Learning materials and teaching methods used in early childhood classrooms have fluctuated greatly over the past century. However, one learning tool has stood the test of time: Wood building blocks, often called unit blocks, continue to be a source of pleasure and learning for young children at play.

Blocks were first introduced in an educational setting by Friedrich Froebel in 1837 and have evolved into the variety of block sets used in early childhood classrooms today (Brosterman, 1997; Wortham, 1992). Wood blocks have remained popular over the decades because of the unique and satisfying experience they provide to children (Brewer, 1979). Their smooth sanded surface, precise mathematical proportions, and endless building possibilities make unit blocks irresistible to children.

Likewise, generations of teachers have come to appreciate the learning opportunities that blocks offer.

- **Cognitive skills** are challenged as children experiment and problem solve through trial and error (Williams & Kamii, 1986).
- **Social skills** are enhanced as children negotiate for their preferred block shapes, build cooperatively with a partner, and role-play after creating representational block structures (Weiss, 1997).
- **Language skills** are developed when children learn the names of geometric block shapes, verbally debate with a fellow builder, and explain how their structures are built (Stroud, 1995).
- **Motor skills** are practiced as children stack, balance, and manipulate blocks and accessories (Santrock, 2004).

It is clear that wood blocks have the unique capacity to engage children’s imaginations as well as enhance essential developmental domains.

Teachers readily acknowledge the rewards of block play and typically agree that unit blocks are essential to high-quality early childhood programs. However, some teachers may express frustration and hesitate to offer block play on a daily basis. This article explores some of the more common dilemmas associated with block play as described by early childhood teachers, followed by practical suggestions based on developmentally appropriate practices.

**Common Dilemmas Teachers Face With Block Play**

**Dilemma #1: Children Fight Over Blocks**

"The children are always excited about going to the block center but after a few minutes they begin fighting over the blocks. We discussed sharing and taking turns, but this hasn't solved the problem. Now the blocks have become a source of major conflict."

**Developmentally Appropriate Practice Perspective**

It is understandable that children do not want to share or take turns with blocks when they are focused on

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their vision for a block construction. In order to be competent block builders, children need an adequate supply and variety of materials. Enough blocks of differing shapes need to be on hand to accommodate the number of children using them, based on their ages and development.

Recommendations for numbers and shapes of blocks for a class of 15 to 20 children ranging in age from 3 to 5 years were published in 1962 (Stanton & Weisberg, 1996). Based on these recommendations, Wellhousen & Kieff (2001), made adjustments for 7 to 10 children playing with blocks at any one time. In general, they indicate:

- A class of 3-year-olds should have available approximately 130 basic unit blocks (units, half units, and double units), plus 10 of both the small and large cylinders, and fewer of the unique shapes, such as elliptical curves.
- Four-year-olds require more basic units and cylinders as well as shapes such as right-angle switches, X switches, and half pillars.
- By age 5, children benefit the availability of approximately 240 basic units shapes, and more triangles, cylinders, and pillars than previously.
- The number of floorboards needed also increases with age as children's structures become more elaborate.

When educators must make selections within a limited budget, the rule of thumb for all age groups is to provide more of the common blocks and scale back on the varied shapes.

**Recommended Plan of Action**

Teaching children to share and take turns is a good strategy for social skills, but not always realistic in the block center because the children actually need particular materials to complete a task. The best solution is to make sure that the appropriate quantity of blocks is available. If budget is an issue, order additional blocks in the shapes used most frequently, such as units, squares, and double-unit sizes.

Recognizing that blocks are virtually indestructible and can be used for future generations of children helps justify the expense. If it is not possible to purchase more blocks, teachers might pool their blocks to share them among several classes according to a predetermined schedule. Blocks can be stored on a rolling cart and moved to different classrooms as agreed upon.

**Dilemma #2: Block Structures Are Accidentally Knocked Down**

“Our classroom is small and when children go to the restroom they must walk through the block center. As a result, block structures often are accidentally destroyed and the builders become angry or upset. Another problem is children sometimes unintentionally knock down the structures of others building alongside them when they reach for blocks on the shelves.”

