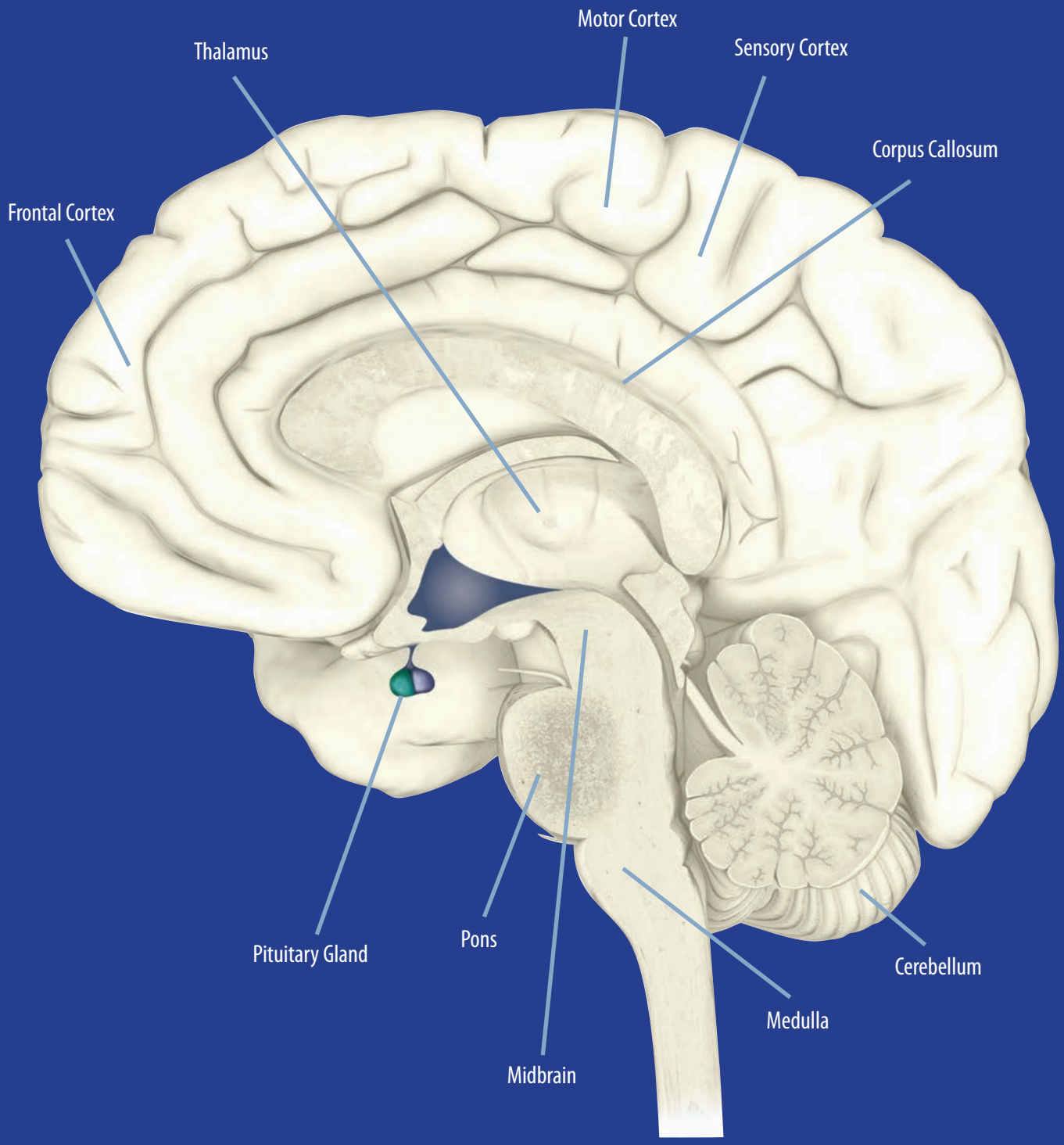
MAKING LASTING MEMORIES:
USING BRAIN SCIENCE TO BOOST MEMORY, THINKING AND LEARNING

LEARNING & *the* BRAIN®

WINTER CONFERENCE • AT THE FAIRMONT HOTEL, SAN FRANCISCO, CA • FEBRUARY 12-14, 2015

PRESENTED BY PUBLIC INFORMATION RESOURCES, INC.


Motor Cortex
Thalamus
Sensory Cortex
Corpus Callosum
Frontal Cortex
Pituitary Gland
Pons
Cerebellum
Medulla
Midbrain

LEARNING & *the* BRAIN®

40TH CONFERENCE • SAN FRANCISCO, CALIFORNIA • WINTER 2015

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LEARNING *& the* BRAIN® is presented by Public Information Resources, Inc. (PIRI)

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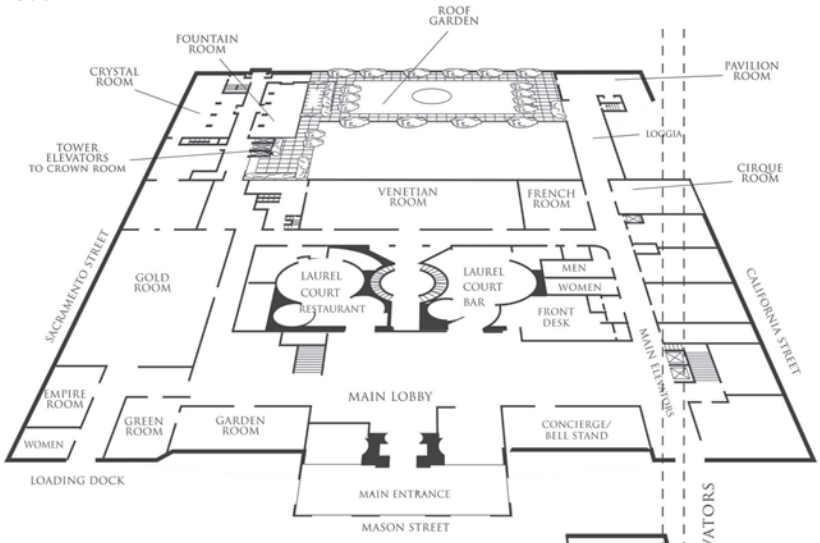
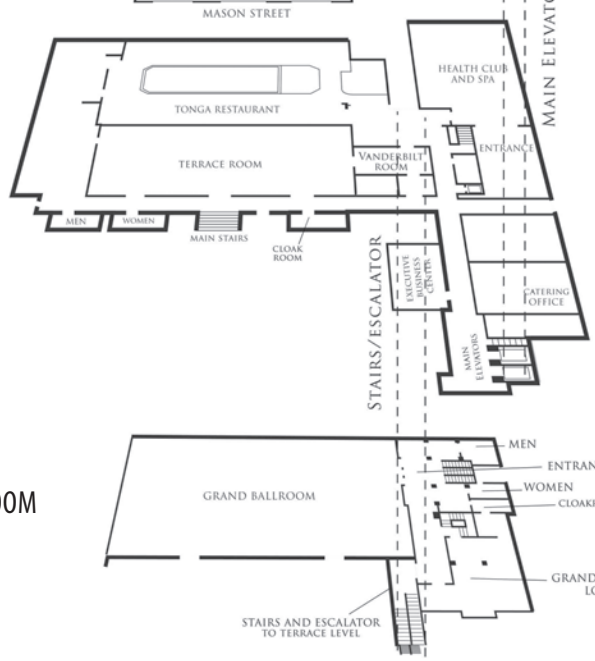
FAIRMONT HOTEL AND SESSIONS MAP

FAIRMONT HOTEL MAP

LOBBY LEVEL



TERRACE LEVEL



GRAND BALLROOM

Pre-Conference Workshops on the morning of Feb. 12th will take place in the Fairmont Hotel in the French, Pavilion, Fountain, Garden and Crystal Rooms (which are all located on the Lobby Level) and in the Terrace Room (located on the Terrace Level, two floors below the Lobby Level).

All Keynote Presentations for Feb. 12-13 will take place at the Fairmont Hotel in the Grand Ballroom (for Group A attendees) **located three floors below the lobby** and in the Venetian Room (for Group B attendees) **located on the Lobby Level**.

The Grand Ballroom is only accessible from the Terrace Level. Take the elevator to T (Terrace Level) and make a right or take the Laurel Court stairs down until they end at the Terrace Level and make a right and then a left. Follow the hallway and go down the escalators (near the Tonga Room Bar) to the Grand Ballroom Level.

Friday and Saturday Concurrent Sessions will take place at the Fairmont in the Grand Ballroom (located on the Grand Ballroom Level), the Terrace Room (located on the Terrace Level), the Gold, Venetian, Pavilion and French Rooms (located on the Lobby Level) and the Crown Room (for Friday session only).

Crown Room: Take Tower Suite elevators (located between the Gold and Crystal Rooms on the Lobby Level) to the 24th Floor.

Coffee will be served Thursday afternoon and Friday and Saturday mornings in the Grand Ballroom Lobby and the Cirque Room (near the Venetian Room on the Lobby Level). **Poster Sessions, Exhibits, Book Signings** and **Help/Information Desk** will all be located in the Grand Ballroom Lobby/Lounge area during the conference.

CONCURRENT SESSIONS GUIDE:

(**RP**) = Brain **R**esearch & **P**ractical Strategies/Interventions
(**R**) = Mostly Brain/Child Development **R**esearch
(**P**) = Mostly Brain-Based **P**ractical Strategies and Interventions
(**K-College, K-12th Grade**) = Applicable Grade Levels

Thursday, February 12, 2015 • Pre-Conference Workshops

8:30 AM – 12:35 PM — Located on the Lobby Level and Terrace Level (Below Lobby) of the Fairmont San Francisco Hotel

1) Working Memory *(P, K-College)*	2) Test Taking & Study Skills *(P, K-College)*	3) Common Core Standards *(P, K-12th Grade)*	4) Reading Difficulties *(P, PreK-12th Grade)*	5) The Power of Technology *(P, K-12th Grade)*	6) Teen Brains, Memory & Moves *(P, 6-12th Grade)*
Room: **Terrace** (Below Lobby)	Room: **French** (Lobby Level)	Room: **Garden** (Lobby Level)	Room: **Fountain** (Lobby Level)	Room: **Crystal** (Lobby Level)	Room: **Pavilion** (Lobby Level)
8:30 AM – 12:35 PM Understanding, Assessing and Strengthening Working Memory **Milton J. Dehn, EdD, NCSP**	**8:30 – 10:30 AM** **Part I:** Winning Strategies for Improving Test Taking **Kathleen M. Kryza, MA** **10:35 AM – 12:35 PM** **Part II:** Empowering the Disorganized Student: Tips, Strategies and Solutions to Help Students Study and Become More Successful in School **Ana R. Homayoun, MA, PPS**	**8:30 AM – 12:35 PM** Managing and Engaging Students in the Common Core Classroom **Bryan K. Harris, EdD**	**8:30 AM – 12:35 PM** The Role of Executive Functions in Reading and Reading Difficulties **George M. McCloskey, PhD**	**8:30 AM – 12:35 PM** Teach the Common Core Literacy Standards Creatively with the Power of Technology **Catlin R. Tucker, MA**	**8:30 – 10:30 AM** **Part I:** Teaching and Moving the Teen Brain Through Movement **Jean Blaydes Moize, MEd** **10:35 AM – 12:35 PM** **Part II:** Creating Robust Memory in Teens Through Experiential Practices **Jeb Schenck, PhD and Jessica Cruickshank, EdM**

12:35 – 1:45 PM — **Lunch Break** *(On your own)*

Thursday, February 12, 2015 • Conference Day 1 (Group A)

1:45 – 5:30 PM — **Opening Keynote Addresses** (located in the Grand Ballroom): ***The Science of Learning***

1:45 PM	**Welcome:** **Daniel A. LaGattuta, PhD**, President, Public Information Resources, Inc. **Opening Remarks:** **David B. Daniel, PhD**, Department of Psychology, James Madison University
1:45 – 2:45 PM	**Keynote Address I:** Making It Stick: The Science of Successful Learning and Memory **Henry L. Roediger, III, PhD**
2:45 – 3:15 PM	**Networking Coffee Break and Dr. Roediger Book Signing** (Grand Ballroom Lounge – *See page 26*)
3:15 – 4:15 PM	**Keynote Address II:** How the Body Knows Its Mind: The Surprising Power of the Physical Environment to Influence How You Think and Feel **Sian L. Beilock, PhD** *(Book signing from 5:30-5:45 PM in the Grand Ballroom Lounge)*
4:15 – 4:30 PM	**Special Keynote Activity:** Putting Learning into Action **Jean Blaydes Moize, MEd**
4:30 – 5:30 PM	**Keynote Address III:** How We Learn **Benedict J. Carey, MA** *(Book signing from 5:30-5:45 PM in the Grand Ballroom Lounge)*
5:30 – 6:30 PM	**Dana Alliance *Meeting of the Minds* Reception** (Gold Room - Lobby Level)

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Friday, February 13, 2015 • Conference Day 2 (Group A)

8:30 AM – 12:30 PM **Keynote Addresses** (located in the Grand Ballroom): ***The Science of Memory***

8:30 AM	**Welcome Remarks: Kenneth S. Kosik, MD**, UC Santa Barbara; Co-Founder, LEARNING *&* the BRAIN®
8:30 – 9:45 AM	**Keynote Address I –** How the Brain Learns and Remembers **Sandra B. Chapman, PhD**
9:45 – 10:10 AM	**Coffee Break, Poster Sessions & Dr. Chapman Book Signing** (Grand Ballroom Lounge – *See page 26*)
10:10 – 11:10 AM	**Keynote Address II –** The Structure and Organization of Memory **Larry R. Squire, PhD**
11:15 AM – 12:30 PM	**Keynote Address III –** Memory in the Age of Google **William R. Klemm, DVM, PhD**
12:30 – 1:45 PM	**Lunch Break** *(On your own)* **and Keynote Book Signings** (Grand Ballroom Lounge – *See page 26*)

1:45 – 5:35 PM **Afternoon Concurrent Sessions 'A' (Groups A & B)** *(Breaks, Various times, 3:00-3:10 PM; 4:10-4:20 PM)*

1) Science of Learning
(RP, K-College)

Room: **Grand Ballroom** (GB Level)

1:45 – 3:00 PM

Part I: The Increasing Importance of Learning How to Learn
Robert A. Bjork, PhD

3:10 – 4:10 PM

Part II: How Students Learn: Active Learning, Testing and Long-Lasting Memories
Arthur P. Shimamura, PhD

4:20 – 5:35 PM

Part III: Born to Learn: Motivating and Engaging Learners from a Developmental Science Perspective
Wendy L. Ostroff, PhD

