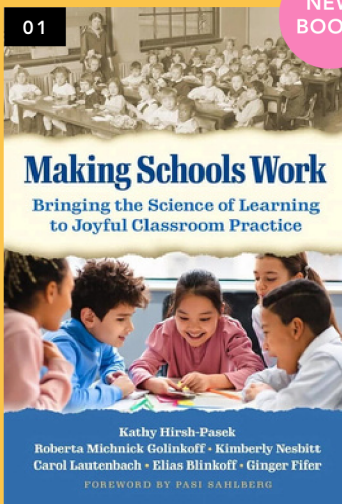




TEMPLE  
INFANT  
& CHILD  
LABORATORY

# NEWS YOU CAN USE

Where children teach adults.



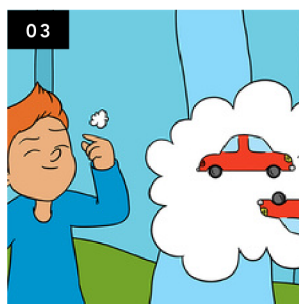
## **Making Schools Work: Brining the Science of Learning to Joyful Classroom Practice**

Not merely an ordinary book about re-imagining education, this book is a theory, a plan, an implementation strategy, and a series of case studies to show you just how to change your educational mindset. It demonstrates, with hands-on examples, how a change in educational mindset can improve student outcomes on both standardized tests and a breadth of 21st-century skills. [Learn more](#)



## **Speaking of Psychology, APA Podcast: Why We Learn Best Through Play, with Kathy Hirsh-Pasek**

In December, Dr. Kathy Hirsh-Pasek was a guest on the **Speaking of Psychology** podcast, produced by the American Psychological Association. She spoke with host Kim I. Mills about the importance of play, the role of technology in play, and how parents can encourage more play in the lives of their children. [Learn more](#)



## **Make Space: The Importance of Spatial Thinking for Learning Mathematics**

Spatial thinking allows you to understand the location and dimension of objects, and how different objects are related. It also allows you to visualize and manipulate objects and shapes in your head. Practicing spatial games can improve spatial performance. In this article we look at evidence that suggests that spatial training may also improve mathematics.. [Learn more](#)

## Featured Projects



### Active Playful Learning

The Active Playful Learning (APL) project has been busy training our participating teachers across the country! Generously funded by the LEGO Foundation, our team is working with teachers in Texas, California, Illinois, and Virginia. Coaches will work with teachers one-on-one to help them implement classroom pedagogy that meets the 6 Pillars of Playful Learning - ensuring that content is Active, Engaging, Meaningful, Socially Interactive, Iterative, and Joyful.



### Playstreets

Dr. Molly Scott presented at the Society for the Study of Human Development on the Free Library of Philadelphia and Fab Youth Philly's involvement on "Playstreets", a summer program by Philadelphia Parks and Recreation. Playstreets closes off designated city streets to traffic so children have a safe place to play and learn when school is out. Molly showed both groups' facilitation with children in the summer of 2021 and how this contributed to children's activity and language use on the streets. Stay tuned to see some outcomes from Playstreets 2023 in our next newsletter!



### Early Childhood Education Research – Bright Horizons

Our team is excited to partner with Bright Horizons to bring Playful Learning Landscapes to early childcare centers! We co-designed PLLs with educators from six centers around Philadelphia including a dancing game that targets children's math skills and a story wheel that targets literacy skills. Researchers from TICL evaluated how the PLL activities impacted teacher-child interactions and children's math and literacy knowledge pre- and post-installation. We are analyzing the results and are excited to learn more about how PLLs impact interactions and learning outcomes in early childcare settings.



### Technoference

The purpose of the technoference study is to better understand how 4- to 7-year-olds' social judgments, their evaluations of an adult's epistemic trustworthiness (e.g., knowledge-based trust) and interpersonal trustworthiness (e.g., social-based trust), and their learning are impacted by technology use during a shared book reading activity. Forty-five children have participated thus far, and data collection is ongoing. Findings will deepen our understanding of how technology impacts learning and the development of trust.