**Developmentally Appropriate Practice Perspective**

Young children typically have a difficult time discerning when their work is destroyed accidentally rather than purposely. Therefore, it is essential to locate the block center away from high-traffic areas, even in small classrooms. It is better for children to move through less delicate centers, such as the class library or dramatic play area, where children’s work cannot be easily ruined.

**Recommended Plan of Action**

Sketching a floor plan helps teachers more effectively arrange classroom space. This can be done on graph paper or on-line at http://classroom.4teachers.org. Begin by indicating key areas such as the restroom and sink area, block center, and other play spaces.

Teachers with small classrooms often arrange the room so that the block center shares space with the group meeting area (Brewer, 2006). This works well because group meeting spaces are usually large, carpeted, and not in use while children are engaged in learning centers. This dual-use space can be bordered with shelves that hold blocks, which helps define the area.

To help prevent children from knocking over structures of fellow builders, mark off at least one foot of space away from the perimeter of the block shelves with masking tape. Establish the rule that structures...
cannot be built between the tape and
the shelves. This helps children
resist their natural tendency to build
close to shelves and reduces the
risk of knocking over their friends’
structures as they reach for blocks
and accessories.

Dilemma #3: Children
Resist Clean-Up

“The children enjoy playing in the
block center, but when it is time to
clean up, they practically rebel! It’s as
if the task seems too overwhelming.
When I enforce the rule that children
must put away materials in the center
where they are playing, they begin to
avoid the block center altogether.”

Developmentally Appropriate Practice Perspective

It is important to teach children the
value of putting materials away prop-
erly, but these expectations must be
reasonable. Young children may avoid
putting away materials when the task
seems too daunting. This is especially
ture for blocks. Adults can anticipate
that young children will need guidance
and physical assistance in putting
blocks and other classroom materials
away and use this opportunity to teach
that clean-up is a natural part of play
and work.

If possible, preserve children’s
partially completed or elaborate
constructions from day to day.

This demonstrates respect for their
work and encourages more intricate
building. Taking photographs
and making sketches are other
ways to preserve constructions that
must be dismantled.

Plan of Action

To make clean-up time easier,
create silhouettes of block shapes to
indicate where blocks are to be
returned to shelves. Trace around each
shape on construction paper, cut out
shapes, and adhere them to the shelves
with clear self-adhesive paper.

Children playing in the block cen-
ter certainly need advance notice and
more time to put materials away.
Teachers might suggest that children choose which block shapes they will put away first, which teaches division of labor. Or, show children how to form an assembly line in which each block is passed from child to child and finally placed on the shelf to teach the value of cooperation (Wellhousen & Kieff, 2001).

Encourage children who must dismantle a treasured building to record their constructions with photographs and drawings—and preserve them for another day.

Dilemma #4: Children Play With Accessories More Than Blocks

“Our block center is well stocked with many accessories. Lately, the children have been spending more time playing with the toy vehicles and animal figures than the blocks. Some days they don’t even remove the blocks from the shelves! We are concerned that the children have either outgrown or become bored with the blocks.”

Developmentally Appropriate Practice Perspective

Accessories are made available in the block center to supplement or extend children’s play. When too many accessories are offered, or when accessories are very elaborate, they can distract from rather than enhance block play. Simple accessories encourage children to think of creative ways to embellish their block structures, while elaborate accessories such as cars and animal figures imply only one use (Stanton & Weisberg, 1996; Wellhousen & Kieff, 2001).

Recommended Plan of Action

Teachers are urged to review the types of accessories offered in the block center to decide whether some should be removed or at least recycled in and out of the center throughout the year. If there is an abundance of accessories, separate centers can be created such as “transportation” or “farm animals.”

Detailed accessories can be replaced with simple and natural materials that suggest multiple uses such as shells, pebbles, string, tape, and milk jug caps. (Do not include items that may be a safety hazard.) Offering just a few simple accessories brings attention back to the blocks themselves.

Unit blocks have been a vital part of early childhood classrooms for nearly a century. Early childhood teachers continue to see the valuable contribution blocks make to children’s play and learning. Dilemmas associated with trusted learning materials such as blocks can easily be resolved by applying what educators know about children and their development to the specific situation. Instead of expecting the block center to be free of dilemmas, teachers can approach each difficulty as it arises and implement a developmentally appropriate response that offers children even more opportunities for learning.

