



**New England Journal of Environmental Education**  
**APRIL 2009**

**The Sky is Falling:**

An Examination of Ways to Heighten Young Children's Awareness of  
Environmental Issues that Result in Increased Feelings of Self-Efficacy  
Rather than Disempowerment and Fear

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**The Sky is Falling:  
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Abstract

The following article is a recount of my fall 2008 sabbatical leave that was spent in a second grade classroom. The primary purpose of my sabbatical leave research was to explore the role of children's literature as the impetus for helping children to both think critically about pressing environmental issues and feel empowered and efficacious to work collectively towards change. I wanted to explore ways to sensitively, positively, and collectively deepen children's understanding of texts, themselves, and their world, especially environmental concerns. I wanted to explore how these children were feeling about nature or the environment and how children's literature with critical discourse might encourage rather than discourage them to feel connected to nature in a positive way and increase their self-efficacy towards working for environmental care. This research was implemented in a Connecticut suburban second grade classroom. While data collection included a pre-post survey, it was the transcriptions of our dialogue and writing samples that were most informative.

*Inherent in the act of literacy understanding is the promise of touching the many-sidedness of human sensibility. It is through the envisionments we develop as we explore new horizons of possibility that we can at least begin to imagine the perspectives of others – in other circumstances, eras, and cultures – and be moved to make new sense of ourselves, our times, and our world (Langer, 1995, in *Envisioning Literature*, p. 145)*

Numerous researchers and educators have valued to a great extent the role of nature in early childhood development. Maria Montessori believed that nature stimulates children's sense of observation, fosters creativity, and instills a peaceful state of oneness with the world. Others have found that environmental learning enhances children's cognitive development; helps develop problem solving, decision making, and critical thinking skills; and nurtures a sense of stewardship of the environment (Dewey, 1902; Gardner, 1999; Luera & Hong, 2003; Crane, 2001; Louv, 2005). Yet, even with this awareness, children are spending less and less time both discussing nature and experiencing nature. In fact, some school districts in Connecticut have either eliminated recess entirely or are considering such an act in an effort to provide more time preparing for the Connecticut Mastery Test (CMT). Richard Louv, in his book titled *Last Child in the Woods* (2005), highlights the irony that "at the very moment that the bond is breaking between the young and the natural world, a growing body of research links our mental, physical, and spiritual health directly to our association with nature—in positive ways... As one scientist puts it, we can now assume that just as children need good nutrition and adequate sleep, they may very well need contact with nature" (p.3).

There has been some research published that focuses on the need for environmental education and a connection to nature (Malone & Tranter, 2003; Taylor et. al, 2002; Rivkin, 1997; Grant & Littlejohn, 2001; Sobel, 2004; Wagner, 2000; Louv, 1996). Yet, it appears that few have addressed the questions guiding this study. Consequently, this

research using children's literature as the impetus for building a sense of compassion and connectedness to the environment is both timely and urgent especially as more and more schools may be seduced to eliminate recess under pressure from NCLB (No Child Left Behind) initiatives.

Big issues such as global warming, animal extinction, and rain forest depletion are often introduced to children through children's literature. Teachers, authors, and publishers have made significant efforts to better inform children about such issues. Unfortunately, the ways in which this information has or, rather, has *not* been presented may have left children feeling scared, disempowered, and, at times, hopeless. Researchers have found that even adults react to feeling overwhelmed by too much information on environmental and social issues by shutting down or disconnecting (Macy, 1983). Furthermore, due to excessive reliance on technology and a reduction in both outside play time and field trips, children are developing what has been called Nature Deficit Disorder (Louv, 2005).

According to Louv, lack of exposure to nature has been shown to have negative effects on children's creativity, self-esteem, and attentiveness.

