



In and out of school

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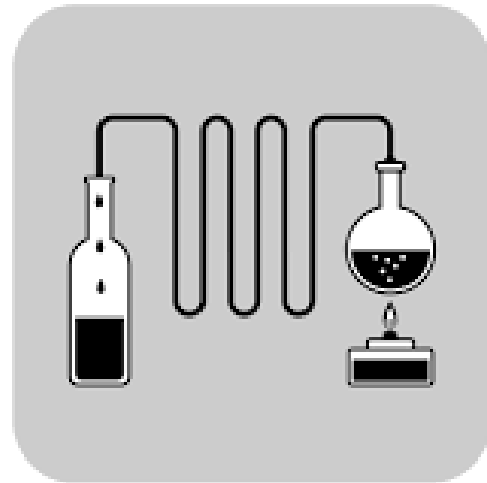
As Yuval Noah Harari wrote in 2018

- *The Industrial Revolution has bequeathed us the production-line theory of education. ... almost everybody agrees that no matter its past achievements, it is now bankrupt.*

What the Year 2050 has in Store for Humankind

We offer a NEW approach for learning scientists as we respond to the global educational crisis

Ask **what we know** about learning, not just what **we do not know**



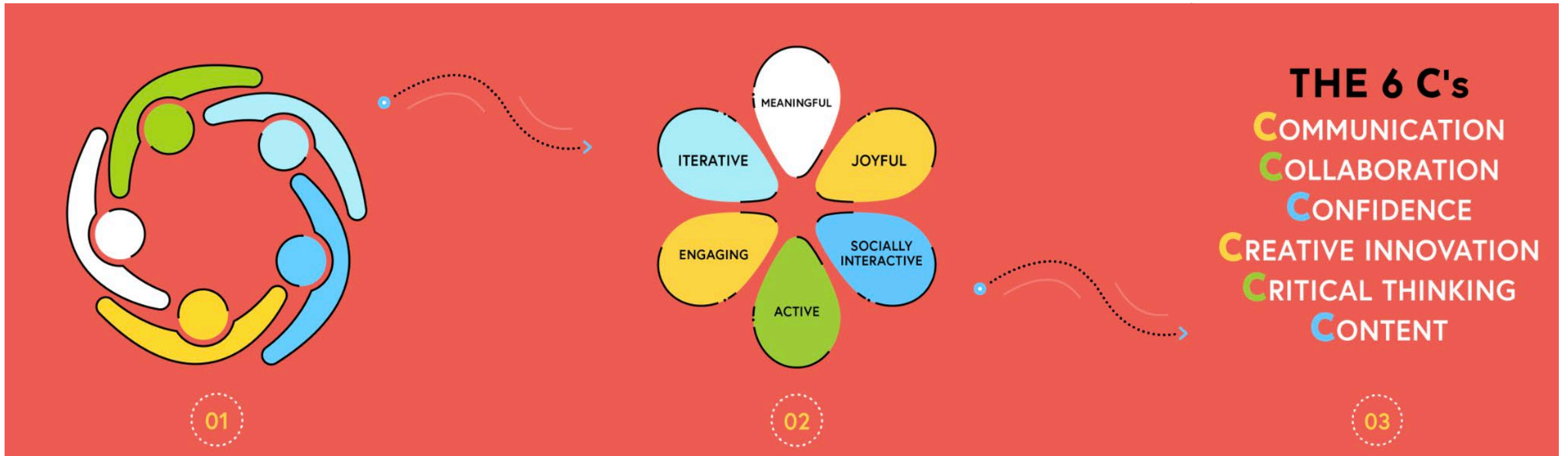
Can we distill a set of principle about learning (and how to create joyful teaching) from 50 years of research??

Using the science of learning as a base, we came to an evidence-based, 3-part equation for re-imagining education

Cultural values

+ The science of *how* children learn

+ The science of *what* children should learn



With a learning goal +
Playful Learning

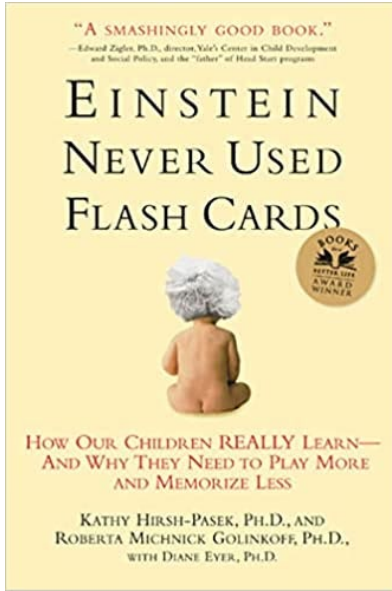


For this work,

We use co-constructed design process

That allows for diverse stakeholders and community members to design together – ensuring more inclusive intergenerational learning that incorporates cultural values

