

## **Art Across the Curriculum**

*By Francis Wardle, Ph.D*

The standards movement is having a direct, negative impact on early childhood programs. While this impact is most obvious in public school programs, it also affects early childhood programs by requiring unrealistic and inappropriate kindergarten-level entry skills. Since almost all of these standards are specific academic skills (letters, letter-sound correspondence, numbers, even reading), one result of this emphasis is that many programs have increased the time and effort they devote to teaching specific academic skills, and reduced physical activities, music, dance, play – and art.

### **Views of the Experts**

Ever since the works of John Dewey (1934) and Herbert Read (1943), educators have seen a central purpose for art in education. Dewey believed every child should have art, not just those ‘gifted in art,’ and Herbert Read developed an entire school curriculum around art. While there are many arguments for including art to increase children’s competency and self-esteem, other important reasons for including art across the curriculum will be discussed in this article.

*Iconic Representation.* According to Jerome Bruner, young children learn most easily through enactive and iconic representation (1983). Enactive representation is “muscle memory”; iconic representation is one-to-one memory based on visual icons – a McDonalds ‘M’, a Nike Swoosh, an apple for the teacher, etc. Maybe one of the reasons children take so easily to computers is because icons are used to label all its functions. Because of children’s affinity for identifying and learning icons, early childhood teachers should provide them with lots of opportunities to use visual symbols, such as labels, lists, pictures of objects from fieldtrips, photographs of favorite people, and icons they create – houses, people, the sun, trees, etc. Children use these icons to think and solve problems, and it is important we do not force written symbols upon them too quickly.

*Spatial Intelligence.* One of Gardner’s eight intelligences is spatial intelligence, which involves learning, exploring, processing and excelling through the use of the visual arts (1983). While a child who learns this way will do well in artistic endeavors at school, she should also be provided opportunities to use spatial intelligence in all other activities, but especially academic endeavors – reading, writing, math, and science.

*Practice.* Piaget believed that learning new concepts, ideas, and skills requires two fundamentally different processes: first, children need to change their mental structures to accommodate the new concept or skill; and second, they must practice this new concept or skill (Piaget, 1962). Art is a wonderful way to practice. A child who has just seen an elephant for the first time on a fieldtrip to the zoo, for example, returns to the classroom to explore the new idea through painting elephants.

*Documentation.* Both Reggio Emilia and The Project Approach stress documentation. The Reggio curriculum, which has become known as the One Hundred Languages of Children explores the variety of ways children use to document their own learning. Some Reggio programs even have a full-time artist, whose job is to help teachers and children with this

process, and an art studio (Malaguzzi, 1993). Artistic documentation provides a visual representation of the child's development and learning while communicating what children are learning to parents and the school community (Wardle, 2003). In The Project Approach, drawings, models, photos, and writings challenge children to integrate a variety of concepts and document what they have learned, as well as providing a communication link to parents and the school community (Helm and Katz, 2001).

*Meaningful Learning.* We know that it is easier for children to learn concepts and ideas that relate to something the child already knows, or has directly experienced (Mayer, 1996). This is because it's much easier to remember new concepts by attaching them to an existing memory. One way to make new learning meaningful is to offer children ways to explore how the new idea fits into what they already know. Art is a great way to do this. For example, after a teacher has just read a book about a farm to a group of five-year-olds, the child whose grandfather lives on a farm can draw or paint her grandfather's farm, while an inner-city child might make sense of the book through art activities about his visit to a petting zoo and an 1850's outdoor museum.

*Multicultural Perspective.* Our programs are becoming more and more diverse with children who speak a variety of languages, have different religious beliefs, and engage in a variety of cultural and traditional practices (Wardle & Cruz-Janzen, 2004). Because all cultures and most religions use art in their traditions and practices, art enables our children to integrate their cultural backgrounds into the school's curriculum.

### **Different Art Tools, Materials and Activities**

There are a vast variety of art tools, materials, and activities that should be used across the curriculum. These depend on the abilities and interests of staff, parent volunteers, and community resource people; available art resources and materials; the developmental age of the children; and the children's past exposure to art. Programs that have always stressed art will have children who produce a fantastic array, variety, and quality of art.

Finger paint, tempera paints, watercolors, and even some house paints are part of an early childhood art center. Collages are a great medium; both because of their versatility, and the way a vast amount of different content can be included. Collages can be as simple as colorful leaf collections in the fall or as complex as documenting a summer-long project or historical event. Vary the collage materials offered to the children by including natural materials, metallic papers, construction paper, doilies, old magazines, found objects, wood off-cuts, fabrics, etc.

*Photography.* Photos, of course, can be included in collages – especially by cutting around the subject and creating fantastic backgrounds. Photos should also be used to document the progress of a project, a playground renovation, a construction in the block area, and the growth of a garden. They can be used for creating timelines, wall newspapers, children's individual books, notes to parents, and bulletin displays. Further, photos are a wonderful way to create curricular themes around families of children in the program. Computers and digital cameras are also great assets to an early childhood program. By downloading photos on the computer and then letting children use them in a variety of projects, digital cameras are a great way to record field trips, put together books and wall newspapers, develop greeting cards, and so on (Wardle, 2003).

