

Creative Play Makes for Kids in Control

by ALIX SPIEGEL

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It's playtime at the Geraldyn O. Foster Early Childhood Center in Bridgeton, N.J., and in one corner of a busy classroom, 4-year-olds Zee Logan and Emmy Hernandez want to play bookstore.

In a normal preschool, playing bookstore would be a pretty casual affair. They would just pick up some books, set the shiny toy cash register on the table by the blackboard, and get down

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to business.

Q&A: The Best Kind of Play for Kids

Organizing play for kids has never seemed like more work. But researchers Adele Diamond and Deborah Leong have good news: The best kind of play costs nothing and really only has one main requirement — imagination.

[Here, they answer your questions about play.](#)

But this isn't a normal school. It's based on the Tools of the Mind program. In other words, it's a school where almost every moment of the day is devoted in some way to teaching the kids — mostly low-income children who live in the poor surrounding community — how to regulate their behavior and emotions.

So before Emmy and Zee even think about picking up a toy, they sit down with their teacher at a small classroom table and fill out some paperwork.

That's right. Paperwork.

On a small blank form, they spell out their intentions. "I want to play bookstore," each girl writes with assistance from her teacher.

Then she draws a picture of herself playing bookstore.

Then, together with her teacher, she reads back her intention so that everyone is clear about what is going to happen.

Finally, each girl grabs an armful of props and makes her way to the corner, where (as in most preschool classrooms) strong disagreements about the appropriate way to play bookstore ensue.

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Transformation in Play

Now, the reason that the Tools of the Mind curriculum asks kids like Zee and Emmy to fill out paperwork before they pick up the Play-Doh lies in the fact that today's play is very different from the play of past eras.

For most of human history, children played by roaming near or far in packs large and small. Younger children were supervised by older children and engaged in freewheeling imaginative play. They were pirates and princesses, aristocrats and heroes.

But, while all that play might have looked a lot like time spent doing nothing much at all, it actually helped build a critical cognitive skill called executive function. Executive function has a number of elements, such as working memory and cognitive flexibility. But perhaps the most important is self-regulation — the ability for kids to control their emotions and behavior, resist impulses, and exert self-control and discipline. Executive function — and its self-regulation element — is important. Poor executive function is associated with high dropout rates, drug use and crime. In fact, good executive function is a better predictor of success in school than a child's IQ.

Losing Skills

Unfortunately, play has changed dramatically during the past half-century, and according to many psychological researchers, the play that kids engage in today does not help them build executive function skills. Kids spend more time in front of televisions and video games. When they aren't in front of a screen, they often spend their time in leagues and lessons — activities parents invest in because they believe that they will help their children to excel and achieve.

And while it's true that leagues and lessons are helpful to children in many ways, researcher Deborah Leong says they have one unfortunate drawback. Leong is professor emerita of psychology and director of the Tools of the Mind Project at Metropolitan State College of Denver.

She says when kids are in leagues and lessons, they are usually being regulated by adults. That means they are not able to practice regulating themselves.

"As a result," Leong says, "kids aren't developing the self-regulation skills that they used to."

That is why, in a Tools of the Mind program like the one at Geraldyn O. Foster Early Childhood Center, almost every minute of the day is spent building executive functions.

The Freeze Connection

Children walk in the door and are asked the question of the week: a practice intended to work on deliberate memory. This work is followed by a highly modified version of a musical game that might otherwise be familiar to parents of preschool children: Freeze.

In a normal game of Freeze, music plays and children dance and jiggle until the music abruptly cuts off and the children freeze in place. But in the Tools version, as the music plays, the teacher holds a picture of a stick figure in a certain pose above her head. The children are supposed to observe the position of the figure without doing it, and when the music ceases, they assume that position and that position only.

Celeste Merriweather, an early childhood supervisor at the school, explains that the important part of the Freeze game is the practice of controlling impulses by observing the stick figure without immediately doing as the stick figure does. This helps then when they're older, she says. Later in life, if they get angry, instead of punching or yelling, they're able to stop themselves.

The Freeze dance, while fun, also builds self-regulation, she says.

Merriweather ticks off a long list of other activities that teach such skills. After Freeze, there is Buddy Reading — another impulse-control practice.

As she explains it, not even recess is innocent fun: "It's not just 'run out in the yard.' No. We want them to make a plan: What do you want to do, and how do you want to do it?"

Thinking Ahead

According to executive function researcher Adele Diamond, all of these little exercises genuinely do improve the ability of children to control themselves. Diamond, professor of developmental cognitive neuroscience at the University of British Columbia, recalls the very first time she ever set foot in a Tools of the Mind classroom.

"I was totally blown away. The kids were sitting together working quietly. It was like a second-grade classroom instead of a preschool classroom. I couldn't believe it," Diamond says.