Bermudez, V., Salazar, J., Garcia, L., Ochoa, K., Roldan, W., Soto-Lara, S., Gomez, W., Rodriguez, R., Hirsh-Pasek, K., Ahn, J., & Bustamante, A. (2023). Designing culturally situated playful environments for early STEM learning with a Latine community. *Early Childhood Research Quarterly*, 65, 205-216. Hirsh-Pasek et al., (2022) *Making Schools Work*



Active Playful Learning or “Guided Play”



Learning Goal



REVIEW | Open Access |

Can guidance during play enhance children’s learning and development in educational contexts? A systematic review and meta-analysis

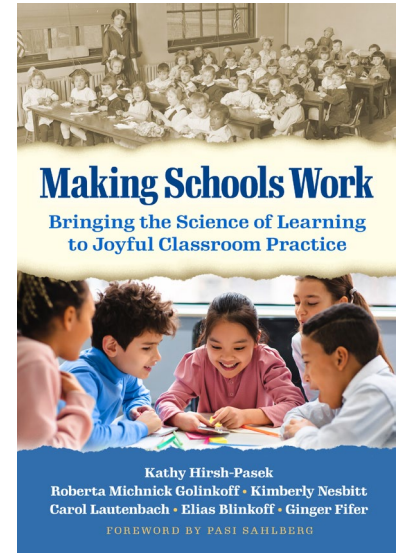
Kayleigh Skene, Christine M. O’Farrelly , Elizabeth M. Byrne, Natalie Kirby, Eloise C. Stevens, Paul G. Ramchandani

Science



EDUCATION
Active learning: “Hands-on” meets “minds-on”

Hirsh-Pasek & Golinkoff, 2021



A way of looking at Playful Learning (Guided Play)

Initiated By

Child

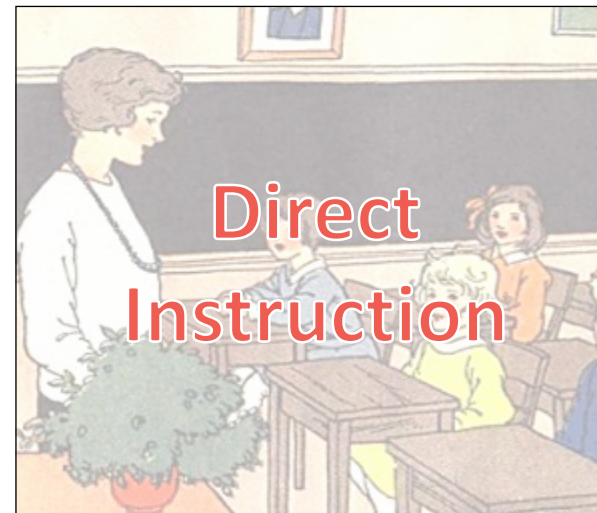
Adult

Child



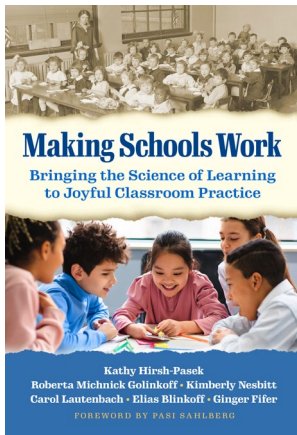
Directed By

Adult



And then look at a consensus view of WHAT children need to learn : The 6Cs

		Collaboration	Communication	Content	Critical Thinking	Creative Innovation	Confidence
	Level 4	Building it together	Tell a joint story	Expertise	Evidence	Vision	Dare to fail
	Level 3	Back and forth	Dialogue	Making connections	Opinions	Voice	Calculated risks
	Level 2	Side by side	Show and tell	Wide breadth / Shallow understanding	Truths differ	Means-end	Where do I stand?
	Level 1	On my own	Raw emotion	Early learning / Situation specific	Seeing is believing	Experimentation	Barrel on



