Promoting Multi-Sensory Involvement

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Involving the Senses Makes Sense

Our five senses (sight, hearing, smell, taste, and touch) are the portals through which we gather information and knowledge. Therefore, it stands to reason that the more our senses are engaged, the more of our senses that are engaged, the greater the opportunity for information retrieval and comprehension. This is why "hands-on" activities are so useful for teaching — they involve and engage several, or all, of the learners' senses simultaneously, providing multiple routes for making discoveries.

The goal of hands-on teaching is not literally to get a visitor's hands on an object or living thing. In fact, this may not be advisable or possible. The goal of hands-on teaching is to amplify learning opportunities by involving the senses in a direct and personal manner. Involvement, after all, is the key to learning. When involved, a learner has both reason and routes for acquiring and retaining information. Allowing visitors to investigate closely and to heighten their sensory awareness ensures a greater level of individual involvement and, ultimately, learning.

Many museums are hesitant to conduct hands-on activities because their collections are too valuable, too rare, or too vulnerable to be handled. While they may be correct about their collections, they are incorrect in their assumptions about hands-on activities. Hands-on activities need not, and perhaps should not, use authentic or original objects. Reproductions, scraps, samples, and other replaceable and inexpensive items can turn a visit to a "hands-off" institution into an exciting "hands-on" experience.

- Working with Younger Visitors

If you've toured very young children you know that they are innately "hands-on." They want to touch everything — even you! This behavior does not constitute intentional insolence or invasiveness. It is a reflection of their natural desire to understand and relate to the things and people around them. Children simply call upon those senses that serve them best.

The first senses we become reliant upon are taste and smell. Certainly you've noticed how babies put everything in their mouths. As we begin to age, touch becomes increasingly important. This is evident in the behavior of most toddlers and younger children who develop tactile attachments to items like stuffed animals or blankets.

Knowing that young children's visual and auditory abilities develop more slowly than their other senses should help educators create age appropriate lessons. Younger children will find activities that require listening or looking for any length of time difficult, so they should be allowed to reinforce these endeavors tactually (through touch) or kinetically (through movement).

Among the possible hands-on activities to employ with younger children are:
- Let the children feel materials having textures that correspond to objects or art work they are viewing.
- Have children join hands to form lines or to make shapes that look like the ones they see in art.
- Ask children to imitate the stance or attitude of a sculpture.
- Let children explore the past by trying on costumes or hats from earlier time periods.

- Have children inspect and play with reproductions of toys from an historic time.
- Encourage children to move in the ways they see certain animals move.
- Allow children to touch pelts or mounts in order to experience what the animals they see might feel like.
- Pass around a variety of leaves — deciduous, succulent, evergreen, etc. — and have students experience the differences in their appearance and texture.
- Give children a sample leaf that they can examine closely and then search for in the garden.

- Older Children and Adults

Even though sight and hearing fully sharpen by 6 to 9 years of age, older children and adults continue to delight in using their other senses. People strolling through clothing stores can be observed touching and stroking the various fabrics. The smell of freshly baked bread or cookies conveys a feeling of warmth and is even suggested to help sell a home. Aromatherapy to relax or rejuvenate is the latest craze. And, bronze sculptures develop shiny spots where viewers cannot seem to resist touching them (even though, in many cases, the objects are not supposed to be touched).

Like their younger counterparts, older children and adults also appreciate hands-on opportunities in museums, historic sites, zoos, parks, and gardens, especially when such opportunities enlarge upon the gallery experiences. For example, it is both satisfying and enlightening to listen to music that is typical of the appropriate time period when exploring a historic house or museum.
of history. Being able to touch a canvas with heavy paint applied by a palate knife can appease a viewer's compelling desire to feel a thickly covered painting. And, nothing can convince a squeamish visitor that snakes aren't slimy like being able to touch their cool, dry scales.

The activities listed for younger children, above, can be adapted for an older audience. Try using these, or other, hands-on activities to introduce, enlarge upon, or reinforce tour themes explored in the galleries. For instance:

• Prior to looking at mollusks in a natural history collection, pass around examples of univalve and bivalve shells for visitors to inspect.
• During a stroll though a garden, hand visitors a variety of aromatic herbs and flowers to smell and look at closely.
• Following an art tour, offer students a studio experience where they can make art using the principles they learned about in the galleries.

- Hands-On Benefits

Whenever you can create an opportunity for visitors to get close, let them. Such opportunities will reinforce your visitors’ desire to learn, open up new ways of learning, and increase the intensity of their involvement.

When I worked for the Smithsonian Institution, the Naturalist Center, located in the National Museum of Natural History, was among my favorite places. (The Naturalist Center has since been moved to an off-campus location in Northern Virginia.) The Naturalist Center was an educator’s dream — a natural history “wonderland” — where visitors could look through microscopes, weigh or measure, and explore the many drawers and boxes filled with specimens, replicas, and mounts.

The very same students who seemed unfocused when standing before dioramas in the galleries were riveted when allowed to handle owl feathers or compare sparrow bones to those of a mouse. Though the room bustled with activity, it was often quieter than the galleries, as students were more engrossed and less likely to break into personal conversations.

Usually, staff members would give students several questions to ponder as they inspected specimens both visually and tactually. Then, the students were allowed to explore, as facilitators wandered among them, offering assistance or guidance as needed. The students would write out their answers, thoughts, observations, and additional questions and discuss them as a group at the end of their session.

Whether the students spent five minutes or fifty minutes involved in these types of hands-on activities, in general they seemed more eager and attentive than those students who only experienced looking in the galleries. The hands-on opportunities heightened the students’ interest in viewing things in the galleries and gave the objects an immediacy that they would not have had otherwise.

Hands-on activities are worth the extra effort. While it may be easiest to simply tell visitors what they need to know, teaching’s effectiveness is not measured by convenience. The true measure of teaching’s effectiveness must be in the learning that takes place. That is why “hands-on” activities may be among the most important tools available to educators.

Alan Gartenhaus
Publishing Editor
A Hands-Down Winner in Hands-On Education

by Teresa Bullock

One thousand pound sea lions peer across the steps where a small group of grade schoolers sit in fidgety expectation. Momentarily, a thousand and one questions erupt from the youngsters as the docent vies for their attention. “Are they real?” is usually the first and most often asked question. It is one that docents are accustomed to hearing regularly, and they respond with the usual answer. “Yes, they are real, mounted sea lions. They are not alive, but they are real.” (Sometimes a quick explanation of mounting versus “stuffing” follows.)

The students, here for a Desert Ecology Tour, are usually third and fourth graders and have most likely just come from the Desert Diorama, the Desert Discovery Lab, or Reptile Hall. They’ve huddled at the exhibits behind glass with their docent who unites the tour around a theme such as conservation, adaptations, or predator—prey relationships. Now the eager youngsters are seated on the steps under the doleful gaze of the huge marine mammals. On their left is the Salt Marsh and behind them a lonely coyote looks out from a sandy beach. Close at hand is a little brown cart previously hidden away in the fake rock closet in the Desert Diorama section of the San Diego Natural History Museum.

