

Reframing Mental Models That Shape Our Schools



The Profound Knowledge of Systems Thinking -Equipping leaders to thrive in an era of rapid change.

Rapidly advancing technologies and an evolving global economy are outpacing the efficacy of what our schools provide to prepare students for their future. While most leaders and school communities recognize the need for change, a consistent method for achieving newly structured schools and programs can be elusive. The leadership skills of Systems Thinking provide a way forward, giving leaders the tools to collaboratively build positive solutions in their school community to meet the needs of the next generation of students.

How might we reimagine the aims and operations of our schools to meet the need's of the next generation of students?

Mental Models Workshop Agenda

Part One of the GFL Systems Thinking Series

In this workshop, participants will explore how the rapidly changing world impacts student needs and education. The workshop will delve into identifying both the timely and timeless needs of students and examine how current school environments meet or fail to meet these needs. By adopting the Profound Knowledge of Systems Thinking, school leaders will be equipped to optimize teaching and learning and effectively transform day-to-day practices within their schools.

Session One - The Changing World and The Fourth Industrial Revolution

Leaders will articulate how advanced technology is reshaping learning and how to prepare students for future demands.

Session Two - Systems Thinking and Profound Knowledge

Leaders will begin developing a systems-thinking mindset to tackle school challenges holistically.

Session Three - Authorship Learning and Student Agency

Leaders will develop strategies for integrating student agency in curriculum design and classroom activities in their schools.

Session Four - Capturing and Applying Student Voice

Leaders will create a plan to regularly capture and utilize student voice in decision-making processes.

Session Five - Challenging Mental Models & Overcoming Resistance

Leaders leave with specific strategies to challenge and change limiting beliefs within their school communities.

Session Six - Creating a Roadmap for Transformative Change

Leaders walk away with a concrete plan tailored to their school's unique challenges and goals.



Presented by Dr. Steven Lyng

Dr. Lyng's career in educational leadership spans over 25 years in both public and private schools. In his work with educators and students, Dr. Lyng focuses on building a community where educators are inspired to innovate, and students are encouraged to achieve. Dr. Lyng is the founder of the [Go Fourth Learn Project](#), which is dedicated to redefining the landscape of education through innovative leadership and a commitment to creating relevant and engaging learning environments for today's students.

