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Why Young Kids Learn Through Movement

Children acquire knowledge by acting and then reflecting on their experiences, but such opportunities are increasingly rare in school.



Raheb Homavandi / Reuters

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One of my children is spinning in a circle, creating a narrative about a princess as she twirls. The other is building a rocket ship out of a discarded box, attaching propellers made of cardboard and jumping in and out of her makeshift launcher. It is a snow day, and I've decided to let them design their own activities as I clean up and prepare a meal. My toddler becomes the spinning princess, imagining her character's feelings and reactions. What seems like a simple story involves sequencing, character development, and empathy for the brave princess stuck in her tower. The rocket ship my first grader is working on needs a pilot and someone

to devise the dimensions and scale of its frame; it also needs a story to go with it. She switches between roles and perspectives, between modes of thinking and tinkering.

This kind of experiential learning, in which children acquire knowledge by doing and via reflection on their experiences, is full of movement, imagination, and self-directed play. Yet such learning is increasingly rare in early-childhood classrooms in the U.S, where many young children spend their days sitting at tables and completing worksheets. [Kindergarten](#) and [preschool](#) in the U.S. have become more and more academic, rigorously structuring kids' time, emphasizing assessment, drawing a firm line between "work" and "play"—and restricting kids' physical movement. A [study](#) from the University of Virginia released earlier this year found that, compared to 1998, children today are spending far less time on self-directed learning—moving freely and doing activities that they themselves chose—and measurably more time in a passive learning environment.

With so few years under their belts, my 3- and 6-year-old daughters are still learning to inhabit their bodies. They are learning how to maneuver themselves physically, how to orient themselves in space. As Vanessa Durand, a pediatrician at St. Christopher's Hospital for Children in Philadelphia, says, freedom of movement is necessary for children to meet their developmental milestones: "Children learn by experiencing their world using all of their senses. The restriction of movement, especially at a young age, impedes the experiential learning process."

Movement allows [children to connect concepts to action](#) and to learn through trial and error. "If you walk into a good kindergarten class, everyone is moving. The teacher is moving. There are structured activities, but generally it is about purposeful movement," comments Nancy Carlsson-Paige, a professor emerita of early-childhood education at Lesley University and the author of *Taking Back Childhood*, describing the ideal classroom setup. In the classroom culture she advocates for, "[Kids] are getting materials for an activity, they are going back and deciding what else they need for what they want to create, seeing how the shape of a block in relation to another block works, whether they need more, does it

balance, does it need to be higher, is it symmetrical. All of these math concepts are unfolding while kids are actively building and moving.”

Research has shown time and again that [children need opportunities to move in class](#). [Memory and movement are linked](#), and [the body is a tool of learning](#), not a roadblock to or a detour away from it. Any parent who has brought home a kindergartener after school, bursting with untapped energy yet often carrying homework to complete after a seven-hour day, can reasonably deduce why [children today have trouble keeping still](#) in their seats. Many children are getting 20-minute breaks, or none at all. (In Florida, parents whose children have [no recess](#) have been campaigning to legislate recess into the curriculum.) Recess, now a more frequent topic of research studies, has been found to have [“important educational and developmental implications.”](#) Schools that have sought to integrate more movement and free play, such as short 15-minute recess periods throughout the day, have seen [gains in student attention span and instructional time](#). As Carlsson-Paige points out, “Recess is not a separate thing in early-childhood education.”

“Children need opportunities to move in class.”

Ben Mardell, a professor of early-childhood education at Lesley University and the project director of the [Pedagogy of Play initiative at Harvard’s Project Zero](#), observes that even when adults do incorporate play into learning, they often do so in a way that restricts free movement and agency. “The idea that there should be formal instruction makes it no longer play,” says Mardell. “In play the player is choosing to participate, choosing a goal, and directing and formulating the rules. When there is an adult telling the kids, ‘This is what we are supposed to do,’ many of the important developmental benefits of play get lost.”

The role of play has been established not just as a part of learning, but as a [foundation for healthy social and emotional function](#). The National Association for the Education of Young Children has published widely circulated position papers on the need for [developmentally appropriate teaching practices](#) and for reversing

the “unacceptable trends in kindergarten entry and placement” that have been prompted largely by policy makers’ demand for more stringent educational standards and more testing. Some teachers are enacting changes, seeking ways to bring movement back into the classroom. Lani Rosen-Gallagher, a former first-grade teacher for New York City public schools and now a children’s yoga instructor, explains the shift in thinking: “I would have [my students] get out of their seats every 15 minutes and take a Warrior Pose or Lion’s Breath, and then I could get 15 more minutes of work out of them.” This kind of movement, she said, also gives children space to develop self-awareness and self-regulation, to get to know themselves as thinking individuals by connecting with the body.

Play-based preschools and progressive schools (often with open room plans, mixed-age groups, and an emphasis on creativity and independence) are seeing increased popularity. Enrichment programs engaging children in [movement with intention](#) (yoga, meditation, martial arts) are also gaining traction.

These kinds of methods seek to give children back some of the [agency their young minds and bodies crave](#), as less play and mobility lead to an [uptick in anxiety](#) in ever-younger students and even, according to Durand, a growing number of cases of children who need to see occupational therapists. [Mindfulness](#) practices such as guided breath and yoga can help [mitigate the core symptoms of ADHD in children](#), (an [increasingly common diagnosis](#)), while [the arts](#) encourage self-expression and motor-skill development.

Emily Cross, a professor in the School of Psychology at the United Kingdom’s Bangor University, explains the impact of movement on memory and learning: New neuroscience research, she said in an email, shows that active learning —“where the learner is doing, moving, acting, and interacting”—can change the way the brain works and can accelerate kids’ learning process. While passive learning may be easier to administer, she added, it doesn’t favor brain activity. Cross, whose research focuses on pre-teens and young adults, said she’s found “very clear evidence that when learners are actively engaged with moving their own bodies to music, in time with avatars on the screen, their performance is vastly

superior to when they're asked to engage in passive learning ... [There are] striking changes in brain activity when we combine dance and music in the learning context." In other words, people absorb a newly acquired skill-set better while doing, engaging their bodies rather than simply observing.

These research findings echo the observations and methodologies of educators who promote active learning. As Sara Gannon, the director and teacher at Bethesda Nursery School, a highly regarded play-based preschool in New Haven, Connecticut, that favors experiential learning over direct instruction, in an email notes: "Unfortunately, there has been so much focus on forcing the academics, and young children are being asked to do what they are just not ready to do ... Of course, we do teach letters and sounds, numbers and quantities—but through experiences and within a context. That means, hands-on: counting the number of acorns a child found on the playground, building with unit blocks, sounding out a child's name as they learn to write it, looking at traffic signs on a walk." Yet while such developmentally oriented programs may benefit children, for now they're unlikely to become widespread given the current focus on assessment and school readiness, particularly in underserved communities.

As my girls continued creating their own activity stations and imaginary worlds, the contrast between how children operate versus what is often expected of them was apparent. It would be unwise and impractical to pretend that children do not need any structure, or that academic skills are unimportant in school. Yet it is necessary to recognize that the early-childhood classroom has been significantly altered by increasingly rigorous academic standards in ways that rarely align with how young children learn.

ABOUT THE AUTHOR

LARA N. DOTSON-RENTA is a writer based in New York. She is the author of *Immigration, Popular Culture, and the Re-routing of European Muslim Identity*.