There are developmentally, individually, and culturally appropriate ways to discuss such issues with children that heighten awareness and efficacy rather than build fear and pessimism. Children's literature can serve as the impetus for critical classroom discourse that opens up optimistic ideas for change. While simply reading about environmental issues may contribute to children's disconnect to nature, if these reading experiences come with a direct link to nature, as well as collective action to make positive change, children may feel empowered as individuals while working towards a common goal. It

has been documented that children who feel connected to nature may also feel a stronger sense of self esteem (Crane, 2001).

**Fall 2008: Second Grade**

*She was standing tall at the back of the line with body language that demanded my attention. I could tell she felt eager and excited to get started. Looking down at the notebook in her hands she was shifting her feet back and forth, side to side. When she finally looked up, our eyes met.*

*It was clear she had something to say so I moved closer and acknowledged her appeal with a nod. She was quick and animated in sharing her feelings. With a sly smile she blurted out, "I feel so much more important now." That was all she said, but it was enough for me to know we were off to a great start!*

The children were so excited to see me. The announcement, "Ms. Theresa is here. Ms. Theresa is here." traveled throughout the room. On this day I chose to read the book *All the Places to Love* by Patricia MacLauchlan. In this story a young boy who lives on a farm brings the reader to all of his and his family member's favorite places to visit: the blueberry barrens with a beautiful view, the nearby stream with its peaceful sounds, the strong smells of the old barn. When asked if they had a favorite place, children mentioned many: Disney World, Toys R Us, my video game downstairs, and the mall were a few. While two children mentioned vacation spots like Florida beaches, not one child mentioned outdoors as their favorite place. When asked if they had a favorite place

*outside*, a few children said their trampoline or backyard. Others were very clear that they do not like to go out at all.

When reading, one boy noticed that the main character (a boy of about the same age) was barefoot while walking outside and shared that he thought the boy was poor because he didn't have any shoes. When a girl in the class suggested that maybe he wanted to walk barefoot in the grass, the boy shook his head and said he would never do that because "I don't like feeling dirt in my toes and what if I stepped on something sharp? No, I wouldn't do that!"

I chose this book mostly because MacLauchlan portrays nature in its most simple and breathtakingly beautiful form. Her captivating language and style of writing coupled with the realistic paintings leave the reader feeling they themselves have just experienced farm life first hand. I picked this book because of the way MacLauchlan invites us to explore nature sensorially. The children knew this was the day we would all be getting our observation journals and going outside on a nature walk. In addition to the peaceful beauty of nature, this story reminded us that good scientists observe with all of their senses. With our "Go Green" name tags, journals, and pencils in hand, we lined up to leave the four walls of the classroom. The level of excitement was evident and left me feeling terribly insecure about my plan (which actually was to **not** have a plan except to simply get us all outside). We headed out to the trees and from there, only for me, it was total chaos as all of the children, focused and observant, demanded my attention. "Ms. Theresa, look, these leaves are fuzzy." "Ms. Theresa, what is this big nut thing? It smells lemony." "Ms. Theresa, there's garbage in the woods." "Ms. Theresa, those leaves are

flat. Do you think a deer slept there? Can we touch it to see if it is warm?” “Ms. Theresa, we should pick up that garbage.” Or my favorite, “Ms. Theresa, did you know the air has a smell?” Such rich observations were recorded in their “go-green” journals and their interest never waned a bit even though at least half the class had previously stated that they simply did not like going outside “at all!” As it turned out, they were so enthusiastic about this time outside observing nature that I was asked on each subsequent visit if we’d be able to return to the outdoors.

To capitalize on this heightened interest in nature, I decided that on my next visit I would read *When Sophie Gets Angry, Really, Really, Angry* by Molly Bang. In this book, Sophie is told by her mother that she must share a toy with her sister. As if this isn’t bad enough, she then turns to do so and trips over a toy truck. Now Sophie is really, really angry.

