

Supporting Constructive Play in the Wild

by Francis Wardle

Good playgrounds include environments that encourage a variety of play: physical/motor play, social/dramatic play, and cognitive play — constructive play and games with rules. Each of these kinds of play are not only essential for the healthy development of young children but can best be supported and enhanced in the outside playground (Johnson, Christie, & Yawkey, 1999). Different play environments and equipment are needed to encourage each of these kinds of play. Constructive play teaches children important skills, develops critical cognitive concepts, and is their favorite kind of play on the outside playground. But, unfortunately, constructive play is often the play activity least available for children in outdoor playgrounds, for a variety of reasons. How can this situation be rectified?

Constructive play involves manipulation of materials to create things: sand, art materials (paint, large chalks, clay, paper), water, woodwork activities, sticks and stones, and a variety of different sized and different type of blocks. Constructive play is the kind of play children engage in when building, creating, making — constructing. It differs from purely motor play in that children

are doing something *with* the materials: using mud and water to create mud pies, digging in the sand to create a tunnel for little cars, siphoning water out of the water table to fill the bucket. And constructive play is the kind of play children engage in when moving dirt from one area to another, collecting rocks in the wagon, and building a fort. It includes building a city in the sand-

box; painting a mural on the fence; constructing a playhouse with sticks, fabric, and leaves; and fashioning a boat on the woodwork bench.

Constructive play is important because it develops specific skills (nailing wood, painting a picture, cutting a post, digging a garden, balancing a beam between two posts), creates a sense of control in children, and develops positive self-esteem. Children who create feel good about themselves.

Constructive play also develops children who are flexible problem solvers: if a child can construct with concrete objects, the child will learn to construct with words and ideas (Bruner, 1972). Ideas and concepts that are developed under the creative and low-stress environment of constructive play can be transferred to high-stress problem-solving situations. Further, as children learn to plan ahead regarding their construction activities, they learn strategies

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Children like to control their environment — choose, stack, construct, discard, build. They get a sense of satisfaction from controlling their world. In constructive play, children can also continually change the way they use materials: making them more complex, challenging, and different. By continually rearranging their materials, they create an environment to match their level of learning. Once they have built their fort, they can pull it down and build a different, more complex one. Or, after creating a small tower with blocks, they can then build a bigger, more sophisticated one. This continual manipulation of the environment means that children who have plenty of constructive materials and know how to engage in constructive play rarely get bored.

Children Like Constructive Play

In a recent study on preschool children's play equipment preferences, their highest choice, at 30%, was loose parts: milk crates, tires, balls, boards, buckets, pails, shovels, miniature people and animals (Ihn, 1998). Loose parts are used by children primarily in constructive play. The second most popular preference in this study was sand play (13%). Again, children playing in sand are almost always involved in constructive play.

A list of some loose parts that encourage constructive play on the outdoor playground include:

- Large building blocks — plastic and wooden
- Milk crates or similar cubic units
- Old tires (make sure they are bias ply, and clean)
- Wagons to transfer dirt and stones

- Lots of sand and sand toys
- Water containers and water toys, and containers to carry water in
- Large, smooth boards for building with blocks and crates
- Dress-up cloths, pots and pans
- Fine motor materials:
 - clay, play dough
 - paints and easels
 - woodwork bench, tools, and a variety of wood
 - a collection of small building blocks
- Small play animals, vehicles, people, trees, houses.
- Natural materials — sticks, poles, branches, old logs, stones, leaves, grass
- An active garden — flowers and vegetables

Constructive Play on the Playground

Several elements facilitate constructive play taking place:

Storage shed. A shed is needed to store loose parts, balls, trikes, wagons, tools, and materials (Hurwitz, 1999; Frost & Sweeney, 1996). If there is no shed on a playground, materials needed for constructive play eventually stay in the classroom and are not used. The most economical way to provide this shed is to either buy a commercial pre-built shed or have a maintenance person or some parents build one. The advantage of the latter is that the shed can be built to fit in with the child care or school building and the surrounding neighborhood.

Because outdoor play equipment is generally not designed with storage in

mind, a large shed is needed. The shed should include hooks for hanging trikes, nets for balls, buckets for sand toys, areas for art materials and woodworking tools, and places to stack wagons. Once you have a shed, make sure it is not used for storage of classroom materials, old furniture, and anything that lacks storage inside — leaving you with no space for playground materials and equipment.

The shed should be connected to the pathway system. It needs to be near the entrance of the playground so teachers and children can collect toys when they enter and return them when they leave. A colleague recently suggested that the pathway actually have a spur that goes through the shed, thus making it an integral part of the trikeyway, and making returning trikes, bikes, and wagons to the garage at the end of the day a meaningful activity for the children.