Oohs, aahs, wows, and “Can I hold it?” burst forth from young spectators as a heavy brown horn of the Desert Big Horn Sheep is taken out of the cart. “How would you like to carry something this heavy around in the hot desert all day long?” the docent asks.

Small hands try hoisting the curved horns up to their heads to give them a try. A bobcat hide and a huge, buff colored mountain lion pelt get delighted responses as the children (and their adult chaperones) stroke the soft fur and examine the predator teeth and claws. Weighing bones and guessing which belongs to a bird and which belongs to mammal allows the children to focus their attention on the differences. Sea shell fossils, rabbit and coyote skulls, rattlesnake skin, and a rock-shrouded mastodon tooth all allow the museum guests to touch and feel the desert. Even the partially mounted quail and set of glass eyes help the children understand mounting techniques and further answer their “is it real” question. Although the Anzo-Borrego Desert is only two hours drive away, a trip to the desert is impossible for many children. A trip to the museum, however, brings the desert to them.

Besides the treasures in the cart, children may spend time in the Desert Discovery Lab where numerous drawers of specimens can be seen up-close. Best of all, however, is the docent stationed here with a live snake for the children to touch and hold with care. Often times, children and adults have never touched a live snake. They have never looked at one’s eyes awaiting the lidless blink that never occurs. They have never felt the contracting muscles of the constrictor or seen the large belly scales that help the snake move along. Visitors of all ages are delighted to meet Smiley the king snake whose claim to fame is the smiley face pattern on his sleek, brown head, or watch Anza the boa wind her way into a docent’s sleeve. Even the youngest visitor learns that snakes are not slimy but, instead, are dry, smooth, and cool to the touch. Feeling the tightening muscles as the snake coils around the docent’s hand clearly demonstrates the term constrictor. A nearby drawer (one of many holding desert specimens) allows visitors to view the long, ribbed skeleton of a snake. Another drawer reveals an tiny bat skeleton, its five digit hand reinforcing similarities among mammals.

Other museum tours provide hands-on experiences, too, and docents may wear aprons with pockets containing a variety of specimens for any tour. For Wet and Wild, the docent might pass around a piece of baleen, sand dollars, a shark egg case, sea urchins, or a piece of sand-papery shark skin. Students can hear about the sea star’s unusual “stomach out” eating method while holding one in their hands. As with a few other specimens, the “yuks” can be interpreted as new revelations, too. Similar to the desert cart, the seacoast cart houses an array of creatures that can be passed from student to student, bringing the ocean up for a closer look. Shark teeth and a tooth-filled shark jaw always get close inspection as do bottled specimens of octopus and other marine invertebrates. Holding a dolphin skull is a rare opportunity for just about everyone.

The Door to the Desert program is an in-museum, science classroom experience. Students get to play in
the dirt to test soil percolation and erosion, test waxy and normal leaves for their transpiration tendencies, and study rock erosion and the creation of new land forms with the use of sandpaper and rock crushers. Heat lamps and burrow boxes illustrate desert temperature adaptations and cotton ball "clouds" placed in a sandy desert box illustrate the insulating effect of clouds. This in-museum program also allows children to visit a curator who usually has an array of holdable "in process" specimens for their inspection. Anything from dinosaur fossils to new botanical finds can be seen upstairs at the museum.

Besides guiding in-museum tours, the San Diego Natural History Museum docents also take a variety of hands-on programs into area schools. The blue van is loaded early the morning of outreach tours. Mounted specimens: skunk, opossum, gulls, gophers, and much more head up and down the freeways — peering through the windows at curious motorists. They are on their way to eager grade schoolers who will stroke, caress, pull, poke, and pet them until most of their questions have been answered and much of the critters' hair or feathers are worn to a nub.

Roadrunners, for example, exposes children to five different habitats including seacoast, mountains, and the desert in eastern San Diego County. After learning about the food chain, predator-prey relationships, and mounting and freeze-drying techniques, the students are led from station to station where they may examine all the specimens and visit with live animals such as snakes, geckos, and tarantulas. (Harriet the tarantula has dazzled children and docents as well when a tickle of her spinnerets produces a long strand of silk for all to see.) Favorite mounts, noticeable by the wear and tear exacted on them, are the felines, the opossum with its mouthful of razor-sharp teeth and accommodating pouch, and a variety of owls. Owl wings can be examined for their soft edge feathers that provide for soundless flight. Not so favorite are the owl pellets that are often dropped quickly — perhaps too much "hands-on!"

Life in the Desert covers some of the same material as in-museum Desert Ecology and Door to the Desert, but instead of students coming to the museum to learn about the desert, the desert goes to them. This particular program includes a slide show as well as five stations arranged to allow students close-up inspection of a variety of plants, animals, and geology specimens. They learn about different areas of the desert such as rocky slopes, oases, dry washes, badlands, and the low desert. Adaptations to such a varied environment are emphasized by using plants and seeds. Clam and oyster fossils remind the children that the desert was not always dry. Rock specimens introduce them to geological terms and they learn that metamorphic gneiss is really "nice." The pack rat's habit of stealing shiny metal objects from backpacks and tents usually gets the kids' attention, and the beautiful iridescent feathers of Costa's Hummingbird delight them as they turn the tiny encased specimens to catch the light.

The Lizards and Like program also slithers along San Diego's highways introducing grade schoolers to herpetology. They hold mounted specimens with legs, without legs, with scales, and without scales. Most important, docents take care to educate students on venomous and non-venomous reptiles found in our area. Amphibians — usually too scarce or too swift to be caught and/or seen — can be viewed at leisure as the students pass from station to station.

Students are intrigued by the opportunity to touch. More than just fun, touching is another route toward learning and retaining information.

Photo: courtesy of the San Diego Natural History Museum

Continued on the next page.
For instance:
- Shut your eyes. Hold a tennis ball and then an orange. Like the raccoon, you can FEEL the difference in the dark. Which of the two would you eat?
- Swoosh a piece of notebook paper, then a tissue above your head. Which is quieter? The owl’s specialized feathers allow for almost silent flight, and specimens of wings further illustrate the point.
- Could you find dinner with just your nose? Maybe, maybe not — since humans have only 16 million sensory cells in their noses compared to the rabbit’s 100 million! Film canisters holding aromatic substances let students match smells and also express a few more “yucks.”

**Backyard Bugs**, the newest addition to outreach tours, introduces K through second graders to the world of insects. Numerous cases of common and exotic insects as well as live specimens introduce children to the importance of insects in the environment. Little ones participate in building an insect or spider on a flannel board and learn the use of legs, wings, antennae, and mouth parts in locomotion, feeding, and sensory perception.
- Want to see how a fly sees? Look through a large spoon with holes.
- Look at a sponge to see how a fly’s mouth works.
- How does a butterfly drink? Toot on a curly birthday horn to see the butterfly’s coiled proboscis.
- A toothpick or plastic needle is a mosquito mouth, and sideways pliers illustrate the chewing mouth of grasshoppers and beetles.

