STRENGTHENING EDUCATIONAL FOUNDATIONS

IMPLICATIONS OF NEUROSCIENCE RESEARCH FOR CURRICULUM, EDUCATION, AND LEARNING
Co-organized by the UNESCO International Bureau of Education (IBE) and the International Brain Research Organization (IBRO), this event seeks to contribute to closing the gap between scientific knowledge on learning and its application to education policies and practice.

Tuesday, 17 May 2022
4:00-5:45 PM CET (Geneva)

Location
Online (Zoom meetings)

Registration
bit.ly/3KBpLB2

Time zone reference:
4:00 PM, Central European Time (CET)
10:00 AM Eastern Standard Time (EST)
7:00 AM Pacific Standard Time (PST)
4:00–4.15 pm
Welcome and opening remarks
Yao Ydo
Director, UNESCO International Bureau of Education (IBE)
Lars Kristiansen
Executive Director, International Brain Research Organization (IBRO)

4.15–5.15 pm
Panel presentations
Strengthening educational foundations: Implications of neuroscience research for curriculum, education, and learning
Moderator:
Paul Howard-Jones
University of Bristol, UK

From reinforcement learning to theory of mind: Developing a mechanistic understanding in children and adults
Jean-Claude Dreher
Institute of Cognitive Sciences
Marc Jeannerod, France

Teaching how to learn to reduce educational inequality
Grégoire Borst
University of Paris, France

5.15–5.40 pm
Discussion
Q & A with the audience

5.40–5.45 pm
Closing remarks
Paul Howard-Jones
University of Bristol, UK
CHILDHOOD

LEARNING
All of childhood is a special time for learning but brain development during the early years is particularly rapid, providing critical foundations for future learning, wellbeing, and life success.

During childhood, the influences of parents, caregivers, and teachers form part of those early experiences that help shape a child’s skills and enable their independence as learners. These influences have long-term consequences for developmental trajectory, with identifiable impacts reaching into professional adult life. Neuroimaging technology is helping us discover more about how the brain changes during learning and development in terms of its structure, connectivity and function. Importantly, cognitive neuroscience is also revealing how these changes interrelate with the experiences and emerging abilities of the child, providing insight into the contribution of early formal and informal education to enduring individual differences.

Understanding the neurocognitive processes by which early experiences – whether at home or in the classroom – contribute to learning and development is, therefore, crucial for attempts to improve educational outcomes. It also has implications for the way curricula and teaching methods are designed and implemented.
The event brings together current and former IBRO/IBE Science of Learning Senior Fellows, who present cutting-edge neuroscience findings with implications for education policy, teaching, and learning; as well as initiatives towards applying neuroscientific knowledge to strengthen teaching and learning. Their new insights and perspectives shed light on the significance of underlying learning and developmental processes for education and have the potential to powerfully contribute to global efforts to address the current global learning crisis and the future of learning.

It is hoped that the webinar will provide:

- A broader understanding of the "learning brain", which, in turn, can provide an additional tool for educators and caregivers to facilitate students' learning and development.

- A broader understanding of the many factors, within and beyond the classroom, which "sculpt" the unique brain of an individual learner, with direct implications for education policy makers and practitioners.

- An overview of new dimensions that have not traditionally or explicitly been linked to classroom learning, such as emotion, and underlying environmental, evolutionary, and biological variables—all factors that are both potential constraints and potential springboards for acquiring human learning and knowledge.

- A basic grounding about how the brain learns, which promises to expand teachers' education, help them avoid various neuro-romythical and empower them to approach their own practice more scientifically.

- A glimpse at new discoveries about the basic mechanisms of learning that can begin to authentically inform curriculum, education policy, and everyday practices of teaching and learning.
IBE Science of Learning Initiative

The IBE Science of Learning initiative is driven by the conviction that a robust analytic and scientific knowledge base and a deeper understanding of the science of learning, as well as the application of that understanding, can strengthen the facilitation of learning and improve learning outcomes.

Building a scientific groundwork for education and learning has the potential to revolutionize the current understanding of learning and to provide an expanded, updated, and potentially useful toolkit to shape educational practice and policy.

In 2016, the IBE began translating neuroscience research to better inform teaching, learning, and assessment practices. The IBE is building a community of practice of world-renowned scholars and prestigious academic institutions to help develop 21st century education systems that are supported by concrete evidence of how we learn. This translated knowledge is also integrated into the IBE’s training courses for teachers and curriculum specialists, placing them at the frontiers of knowledge and practice.

IBRO/IBE Science of Learning Fellowship

Since 2015, IBRO has been a key Strategic Partner of the IBE. The IBRO/IBE Science of Learning Fellowship continues to attract top senior neuroscientists, who assist the IBE in making findings of cutting-edge research substantively accessible to a large base of policy makers and practitioners.

Technical briefs produced by scholars in residence at the IBE are published on the IBE Science of Learning Portal:

→ solportal.ibe-unesco.org
IBE’S VISION

A WORLD WHERE EVERY PERSON HAS ACCESS TO RELEVANT, QUALITY EDUCATION AND LIFELONG LEARNING
Participation

The webinar will take place on 17 May 2022, at:

4:00 PM, Central European Time (CET)
10:00 AM Eastern Standard Time (EST)
7:00 AM Pacific Standard Time (PST)

The webinar is open to all interested stakeholders, including, but not limited to: staff from international organizations and other agencies; ministers of education; curriculum specialists; educators; etc.

A special invitation is extended to the Permanent Missions to the United Nations Office at Geneva (UNOG); UNESCO HQ and Field Offices staff; and UNESCO National Commissions.

Technical platform and interpretation

The webinar will be held in English, with simultaneous interpretation to French, conducted through the Zoom webinar platform.

Interested participants should register by 17 May 2022 through this form:

bit.ly/3KBpLB2

Contact information

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IBE VISION