A Breadth of Skills approach

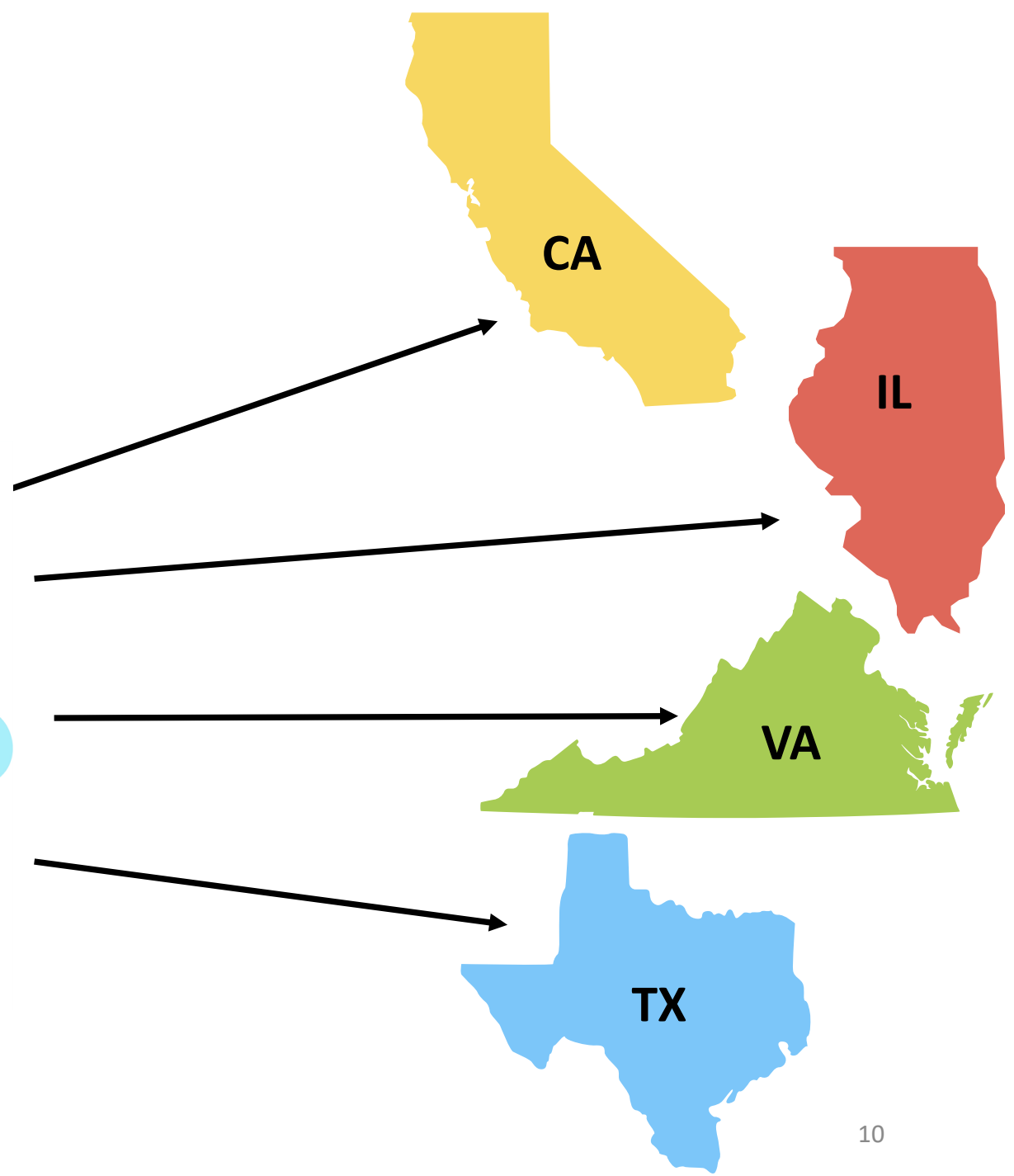


Thus far, Preliminary work in schools has been promising

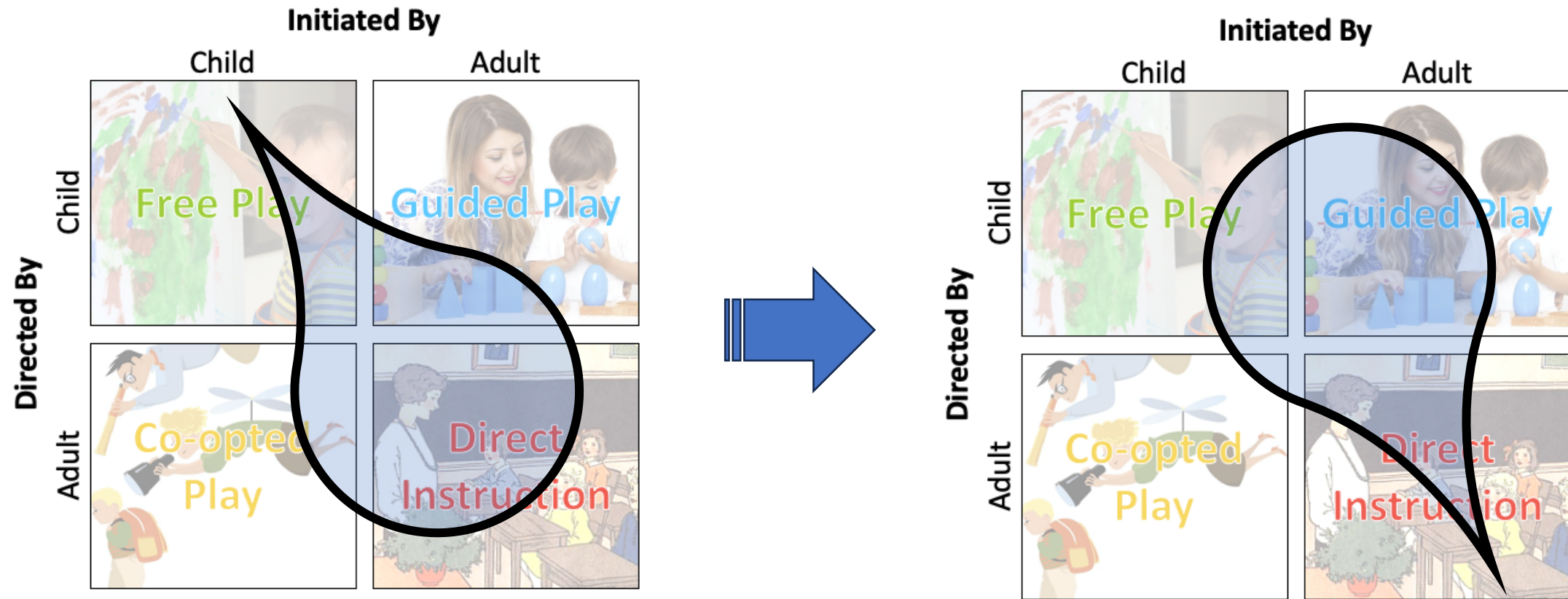
- In teacher enjoyment
- In some standardized tests
- In some of the 6Cs

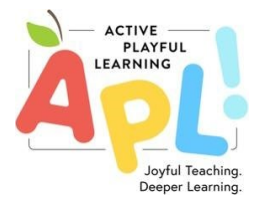
Active Playful Learning Scale-Up Study

The
LEGO
Foundation



Our Goal? To have classrooms move from ones dominated by direct instruction to ones using more guided play





How???

- Using the 3-part equation