The San Diego Natural History Museum is a hands-down winner. Ramon, a second grader, sent docents a letter decorated with blue fish, green bugs, and orange worms. “Dear Backyard Docents,” he wrote, “thank you for teaching us about big backyard bugs! You guys are as smart as scientists! My favorite bug was the tarantula. Last but not least, it was fun.”

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Teresa Bullock has been a docent at San Diego Natural History Museum, in San Diego, CA, for five years. After living in Colorado for 25 years and finding herself in a new area, she felt volunteering at the museum would be the best way to learn about San Diego’s many habitats. The added benefit, however, is the many new friends she has made who have a similar love of nature.
Imagine walking into a desert garden along a red brick path bordered with natural rock. Among the multi-colored wild flowers and pale colored shrubs, you see the amazing shapes of succulent plants and a wide variety of spiny and hairy looking cactus. Watch a Cactus Wren, who makes an appearance as you stand there looking at its football-shaped nest. You are in the Desert Botanical Garden, in Phoenix, Arizona, an outdoor museum with special opportunities for interactive teaching through Investigation Stations.

As you continue your walk, you see a small group of people gathered in a pull-out area along the path. They are listening to and asking questions of a Garden docent. The docent has several items to show visitors on a stone display area, to help them learn a little about the Sonoran Desert and the Desert Botanical Garden. He or she tells you that you will encounter docents at other Investigation Stations like this one along the trails, each station with a different theme about plant life in the desert.

At the next station, the docent might show visitors a dried cross-section of a saguaro cactus, sharing why the accordion-like pleating is important for stem succulents in order for the stem to expand and store water when it rains. Storing water allows the plant to live during long stretches when no water is available. The docent may also show a small “cradle” planter containing baby saguaro seedlings that are about one inch tall and nearly four years old! Wow, do those plants grow slowly!

Thus, docents share the story of plant and animal life in our desert. Each Investigation Station is situated near the plants whose story is being told, so visitors have a real view of the plant and the opportunity to make first hand observational discoveries about it and any natural animal life that might chance to drop by. In natural settings, the wildlife is not dependable, so viewing their activities depends on chance, and can be a special discovery when it happens.

The Desert Botanical Garden has four theme trails — all with plants from the deserts and each focusing on a different aspect of desert life. Docent interpretation on the trails uses informal learning techniques to share with the visitors the answers to questions they may already have and take them a step further in their knowledge about desert plants and animals, as well as about the people who live in desert environments. The philosophy at the Desert Botanical Garden is that the Garden itself is a dynamic living classroom, and docents use this living classroom to help visitors of all ages develop and answer questions about how a desert environment works, and why it is special.

To connect with visitors of all ages and all stages of knowledge, our techniques include encouraging the use of as many senses as possible. To help visitors understand how the prickly pear cactus is used as food, we serve a little taste of candy or jelly made from the prickly pear fruit or a cooked piece of the stem or pad commonly used as a vegetable. The strong smell of the dampened leaves of the creosote bush helps visitors remember the story about the resin and how it helps prevent evaporation from the small leaves of the plant. Visitors are encouraged to listen to the sounds of the birds and to compare one bird sound with another.

Docent tours and Investigation Stations include hands-on items to give visitors a visual and tactile sense of what the docent is discussing. Looking at a bird nest closely and touching the sticks or grass that it is made from reinforces the understanding of how birds use plant materials for their homes. Comparing one type of nest to another also helps visitors remember, and visitors are encouraged to notice various things about the plants the docent is talking about. We also have docents who walk the trails with hands-on items in order to answer questions that visitors may develop during their visit.

Due to desert weather conditions — extreme heat in the months of May through September — the “regular” docent season is October through April. In the hot summer months, however, the desert is a very lively place, and we still want to share fun and fascinating information with visitors. We do this on early morning tours or evening “Discovery Flashlight Tours” that make the heat of the desert easier to tolerate.

As you exit the Desert Botanical Garden a spectacular view of red rock buttes is before you and you might notice, with all the new things you have learned about the desert, that it is a complex, beautiful and yet, very peaceful place to visit.

Nancy Cutter is the Interpretive Coordinator at the Desert Botanical Garden in Phoenix, Arizona. She began her museum career in 1989 as a volunteer docent at the Garden. In 1992, she became the Interpretive Coordinator and now oversees the docent program and conducts interpretive training. She is a past Chair of the Museum Educators Council of Arizona.

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Storytelling
A Hands-On-The-Mind Teaching Technique

by
Bev
twillmann

When I was growing up, I was lucky enough to have parents willing to travel all over the United States with four children in a car without air conditioning, exposing us to the wonders of this beautiful country. During those travels, our family visited many National parks and hundreds of museums, listening to numerous talks, presentations, and programs concerning the area that we were visiting.

As a child, I was intrigued and inspired by the sites we visited, but my patience with the "talks" wore thin very quickly. Even my mother would urge my father to skip the next "program," encouraging him to take the family on a "tour" himself. When he relented, it was stories that the family would hear. His stories blended the facts he read with his passion for the specific site, or battle, or historic event of our country. His stories, and his excitement for the subject, kept us intrigued with where we were visiting.

It is that kind of inspired love of topic, combined with the art of storytelling, that constitute the basic foundation of Interpretive Voices — an organization recently created by a consortium of accomplished storytellers who provide listening and learning experiences that serve and enhance interpretive programming.

Telling stories is a natural and universal means for collecting and crafting information so it may be saved and remembered. Telling stories to ignite a passion for what is being shared is the goal. For when individuals are passionate about something, their enthusiasm is contagious to those around them. In this way, storytelling becomes a "hands-on-the-mind" technique successful in all aspects of human interaction, especially education.

* Telling Stories

People are wired to learn through story. If you think back to a favorite teacher or speaker, you'll discover it was the "storyteller" in that person that made them so memorable.

The inspiration you absorbed from those influential people came to you through the power of story.

Once, Truth walked about the streets here on Earth looking to share his knowledge and thoughts. He was kind and generous, yet confused about the way persons kept avoiding him. You see, Truth was naked and uncovered, and people would close their doors and windows in his face, pull their children in the other direction, and turn their backs on him. He became so forlorn, he decided to visit his sister, Story, to see if she might have an answer to his dilemma.

Story was beautiful, all covered with satin and silk, jewels up and down her arms and on her fingers; she was a sight to behold. Everyone loved Story. Why, whenever she went into towns, people invited her to their homes, begging her to sit and spend time with them. Children loved Story. When she was around, they would sit at her feet, all eyes upon her, and listen with rapt attention to what she was saying.