2) Making Lasting Memory
(RP, K-College)

Room: **Gold** (Lobby Level)

1:45 – 3:00 PM

Part I: Sleep, Learning and Lasting Memory
Matthew P. Walker, PhD

3:10 – 5:35 PM

Part II: Memory Power: A Guide to Better Learning for Teachers and Students
William R. Klemm, DVM, PhD
(Includes 10-minute break)

3) Embodied Minds Language/Thinking
(RP, PreK-College)

Room: **Venetian** (Lobby Level)

1:45 – 3:00 PM

Part I: How Brains Think: Embodied Cognition, Language and Metaphors
George P. Lakoff, PhD
(Book signing from 3:00–3:10 PM in the Grand Ballroom Lounge)

3:10 – 4:10 PM

Part II: How Our Hands Help Us Think and Learn
Susan Goldin-Meadow, PhD

4:20 – 5:35 PM

Part III: Embodied Brains and Social Minds: Connecting Emotional Minds and Bodies to Learning, Thinking and Meaningful Memory
Mary Helen Immordino-Yang, EdD

4) Motion, the Arts & Learning
(RP, PreK-College)

Room: **Pavilion** (Lobby Level)

1:45 – 3:00 PM

Part I: Embodied Experiences: Using Neuroscience and Physical Movement to Enhance Memory and Engagement
Anne Bishop, EdM

3:10 – 4:10 PM

Part II: Walk for Thought: The Link Between Physical Movement and Creative Thinking
Marily A. Oppezzo, PhD, RD

4:20 – 5:35 PM

Part III: Memory and the Muse: How Arts Integrated Instruction Can Improve Student Engagement, Creativity and Content Retention
Ivonne Chand O'Neal, PhD

5) Active Learning & STEM Education
(RP, 4th Grade-College)

Room: **Crown** (24th Floor, Tower Elevator)

1:45 – 3:00 PM

Part I: A Body of Knowledge: Grounding Mathematical Concepts in Embodied Interaction
Dor Abrahamson, PhD

3:10 – 4:10 PM

Part II: Body Based Resources When Reading-to-Learn in Science: Gestures and Model Enactment for STEM Literacy
Mitchell J. Nathan, PhD

4:20 – 5:35 PM

Part III: Mind for Numbers: How to Excel in Math and Science – and Anything Else You Study
Barbara A. Oakley, PhD

6) Memory & Encoding
(RP, K-College)

Room: **Terrace** (Below Lobby Level)

1:45 – 3:00 PM

Part I: How Memory is Encoded and Its Role in Imagination
Kenneth S. Kosik, MD

3:10 – 5:35 PM

Part II: The Neuro-psychology of Memory and Classroom Learning
George M. McCloskey, PhD
(Includes 10-minute break)

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Saturday, February 14, 2015 • Conference Day 3

8:30 AM – 12:30 PM — Morning Concurrent Sessions 'B' (Groups A & B) *(Coffee Break: 9:45-10:10 AM, see page 19)*

1) Science of Learning
(RP, K-College)

Room: **Gold** (Lobby Level)

8:30 AM – 12:30 PM

Think Smart – for School and for Life

Kathleen M. Kryza, MA and Jack A. Naglieri, PhD

(Coffee Break: 9:45-10:10 AM)

2) Making Lasting Memory
(RP, K-College)

Room: **Grand Ballroom** (GB Level)

8:30 – 9:45 AM

Part I: Surprisingly Simple Ways to Boost Memory and Recall: Strategies for Every Teacher

Bryan K. Harris, EdD

(Book signing from 9:45–10:10 AM)

10:10 AM – 12:30 PM

Part II: Evidence-Based Strategies That Enhance Long-Term Memory Encoding, Consolidation and Retrieval

Milton J. Dehn, EdD, NCSP

(Book signing: 12:30–12:45 PM)

3) Embodied Minds Language/Thinking
(RP, PreK-12th Grade)

Room: **French** (Lobby Level)

8:30 – 9:45 AM

Part I: The Role of Gestures and the Body in Learning and Teaching Mathematics

Laurie D. Edwards, PhD

10:10 – 11:25 AM

Part II: Embodied Meaning, Thinking and Communication

Raymond W. Gibbs, Jr., PhD

11:30 AM – 12:30 PM

Part III: Children's Embodied Learning: Exercise, Gestures, Executive Functions and Achievement

Patricia H. Miller, PhD

4) Motion, CCSS & Learning
(RP, PreK-12th Grade)

Room: **Pavilion** (Lobby Level)

8:30 AM – 12:30 PM

Movement, Action-Based Learning and Common Core State Standards

Jean Blaydes Moize, MEd

(Coffee Break: 9:45-10:10 AM)

5) Active Learning & STEM Education
(RP, K-College)

Room: **Terrace** (Below Lobby Level)

8:30 – 9:45 AM

Part I: How to Make and Use a "Sticky" Online Course to Enhance Learning

Barbara A. Oakley, PhD

(Book signing from 9:45–10:10 AM)

10:10 – 11:25 AM

Part II: Flipping the Flipped Classroom: Reinventing Hands-on Learning in K-12 STEM Classrooms

Paulo Blikstein, PhD

11:30 AM – 12:30 PM

Part III: Active Learning and Assessment in the STEM Classroom

Mary P. Wenderoth, PhD

6) Memory & Cognitive Control
(RP, K-College)

Room: **Venetian** (Lobby Level)

8:30 – 9:45 AM

Part I: School-Based Cognitive Training: Working Memory, Transfer and ADHD

Susanne M. Jaeggi, PhD

10:10 – 11:25 AM

Part II: Role of Video Games in Enhancing Cognitive Control and Motor Skills

Joaquin A. Anguera, PhD

11:30 AM – 12:30 PM

Part III: Developing Brains and Memory: How Memory Improves During Childhood

Simona Ghetti, PhD

12:30 – 1:30 PM — Lunch Break *(On your own)* and Book Signing *(See page 26)*

1:30 – 3:45 PM — Afternoon Concurrent Sessions 'C' (Groups A & B)

1) Science of Learning
(RP, K-College)

Room: **Venetian** (Lobby Level)

1:30 – 3:45 PM

Making it Work: Translating Learning Sciences to the Classroom

David B. Daniel, PhD

2) Making Lasting Memory
(RP, 6th Grade-College)

Room: **Terrace** (Below Lobby Level)

1:30 – 2:45 PM

Part I: Using Personal Experiences to Build Stronger Memory

Jeb Schenck, PhD

2:45 – 3:45 PM

Part II: Memory Networking Session

Facilitator: Jeb Schenck, PhD

3) Embodied Minds Language/Thinking
(RP, K-College)

Room: **French** (Lobby Level)

1:30 – 3:45 PM

Meeting New Standards with Oral Language Activities to Build Academic Thinking and Its Language

Jeff A. Zwiers, EdD

4) Motion, Teaching & Learning
(RP, K-College)

Room: **Gold** (Lobby Level)

1:30 – 3:45 PM

The Brain Science of Teaching: Using Mind-Body Connections to Optimize Learning

Kathy Perez, EdD

5) Active Learning & STEM Education
(RP, K-8th Grade)

Room: **Pavilion** (Lobby Level)

1:30 – 3:45 PM

Creative Thinking, the Arts and STEM Education

Erica Fortescue, MA and Sara Norris, MA

6) Memory & Math Learning
(RP, K-College)

Room: **Grand Ballroom** (GB Level)

1:30 – 2:30 PM

Part I: Math and Memory Training: Understanding the Brain Basis of Problem Solving

Miriam Rosenberg-Lee, PhD

2:30 – 3:45 PM

Part II: Developing Minds for Numbers: Integrating Brain Systems for Number Sense and Symbols

Bruce D. McCandliss, PhD

WELCOME TO THE WINTER 2015
LEARNING *&* *the* BRAIN® CONFERENCE

Fortieth in a series of conferences exploring the potential for applying brain research to the improvement of memory and learning.

Neuroscientists are discovering strategies that make content easier to learn, knowledge easier to remember and studying easier to accomplish through the "science of learning."

This conference will provide you with strategies for using mnemonics, meta-memory, metacognition, movement, active learning, gestures and retrieval practices to improve memory, thinking and learning.

The LEARNING *&* *the* BRAIN® Conference creates an interdisciplinary forum — a meeting place for researchers, clinicians and educators — to examine this new research for the classroom and clinical practice.

We hope you will walk away with new and useful information.

LEARNING *&* *the* BRAIN® CO-SPONSORS WELCOME YOU

Graduate School of Education, **Stanford University**

Dana Alliance for Brain Initiatives, **The Dana Foundation**

Lab. of Educational NeuroScience, **University of California, San Francisco**

Building Blocks of Cognition Laboratory, **University of California, Berkeley**

Gazzaley Cognitive Neuroscience Lab, **University of California, San Francisco**

The Neuroscience Research Institute, **University of California, Santa Barbara**

Mind, Brain & Education Program, **Harvard Graduate School of Education**

Comer School Development Program, **Yale University School of Medicine**

National Association of Elementary School Principals **(NAESP)**

National Association of Secondary School Principals **(NASSP)**

Edutopia, **The George Lucas Educational Foundation**

The John F. Kennedy Center for the Performing Arts

The LEARNING *&* *the* BRAIN® Foundation

UCSF brainLENS

Welcome letter from the Laboratory of Educational NeuroScience, UCSF

The University of California, San Francisco's Laboratory for Educational Neuroscience (UCSF *brainLENS*) is pleased to welcome you to the LEARNING *& the* BRAIN® Conference, *Making Lasting Memories*. We are delighted, once again, to co-sponsor such a dynamic gathering of the field's top thinkers.

The 21st Century has brought with it nearly boundless opportunities, particularly in technology, but with the world at our children's fingertips, comes countless choices, distractions and noise. The topic *Making Lasting Memories* could come at no better time. The conference promises to equip top educators with the tools necessary to make lasting impressions in our noisy world.

Educational neuroscience is a burgeoning field at the crossroads of biology, cognitive and developmental science and education that investigates the neuroscientific bases of learning and related processes. The Mind, Brain and Education field provides tremendous opportunities to illuminate processes of curiosity, emotional memory, metacognition, problem solving and so much more to better understand strategies to making lasting impressions. Innovative research is being conducted world-wide to harness technology, traditionally thought as distracting, such as video games, to potentially 'train the brain' and enhance cognitive abilities. There is a push to integrate movement and gestures to boost recall and creativity. Transforming the traditional connection of emotion and memory combined with the initiative to foster healthy social and emotional learning pushes for education of the whole child. With the combination of cognitive science and neuroscience practices and educational theories, we push further into the blossoming intersection of neuroeducation. We hope you are as excited about this as we are!

At *brainLENS*, too, we aim to foster innovation in research and training by inculcating an integration of different disciplines that will provide us with theoretical frameworks and research methodologies, which we can apply to education. We are committed to cutting-edge research to maximize all children's potential, and in particular those with special needs. For example, we are currently investigating the impact that negative social cues may have on individuals with learning disabilities. For those who struggle to learn, it is imperative that we understand attention and memory in order to develop strategies to stave off distracters, sustain interest in academic tasks and create positive emotional academic environments.

This conference, *Making Lasting Memories*, aspires to stimulate us to integrate research findings and motivate new collaborations and ideas for future research on how to improve learning and make it stick!

Welcome and enjoy!

Sincerely,

Fumiko Hoeft, MD, PhD

Associate Professor and Director, **UCSF *brainLENS***

Welcome letter from Kenneth S. Kosik, MD

LEARNING *& the* BRAIN® in its February 2015 San Francisco conference will tackle precisely what many of us now seek and what educators have sought for millennia: a way to boost human memory. And not just memory; we would like to boost many brain functions. Increasingly it seems that brain science will deliver on this potential.

But like any gift that seems too good, we have to look carefully at what lies inside the Trojan horse; what is written in the fine print of a Faustian agreement. From a medical perspective, boosting any facet of our biology is called enhancement. This term is used to distinguish the concept of improving normal abilities from treating a disease, which is called therapy. A well known piece written by Anjan Chatterjee comments: "If one purpose of medicine is to improve the quality of life of individuals who happen to be sick, then should medical knowledge be applied to those who happen to be healthy?"

In sports, the verdict is clear: enhancement violates ethics and the law. In what might be called 'cosmetic neurology' the answer is less clear even though the means to boost memory are arriving everyday. We have pills that do it, video games that do it, electrical and magnetic stimulation devices that do it. Or at least purport to do it. And we even know some genes that can do it. There are genes that when manipulated in animals can boost memory and these animals might have us rethink our desire for an ironclad memory. Animals with enhanced memory never have the luxury of learning something by making a mistake. Their memory is too good—once they learn something, they do not chance the errors that might lead others with less prodigious memories to a new discovery, which only happens when the right answer is not chosen every time. Once these genetically programmed animals learn something they retain it even if the situation changes. But sometimes what seems correct in one setting is wrong in another and memory-enhanced animals fail in this kind of plasticity.

We need to make a few errors in order to learn. This type of enhanced memory is not being all that smart; rather it is jumping to conclusions. These memory-enhanced animals may tell us something about human conditions with too much memory. People with autism spectrum disorder do not forget details that clutter the mind. They pay for their vast memories with impairments of social skills. Those with post-traumatic stress syndrome would prefer to forget, not remember. So just keep in mind that enhancement is not always a benefit and forgetting is as important as memory. And of course enjoy the conference!

Sincerely,

Kenneth S. Kosik, MD

Harriman Professor of Neuroscience
Co-Director, Neuroscience Research Institute
University of California, Santa Barbara
Co-Founder, LEARNING *& the* BRAIN® Conferences

Welcome letter from David B. Daniel, PhD

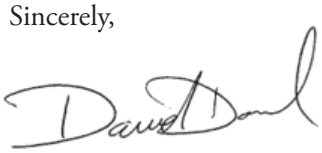
It is my pleasure to welcome you to the LEARNING *& the* BRAIN® Conference. This conference is an opportunity for educators, researchers, policy-makers and a variety of other professionals to open our minds, develop usable knowledge and contribute to an important conversation.

The theme for this February's conference, "Making Lasting Memories: Using Brain Science to Boost Memory, Thinking and Learning," addresses the active role of the learner in storing and optimizing learning, as well as the important role of the teacher in structuring and guiding this process. Memory is far from a unitary concept. There are different kinds of memory, different things to remember, and different ways of doing it…some more effective than others. Memory can be fragile, and even malleable. As educators, we hope to encourage durable and flexible memories that can be leveraged across contexts. Indeed, in a world where testing and performance is increasingly important, understanding memory is an essential component for success.

