Importance of the Environment

The first months and years of a child’s life are the most formative in development of mind, body, and spirit. Sleep, emotional and physical nourishment, and sensory stimulation are more important in infancy than at any other time. The most vital need for these youngest children is warm, nurturing care. We must also provide them with secure surroundings, and equipment and playthings that meet their needs and support their individual development.

Quality childcare can be found in all types of spaces. Still, we should remember that the physical environment, the space arrangement, and the equipment available will either promote or impede quality care. Both the adults and the children should find the environment welcoming and comfortable. A well organized, conveniently arranged, and appropriately equipped classroom gives the caregiver more time for stimulating and supportive interactions with children.

“...the child needs a safe world where he is encouraged to venture, rewarded for venturing his own acts, and against distraction or premature interference....He needs a world rich with opportunities to see, hear, feel, touch, and move.... The child needs a setting where the world is literally at his fingertips to safely explore and enjoy.” — Jim Greenman, Caring Spaces, Learning Places

Special Thanks

This booklet is a collaboration between WestEd’s Program for Infant/Toddler Care (PITC) and Community Playthings. We thank PITC for their research contribution. They have developed the most widely used training system for infant and toddler caregivers in the United States, and their team is at the forefront of national efforts to improve infant/toddler care. More information is available at www.pitc.org.
The first three years of a child’s life are critical for brain development. After birth, brain cells establish trillions of connections. These connecting synapses form the brain’s “maps” that govern thought, feelings, and behavior. Brain cells analyze, coordinate, and transmit information. The brain learns and remembers throughout life by constantly changing these networks as it receives input from its environment.

Although parents pass on a variety of characteristics to their children through their genes, the environment plays a major role in developing a child’s personality by shaping the expression of those genes. External influences, from conception onward, offer the brain the intellectual, emotional, social, and physical experiences that make learning and memory possible.

“…great strides have been made in understanding how very young children learn and how their brains develop. With our new knowledge comes new pressure … to stimulate infants—in just the “right” ways—earlier and earlier. But children learn more from the full complexity of their spontaneous interactions with parents than from any pre-packaged program.”

– T Berry Brazelton, MD
Author and Pediatrician
Infants experience three stages of development. The caregiver-help that children require changes as they progress through the stages of infancy. It is important that the surrounding environment supports both the growing infants and the teachers who care for them.

**Young Infants (0-8 months)**
In the first year of life children acquire a sense of trust—a feeling of safety and security. Basic trust comes from warm and loving relationships with caregivers. When adults are responsive, predictable, and nurturing, infants gain the self-esteem and courage needed for further development. Young infants who feel safe start exploring the world. They need ample opportunities to see, hear, feel, and touch. Movement is crucial, as well as positive interactions between adult and child.

**Mobile Infants (6-18 months)**
Mobility opens up new horizons for infants. They begin to scoot and crawl in their quest to understand and explore the world. Mobile infants are fascinated with activities and objects of daily life and will repeatedly open and close, fill and dump. Repetition helps them learn sequencing, classification, and how things work. Mobile infants are practicing independence, yet still rely heavily on encouragement from caring adults. They experience anxiety as they realize they are separate people from their caregivers, or when meeting unfamiliar people. Playing peek-a-boo or hiding and finding objects helps them learn that things out of sight still exist.

**Toddlers (16-36 months)**
Toddlers are establishing their identity. Who am I, and who is in charge? The toddler period is often marked by conflict, and toddlers are easily overwhelmed when unable to communicate or get their way. Yet with calm reassurance from adults, social awareness grows, and children learn what actions are appropriate. It is a time of exploration, questioning, and discovery. Toddlers start using language to communicate, learn to categorize, and constantly seek to understand the meaning of events, objects, and words. Although a toddler is gaining a sense of his identity, he still needs security in order to purposely explore the world. An environment that offers chances for independence, participation, and cooperation helps toddlers develop competence and a strong sense of self.

“**A good infant/toddler program** is distinctly different from a program designed for 3-5 year olds. Group care . . . requires both **careful planning** informed by **knowledge of development** in the earliest years, and the flexibility to respond to the individual needs of each child and family. The **key to quality care is the quality of relationships.”**

Zero to Three
Caring for Infants & Children in Groups
Eight Considerations
for Quality Infant and Toddler Environments

Since surroundings have such a powerful influence on infants and toddlers, there are eight points to consider when setting up group care environments. These can be divided into two groups. Four relate to the needs of infants and their caregivers: Safety, Health, Comfort, and Convenience. The others support infant development: Child Size Space, Flexibility, Movement, and Choice.