Truth knew about Story's popularity and therefore, went to her home to see if his sister could offer advice for his problems. Story greeted her brother with open arms, and then, realizing his sadness, invited him in to talk. After Truth told his tale of avoidance by others, Story took him silently by the hand up to her attic. In the far corner she uncovered a huge trunk, opened the lid and brought out fine cottons and linens, draping them over Truth's naked body. Then, she put golden chains around his neck and jewels in his hair to gather the sunlight. She stood back and looked lovingly at her brother. He was squirming around, feeling quite uncomfortable in these confining garments. But his sister assured him, "There, go out into the world. See how you will be accepted by others from now on."

So Truth thanked his sister, kissed her good-bye, and left her home, walking towards the nearest town. Immediately, people began to notice Truth. They gathered to listen, to his every word. Children loved him now, reaching out to touch him, eager to await what he had to say.

And you know, it's no different today — people still run from the Naked Truth, but will flock when he's bedecked as a Story. (Adapted from Jacob Krantz, Preacher of Dubno.)

We all have stories to tell, especially those of us involved in the sharing of information. It is finding the story within the facts that Interpretive Voices helps those in the interpretive field accomplish.

* Using Stories to Reach Learners

According to Freeman Tilden, in his book Interpreting Our Heritage,
"Information is not Interpretation. Interpretation is revelation based upon information." A good story conveys images powerfully, making the listening audience "experience" the information, not just hear it. Doing this achieves another of Tilden's principles of interpretation — "The chief aim of interpretation is not instruction, but provocation."

Many presenters focus on only two of their audience's senses — seeing and hearing. They, and their institution's collection, are seen by visitors who listen to information. But, what about engaging the other four senses? (Yes, four! Along with taste, touch, and smell, there is the sense of emotion.) Without including all the senses in a program, visitors are cheated of truly experiencing the docent's presentation.

As one of Interpretive Voices' trainers, Sherry Norfolk, says, "Think of facts as grains of wheat. Such grains are hard to hold and carry in your hand without spilling and losing some. But, if you weave a basket of story, it carries and holds the facts in your mind, like a basket carrying the wheat." Both docent and visitor will remember better when relating facts through story.

Guiding your listener toward seeing natural fact as story is not difficult. It takes a bit of creative thinking and the willingness to present a program in an innovative way. For instance, if your presentation revolves around a pottery exhibit, why not share the facts through a different perspective, such as through the "eyes of the pottery." Whose hands were on them while they were being created, then used? How did that feel? What service did each of them render and did it make them important? Why was the pottery left behind when its culture moved on? What was it like being buried for all that time, and how did it feel to finally be uncovered and placed in a museum? Remember, much of the same history happened to the pottery as to the people who created and used it. Seen through the eyes and mind of exhibit pieces, the presentation takes on a whole different "feel."

Try animating various objects by thinking of them as beings — think of baskets as "the basket people" and interpret the information from that point of view. The Native Americans have done this for generations in their use of story with animals and land taking on personalities and experiencing life.

If an exhibit in your museum has paintings or prints, take the visitor into the composition; let them travel in time with you as you lead them into the surroundings and subject they are looking at. Research and find stories about specific objects or subject matter, then present them while your listener is experiencing the presence of the item.

Last year, I was invited to do a program at the National Museum of Wildlife Art in Jackson, Wyoming. My presentation was to work with their exhibit at the time, which was "Robert Bateman: Natural Worlds." Numerous wild animals appeared in these beautiful paintings, and prior to my arrival, I researched and developed stories about many of the animals. It was not difficult. It was fun, and the paintings themselves were an inspiration to me.

The day of the program brought a diverse group of visitors of all ages. As I waited to begin and watched people milling around, looking at each painting and then ambling on to another, I wondered if they were actually "feeling" what I had felt when first seeing some of the work and thinking of stories I know about those animals.

I did my program, traveling from painting to painting sharing tales about the animals: "Why the Cardinal is Red," "The Lion as Arrogant King," "How and Why the Polar Bear Landed at the North Pole." On and on I went, and when finished, almost every person in that gallery traveled to one or another of those paintings they had earlier only glanced at, and stood in awe looking deeply.

One little boy particularly drew my attention. He appeared bored before the presentation, but afterwards went directly in front of Bateman's Polar Bear painting, stood on his toes to get a closer look and said with great emotion, "Wow!" That is the power of story.

Bev Twillmann is president and co-founder of Interpretive Voices, a group of gifted storytellers/storyeducators who embrace a wide variety of storytelling styles and a huge repertoire of tales. This successful group works all over the country, providing interpretive training for docents and staff at parks and museums. They promote the value of stories for educating. For further information about Interpretive Voices, please contact Ms. Twillmann at: 9508 George Williams Road, Knoxville, TN 37922, or call her at (423) 694-9888.
Reach Out and Teach

by Betsy Gough-DeJulio

Once upon a time, I thought I had this touring business figured out. After all, I had the material more-or-less mastered. I knew generally how to select objects that would be the most engaging to visitors and how to shift course, most of the time, if I needed to! I knew how to select a theme and how to design and sequence age-appropriate questions for good visitor involvement. I also knew how to connect ideas and make the tour "flow." And, alas, I knew how to use effective speaking and crowd control techniques. This is not to say I didn't have plenty of room for continual improvement. But, let's face it, I've been doing this for a long time. Yet, something was missing.

Sound familiar?

What was missing was an experience that engaged the whole person. The richest learning environments and experiences are often found in pre-schools, kindergarten, and early elementary. What is so special about these classrooms? Among other characteristics, they are very conducive to multi-sensory experiences that emphasize learning-by-doing a wide range of activities, often at "centers."

Our museums generally have built-in "centers." In professional parlance, they are called "exhibitions." But, no matter how well designed, these exhibitions probably do not, especially in art museums, emphasize learning-by-doing. That is, unless a docent is present to play the critical role of facilitator: expanding the context by providing multiple "points of entry" into the object, thereby making it more accessible and, hence, more meaningful to visitors.

I don't know about you, but about the same time I realized "something was missing," the familiar art museum dictum of "touch only with your eyes" began to seem highly unsatisfactory to me as a docent. No doubt, it had never been very satisfying to the students. Yes, it remains a clever and polite way of asking students not to touch the objects without having to use a "negative" word like "don't." But the message is clear; touching has too infrequently been a part of art museum tours. What a shame, for early childhood psychologists tell us that touching is a very important and appropriate way of knowing and understanding the world around us.

The Science Museum Model

Science and children's museums have historically been far ahead of art museums when it comes to meaningful hands-on experiences for visitors. An observation of those around you in these kind of institutions reveals people actively and enthusiastically involved in doing tasks that engage them at many levels, whether it is touching starfish in a tank or manually operating a model of planetary orbits. Art museum docents can learn important lessons about teaching in museums from their colleagues at these institutions.

Art museum docents would be wise to exercise caution in the design of hands-on activities, however, lest they fall prey to the central flaw of some of these science/children's museum models: that entertainment is sometimes mistaken for education. In an effort to create "fun," "engaging," and "kinesthetic" learning experiences, activities may engage visitors on the level of physical — and even social — activity to the exclusion of the thinking and learning goals that were intended.

