"Where do the bears go?" 4-year-old Tyler asks.
"Not with the lions. They'll fight," replies Juan, a 5-year-old.

By adding a basket of stuffed bears to the classroom zoo, Ms. Ellison, a preschool teacher, intentionally creates disequilibrium in the children's play. The bears are new to their zoo and now need a place to be. Inside the basket just doesn't work for either Tyler or Juan, but putting them in the same space as the lions isn't a choice Juan is willing to consider. Ms. Ellison uses a change in the environment to create an opportunity for these children to work together to solve a problem they find important. Because solving any problem requires creative and critical thinking, the skills these children learn in solving the problem of the bear enclosure will be useful to them as they tackle other problems. Working together, they will look at ideas in different ways and construct new knowledge (Riley & Jones 2010).

Child-directed play induces problem solving
"We'll have to build another cereal box house," Juan says.
"NO!" Tyler is quick to respond. "Don't you remember, this one took a hundred days?"
"No, it didn't," Juan says, defiantly.
"Ms. Ellison, Tyler says it took a hundred days to build our cereal box house."
When children are responsible for solving a problem together, different ideas, perspectives, and opinions may result in conflict. The children place lions in a house they built together from empty cereal boxes. The basket of bears looks to Juan as though they need a space as large as the one they gave to the lions, so building a new cereal box house seems to be the ideal solution to their problem. Tyler, on the other hand, remembers how long it took them to collect boxes and construct the original cereal box house as “a hundred days,” or a very, very long time. For Tyler, the solution Juan proposes is impossible. At an impasse, Juan turns to the teacher for help.

“Hmmm,” replies Ms. Ellison. “Let’s go look on the calendar for the day we began, and you can count.”

The boys hurry to the home center where their classroom calendar hangs. They quickly flip back the pages and begin counting from April 10. It takes several tries before the boys agree that they built the house in just 43 days.

Instead of telling the children the information they need, Ms. Ellison provides scaffolding to help the boys access previous knowledge and use their math skills to solve the problem. This teaching strategy serves two purposes: the children have a meaningful way to practice previously learned skills, and they resolve a conflict regarding information the boys remembered differently.

**Child-directed play enriches math learning**

Ms. Ellison taught calendar concepts in the context of the sociodramatic play. Because time is very abstract and especially difficult for preoperational thinkers (ages 2–7) to understand (Piaget 1977), a calendar hangs in the home center. Dates are circled and labeled for important classroom events. The children often decide whether a date should be circled and if they need to count how many days it is until the event will occur. They had marked the first day of construction for their cereal box house and the day they finished it.

Even though Ms. Ellison is nearby to support them in their counting, she leaves the responsibility of arriving at an accurate count to the children. They apply the concepts of consecutive counting, one-to-one correspondence, and an understanding of the days of the week. Because their project spanned more than one calendar month, they apply concepts of day, week, and month to answer their question. The play has led to practice of previously learned skills in an authentic and meaningful context.

Scaffolding serves two purposes: the children have a meaningful way to practice previously learned skills, and they resolve a conflict regarding information the boys remembered differently.

Four-year-old Megan immediately reports that with only eight school days left, they cannot make a bear’s house in time. “In eight days, it is summer,” she says. “It’s marked right here on the 24. I circled it last week.”

A heated yet constructive discussion begins among several children as they try to decide whether it is possible to build another cereal box house.

Estimation and concept of number are very apparent in Megan’s understanding of time. With the new information—there are only eight days until school is out for the summer—it is clear to Megan that Juan’s idea to build another cereal box house will not work. Not all of her classmates come to the same conclusion. At this stage of development, they are teetering between the perspectives of “What I am thinking, you are thinking, too” and “There may be two perspectives, and yours may be different from mine” (Piaget 1977). Ms. Ellison allows the debate to continue until it is apparent that the children cannot examine a viewpoint or idea that is not their own.

The discussion is interrupted by Ms. Ellison’s quiet comment, “I wonder what Hyun is building in the block center?”

Juan and Tyler are the first to reach Hyun and ask her what she is building with the large wooden blocks and planks. Before she can answer, they are already asking if the bears could live there.

“What’s what it is,” Hyun answers. “It’s a bear cave. It’s the Big Hungry Bear’s cave.”