The conference features a variety of presentations, from cutting edge neuroscientific findings to practical suggestions to guide practice. It is important, however that we not overlook the essential role of you, the conference participant, in this process. It is our responsibility to vet the many suggestions and perspectives to which we will be exposed. We must mindfully integrate what we learn with our own priorities and role in this multifaceted process.

Most importantly, our questions and critical thinking must be deployed as a community. The very word "conference" implies interaction or an exchange of ideas. One of the greatest resources at the LEARNING *& the* BRAIN® Conferences is the participants ourselves. Please take advantage of this valuable opportunity to listen, discuss, learn and teach. I encourage you to ask questions of the speakers and to discuss intriguing ideas with your fellow participants. Your full participation in the LEARNING *& the* BRAIN® Conference will ensure that you, your colleagues and your students obtain the dynamic and important benefits around which this conference is organized.

Sincerely,



David B. Daniel, PhD

Professor, Psychology Department
James Madison University
Managing Editor, *Mind, Brain and Education Journal*

THURSDAY, FEBRUARY 12 – PRE-CONFERENCE WORKSHOPS

7:30 – 8:30 AM **Registration for Pre-Conference Workshops**

8:30 AM – 12:35 PM **Pre-Conference Workshops**

By advance registration only. Select one of six. Fee: $199 per person. (Add $25 if not attending conference)

1) WORKING MEMORY *(P, K-College)*

Room: Terrace (Below Lobby Level)

Understanding, Assessing and Strengthening Working Memory

Nearly all cognitive functioning, academic learning and daily activities depend on working memory. After identifying working memory's components and processes, its neuroanatomy will be reviewed, followed by details on how deficits impact learning. Dr. Dehn will discuss risk factors, observations, rating scales, selective testing and how to analyze results in assessments. He will include recommendations for reducing cognitive load, memory strategies, face-to-face exercises, internet-based training and accommodations for memory deficits as interventions.

Speaker: Milton J. Dehn, EdD, NCSP

Presider: *Andrea Panlilio, Academic Support, St. Mary's College High School, Berkeley, CA*

2) TEST TAKING & STUDY SKILLS *(P, K-College)*

Room: French (Lobby Level)

Part I: 8:30 – 10:30 AM

Winning Strategies for Improving Test Taking: Empowering Disorganized Students

Learn how to develop a practical, two or three-week unit of study on test taking skills that makes the most efficient use of classroom time while using common sense and research-based strategies. Ms. Kryza will show how to raise the appeal of testing-taking and teach effective metacognitive skills that transfer beyond the classroom into students' lives.

Speaker: Kathleen M. Kryza, MA

Part II: 10:35 AM – 12:35 PM

Empowering the Disorganized Student: Tips, Strategies and Solutions to Help Students Study and Become More Successful in School

In the second part, teen organizational expert Ana Homayoun will help you understand why students today struggle with organization and time-management skills, and what simple steps we can use as educators to help promote a more successful and less stressful classroom and school experience. This workshop will be filled with strategies around encouraging binder and planner use, building study skills, decreasing test anxiety, and promoting a positive goal-setting learning environment for all students. She will provide tips that are simple, practical and effective for today's classroom environment, and can be adapted for tablet and computer classrooms.

Speaker: Ana R. Homayoun, MA, PPS

Presider: *Jack A. Naglieri, PhD, Research Professor, Curry School of Education, University of Virginia, Charlottesville, VA*

3) COMMON CORE STANDARDS *(P, K-12th Grade)*

Room: Garden (Lobby Level)

Managing and Engaging Students in the Common Core Classroom

A close look at the Common Core Standards will reveal a prominence of terms like explain, critique, apply, clarify, describe and evaluate. This emphasis on skill development is perhaps the most significant shift educators need to consider. The question is: How do we ensure that our students are developing those types of skills while still mastering content knowledge at the same time? Dr. Harris will provide you with proven techniques, strategies and methods that increase student engagement while developing Common Core skills and content knowledge.

Speaker: Bryan K. Harris, EdD

Presider: *Georgia Bozeday, Director of Educational Services, Rush University Medical Center, Wilmette, IL*

4) READING DIFFICULTIES *(P, PreK-12th Grade)*

Room: Fountain (Lobby Level)

The Role of Executive Functions in Reading and Reading Difficulties

Dr. McCloskey will describe executive functions, discuss how those functions are involved in learning to read and show how those functions apply reading skills in a productive manner. He will discuss reading difficulties related to executive function deficits as well as some intervention approaches that address executive function difficulties in a manner that can help to improve reading skill development.

Speaker: George M. McCloskey, PhD

Presider: *Rosemary Gallagher, School Psychologist, Hawken School, Lyndhurst, OH*

5) THE POWER OF TECHNOLOGY *(P, K-12th Grade)*

Room: Crystal (Lobby Level)

Teach the Common Core Literacy Standards Creatively with the Power of Technology

The Common Core Standards open the door for new and innovative approaches to teaching and learning. Teachers have the opportunity to make learning more relevant, engaging and student-centered. Join author and teacher Catlin Tucker as she shares how she is using technology to put students at the center of learning. She will share photos and student work to demonstrate practical ideas for addressing the Common Core Standards using technology. Walk away feeling energized about this shift and eager to explore how you can use technology to transition to the Common Core and create student-centered classrooms.

Speaker: Catlin R. Tucker, MA

Presider: *Chris Clausen, Vice Principal, Diablo Middle School, Clayton, CA*

6) TEEN BRAINS, MEMORY & MOVES *(P, 6-12th Grade)*

Room: Pavilion (Lobby Level)

Part I: 8:30 – 10:30 AM

Teaching and Moving the Teen Brain Through Movement

The teenage brain is different from an adult brain and a child's brain. Recent brain research gives insight to the complicated workings of the teen brain and body, and the impact of active experiences. For example, teens need even more exercise, activity and sleep in order to function at their optimal capacity. This workshop will give valuable information and movement activities that will help teens to learn, remember, behave and think.

Speaker: Jean Blaydes Moize, MEd

Part II: 10:35 AM – 12:35 PM

Creating Robust Memory in Teens Through Experiential Practices

Go beyond entertaining to designing effective experiential lessons for teens. Not all engagement is equally productive and not all experiential lessons are equally informative. Learn how to make your lessons communicate more effectively what you hope to teach to the teenage brain. From grammar to math to history to character education, many lessons can be tweaked to be more experiential and increase retention by considering a robust background of cognitive research. The presenters will examine that research, consider its implications for instruction and practice applying changes to existing lessons while still complying with curricular standards.

Speakers: Jeb Schenck, PhD and Jessica Cruickshank, EdM

Presider: *Bonnie Dykman, Speech & Language/LD Specialist, Madison, WI*

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THURSDAY, FEBRUARY 12 – CONFERENCE DAY 1

Schedule for Group A: The Science of Learning

12:00 – 1:45 PM **Conference Registration**

1:45 PM **Welcome/Opening Remarks**

Welcome: Daniel A. LaGattuta, PhD, President, Public Information Resources, Inc., Presenters of LEARNING *& the* BRAIN®
Opening Remarks: David B. Daniel, PhD, Professor, Psychology Department, James Madison University

All keynotes for Group A will take place in the Grand Ballroom (3 Floors Below Lobby Level).
All keynotes for Group B will take place in the Venetian Room (on Lobby Level).

1:45 – 2:45 PM **Keynote Address I**

Making It Stick: The Science of Successful Learning and Memory

All humans are learners, and most of us have a feeling we know how learning works. And we do, to an extent. However, research in psychology shows that the proper understanding of learning can be elusive and that students are subject to various biases and illusions. The reason is that some factors that improve learning over the short term (as expressed on assessments soon after learning) turn out to hurt long-term retention. Dr. Roediger will describe three such factors and will focus on one technique – retrieval practice – that both aids long-term retention and helps students identify weak spots in their knowledge, so as to focus study efforts. He will discuss how retrieval practice via quizzing or testing in the classroom has several important benefits.

Speaker: Henry L. Roediger, III, PhD
Presider: *David B. Daniel, PhD, Department of Psychology, James Madison University*

2:45 – 3:15 PM **Networking Coffee Break and Book Signing with Dr. Roediger**

Take the time to visit the **Exhibitors** *(see page 32)* in the **Grand Ballroom Lobby** and the bookstore in the **Grand Ballroom Lounge**. Take this opportunity to have your books signed by **Henry L. Roediger, III, PhD**, in the **Grand Ballroom Lounge**. Please purchase his book from the bookstore prior to the signing. Coffee will be served in the **Grand Ballroom Lobby/Lounge** and the **Cirque Room** on the Lobby Level.

3:15 – 4:15 PM **Keynote Address II**

How the Body Knows Its Mind: The Surprising Power of the Physical Environment to Influence How You Think and Feel

As students' test scores are emphasized more and more, many schools are cutting music, recess and play in order to keep children confined to their chairs. But, children learn better when they can freely use their bodies as a tool for acquiring information. Practicing printing letters actually helps young students learn to read. And when you relate mathematical concepts in physical terms, students better understand numbers. Dr. Beilock will discuss the tight relationship between body and mind, such as why music and mathematical talent often go hand in hand. Though random hands-on activities aren't a panacea for the problems that plague education today, she will help you realize that how we think is intimately tied to our bodies and our surroundings, giving us power to structure school to help students (and teachers) learn, think and perform at their best - especially when the pressure is on.

Speaker: Sian L. Beilock, PhD *(Book Signing from 5:30-5:45 PM in the Grand Ballroom Lounge)*
Presider: *David B. Daniel, PhD, Department of Psychology, James Madison University*

4:15 – 4:30 PM **Special Keynote Activity**

Putting Learning into Action

Experience how movement, direction, senses and your body are all important in the learning process and discover ways to use physical experiences to explain math, geography and other concepts.

Facilitator: Jean Blaydes Moize, MEd
Presider: *David B. Daniel, PhD, Department of Psychology, James Madison University*

4:30 – 5:30 PM **Keynote Address III**

How We Learn

New York Times science writer Benedict Carey will provide an introduction to the cognitive science of learning and how it can be applied in schools and at home. He will review the history of the science, illustrate several specific techniques and the theory behind them, and offer some thoughts on why the brain learns in ways that are not so familiar to us. Call it Learning 101 - the class no one ever takes but everyone should.

Speaker: Benedict J. Carey, MA *(Book Signing from 5:30-5:45 PM in the Grand Ballroom Lounge)*
Presider: *David B. Daniel, PhD, Department of Psychology, James Madison University*

5:30 – 6:30 PM ***MEETING OF THE MINDS*** **Wine & Cheese Reception**
ADVANCE REGISTRATION REQUIRED

Sponsored by THE DANA ALLIANCE FOR BRAIN INITIATIVES
Take this unique opportunity to meet some of the nation's brightest minds at this reception as you mingle with other attendees and speakers in the ornate turn-of-the-century **Gold Ballroom**. Enjoy the view of San Francisco while enjoying a glass of wine and an assortment of cheeses.

Location: Gold Ballroom (Lobby Level)

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FRIDAY, FEBRUARY 13 – CONFERENCE DAY 2

Schedule for Group A: The Science of Memory

7:30 – 8:30 AM **Conference Registration**

8:30 AM **Welcome/Opening Remarks**

Welcome: Kenneth S. Kosik, MD, UC Santa Barbara; Co-Founder, LEARNING *& the* BRAIN®

All keynotes for Group A will take place in the Grand Ballroom (3 Floors Below Lobby Level).
All keynotes for Group B will take place in the Venetian Room (on Lobby Level).

8:30 – 9:45 AM **Keynote Address I**

How the Brain Learns and Remembers

The brain is intricately wired to be inspired by creating new ideas and solutions. Improving the educational experience and long-term outcomes requires that we engender in students the thirst to realize they need to become life-long learners to deal with ambiguous data and rapidly changing knowledge systems. We fail students by teaching them how to succeed in a world that will no longer exist when they become adults. The brain best learns and remembers when the student exercises it by digging deep and innovating, not reiterating already known facts. Dr. Chapman will provide seven scientifically validated secrets to turbo-charge your students' brain performance as well as your own.

Speaker: Sandra B. Chapman, PhD

Presider: *Kenneth S. Kosik, MD, Neuroscience Research Institute, UC Santa Barbara*

9:45 – 10:10 AM **Networking Coffee Break, Poster Sessions and Book Signing** *(See page 26)*

Take this opportunity to visit the **Poster Sessions** and **Exhibitors** in the **Grand Ballroom Lobby and Lounge** *(see page 32)*. Take this opportunity to have your books signed by **Sandra B. Chapman, PhD**, in the **Grand Ballroom Lounge**. Please purchase her book from the bookstore prior to the signing. Coffee will be served in the **Grand Ballroom Lobby/Lounge** and the **Cirque Room** on the Lobby Level.

10:10 – 11:10 AM **Keynote Address II**

The Structure and Organization of Memory

Dr. Squire will discuss the anatomy and organization of memory, emphasizing the distinction between conscious and unconscious memory systems. He will examine multiple kinds of memory, which depend on different brain systems, and the medial temporal lobe structures, including the hippocampus, which are essential for the formation and gradual consolidation of conscious memory.

Speaker: Larry R. Squire, PhD

Presider: *Kenneth S. Kosik, MD, Neuroscience Research Institute, UC Santa Barbara*

11:15 AM – 12:30 PM **Keynote Address III**

Memory in the Age of Google

Educational policies too often miss the mark of reform goals. What often gets over-looked is teaching students how to improve their learning-to-learn competencies. The age of the Internet and Google-like search engines, while extraordinarily convenient for finding information, create new challenges for remembering it. Dr. Klemm explains how memory skills fit into the larger scheme of learning competencies and suggests lifestyle and mnemonic ways to help students remember more of what they are taught.

Speaker: William R. Klemm, DVM, PhD

Presider: *Kenneth S. Kosik, MD, Neuroscience Research Institute, UC Santa Barbara*

12:30 – 1:45 PM **Lunch Break** *(On your own)* **and Book Signing** *(See page 26)*

Take this opportunity to have your books signed by **Larry R. Squire, PhD, William R. Klemm, DVM, PhD** and **Sandra B. Chapman, PhD** from 12:30-12:50 PM in the **Grand Ballroom Lounge**. Please purchase their books from the bookstore located in the **Grand Ballroom Lounge** prior to the signings.

Schedule for Groups A & B *(Afternoon breaks: Between 3:00-3:10 and 4:10-4:20 PM)*

1) SCIENCE OF LEARNING *(RP, K-College)*

Room: Grand Ballroom (Grand Ballroom Level, 3 Floors Below Lobby)

Part I: 1:45 – 3:00 PM

The Increasing Importance of Learning How to Learn

With increasing frequency, learning is happening outside of formal classroom instruction. As a consequence, learners need to make multiple decisions, such as what to study, when to study, and how to study. Computer-based technologies offer multiple options and opportunities for how to manage one's own learning. Knowing how to learn effectively has never been more important, not only during the years of schooling, but across one's lifetime—as careers change, new job skills are required, and hobbies and interests develop and change. Recent research suggests, however, that we are often prone to both mis-assessing and mis-managing our own learning. Dr. Bjork will summarize evidence that intuitions and standard practices are often unreliable guides to optimizing one's learning and that there exists the potential for learners and instructors alike to make self-regulated and teacher-regulated learning more efficient and effective.