Guidelines for Developing Hands-On Activities

We can aim to avoid pitfalls by remembering the following four guidelines. Docents should use tour props and age-appropriate hands-on activities:

• with very specific learning objectives and learning goals in mind;
• in support of concepts very closely related to the museum objects (not in competition with them);
• to direct visitor attention back to the exhibited objects (rather than as ends in-and-of themselves); and
• as an instructional enhancement, not recreation.

As we try to design activities that meet these guidelines, we must continually ask ourselves questions such as, "Is this activity teaching a concept germane to this object or is it just keeping kids busy? Will the students understand the connection without a lot of explaining on my part? If it is instructionally valid, is it teaching what I think it is teaching?"

Defining "Hands-On"

There are at least three interpretations of the term "hands-on," as it relates to art museum (and many historic site) tours. The first refers to tours in which students "do" something besides ask and answer questions, such as worksheets. The second refers to tours that are followed by a related (studio) art activity, often of the "make and take" variety, the purpose being to reinforce some aspect of the tour. The third interpretation, and the one I have chosen to elaborate on, is where
opportunities to manipulate materials or props are integrated into an inquiry-based tour.

**A Four Types of Hands-On Activities**

In reflecting upon several years of exhibitions and the kinds of hands-on activities we designed for specific works of art, I found that virtually all of them were developed to increase understanding in one of four ways. I discuss each of them, below, describing examples of activities for each. In spite of their highly specific nature, my intent is not to provide “blueprints,” but to offer examples that will hopefully inspire your own ideas for effective and engaging ways of teaching.

Though the objectives embodied in the four approaches below could be accomplished through a didactic “show and tell” method of delivery, they are intended to be used in a way, as the term “hands-on” suggests, that actively involves students in making discoveries by trying their hand.

1. **Simulate an aspect of the creative process.**

Joan Nelson is a contemporary artist who isolates background details appropriated from Renaissance paintings and paints them on tiny canvases. The paintings are lovely, but small and difficult for a group of students to see very well. In order to help them understand some aspect of Nelson’s creative process, we designed a simple activity in which pairs of students were given color photocopies of Renaissance paintings and view finders (slide mounts would work). The students’ task was to lay the view finders on the reproductions and move them around in order to “isolate” background details, finding the best composition. This concept of finding small pictures hidden within pictures captivated the students, who also demonstrated a keen natural ability to “compose,” and helped them understand the scale and subject matter of Nelson’s work.

2. **Explore a principle embodied in the artwork.**

A fountain called *Cultivus Loci: Nimbus* installed in our gallery by Jann Rosen-Queralt provided at least two opportunities to reinforce science-related concepts that were integral to the unity and meaning of this piece, which expressed the artist’s ideas about the relationship between water, land masses (such as glaciers), and clouds. Three screens enclosed the fountain. Each screen was constructed by suspending two layers of fine mesh screen from a rigid frame. By using two layers of screen, the artist was able to create patterns that resembled water-marked silk, as well as the nimbus clouds referred to in the title of the work. Pairs of students were given two small pieces of screen (with the edges taped) so that they could discover the patterns that were created when the pieces of screen were held up to the light and turned in different directions.

The fountain itself was constructed from vertical copper pipes

In the same exhibition, another artist had cast hydrostone in the shape of Styrofoam packing peanuts, which he then arranged in small groupings called “glyphs.” Students were given four packing peanuts, asked to think of a noun or verb that they wanted to communicate and then asked to use their peanuts to create a “glyph” representing their ideas. The other students tried to infer what their classmates were trying to communicate.

While neither of these activities could possibly duplicate the complexities of the artists’ creative process, they very inexpensively and efficiently helped students understand some of the mental and physical dimensions of creating art.

Continued on the next page.
After using a magnifying glass to compare a reproduction of Roy Lichtenstein's art to the dots used in comics strips, students were better able to understand another, highly nuanced and ironic work entitled "Sold!" that alluded to Lichtenstein's pop art.

Photo: courtesy of the Contemporary Art Center of Virginia

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covered with sea sponges. Water was pumped from a large pool up through the pipes and allowed to drip down the sponges before plumping onto varying lengths of more copper pipe, set at oblique angles to the vertical pipes. As the water struck these shorter pipes, different tones were emitted, so that the space was filled with a metallic atonal music.

We built a simple xylophone from graduated lengths of copper pipe. the ends of which rested on a wooden frame. Using a metal rod, students struck the pipes to create sounds, first predicting whether the longer or shorter pipes would have higher or lower sounds, explaining why, and then testing their predictions. Finally, as a departing activity, we incorporated a little folklore into their experience by supplying the students with pennies to toss into the fountain after making a wish.

3. Make tangible an unfamiliar reference in the artwork.

In a recent exhibition, a series of chewing gum sculptures by Hannah Wilke was entitled "Four Color Process," a reference to a printing process which few people have heard of, much less experienced directly. This work was a series of non-objective sculptures created from opaque layers of colored chewing gum, used almost like polymer clay. In order to penetrate one layer of meaning (the other was covertly anatomical and sexual, so we decided to leave it alone!), we felt students needed to know what the four-color process is.

We borrowed actual color transparencies from both a local art school and our local printer so that we could show students what the phrase "four color process" means. We showed samples of finished print jobs to the students and then "magically" reproduced the images by layering four transparencies, each printed with one of the four colors required by the four-color printing process: magenta, cyan, process yellow, and black, one on top of the next. Students watched as, for example, a yellow area became orange by laying magenta over it, or green by laying cyan over it. More complex colors emerged with the final two layers. Even our security guards were transfixed by this little bit of color "magic."

4. Illustrate the connection between an artwork and the artwork to which it alludes.

A work entitled "Sold!" in a recent exhibition consisted of a red dot, about the size of a quarter, painted on the wall. It was a clever, if rather minimal and oblique, reference both to Pop art painter Roy Lichtenstein's emphasis on the ben day dot, as well as to the "sold" sticker placed by most galleries on the labels of artworks that have been purchased.

In order to help students understand this work as pushing Lichtenstein's paintings one step further, we first showed students examples of comic strips. Using a magnifying glass, we asked them to find the dots. Then, we showed them a reproduction of one of Lichtensteins paintings, helping them discover how he had emphasized and enlarged the ben day dots used in comics. In this way, students were better able to understand this highly minimal and ironic work.

▲ Touch and Go, Go, Go

As you begin or continue to explore the wide world of tour props and hands-on activities, remember that the best ones make concrete what is implied, embodied, referenced, or assumed by the artist. Also, remember that neither the materials nor the activity need be expensive or complicated. In fact, if they are, there is certainly a better way that you just haven't thought of yet ... but you will!

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We're An Important Destination

According to the Travel Industry Association of America, twenty-seven percent of U.S. adults (53.6 million adults) took at least one trip in the previous year that included a visit to a historic place or museum that was more than 50 miles from their homes. June, July and August are the most popular months for cultural and historic travel. Traditionally, these are the months that docent programs gear down. Should we be reconsidering this tradition?