Diamond has no financial or professional connection to the Tools of the Mind program. She's just a researcher who decided to test the program. She followed 147 preschoolers. Half the kids were given Tools training; half followed the regular school curriculum. After two years, the children all took a series of tests that measure executive function. The Tools kids did better.

"Children who were in the [school] district curriculum performed roughly at chance. And the kids in the Tools program were about 85 percent correct," Diamond says. "So those are big differences."

Diamond says there are potential benefits to this training that go beyond improved executive-function scores. She and several other researchers argue that children's reduced self-regulation skills may be showing up in the numbers of kids diagnosed with Attention Deficit Hyperactivity Disorder.

"I think a lot of kids get diagnosed with ADHD now, not all but many just because they never learned how to exercise self-control, self-regulation, the executive functions early," she says.

Q&A: The Best Kind of Play for Kids

by VIKKI VALENTINE

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Old-Fashioned Play Builds

Play has never seemed more like work.

Serious Skills

Elaborate toys, busy schedules and the demise of recess have left children with fewer opportunities for imaginative play — and it shows. Researchers say changing the way children play has changed their emotional and cognitive development.

Sending kids off to play used to be a break — for children and their parents. But now, with thousands of play options, from elaborate princess dresses and video games, to a cultural emphasis on structuring every minute of a child's time, play has become stressful and expensive.

But neuroscientist Adele Diamond and psychologist Deborah Leong have good news: The best kind of play costs nothing and really only has one main requirement — imagination.

When children learn to rely on themselves for playtime — improvising props, making up games and stories — they're actually developing critical cognitive skills, including an important one called "executive function," they say. Essentially, executive function is the ability to regulate one's own behavior — a key skill for controlling emotions, resisting impulses and exerting self control and discipline.

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Diamond is a professor of developmental cognitive neuroscience at the University of British Columbia. Leong is a professor of psychology at Metropolitan State College of Denver, and co-author of the book, *Tools of the Mind: The Vygotskian Approach to Early Childhood Education*.

Below, they answer your questions on how children can get the most out of play.

Almost all people agree that video games can be a downfall for our children. Do you think that Wii gaming is going in a better direction as far as getting children moving with video games? — Carol Halliburton, Dover, Tenn.

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It's a good brain exercise for children to make their own props and assign them roles, like a good-old fashioned tin can phone.

Wii will certainly help with visual-motor skills and perhaps reducing obesity, but I do not think it will help with executive functions. A superior Wii player will react automatically. For improving executive functions, you need games that require children to stop and think, where their first impulse would often

not lead to the best result. Certainly, a video game could be constructed that challenged executive function skills, but I have not seen any like that. — Adele Diamond

We are looking at preschools for our twins. What questions should we ask? If they allow free time for play, is that enough? — Lisa Payne, Los Angeles

You should ask how much time is devoted to play each day and whether it's free play or supervised or planned play.

Free time for play is better than no or little play, but it is not enough.

For example, social pretend play is an excellent means for exercising and building up the executive functions of working memory (children must hold their own role and those of others in mind), inhibitory control (children must inhibit acting out of character), and cognitive flexibility (children must flexibly adjust to unexpected twists and turns in the evolving plot). But social pretend play doesn't have much value if children are free to abandon a play scenario after a few moments or are not held accountable for staying within their chosen role.

And play needs to be facilitated by adults who are trained in observing children and in understanding how play contributes to children's mastery of concepts and skills. — Adele Diamond

My son is a 4-year-old who loves to engage in imaginative play. His favorite is to pretend that we are an animal family of some kind. But he will not do this kind of play alone. He insists on having a playmate, either me or a child his age. Is this a problem? — Martha Stinson, Alexandria, Va.

It is not at all important that he play alone. It's very good that he enjoys social imaginative play. — Adele Diamond

Is there any way to turn the process around again in the adolescent years? Is there a way through imaginative play to restore in high school students what they may have lost out on in their early childhood years? — Beverly Opalka, Waukegan, Ill.

Yes, imaginative play can be helpful at any age, as can martial arts, dance, music, many sports or storytelling. What you are looking for is a fun activity that requires sustained concentration, holding information in mind and using it (often complex information), and something that requires resisting what might be your first inclination. — Adele Diamond

I teach kindergarten and I notice that a lot of play focuses on recreating TV shows or movies. How can I encourage more creative play? — Julie Bernstein, Oak Park, Il.

Vivian Gussin Paley, a longtime kindergarten teacher and MacArthur "genius" award winner, has written wonderful books about having children make up stories and then act them out with their classmates. The children took great pride in seeing their stories become the study of a class drama. I suggest that you take a look at her books. — Adele Diamond

You suggest encouraging children to talk to themselves. How does one do this? — Cat Gould, Phoenix, Ore.

