

COGx Supports MTC Member Schools' Journey To Mastery

Year in review

www.cogx.info

optimize learning through science

Essential skills for students to flourish in school and beyond...



COGx programs develop these skills.

The Synergy

Mastery Learning Schools have instructional approaches and systems of assessment that are based on the learning sciences. The Mastery Transcript hopes to reflect a new age in education and demands a new approach to teaching and learning, mastery learning or competency-based education. COGx programs give educators and students access to decades of research on human learning, known as the Science of Learning, that is trapped in the halls of academia. Together, COGx and MTC support schools in accelerating innovation.

Teaching & Learning for Mastery Learning Objectives

In order to design successful opportunities for real-world, collaborative, project-based learning that develop 21st Century skills, COGx equips educators in the following areas:





COGx & MTC Partnership

COGx worked closely with several hundred administrators, teachers, and students from MTC member schools applying the Science of Learning to improve teaching and learning. Across a diverse range of schools, encompassing various types, sizes, and student age groups there was one common thread: the goal of answering the question-

"How will teaching and learning change at our school to align with a mastery transcript?"

Sample Topics -



How to foster metacognitive skills and develop successful independent learners



How to avoid cognitive overload when teaching

How to ensure students master concepts, and can apply their knowledge



What motivates and engages students





Teaching students evidence-based study strategies

COGx Impact



9.7/10

educators recommend COGx Science of Learning Programs to others



COGx Workshops

Ninety-seven percent educators agreed that the Workshops with Program Leaders were enriching



COGx Instructional Design

Ninety-five percent educators agreed that the Instructional Design of the program was effective and engaging.

This program emphasizes the importance of evidence based approaches, and educators are encouraged to constantly think about their teaching methods in order to promote better results for their students.

MTC Educator



Mini Case Studies

One MTC member school took advantage of our ala carte professional development and shorter programs for educators. The full faculty attended a professional development session that was custom designed in partnership with the administration. They debunked common learning myths and explored the science of learning at a high level. Meanwhile, deans, department chairs, and advisors enrolled in our short program, Introduction to the Science of Learning.





Another school committed to educating all high school teachers and their students on the science of learning. This effort incorporated two of our programs, Developing Sophisticated Learners, a 40hour comprehensive professional development, and Becoming a Sophisticated Learner, an 18-hour program for middle and high school students. The shared experience is a critical part in building a group understanding of how people learn.

Mini Case Studies

An MTC school enrolled all of their grade 6 and grade 9 teachers in Developing Sophisticated Learners, our 40-hour comprehensive professional development for teachers. Simultaneously, 6 administrators split their time between the program for teachers and Distilling the Science of Learning, the program for school leaders.





Another school provided programming for both teachers and students simultaneously. Four grades of students participated in Becoming a Sophisticated Learner, a program for middle and high school students. Meanwhile, select faculty participated in our comprehensive 40-hour program for teachers, Developing the Science of Learning.



What Makes Us Unique

COGx Academic Partners

COGx programs are co-created with the world's leading experts on the Science of Learning, some of whom are listed below.



Linda Darling Hammond Professor of Education Emeritus, Stanford University Areas of Expertise: Cognition & Learning; Education Reform



Steve Joordens Professor of Psychology, University of Toronto Area of Expertise: Cognition & Learning



Robert Bjork

Professor of Psychology, UCLA; Founder, Learning & Forgetting Lab **Areas of Expertise:** Metacognition & Self-Regulated Learning Reform



David B. Daniel Professor of Psychology, James Madison University Areas of Expertise: Teaching & Learning, Cognitive Development



Elizabeth Bjork Professor of Psychology, UCLA Areas of Expertise: Cognitive Psychology



Jarrett Lovelett Computational Cognitive Scientist Areas of Expertise: The Spacing Effect & Memory



Ned Johnson Author & Educator; Founder of Prep Matters Areas of Expertise: Adolescence and Academic Performance



Melanie Hayes Founder & Executive Director, Big Minds Unschool Areas of Expertise: Twice Exceptionality



David Bott Associate Director, Institute of Positive Education, Australia Areas of Expertise: Applying Positive Education



Dr. Cindy Sandler Licensed Psychologist Areas of Expertise: Neuropsychological Evaluations



Dean Bragonier Chief Dyslexic Officer & Founder of NoticeAbility Areas of Expertise: Dyslexia



Peling Li Professor of Graduate Courses, Johns Hopkins University Areas of Expertise: Teacher training and development, and special education

Bjork Learning & Forgetting Lab at University of California, Los Angeles (UCLA)

This partnerships enables COGx to evaluate the impact and efficacy of the programs.