As Seen in the New York Times

The following is an excerpt from an article entitled "Museums, Not Movies," written by Mary Collins, who teaches writing at Johns Hopkins University. The article appeared last Spring in the New York Times.

“My favorite item in all of the Smithsonian’s museums is the 100,000 year-old Stone Age ax that sits behind a counter in one of the rooms at the National Museum of Natural History. It is unique not only because it was expertly shaped and balanced for a left-handed human ancestor, but also because anyone can touch it — a piece of ancient history that’s not locked up in a case.

When I held the ax in my palm and rolled my fingers around its precisely chipped edges, I connected with its story in a way that surpassed everything else I had experienced during my tour of the exhibits. Not even the well-executed gem and mineral exhibits, with its dazzling samples, could compare with holding this object.

While doing research for a book, I visited all 14 of the Smithsonian’s museums in the Washington area. I was surprised by the stale state of some of the primary exhibits. . . .

But I remain concerned about what the Smithsonian plans to do with this great gift. I came away from my research with the uneasy feeling that the "nation’s attic" has decided to transform itself into something more akin to the "nation’s entertainment complex."

. . . The Smithsonian has elected to bump its hands-on collection out of its original home to make way for a 3-D IMAX theater, restaurant, and gift shop. . . . I just hope the Smithsonian doesn’t squander all of its new $20 million gift on geegaws. I hope it uses some of the money to champion the power of the authentic object. I’d take a Stone Age ax over a movie ticket any day."

Submit an Article!

Publish and share your teaching ideas and techniques. Address one of the following themes of an upcoming issue.

Teaching and Technology Summer 1999
Submission deadline: March 1, 1999

Terminologies and Techniques Autumn 1999
Submission deadline: June 1, 1999

Questioning Strategies Winter 1999-2000
Submission deadline: September 1, 1999

Send your text and photos to:
The Docent Educator P.O. Box 2080 Kamuela, HI 96743-2080.
To receive writer’s guidelines send us a self-addressed, stamped envelope.
**Body Language Spoken Here**

Experiential learning is a natural for science museums, where material can be manipulated to find answers. But what about art museums, where the pieces are often fragile, displayed in glass cases, and surrounded by "Do not touch" signs? Docents at the Asian Art Museum (AAM) of San Francisco, eager to involve their audiences, frequently employ the Socratic method of asking questions. This technique works well with young children and adults, but not with self-conscious pre-adolescents wanting to appear neither too eager nor too uneducated in front of their peers. The AAM Education Department and school docents, frustrated that the museum's great art was not making an impact on inactive and disinterested sixth grade students, set out to create a new experience for participants.

To begin creating that experience, we met with local teachers who regularly bring their students to the AAM. They suggested we use a format similar to an approach developed and published by Teachers' Curriculum Institute (TCI). Their program, *History Alive!,* uses role-playing, slides, groupwork, and other methods to involve students in a highly interactive process.

Bert Bower, Executive Director of TCI, developed the idea of sending students, in pairs, on a quest within the museum. Some docents were skeptical that sixth graders would be mature enough for the freedom such an approach would offer. They also feared that this style of tour would provide docents with only a minor role, and a disciplinarian one at that!

The AAM Education Department, AAM docents, and Mr. Bowers decided to work together to develop a feasible program that would ensure protection of the works of art and provide a challenging, interactive learning experience for students, while permitting docents to contribute in a substantial way to their group's understanding of Asian art and culture. The result of this collaborative effort was *Body Language: the Human Form in Asian Art*, a two-hour program for sixth graders.

**Introducing Students to Body Language**

We begin the program in the museum classroom where we remind students that the title of our tour is Body Language and that we will explore the ways Asian sculptures convey different emotions or ideas by their poses, their expressions, and the attributes they hold. Students assume different stances to show how they would portray power, fatigue, anger, happiness, intelligence, compassion, or victory, thereby making a personal connection to the art.

Our second activity is called "act-it-out." A slide is projected on the screen and students look carefully at the image, describe it, and finally put their bodies in the same positions as the characters depicted (or "act-it-out"). We chose a slide of an Indonesian sculpture of Durga, the Hindu warrior goddess. Students notice that she has eight arms holding weapons such as sword, a club, a discus, etc. Four girls, standing one in front of the other, stretch their arms appropriately to represent Durga and her eight arms. Durga is standing on a buffalo demon, a part for which the largest boy in the class usually volunteers. Finally, we ask for another boy to take the part of the smaller demon emerging from the slain buffalo's neck. The docent, acting as a reporter, holds a pretend microphone, asking each character how he feels. Students sense the emotions and themes — power, defeat, rebirth, transformation — involved in this powerful religious drama.

The docent now has the audience's attention and explains that the buffalo demon is so fierce that none of the existing gods could conquer him, so all the male gods put their forces and weapons together to create Durga. With this power, Durga is able to slay the demon. But, just as she withdraws the sword from his neck, the buffalo transforms himself into a smaller demon, on whose head she pushes hard to keep him within her powers. With this demonstration and explanation,
As the docent brings her group into a gallery, each student is asked to mark an “X” on the map in the Asian area represented by art in that gallery, for instance the Himalayas. While the docent talks with students about the geography and culture of that area, the participants look at the works, noticing how they are distinctive from most Western art. Then, each pair is given a handout for a particular sculpture. The docent stands where he or she can view each sculpture as the sixth graders work on their handouts. This ensures the safety of the art works. It also makes it easy for students to find the docents when they have questions.

Each pair examines one work of art in this gallery using a handout with a drawing of that sculpture. The students assume the position of the statue whether it is the lotus position of Buddha or, as in the case of the Dakini from Tibet, a difficult dancing pose. Students draw parts of the figure that have been deliberately omitted, forcing them to look carefully at a designated characteristic. Often these are facial features with a definite expression of style or perhaps an animal head. For the Dakini, the sixth graders must also draw her scarf. On close examination the pair discovers that the scarf is, in actuality, a flayed human. The students make the discovery “on their own;” their excitement is palpable.

After completing these activities and answering a few related questions, a text on the handout explains that the Dakini is a Tibetan Buddhist figure, a “female skywalker.” Immediately, some children relate “skywalker” to the character, Luke Skywalker, of Star Wars. They come to realize that the Dakini, though she appears mean and ferocious, is in reality very caring because she will do anything to remove obstacles in the path of a devotee. The flayed human figure represents such an obstacle, an unbeliever. In order to be effective, the Dakini has to be ferocious, because it is difficult to change bad habits, especially if someone is tempting you to do otherwise. The students move from observing concrete details, such as the flayed human scarf, to the concept of a fierce protectress.

A key feature of the program is that students explore the art in pairs. They are able to share ideas, talking quietly to each other within the museum setting. They help each other assume the correct posture depicted by the sculpture. They take

Students draw, assume the pose, and make conjectures about the appearance of this Dakini from Tibet. Instructionally, they move from making observations to drawing comparisons to constructing hypotheses.