*Pens, Pencils, Crayons, Markers, Pastels, and Chalk.* Drawing instruments can be used in a variety of ways. These include:

- Making murals on the playground pathways or on a building wall;
- Doing rubbings of textures, numbers, currency from around the world, grave-stones, etc;
- Covering a crayoned surface with black paint, and then scratching through the surface;
- Line drawings of all different kinds;
- Wild patterns with bright markers;
- Illustrations for reports, stories, and news accounts;
- Greeting cards;
- Classroom labels, directions, lists, etc.;
- Creating models, designs, and working-drawings for woodwork projects, block area constructions, and playground buildings.

*Surfaces.* A variety of surfaces should be used when painting, drawing, and using chalk, pastels, and other art materials. These include sand paper, Mylar®, wood, concrete, rough and smooth paper, colored paper, Masonite®, plaster board, cardboard, canvas, dry and fired clay, and aluminum foil. Obviously art materials work differently on different surfaces, which is one of the joys of using so many different surfaces.

*Three Dimensional Materials.* Clay and play dough lend themselves to everything from providing a release of tension and stress, to making miniature models, creating pots and vases, and replicating pottery shards in excavated ruins. Older children enjoy adding different glazes to their wares and seeing how they change color after being fired. Children can even dig up different kinds of clay on field trips. Papier-mache is a tremendously useful material to make masks, models, piñatas, dioramas, 3-D maps, etc. Children can make models that are continually expanded throughout the year or as the theme or curriculum unit expands and develops.

*Woodwork.* Young children without any woodworking skills enjoy gluing scraps of finished hardwood together, then painting and/or varnishing their prized sculpture. Woodwork can also be used in social studies units to build houses and forts, in playground projects of making traffic signs, ramps for cars, bird houses, and plant boxes, etc. Wooden picture frames, plaques for labels and official acknowledgements, and purely creative boats, cars, games, patterns, and inventions can all be made on the woodwork table. Woodwork projects also lend themselves to combining a whole host of other art materials: yarn, cloth, paint, markers, decorative nails and furniture brads, Plexiglas, brass fasteners, and collage materials.

*Batik, Tie-dye, Sewing, Prints and Stencils.* A variety of cultures use sewing (embroidery) and batik to make traditional clothes and decorations (Wardle, 2003). Tie-dye, batik and various prints can be used to create clothes and fashions, banners, tapestries and quilts, particularly by older children, and work well in historic, cultural and geographic projects (Mattil, 1965). Prints can also be used to create packing paper, wallpaper, tablecloths, and a variety of artwork with repeated themes, books by the children, and games. Stencils are equally useful for creating repetitive symbols or patterns: letters, numbers, fleurs-de-lis, etc. Stencils and prints can even be used for large picture maps – symbols of objects represented on the map – churches, houses, schools, forts, gravesites, and battles.

*Folded and Cut Paper.* We have all delighted in making paper airplanes; many children make paper cranes. Other folding and cutting activities – not to mention the already discussed collages – include lanterns, snowflakes, doilies, and decorations with construction paper and colored tissue paper for windows and lights. These cutting and folding activities also lend themselves

well to many cultural themes. Ideas for Art in Specific Curricular Areas There are so many possibilities for using art across the curriculum that I will only touch on a few. Each reader will, no doubt, have many rich and creative additions.

*Literacy.* Literacy, of course, is a big focus today and much has been written about including emergent literacy in the curriculum (Vukelich, Christie & Enz, 2002). Some ways art can be used to enhance early literacy follow. Since all writing develops from scribbling and drawing (Sulzby, Barnhart & Hieshima, 1989), and writing requires considerable fine motor coordination, all art activities that encourage scribbling, drawing, and painting help to develop literacy. Other art activities teach foreground and background, patterning, and creating order out of disorder.

- Create class and individual books. Use art to illustrate books, create an attractive cover, and maybe even make big, fancy letters to start each section, like in the old, hand-painted books.
- Create product packages for items children are learning about. Children could also create literacy games (matching, sorting words, etc) and then ‘market them’ in a nicely designed box.
- Make signs for the playground – “Garden,” “No Running,” “Trikes Park Here,” “30 MPH Speed Limit,” “Pedestrian Crossing,” etc.
- Create advertising campaigns for fundraisers and issues important to the children, such as keeping the playground clean, etc.
- Document individual and group projects.
- After field trips, use pictures, photos, writing, interviews, and so on, to create a wall newspaper, write in individual journals, or create parent/community newsletter.
- Make letters – upper- and lowercase – out of clay or play dough.
- Create lists – needed resources, field trip suggestions, classroom jobs, and so on - by drawing or cutting out the item, then pasting it on the list, and writing its name next to the visual symbol.
- Create a Big Book, or wall-size book, of a story being read to the class. Older children could also do this for younger children, or for children with visual impairments.
- Invent a symbolic language using pictures and symbols. Then write books, messages to parents, etc., using this language.