Speaker: Robert A. Bjork, PhD

Part II: 3:10 – 4:10 PM

How Students Learn: Active Learning, Testing and Long-Lasting Memories

Dr. Shimamura will present a research-based description of student learning with emphasis placed on active learning and retrieval processes. Findings related to executive control, metacognition, and retrieval practice will be discussed. In addition, teaching tips will be presented to help foster student learning.

Speaker: Arthur P. Shimamura, PhD

Part III: 4:20 – 5:35 PM

Born to Learn: Motivating and Engaging Learners from a Developmental Science Perspective

Discoveries about cognition and the brain have exploded over the last two decades, and yet most of these findings have not altered the way that learning is approached in the classroom. From preschool through high school and beyond, understanding how learning happens is vital for those of us designing curriculum and pedagogy. In an attempt to mend the disconnect between cognitive and developmental scientists in the laboratory, and educators on the ground, Dr. Ostroff will bring to light processes that inspire or propel learning - not just in childhood, but throughout life — such as play, confidence, self-regulation, movement, mnemonics, metacognition, articulation and collaboration.

Speaker: Wendy L. Ostroff, PhD

Presider: *John Gangemi, 2nd Grade Teacher, Newburyport Public Schools, Newburyport, MA*

2) MAKING LASTING MEMORY *(RP, K-College)*

Room: Gold (Lobby Level)

Part I: 1:45 – 3:00 PM

Sleep, Learning and Lasting Memory

The functions of sleep remain largely unknown, a surprising fact given the vast amount of time that this state takes from our lives. One of the most exciting hypotheses suggests that sleep contributes importantly to processes of human learning, memory and brain plasticity. Dr. Walker will present a selection of cognitive and neuroimaging studies describing 1) the essential need for sleep before learning in preparing the human brain for initial memory formation, 2) the critical need for sleep after learning for the subsequent consolidation and thus long-term retention of memory, and 3) evidence that sleep not only strengthens individual memories, but actually integrates and flexibly associates them together, offering creative solutions to prior waking problems.

Speaker: Matthew P. Walker, PhD

Part II: 3:10 – 5:35 PM

Memory Power: A Guide to Better Learning for Teachers and Students

The focus of this talk is on helping students develop their learning-to-learn skills. Dr. Klemm will share ideas to improve student motivation and their abilities to organize information, be more attentive, understand and synthesize, remember, solve problems and be more creative. You will practice construction of matrix notes, learn new mnemonic techniques, and conduct a simulated peer review of a research report that has been adapted for the K-12 level.

Speaker: William R. Klemm, DVM, PhD

Presider: *Naomi Schimmel, Learning Specialist, Riverdale Country School, Bronx, NY*

3) EMBODIED MINDS, LANGUAGE & THINKING *(RP, PreK-College)*

Room: Venetian (Lobby Level)

Part I: 1:45 – 3:00 PM

How Brains Think: Embodied Cognition, Language and Metaphors

Dr. Lakoff begins with the basic embodied mechanisms of thought: Embodied Cognitive Primitives (schemas for motor control, image structure, and force dynamics), frames, and conceptual metaphors. After, he will discuss the neural theory of primary metaphor learning (those learned early in life that structure the conceptual system as a whole) and then move on to complex cases. Dr. Lakoff will also take a look at computation models of the neural circuitry needed for complex thought and its implication for education.

Speakers: George P. Lakoff, PhD *(Book signing from 3:00-3:10 PM)*

Part II: 3:10 – 4:10 PM

How Our Hands Help Us Think and Learn

When people talk, they gesture. We now know that these gestures can reflect thoughts not yet found in speech. Dr. Goldin-Meadow will raise the possibility that gesture might do more than just reflect learning—it might be involved in the learning process itself. She will consider two non-mutually exclusive possibilities: the gestures that we see others produce might be able to change our thoughts; and the gestures that we ourselves produce might be able to change our thoughts. Finally, she will explore the mechanisms responsible for gesture's effect on learning—how gesture works to change our minds.

Speaker: Susan Goldin-Meadow, PhD

Part III: 4:20 – 5:35 PM

Embodied Brains and Social Minds: Connecting Emotional Minds and Bodies to Learning, Thinking and Meaningful Memory

Complex social emotions involve both abstract cognitions and bodily sensations that influence thought, reflection and meaning. From moments after birth, people develop within social relationships—we come to the world biologically ready to engage with other people and the emotions we feel in social contexts shape how we construct meaning and how we learn. Mary Helen Immordino-Yang will share her current neuroimaging research on young adults and adolescents in Los Angeles and Beijing, and describe what the findings reveal about how the emotional brain supports meaningful learning and memory. She will engage the audience in a discussion of the neurobiological role of emotion in learning and argue that durable learning is driven by an inherent desire to make culturally appropriate meaning of one's experiences in the world.

Speaker: Mary Helen Immordino-Yang, EdD

Presider: *Vicki Hiestand, Teacher, United Auburn Indian Community, Auburn, CA*

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4) MOTION, THE ARTS & LEARNING *(RP, PreK-College)*

Room: Pavilion (Lobby Level)

Part I: 1:45 – 3:00 PM

Embodied Experiences: Using Neuroscience and Physical Movement to Enhance Memory and Engagement

Explore the intersection of movement, stillness and research and experience practical applications to increase memory and engagement in your learning environments. Understand what activities may improve memory and engagement for better learning outcomes including movement, dance, aerobic activity, posture and meditation. And utilize the flexible Universal Design for Learning (UDL) Framework to create movement experiences that work for all learners.

Speaker: Anne Bishop, EdM

Part II: 3:10 – 4:10 PM

Walk for Thought: The Link Between Physical Movement and Creative Thinking

Dr. Oppezzo will talk about her four studies that investigated the effects of movement on creative thinking and discuss possible mechanistic explanations for how physical movement may affect cognitive processes.

Speaker: Marily A. Oppezzo, PhD, RD

Part III: 4:20 – 5:35 PM

Memory and the Muse: How Arts Integrated Instruction Can Improve Student Engagement, Creativity and Content Retention

How do songs about the quadratic equation and the alphabet help you remember the information? Why do the Arts help us retain information longer? Dr. O'Neal will discuss and provide research evidence and clear applications of how arts integrated instruction can be used in your classroom to increase student engagement, creativity and retention of content.

Speaker: Ivonne Chand O'Neal, PhD

Presider: *Linda Black, Faculty, Keyano College, Fort McMurray, AB, Canada*

5) ACTIVE LEARNING & STEM EDUCATION *(RP, 4th Grade-College)*

Room: Crown (24th Floor, Use Tower Elevators on Lobby Level)

Part I: 1:45 – 3:00 PM

A Body of Knowledge: Grounding Mathematical Concepts in Embodied Interaction

Dr. Abrahamson will begin his talk by explaining some of the philosophy, theoretical background and empirical research from cognitive science that have led him to developing "embodied designs" for math learning, and will present for you examples from his work with Grade 4-6 children learning proportion and probability. Dr. Abrahamson will invite you to think afresh about the meaning of mathematical concepts. Not the surface procedures we all use to solve mathematical problems and assess students' competence, but the felt sense of the concepts themselves. For example, what is a proportion? not the formal definition but rather referring to the embodied meaning — what proportion is for you when you try to feel it, operate it, picture it, and describe it. Teachers know this and take measures to evoke these ideas in the classroom. But it can be difficult to create productive spaces for students to engage, explore, discover and challenge these ancient ideas, and so much instruction tends to focus on mastering the algorithms toward examinations. Consequently, students often feel that the discipline and practice of mathematics are separate from what they know about the world. Dr. Abrahamson will share a balanced evaluation of the opportunities and challenges of making mathematics meaningful to all children.

Speaker: Dor Abrahamson, PhD

Part II: 3:10 – 4:10 PM

Body Based Resources When Reading-to-Learn in Science: Gestures and Model Enactment for STEM Literacy

As part of STEM literacy, we expect learners to be able to engage inference-making processes that are central to mental model construction when reading to learn. Across three studies, hand gestures have been shown to be important for inference making when reading to learn about science. Learners gestured more frequently when engaged in inference-making tasks than when they drew on general knowledge or reported on information found in the text. These results support a grounded and embodied cognition view of learning consistent within the "Gesture as Model Enactment (GAME)" framework. The action-cognition system within GAME allows the mental antecedents to activate motor control, and, reciprocally, activation of motor control systems (e.g., via gesture) to support mentally simulated actions that influence cognitive processes. The implications of these findings for STEM learning and assessment practices will be discussed.

Speaker: Mitchell J. Nathan, PhD

Part III: 4:20 – 5:35 PM

Mind for Numbers: How to Excel in Math and Science – and Anything Else You Study

Dr. Barbara Oakley, in the first part of her talk on active learning, will tell how, beginning at age 26, she gradually began transforming herself from complete math-phobe to ultimately become a professor of engineering. Dr. Oakley will then give specific, practical insights from neuroscience and cognitive psychology and examples of active learning for effective classroom learning.

Speaker: Barbara A. Oakley, PhD

Presider: *Susan Mundt, Teacher, The Academy at Nola Dunn, Burlesdon, TX*

6) MEMORY & ENCODING *(RP, K-College)*

Room: Terrace (Terrace Level, Below Lobby Level)

Part I: 1:45 – 3:00 PM

How Memory is Encoded and Its Role in Imagination

From our memories comes our imagination. Without a rich storehouse of memories, imagination would suffer as it does in those with dementia. When access to memory can occur from multiple directions—from sight, sound, smell etc—the linkages among different memories grow into a complex web and the result is what we call imagination. Dr. Kosik will explain why understanding how the brain sets its state of consciousness may lie at the core of understanding memory encoding and what it means for imagination and learning.

Speaker: Kenneth S. Kosik, MD

Part II: 3:10– 5:35 PM

The Neuropsychology of Memory and Classroom Learning

Dr. McCloskey will discuss how memory capacities are used during classroom learning. Instructional methods will be discussed that can be used to help students with memory processing problems. These methods will focus on four general approaches: 1) reducing excessive demands for memory use; 2) teaching students to use strategies to increase effective use of available memory capacities; and 3) teaching students to use strategies that help to compensate for memory deficits.

Speaker: George M. McCloskey, PhD

Presider: *Kathleen Rozman, Learning Specialist, Monterey Peninsula College, Monterey, CA*

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SATURDAY, FEBRUARY 14 – CONFERENCE DAY 3

8:30 AM – 12:30 PM **Afternoon Concurrent Sessions 'B'**

Schedule for Groups A & B (Coffee Break: 9:45-10:10 AM in **Grand Ballroom Lobby** (Grand Ballroom Level) and **Cirque** (Lobby Level)

1) THE SCIENCE OF LEARNING *(RP, K-College)*

Room: **Gold** (Lobby Level)

8:30 AM – 12:30 PM

Think Smart – for School and for Life

The presenters will merge the brain science of the PASS theory of intelligence with real examples and practical strategies to help students, and adults, think smarter and ultimately take charge of their own learning in school and meet the challenges of life. Helping people maximize learning and functioning in all areas of life requires quality instructional methods based on an understanding of the abilities associated with different regions of the brain, such as Planning, Attention, Simultaneous processing, and Successive processing. These brain-based PASS abilities, originally described by A. R. Luria, are the foundation of learning and help us understand academic and life successes and challenges.

Speakers: Kathleen M. Kryza, MA and Jack A. Naglieri, PhD

Presider: *Patti Bannister, Principal, Diablo View Middle School, Clayton, CA*

2) MAKING LASTING MEMORY *(RP, K-College)*

Room: **Grand Ballroom** (Grand Ballroom Level, 3 Floors Below Lobby)

Part I: 8:30 – 9:45 AM

Surprisingly Simple Ways to Boost Memory and Recall: Strategies for Every Teacher

As teachers, we go to great lengths to design and deliver engaging lessons so that our students master important content; we incorporate technology, we create engaging questions, and we search out the right instructional materials. After all that, it can be quite frustrating when students don't seem to be able to recall key information even a few days after we teach it. Fortunately, science may have some answers. This session will offer you numerous, easy-to-use, and effective strategies for helping students boost memory and recall.

Speaker: Bryan K. Harris, EdD *(Book signing from 9:45-10:10 AM)*

Part II: 10:10 AM – 12:30 PM

Evidence-Based Strategies That Enhance Long-Term Memory Encoding, Consolidation and Retrieval

After identifying types of encoding, consolidation and retrieval weaknesses, details are provided on strategies and other methods and interventions that strengthen long-term memory. The strategies include rehearsal, encoding methods, systematic review and mnemonics. Metamemory training, physical factors and health recommendations are also discussed. All recommended approaches include an explanation as to why the methods work, including how the methods support the brain's memory functioning

Speaker: Milton J. Dehn, EdD, NCSP *(Book signing from 12:30-12:45 PM)*

Presider: *Kathleen Meagher, Clinical Psychologist, Shore Educational Collaborative, Nahant, MA*

3) EMBODIED MINDS, LANGUAGE & THINKING *(RP, PreK-12th Grade)*

Room: **French** (Lobby Level)

Part I: 8:30 – 9:45 AM

The Role of Gestures and the Body in Learning and Teaching Mathematics

Dr. Edwards will examine the relationship between the mind, the body and mathematics as a human creation. She will look at the development of mathematics, both as a cultural product and in the individual learner, using the lens of embodied cognition and gesture studies. Embodied cognition helps us see that the content and processes of mathematics are not arbitrary, but instead emerge from our experiences in the physical world, and gesture can help reveal students' mathematical thinking as well as support mathematics learning. Examples of embodiment and gesture in mathematics will be presented, drawing from both research and the classroom.

Speaker: Laurie D. Edwards, PhD

Part II: 10:10 – 11:25 AM

Embodied Meaning, Thinking and Communication

Contemporary research in cognitive science demonstrates that much of how we think, reason, imagine and use language emerges from our ordinary bodily experiences. Human cognition and communication operate not like a digital computer but are thoroughly tied to recurring aspects of our bodies in action. Dr. Gibbs' talk will give various examples of the important links between bodies and minds, and will describe the relevance of this work for children's learning, teaching strategies and educational programs. He will illustrate how the ways we think and the meanings we communicate are created within a very human, embodied context.

