reflect my values.  
I know myself and I am true to who I am.  

**Failure Leads to Success**
I view failures as feedback and opportunities for growth.  
I take time to learn from mistakes and do better next time.  
I am not fearful of making mistakes.  

**Speak with Good Purpose**
I am aware of the power of my words.  
I speak positively—no bullying, no insults, no gossip.  
I make sure my intention is good and my words are sincere.  

**This Is It!**
I focus my attention on what I'm doing right now.  
I know I have the power to choose my attitude—good or bad.  
I choose a positive attitude.  

**Commitment**
I have meaningful goals and believe in my ability to achieve them.  
I take positive action to move forward toward my goals.  
I persevere—giving up is not an option.  

**Ownership**
I think about the results of my choices.  
I am responsible for my words and actions.  
I don't blame others or make excuses for things I say or do.  

**Flexibility**
I recognize that things may not always work out as planned.  
I am open to suggestions and change—I am not rigid.  
I adapt to changing situations in order to move forward.  

**Balance**
I stay aware of what's meaningful and important in my life.  
I make positive choices about how I spend my time.  
I balance my activities to nurture my mind, body, and emotions.  

©2015 Quantum Learning
The Implementation Rubrics guide you to increasing levels of competence with your QL knowledge and skills.

Implementation and eventual integration of QL takes time as did your competence with the skills you already possess. Be gracious to yourself on your journey. Take action, notice the feedback, and make adjustments as you keep focused on what’s best for your students.

**Mastery**

*I use the strategy purposefully, proactively, and effortlessly for the highest cognitive outcome.*

**Training**

*I’m working to consistently use the strategy to varying degrees.*

**Exposure**

*I understand the strategy at a conceptual level.*
SYSTEMS
The optimal interaction of parts to form a cohesive whole.

THE BRAIN’S NATURAL LEARNING SYSTEMS
Neural networks that perform similar functions.

- **Exposure**: What is my level of competency (Exposure, Training, or Mastery) for each of the Brain’s Natural Learning Systems?
- **Training**: Select one of the Brain’s Natural Learning Systems. In what ways will I intentionally increase the activation of that system in my lessons?
- **Mastery**: Select a lesson. In what ways will I incorporate the Brain’s Natural Learning Systems into the design and delivery of my content?

THE QUANTUM LEARNING SYSTEM
A research-based approach to increase teacher effectiveness.

- **Exposure**: What is my level of competence (Exposure, Training, or Mastery) for each of the four components?
- **Training**: Select one of the core components. In what ways will I intentionally address that component in my classroom?
- **Mastery**: In what ways will I incorporate all four core components of the Quantum Learning System into my classroom?
**FOUNDATION**

*An aligned community of learners—the guidelines of how we interact.*

**AGREEMENTS**

*Simple, concrete guidelines for how we interact with each other.*

- **Exposure:** What three agreements will best support my students and guide my classroom. Note: *Overtly* post them on your wall, speak them out loud, and make sure they are visible to all.

- **Training:** What are the success criteria for each of my agreements? Note: Be *specific and clear* about how students will look, sound, and behave when in compliance with each agreement. Simplify and make sure your agreements are easy to comprehend.

- **Mastery:** In what other ways will the agreements deliberately and *consistently* appear in my lessons, conversations, and interactions with my students? What specific content illustrates the agreements? What stories, role models, historical figures, songs, movies, and television shows provide examples of people demonstrating or struggling with the principles of the agreements in their own lives? In what ways can my students apply the agreements to work, relationships, their family, and college?

**THE 8 KEYS OF EXCELLENCE**

*A set of guiding character principles to live by.*

- **Exposure:** Where in my classroom can I post the 8 Keys of Excellence? Note: Teach the body motions and definitions to your students.

- **Training:** In what ways can I weave the 8 Keys into our classroom? Which Key or Keys make sense to focus on? What are the success criteria for the Key(s)? What will students specifically do and say to indicate they are using the Key(s)?

- **Mastery:** In what other ways will the 8 Keys of Excellence deliberately and consistently appear in my lessons, conversations, and interactions with students? What specific content we are learning illustrates the 8 Keys of Excellence? What projects, research, activities, and stories can students create to demonstrate their understanding of the 8 Keys of Excellence? In what ways can students apply the 8 Keys of Excellence to work, relationships, their family, and college?
The Implementation Rubric guides you to increasing levels of competence with your QL knowledge and skills.

Implementation and eventual integration of QL takes time as did your competence with the skills you already possess. Be gracious to yourself on your journey. Take action, notice the feedback, and make adjustments as you remain focused on what’s best for your students.

### Essentials Implementation Rubric

<table>
<thead>
<tr>
<th><strong>EXPOSURE</strong></th>
<th><strong>TRAINING</strong></th>
<th><strong>MASTERY</strong></th>
<th><strong>LEADERSHIP</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The staff member has been introduced to and understands the skill on a conceptual level.</td>
<td>On a practical level, the skill is intermittently modeled and referenced in the staff member’s setting.</td>
<td>The skill is seamlessly woven throughout the staff member’s work on a consistent basis. Evidence of this is reflected in student behavior.</td>
<td>The staff member has internalized and consistently models the concept with both staff and students, upholding high standards for integrating the concept into the school culture.</td>
</tr>
</tbody>
</table>
**FOUNDATION**

