Southeast Vermont Learning Collaborative

WINDSOR CENTRAL SUPERVISORY UNION

Barnard * Bridgewater * Killington * Pomfret * Reading * Woodstock * Woodstock Union Middle/High

The 3rd Biennial Educational Neuroscience Conference:

Exploring the Interface between Education, Neuroscience and Cognitive Psychology

Wednesday, May 9th, 2007
8 am to 4:30 pm

Killington Grand Hotel and Resort, Killington, VT

Making vital connections between educational practice and the latest research in developmental neuroscience and cognitive psychology

Presenters:

Daniel Ansari, Ph.D.
Assistant Professor, Department of Psychology, University of Western Ontario
How Children Develop a Sense of Numerical Quantity (Number Sense)

Donna Coch, Ph.D.
Assistant Professor, Department of Education, Dartmouth College
Brain and Behavioral Evidence Related to How Children Learn to Read

Peter Isquith, Ph.D.
Licensed Psychologist with a specialty in Pediatric Neuropsychology
Development and Disorders of Self-Regulation in Children and Adolescents

Gerard A. Gioia, Ph.D.
Director, Pediatric Neuropsychology Program, George Washington University School of Medicine
Director, Safe Concussion Outcome, Recovery and Education (SCORE) Program
Sports Concussion and Traumatic Brain Injury (TBI) in Children: What Teachers, Coaches and Trainers Should Know

Craig Bennett, M.A.
(Ph.D. candidate)
Department of Psychological and Brain Sciences, Dartmouth College
Some of the Latest Research on Adolescent Brain Development: The Role of the Insula in Decision-Making

Daniel Ansari, Ph.D.

How Children Develop a Sense of Numerical Quantity (Number Sense)

Is 9 larger than 5? How many miles from Killington to Woodstock? Everyday life requires us to use our sense of quantity effortlessly and without thinking too much about it. How does this ability develop? Do difficulties with math stem from an impoverished sense of quantity?

To discuss these issues and questions, I will review a series of studies which investigate how children develop a sense of numerical quantity (number sense), how their understanding of numerical quantity affects their mathematical skill development in school, and what brain processes are associated with this important developmental progression.

Donna Coch, Ph.D.

Brain and Behavioral Evidence Related to How Children Learn to Read

Reading is an amazingly complex task that requires development, interconnection, and coordination of multiple skills and neural systems. From the visual processing of letters, to the linking of letters and the sounds of language, to making meaningful connections to what the reader already knows, numerous neurocognitive systems are involved in the process of reading.

In this session, we will explore brain and behavioral evidence related to some of these systems.

Peter Isquith, Ph.D.

Development and Disorders of Self-Regulation in Children and Adolescents

Self-regulation in human beings is effected by a process in the brain known as executive function.

In this presentation we look carefully at the development and disorders of executive function in children and what teachers ought to know about how executive function (and malfunction) can influence student success in the classroom. We will also talk about the parts of the brain that are central to appropriate executive function, and some possible interventions that can be implemented when executive funtions are not operating optimally.

Gerard A. Gioia, Ph.D.

Sports Concussion and Traumatic Brain Injury (TBI) in Children: What Teachers, Coaches and Trainers Should Know

Mild traumatic brain injury is very much in the news these days. From concussions in sports-related injuries, to wounds suffered by our service men and women in time of war, to children falling from their bikes or skateboards, these insults to the brain can have a significant impact on people's lives.

This presentation will focus on the information that teachers, coaches, parents and others who monitor and support the lives of our children ought to know about minimal traumatic brain injury; how to recognize the signs and symptoms, how to intervene appropriately, and, most importantly, how to prevent such injuries from occurring in the first place. A special discussion will be presented for the benefit of coaches, trainers and athletic directors around the important issue of concussions in sports.

Craig Bennett, M.A.

Some of the Latest Research on Adolescent Brain Development: The Role of the Insula in Decision-Making

The road to adulthood is a long and circuitous path. While a majority of the brain's development is complete by the age of ten, areas of the brain that support our most complex and uniquely human cognitive processes are not fully mature until the mid-twenties.

This talk will discuss what we know about how the teen brain develops and will focus on how this maturing brain learns and re-learns how to interact with the outside world. Special focus will be placed on recent research about the insula, a small, and as yet not well studied, lobe of the cortex.

For More Information:
info@learningcollaborative.org
or Call toll free 866-889-0042

The Collaborative, a non-profit corporation, provides professional development services throughout southeastern Vermont