Speaker: Raymond W. Gibbs, Jr., PhD

Part III: 11:30 AM – 12:30 PM

Children's Embodied Learning: Exercise, Gestures, Executive Functions and Academic Achievement

Dr. Miller will describe research showing the cognitive benefits to children of motor behaviors, especially vigorous physical activity or hand gestures. Mind and body are closely connected. Implications for education will be discussed.

Speaker: Patricia H. Miller, PhD

Presider: *Rob Bauman, 4th Grade Teacher, Emerson School, Ann Arbor, MI*

4) MOTION, CCSS & LEARNING *(RP, PreK-12th Grade)*

Room: Pavilion (Lobby Level)

8:30 AM – 12:30 PM

Movement, Action-Based Learning and Common Core State Standards

Significant data show that movement and physical fitness can prime every brain for individual learning success. But does this strategy meet the Common Core standards? Find the answers in this highly energetic, interactive presentation that summarizes the research that links movement to learning and shows how neuroscience translates into classroom practice. It will highlight kinesthetic teaching strategies that align to Common Core Standards in every classroom for every learner. Come learn kid-tested and kid-approved short, quick, fun lessons that build capacity by teaching reading, math, social studies and science kinesthetically.

Speaker: Jean Blaydes Moize, MEd

Presider: *Lisa Klein, Artist/Educator, Julia Morgan School for Girls, Oakland, CA*

5) ACTIVE LEARNING & STEM EDUCATION *(RP, K-College)*

Room: Terrace (Terrace Level, Below Lobby Level)

Part I: 8:30 – 9:45 AM

Lessons From a Basement Studio: How to Make and Use a "Sticky" Online Course to Enhance Learning

Dr. Oakley will reveal the secrets behind online and active learning, will discuss results from her studies and will explain how her simple online course on *Learning How to Learn*, produced for less than $5,000, became one of the most popular Coursera MOOCs ever produced, with extraordinary activity and retention levels. She will explain how teaching students meta-learning skills can vastly enhance your effectiveness as a teacher.

Speakers: Barbara A. Oakley, PhD *(Book signing from 9:45-10:10 AM)*

Part II: 10:10 – 11:25 AM

Flipping the Flipped Classrooms: Reinventing Hands-on Learning in K-12 STEM Classrooms

Dr. Blikstein will share some of the research results he has been collecting over the past few years that found improvements with hands-on learning. In particular, he will discuss a series of studies, which show that the "flipped classroom" model, which relies on the "Tell and Practice" paradigm, could harm student learning. When the flipped classroom was inverted (flipped-flipped classroom, or "practice before you tell"), Dr. Blikstein saw a statistically significant increase in learning outcomes as measured by standard tests in the STEM classrooms.

Speaker: Paulo Blikstein, PhD

Part III: 11:30 AM – 12:30 PM

Active Learning and Assessment in the STEM Classroom

Dr. Wenderoth recently published a meta-analysis of 225 papers that compared student performance under active learning versus lecturing in undergraduate courses across the STEM disciplines. The results indicate that on average, students are 1.5 times more likely to fail when being lectured to as compared to taking the same course with an active learning component, and that active learning increases exam scores by almost half a standard deviation. She will summarize the research results that provide robust data on teaching methods that increase student achievement. These teaching methods are based on results from cognitive science and rely heavily on the "Testing Effect" and "Desirable Difficulties." Dr. Wenderoth will discuss ways even small changes can close the gap between teaching and student learning since shrinking that gap has tremendous implications for all students.

Speaker: Mary P. Wenderoth, PhD

Presider: *Susan Mundt, Teacher, The Academy at Nola Dunn, Burlesdon, TX*

6) MEMORY & COGNITIVE CONTROL *(RP, K-College)*

Room: Venetian (Lobby Level)

Part I: 8:30 – 9:45 AM

School-Based Cognitive Training: Working Memory, Transfer and ADHD

Dr. Jaeggi will summarize data from her lab and other research groups demonstrating that cognitive training can be, indeed, beneficial, especially if it is targeting working memory skills. Specifically, participants from various populations, including children with ADHD, consistently improve their ability to resolve interference and inhibitory control as a function of working memory training, suggesting that participants learn to use their cognitive resources more efficiently in that they are better able to resist distraction. However, she will point out that there are several factors moderating the extent of transfer, such as pre-existing individual differences and motivation. She will outline some of the current outstanding questions, such as the longevity of training, its application in educational settings and its real-life consequences.

Speaker: Susanne M. Jaeggi, PhD

Part II: 10:10 – 11:25 AM

Role of Video Games in Enhancing Cognitive Control and Motor Skills

Dr. Anguera will describe the use of scientifically-based video games as tools for assessment and intervention in a number of different populations: from children to senior citizens and, from healthy to cognitively impaired populations, such as those with attention and control issues. He will explain that through the use of digital health technologies, there is the potential to provide meaningful improvements in one's cognitive control abilities (attention, working memory, multitasking) and a way to assess these changes in a real-time fashion in a way that is fun and engaging.

Speaker: Joaquin A. Anguera, PhD

Part III: 11:30 AM – 12:30 PM

Developing Brains and Memory: How Memory Improves During Childhood

Memory processes support children's ability to learn. Dr. Ghetti will highlight the contribution of two classes of processes, relational binding processes and metacognitive processes. Relational binding processes support the integration of the various features of an event (e.g., what, when, where) into a memory representation that captures the most important aspects of an experience. Metacognitive processes confer the ability to reflect on memory quality to regulate its accuracy. Behavioral and neuroimaging evidence will be discussed.

Speaker: Simona Ghetti, PhD

Presider: *Jill Stamm, PhD, Professor of Education, Arizona State University, Tempe, AZ*

1) THE SCIENCE OF LEARNING *(RP, K-College)*

Room: Venetian (Lobby Level)

1:30 – 3:45 PM

Making it Work: Translating Learning Sciences to the Classroom

Contemporary educators and policy makers are confronted with an ever-growing list of provocative scientific findings as well as persuasive recommendations from those seeking to apply scientific findings to practice. Scientists are often frustrated that their findings are ignored, or, when not ignored, misapplied, diluted or misinterpreted as attempts are made to integrate promising findings into educational practice. Teachers are often frustrated that there are few explicit roadmaps delineating how to practically apply these principles to the classroom. Dr. Daniel will explore a model outlining the necessary steps that scientists and practitioners must take to responsibly discover, design and develop usable knowledge for teaching and learning, as well as the challenges faced by moving from the greater focus of the lab to the increased complexity in the classroom.

Speaker: David B. Daniel, PhD

Presider: *Bonnie Dykman, Speech & Language/LD Specialist, Madison, WI*

2) MAKING LASTING MEMORY *(RP, 6th Grade-College)*

Room: Terrace (Terrace Level, Below Lobby Level)

Part I: 1:30 – 2:45 PM

Using Personal Experiences to Build Stronger Memory: Transforming Traditional Class Lessons to Be Experiential

Dr. Schenck will examine a series of real lessons in math, science and language arts that used traditional concepts and how they were transformed to being more experiential with the result that very robust memories were created. You will briefly examine and use (physical experience) a model that demonstrates and uses many of the principles of experiential learning, and you will discuss the challenges created by traditional instructional formats. Finally, you will create a post conference network for working on ideas and real problems.

Speaker: Jeb Schenck, PhD

Part II: 2:45 – 3:45 PM

Memory Networking Session

Take this opportunity to meet in small groups to discuss, reflect and apply what you've learned, reconnect with old friends and meet new friends. Dr. Schenck will guide group discussions on ways to improve memory, apply the science or memory and learning and create a post conference network for working on ideas and real problems.

Facilitator: Jeb Schenck, PhD

Presider: *Janet Favero, Learning Specialist, Favero Learning, Annapolis, MD*

3) EMBODIED MINDS, LANGUAGE & THINKING *(RP, K-College)*

Room: French (Lobby Level)

1:30 – 3:45 PM

Meeting New Standards with Oral Language Activities to Build Academic Thinking and Its Language

Dr. Zwiers will engage you in several oral language activities that exemplify key shifts in instruction that have emerged as a result of new standards such as CCSS, NGSS and ELD. You will see how students' oral output and interaction skills can be improved across grade levels and content areas using a variety of scaffolds and practices for thinking.

Speaker: Jeff A. Zwiers, EdD

Presider: *Mary Jayne Allen, Coordinator for Learning Services, Seattle Pacific University, Seattle, WA*

CONCURRENT SESSIONS GUIDE:

(**RP**) = Brain **R**esearch & **P**ractical Strategies/Interventions
(**R**) = Mostly Brain/Child Development **R**esearch
(**P**) = Mostly Brain-Based **P**ractical Strategies and Interventions
(**K-College, K-12th Grade**) = Applicable Grade Levels

4) MOTION, TEACHING & LEARNING *(P, K-College)*

Room: Gold (Lobby Level)

1:30 – 3:45 PM

The Brain Science of Teaching: Using Mind-Body Connections to Optimize Learning

Dr. Perez will help you see, hear and feel what brain-compatible learning is all about and will provide practical tips and tools using hands-on and minds-on learning to engage even reluctant and struggling students. She will examine effective techniques for vocabulary development, reading comprehension and critical thinking skills.

Speaker: Kathy Perez, EdD

Presider: *Jill Stamm, PhD, Professor of Education, Arizona State University, Tempe, AZ*

5) ACTIVE LEARNING & STEM EDUCATION *(RP, K-8)*

Room: Pavilion (Lobby Level)

1:30 – 3:45 PM

Creative Thinking, the Arts and STEM Education

An environment that allows students to engage in design thinking and other problem-based learning settings best serves our 21st Century learners. This hands-on session, led by experts at the Center for Childhood Creativity, will connect research presentations on the neuroscience of creativity with demonstrations of classroom activities for STEM and the Arts. Classroom activities presented will be designed to develop students' skills in the key components of creative thinking and will be best suited for K-8 classrooms. The neuroscience of active learning and creativity research discussions will be applicable to learners of all ages.

Speakers: Erica Fortescue, MA and Sara Norris, MA

Presider: *Belinda Lesser, Director, Albany Math Center, Albany, CA*

6) MEMORY & MATH LEARNING *(RP, K-College)*

Room: Grand Ballroom (Grand Ballroom Level, 3 Floors Below Lobby)

Part I: 1:30 – 2:30 PM

Math and Memory Training: Understanding the Brain Basis of Problem Solving

Working memory — the ability to hold information in the mind for short periods — is crucial for solving multiple step problems, while long-term memory is needed to memorize information, which can speed problem solving. Training working memory could increase capacity for solving problems, while memorizing math facts can free up working memory capacity for learning new information. Dr. Rosenberg-Lee will present research showing how working memory relates to math performance in children with math difficulties and the neuroplastic changes that accompany math fact training in these children and their typically developing peers.

Speaker: Miriam Rosenberg-Lee, PhD

Part II: 2:30 – 3:45 PM

Developing Minds for Numbers: Integrating Brain Systems for Number Sense and Symbols

When children enter formal education, they bring with them fully functional brain systems that support intuitive non-verbal number skills such as estimating approximate numbers. They also bring with them functional verbal/symbolic brain circuitry that supports some forms of exact numerical cognition, such as counting. However, these separate systems are profoundly limited in their contributions to mathematical cognition until they become integrated. Dr. McCandliss will provide an overview of critical functional and neural developments that take place across the transition from early kindergarten to elementary school education in mathematics.

Speaker: Bruce D. McCandliss, PhD

Presider: *Alice Berg, Director, Learning Strategies, Dunn School, Solvang, CA*

Thank you for participating in the 40th* LEARNING *& the* BRAIN® *Conference. We hope you will leave with new contacts and fresh ideas for the important work you do with children, teens, adults and families.

HOTEL AND LOCAL FOOD LOCATIONS (Breakfast/Lunch/Dinner)

Local Food Locations

Nob Hill Café
1152 Taylor Street *(between Pleasant St. and Clay St.)*
(415) 776-6500
(Small Italian cafe; pizza and pasta)

Roxanne's Cafe
560 Powell Street *(between Bush St. and Sutter St.)*
(415) 989-5555
(Mexican food)

Uncle Vito's Pizza
700 Bush Street *(between Mason St. and Powell St.)*
(415) 391-5008
(Sandwiches, pizza; sit down or to-go)

Lori's Diner
501 Powell Street *(between Bush St. and Sutter St.)*
(415) 981-1950
(50's diner food)

Olea
1494 California Street *(between Hyde St. & Larkin St.)*
(415) 202-8251
(New American)

R&G Lounge
631 Kearny Street *(between Commerical St. & Kearny St.)*
(415) 982-7877
(Cantonese food)

Hunan Homes
622 Jackson Street *(between Kearny St. and Grant St.)*
(415) 982-2844
(Chinese food)

Hyde Street Seafood House and Raw Bar
1509 Hyde Street *(at Jackson St.)*
(415) 931-3474
(Seafood)

Fairmont Food Locations

Laurel Court Restaurant and Bar: The **Laurel Court** houses a signature restaurant and bar featuring one-of-a-kind wines by the glass. Located in the hotel's newly restored lobby, the **Laurel Court** serves as the centerpiece of the hotel. The culinary talents of Fairmont's executive chef are showcased, featuring the freshest of regional ingredients.

Hours: **Breakfast:** Mon–Fri 6:30 AM–11:30 AM
Sat & Sun 7:00 AM–11:30 AM
Lunch: Daily 11:30 AM–2:30 PM
Afternoon Tea: Sat & Sun 1:30 PM–3:00 PM
Dinner: Fri–Tues 6:00 PM–10:00 PM

The Tonga Room & Hurricane Bar: A visit to San Francisco is not complete without experiencing **The Tonga Room and Hurricane Bar**. Consistently awarded for serving 'San Francisco's Best Happy Hour', the **Tonga Room** offers exceptional Pacific Rim Asian Cuisine in a tropical setting that includes thunder and rainstorms. It is the perfect escape after a busy day of meetings or shopping along Union Square.

Hours: **Happy Hour:** Mon–Fri 5:00 PM–7:00 PM
Dinner: Wed, Thurs & Sun 6:00 PM–10:00 PM
Fri–Sat 6:00 PM–11:00 PM

Caffè Cento: Inspired by the cafes of Europe, **Caffè Cento** combines celebrated coffees, Tuscan-style sandwiches, the chocolate of Ghirardelli, and the hospitality of the Fairmont to create an unforgettable San Francisco experience. **Caffè Cento** offers specialty coffees, teas, gelato, fresh pastries, breakfast and lunch items.

