Nature — A Powerful Tool for Fostering Language and Literacy

by Ruth A. Wilson

Dr. Ruth Wilson has been actively involved in environmental education for young children for almost 20 years. She has written several books and numerous articles on linking young children and nature. Her most recent book, *Nature and young children: Encouraging creative play and learning in natural environments* (2008, Routledge), focuses on the power of nature to promote learning and development. Ruth recently received the Caroline French Morton Award from the National Arbor Day Foundation for her lifelong achievements in linking children and nature. Ruth has been an educator and teacher educator for over 30 years. She lives in Bellevue, Washington and can be reached at wruthwilson@aol.com.

PHOTOGRAPH BY JANET THOMPSON

One of the most dramatic stories I heard during my 35 years as an educator was shared by a preschool teacher working with children with special needs. This teacher, Linda, told me about a four-year-old girl with autism who had been in her classroom for three months before she spoke her first word or made any obvious attempt to communicate. The breakthrough came early in the day as the children were arriving at school.

Linda had emptied the water table and was now using it to incubate some duck eggs. Over the past several days, she had shared books about ducks and how they hatch. The children were excited and frequently checked on their progress. They knew what to look for because Linda had carefully explained how the baby ducks would peck their way out of the eggs.

Ellie, the little girl with autism, was one of the first children to arrive at school that day. Ellie's mother brought her into the classroom and was asking Linda about an up-coming event at the school. Ellie walked over to the duck eggs and cried, "Look!" One of the eggs had cracked, and a duckling's beak and eyes were clearly visible. Linda and Ellie's mother first looked at Ellie and then at each other. Neither one could believe what they just witnessed. Ellie had never used words at school before, and the few words she used at home were always rote and prompted by an adult. In response to the duckling beginning to hatch, Ellie had spoken spontaneously with a great deal of emotion. Linda and Ellie's mother were soon hugging each other and Ellie — all three of them contemplating the wonder of the moment.

A new living creature had just emerged from the confines of a physical shell, and a four-year-old child had broken through a formidable communication barrier.

Fostering language development

I share this story of Ellie to draw attention to several concepts relating to language development and the power of nature. For language development, whether for children with special needs or typically-developing children, a key component in the process is having a message important enough to motivate a child to share it with others. For some, connecting with others in a social context is sufficient motivation to use language. When we say "hello" and share ideas with someone else, our "reward" is the connection we establish with another person. Children with autism usually do not find this connection rewarding enough to put forth the effort to communicate. Watching a duckling emerge from an egg, however, is exciting — in fact, exciting enough for Ellie to want to share her discovery with others.

Another story comes to mind — this one of Helen Keller. Helen was blind and deaf and using very limited language at the age of seven. Her teacher, Anne Sullivan, had been trying without much success to teach Helen to communicate by spelling out words in her hand. Helen did not fully understand the meaning of words and was resisting Anne's efforts to establish a way for her to communicate. All this changed when Anne led Helen to a water pump as someone was drawing water. Anne placed one of Helen's hands under the spout. She spelled the word "water" in Helen's other hand. As Helen herself later stated, it was at this moment that the mystery of language became clear to her (Royal National Institute of the Blind, n.d.). Within the next few hours, Helen learned the spelling of 30 new words and started using them in a meaningful way. Perhaps it was the rich sensory experience of cool water gushing over her hand that helped Helen make the connection between the word as it was spelled into her hand and the water itself.

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Sensory experiences paired with words give young children the foundation for learning language and related concepts. Children don't learn such concepts as "purple," "soft," "bird," and "jump" by listening to someone talking about what these words mean. Children need direct experiences with these concepts for the words to be meaningful to them. Well-chosen materials for young children feature a variety of colors, sizes, shapes, and textures. Such materials also invite hands-on manipulation, giving children opportunities to pinch, poke, squeeze, taste, shake, and re-shape. As children manipulate these materials and interact with others, they learn related vocabulary and how to use words to communicate.

Nature and children

While commercially-made materials are often designed to match the language and learning needs of young children, the richest source of materials for stimulating language and other areas of child development is the natural world (Wilson, 2007). The natural world is, in fact, "the most 'information-rich' environment we will ever encounter" (Kellert, 2002, p. 56). Natural materials are rich in sensory stimulation and invite exploration and experimentation. They also provide "especially distinguishable objects to differentiate and classify" (Kellert, 2002, p. 60). Fortunately, the world of nature is readily available, and children are naturally drawn to it.