The Bjork Learning & Forgetting Lab was founded in 1979 by world-renowned experts on learning and memory, Drs. Robert and Elizabeth Bjork. The primary goal of the Bjork Lab is to apply cognitive psychology to enhance educational practice. Bjork's research has identified fundamental learning principles that help educators, parents, and students understand how learning works and use that knowledge to be a sophisticated learner in and outside the classroom.





What Makes Us Unique

- Evidence-based Instructional Design

We Practice What We Teach: Our programs incorporate the scientific principles of human learning into our instructional design. Learning is active, engaging, collaborative, and application-based. Carefully designed program elements and ongoing guidance and support empowers educators and students to apply what they've learned.

Expertly Led Guidance & Support

COGx Program Leaders

Program Leaders are assigned to support the learning journey. They monitor the program and respond to questions.



Application Hour

Coaching and collaboration sessions will be held during the program to allow participants to clarify any questions about the program content.



Discussion Boards

Modules include Discussion Forums to share ideas, collaborate, and provide and receive valuable peer feedback. Program Leaders are also constantly available to seek clarity or ask a question on any topic throughout the learning journey.

Research-Informed Instructional Design



Priming Activities

Priming quizzes and open-ended interrogatories are used to get learners to think about the subject matter they are about to learn.



Pre-Teaching Terms

Teachers interact with digital flashcards that cover content-specific terminology at the start of each module.



Retrieval Practice

To foster durable, flexible, and enduring learning, we apply retrieval strategies throughout the program, including elaboration, spacing, self- testing, and interleaving.



Dual Coding

We apply dual-coding theory throughout our programs by including images and graphics as well as in our micro-videos.

Active Learning & Transfer

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Classroom Application Guides

Takeaway posters are provided throughout the modules to guide the effective implementation of the concepts covered.



Peer-Based Feedback & Reflection

Learners receive and provide peers with anonymized feedback on lesson plan application assignments for deeper learning.



Alumni Practitioner's Platform

Program alumni (Science of Learning Practitioners) can join an online platform to share resources and strategies for ongoing application of concepts and guidance.

COGx Programs



Developing Sophisticated Learners...for Educators

This program consists of 12 self-led modules, which are complemented with synchronous group collaboration, assignments, and workshops to support educators. Partners may enroll staff at the discounted rate with a minimum of 25 educators per program.

Short Programs

We also offer shorter programs. These programs are derived from the Developing Sophisticated Learners curriculum. Each consists of 3-4 self-led modules. Partners may enroll staff at the discounted rate into any of the program below with a minimum of 25 educators per program.



In-Person & Virtual PD Workshops: We also offer customized workshops for your community on the topics listed above. Organizations may select the topics of interest, duration, desired date, and format (in-person or virtual).

COGx Programs



Becoming a Sophisticated Learner *...for Students* This program teaches students how the brain processes information and what behaviors promote optimal learning. It consists of 6 modules of active and collaborative learning. Each module is broken into 3 chapters which take approximately 20-50 minutes to complete. For a blended implementation, your educators receive a facilitator's guide that includes lesson plans and activities.



Distilling the Science of Learning ... for Leaders

This program equips school leaders with the tools to align instruction with learning science. School leaders gain a high-level understanding of how students learn and a toolbox of methods to support faculty. The program consists of 4 self-led modules which can be completed in approximately 4 hours. School leaders are invited to attend a Mission Mapping workshop and up to 1 hour of personalized consulting. School leaders are prepared to advocate for the Science of Learning in their community.

MTC Member School Pricing: A partnership with COGx ensures programs are customized and contextualized to serve the needs of each member school. After a minimum investment of \$5,000, COGx provides a 50% discount on the additional programming seleced by each MTC school. <u>Click here to schedule a call with us.</u>

MTC Educators say...

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The program was packed with practical strategies to optimize my students' learning and the opportunity to reflect on my teaching was extremely valuable.

I am now able to assess my teaching practices to better align with research-backed strategies. This makes me better able to help my students learn.

By teaching students cognitive strategies and fostering metacognition, I can equip my students with skills they will use for the rest of their lives. This approach empowered my students to become active participants of their learning process, fostering independence and self-directed learning.

(COGx)	
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