*Social Studies.* Art is particularly useful in the social studies curriculum. A class can create a wall mural depicting members of their community by having children draw or paint them as they visit the classroom or when the children visit them in the community. Other classroom visitors – parents and volunteers– can also be recorded and displayed in this way. In addition, invite parents and community volunteers to come to the classroom and demonstrate folk art from their own traditions. The volunteers can then help the children try out the methods and techniques for themselves. Many curricula are based on themes, an idea originating with John Dewey (Wardle, 2003), and all themes can be explored through the use of art. Dioramas, models, murals, houses, communities, etc., can all be represented in wood, clay, play dough, papier-mache, found objects, photos, paintings, cartoons, etc. Children can also make historical artifacts, like pots, baskets, and toys. A visual timeline can be assembled on a classroom wall, with visual symbols – photos, drawings, magazine pictures, real objects – used to represent significant events along the timeline.

*Math.* Art is a wonderful way to teach all the concepts and skills children need before teaching specific academic skills (National Council of Teachers of Mathematics, 2000). This is important as school standards rush children too quickly into learning specific math skills before they have developed important foundation knowledge. A few ways art helps in learning math follow.

- All sorts of art activities teach the fine motor skills and eye-hand coordination needed to write mathematics symbols and functions, not to mention geometric shapes.
- Using more and less paint, more and less water in the paint, and covering more or less of the surface with paints, crayons, etc.
- Making geoboards and a variety of math games out of wood.
- Matching colors and shapes one-to-one.
- Creating all sorts of three-dimensional art objects.
- Creating minimalist geometric designs with wood, paint, cloth, and construction paper.
- Folding paper for snowflakes, airplanes, doilies, etc., in fractions.
- Numbering book pages and then creating a fancy table of contents. The numbers can also be visual symbols – for example, three cows for page three of a book about a visit to a farm.
- Use symbols, drawings, glued-on pictures, and even real objects for all sorts of graphs.
- Lots of math goes on in the woodworking area, from using rulers and tapes to measure (National Council of Teachers of Math, 2000) different sizes of wood to be used.
- Mixing clay, paint, glue, etc., requires measuring dry powder and water, and adding more of one or the other to get the right consistency.

*Science.* Lots of fantastic science phenomena occur in art; from mixing colors to dripping paint down the paper on the easel, from watching soft, wet clay dry into hard, brittle pottery or glazes change color after being fired, to discovering that dyes on batik only work on the areas that have no wax on them. A central concept in science is hypothesis testing – coming up with a reason why/how something works, and then collecting information to determine if this explanation is correct. Children can hypothesize about which boats they build will float, which will not; how to sink a boat that floats and how to float one that sinks; how to keep a boat from falling over when the wind blows on the sail; or whose car will go fastest down the slide.

Batik, tie-dye, photography, marbling paper, and putting food color and Crisco into water all use different fundamental science concepts. Further, some wood finishes and paints are waterproof and some are not. Children can also make transparencies by using markers on blank slides, then seeing what image they have produced by projecting light through the slide. Children can also discover why different surfaces produce different results from crayons, paint, chalk, ink, markers, and so on.

Finally, mixing paints, glues, different clays, various wood stains, and various tissue papers and translucent colored papers teach children about suspensions, light and pigment color mixing (which produce different colors) and thick and thin liquids.

*Physical Activities.* I have already discussed ways art activities help develop the critically important fine motor skills and eye-hand coordination needed for writing letters, words, numbers, and math functions. Woodwork, painting, and other activities also strengthen and help coordinate gross motor development. On the playground, children can use large house paint brushes and watered down paints to paint the fence; they can make fantastic murals on concrete

walls and on the sidewalk with large chalks; and make signs for the trike path, garden, etc., on the woodwork bench. A favorite activity for young children is putting their bare feet or hands in paint, and then using this body part as a stamp to create interesting patterns on a large section of butcher paper.

Children can also use a variety of art activities in the block area. They can make miniature billboards, traffic signs, names for buildings, and public art, using paint, crayons, magazine advertisements, markers, wood, Masonite®, cardboard and foam board, and they can create large, butcher paper backdrops for a farm, city, or construction site.

### **Conclusion**

It is essential that we use art across the curriculum. Doing so enables the spatial learner ways to learn important academic skills, makes learning more meaningful, and provides children with opportunities to internalize newly learned concepts and skills. Further, using art across the curriculum provides a variety of excellent ways for young children to learn, differentiate and expand on the content and skills being taught. Art can be used in a variety of ways to enable the program to be responsive to each child's diverse background, and to expand each child's multicultural world. Art is truly a wonderful medium for learning across the curriculum.

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