What does Sophie do when she gets really, really angry? She runs. She runs out of the house, through the woods, to the water, and climbs up a tree. Nature soothes even the reader as the illustrations move from hot, angry reds to cool, calming blues. Prior to reading, the children were asked what they do when they get angry: “yell, go to my room, throw things, scream in my pillow.” Post reading, they discussed our trips outside. Many girls said it was relaxing outside and that they think the water calmed Sophie down. A few boys said it would be a good idea to run outside when they are angry like Sophie did. While it wasn’t something any of them could articulate before reading this book, it was clear that many of these children have experienced that nature can have a calming effect on them as can exercise outdoors.

One thing that these children never forgot from our trips outside was the garbage thrown in the woods near their school. The children discussed the items they saw and questioned

who would throw them there. They shared their concerns about the animals in the area and their feelings: “I feel upset about this!” “This makes me sad” and “I feel angry about this.” Many of them asked if we could get bags and pick up the garbage. Although we were informed that we must have parent permission before picking up the garbage near the playground, one boy was excited to show me how he managed to pick up a potato chip bag and brought it in to the garbage. The next week I was conducting a reading group with four students who had previously expressed an interest in endangered animals. After writing out our research questions, we went to the library to take out books. The students were discussing what they could do to help endangered animals. They named big ideas: stop global warming, buy solar powered cars, end the war. The next day I showed them a card I had with a polar bear on it that said, “Everything is Connected.” After discussing the impact of even small actions, these four children decided they wanted to go out and pick up the garbage near their playground as a way to help the endangered animals of the world. We fulfilled our bureaucratic duties (getting the needed parental permissions) and a few days later we put on our plastic gloves and spent our recess picking up bags of garbage. Our actions caught everyone’s attention, and many observers asked if they could be a part of our efforts. It was clear that these four children were more than happy to give up their invaluable outdoor play time. In fact, one boy stated, “I can’t believe this. This morning I lost a tooth and now I’m picking up garbage!!”

Perhaps my favorite book to read was *The Lorax* by Dr. Seuss. With the Once-ler, who moves in and cuts down all of the truffula trees to make thneeds, an item nobody really needs, *The Lorax* teaches us powerful lessons about the importance of trees, forestation,

consumption and consumerism. In fact, it was reading Dr. Seuss that launched us into our “save the trees” campaign as well as our reuse campaign. After reading *The Lorax*, many of the children appeared to develop diligent habits in conservation. Numerous children brought in “projects” from home where they used old items to make new things. Many children were very careful to use less paper and recycle. One child suggested that they all keep track of all the things they do during the day to help the environment. She suggested that they make a check mark (on scrap paper, of course) each time they do something to help. I suggested she start over the weekend and show the class hers as an example the following week. She did, starting a trend that for some lasted for several weeks. Seeing the impact that *The Lorax* had made, I followed this reading up with another favorite of mine called *The Gift of Nothing* by Patrick McDonnell. In this story, a cat is searching for the perfect birthday gift for his best friend, a dog that has everything. He sets out on a crusade to find something he hears about often, “nothing.” When “nothing” cannot be found at the mall or anywhere else, he wraps up an empty box, a *big* empty box to show how much “nothing” his best friend deserves. This story led us right into great discussions around needs versus wants, and the children made connections to the “silly people” who bought thneeds from the Once-ler even though they didn’t need them and the environmental consequences of their consumerism. They also made a list of all the things they could go without.

I set out on this sabbatical to explore the role of children’s literature as the impetus for helping children to both think critically about pressing environmental issues and feel empowered and efficacious to work collectively towards change. As mentioned, I wanted to explore ways to sensitively, positively, and collectively deepen children’s