- And applying the principles of how children learn
- Through a group of simple changes in the classroom
- That lead to joyful learning and stronger outcomes (6Cs)

- Use of small and paired groupings
- Student conversations
- Hands-on and Minds-on
- Choice and Voice
- Enthusiasm and positivity

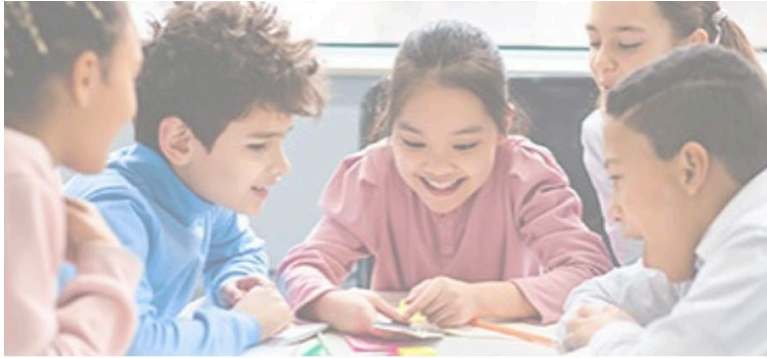


Small not whole group learning
 Student conversations
 Hands on /Minds on
 Choice and Voice
 Meaningful Learning
 Enthusiasm and Joy