**Child-directed play requires symbol representation**

Hyun bypasses the group attempt to find a home for the bears and goes directly to the block center to build a bear cave. The fact that in her mind it is the Big Hungry Bear’s cave reflects her recall of a favorite story that the teacher has read aloud and made available in the library corner. Hyun remembers that bears live in caves. Using concepts of symmetry, shape, and size, her structure is large enough
to comfortably house the full basket of bears and still have room for the zookeeper to enter to feed and care for them.

Through her play, Hyun has learned the concept that one thing can be two things at the same time, or that she can use one thing to represent another thing (Elkind 2007). She uses basic blocks to represent a cave, just as the cereal boxes represent a lion’s den. This representation concept will serve her well as she learns that letters are used to represent sounds and are combined to make words that represent things and ideas. One word can have two meanings. One set of letters can be two different words. Numerals represent a specific number of objects, and symbols represent mathematical operations.

**Child-directed play enriches literacy**

Not entirely satisfied, Megan states clearly that there is no way to tell which is the lion house and which is the bear cave. The children seem stumped.

After a moment or two, Ms. Ellison, who is keenly aware of Megan’s interest in writing, casually comments, “I wonder if signs would help?”

Megan excitedly hurries to the writing center and begins creating signs. Soon she is joined by three friends who help complete the signs. With tape and signs in hand, the children begin labeling.

The writing center borders the home center so that the children have easy access to the materials they need to incorporate written and oral language into their play. In the first week of school, children learn about the use, purpose, and care of the wide variety of supplies and tools in the writing center. All items are immediately available for their use.

**Through their play, the children practice and stretch their language skills, build vocabulary, and experiment and figure out how language works.**

Creating a literacy-enriched play environment reflects the belief that literacy is found in every part of our lives. Although taught intentionally during a specific time of the day, writing instruction is purposefully embedded throughout the day. Children practice their literacy skills because those tools are essential to their play. So it naturally follows that literacy becomes intricately woven into the children’s play (Lillard et al. 2013). They use play to direct their learning, gaining understanding through self-created learning experiences (Elkind 2007).

Megan’s signs are accurately spelled and accompanied by illustrations. The other signs are accurate sound spellings—for example, BERZ KAV. Shamia determines that initials will do; her sign reads A R H B T K S. When asked for interpretation, she reports, “It says, ‘Alligators are here because they can swim.’”

While Megan is capable of sound spelling, she usually prefers the “real way.” The words on Megan’s signs are spelled correctly because she either asked a teacher to spell them or copied labels in the writing center. Shamia has picked up on the teacher’s earlier instruction that there are many times people don’t want to take the time or use up the space to write their entire name, so they use initials. The other children use their knowledge of letter sounds to represent the words they are writing. Through their play, the children practice and stretch their language skills, build vocabulary, and experiment and figure out how language works.

When all the signs are appropriately hung, the children announce, “We are the sign makers for the zoo!”

**Child-directed play is carefully scaffolded**

In response to this announcement, Ms. Ellison uses the gathering time that follows center time to lead the children in a webbing activity titled Jobs at the Zoo.

As the children name the zoo workers, Ms. Ellison writes the job titles inside ovals on a whiteboard around the central oval titled Jobs at the Zoo. Writing the job titles provides a visual representation of the roles children may assume during their play and also models how letters form words that represent ideas.

During the webbing activity, a lively discussion occurs around feeding the animals—what they prefer to eat and how they get their food.

“The lions just leave and go get some meat and then come back,” says 4-year-old Brian. “No one can stop them.”
“No, they don’t,” 5-year-old Jaelee responds quickly. She is a regular zoo patron. “People feed them. They feed them at the same time every day. I saw them!”

In the context of their play, the children’s ideas on how the animals get their food become explicit. Brian’s schema—the mental framework he uses to organize new information—allows the lions to leave their enclosures to obtain food, but Jaelee’s experience challenges Brian’s existing ideas. After listening to the discussion and noting the many inaccuracies being suggested and accepted by the group, Ms. Ellison adds new information by showing a video on zoo dieticians and animal diets. The discussion that follows forces Brian to look at his schema of lions getting meat from an entirely different perspective. The social interactions in the play press Brian to accommodate the new information by creating a new understanding of how zoo lions obtain meat.

**Child-directed play provides opportunities for decision making**

At center time the following day, the children are highly motivated to create a zoo kitchen. The home center is the logical location. Bowls, measuring cups, and plastic fruits and vegetables are already present. The children ask Ms. Ellison to fill the sensory table with sand and place it in the home center so they can include the sand in their zoo recipes.