## Updates

- **Congratulations to Elias Blinkoff**, who earned his PhD and will be working with the Active Playful Learning team.
- **We recently finished recruitment for our Marvelous Moments project**, and are thrilled to be bringing back participants for Year 2! This Spring, the Marvelous Moments team will get a chance to present their findings at psychology conferences across the country.
- **Temple Tour, led by Doctoral Student Kim Nguyen**, also finished recruitment this Fall! We are very proud of Kim and undergraduate Gigi Campos on all of their hard work!
- **Congratulations to Dr. Merve Tansan**, who completed her Doctoral Dissertation in November! She will be continuing with the lab as a Post-Doctoral Research Fellow. This upcoming summer, Dr. Tansen will be running a week-long "spatial summer camp" for middle schoolers at our Ambler campus.

## Studies in the Spotlight



**Marvelous Moments:** How do children learn to remember, and what does that look like in the developing brain? To find out, we recruited 4-7-year olds to follow over a year of their life as they develop and change. For this study, children made a visit to our lab twice, and then twice again for the next two years. During these sessions, they watched cartoons, talk about things they've done recently, play memory games, and receive an MRI scan.



**Home Sweet Home:** How do children apply their learning to new situations? To find out, we're recruiting typically developing children ages 3 – 8. Children will play a fun computer game where they will be asked to learn where different animals live in an imaginary land.



**Animal Sounds:** How do children aged 4, 6, and 8 years form memories by associating animal sounds with visual stimuli? In a 30-minute online session via Zoom the child sees a pair of animal pictures and sounds, and then gets tested to see if the child remembers those pictures, sounds, and pairs of them.



# Findings in the Field

## Outsmart Your Brain: Why Learning is Hard and How You Can Make It Easy

By Daniel T. Willingham

"Charming and practical...Outsmart Your Brain should be required reading for any college student and for many professionals....Few investments in life will be better repaid than learning how to learn."

*The Wall Street Journal*

”



"The best book I've read on how anyone can learn the tactics of the most successful students"  
Angela Duckworth, New York Times bestselling author of Grit

## Outsmart Your Brain

Why Learning is Hard and How You Can Make it Easy

DANIEL T. WILLINGHAM



01



### Fantasy Is a Valuable Educational Tool. Just Look at 'Barbie'

Kathy Hirsh-Pasek's article for Education Week on how the popular movie reminds us of the power of imagination in learning. Fantasy offers an important way to nurture learning and problem-solving skills. Educators should feel free to lean into the fun of exploring fantastical worlds to capture and sustain students' attention and to highlight important aspects of their lessons.

02



### Tracking the winds of change on American education policy

Early childhood education is at a turning point. Research identified the prevalence of "schoolification" in which traditional academic instruction is imposed on our youngest learners. However, new state laws in New Hampshire, Oklahoma, and Connecticut offer a different path forward with their support of play-based learning. An October 2023 blog for the Brookings Institution by Elias Blinkoff, Kathy Hirsh-Pasek and colleagues put these policy changes in context and advocated for their implementation with attention to evidence from the science of learning.

03



### We're Going Global! With the support from the LEGO Foundation, we have been studying other cultures approach to education

**Bringing playful learning to South Korea: An alternative pedagogical approach to promote children's learning and success** - Korean society values skills such as creativity and confidence, but the current education system fails to support children in

developing these skills. This study introduces a Playfu Learning model that addresses the "what" and "how" of learning within the context of longstanding Korean value systems. By addressing misconceptions about play, providing safe play spaces, and allocating time for play, Korea has the potential to lead the International Playful Learning Movement.

**Another case of the theory to practice gap: South Korean early childhood education and care** - Another study surveyed 182 Korean early childhood educators to explore how teachers conceptualize play from a science of learning perspective. It highlights a misalignment between teachers' beliefs regarding free play and research supporting guided play for achieving learning goals. The study suggests further modifications to the Nuri Curriculum and continuous professional development for teachers to align more closely with the science of learning.

**How do cultural values influence teacher's beliefs about teaching?** A current study on cross cultural differences investigates how cultural values and early childhood education and care (ECEC) sets the stage in South Korea, Spain, and Germany to influence ECEC teachers' pedagogical beliefs. The findings emphasize the notable differences in teachers' pedagogical beliefs among the three countries, underscoring the substantial impact of cultural values and ECEC background on the development of these beliefs. By recognizing and addressing these culturally nuanced perspectives, policymakers and advocates stand to meaningfully advance the quality of ECEC on a global scale.

GOTTA BE DONE!