Hours: Daily 6:00 AM–6:00 PM

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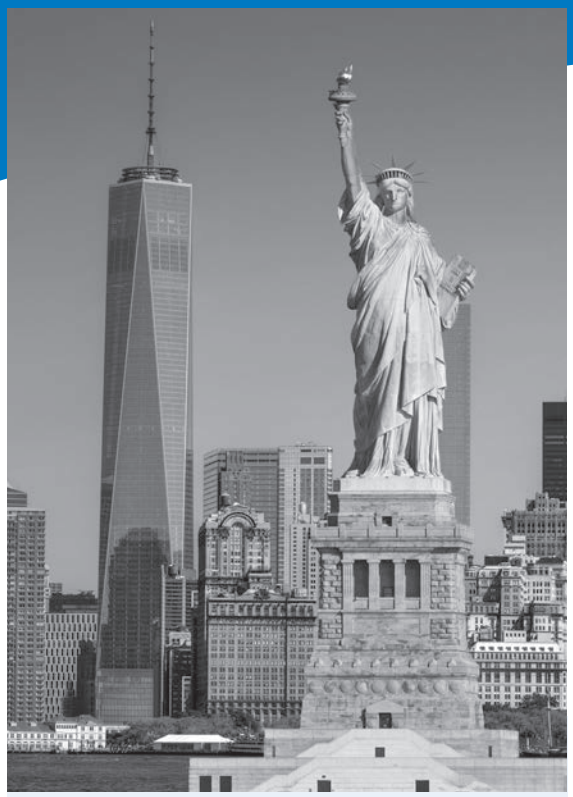

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— Heidi Hayes Jacobs, PhD
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At the Sheraton New York Times Square Hotel

Sense of Style: A Thinking Person's Guide to Writing in the 21st Century
Steven A. Pinker, PhD, Harvard University

World-Class Minds vs. Authoritarian Education: The Suicidal Quest for Educational Excellence
Yong Zhao, PhD, University of Oregon

Finnish Lessons 2.0: What Can the United States Learn from Educational Change in Finland?
Pasi Sahlberg, PhD, Harvard Graduate School of Education

Cultivating Globally Connected, Digitally Literate and Media-Savvy Learners
Heidi Hayes Jacobs, EdD, The Curriculum 21 Project

Measuring What Matters: Connecting Cognitive Science, Assessment Design and 21st Century Skills
James W. Pellegrino, PhD, University of Illinois at Chicago

Creating World-Class Teachers and Schools
Vivien Stewart, MPhil, Columbia University

Educating Our Children for a Changing Global World
David N. Perkins, PhD, Harvard Graduate School of Education

Understanding Children's Mathematical Minds
Herbert P. Ginsburg, PhD, Columbia University

The Neuroscience of Culture: Cultural Influences on Perception and Behavior
Jonathan B. Freeman, PhD, New York University

Using Cognitive Science and Technology to Improve Student Learning
Elizabeth J. Marsh, PhD, Duke University

World-Class Teaching and Learning for a Global Time
William Gaudelli, EdD, Columbia University

Educating for Global Competence: Preparing Our Youth for Today's World
Veronica Boix Mansilla, PhD, Harvard Graduate School of Education

Critical Reading as a 21st Century Skill
Daniel T. Willingham, PhD, University of Virginia

The Cultural, Emotional Mind: Neurological Perspectives on Learning in a Global Age
Mary Helen Immordino-Yang, EdD, University of Southern California

Why Should Teachers Care About Culture and Cognitive Neuroscience?
Daniel Ansari, MSc, PhD, The University of Western Ontario

Critical Thinking in Contemporary Colleges and Careers
Richard Arum, PhD, New York University

For more information or to register, go to LearningAndTheBrain.com or call 781-449-4010 ext. 101 or 102.

POSTER SESSIONS

Friday, Feb. 13 and Saturday, Feb. 14 from 9:45 – 10:10 AM

Take this opportunity to learn about some interesting research studies and applications in the fields of memory and learning.
Location: Grand Ballroom Lounge (Grand Ballroom Level)

1. "The Effects of Multi-Strategic Memory Training with Metamemory Concept on Cognitive Ability and Brain Structure in Elderly Patients"

By: Jun-Young Lee, Soowon Park, Yongjoon Yoo, et.al., Seoul National University College of Medicine and SMG-SNU Boramae Medical Center, Seoul, Republic of Korea

2. "The Lack of Awareness in Memory Deficit of Korean Elderly People with Mild Cognitive Impairment"

By: Jun-Young Lee, Soowon Park, Yongjoon Yoo, et.al., Seoul National University College of Medicine and SMG-SNU Boramae Medical Center, Seoul, Republic of Korea

3. "The Development and Validation of a Korean Version of SWAT for Semantic Dementia: Behavioral and Brain-imaging Evidence"

By: Jun-Young Lee, Soowon Park, Yongjoon Yoo, et.al., Seoul National University College of Medicine and SMG-SNU Boramae Medical Center, Seoul, Republic of Korea

4. "Exploring the Impact of Different Schedules of Spacing and Presentation Styles for Learning of Novel Information"

By: Ashley S. Bangert, PhD, Nazanin M. Heydarian and Allyson S. Hughes, Department of Psychology, The University of Texas at El Paso, El Paso, TX

5. "Enhancing Achievement in Performance Music Through Repeat Participation in Performance Assessments"

By: Elizabeth C. von Wurmb, PhD, K-12 Fine Arts Coordinator, Clarkstown Central School District (CCSD), New York, NY

6. "Using Cognitive Development to Support Academics"

By: Kathryn Lyslo, EdM, Lower School Cognitive Development Specialist, Carroll School, Waltham, MA

7. "Improving Reaction Time Improves Reading Fluency, a Common Cognitive Trait Associated with Dyslexia"

By: Ben Shepard, MEd, et.al., Carroll School, Waltham, MA

BOOK SIGNINGS

(Please purchase their books at the bookstore prior to the book signing.) **Location:** Grand Ballroom Lounge

FEBRUARY 12

2:45 – 3:00 PM – **Henry L. Roediger, III, PhD**, will be available to sign his new book during the coffee break.

5:30 – 5:45 PM – **Sian L. Beilock, PhD** and **Benedict J. Carey, MA**, will be available to sign their new books at the end of the afternoon keynote period.

FEBRUARY 13

9:45 – 10:10 AM – **Sandra B. Chapman, PhD** will sign her books during the coffee break for Group A.

12:30 – 12:50 PM – **Larry R. Squire, PhD, William R. Klemm, DVM, PhD** and **Sandra B. Chapman, PhD**, will sign their books at the lunch break.

FEBRUARY 13 (Continued)

3:00 – 3:10 PM – **George P. Lakoff, PhD** will sign his books during his session break.

FEBRUARY 14

9:45 – 10:10 AM – **Bryan K. Harris, EdD,** and **Barbara A. Oakley, PhD** will be available to sign their books during the coffee break.

12:30 – 12:45 PM – **Milton J. Dehn, EdD, NCSP**, will sign his books during the lunch break.

MEETING OF THE MINDS WINE & CHEESE RECEPTION

THURSDAY, FEBRUARY 12, 2015, 5:30 – 6:30 PM *(By Advance Registration Only)*

Sponsored by ***THE DANA ALLIANCE FOR BRAIN INITIATIVES***

Location: Gold Ballroom (Lobby Level)

Take this unique opportunity to meet some of the nation's brightest minds at this reception as you mingle with other attendees and speakers in the ornate turn-of-the-century Gold Ballroom. Enjoy the view of San Francisco while enjoying a glass of wine and an assortment of cheeses.

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THE NEUROSCIENCE OF READING: Using Research to Understand Reading Acquisition and Disorders

JUNE 29-JULY 2, 2015

At the Massachusetts Institute of Technology, Cambridge, MA

Workshop Leader: John D. E. Gabrieli, PhD, Professor of Brain and Cognitive Sciences; Associate Director, Athinoula A. Martinos Imaging Center, McGovern Institute for Brain Research, Massachusetts Institute of Technology; Co- Author, "Brain basis of phonological awareness for spoken language in children and its disruption in dyslexia" *(2012, Cerebral Cortex)*

THE POWER OF MINDSETS: Promoting Positive School Climates and Motivation in Students

JULY 6-9, 2015

At the Boston Park Plaza, Boston, MA

Workshop Leader: Robert B. Brooks, PhD, Assistant Clinical Professor of Psychology, Harvard Medical School; Co-Author, *Raising a Self-Disciplined Child* (2007) and *Understanding and Managing Children's Classroom Behavior (2007)*

THE NEUROPSYCHOLOGY OF LEARNING DISABILITIES: Developing Interventions to Help Struggling Students

JULY 13-17, 2015

At the Wellfleet Preservation Hall, Cape Cod, MA

Workshop Leader: Steven G. Feifer, DEd, NCSP, ABSNP, Neuropsychologist; Winner of the 2008 Maryland School Psychologist of the Year and the 2009 National School Psychologist of the Year Awards; Co-Author, *Integrating RTI with Cognitive Neuropsychology: A Scientific Approach to Reading (2007)* and *The Neuropsychology of Written Language Disorders (2002)*

NEUROSCIENCE AND CLASSROOM ENGAGEMENT: Strategies for Maximizing Students' Attention, Focus and Potential

JULY 20-24, 2015

At the University of California, Santa Barbara

Workshop Leader: Judy A. Willis, MD, MEd, Board-Certified Neurologist; Adjunct Lecturer, Graduate School of Education, University of California, Santa Barbara; Former Teacher; Author, *Research-Based Strategies to Ignite Student Learning (2006)*; Contributing Author, "Current impact of neuroscience in teaching and learning" *(2010, Mind, Brain & Education)*

NEUROSCIENCE AND EXECUTIVE SKILLS: Strategies for Executive Functions, Memory and Classroom Learning

JULY 27-31, 2015

At the University of California, Santa Barbara

Workshop Leader: Judy A. Willis, MD, MEd, Board-Certified Neurologist; Adjunct Lecturer, Graduate School of Education, University of California, Santa Barbara; Former Teacher; Author, *Research-Based Strategies to Ignite Student Learning (2006)*; Contributing Author, "Current impact of neuroscience in teaching and learning" *(2010, Mind, Brain & Education)*

A DISTINGUISHED CONFERENCE FACULTY

Dor Abrahamson, PhD, Associate Professor of Secondary Mathematics Education, Cognition and Development; Director, Embodied Design Research Laboratory; Research Partner, Transformative Learning Technologies Laboratory, Graduate School of Education, University of California, Berkeley; Co-Author, "Embodiment and Embodied Design" *(2014, 2nd Edition, The Cambridge Handbook of the Learning Sciences)*

Joaquin A. Anguera, PhD, Postdoctoral Fellow, Department of Neurology and Physiology, Gazzaley Laboratory, University of California, San Francisco; Associate Specialist, UCSF School of Medicine; Co-Author, "Video Game Training Enhances Cognitive Control in Older Adults" *(2013, Nature)* and "Neurocognitive Contributions to Motor Skill Learning: The Role of Working Memory" *(2012, Journal of Motor Behavior)*

Sian L. Beilock, PhD, Professor of Psychology, Department of Psychology, University of Chicago; Author, *How the Body Knows Its Mind: The Surprising Power of Physical Environment to Influence How You Think and Feel (2015)* and *Choke: What the Secrets of the Brain Reveal About Getting It Right When You Have To (2011)*

Anne Bishop, EdM, Mind, Brain and Education Program, Harvard Graduate School of Education; Founder, Brain Body Connect; Online Instructor, Center for Applied Special Technology (CAST); Pilates Instructor; Past Teaching Assistant, San Francisco State University; Leadership Team, Mind, Brain and Education Services Network

Robert A. Bjork, PhD, Distinguished Research Professor, Department of Psychology, University of California, Los Angeles; Co-Author, "Why Interleaving Enhances Inductive Learning" *(2013, Memory & Cognition),* "Desirable Difficulties Perspective on Learning" *(2013, Encyclopedia of the Mind)* and *"Why Tests Appear to Prevent Forgetting" (2011, Journal of Memory and Language)*

Paulo Blikstein, PhD, Assistant Professor, Stanford University Graduate School of Education; Assistant Professor of Computer Science; Director, Transformative Learning Technologies Laboratory, Stanford University; Co-Author, "Towards the Development of Multimodal Action Based Assessment *(2013, Proceedings of the Third International Conference on Learning Analytics and Knowledge),* "Digital Fabrication and 'Making' in Education: The Democratization of Invention" *(2013, FabLabs: Of Machines, Makers and Inventors)* and "Preparing for Future Learning with a Tangible User Interface: The Case of Neuroscience" *(2013, Learning Technologies)*

Benedict J. Carey, MA, Award-Winning Science Reporter at the *New York Times*, who writes on subjects such as psychology, neuroscience and psychiatry; Author, *How We Learn: The Surprising Truth About When, Where and Why It Happens (2014)*

Sandra B. Chapman, PhD, Founder and Chief Director, Center for BrainHealth; Dee Wyly Distinguished Professor in Brain Health; Professor, School of Behavioral and Brain Sciences, The University of Texas at Dallas; Co-Author, "Shorter Term Aerobic Exercise Improves Brain, Cognition and Cardiovascular Fitness in Aging" *(2013, Frontiers in Aging Neuroscience)* and *Make Your Brain Smarter (2013)*

Jessica Cruickshank, EdM, Director, Gateway Collegium, an online school; Former Program Director, Solid Rock Outdoor Ministries; Co-Author, "Evolving Kolb: Experiential Education in the Age of Neuroscience" *(2014, Experiential Education)*

David B. Daniel, PhD, Professor of Psychology, James Madison University; Managing Editor, *Mind, Brain and Education Journal*; Recipient of the Robert S. Daniel Teaching Excellence Award from the American Psychological Association Division 2; Featured in Princeton Review's 300 Best Professors; Author, "Promising Principles: Translating the Science of Learning to Educational Practice" *(2012, Journal of Applied Research in Memory and Cognition)*

Milton J. Dehn, EdD, NCSP, Co-Founder and Program Director, Schoolhouse Educational Services; Former Associate Professor, University of Wisconsin-La Crosse; Author, *Essentials for Processing Assessment (2013), Helping Students Remember (2011), Long-Term Memory Problems in Children and Adolescents: Assessment, Intervention and Effective Instruction (2010)* and *Working Memory and Academic Learning (2008)*

Laurie D. Edwards, PhD, Professor of Education; Chair of Teacher Education; Program Coordinator, Master of Arts in Teaching, St. Mary's College of California; Former Lecturer, San Jose State University; Co-Author, "Gestures and Conceptual Integration in Mathematical Talk" *(2009, Educational Studies in Mathematics)*; Co-Editor, *Emerging Perspectives on Gesture and Embodiment in Mathematics (2014)*

Erica Fortescue, MA, Associate Director of Programming, Center for Childhood Creativity; Instructor with experience directing STEM, college access and out-of-school time learning programs, training classrooms teachers and building meaningful collaborations between underserved communities, museums and research universities