“But we need water,” 5-year-old Austin claims. Fully aware that water has never been allowed in the home center, he glances at Ms. Ellison to see her reaction to his request. When there is no verbal response, he begins his defense.

“The cook in the video used water for everything. It makes the food soft, and it cleans up the messes. I only need a little, or maybe a lot.” He pauses. With only a smile from the teacher, he knows his idea has been approved.

Immediately, he begins recruiting friends to make the long trip across the room from the sink to the zoo kitchen with measuring cups of water in hand. “I need five cups for the monkey mush,” he instructs. He counts off five friends.

“Walk slow and careful if your cup is full. Or you can fill it halfway and go twice.” Pausing to think, he then says, “Yes, if it’s half full you have to go twice.”

Four-year-old Qamar, listening well but always able to come up with ideas of her own, says, “Not me. I’m going to carry two cups and go one time.”

Austin has internalized the rule of no water in the home center and stays within the boundaries, even though it doesn’t work with his play. He is clearly confident enough to share this disequilibrium with the teacher,
pressing his point until he receives the desired concession. Still, he respects the reason for the rule. The water is far away from the home center, and it may spill when it is carried from the sink to his table. Trying to stay within this boundary, he verbalizes his defense for an exception by explaining different solutions. These important decisions that emerge in the narrative of the children’s play help them see cause and effect and aid in their self-regulation (Riley & Jones 2010).

Austin organizes the crew by using one-to-one correspondence to select five friends to retrieve five cups of water. That works if they each carry a full cup, but if they carry only half a cup to avoid spilling, then there won’t be enough water. He demonstrates an automatic response to the relationship of half to whole when he instructs the children to then go to the sink for water twice. Qamar carries that concept one step further when she announces that

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**Early Learning Standards Addressed in This Play Scenario**

**Emotional**
- Learn the skills needed to regulate their emotions, behavior, and attention
- Develop a sense of competence and positive attitudes toward learning, such as persistence, engagement, curiosity, and mastery

**Social studies**
- Become a part of the classroom community; feel accepted and have a sense of belonging
- Develop skills for entering into social groups, developing friendships, helping, and other prosocial behaviors
- Explore social roles in the family and workplace through play and learn about the community
- Build a foundation for understanding economic concepts (e.g., by playing restaurant, managing a store, and identifying and exchanging money)

**Oral language and conflict resolution**
- Interact positively, respectfully, and cooperatively with others; learn from and with one another; and resolve conflicts in constructive ways
- Learn to understand, empathize with, and take into account other people’s perspectives
- Use and understand oral and written communication
- Develop competence in verbal and nonverbal communication by responding to questions; communicating needs, thoughts, and experiences; and describing things and events
- Develop vocabulary through conversations, experiences, and books

**Writing**
- Become familiar with print through active involvement in making sense of print, and by having opportunities to become familiar with, recognize, and use print that is accessible throughout the classroom
- Write (including scribbling, making letter-like marks, and using developmental spelling) using writing materials and activities readily available in multiple centers
- Write on their own, through access to the alphabet and to printed words about topics of interest

**Mathematics**
- Build an understanding of numbers, number names, and their relationships to object qualities and to symbols
- Build an understanding of time in the context of their lives, schedules, and routines
- Integrate mathematical terms into everyday conversation
- Understand the concept of measurement by using standard and nonstandard units of measurement

**Science**
- Categorize by one or two attributes such as shape, size, and color
- Learn key content and principles of science

**Creative arts**
- Express ideas and feelings creatively
she can carry two half-full cups at the same time and arrive with one full cup in one trip. When the children do math with their bodies in the context of their unfolding story, motivation and long-term retention are greatly enhanced. In fact, Riley and Jones (2010) claim that learning beyond facts requires active involvement.

Positive feelings of self-efficacy are evident in the control the children exhibit over the materials in their environment and over their own actions.

During another structured group time, the children transform a large cardboard box into a zoo train, then paint and decorate it with animals. Each day, the children add blocks for chairs. There is room for six passengers and a conductor. Snacks are available for passengers, and children make tickets in the writing center.

These children are confident decision makers. With an idea of the elements of the zoo train, they rearrange the materials in the classroom to meet the staging requirements of their story. Positive feelings of self-efficacy are evident in the control the children exhibit over the materials in their environment and over their own actions. The many choices teachers offer help these children make wise decisions and be comfortable with their outcomes (Riley & Jones 2010).