When you, as an adult, want to make sure that you remember to do something correctly, you may silently repeat the instruction to yourself. It helps you to regulate your behavior. The same is true for children, but even more so. They need more support for self-regulation, and they can't yet do that silently, so they say it out loud.

With a 5-year-old, you can tell him that if he repeats something to himself, it will help him to remember. So if they are trying to learn to spell something, for example, tell them they will remember it better if they spell it silently to themselves.

With even younger children, have them tell a friend or say it aloud to help themselves remember. So, for example, if a child is trying to remember his phone number, we would ask the child to say the phone number, or we would ask the child to tell a friend the phone number. — Deborah Leong

I teach kindergarten in a public school. How much of a full 7.5-hour day do you recommend be given to play? How do I defend this choice to parents and administrators who want to see children learning to read at this age? — Lauren Salazar, Springfield, Va.

We believe that children in kindergarten should engage in play at least 30 to 40 minutes each day. This is not just wandering around from thing to thing, but planning the play in advance with other children — where the play is negotiated with the group, where there are roles and pretend scenarios, based on books, that develop and change with the story line.

This kind of play is about developing reading skills, and it promotes the kind of creativity and flexibility in thinking that is measured in creativity tests. When children engage in this kind of make-believe play — which is more akin to dramatizing the story— they are playing with the components of the story, and they deepen their understanding of the story line, and how they can change the story.

For instance, I saw these little girls, they were playing Cinderella, and one time they would pretend the step-sisters were nice, and one time they would pretend Cinderella was mean. They were playing around with the characters and the story line, which helps the comprehension skills they'll need when they're fluent readers.

The second thing is that they are really immersing themselves in the world of the author, just like when an adult reads a book and the words disappear — you're living the story, and that's what they're practicing doing. It's really important in kindergarten that the play be a take-off on stories they read or that are read to them. Preschoolers play what they know, what they've experienced. But in kindergarten, play should be totally imaginary. — Deborah Leong and Adele Diamond

Does supplying children with props for unstructured imaginative play, such as simple costumes and accessories, help or hinder their level of self-regulation? — Deana Porretta, Clarksville, Tenn.

The more children need to use their imagination and hold in mind what they selected a given object would stand for, or what role each person decided to play, the better. Therefore, it's better not to use costumes or accessories that are targeted for specific scenarios, e.g. doctor or fireman, but rather for children to use available materials to come up with their own way to identify the fireman and what they want to stand for the water hose. — Adele Diamond

I am virtually a single mother to a 4-year-old healthy, smart, happy girl. In order for me to be

able to get things done, I have resorted to TV and DVD movies to keep her unfocused on me. What is the acceptable max amount of TV time? — *Githa Spring Hampson, Santa Monica, Calif.*

There is no set amount of time, but the less time the better. Getting your child interested in drawing something, stacking blocks, building (or dismantling) something, or telling a story to a stuffed animal would be far better for her development if you can get her engaged in that. — Adele Diamond

I have a 13-month-old son. What kind of activities could you suggest for that age group to encourage imagination? — *Connie Clifford, Freeport, Maine*

You can play hiding games with him, where you hide something and he needs to find it. You can turn those into a problem-solving task by putting a barrier in the shortest path to the hidden treat so that your son needs to detour around to retrieve what you've hidden.

You can also play simple versions of the game Concentration. You have a set of cards that are put in rows and columns, and you get to turn over two cards on your turn. If those cards match, you get to keep the cards.

Say you turn over a panda bear as your first card — you have to remember where the other panda is.

You don't need cards — you can use cups with little toys underneath, like little animals or little balls. But they only get to keep the toys when they have two of a kind.

Or try multiple-step imitation games, such as putting a tiny animal on one end of a stick from an ice cream pop (using the stick as a lever), and then showing the child that if you press down on the other end of the stick, the tiny animal goes flying. Such imitation games tax working memory and could be great fun for your son for long extended periods at a time. — Adele Diamond

My daughter will be 3 next month. She loves imaginative play, but when we play together, she is extremely bossy toward me. She constantly tells me I am doing things "wrong." Do I indulge her and let her make all the rules? — *Sheri Hyman, Brooklyn, N.Y.*

Your daughter sounds very normal for her age. She is engaging in "other regulation," that is, regulating other people. "Other regulation" is the first step in learning to regulate oneself. It is easier to see what others should do, and when others make mistakes, than to see what you yourself should do and when you yourself make a mistake.

It is fine to talk about taking turns, but she may not be able to do that quite yet. You could suggest what to do, such as, "We could do this or this," and then, importantly, let your daughter choose.

You could also perhaps turn the pretend situation into your child telling a "dolly" what to do. Sometimes giving an inanimate object the duty of doing what your daughter wants can help a lot.

Note, it is one thing when you are playing with your child, and another when you are telling her to go to bed. It's not good to give into her whims when you are telling her to do something she needs to do. — Deborah Leong

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