understanding of texts, themselves, and their world, especially environmental concerns. I wanted to explore how these children were feeling about nature or the environment and how children's literature with critical discourse might encourage rather than discourage them to feel connected to nature in a positive way and increase their self-efficacy towards working for environmental care. To do so, I purposefully chose children's books that depicted nature or environmental concerns in a way that I thought children would relate to and/or books that were aesthetically pleasing for whole group readings. Most often I reserved non-fiction books (see bibliography for titles) for small group research as I found them to be more didactic (the nature of non-fiction) and less effective, in some ways. First, it seems clear -- even from the little I've shared here -- that these children were making personal connections to text and examining their experiences, feelings, and behaviors in relation to the environment. Non-fiction books didn't quite elicit the same powerful personal responses. Second, I am thrilled to say that it is impossible to discuss here all the ways in which these children worked as individuals and collectively towards environmental care. It became obvious that the fiction books, those with characters the children could identify with, stimulated the most discussion about change and action towards change. After these readings, the children appeared to be more efficacious and motivated than after reading non-fiction. It seemed that reading age appropriate non-fiction books on environmental issues at times left children with a feeling of disempowerment rather than increased self-efficacy towards working for environmental care. It seemed difficult for these children to identify how their actions could make a difference or to see the connectivity of their actions. Lastly, there was a direct and powerful connection with the fiction books I read and our outdoor experiences. While

outdoors, children were making numerous references to the literature we read, whether in words or with their behavior. Fiction or non-fiction, it was clear that quality children's literature combined with critical discourse can be a powerful tool to both reconnect children with nature and help them to feel more efficacious in working towards environmental change. As one "go greener" said, "I really like working with you. I like reading all these books and I like talking about them. I always feel like I want to go do so much!"

### **Theoretical Framework**

The theoretical framework of much of the research in reading (e.g., Braugner & Lewis, 1997; McQuillan, 1998; Moustafa, 1997, Smith, 1985) suggests that literacy is not simply the comprehension of a text but a means through which individuals participate in constituting themselves and their world. As children read, they are constantly making connections between the new information and their previous experience, knowledge, and beliefs. The discourse evoked when reading is critical in helping children to make sense of the text, themselves, and their world (Christensen, 1997). It is through these discussions that teachers and children can develop self-efficacy towards environmental care.

Bandura (1986) proposed self-efficacy as a mechanism of cognitive self-evaluation that mediates skilled performance. He defined self-efficacy as a person's judgments of her or his ability to perform an activity and the effect this perception has on the ongoing and future conduct of the activity. Bandura (1986) believed that competent functioning requires both skills and self-beliefs of efficacy to use them effectively. He believed success is only attained after one generates and tests alternative forms of behavior and strategies. This problem solving requires persistent effort. Bandura believed that those

who may have self-doubts about their abilities about this generative process if initial efforts prove deficient. Thus, self-efficacy is expressed as personal confidence in the ability to successfully perform tasks at a given level. It is concerned not with the skills one has, but with the judgment of what one can do with whatever skills one possesses and determines the effort people will put forth as well as how long they will persist at a given task (Bandura, 1977).

Equally important to this research is how Bandura (1986) distinguished judgments of personal efficacy from response-outcome expectations. Outcome expectancies are beliefs about contingent relations between successful task performance and perceived outcomes. Perceived self-efficacy is a judgment of one's capability to accomplish a certain level of performance; whereas an outcome expectation is a judgment of the likely consequence such behavior will produce. Outcome expectancies mediate task performance by providing a cognitive appraisal of the likely outcomes of successful task performance and the likelihood that successful performance will lead to the attainment of goals. Bandura differentiates between efficacy and outcome judgments because "individuals can believe that a particular course of action will produce certain outcomes, but they do not act on that outcome belief if they question whether they can actually execute the necessary activities" (Bandura, 1986, p. 392). Therefore, a simple awareness that successfully completing a task will have a favorable outcome is not enough to engage a person who has serious self-doubts that they can master the activity involved.

Bandura's work on self-efficacy is important to this research because he illuminates why simply reading about environmental issues to children can be not only ineffective but counter-productive. Without critical discourse and collective action, children can be left

feeling afraid and helpless about environmental issues. These negative feelings may eventually develop into a sense of apathy or aversion. On the other hand, when discussions around these books center on possible and collective change, children may realize “that they can actually execute the necessary activities” (Bandura, 1986, p.392). This realization is critical to helping children develop the self-efficacy towards environmental change necessary to become proactive change-agents.

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