Child-directed play aids development of self-regulation

Jaelee takes over the ticket-writing process and instructs the others to write down what it costs to ride the train. Most children write numbers from 1 to 9, but indicate that it means nine dollars. A few ask how to make their tickets say $1.00, so Ms. Ellison writes a model on the whiteboard in the writing center.

Jaelee illustrates a sign and asks the teacher to write “Buy Tickets Here” on it. She hangs it on the cabinet near the train, and puts the tickets in an oatmeal box from the home center.

She stands by faithfully, making sure everyone purchases a ticket before entering the train box. “How many would you like?,” she asks, in a really sappy, sweet voice. “Enjoy your ride.”

The pitch and tone of Jaelee’s voice reflect her understanding of the character she portrays in their story—matching, no doubt, the voice of the ticket taker at her local zoo. While every child who visits the zoo asks for a ride on the train, the rules about tickets and money, snacks, and even “enjoying the ride,” become more clear as they incorporate these elements into their play.

Jaelee delegates the ticket sales to 4-year-old Peter after 11 minutes and returns to the writing center to make more tickets. She is close enough to Peter to correct his ticket-selling approach quite often.

Jaelee understands the rule about purchasing a ticket before riding the train at the zoo and is very precise in regulating her peers’ observance of that rule. She knows her role in the play and stays in character without trying to assume the role of conductor or passenger played by other classmates. She maintains that role for an extended period before finding another job her character needs to do, and then delegates the actual ticket sales to Peter.

Even though Jaelee allows Peter to sell the tickets while she makes more, she continues to monitor his performance and coaches and corrects him as she feels necessary. Peter is willing to accept Jaelee’s directions regulating

Nurture and encourage young writers in the most natural, developmentally appropriate way—through play!
his behavior so he can remain part of the zoo train play. The train scenario within the zoo narrative represents very high levels of skill in social interaction. Not only are these children regulating one another, they are accepting regulation from one another and self-regulating. The self-regulation learned in sociodramatic play will be transferred to other activities and increase their performance in all learning domains (Bodrova & Leong 2007).

**Conclusion**

The children’s delighted excitement, serious decisions, and focus on creating cohesiveness in the story as it unfolds could be value enough for defending the importance of child-directed, sociodramatic play—and yet the learning that happens in the play is so much more. The conflict inherent in sociodramatic play gives children opportunities to practice thinking critically to solve the problems that emerge. Decision making during play leads to children’s positive self-efficacy and confidence in their control over themselves and their environment. When the play becomes more important than individual egos and ideas, children begin to regulate others and to self-regulate. As play stories unfold, they offer many chances for children to apply fundamental literacy and math skills for authentic purposes. Perhaps most important, child-directed play is a joyful part of childhood that early childhood professionals should guard and preserve for the children they teach.

**References**


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**Memo to:** Funders of Early Childhood Programs  
**From:** Sandra Waite-Stupiansky  
**Date:** May 2014  
**Subject:** Why Play Is Learning at Its Best

*Play is the most important way that young children learn.* Through play, children learn about the social, physical, emotional, and cognitive worlds around them. As they play with adults, they learn new vocabulary, understand culturally determined rules and roles such as how to treat one another, and build important emotional connections. When they play with their peers, they learn that others have perspectives, rights, and feelings that may conflict with their own. Playing with others is how children learn reciprocity and mutual respect, essential traits humans need to coexist in a peaceful world.

*Play is the way that children learn resilience and perseverance.* When obstacles come their way, young children find playful ways to overcome small barriers with persistence, gumption, and skill. When they fall, they get back up. If their creations don't work out the first time, they try and try again. These lessons stick with them for life.

*Play is the way that children stretch themselves.* They challenge themselves to jump higher, build taller, and concentrate longer. They try out new words and make them their own. Children don’t need rewards for playing. Play is satisfying in its own right.

*Play is the way children learn what it is like to be an adult as they try on adult roles.* They feed the baby and put him to bed, or build the next rocket ship to the moon. Anything is possible in play.

*Play is the way that children learn to deal with tension and stress.* They pretend to be monsters and superheroes in the battle of good versus evil—and of course good always wins.

So why should play be funded? It is learning at its best—authentic, natural, and intrinsically rewarding. What could be better?

Sandra Waite-Stupiansky, PhD, is a professor of early childhood and reading at Edinboro University, in Pennsylvania.