Simona Ghetti, PhD, Professor of Psychology, the Center for Mind and Brain; Director and Principal Investigator, Memory and Development Laboratory, University of California, Davis; Co-Author, "Strength of Coupling Within a Mnemonic Control Network Differentiates Those Who Can and Cannot Suppress Memory Retrieval" *(2013, Journal of Neuroscience)*

Raymond W. Gibbs Jr., PhD, Professor, Psychology Department, Social Sciences Division, University of California, Santa Cruz; Author, *The Cambridge Handbook of Metaphor and Thought (2008), Embodiment and Cognitive Science (2005)* and *The Poetics of Mind: Figurative Thought, Language and Understanding (1994)*

Susan Goldin-Meadow, PhD, Distinguished Service Professor, Department of Psychology and Committee on Human Development, University of Chicago; Author, "How Gesture Helps Children Learn Language" *(2014, Language in Interaction)* and *Hearing Gesture: How Our Hands Help Us Think (2003)*; Co-Author, "From Action to Abstraction: Using the Hands to Learn Math" *(2014, Psychological Science)*

Bryan K. Harris, EdD, Director of Professional Development and Public Relations, Casa Grande Elementary School District; Educational Consultant; Author, *Creating a Classroom Culture That Supports the Common Core: Teaching Questioning, Conversation Techniques and Other Essential Skills (2013)* and *Battling Boredom (2010)*; Co-Author, *75 Quick and Easy Solutions to Common Classroom Disruptions (2012)*

Ana R. Homayoun, MA, PPS, School Counselor; Founder and Director, Green Ivy Educational Consulting; Author, *The Myth of the Perfect Girl: Helping Our Daughters Find Authentic Success and Happiness in School and Life (2013)* and *That Crumpled Paper Was Due Last Week: Helping Disorganized and Distracted Boys Succeed in School and Life (2010)*

Mary Helen Immordino-Yang, EdD, Associate Professor of Education, Psychology and Neuroscience, Rossier School of Education; Associate Professor of Psychology, Brain and Creativity Institute, University of Southern California; Author, *Affective Educational Neuroscience: Embodied Brains, Social Minds and the Art of Learning (2015)*

Susanne M. Jaeggi, PhD, Principal Investigator, Working Memory and Plasticity Laboratory; Assistant Professor, School of Education, University of California, Irvine; Co-Author, "The Role of Individual Differences in Cognitive Training and Transfer" *(2014, Memory and Cognition)*

Mira-Lisa Katz, PhD, Professor, Literacy Studies, English Education and Applied Linguistics, Sonoma State University; Professional Dancer, SoCo Dance Theater; Expert on embodied, multimodal learning; Author, *Moving Ideas: Multimodality and Embodied Learning in Communities and Schools (2013)*

William R. Klemm, DVM, PhD, Professor of Neuroscience, College of Veterinary Medicine and Biomedical Sciences, Texas A&M University; Author, *Mental Biology: The New Science of How the Brain and Mind Relate (2014), Memory Power 101 (2012)* and *Better Grades, Less Effort (2011)*

Kenneth S. Kosik, MD, Co-Director, Neuroscience Research Institute; Harriman Chair and Professor of Neuroscience Research, Department of Molecular, Cellular and Developmental Biology, University of California, Santa Barbara

Kathleen M. Kryza, MA, Education Consultant; Co-Author, *Winning Strategies for Test-Taking, Grades 3–8: A Practical Guide for Teaching Test Preparation (2014)* and *Inspiring Middle and Secondary Learners (2007)*

George P. Lakoff, PhD, Distinguished Professor of Cognitive Science and Linguistics, University of California, Berkeley; Co-Author, *Metaphors We Live By (2003), The Political Mind (2009)* and *Where Mathematics Come From: How the Embodied Mind Brings Mathematics into Being (2001)*

Bruce D. McCandliss, PhD, Professor, Stanford University Graduate School of Education; Faculty Affiliate, Center for Mind, Brain and Computation, Stanford University; Author, "Foundational Changes in Number Representation Induced by Early Elementary Education" *(2014, American Association for the Advancement of Science)*; Co-Author, "The Emergence of 'Groupitizing' in Children's Numerical Cognition" *(2014, Journal of Experimental Child Psychology)* and "Educational Neuroscience: The Early Years" *(2010, Proceedings of the National Academy of Sciences)*

George M. McCloskey, PhD, Professor and Director, School Psychology Research, Department of Psychology, Philadelphia College of Osteopathic Medicine; Co-Author, *Essentials of Executive Function Assessment (2012)*, "Neuropsychology of Auditory Processing Disorders" *(2011, Handbook of Pediatric Neuropsychology)* and *Assessment and Intervention for Executive Function Difficulties (2009)*

Patricia H. Miller, PhD, Professor, Developmental Psychology, College of Science and Engineering, San Francisco State University; Co-Author, "A Show of Hands: Relations Between Young Children's Gesturing and Executive Function" *(2014, Developmental Psychology)* and "Exercise Improves Executive Function and Academic Achievement and Alters Neural Activation in Overweight Children" *(2011, Health Psychology)*

Jean Blaydes Moize, MEd, Co-Creator, Action Based Learning Lab; Internationally-known pioneer in kinesthetic teaching strategies; Education Consultant; Author, *Thinking on Your Feet (2004)*

Jack A. Naglieri, PhD, Research Professor, Curry School of Education, University of Virginia; Emeritus Professor of Psychology, George Mason University; Co-Author, *Comprehensive Inventory of Executive Function (2012), Helping Children Learn (2010)* and *Practitioner's Guide to Assessing Intelligence and Achievement (2009)*; Co-Editor, *Handbook of Executive Functioning (2014)*

Mitchell J. Nathan, PhD, Professor, Department of Educational Psychology, University of Wisconsin-Madison; Director, Center on Education and Work; Director, IES Postdoctoral Fellowship Program in Mathematical Thinking, Learning and Instruction; Co-Author, "Improving Students' Learning with Effective Learning Techniques" *(2013, Psychological Science in the Public Interest)*, "Students Learn More When Their Teacher Has Learned to Gesture Effectively" *(2013, Gesture)*, "Embodiment in Mathematics Teaching and Learning: Evidence from Learners' and Teachers' Gestures" *(2012, Journal of Learning Sciences)*

Sara Norris, MA, Teacher-In-Residence, Center for Childhood Creativity; Recognized as an Outstanding Teacher by the state of California; Finalist for the Presidential Award for Excellence in Math and Science Teaching, our nation's highest honor for K-12 teachers

Barbara A. Oakley, PhD, Professor of Engineering, Industrial and Systems Engineering Department, Oakland University; Fellow of the American Institute of Medical and Biological Engineers; Lecturer of MOOC Course "Learning How to Learn"; Author, *A Mind for Numbers: How to Excel in Math and Science—Even if You Flunked Algebra (2014)*

Ivonne Chand O'Neal, PhD, Director of Evaluation, The John F. Kennedy Center for the Performing Arts; Author, JFK Center's Research Study, *An Impact Evaluation of Arts-Integration Through the Changing Education Through the Arts (CETA) Program (2014)*

Marily A. Oppezzo, PhD, RD, Adjunct Faculty, Biology and Psychology Departments, Santa Clara University; Postdoctoral Research Fellow, Stanford Prevention Research Center and Health Improvement Program, Stanford School of Medicine; Co-Author, "Give Your Ideas Some Legs: The Positive Effect of Walking on Creative Thinking" *(2014, Journal of Experimental Psychology: Learning, Memory and Cognition)*

Wendy L. Ostroff, PhD, Associate Professor of Cognitive Science and Developmental Psychology, Hutchins School of Liberal Studies, Sonoma State University; Author, *Understanding Children's Learning: Bringing the Science of Child Development to the Classroom (2012)*

Kathy Perez, EdD, Professor of Education; Director of Outreach and Professional Development, Saint Mary's College of California; Author, *New Inclusion: Differentiated Strategies to Engage ALL Students (2013)* and *More Than 100+ Brain-Friendly Tools and Strategies for Literacy Instruction (2008)*

Henry L. Roediger, III, PhD, James S. McDonnell Distinguished University Professor, Department of Psychology; Principal Investigator, Memory Laboratory, Washington University in St. Louis; Co-Author, *Make It Stick: The Science of Successful Learning (2014)* and "Applications of Cognitive Science to Education" *(2012, Neuroscience in Education)*

Miriam Rosenberg-Lee, PhD, Instructor, Psychiatry and Behavioral Science, Child and Adolescent Psychiatry, Stanford University School of Medicine; Co-Author, "Fractionating the Neural Correlates of Individual Working Memory Components Underlying Arithmetic Problem Solving Skills in Children" *(2013, Developmental Cognitive Neuroscience)*

Jeb Schenck, PhD, Adjunct Professor, University of Wyoming and Montana State University; Leader of mountaineering expeditions including Mt. Everest and Mt. McKinley; Author, *Teaching and the Adolescent Brain (2011)*; Co-Author, "Evolving Kolb: Experiential Education in the Age of Neuroscience" *(2014, Journal of Experiential Education)*

Arthur P. Shimamura, PhD, Professor, Psychology Department; Director, Shimamura Laboratory on Learning and Memory; Faculty Member, Helen Wills Neuroscience Institute, University of California, Berkeley; Co-Author, "Remembering the Past: Neural Substrates Underlying Episodic Encoding and Retrieval" *(2014, Current Directions in Psychological Science)*; Co-Editor, *Metacognition: Knowing About Knowing (1994)*

Larry R. Squire, PhD, Professor of Psychiatry, Neuroscience and Psychology, University of California, San Diego School of Medicine; Research Career Scientist, Veterans Affairs Medical Center, San Diego; Co-Author with Eric Kandel, *Memory: From Mind to Molecules (2008)*

Catlin R. Tucker, MA, English Language Teacher at Windsor High School, where she received the 2010 Teacher of the Year Award; Google Certified Teacher; Author, *Using Technology to Teach the Common Core Literacy Standards (2015)* and *Blended Learning in Grades 4-12: Leveraging the Power of Technology to Create Student-Centered Classrooms (2012)*; Co-Author, *Creating a Google Apps™ Classroom (2014)*

Matthew P. Walker, PhD, Principal Investigator, Sleep and Neuroimaging Laboratory; Professor, Department of Psychology, University of California, Berkeley; Co-Author, "Nocturnal Mnemonics: Sleep and Hippocampal Memory Processing" *(2012, Frontier of Neurology)*; Co-Editor, *The Neuroscience of Sleep (2009)*

Mary P. Wenderoth, PhD, Principal Lecturer, Department of Biology; Co-Director, UW Teaching Academy, University of Washington; Co-Author, "Active Learning Improves Student Performance in Science, Engineering and Math" *(2014, Proceedings of the National Academy of Sciences)* and *Assessment in the College Science Classroom (2014)*

Jeff A. Zwiers, EdD, Senior Researcher, Stanford University Graduate School of Education; Author, *Building Academic Language: Meeting Common Core Standards Across Disciplines, Grades 5-12 (2014)* and *Building Reading Comprehension Habits in Grade 6-12 (2nd Edition, 2010)*; Co-Author, *Common Core Standards in Diverse Classrooms: Essential Practices for Developing Academic Language and Disciplinary Literacy (2014)*

PIRI, the Cooperating Organizations, Sponsors and Advisors are not responsible for (nor do they necessarily endorse) any books, exhibitors, or any recommendations, statements, or research from presentations provided at the conference.

EXHIBITORS

ATHENA ACADEMY

525 San Antonio Avenue, Palo Alto, CA 94306
Phone: (650) 543-4560 **Email:** anne@athenaacademy.org **Web:** athenaacademy.org
Description: Athena Academy is a non-profit private school devoted to the education of bright children with dyslexia. The school is located on a large campus in Palo Alto, near Stanford University and serves grades 1-8. Their approach to teaching dyslexics is based on methods to accelerate learning for the widest range of dyslexic students.

BRAINLENS - LABORATORY FOR EDUCATIONAL NEUROSCIENCE, UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

Langley Porter Psychiatric Institute, 401 Parnassus Ave, Box 0984, San Francisco, CA 94143
Phone: (415) 476-9861 **Email:** info@brainlens.org **Web:** brainlens.org
Description: LENS (Laboratory for Educational NeuroScience) focuses on developmental cognitive neuroscience research with the goal of maximizing children's potential to succeed in life. The Lab uses the latest brain imaging techniques, genetic measures, and computational approaches to examine the process of learning, including acquisition of skills such as reading, socio-emotional processing, motivation and resilience.

DANA ALLIANCE FOR BRAIN INITIATIVES

745 Fifth Avenue, Suite 900, New York, NY 10151
Phone: (212) 223-4040 **Email:** dabiinfo@dana.org or danainfo@dana.org **Web:** dana.org
Description: The Dana Alliance is a nonprofit organization of more than 200 preeminent scientists dedicated to advancing education about the progress and promise of brain research.

INQUIRING MINDS BOOKSTORE

65 Partition Street, Saugerties, NY 12477
Phone: (877) 647-0202 **Email:** mhr@hvc.rr.com **Web:** inquiringbooks.com
Description: Visit this onsite independent bookstore for the latest books on the brain and learning.

MIND, BRAIN & EDUCATION PROGRAM, HARVARD GRADUATE SCHOOL OF EDUCATION

Appian Way, Larsen Hall 714, Cambridge, MA 02138
Phone: (617) 496-1568 **Email:** mary_kiesling@gse.harvard.edu **Web:** gse.harvard.edu or imbes.org
Description: The masters degree program in Mind, Brain, and Education (MBE) is designed for students interested in connecting cognition, neuroscience and educational practice, especially involving learning, teaching and cognitive and emotional development.

NEW DIRECTIONS INSTITUTE

711 E. Missouri #300, Phoenix AZ, 85014
Phone: (602) 371-1366 **Email:** info@newdirectionsinstitute.org **Web:** newdirectionsinstitute.org
Description: New Directions Institute provides workshops and program materials for parents and early childhood educators with the brain in mind. Easy-to-understand messages about how a young mind "wires-up" for learning are shared using our patented Brain Boxes.

SCHOOLHOUSE EDUCATIONAL SERVICES

N253 Johnson Road, Stoddard, WI 54658
Phone: (608) 787-5636 **Fax:** (608) 787-5636 **Email:** paula@psychprocesses.com **Web:** Psychprocesses.com
Description: Schoolhouse Educational Services publishes and sells psychological tests and assessment software. Schoolhouse provides professional development in assessment and intervention, as well as memory interventionist training for psychologists and memory treatment for youth with memory impairments

STAR EDUCATION

10117 Jefferson Boulevard, Culver City, CA 90232
Phone: (310) 842-8040 **Fax:** (310) 842-8280 **Email:** terya@starinc.org **Web:** starinc.org
Description: STAR Education is a non-profit organization that has been providing innovative educational programming and professional development to students, teachers and families for over 25 years. STAR services more than 500 schools in over 60 districts, reaching over a million students and their families every year.