1. Safety
Safety is one of the most important concerns in a group-care setting. In a well-designed environment, children move about freely and explore without the caregiver worrying about children getting hurt. She can spend her time in positive interaction with the children, rather than patrolling a "no" environment.

Safe environments have:
- developmentally appropriate equipment made of non-toxic materials such as wood
- non-slip floors
- stable shelves, objects, and fixtures with rounded corners
- steps toddlers can use to reach the changing table so that caregivers will not have to lift them

2. Health
Health is a fundamental issue when caring for infants and toddlers. A well-kept environment can protect both children and adults from infection and illness.

- Separate the diapering and toileting areas from food preparation and feeding areas.
- Keep these and all areas clean.
- Have sufficient plumbing to allow children and caregivers to wash hands regularly.
- Make sure surfaces are easy to clean and suitable for the activities in the area—walls, floors, furniture, and toys.

Heat, light, ventilation, and acoustics all have an impact on the development of children’s health. Since smell is one of the most important indicators of a healthy environment, clean floors and furnishings are of utmost importance. A child care center needs an efficient air exchange system, as well as screened, openable windows, if at all possible.

“As soon as a baby starts crawling, you can count on the fact that he will discover every hidden danger in the environment. That means his caregivers need to discover those hidden dangers first and eliminate them.”

Dr. Thelma Harms
3. Comfort
A comfortable environment creates a calming atmosphere and allows both infants and caregivers to function without stress, which is injurious to brain development. Reducing clutter, giving attention to attractive display, and introducing nature into the room are some ways to bring about a harmonious and relaxing mood.
- Try soft and natural colors on walls and furnishings.
- Use natural light, lamps, and full-spectrum lights rather than fluorescent lights.
- Each room needs a steady flow of fresh air.
- Acoustical tiles and rugs with pads help to absorb noise.
- Soft cushions, pillows, and back supports for adults sitting on the floor help make the environment comfortable.

4. Convenience
A convenient environment is one in which both the infants and adults can easily see, find, and access materials. Make sure the arrangement of equipment is clear and visible to all who use the space. Materials should be grouped together logically. Since infants and toddlers cannot read labels, they take cues from the way each area is organized, as well as its mood, to stimulate their interaction with the environment.

Feeding, Washing, and Toileting Areas
Feeding and toileting areas must be clean, bright, and convenient. That means the environment must be easy to clean and easy to work in. The equipment should be scaled so that picking up, bending over, and reaching are kept to a minimum.

Storage and Shelves
Storage is the caregiver’s strong silent partner in a smoothly run childcare program. An adequate amount of open and closed storage and its proper placement builds ease and efficiency into your environment.

Entrance and Parent Communication Area
Entering and leaving the childcare setting are important activities. A well-defined entrance gives children a clear sense of space, predictability, and security. Both children and parents can experience separation anxiety, so an attractive and cheerful entrance can dispel their fears, inviting them to enter a special place designed just for them. When parents feel welcome in the classroom, they’ll have more confidence to visit, communicate, and make the transition that works for them.

"An ordered environment with good sight lines and uncluttered floors enables staff to easily supervise the group while interacting with a single child. Settings that keep children both safe and occupied help staff be more playful and attentive to the needs of individuals."

Anita Rui Olds
5. Child Size Space

It’s such a big world. Your classroom may be the one place where a child can reach, sit, play, and work without constantly asking an adult for assistance. When an environment is designed to fit infants and toddlers, they can reach what they need, and explore what interests them—without the caregiver worrying about children getting hurt. Teachers spend less time lifting children, putting them in chairs, getting toys for them, and managing difficult behavior.

Child size space also takes into account the role of the caregiver. Intentional and responsive interaction with each child will encourage them to new levels of play. Since the quality of your interactions has a direct bearing on children’s confidence and ability to learn, swings and walkers are not recommended. They inhibit the infant’s natural need to move and explore, and prevent adults from interacting in the ways that benefit children most.

6. Flexibility

Even if you have limited space, choosing the right equipment can help you create a flexible room. Equipment that is light-weight and mobile can be used for more than one purpose. For example, tables can be used for feeding, art, and messy activities. Use adjustable equipment that can be adapted as children grow. Mobile storage units can double as boundaries, making optimal use of your space.

No matter what type of setting you have, plan to keep part of it open. Placing all the large equipment around the edge of the room keeps the center open allowing the children to see what activities are available throughout the room. The children can also see the caregiver across the room, and the caregiver can see and respond to any child who needs attention. An open center creates maximum flexibility and lets children navigate easily between areas and explore their independence.

