A "Rich Diet" for Learning: A Multi-Sensory Approach That Nourishes All Children

by Dana Miller


PHOTOGRAPH BY BETH PAULEY

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Lisa's Story

Lisa was quietly working alone using clay dough. Her teacher, Mrs. Reeble, noticed that Lisa had formed four pieces with her dough. Mrs. Reeble said to Lisa, "I think your clay dough is telling me what you know about butterflies — is that right?" Lisa nodded yes. When Mrs. Reeble asked if Lisa had names for the pieces, Lisa pointed to each and labeled them "egg, caterpillar, cocoon, and butterfly." When Mrs. Reeble asked Lisa how she knew to make the lifecycle of the butterfly with her dough, she replied, "I know because I've been in the greenhouse."

Borrowing a book on butterflies that two boys nearby were using, Lisa copied the names of each stage and put the word labels by her clay dough pieces. She and Mrs. Reeble discussed the need for a sketch to preserve her work, since the sketch would last even longer than the dough. Lisa created a sketch, then placed the word labels where she wanted them near each part of her drawing.

Lisa moved to an open space in the room and used body movements to represent each shape on her sketch, pointing to her paper each time she changed shape. Then she asked a friend to interpret her sketch with body shapes. During music and movement time, the class looked at Lisa's sketch as inspiration for creative movement, using jazz to help them interpret the stages of the egg, caterpillar, chrysalis, and butterfly through large loco-motor movement, changing shapes, levels, and speed as part of their interpretation.
(From teacher Tina Reeble's documentation of Lisa's work, March, 2007)

Five-year-old Lisa was using the "Look-Move-Build-Sketch" model to communicate what she knew about butterflies and deepen her understanding. This article provides background information on the development of the model, how it is linked to important skill development, and how it is beneficial for all children, but in particular children with sensory integration challenges. It includes examples of ways teachers are using the Look-Move-Build-Sketch approach in our Early Education Research Classrooms.


PHOTOGRAPH BY TINA REEBLE

Background

Since 1998 we have been studying how young children develop visual-spatial skills and how educators and families can better support that development.

Visual-spatial skills relate to how individuals perceive, interpret, and act on the visual stimuli in their environment. These skills provide information about the environment around us and guide us as we move through that environment. For example, visual-spatial skills are important for:

- recognizing objects
- recognizing faces and identifying different facial expressions
- judging distance, depth, speed, and volume
- maneuvering through space
- noticing visual details
- reading

Children who are more traditional auditory-sequential thinkers learn step-by-step, follow a logical progression from beginning to end, are good listeners, are rapid processors, and think in words. Children with strong visual-spatial skills often think in pictures and images. They are keen observers, learn holistically, and need more time to process information (Silverman, 2003). Visual-spatial skills help children more successfully navigate in the world and are important in professions such as mathematics, architecture, engineering, computer science, geology, art, interior and landscape design, aviation, sculpture, dentistry, sonography, forestry, and cartography.

Children have many opportunities to develop and hone their visual-spatial skills through building, purposeful movement, and daily hands-on experiences with nature. Through close observation of children, we have learned that children's visual-spatial work is a language that provides them with opportunities to:

- communicate their knowledge about the world as they view it
- develop and demonstrate their skills
- convey, process, and learn to manage their emotions.

PHOTOGRAPH BY TINA REEBLE

One outcome of our focus on visual-spatial skill development was the creation of a model that educators and families can use to provide meaningful learning activities for children. The Look-Move-Build-Sketch model is beneficial for all children, and can be especially effective in working with children with sensory integration challenges.

What is the Look-Move-Build-Sketch model?

The words "look, move, build, and sketch" serve as a memory device that is easy for teachers and children to remember, and provide an organizing tool teachers can use to create flexible learning plans. The model provides multi-sensory experiences and allows teachers to support holistic development as children participate in hands-on, active learning in ways that meet their individual needs and comfort levels. In classrooms, use of the model began as a guiding framework for small group experiences, and has become an umbrella structure for learning in the outdoor classroom, at indoor work time, with our music and movement plans, at any time of the day.