For workshop inquires, contact

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WORKSHOP OUTLINE

Overarching Essential Questions	
<ul style="list-style-type: none"> • How does the changing world impact the needs of our students and their education? • What are the timely and timeless needs that students have that are met and not met in today's school environments? • How might we reimagine the aims and operations of our schools to meet the need's of the next generation of students? • How can school leaders incorporate the skills and strategies of systems thinking to lead needed transformation in their schools? 	
Workshop Outcomes	
<ul style="list-style-type: none"> • Goal # 1 Leaders can articulate a definition and understanding of the Fourth Industrial Revolution, which is rapidly changing the world and future in which our students will live and work as adults. • Goal # 2 Leaders will apply authorship learning concepts and pedagogical practices at all grade levels and in all content areas that will transform the student experience. • Goal # 3 Leaders will create a variety of methods to formally and informally capture and study student voice around enthusiasm and engagement with learning at school • Goal #4 Leaders will begin to adopt the Profound Knowledge of Systems Thinking as an essential strategy for engaging students and teachers, optimizing teaching and learning, and effectively transforming the day-to-day practices in their schools. 	
GFL Trained Leaders Will Know	GFL Trained Leaders Will Be Able To
<ul style="list-style-type: none"> • The traditional system of education was made to prepare students for a traditional set of jobs and careers that are rapidly ceasing to exist. • That deep and powerful learning requires a personal interest in what is being learned. • That deep and powerful learning is tied to emotional experiences. • That students with access to the internet are learning more outside of school than they are learning in school. • That traditional grading systems are counterproductive and potentially harmful. • That students must be regular participants in the development of course content and activities. Student agency must become the norm rather than the exception • That the higher education system across the country is responding to the same realities, and making similar transformations. 	<ul style="list-style-type: none"> • Acknowledge and discuss the associated issues with transforming education in their schools to internal and external constituencies. • Become influential thought leaders on the future of education in their school communities. • Generate persistent and incremental change in response to growing awareness of the need to transform teaching and learning in schools. • Take examples of successful transformation in other schools and adapt to their own school environments. • Create experiential learning opportunities that integrate content with the "authorship learning" experiences for both students and teachers. • Take initiative in the acquisition of a new set of skills and dispositions based on systems thinking in order to make the needed shifts in practice and pedagogy.
Workshop Vocabulary	Workshop Essential Questions
<p><u>Systems Thinking</u> Causal Loops Dynamic Complexity Feedback Loops Leverage Points System Archetypes Systems Mapping Appreciation for a System Knowledge of Variation Theory of Knowledge Psychology (understanding human behavior)</p> <p><u>Fourth Industrial Revolution</u> Automation Cyber-Physical Systems Internet of Things (IoT) Robotics Artificial Intelligence (AI) Big Data Analytics Augmented Reality (AR) and Virtual Reality (VR)</p> <p><u>Teaching and Learning</u> Authorship Learning Collaboration Constructionism Constructivism Design Thinking Experiential Learning Metacognition Non Cognitive Skills (Success Skills) Personalized Learning</p>	<p>Future - Where We Are Headed</p> <ul style="list-style-type: none"> • As a school, what are we preparing our students for? • How are emerging technologies impacting our traditional assumptions about the relationship between college education and future employment and earning potential? • Why are the traits of creativity, problem solving, and empathy increasingly important in an age of technological growth and innovation? • How does this transformation fit in with the end goal of college and career readiness? • What are the most effective ways of educating our parent community about the needed changes in our approach to teaching and learning? • How will we make sure effectively involve students in this process? <p>Teaching Implications - The Transformation</p> <ul style="list-style-type: none"> • How are we teaching students to ask great questions instead of answer questions? • How do we respond to what we know about how students learn best? • What does it mean to have students become co-creators of content and lessons in our classrooms? • What is the difference between compliance and engagement from students in the classroom? • To what extent are we allowing students to create, using real world tools, in all of their classes? • What are the incremental changes that we can make right now? • How do we shift from a traditional education environment to an educational environment that focuses on metacognition? • How do we move on from a fixed mindset about teaching and learning? • What transformations are required of the school leaders to make the shifts that we are discussing

Potential Roadblocks When Reframing Mental Models About School

- **“We already do this.”** - While schools may be practicing elements of modern education, true transformation requires a deeper, ongoing reimagining of how learning is designed, delivered, and assessed. Incremental changes aren't enough.
- **External pressures (e.g., college admissions, parent expectations, traditional transcripts) dictate what we must do.** - These pressures exist, but innovative schools find ways to meet external demands while simultaneously modernizing teaching and learning practices. Transformation can align with, not oppose, these external expectations.
- **Preparation and simulation are the same thing** - Simulations are valuable, but they are no substitute for real-world experiences. True preparation involves engaging students in authentic, hands-on learning that transcends the classroom.
- **“Seat time” equates to learning.** - Time spent in class doesn't automatically translate to mastery. Schools must shift to competency-based models where students progress based on skills and understanding, not time.
- **“I can make the transformation by myself.”** - Transformation is a collective effort. It requires collaboration among leaders, teachers, students, parents, and the broader community to reimagine and build a sustainable future for education.
- **Technology will solve this problem.** - Technology is a tool, not a solution. True transformation comes from rethinking pedagogy, curriculum design, and learning culture. Technology enhances this process but cannot replace the human elements of teaching and learning.
- **“I need to see how someone else is doing this. Give me examples!”** - While examples can inspire, transformation requires contextual innovation. Instead of replicating what others are doing, principals must envision what will work best for their own students and communities.
- **Improvements to the existing system will suffice.** - Small tweaks won't fix systemic challenges. As Oren Harari said, “The electric light didn't come from the continuous improvement of candles.” True transformation requires bold, innovative thinking that rethinks the system from the ground up.
- **“We have to wait for post-secondary institutions to lead the change.”** - K-12 schools have the opportunity to drive transformation from the ground up. Waiting for higher education to change is a missed opportunity to innovate and better prepare students for an uncertain future.
- **“Parents don't want this”** - Parents, when engaged and educated, often want what's best for their children. Schools must take the lead in communicating the benefits of modernized learning models and engaging parents as partners in the transformation process.
- **“This won't help standardized test scores.”** - While test scores are a factor, transformation is about preparing students for life beyond the test. Skills like critical thinking, creativity, collaboration, and resilience are the real indicators of future success, and these can be enhanced even as test performance remains important.

