WATER: The Ideal Early Learning Environment

Throughout 2008, *EP* will explore the benefits of aquatics therapy and recreation for people with special needs in this 12-part series, entitled "Aquatics Therapy and Recreation."

By Susan J. Grosse

Bathtub, sink, bucket, bowl, wading pool, swimming pool, sprinkler, and faucet - all offer entrance into the ideal learning environment of water! That wet liquid found almost everywhere can be used to engage activity, focus attention, stimulate response, foster development, and reinforce learning. For the young preschool child water learning activities, those activities taking place through interaction with water, can help develop physical fitness, facilitate motor development, reinforce perceptual-motor ability, encourage social development, and enhance self-esteem and confidence. Here's how.

Creating a Water Learning Environment

Water is the prime ingredient, therefore, a source of clean water is a must. This might be water in a bathtub or bathing basin as well as water in a bucket or several bowls. A wading pool works fine. A swimming pool has possibilities. Consider the needs of your particular child. Swimming pools are large with lots of stimulation and noise. Air and water temperature are hard to control to suit individual needs. For some children, using a bathroom or laundry room may be a better choice as environmental factors can be more easily controlled. Even buckets and/or bowls on a waterproof tarp can work well.

Air temperature should be warm enough so no one becomes chilled. Eliminating drafts from open doors and windows as well as from heating and ventilation systems, helps. Water temperature, if using a tub, should be comfortably warm but not hot. If using buckets and bowls, water temperature can be neutral, as warm water will quickly cool anyway.

Children can share water. However, if using buckets and bowls and the activity includes putting the face into water or if a child has a cold or drools, each child should have his or her own water source.

For safety, have a phone at the activity site. Never leave a child unsupervised in a water learning setting. A small child can drown in a very small amount of water. Learn infant/child CPR.

Planning Activities

Water learning is not free play. For learning to occur, activities must have goals and structure. Bath time is a great time to include one or two water learning activities. Everyone is wet already. However, remember, this is play with a purpose. Follow this general planning process for learning success:

•Select your learning goal. What is it you want your child to learn? Is there a goal from physical or occupational therapy to reinforce, such as arm strength or grasp and release? Is there an academic goal to reinforce, such as color recognition or counting? Is there a perceptual-motor component to reinforce, such as body image? Does social interaction, sharing for example, need facilitation?

•Select activities that are structured to focus on the goal chosen. A few examples are found in the table on the opposite page.

•Select water and child appropriate equipment. All equipment should be child safe: no very small parts a child could swallow, no lead paint on toys, no stuffed or fabric toys. Plastic buckets and bowls, along with a variety of pouring devices, sponges, and cloths, are common household items. Be sure all are clean. If not in a pool environment, select activities the child can accomplish in a seated, reclining, or kneeling position. Once water is in use, the surrounding floor will become too slippery for safe walking.

Implement the Activity

Staging the activity can be complicated. Here's a general plan to follow.

1) Assemble the equipment.

2) Prepare the water.

3) Get yourself dressed (you will get wer —be prepared to smile when that hap pens).

4) Take the child into the activity.

Present the activity in a success oriented format. Ask the child engaging questions such as: "Can you pick up the blue chips?" or "Can you scoop the water?" Avoid specific directions. Let the child determine his or her level of engagement. Praise any attempt. Ask further questions to improve quality of response, for example, "Yes, that is a blue chip" (to a child who touches a chip or points but does not

Physical Fitness	Goal	Activity
	Arm Strength	Scooping and pouring water.
	Cardiorespiratory fitness	Blowing bubbles.
	Leg strength	Kick splashing.
	Endurance	Filling one bucket from another by wetting and squeezing out sponges.
Motor Development	Arm use	Moving objects from one bucket or bowl to another.
	Head control	Wet brushing body parts and asking the child to look at what is being brushed.
	Grasp and release	Picking poker chips out of a bowl.
Perceptual-Motor Development	Body Image	Body painting and washing clean-up.
	Laterality	Moving objects from one bucket or bowl to another, crossing the midline.
	Spatial Orientation	Challenge the child to put the wet washcloth in various positions in relation to his or her body, i.e. on his or her knee, over his or her head, or under his or her arm.
Social Skills	Sharing	Work together to use sponges to move water from a large tub to a smaller bucket.
	Communication	Ask one child to estimate how many cups it will take another child to fill a small bowl from a larger bucket.
Cognitive Development	Matching	Laminate a deck of object, number, or letter cards or cards from a child's card game. Group the cards in pairs. Put one of each pair into a bowl or water. Show the child a dry card and ask him or her to find the wet match.
	Counting and math	Place a variety of objects into the water. Ask the child to retrieve a specific number of objects. As an alternative, show the child a number card or domino. Without telling the child the number on the card of domino, ask him or her to retrieve that number of objects.

touch it) "Now, can you get it for me?"

Using a problem solving approach means a child who attempts to solve the problem succeeds. That attempt is praise-worthy. Asking more structured questions results in greater definition of response. Self-esteem comes from hearing praise.

Once a few water learning activities have been experienced, starting a water learning session with a familiar activity and then moving to a new activity will help a child develop confidence. Confidence helps a child be courageous in trying new things.

At the conclusion of the activity, reverse the order of plan organization.

1) Remove the child from the water environment and help them become dry, dressed, and comfortable.

2) Dump all water.

3) Dry and dress yourself.

4) Clean and dry all equipment.

5) Make notes on the outcome of the water learning session. They will help you plan future activities, as well as coordinate water learning with therapy and academics. Remember, for safety, the child should be the last to enter the water learning environment and the first to leave. Children should wait for permission before beginning any interaction with items in the water learning environment.

Water Learning and Swimming

Even a baby's bath can be a water learning session, as the caregiver names the baby's body parts while each is washed. It is never too early to plan happy, interactive learning situations involving water. The more comfortable a young child feels when wet, the more accustomed that child will be to the physical feelings that submersion in water elicits. This will be very important once that transition to the swimming pool takes place.

If a beach and/or zero depth pool are available, many water learning activities can be easily adapted to that setting. As a child becomes more comfortable in water, water learning activities can include walking in water to accomplish tasks as well as more large muscle motor activities built into the challenges.

A swimming pool can be a very scary place for a young child. The more water learning experiences the child has had prior to entry into a swimming pool, the more comfortable that child will be when the big pool day arrives.

Water Learning is Easy!

Anyone can implement water learning activities in almost any setting. Water, the ideal learning environment, is everywhere! •

Susan J. Grosse is the author of *Water Learning: Improving Mental Physical, and Social Skills Through Water Activities* (SJ.Grosse, 2007, 194 pp.), which is available from Human Kinetics Publishers, Champaign, IL. For additional information on implementing water learning experiences, as well as a wide selection of pool as well as non-pool activities, consult www.humankinetics.com.