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Look-Move-Build-Sketch is flexible, and is not meant to be used rigidly. For example, sometimes children may choose to build first, then sketch, then move. The four words simply help remind children and teachers of possibilities. It is important to note that each word stands for a variety of activities and experiences that help children learn in deep and meaningful ways.

LOOK involves taking in information and includes exploring and "seeing" in many ways — through close visual observation and through sensory experiences involving sound, smell, touch, and taste. LOOK helps focus children's learning by encouraging them to notice patterns and details; categorize objects by size, shape, color; view objects from multiple perspectives; practice visual discrimination and

make visual analogies (i.e., X looks like Y). Experiences in the outdoors provide excellent opportunities for close observation in ways that are especially helpful for children with sensory integration challenges.

MOVE focuses on **purposeful** movement that provides a deeper and more holistic understanding of objects and concepts. For example, teachers encourage children to move their bodies like the objects they are observing so children can internalize their learning about those objects. MOVE allows children to physically experience concepts such as shape, size, texture, number, distance, volume, and force. This helps children develop deep understanding and strengthens body awareness. MOVE also helps build muscle memory that is so critical for developing body competence. It provides appropriate outlets for those kinesthetic children who need to be physically active, and allows children to communicate their knowledge in a non-verbal way.

The sensory focus provides children with multiple languages to use in communicating their knowledge.

BUILD encourages children to physically manipulate materials three-dimensionally so their learning is tactile. BUILD helps children understand more about the objects they have been observing and strengthens their abstract thinking skills because they are discovering how to represent those objects. BUILD also helps children see whole-to-part relationships by physically assembling (and disassembling) materials.

SKETCH provides a way for children to express what they know in many ways, from quick sketches to detailed drawings to elaborate paintings. SKETCH encourages children to create representational and interpretive expressions that communicate their level of understanding of the objects or concepts, such as how wind moves. SKETCH helps children make the connection between the three-dimensional object and two-dimensional representation and strengthens children's close observation skills. Dimensions' Art Specialist emphasizes that SKETCH "does not always have to be literal . . . SKETCH is a vehicle for communicating what children have internalized through their earlier experiences." For example, a child may draw a diagram of a dance she's creating to demonstrate how wind blows.

The Look-Move-Build-Sketch approach is not only an organizing tool that helps children learn, but is also a vehicle that helps children take in information, communicate what they know, and demonstrate their level of understanding. The sensory focus provides children with multiple languages to use in communicating their knowledge. They may tell us what they know through their body movements, their building, and/or their creative representation.

How can the Look-Move-Build-Sketch model benefit children with sensory integration challenges?

Children with sensory integration challenges sense information normally, but have difficulty perceiving and processing that information because it is analyzed in their brains in a different way. Diagnoses may include hyposensitivity or hypersensitivity. Children who are hyposensitive crave and seek stimulation. Children who are hypersensitive avoid stimulation. Sensory experiences that impact these children include touch, movement, body awareness, sight, sound, taste, smell, and the pull of gravity.

PHOTOGRAPH BY SUZAN HALEY

Authors have described some of the general characteristics of children with sensory integration challenges:

- their activities are often disorganized and lack purpose
- often they do not move around and explore their environment
- they may avoid manipulating objects with their hands or actively engaging in activities
- they often lack variety in their play and their actions become very repetitive
- some may struggle with balance and body awareness
- they may have difficulty calming themselves after physical activity or being upset
- they may become discouraged and develop a poor self concept because they are aware of the differences in their ways of functioning compared to their peers

Successful sensory integration therapy is correlated with children's motivation in selecting activities that will be beneficial to them. Active involvement and exploration enables children to become more mature, efficient organizers of sensory information. Sensory integration therapy guides children through activities that challenge their ability to respond appropriately to sensory input by making a successful, organized response.

Schaff and Miller (2005) suggest that sensory integration therapy often focuses on stimulating and challenging all the senses using four key principles:

- providing just the right challenges that children can successfully meet through their play activities
- helping children adapt their behaviors by using new and useful strategies in response to the challenges presented
- providing active engagement that children will want to participate in because the activities are fun
- allowing the therapeutic experiences to be child-directed by honoring children's preferences.