Reframing Mental Models That Shape Our Schools - Workshop Sessions

Session One - The Changing World and the Fourth Industrial Revolution

Goal: Understand how the Fourth Industrial Revolution is transforming the future of education.

Theory: Explore key concepts such as Automation, Artificial Intelligence (AI), Big Data, and the Internet of Things (IoT) from the document.

Activity: Principals brainstorm how these emerging technologies are or could impact their schools. In small groups, they map the influence of these technologies on traditional roles within education (teachers, students, assessments).

Outcome: Leaders will articulate how advanced technology is reshaping learning and how to prepare students for future demands.

Session Two - Systems Thinking and Profound Knowledge

Goal: Introduce and apply Systems Thinking concepts to education transformation.

Theory: Discuss Causal Loops, Feedback Loops, Dynamic Complexity, and the four areas of Profound Knowledge (Appreciation for a System, Knowledge of Variation, Theory of Knowledge, and Understanding Human Behavior).

Activity: In groups, principals identify one complex challenge in their school and use Systems Mapping to illustrate the dynamics. Focus on identifying leverage points where intervention could create meaningful change.

Outcome: Leaders will begin developing a systems-thinking mindset to tackle school challenges holistically.

Session Three - Authorship Learning and Student Agency

Goal: Shift focus from teacher-centered to student-driven learning.

Theory: Authorship Learning, Constructionism, Constructivism, and the importance of student agency in designing course content and activities.

Activity: Principals design a mock project-based learning experience where students act as co-creators of content. Attendees share how they would implement student voice and choice in their respective schools.

Outcome: Leaders will develop strategies for integrating student agency in curriculum design and classroom activities in their schools.

Session Four - Capturing and Applying Student Voice

Goal: Learn methods to capture and use student voice to transform learning experiences.

Theory: Explore techniques to formally and informally collect data on student engagement, enthusiasm, and feedback from the document.

Activity: Principals design a student survey or focus group protocol to capture insights about student engagement in their school. They then discuss how to use this data to inform changes in pedagogy or school policy.

Outcome: Create a plan to regularly capture and utilize student voice in decision-making processes.

Session Five - Challenging Mental Models and Overcoming Resistance

Goal: Identify and challenge the mental models that hinder school transformation.

Theory: Review common barriers such as “We already do this,” “Technology will solve the problem,” and “Parents don't want this.” Use the Oren Harari quote to emphasize bold, transformational change.

Activity: Principals participate in role-playing scenarios where they must address various stakeholders (parents, teachers, district officials) who resist change. Groups work through these scenarios using insights from Systems Thinking to reframe conversations.

Outcome: Leaders leave with specific strategies to challenge and change limiting beliefs within their school communities.

Session Six - Creating a Roadmap for Transformative Change

Goal: Develop an actionable plan for transforming schools in alignment with the workshop's key themes.

Theory: Review focus on incremental, persistent change, emphasizing innovation over improvement of the old system.

Activity: Each principal drafts a “Transformation Roadmap” for their school, including:

- Short-term wins they can implement immediately (e.g., rethinking grading systems or integrating project-based learning).
- Long-term vision for structural change (e.g., personalized learning environments or systems-driven leadership).

Outcome: Leaders walk away with a concrete plan tailored to their school's unique challenges and goals.