*An aligned community of learners—the guidelines of how we interact.*

<table>
<thead>
<tr>
<th>AGREEMENTS</th>
<th>STRATEGY</th>
<th>EXPOSURE</th>
<th>TRAINING</th>
<th>MASTERY</th>
<th>LEADERSHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overt</td>
<td>I have overt agreements that act as a guideline for my classroom.</td>
<td>The agreements are posted on my wall, included in my syllabus, and visible to my students at all times.</td>
<td>I reference the class agreements in lessons and during moments of reinforcing behavior.</td>
<td>I share my agreements with parents and they are familiar with and reinforce the expectations of my classroom.</td>
<td></td>
</tr>
<tr>
<td>Clear</td>
<td>Each agreement is clear and relevant to learning, and students can name all of them.</td>
<td>Each agreement has success criteria that specifically state how students will speak and behave when in alignment with the agreement.</td>
<td>My students can apply each agreement and identify why it is important to them as a person and as a learner.</td>
<td>I have shared my agreements with my colleagues and we are aligned in our support of our students’ greatest needs.</td>
<td></td>
</tr>
<tr>
<td>Consistent</td>
<td>The agreements are spoken about regularly and are consistently reinforced in my classroom.</td>
<td>I model the agreements at all times. My students hold themselves, and me, accountable for living the agreements.</td>
<td>My students regularly evaluate their level of compliance with the agreements and know how to make adjustments.</td>
<td>Agreements are referenced and reinforced outside of my classroom (e.g., when coaching, tutoring, or at school-sponsored events).</td>
<td></td>
</tr>
</tbody>
</table>

© 2015 Quantum Learning
The 8 Keys Implementation Rubric

**FOUNDATION**

An *aligned community of learners—the guidelines of how we interact.*

<table>
<thead>
<tr>
<th>8 KEYS</th>
<th>Strategy</th>
<th>Exposure</th>
<th>Training</th>
<th>Mastery</th>
<th>Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Overt</td>
<td>I display the 8 Keys of Excellence in my classroom.</td>
<td>I have introduced the 8 Keys of Excellence as part of the Foundation of my classroom.</td>
<td>I reference the 8 Keys of Excellence in lessons and during moments of reinforcing behavior.</td>
<td>The 8 Keys of Excellence are displayed in all classrooms and school meeting spaces.</td>
</tr>
<tr>
<td></td>
<td>Clear</td>
<td>My students can name the 8 Keys of Excellence with the body motions.</td>
<td>My students can define all 8 Keys and know specifically what it means to use each Key in my classroom.</td>
<td>My students can apply each Key and identify why it is important to them as a person and as a learner.</td>
<td>I focus on one Key every month and incorporate lessons, stories, and examples into my lessons.</td>
</tr>
<tr>
<td></td>
<td>Consistent</td>
<td>The 8 Keys of Excellence are essential to the Foundation of my classroom and everyone is accountable for living them.</td>
<td>I model the 8 Keys of Excellence at all times. My students hold themselves, and me, accountable for living the Keys.</td>
<td>My students regularly use the 8 Keys Growth Gauge to evaluate their use of the Keys and measure goals each month.</td>
<td>Every month I publicly acknowledge students for their use of the 8 Keys of Excellence in class and in school life.</td>
</tr>
</tbody>
</table>
Excellence in Teaching Program

Mastering the Quantum Learning System

Essentials
Understanding the Quantum Learning System

In this engaging and inspiring introduction, teachers and leaders learn the essential Quantum Learning theories, models and practical applications to create vibrant and productive student learning. They discover the QL System’s power to achieve desired outcomes through the purposeful orchestration of core components—Foundation, Atmosphere, Environment, and Design and Delivery. QL Facilitators explain the supporting research behind the strategies and then provide time for participants to assimilate the new material and consider applications to their instructional practice.

• Understand the core components of a well-orchestrated, research-based teaching system
• Learn insights from neuroscience that impact conceptual understanding, relevancy and retention of content
• Grasp strategies that maximize students’ connections to content and your ability to facilitate their learning

Classroom Culture and Management
Establishing a Culture of Personal and Academic Excellence

Engaged students learn more, remember what they learn, and have more positive attitudes about school and learning. At a fundamental level, the first step toward achieving standards is effective behavior management and a well-orchestrated classroom. Quantum Learning’s focus on cultivating a positive culture in every classroom increases teacher effectiveness and students’ academic excellence. Teachers learn to create an intellectually engaging, focused, and cognitive-rich classroom culture built on safety, support and belonging.

• Learn insights from neuroscience that impact the creation of a cognitive-rich classroom culture
• Gain the essential skills to create a positive culture of motivation, engagement, accountability and achievement
• Learn eight character traits that build a positive classroom culture and increase student ownership of their learning

Design and Delivery for Learning
Increasing Conceptual Understanding and Critical Thinking

Design and Delivery for Learning provides solutions to challenges inherent in the teaching and learning of standards, namely creating greater relevancy, allowing more time for meaning-making, fostering increased use of academic vocabulary and discourse, and developing students’ capacity to think critically. Participants use the Quantum Learning Teaching Cycle and Design Guide to create an effective lesson structure so standards become relevant and students become confident and competent.

• Grasp strategies that pique curiosity, activate thinking and guide application of new content
• Discover strategies that improve the quality of students’ answers and that increase academic discourse
• Acquire strategies to develop critical thinking

For more information visit quantumlearning.com or call 800-527-5321.

©2015 Quantum Learning