EXCHANGE SEPTEMBER/OCTOBER 2011 b Cc Dd Ee 2f Lg Hh Li Jj Mn Oo Op 2g Ar Ss Tt Un Vn

Helping Teachers Address Academic Learning

by Margie Carter

The terms preschool and Head Start suggest that children need group settings where adults give them a jump start for the world of academics and for the behavior that is expected in school. Indeed, the expanding research on brain development suggests that the earliest years are where children get wired for learning everything: physical, language, social, emotional, and cognitive development. Many educators and curriculum developers believe this indicates early childhood programs should move away from play-based activities to a more academic curriculum. Still others resonate with the extensive body of literature describing the value of play in young children's learning, resisting a push-down academic curriculum that adds stress to children's lives and robs them of their right to self-directed play. I believe these different perspectives are tricky waters to navigate and require us to move beyond simplistic either/or thinking.

Children are natural learners, but they need to have their internal, intrinsic



Margie Carter is an author, consultant, and cofounder (with Deb Curtis) of Harvest Resources Associates. To learn more about their work visit www.ecetrainers.com. Portions of this article are included in the second edition of their book, Reflecting

Children's Lives, A Handbook for Planning Your Child-Centered Curriculum.

motivation to be lifelong learners reinforced. You see their eagerness to learn beginning in infancy. But in today's media-driven, pressure cooker world, children don't always know how to engage in the complex play that leads to deeper learning. They often need adult intervention to help them move from simplistic, repetitive play to explorations and dramas that will give them the foundational learning for success in school and life. As children become preschoolers, teachers can support their development of useful dispositions and positive approaches to learning, while embedding literacy, math, and science learning in their everyday play activities. All of this happens best in the context of trusting, respectful relationships, where children come to see themselves as lovable and able learners. Initial academic experiences should fill children with joy and an excitement about learning, not dread, stress, or boredom.

As I guide teachers toward clearer understandings of addressing academic learning in the context of supporting meaningful play experiences, here are some key concepts I try to get across:

Focus on intellectual development, not just standards.

Reprinted with permission from Exchange magazine. Visit us at www.ChildCareExchange.com or call (800) 221-2864. Multiple use copy agreement available for educators by request.

Lilian Katz (2008a, 2008b) makes a helpful distinction between academic learning and intellectual development. She reminds us that academic lessons are often focused on discrete bits of information taken out of context and often taught with an emphasis on memorization or reciting the correct answer. Intellectual development, on the other hand, focuses on "the life of the mind in its fullest sense." This includes everything from aesthetic and moral sensibilities to the exploration of ideas and the skills of reasoning and inquiry. Academic information is important at some point in the learning process, of course, but we want to encourage young children to be active learners, not just passive receivers of information. This requires that we help children find their questions, connect ideas, and understand the bigger picture of academic disciplines.

Address academic learning in everyday activities.

In a world driven by information technology, we must rethink the nature of academic learning. What will be useful for children as they move into later schooling and adulthood? Children benefit from coaching that helps them understand *why* reading, math, and science knowledge might be useful to them. They need us to guide them in *how to think* through learning tasks, *how to find* information, and *why* seeking multiple perspectives is worthwhile.

Children deserve opportunities to learn more about academic disciplines. As we strive to protect childhood and developmentally appropriate practices, we should remember that children are eager to learn academic subjects when they are offered in ways that include active exploration and the opportunity to construct understandings. This approach enhances deeper learning as opposed to just a recitation of memorized facts. Teachers must take up the challenge of learning more about the thinking processes, skills, and content of different academic domains. Sometimes this occurs right alongside the children, even as we strive to keep a few steps ahead of their growing knowledge in particular areas. Whatever our choices for teaching academics, we should focus on the *learning* as well as the *teaching* process. When we offer any kind of lessons or planned learning activities, we must do so in meaningful ways using the context of children's daily routines and play in your program.

Investigate 'schema theory' to recognize 'threads of thought' in children's play.