Authors have stressed that sensory integration therapy is never a "one size fits all" approach. Every child with sensory integration challenges receives, processes, and responds to sensory stimuli differently.

Look-Build-Move-Sketch provides the flexibility to meet all children's different sensory needs and learning styles, and can be very effective with children experiencing sensory integration challenges. The model keeps learning exciting because it is active, fun, and completely sensory. It is flexible enough to provide a range of appropriate behaviors and allows success at some level for all children, which contributes to self-esteem. Children participate within their comfort level in a way that best fits their learning style. For example, children may make small, reserved body movements or large exuberant movements if that is what they need.

The nature of the multi-sensory activities helps children with focus issues and allows behavior that may have been labeled as "nuisance" or problematic to be viewed more positively (e.g., children's need to move!). It can help children meet their sensory needs in a socially acceptable, safe way and learn about the rules of social space and boundaries.

The flexibility of the model provides children with many opportunities to choose how to respond as they experience Look-Move-Build-Sketch in ways that are meaningful for them. It provides an organizing structure for activities, yet is flexible enough to allow individual children to experience just the right amount of challenge. It also allows adults to better assess what children know and how they are processing information so teachers can better scaffold learning.

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How are teachers using the Look-Move-Build-Sketch model?

PHOTOGRAPH BY TINA REEBLE

The Sunflower Project

Our Art Specialist, Ann Watt, developed a flexible learning plan using the Look-Move-Build-Sketch model that provided suggestions teachers could use over a two-week time period as children explored sunflowers. As resources, teachers used sunflowers that children had helped grow in the school's outdoor garden, abstract and botanical prints of sunflowers, and a children's book on

sunflowers (*Giant in My Backyard*). Exploring these materials allowed children to experience sunflowers in a variety of ways, from direct hands-on observation, to the inspiration of art's powerful visual images, to a link to literacy through reading related stories.

LOOK helped children closely examine sunflowers visually and tactilely. The flexible learning plan suggested questions teachers could ask children about sunflowers:

- What do you see?
- What do you like?
- What do you know?
- What do you wonder?

To use more focused prompts, teachers could talk with children about what lines, shapes, and colors they saw in the real sunflowers or art prints. They could focus on parts of a sunflower: the seeds, sprouts, stem, and petals. Children could touch and smell the sunflowers and taste the sunflower sprouts and seeds.

MOVE encouraged children to move their bodies in ways that helped them understand more about the sunflowers. Teachers asked children questions such as:

- Can you make your body like a sunflower? (Where are your roots, stem, petals?)
- Can you "grow" like a sunflower (beginning from a seed, being watered), blow in the wind (with or without music) or turn and face the sun?
- Can you go to a sunflower print you like and copy its shape with your body? Can you find a sunflower in our garden and make your body look like it?

PHOTOGRAPH BY ANN WATT

BUILD allowed children to represent their learning by using manipulative materials to explore sunflowers in a three-dimensional way. Teachers provided a variety of materials for making paper strip sculptures, manipulating pipe cleaners, sculpting with clay dough, building with blocks indoors and outdoors, or creating with small cubes and various recyclables. Children chose many ways to represent sunflowers three-dimensionally. Some created the whole flower, while others represented specific parts that interested them.

SKETCH helped children communicate what they were discovering about sunflowers using a two-dimensional medium. Teachers supported a variety of activities based on individual children's interests and needs. Some children used clipboards, regular or colored pencils or oil pastels to record intricate details. Others created with watercolors and focused on colors rather than details. The object of SKETCH was for children to put something on paper that represented what "sunflower" meant to them. Their creations were not necessarily representational. They were often symbolic, but they all expressed children's understanding of what they knew and felt about sunflowers.

Music and movement plan: Jazz

Music Specialist, Tina Reeble, and Art Specialist, Ann Watt, used Look-Move-Build-Sketch to develop a flexible learning plan that integrated music and movement and the arts. The plan provided opportunities for children to experience jazz music and its many components: rhythm patterns (call and response), improvisation/interpretation (scatting, telling your personal story), and sound palette (color/timbre).