Photo: by Kaz Tsuruta, courtesy of the Asian Art Museum of San Francisco, Avery Brundage Collection

We can accommodate as many as sixty students at one time — six docents, each with one group of ten students. We can assign two groups of sixth graders with their accompanying docents in two different areas of the large India gallery and one group each in the other galleries: the Himalayas, Southeast Asia, China, and Japan. The thirty handouts are color-coded (bright yellow for Buddha, green for guardians, etc.), allowing docents to vary assignments to each pair of students as they visit three different galleries, spending twenty to twenty-five minutes in each. The lead docent decides on the gallery rotations for each of the six docents.

Continued on the next page.
turns completing drawings. Answering questions is a collaborative effort. Interaction is high and on task. If one pair finishes its assigned handout before the others, that pair is asked to look at the other sheets on the clipboard to find examples of different *mudras* or different characteristics of Buddha within the gallery.

**Student Presentations**

After finishing the work on their handouts, the students gather around one pair of students in front of one sculpture. This team then presents to the others what it has learned about the sculpture. Because the students are involved, because they have been brought to discover aspects of “their own sculpture” they never would have suspected, they are ready to hear from their peers about “their” work of art. This allows students to practice important presentation skills and, more importantly, reinforces what students learned in their handouts. Each team has an opportunity to present at least once in the three galleries.

Following the students’ presentation is an ideal time for the docent to answer questions and to enlarge understanding of the art and culture. In the case of the Dakini, after the students’ presentation, the docent might show the group other examples of flayed humans on other Tibetan Buddhist statues. The sixth graders can view a display of ewers made from human skulls valued by the indigenous Bon religion. These Bon skulls relate to the skull bowl, which was originally held by the Buddhist Protectress, Dakini. This leads to a discussion of how the original religious practices are incorporated into other religions, which arrived later. The docent might also discuss the “aerial burial” practiced by Buddhists in Tibet, where the dead, placed on a mountain top, are picked clean by vultures rather than cremated because of the scarcity of wood in the Himalayas. Students understand that Buddhist religious practices are adapted to the harsh environment of Tibet.

During the gallery sessions, a rewarding outcome is that those students who are least successful, or “off-the-wall” in the classroom, are often able to shine in this environment. Many “poor students” become involved and curious while providing original insights. Sixth graders prove that they are indeed mature enough to handle structured freedom in the galleries. Teachers like seeing their students’ curiosity and accountability. We feel a “buzz” developing among the school docents as they realize that some of the most profound discoveries are made in the de-briefing sessions in each gallery when they have an attentive audience.

**Wrap Up**

The final section of this program takes place back in the museum classroom where a slide is shown from each gallery. The class identifies the culture from which it comes and, if possible, the name of the sculpture. Docents and teachers alike are impressed that almost all students can do both. Students begin to understand how the depiction of the human figure throughout Asian art is in many ways very similar. In addition, they realize that each culture within Asia has a distinctive style of art unique unto itself.

Before leaving the museum, the teacher receives an envelope containing the students’ papers, which can be graded should the teacher wish to do so. (The docents did not want that responsibility.) An evaluation sheet with a self-addressed, stamped envelope is also included. In addition, we offer many suggestions for using student handouts in follow-up study, such as ideas for tracing the changes in the depiction of Buddhism as it travels from India to Southeast Asia to the Himalayas to China to Japan.

Teachers’ evaluations indicate that the program is just “the right combination of docent information and student discovery and participation.” They write, “Working in small groups with a definite focus, lots of adult support, and the chance for many different approaches to learning meant that everyone learned a lot and had a good time.”

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Carol Thurston is an active docent at the Asian Art Museum of San Francisco, California, where she is on the Docent Council Board assisting with school tours. She is also on the Board of the Society of Asian Art in San Francisco. During the four years she lived in Tokyo, Mrs. Thurston served on the Board of the College Women’s Association of Japan. In addition, Mrs. Thurston taught junior high school for ten years and continues to teach at-risk students of all ages.
More than Busy Work

They're everywhere! Preschoolers who can barely write their names bring home worksheets with bears, bunnies, and baseball bats circled to show they know the /b/ sound. A worksheet with blanks to fill in appears in my church bulletin each Sunday to help me stay "on task" during the sermon. Even in the venerable British Museum, I found dozens of uniformed school children dashing from mummy to Mummy as they completed a treasure-hunt-style worksheet.

Are worksheets an educationally sound method of involving museum visitors or are they merely a convenient substitution when there aren't enough guides to go around? Properly developed and used, they can be both.

Probably the most common type of worksheet in use in museums, historic sites, science centers, zoos, and botanical gardens is the fill-in-the-blank, treasure-hunt. These worksheets ask visitors to locate certain objects in the collection and, perhaps, copy information contained in or near the object. They are usually obtained from the admissions desk and require no other interaction between visitor and staff. They help to give structure to a drop-in visitor's tour, and they often provide a springboard for discussion between parents and children. However, without discussion, these activities serve more to prove that the visitor actually found the object in question than to help develop any real information about it.

When these treasure-hunt style worksheets are used with groups, however, additional problems arise. Besides the superficial nature of any learning that might take place, most treasure-hunts are presented as a competitive activity. "The first team to have all the answers wins a prize from the Museum Shop." In addition to prohibiting any sharing of information, such a setup almost guarantees that speed, not knowledge, is the goal of the student teams.

The goal of such worksheets seems to be to familiarize students with the entire museum, or with particular galleries. A more effective activity employs the fascination most students have with maps. In addition to helping first-time visitors find their way around the museum or gallery, it initiates a discussion of the rationale for arranging a collection in a particular way.

**ON THE MAP:** Distribute individual copies of the museum's floor plan on which certain artifacts or paintings have been marked. Have students locate the items by following the map. After all the items have been located, have students discuss the ways in which small objects were indicated on the floor plan. For example, how did you know this was the third painting on the west wall? After students are familiar with the floor plan and some mapping techniques, ask each student to find an artifact or painting they feel could be better exhibited in another location. Place an "O" (for original position) on the present location of an artifact or painting on their copy of the plan. Then, have them "move" the object to another location marked with an "N" (for new position). Have students exchange plans, locate the object and its new position, and try to "guess" the rationale for the move. An interesting follow-up to this activity would be a discussion with a museum curator to explain the museum's reasons for placing certain objects together.

Another purpose of the treasure-hunt worksheet may be to help children learn to gather and record information. A technique, used in London's Victoria and Albert Museum in a teacher resource booklet entitled *Drawing in Museums*, seems to be more meaningful than the typical treasure hunt. While serving as a way of collecting data, this activity also helps children learn to isolate particular elements of exhibits, an exercise in classifying information.

**LITTLE BOXES:** Students divide a sheet of paper into 4 or 8 squares. Then, they select a pattern or motif to "collect." They draw an example of the same type of pattern or motif in each of the boxes. For example, they might select a geometric shape and record its various interpretations found in carvings, textiles, ceramics, etc.