E. O. Wilson, a scientist at Harvard University, indicates that humans have an innate affinity for the natural world. He called this attraction "biophilia" and described it as an urge to affiliate with other forms of life (Kellert & Wilson, 1993; Wilson, 1984). This natural affinity suggests that teachers and parents would do well to make the natural world their first choice for materials and experiences to support young children's language development.

Fostering early literacy through nature-related experiences

Turning to the natural world for materials and experiences fosters learning in other areas, as well. It adds to the enjoyment factor of learning to read, write, and make sense of the world (Kupetz & Twiest, 2000). It can also promote an enthusiasm for books (McKenna, 2001). Following are a few suggestions on how to use nature and the out-of-doors to foster early literacy:

- **Establish an outdoor literacy center.** This involves selecting an appropriate location, providing a place to write and draw, and adding interesting literacy-related props. Props should include a variety of books (fiction and nonfiction) and materials for writing and drawing. Maps, brochures, photos, the weather section of the newspaper, field guides, seed catalogues, and magazines also make inviting props. At least some pictures and text should relate directly to what children are likely to see and experience in the outdoor setting, such as birds, trees, sky, rain, soil, and squirrels.

- **Conduct "story time" outdoors.** Ideally, a special "gathering place" should be used for sharing books with a group of children. This place should be conducive to listening and discussion. While all types of books can be shared in an outdoor setting, books that focus on the natural environment will have special meaning.

- **Provide an outdoor stage.** A stage, whether this is an actual platform or just a designated area, invites a performance. Performances often tell stories and may be based on a familiar children's book or "authored" by the children themselves.

- **Post signs.** Outdoor signs can be used to label different activity areas (blocks, climbing area, art area) and elements of the natural world (maple tree, strawberry plant, sandy soil).

For language development, whether for children with special needs or typically-developing children, a key component in the process is having a message important enough to motivate a child to share it with others.

■ **Provide observational aids and recording tools, such as magnifying glasses, rulers, measuring cups, clipboards, pencils, tree and insect identification cards, and notepads.** These materials encourage children to look more closely and, in the process, develop such visual perception skills as attending, discrimination, identification, classification, and categorization. These skills are a part of visual literacy, which some researchers note is one of the critical areas in the language arts (Machado, 2007).

Sensory experiences paired with words give young children the foundation for learning language and related concepts.

Multiple benefits of linking children and nature

Tapping into the power of nature to help children grow and develop offers special benefits to both children and the natural world. For the children, positive experiences with nature help them grow healthy in mind, body, and spirit. For the Earth, early positive experiences with nature promote a life-long appreciation and respect for the beauty, health, and integrity of the natural world.

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Using Beginnings Workshop to Train Teachers

by Kay Albrecht

Relieve the pressure!: Most teachers are feeling the pressure to embed and emphasize language and literacy in their curriculum plans. Isn't it wonderful that fostering both comes so easily outdoors? Use the list of suggestions on page 51 to foster literacy skill acquisition. Divide teachers into teams. Give each team the assignment to implement one of the outdoor suggestions for all to experience. Then, see what happens as a result of this collaborative work. Debrief after children have time to try out the "new" literacy experiences.

Reflect on stories: Wilson uses powerful stories to communicate the incredible ease with which young children can learn when experiences are real and meaningful to them. What did you learn from nature? Reflect on your own stories about how nature serves as the perfect environment to use language and learn literacy skills.

Check it out: Inventory the experiences a classroom setting provides for pairing sensory experiences with words. Then, go outside and do the same. What did teachers learn from the two lists of opportunities to make words meaningful? Discuss what you found out. Then make sure your curriculum plans offer many experiences, both indoors and out, to pair words with related sensory experiences.

Maybe families could help?: Enlist families to help you find the observational aids and recording tools needed to make the outdoor environment rich with literacy tools. Post the list (top of this page) conspicuously and see what happens. When family members inquire about why, share your ideas for connecting literacy and the outdoors.