On a Child’s Level

To create a child size environment:

- Use tables and chairs that are small and low.
- Low shelving (24” high) allows children to see and reach toys.
- Place mirrors and pictures at child-height.
- Steps should be shallow, 4”-5” high.
- Include some adult size furniture, so caregivers can rock and cuddle children in comfort.

Activity Areas

Think of activity areas as separate places, like little islands. Then work to make them feel separate. You can do that by making sure each activity area has these qualities:

- a separate physical location
- boundaries that separate it from other areas
- a mood, feeling, or personality

Each part of the environment has an impact on the children and adults who use the space. Consider the kind of effect you would like each area to have and how it reflects your program’s goals.
7. Movement

Infants and toddlers need an environment that encourages movement. The first three years are what Piaget calls the sensory-motor period, where infants and toddlers use their whole body to discover and process the world around them. They develop physical and cognitive skills, and learn about people and objects by becoming fully involved with their surroundings.

In the classroom some equipment must be provided to stimulate large muscle play and exploration. Use slopes, low steps, play pits, or platforms to create a multiple level environment. Different levels provide variety, diverse viewpoints, and numerous chances for movement. Surfaces with a variety of textures enhance sensory exploration. Fixed structures, such as climbers and slides, encourage cooperative peer play.

8. Choice

An environment that allows infants and toddlers to make choices supports their development and provides children opportunities to discover what they find interesting or challenging. Set up different areas of the room with a variety of activities, textures, and equipment. There should be spaces for large group activities as well as small, private spaces, active and quiet play areas, and room for messy activities. Your space can support your program, providing stimulation and a balance between challenge and comfort, so children can “push their limits” and expand them. Caregivers need to be able to observe and respond to cues in the children’s behavior in order to arrange and rearrange the environment.

Rest and Sleeping Areas

Infants and toddlers in childcare should be able to rest or sleep when they are tired. An infant who wakes up often during the night may need more sleep the following day. A toddler just getting over the flu may need two naps instead of the usual one. The environment should have places where children can relax and a place where they can take a nap with their own bedding whenever they are sleepy.

“ Toddlers will move whether moving is safe or not. They constantly try out new movement skills and explore their independence. A well-designed environment encourages safe exploration but gives toddlers the feeling of risk, of expanding their limits.”

Ron Lally & Jay Stewart
Although architects are highly skilled, they may not be familiar with the specific needs of child care design. Here are some topics you’ll want to cover well in advance of breaking ground.

- **Allow enough time** to involve teachers, parents, and children in the design process.
- **Licensing standards** do not always support the developmental needs of children. For instance, while 35 square feet per child may be your state’s minimum space requirement, it is not enough for children’s optimal use of indoor environments. Quality programs make decisions based on what nurtures the child and his development, not statutory minimums.
- **Long-term flexibility** is of utmost importance. For this reason mobile storage is preferable to built-in storage.
- **Follow** the appropriate children’s ADA standards rather than using adult ADA standards in children’s areas.
- **Doors:** Keep to a minimum, as they take space and generate traffic.
- **Windows:** Natural light is excellent, and children love to look out; but there can also be too many windows. Providing natural light and ventilation should be balanced with energy concerns and the need for adequate wall space.
- **Floor surfaces:** Consider material, color, ease of cleaning, sound absorption, and visual effect.
- **Ceiling surfaces:** Acoustic tiles absorb sound, whereas hard surfaces reflect sound. Pay attention to the acoustics. A loud environment hinders development and increases stress. A quiet environment encourages calm behavior and focused play.

**Working with the Architect**

“One of the most important lessons I’ve learned in twenty years of designing buildings for young children is that the choices we make in creating the physical environment; space, materials, color, and furnishings, are essential to child development. Not only does the environment teach directly, but it sets the tone for a warm, engaging, and welcoming place that allows children to flourish and learn.”

Mike Lindstrom
CEO, MLA Architects
Brookline, MA
1. Draw the room (to scale) on graph paper.
Add windows, doors, sinks, and floor surfacing.

2. Mark in the flow paths.
Draw the most direct routes between the entry and all other doors, water sources, and storage closets.

3. Circle the protected corners.
Reserve prime space for quiet or traffic-free activities. Protected corners should be as distant as possible from doors and flow-paths.

4. Divide into wet and dry regions.
**Wet Region:** Identify using the “3F” rule: flow, flooring, and fixed plumbing.
**Dry Region:** Should contain at least one protected corner and can be carpeted.