Although worksheets traditionally ask for factual information and convergent thinking, they can provide a starting point for creative, or divergent, thinking. In the following activity, for example, some of the answers come from direct observation of a museum object. Most of the answers, however, are "created" from a student's imagination. Writing a story based on someone else's imagined answers adds another layer of interest to this activity that begins with a simple worksheet.

**WHAT A CHARACTER!** In an art museum or historic home where people are depicted in the art collection, have students select a person from one of the paintings and answer questions (name, age, occupation, social standing, etc.) describing the character. The final question: "What is this person's secret?"

Continued on page 20.

The Docent Educator Winter 1998-99
Using "movement" in a museum setting enhances the experience of young children of mixed socio-economic and educational backgrounds. Movement as communication probes beyond these boundaries and also allows children who may not be auditory or visual learners to be enfranchised in the learning process.

Integrating children from different backgrounds in a shared art experience was the goal of the Norfolk Public Schools. Funding was provided from the general budget of Norfolk Public Schools to bring approximately 6,000 fourth and fifth grade students to the Chrysler Museum of Art over a two month period.

\(\textbf{Movement Paradigm}\)

The use of movement is an effective facilitator for connecting children with art. The following movement paradigm was developed on the basic premises of Dance/Movement Therapy Techniques.

1. Circle formation to allow for eye contact and to establish feeling of group unity.
2. Art imagery to provide shared visual stimuli.
3. Music accompaniment to stimulate movement relating to art.
4. Movement specialist to guide and develop group interaction as it evolves.

The intention is not to teach dance steps, but rather to provide an atmosphere that encourages self-expression through movement in response to the art.

\(\textbf{Guidelines for Implementing}\)

Protection of the artwork was of primary concern. To establish the appropriate boundary, a red string was placed in the "movement" gallery around the perimeter of the room.

Care was given to provide a "comfort zone" between the art and the students. Docents acted as "spotters," and were placed in the corners of the gallery to prevent unintentional contact.

Limiting the number of students appropriate to the space was critical. Generally, groups varied from 30 to 35 participants.

Upon entering the space, students were instructed to sit with their backs to the string, forming a circle. The movement specialist was dressed in a way that the children could relate to that also allowed for freedom of movement, i.e., jeans and turtleneck. Artwork selection was chosen to represent two themes: 1) different use of lines in two abstract paintings, and 2) different types of people in two realistic paintings. The entire session lasted eight minutes. The movement specialist explained that the goal of the session was to make the artwork come alive. Students would assume the stance of the subject in the paintings, slowly give life, express the energy, and then "zap" the energy out of the subject so that it could climb back into the frame and resume its pose.

Prior to the movement session, each of the four pieces of art was introduced and discussed. Dialogue was exchanged on the similarity and differences of the four pieces. Ideas were shared verbally as to how the subjects of the paintings might move. Movement ideas acted as a stimulus for the physical movements that followed.

\(\textbf{The Experience}\)

The first artwork explored was Alfred Leslie's *Marcelle and Pierre Monnin* (a life-sized portrait of a white man and woman in typical 1960's hippie clothing). Students were to stand and assume either the male or female pose. The slow steady beat of a current hit by *Smashmouth* heightened their eagerness to participate. The movement specialist prompted the moving of body parts that had been frozen in the artwork. Children shared ways they thought the subjects would move.
The second work of art, *Number 23, 1951 (Frogman)* by Jackson Pollock, prompted the children to move beyond the concrete images of the first painting. This abstract composition was created by flowing black lines on a white canvas. The children used the artwork as a map for their movements, which were indirect, free flowing, and wavy. Their actions excitedly mirrored Pollock's use of line.

The third piece, *Fireman* by Red Grooms, presented a completely different visual line from Pollock's work. The semi-abstract portrayal of a fireman uses very sharp, defined lines. As the group assumed the stiff kneeless body-posturing of the "fireman," their movements became sharp, short, and direct. The contrasting kinesthetic sensations achieved by interpreting these two pieces were powerful.

As the music subsided, the group froze waiting for the musical cue to make the final selection come alive. Selection of both the music and art was vital to achieving the climax session. This pinnacle of energy was achieved by using the musical selection of *Men in Black*, a very popular song with this age group, to complement Barclay Hendrick's *Stick*, a large realistic portrait of a Black man dressed very stylishly in a white suit. Movement, energy, and ideas gushed. The children’s movements expressed pure joy and total immersion in the creative process.

After freezing movement and "de-energizing" to slow lyrical music, the group melted to a sitting position and established slow deep breath flow patterns. Relaxation techniques were employed to bring the group's energy down to a level appropriate for the remainder of the tour. Once accomplished, students were asked to visually step back into their favorite piece of art used during the session. Then, they assumed the pose the artist created and remained there for other museum visitors to enjoy. The session ended with a burst of self-congratulatory applause.

**Conclusion**

The use of movement served as a powerful tool encouraging children to relate to the artwork. By combining art, movement, and music, children were provided with a stimulating sensory experience. We believe that synergy is created when the arts are used in combination — each medium enhances and contributes new meaning to the total experience. Acceptance of each child's creative expression increased self-esteem.

What the children learned about the art, how they connected with the art, and how they felt about themselves made the museum experience both unique and positive. Movement prompted the children to be both emotionally and physically involved. Indeed, art is a moving experience!

Shelly Kruger Weisberg is a member of the docent council of The Chrysler Museum of Art. She is has a B.A. in Dance Movement Therapy and has worked as a professional movement therapist.

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More than Busy Work

Exchange papers and have students write a short story about the character they've been given.

How, then, should worksheet activities be developed to ensure that they serve a sound educational purpose, rather than being merely a way to keep children occupied? A number of considerations can help produce meaningful worksheets.

- Establish the purpose of the worksheet activity and keep it in mind while you are preparing the worksheet. The overriding purpose of every activity should be, of course, to actively involve children in learning. If the goal is tactical rather than educational, it's time to rethink the worksheet process!
- Write the worksheet activity on a reading level appropriate for the intended age group. Ask a classroom teacher to read your completed worksheet.
- Consider the restrictions and limitations of your institution. Some institutions don't allow children to take pencils into the galleries; some would frown on having children move around the museum or historic site without supervision.
- "Test drive" the complete activity. Do it yourself. "Borrow" a child and see if he or she can complete the activity with minimal assistance.
- Always provide docent supervision for children completing worksheets. The docent should be a resource to help with reading and understanding the directions, with locating specific artifacts or paintings, and with suggestions and encouragement if they are needed.

Poorly prepared worksheets are merely "busy work." In many school classrooms, they keep one group of children occupied while the teacher works with another group. A museum's biggest advantage over the traditional classroom — we have the "real stuff" to work with — will be lost if "fill-in-the-blank" worksheets substitute for a child's interaction with artifacts, paintings, zoo animals, and nature center specimens. Care in developing worksheet activities can, however, ensure that they enhance the museum experience.

Jackie Littleton
Associate Editor

Next issue: Constructing Relationships with Schools

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