References


For Further Reading About Blocks


Mildred Dickerson

The Southern Early Childhood Association has lost another of its past presidents, Mildred A. Dickerson, who led the Association from 1984 to 1985. Mildred, a retired Professor of Early Childhood Education at James Madison University in Harrisonburg, Virginia, also served as president of the Virginia Association for Early Childhood Education. She died in January 2009.

Mrs. Dickerson graduated from Eastern Kentucky University and the University of Kentucky. Early in her career, she served on the faculties of the University of North Alabama and the University of Kentucky. After moving to Harrisonburg, Mildred established and taught at the original James Madison University campus nursery school, which eventually became the Young Children’s Program. She also coordinated the Madison College Early Childhood Education Program to prepare teachers for kindergarten when it was mandated in Virginia in 1965.

Mrs. Dickerson received many honors during her distinguished career on behalf of young children and their families. She will be keenly missed by family members and professional colleagues alike.

In Memoriam

Edna E. Titchenal
by Dr. Janie Humphries

Santos Sanchez
by Dr. Pam Schiller

Emil and Cathy Wall
by Evan Bartkowiak
### Put These Ideas Into Practice!

**Block Play: Practical Suggestions for Common Dilemmas**

*Karyn Wellhousen Tunks*

#### Key Concepts About Blocks for Young Children
- Wood unit blocks are a source of pleasure and learning
- Wood blocks engage children’s imaginations and build cognitive, social, language, and motor skills
- When planning for materials, provide a higher quantity of basic unit shapes and add more unique shapes as children become more experienced with building
- Incorporate accessories to enhance block play
- Organize the block play area to minimize problems and facilitate cleanup

#### Tips to Enrich Block Play

**Infants**
- Provide brightly colored and textured blocks for infants to explore through observation, touch, and mouthing. (Disinfect blocks regularly.)
- Offer blocks that make sounds such as those with a bell inside. Shake these blocks to get and hold an infant’s attention.
- Move a brightly colored block slowly in an arc for the infant to track with the eyes.
- Build small towers for infants to knock over.
- Place a block under a blanket. If the child reaches for it, this indicates an understanding of object permanence.

**Toddlers**
- Encourage toddlers to explore and play with blocks on their own.
- Build a simple structure and then invite the toddler to join in pretend play with an animal figure.
- Offer containers. Toddlers enjoy carrying blocks from one place to another either in their hands, in a container such as a cardboard box, or pulling them in a wagon.
- Show toddlers a block shape. Ask them to find the same shape from a selection of three or four blocks.
- Add simple accessories such as trucks and cars. Observe how toddlers integrate them into their play.

**Preschoolers**
- Model the geometric standard of unit blocks by showing how two half units equal a unit, two units equal a double unit, and so on.
- Introduce unique accessories (recycled plastic containers, paper towel tubes, craft sticks) into the block center. Rotate their availability so that accessories supplement, but do not take precedence over, blocks.
- Include materials for writing such as adhesive-backed notepads and crayons or markers for children to make their own signs to attach to structures.
- Read aloud books and stories that relate to building such as *The Three Pigs*.
- Trace around each block shape on poster board and label with the name of the block. Encourage children to use the correct names (unit, pillar, cylinder) as they build to reinforce new vocabulary and names of shapes.

**School-Agers (Kindergarten through Grade 3)**
- Introduce other block-like manipulatives such as Legos®, Bristle Blocks®, and Waffle Blocks®.
- Encourage children to use the correct names for block shapes and introduce vocabulary such as symmetry, dimensions, and rotation.
- Encourage children to read and follow directions to put together themed building sets such as Legos® and K'NEX®.
- If boys begin to dominate the block-building area, find ways to keep girls interested such as setting up their own center or designating times when they can use the block center exclusively.
- Introduce more detailed children’s literature with building themes and include the books in the block center as motivation and resource for new ideas.

**Adult Learning Experiences**
- Review the rich history and prominence of block play in early childhood education.
- Identify other dilemmas teachers may experience and use the DAP Perspective and Recommended Plan of Action format to address each and find a resolution to benefit children.
- Become familiar with the term scaffolding and how this approach builds on what children know and takes them to a higher level of understanding. Use open-ended questions to scaffold children’s block building as they play.