THE KIDS' TABLE

ACTIVE PLAYFUL LEARNING  
DR. MOLLY SCOTT

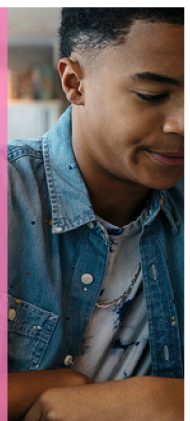
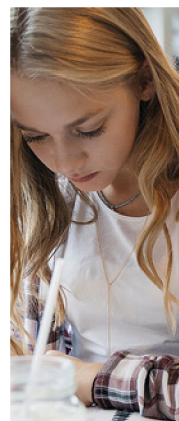


**Dr. Molly Scott, Associate Director of the Active Playful Learning project**, was recently featured on 2 podcasts. Hosted by former lab members Dr. Katelyn Fletcher and Dr. Hailey Gibbs, The Kids' Table highlights all things child development and **Molly spoke about** how we are bringing guided play into classrooms across the United States. A passionate fan of the children's show **Bluey**, Molly (along with former lab member Doug Piper), was featured on the Australian podcast, It's Gotta Be Done - **they spoke about how developmental science** crops up throughout the show.

### Spatial enhancements to boost learning of science and math

In this article for IBE co-written by Nora Newcombe, the authors argue for the potential of working with teachers to use spatial enhancements in communicating about STEM material.

[Read now](#)



# Updates from the Directors



**Kathy Hirsh-Pasek**, a Professor of Psychology at Temple University and a senior fellow at the Brookings Institution was declared a “scientific entrepreneur” from the American Association of Psychology. Writing 17 books and 250+ publications, she served as President of the International Congress for Infant Studies, was on the Governing Board of the *Society for Research in Child Development* and is on the board of *Zero to Three*. Her *Einstein Never Used Flashcards* won the Book for a Better Life Award in 2003 with her *Becoming Brilliant* (2016) reaching the NYTimes Best Sellers List in education. Her newest book *Making Schools Work* (Nov. 2022) is the first education book co-written with teachers, administrators and scientists. It already sparked a national grant to re-imagine education. Hirsh-Pasek won awards from every psychological and educational society for her basic science and translational work designed to bridge basic science and educational impact. She also was honored with the Simms Mann Award and the Association of Children’s Museum *Great Friend to Kids Award*. She is a founding member of the Latin American School for Educational and Cognitive Neuroscience, she spearheaded a global network of scientists devoted to educational science. Co-founder of the global Learning Science Exchange Fellowship (LSX), she brings together scientists, journalists, policy makers and entertainers, to put learning science in the hands of educators. In 2021, she was elected as a member of the National Academy of Education. Her initiative *Playful Learning Landscapes* re-imagines cities and public squares as places with science infused designs that enhance academic and social opportunities. Hirsh-Pasek frequently comments for the press (e.g. NPR, NYT) and blogs for the Brookings Institution.

**Nora Newcombe, Ph.D.**, is a Laura H. Carnell Professor of Psychology at Temple University. Dr. Newcombe was educated at Antioch College, where she graduated with a major in psychology in 1972 and at Harvard University, where she received her Ph.D. in Psychology and Social Relations in 1976. She taught previously at Penn State University. Her research in cognition and cognitive development has centered on spatial cognition and on episodic memory, along with translational work on STEM education. She served as the PI of the NSF-funded Spatial Intelligence and Learning Center (SILC) from 2006-2018, headquartered at Temple and involving Northwestern, the University of Chicago and the University of Pennsylvania as primary partners. Dr. Newcombe currently serves as Past President of the International Mind Brain Education Society (IMBES), and as Editor of *Psychological Science in the Public Interest*, a journal of the Association for Psychological Science.

Honors include the Distinguished Scientific Contributions Award from the Society for Research in Child Development, the William James Fellow Award from APS, the Howard Crosby Warren Medal from the Society of Experimental Psychologists, the George Miller Award and the G. Stanley Hall Awards from APA, the Award for Distinguished Service to Psychological Science, also from APA. She has received three mentor awards, from Women in Cognitive Science, APA Division 7, and APS. She is a fellow of four divisions of the American Psychological Association (General, Experimental, Developmental, and Psychology of Women), of the Association for Psychological Science, and of the American Association for the Advancement of Science, and has been a Visiting Professor at the University of Pennsylvania, Princeton, the Wissenschaftskolleg in Berlin and the University of Otago. She is a member of the American Academy of Arts and Sciences and the Society of Experimental Psychologists.



Thank you to our sponsors: The LEGO Foundation, William Penn Foundation, Vanguard Strong Start for Kids, NSF, The Bezos Foundation, Stan & Debra Lefkowitz, NIH