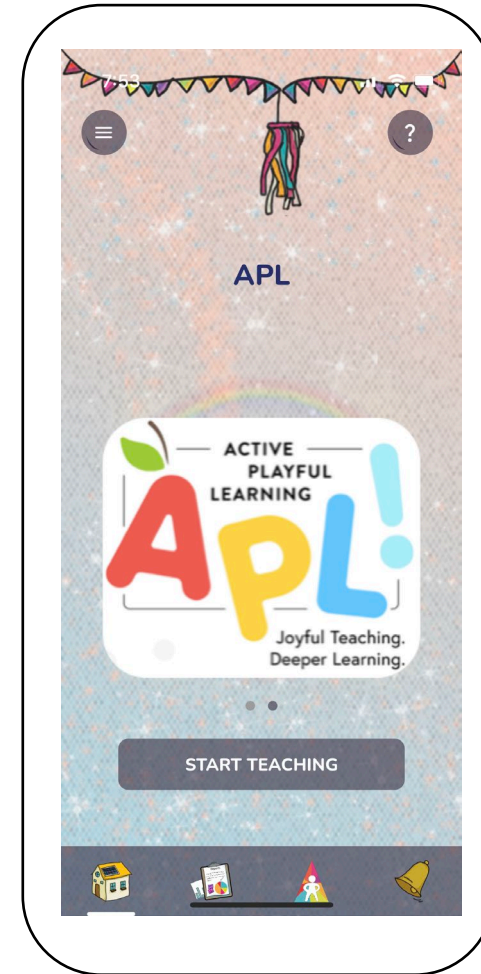
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We are creating teaching manuals and forms for this approach – and-- we share



ACTIVE PLAYFUL LEARNING

Coaching Manual



This work is supported by pilot data and an extensive research base!

Shifting from a Classroom of Reluctant Compliance to a Classroom of Responsive Curiosity

Elias Blinkoff, Charlotte Anne Wright, Molly Scott, Katelyn Fletcher, Allyson S. Masters, Hande Ilgaz, Lien Vu, Kathy Hirsh-Pasek, and Roberta Michnick Golinkoff

Ms. Castellanos is a new kindergarten teacher at an underserved elementary school in a large US city. A week before students arrive, she enters her classroom, eager to set up and plan lessons using what she learned in graduate school.

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Investigating the contributions of active, playful learning to student interest and educational outcomes

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Powering a Learning Society During an Age of Disruption pp 151-164 | [Cite as](#)

Playful Learning Landscapes: Convergence of Education and City Planning

Authors: [Helen Shwe Hadani](#), [Rebecca Winthrop](#), [Kathy Hirsh-Pasek](#)

Open Access | Chapter | First Online: 23 May 2021 | 1 | 23k

CHILD DEVELOPMENT PERSPECTIVES

Learning Landscapes: Where the Science of Learning Meets Architectural Design

Andres S. Bustamante¹, Brenna Hassinger-Das², Kathy Hirsh-Pasek^{3,4} and Roberta M. Golinkoff⁵

¹University of California, Irvine, ²Pace University, ³Temple University, ⁴The Brookings Institution, and ⁵University of Delaware

Parents in a Life-Sized Board Game: Comparing Caregivers' and Children's Question-Asking across STEM Museum Exhibits

Caroline Gaudreau¹, Andres S. Bustamante², Kathy Hirsh-Pasek^{3,4}, and Roberta Michnick Golinkoff⁵

Making schools work: An equation for active playful learning

Kimberly T. Nesbitt, Elias Blinkoff, Roberta Michnick Golinkoff & Kathy Hirsh-Pasek

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Library and Information Science Research

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Play-and-learn spaces: Leveraging library spaces to promote caregiver and child interaction

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^h Center for Universal Education, Brookings Institution, 1775 Massachusetts Avenue NW, Washington, DC 20036, USA

Brief Interventions Influence the Quantity and Quality of Caregiver-Child Conversations in an Everyday Context

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Urban Thinkscape: Infusing Public Spaces with STEM Conversation and Interaction Opportunities

Brenna Hassinger-Das, Itai Palti, Roberta Michnick Golinkoff & Kathy Hirsh-Pasek

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