5. Divide into zones.
**In Wet Region:** Entry zone, Messy zone
**In Dry Region:** Active zone (should include a protected corner), Quiet zone (must include a protected corner).

6. Plan activity areas in the appropriate zone.

<table>
<thead>
<tr>
<th>Entry</th>
<th>Messy</th>
<th>Active</th>
<th>Quiet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children's Storage</td>
<td>Feeding</td>
<td>Gross Motor</td>
<td>Nap Area</td>
</tr>
<tr>
<td>Staff Storage</td>
<td>Diapering</td>
<td>ramp, slide, shallow steps, foam shapes, balls, mirrors, tunnel, pull-to-stand bars</td>
<td>Nursing Corner</td>
</tr>
<tr>
<td>Parent Sign-In</td>
<td>Water Play</td>
<td>Finger-Painting</td>
<td>Cozy Space: for quiet play (separate from Nap Area) soft toys, cozy surfaces, infant caregiver “cuddle corners”</td>
</tr>
<tr>
<td>Communication</td>
<td>(older infants)</td>
<td>(older infants)</td>
<td></td>
</tr>
<tr>
<td>Transition Space: adult “userid chair” or Glider</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. Create a space for each area.
This space includes storage for items used in that area. The layout should communicate activities and boundaries.
1. Draw the room (to scale) on graph paper.
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   **In Dry Region:** Active zone, Quiet zone
   (use protected corner).

6. Plan activity areas in the appropriate zone.

7. Create a space for each area.
This space includes storage for items used in that area. The layout should communicate activities and boundaries.
Know your group size/ratios

The regulations for group size and caregiver-to-child ratios vary from state to state. Be sure to check your state’s requirements.

PITC recommends the following sizes for same-age groups:

<table>
<thead>
<tr>
<th>Age (months)</th>
<th>Ratio</th>
<th>Minimum Square Feet per group*</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–8</td>
<td>1:3</td>
<td>350</td>
</tr>
<tr>
<td>6–18</td>
<td>1:3</td>
<td>500</td>
</tr>
<tr>
<td>16–36</td>
<td>1:4</td>
<td>600</td>
</tr>
</tbody>
</table>

PITC recommends the following sizes for mixed-age groups:

<table>
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<th>Ratio</th>
<th>Minimum Square Feet per group*</th>
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<tbody>
<tr>
<td>0–16</td>
<td>1:4</td>
<td>600</td>
</tr>
</tbody>
</table>

*The space guidelines represent minimum standards of adequate square footage per group; the amounts shown do not include space for entrance areas, hallways, diapering, or napping areas.

**Of the four infants assigned to a caregiver, only two should be under twenty-four months of age.

References


Suggested Reading


Inspiring Spaces for Young Children. Beverly Doversay, Sandra Donnan, Sara Harris, Mary Ann Rudy and Lisa Rossenberry, Silver Spring, MD: Gryphon House, Inc., 2010.


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Community Playthings has brought to life the eight major concepts PITC recommends be considered when planning environments for children under three. They suggest thoughtful designs that meet the young child’s need for intimate care, foster relationships with adults and other children, and support development.

J. Ron Lally

Resources

Take advantage of our free staff development tools for early childhood educators and administrators. Learn how the classroom environment can best benefit children. Request online at communityplaythings.com or phone us at 800-777-4244.

The Wisdom of Nature
Out My Back Door
Twelve respected educators including Nancy Rosenow, Elizabeth Goodenough, and Rusty Keeler convey why nature is vital to every child’s creative, social, and intellectual development.

The Stuff of Childhood
Play Equipment to Support Early Education
A guide to choosing play equipment that supports your developmental goals for children.

Pre-K Spaces
Design for a Quality Classroom
This booklet will guide you through the steps to create a developmentally appropriate space for 3–6 year olds.

The Wisdom of Play
How Children Learn to Make Sense of the World
Read what prominent educators such as David Elkind, Stuart Brown, and Joan Almon have to say about play.

Foundations
The Value of Unit Block Play
This instructive video illustrates the value of unit block play for young children. (30 min)

Spaces for Children
Spaces for Children takes you on a virtual tour of eight unique centers, featuring interviews with the center directors. (15 min)

Community Playthings Catalog
Community Playthings has been manufacturing solid maple furniture and toys for childcare settings for over 65 years.

Community Blog
Weekly postings on the importance of play, classroom design, outdoor learning, and much more. Sign up at: communityplaythings.com/resources/blog.