Thanks to the early educators of Aotearoa/New Zealand, I've been reexposed to the value of understanding schema theory to better understand repeating patterns in children's play and see these connections to their developing brains. Nikolien van Wijk (2008) has written a lovely book, *Getting Started with Schemas,* originally intended for parents working in playcentres, which I have found equally "Schemas are more than structures for formulating and testing working theories about the world. Rather than being a 'stage' of development, schemas are about building structures of and for thinking. Schemas are the foundation of the connections in the brain that are used for thinking." Nikolien van Wijk (2008)

engaging for teachers in most early childhood centers. As teachers learn schema theory, they come to recognize the threads of thought in children's play or art and can spot the theories they might be testing out and better provide for their inquiry. Wijk says:

"Schemas draw attention to patterns across children's play that would not otherwise be obvious or seem linked in any way. Using schema learning theory as a framework, we can notice these patterns in our children's play and make some sense of them. When we recognize schemas, it helps make our children's learning visible and we can respond in ways that support their explorations. Schemas give us a shorthand to predict their possible interests, which means we can get to know children more quickly. We can also have more sustained conversations with children at a deeper level — stimulating their which helps us get to know them better. . . . As young children grow, they gradually develop the ability to think in more complex ways. Babies and small children first explore their world with repeated actions that draw in information through their senses: sensorymotor learning. We can clearly see our children doing this. In a later

stage, young children start to represent the world by using words and symbols, for example by talking, singing, drawing, painting, and other ways of making marks. By developing the ability to use symbols, especially language, to represent the world, young learners become able to think about it in abstract ways, without concrete objects."

Wijk's book is valuable, not only in offering an easy-to-understand overview of the history and components of schema theory, but it serves as a handy reference and study tool for center staff and parents with engaging stories and full-color photos that guide the reader in spotting schema in children's actions and representations. Wijk writes, "When we use schemas to inform our conversations with children, we are enriching the intellectual content of our interactions with them and helping them to build their brains."

Support mathematical and scientific thinking beyond teaching content.

When teachers focus on different academic learning domains, I suggest focusing more on mathematical and scientific thinking, rather than emphasizing content in such areas. This moves math and science beyond particular learning materials or a specific learning center into the realm of natural inquiry, exploration of cause and effect, sorting and classifying, and so forth. As with literacy learning, teachers can support scientific thinking and behaviors in children throughout the day. This happens first through the materials we provide for exploration and experimentation, then through the classroom culture and routines we create to encourage children to wonder and question. As children investigate and play, we can converse with them and communicate the vocabulary of scientific thinking, as well as possible



science content areas.

When children are developing the skills of scientific inquiry, they are becoming good observers and questioners. We can help them add the scientific processes of collecting, comparing, and representing what they see and the data they gather. Learning to analyze, synthesize, and make predictions involves learning to

To promote scientific thinking, help children learn to:

- Wonder and ask questions.
- Learn from their senses.
- Observe closely and notice details.
- Compare and sort by looking carefully.
- Count and measure to make comparisons.
- Experiment by trial and error, test predictions, and draw conclusions.
- Be persistent and keep trying again and again.
- Share their questions and ideas with others by describing, drawing, charting, demonstrating, and writing what they wonder and discover.
- Work together with others and have fun.

see patterns and relationships. Talking with children throughout the day encourages their grasp of the skills and processes of inquiry. This is particularly useful with infants and toddlers who are preverbal.

Preparing Children for a World We Cannot Yet See

Singer Tom Hunter (2008) wrote:

This world is changing so fast we can't see what's coming before it arrives. To think passing tests will get our kids ready is a gamble we make with their lives.

How can we prepare our children for a world we cannot yet see?

I say we work hard so they can become as human as they can be.

Tom's song reminds us how fast the world is changing, requiring us to figure out how to prepare our children for a world we cannot yet see. What a challenge for teachers! Tom's solution is that we need to teach children to be as human as they can be. Children need adult guidance to help them build conceptual understandings, develop positive values, and grow into responsible citizens of the world. Our curriculum has to be crafted to help them not only think through problems and possible solutions, but also to strengthen their imaginations and emotional intelligence. Beyond intellectual engagement and academic learning, nothing short of developing a fierce passion to live with integrity and genuine respect for each other and the Earth will prepare our children for what they will face in the future.

References

Hunter, T. (2008). "As human as they can be." On "As Human as They Can Be", The Song Growing Company, DVD. www.tomhunter.com

Katz, L. (2008a, March-April). Another look at what children should be learning. *Exchange*, *180*, 53-56.

Katz, L. (2008b, March 24). Academic versus intellectual learning. *Exchange-EveryDay*. Available at http://mail.ccie. com/eed/issue.php?id=1948

van Wijk, N. (2008). *Getting started with schema. Revealing the wonderful world of children's play.* Waitakere: New Zealand Playcentre Federation.



Questions that promote curiosity and inquiry

- What do you notice about this object? What are you discovering as you try using it?
- How are they the same? What do they have in common?
- How are they different? What distinguishes them from each other?
- What do you wonder about?
- What will happen if . . . ? Can you predict what might happen next?