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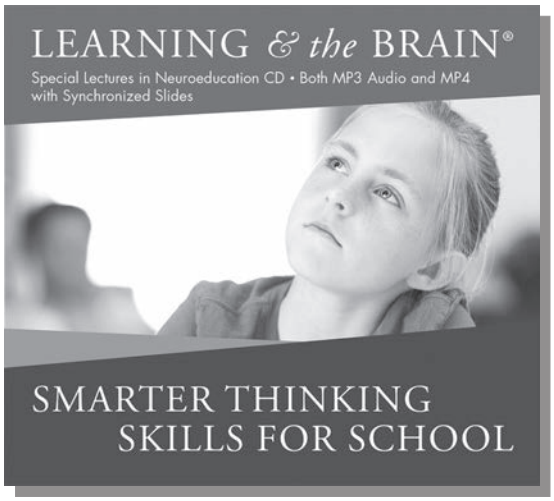

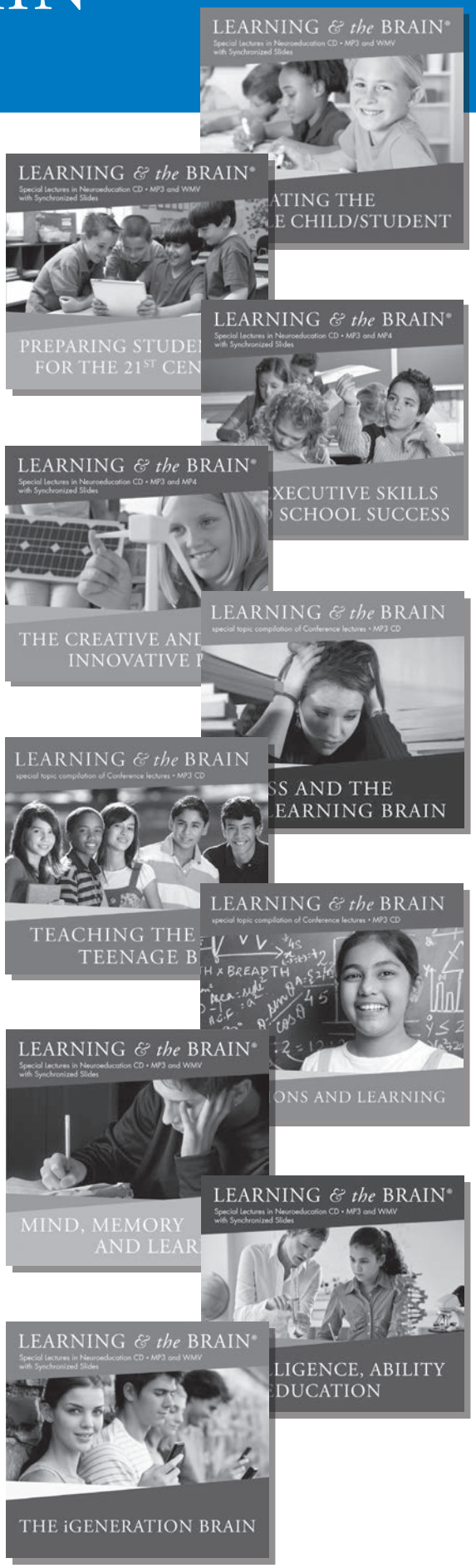

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CONTINUING EDUCATION CREDIT INFORMATION

Please read the following information regarding CE requirements:

Certificates of attendance are suitable for use to meet professional development requirements for educators and clinicians. Attendees can earn 16 contact hours of credit by attending the three-day conference. An additional 4 hours of credit are available for educators and some clinicians for attending pre-conference workshops for a total of 20 hours. The conference is 16 contact hours = 1.6 CEU or 16 PDPs and CEs. Speech-language credit is available for both the conference (1.6 CEUs) and pre-conference workshops (.4 CEUs).

In order to receive any professional development credit, you must do three things at the conference: 1) sign-in on your first day of the conference when you do check-in registration, 2) sign-out on the last day of the conference, and 3) fill out the evaluation/learning outcomes questionnaire in your program book on pages 35-36 and leave the form at the conference registration desk on your last day at the conference. Certificates will be emailed to you four weeks after the conference. **Speech-Language Pathologists** must fill out the evaluation form on the following page and must pick up the appropriate ASHA participation form(s) at the **Help/Information Desk** and must sign in and out of the conference each day. **Psychologists and School Psychologists** must pick up an APA evaluation form at the **Help/Information Desk** and must sign in the first day and sign out the last day of the conference. You can also receive additional credits by writing a paper on how you applied what you learned. For more details and questions, contact the CE Director, Kristin Dunay, at (781) 449-4010 ext. 104.

CE Available Credit:

Credit for Speech/Language Pathologists and Audiologists:

APPROVED PROVIDER ®
ASHA CONTINUING EDUCATION
AMERICAN SPEECH-LANGUAGE-HEARING ASSOCIATION

Public Information Resources, Inc. is approved by the Continuing Education Board of the American Speech-Language-Hearing Association (ASHA) to provide continuing education activities in speech-language pathology and audiology. **See course information for number of ASHA CEUs, instructional level and content area.** ASHA CE Provider approval does not imply endorsement of course content, specific products or clinical procedures.

SLP participants will be able to:

- Explain the latest brain research on memory, emotions and learning
- Apply strategies to increase retention, thinking and problem solving
- Use gestures, movement and action to improve thinking, language and math skills
- Teach students "how to learn" and classroom strategies to make them more "active"
- Provide mastery over complex knowledge and help students avoid the wrong ways to study
- Train the brain using technology to improve working memory and reasoning
- Explain the advantages of test-enhanced methods, spaced practices and forgetting
- Examine the benefits of kinesthetics and hands-on activities for longer memory
- Understand how sleep, exercise, movement, dance and gestures boost memory recall
- Apply "desirable difficulties" and discussions in class to enhance student comprehension
- Provide strategies for mnemonics, metacognition and metamemory
- Connect Common Core Standards to memory and active learning

Course Information: This program is offered for up to 1.6 CEUs (Intermediate level; Professional area). Pre-conference workshops are also available for additional .4 CEUs with details about these workshops on the Learning & the Brain website.

Credits for Psychologists and School Psychologists

Public Information Resources, Inc. (PIRI) is approved by the American Psychological Association to offer continuing education for psychologists. PIRI maintains responsibility for the program. Psychologists and school psychologists must complete the evaluation form to receive credit. Please pick up the form at the conference Help/Information Desk.

Credits for Certified Counselors

PIRI has been approved by the National Board of Certified Counselors to award CEU credits for certified counselors. (Provider #5947)

Certificate of Attendance for Educators – CEUs, PDPs, PLUs, CEs

PIRI is able to provide credits that qualify for the education departments in most states and are accepted by most districts. You may wish to check whether your state department of education requires special approved provider status. PIRI is a specifically approved provider in the Departments of Education in the states of CT, GA, IL, MN and TX.

Credits for School Social Workers

This program has been approved for up to 16-20 Continuing Education hours for relicensure. A Collaborative of NASW-MA and Boston College and Simmons College School of Social Work.

Credits for Education Therapists:

Public Information Resources, Inc. is approved to provide continuing education credits for Education Therapists through The Association of Educational Therapists (AET).

FEBRUARY SESSION CREDITS EVALUATION FORM

Please take a moment to let us know your level of satisfaction with the February 2015, LEARNING *& the* BRAIN® Conference. This form will also help verify your credit hours. Certificates of Attendance will be emailed to you 3 to 4 weeks after the conference. Please drop this form in the evaluation box at the registration area and sign out as you leave the conference.

(Please rate all the following from 1 to 10 (with 10=Excellent, 5=Average, and 1=Poor)

Your Name_____ **Mailing Address** _____

If applicable, please enter your **ASHA#** or **CT EIN#**. _____

Thursday, February 12: Pre-Conference Workshops (8:30 AM – 12:35 PM)

Please check the workshop you attended:

❍ Working Memory ❍ Test Taking & Study Skills ❍ Common Core Standards
❍ Reading Difficulties ❍ Power of Technology ❍ Teen Brains, Memory & Moves

PLEASE RATE:		PANEL/ADDITIONAL COMMENTS:
1. Quality of Instruction/Teaching	_____	_____
2. Instructor Knowledge/Expertise	_____	_____
3. New Knowledge/Skills Acquired	_____	_____
4. Content Met My Needs/Objectives	_____	_____
5. Visual Aids, Material Were Helpful	_____	_____

Thursday, February 12: Opening Keynote Session (1:45 – 5:30 PM)

PLEASE RATE (KEYNOTE GROUP __A __B):	H. ROEDIGER, PHD	S. BEILOCK, PHD	J. MOIZE, MED	B. CAREY, MA
1. Quality of Instruction/Teaching	_____	_____	_____	_____
2. Instructor Knowledge/Expertise	_____	_____	_____	_____
3. New Knowledge/Skills Acquired	_____	_____	_____	_____
4. Content Met My Needs/Objectives	_____	_____	_____	_____
5. Visual Aids, Material Were Helpful	_____	_____	_____	_____

Friday, February 13: Morning Keynote Addresses (8:30 AM – 12:30 PM)

PLEASE RATE (KEYNOTE GROUP __A __B):	S. CHAPMAN, PHD	L. SQUIRE, PHD	W. KLEMM, DVM, PHD
1. Quality of Instruction/Teaching	_____	_____	_____
2. Instructor Knowledge/Expertise	_____	_____	_____
3. New Knowledge/Skills Acquired	_____	_____	_____
4. Content Met My Needs/Objectives	_____	_____	_____
5. Visual Aids, Material Were Helpful	_____	_____	_____

Friday, February 13: Afternoon Concurrent Sessions A (1:45 – 5:35 PM) *Please check the session you attended:*

❍ Science of Learning ❍ Making Lasting Memory ❍ Embodied Minds, Language & Thinking
❍ Motion, the Arts & Learning ❍ Active Learning & STEM Education ❍ Memory & Encoding

PLEASE RATE:	PART I:	PART II:	PART III :	ADDITIONAL COMMENTS:
1. Quality of Instruction/Teaching	_____	_____	_____	_____
2. Instructor Knowledge/Expertise	_____	_____	_____	_____
3. New Knowledge/Skills Acquired	_____	_____	_____	_____
4. Content Met My Needs/Objectives	_____	_____	_____	_____
5. Visual Aids, Material Were Helpful	_____	_____	_____	_____

Saturday, February 14: Morning Concurrent Sessions B (8:30 AM – 12:30 PM) *Please check the session you attended:*

❍ Science of Learning ❍ Making Lasting Memory ❍ Embodied Minds, Language & Thinking
❍ Motion, CCSS & Learning ❍ Active Learning & STEM Education ❍ Memory & Cognitive Control

PLEASE RATE:	PART I:	PART II:	PART III :	ADDITIONAL COMMENTS:
1. Quality of Instruction/Teaching	_____	_____	_____	_____
2. Instructor Knowledge/Expertise	_____	_____	_____	_____
3. New Knowledge/Skills Acquired	_____	_____	_____	_____
4. Content Met My Needs/Objectives	_____	_____	_____	_____
5. Visual Aids, Material Were Helpful	_____	_____	_____	_____

(CONTINUED ON NEXT SIDE)

Saturday, February 14: Afternoon Concurrent Sessions C (1:30 – 3:45 PM)

Please check the session you attended:

❍ Science of Learning ❍ Making Lasting Memory ❍ Embodied Minds, Language & Thinking
❍ Motion, Teaching & Learning ❍ Active Learning & STEM Education ❍ Memory & Math Learning

PLEASE RATE:	PART I:	PART II:	PART III:	ADDITIONAL COMMENTS:
1. Quality of Instruction/Teaching	_____	_____	_____	_____
2. Instructor Knowledge/Expertise	_____	_____	_____	_____
3. New Knowledge/Skills Acquired	_____	_____	_____	_____
4. Content Met My Needs/Objectives	_____	_____	_____	_____
5. Visual Aids, Material Were Helpful	_____	_____	_____	_____

Conference Location/Staff

PLEASE RATE:		ADDITIONAL COMMENTS:
1. Enrollment Smooth & Efficient	_____	_____
2. Staff Responsive & Helpful	_____	_____
3. Quality of Facilities Adequate	_____	_____
4. Rate Conference Overall	_____	_____

Learning Outcome Questionnaire

Please list **the top three improvements** you would make to the conference:

1. _____
2. _____
3. _____

Please indicate whether the program met the learning/educational objectives of your personal, teaching, district, or clinical goals to improve learning, teaching or interventions. **Rate 1–10 (10=Strongly agree).**

1. Program provided new knowledge and strategies to improve memory retention, recall and learning. _____
2. Program provided strategies and research to use "embodied cognition" and active learning in classrooms. _____
3. Program provided interventions and technology for memory, metacognition, studying, language and math skills. _____

What changes to instruction, curriculum or intervention do you think you might make, based on what you learned from this conference, to improve student memory, learning, knowledge recall and retrieval, math, science and language skills? _____

_____

_____

_____

Please list the 3 most critical problems you face everyday on your job, clinical practice or classroom?

1. _____
2. _____
3. _____

Technology: Did you bring any of the following to the conference?

❍ Laptop ❍ Tablet ❍ Smartphone

Needs Assessment: Please fill out to help us in planning future conferences.

Area of your work: ❍ Primary School ❍ Middle School ❍ High School ❍ College/University
❍ Clinical ❍ Medical ❍ Private Practice ❍ Other _____

Topics: ❍ Research-Based Strategies ❍ Classroom Practice ❍ Stress/Anxiety ❍ Learning Disorders ❍ Reading/Dyslexia
❍ Child Development ❍ Teens ❍ ADHD ❍ Speech/Language ❍ Classroom Strategies ❍ Early Childhood
❍ Autism ❍ Emotions/Behavior ❍ Memory ❍ Adult Development ❍ Testing/Assessment ❍ Cognitive Skills
❍ Language ❍ Social Development ❍ Mood/Bipolar
Other Topics: _____

Please indicate the type of credit you need to receive:

❍ Educator ❍ Educator in CT, GA, IL, MN and TX ❍ Generic Certificate ❍ Social Worker ❍ Educational Therapist
❍ Certified Counselor ❍ Speech-Language Pathologist ❍ Other _____

Notes:

Notes: _____

Notes:

Notes: _____