Using the Look-Move-Build-Sketch Jazz music and movement plan over six weeks, the children explored these concepts in a multi-sensory way. For example, for the first two weeks, teachers focused on helping children experience the concept of pattern through art, music, movement, and word play. The resources teachers used included CDs of jazz music, books

with sound patterns (such as *Brown Bear, Brown Bear*), and art prints and photos featuring patterns and instruments.

To help children LOOK closely, teachers and children together identified patterns in many books and a variety of styles of art. Children observed instruments in photos as they listened to jazz music. During music and movement times, children had the opportunity to touch and play instruments. Teachers asked the same type of questions used in the sunflower project (e.g., What do you see? What do you know?).

To encourage children to MOVE their bodies in ways that helped them internalize their learning about "pattern," teachers provided a variety of materials and loco-motor and non-locomotor movement activities. For example, children manipulated stretchy bands while moving to jazz music, trying to create rhythmic patterns. They explored pattern-making by using their bodies to re-create the patterns they had observed in books, art, and nature.

To support children in exploring the concept of "pattern" three-dimensionally, teachers encouraged children to BUILD with materials such as Styrofoam™, pipe cleaners, clay dough, nature items such as tree cookies, small blocks, picture pegs, small cubes, and counting bears. In addition, teachers supplied children with materials that encouraged them to create their own musical instruments.

To encourage children to interpret and represent what they understood about pattern two-dimensionally, teachers supported a variety of activities based on children's individual ideas and interests. Some children went on pattern walks outdoors, taking clipboards, paper and pencils, sketching the patterns they observed in nature. Some children created patterns by gluing paper strips onto a larger piece of paper. After moving to jazz music with stretchy bands, some children created individual pictures or large banners by drawing their body movements with markers. And some children used small gadgets to make patterns on paper with tempera paint.

Both of these flexible learning plans were designed to help children actively explore key concepts over time so that they could process their learning more fully.

Our teachers and researchers have found that these kinds of comprehensive multi-sensory experiences support all learning styles and help each child participate in the most personally meaningful ways.

Nourishing bodies, minds, and spirits

All children need to be engaged in active, hands-on learning that stimulates their senses! Though some children may need sensory integration therapy, authors have suggested that incorporating a variety of multi-sensory experiences into daily activities can be very beneficial for children with sensory integration issues. In fact, the more sensory-motor experiences young children have, the more easily they learn to successfully function in everyday life. Daily sensory-motor activities that include whole body experiences will aid young children in sensory processing.

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According to Blagojevic, Kendrick, and Maeverde (2003), "Sensory integration is a natural part of the growth and maturation process that occurs during the early childhood years. Early childhood classrooms should therefore provide lots of experiences that support this growth process. Children learn by doing and benefit from daily experiences that provide a rich sensory diet as well as hands-on play opportunities."

Look-Move-Build-Sketch is a tool that can help teachers provide these important multi-sensory experiences and just the right challenge to meet individual children's interest and needs. Teachers and children together can delight daily in a "rich diet" of learning that nourishes body, mind and spirit.

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Teachers and children together can delight daily in a "rich diet" of learning that nourishes body, mind, and spirit.

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Using Beginnings Workshop to Train Teachers

by Kay Albrecht

What is sensory integration anyway?: Teachers may or may not be familiar enough with sensory integration and the difficulties children can have with integration issues. Take this opportunity to plan an introduction to sensory integration and how it relates to children's growth, development, and learning using the excellent overview in this article.

Try it out!: Take a look at the next curriculum plan and see if teachers can add the Look-Move-Build-Sketch idea to some of the planned activities. Collect the necessary materials and then try it out.

Following in multi-sensory footsteps: Two wonderful examples of multi-sensory plans are included in this article. Work with teachers to adapt these flexible plans to their groups of children. Implement the plan and reconvene to debrief how it worked. Then, brainstorm other interesting possible curriculum ideas to try out with the Look-Move-Build-Sketch model.

What flexibility?: Explore the author's ideas about flexibility and avoiding a one-size-fits-all approach. How will teachers identify children who might learn differently from others? How can teachers turn this knowledge into flexible plans that allow for different learning styles?