Individual storage units near the source of their use. Provide buckets for sand toys next to the sandbox, containers of water play materials next to the water play activity, a wagon or other means of keeping gardening tools together next to the garden (Frost & Sweeney, 1996). An art cart can be used for art materials, a locked box or tool cabinet of some kind next to the woodwork bench. Then, at the end of the day, some of these smaller containers can be transferred to the shed; others may stay as self-contained storage units. (This choice depends somewhat on whether there is a vandalism problem in the playground, and whether the playground is used by other children during the day.)

Areas that encourage constructive play. Well-designed water play areas and sandboxes are needed to encourage constructive play since so much of it is done in these highly flexible materials (Ihn, 1998). The water area needs a

source of fresh water, good drainage, and a surface that does not get muddy or sloppy. The sand area needs to be large enough, deep enough, shaded, and have wide retainers to encourage children and adults to sit together while playing together. Placing sand next to the water play area encourages all sorts of constructive play!

A flat, hardtop area near the playground entrance enables classroom materials like hollow and unit blocks, easels, water tables, and woodwork benches to be brought outside. A large garden near a water source, and away from traffic, also encourages a variety of constructive play.

Bringing the Classroom Outside

Art and woodwork materials, unit and hollow blocks, and other materials that encourage constructive play can be brought from the classroom to the playground. There are three cautions about bringing materials from inside: make sure they can withstand the outdoors, and there is an arrangement for them to be returned (preferably before nightfall or rain); encourage children to use them in different ways from how they use them indoors (for example, paint on the sidewalk or wooden fence rather than a piece of paper); and let children truly play — a “free-choice activity that is non-literal, self-motivated, enjoyable, and process oriented” (Wardle, 1987, p. 27). There is a tendency sometimes to use indoor materials and equipment in more didactic ways.

Challenges of Loose Parts on a Playground

Loose parts provide several challenges: they make the playground look messy and pose some safety concerns (Hurwitz, 1999); they require careful maintenance; they are easily lost; they

get in the way of lawn mowers and other maintenance machines; water causes mud and mess; sand scatters and must be protected from pets. To reduce the messy aspect, provide lots of containers to keep loose parts in (boxes, baskets, etc.), and get children and teachers into a habit of picking up loose parts at the end of outdoor sessions, placing them in their respective containers, and taking the containers to the shed at the end of the day. Also educate staff, administrators, and parents that good playgrounds do look a little messy (Hurwitz, 1999).

Another idea to address the problem of mess, and the realistic need for playgrounds to look upscale and impressive to some important people — what some call designer playgrounds (Hurwitz, 1999) — is to select a section of the playground that is hidden from view for constructive play. This approach is what I call a move-set playground:

From the entrance of the playground, an impressive set of equipment is built across the playground, much like a movie set. This equipment is on a raised part of the playground, and is beautifully crafted, finished, and brightly painted. At the back of this equipment are ramps, ladders, nets, poles, and balance beams that descend into an area considerably lower than the area where the equipment is. This lower area will include rustic tunnels, trees and tree stumps, dirt hills, bushes, secret hiding places, small enclosed sandboxes, a small stream or other water source, stones, a garden, and sticks and branches for making forts. All sorts of loose materials are scattered throughout this area: milk crates, wood, bricks, concrete blocks, inner tubes, tires, woodwork tools, gardening tools, sand and water toys, and ladders that can be used to climb trees and get onto dead fallen trees. (Wardle, 1990, p. 32)

This whole section is not visible from

the playground entrance, but it is designed in such a way that it can be easily supervised by active teachers (Frost & Sweeney, 1996).

Someone on staff should be assigned to regularly check loose parts for any maintenance problems. Teachers and parents should be encouraged to continually bring new loose parts, and a staff member should be involved in screening for safety.

Principal safety issues are: no rope or cable (strangulation), no dress-up clothes that can go around the neck or that have pull cords, no objects small enough to become a choke hazard, no objects with sharp edges, and nothing that can rot or decompose (U.S. CPSC, 1997). Woodwork tools should only be available near the woodwork bench and should be carefully supervised (maybe at certain time periods). Someone should also be in charge of removing unsafe materials and materials that have served their usefulness so that more and more materials don't just accumulate on the playground.

Good playgrounds facilitate and encourage a variety of outdoor play. Constructive play is an important kind of play that is inadequately encouraged on many playgrounds. To develop a variety of cognitive skills, increase a sense of empowerment and control in children, and enable children to continually be stimulated and challenged, we need to find many different ways to increase constructive play on our early childhood playgrounds.

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