



## **Technology and Attention: New Pathways for Learning & Teaching**

**Abstract:** Attention is the mechanism in the brain responsible for processing the signals coming from the senses, and as such serves as the gateway to learning. Handheld devices like smart phones and tablet computers are especially well suited for differences in attention, and I will show how these can help manage attention and at the same time promote implicit learning so as to address the strengths of diverse learners, focusing on those with dyslexia and ADHD.

**Biography:** Dr. Matthew H. Schneps is the director of the Laboratory for Visual Learning (LVL)\*, Research Professor in Computer Science at the University of Massachusetts Boston, and a visiting fellow at the Harvard Graduate School of Education. For 35 years prior, he was a member of the Harvard-Smithsonian Center for Astrophysics (CfA), where he helped establish the Science Education Department there. He is well known for his work in educational television media that includes the award-winning programs "A Private Universe", and "Minds of Our Own" broadcast worldwide (famous for scenes of Harvard and MIT graduates struggling with concepts about the seasons). In recent years he has been conducting research in cognitive psychology to investigate how individual differences in neurology, including those associated with dyslexia, ADHD, and autism spectrum disorders, effects how people learn science. An outgrowth of this work is the development of an innovative technique for reading for people with dyslexia using mobile devices, research carried out through funding from the National Science Foundation in the US, and other sources. Schneps was awarded the George E. Burch Fellowship in Theoretic Medicine and Affiliated Sciences in 2010 - 2012. A scientist with dyslexia, who writes and speaks on the advantages of dyslexia, Schneps received his PhD in physics from MIT in 1979.

\*The LVL is a research collaborative of UMass Boston and the Dynamic Development Laboratory at the Harvard Graduate School of Education.  
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