

Sensory overload: Quieting the *noise* in early childhood classrooms

Amanda Price teaches toddlers in a small preschool program. On a typical day she is at work by 7 a.m., greets children by 7:05, and settles the day's first disagreement between two children by 7:08. Her daily schedule is routine and her classroom typical. Today, it's raining and cold, and her co-teacher is out sick. She looks forward to a quiet break but instead returns a parent's phone call to again explain why biting is a typical toddler behavior.

She leaves work at 5 p.m. with her 4-year-old daughter and hits bumper-to-bumper traffic for the 20-minute drive to the grocery. The first stop at the grocery is the Ladies Room where Amanda and her daughter are blasted with the odor of room deodorizer, an auto-flushing toilet, store flyers posted on every wall, an electric hand dryer, and ringing cell phones in every stall. Then they head to the grocery aisles.



Sensory overload occurs when so much sensory information bombards the brain and nervous system that processing that information gets disrupted. Sensory overload happens to everyone. In adults, it's often the result of fast-paced, challenging, and competitive work and family demands. We are unable to tap into a quiet, peaceful place—or even take a deep breath before losing our cool. In children, the same triggers are in play (too much competing sensory input) but to nervous systems that are immature and less able to process without a meltdown.

Sensory development begins before birth and increases slowly through experiences and interactions. A newborn can identify a mother by smell, for example, while a preschooler can distinguish the odors of baking cookies, browning onions, popping corn, and burned toast.

Genetics and environmental influences also impact sensory development. Color vision defects (sometimes called color blindness) is a heritable characteristic that impedes a child's (typically a boy's) ability to distinguish certain colors. Henry's color vision defect, for example, will make it difficult for him to distinguish between *green* and *red*, and he will often confuse the two.

An infant who can hear but whose auditory senses are not aroused by sound and speech will usually have speech delays. Even typically developing infants who can hear sound need both time and experience to be able to duplicate those sounds in meaningful words and sentences.

When sensory learning is interrupted, delays in development occur. Rich, meaningful, face-to-face interactions that stimulate all the senses—but don't overload them—are critical to a child's development.

Unfortunately, many early care and education classrooms are unintended traps for visual and auditory



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overload—too much noise that children see or hear—that makes processing any single sight or sound difficult. Gretta, for example, sees so many colors on the wall that she’s unable to sort and identify any one of them.

The challenge for teachers is to create a rich and engaging environment that doesn’t make too much visual and auditory noise.

Turning down the classroom noise

Typically teachers focus on maintaining wall displays, offering children choices, furnishing interest areas, easing transitions, and establishing routines—all critical activities to a smooth-running classroom.

Sometimes though, these activities create visual and auditory chaos. Walls, floor, and ceiling can be so laden with visual materials that there’s no place for the eyes to rest. Similarly, loud adult voices can compete with music playing constantly, road traffic bustling outside, a tower of unit blocks tumbling, and an air conditioner endlessly whirring that the ears get deluged with sounds.

STRIVE TO MAKE THE SPACE BEAUTIFUL.

In both visual and auditory overload, focus is interrupted. We don’t know where to look or what to listen to. Everything becomes a low, rumbling blur, and we shut down.

Signs of sensory overload—in both children and adults—can include the following:

- irritability,
- sleeplessness or falling asleep unexpectedly,
- crying without apparent cause,
- rapid mood swings,
- attempts to block input (covering the ears, hiding the face, or glazing over, for example), and
- nervous twitches or jitters.

For comparison, call to mind the most relaxing and rejuvenating environment you can. Likely the environment has elements of nature—living plants, unpainted wood, and colors that mimic the sky,

clouds, or water. You hear the stirrings of a gentle breeze and birds twittering in the trees. Furnishings are soft and comfortable, inviting you to relax tight shoulder and back muscles. Indoor lighting is focused on task areas, and wall art is deliberate and aesthetically pleasing.

In a relaxing environment—your bedroom, backyard, or park trail—you’re likely to take a deep breath, smile, and realize you have been able to quiet your mind and garner the energy you need to face the next task.

As a simple exercise, write down some of the features of your relaxing place—features that you use to recharge. Then write down some of the features in your classroom environment that you imagine could create tension and stress. What invites sensory overload and interrupts focus, attention, and meaningful learning?

The first step in noise reduction—both auditory and visual—is an evaluation of the current environment. Naturally, children’s health and safety are primary considerations. But as you evaluate, consider how aesthetic decisions impact all domains of development across all age ranges. If you need guidance, look to Thelma Harms (see references), who with teams of developmental experts, developed environment rating scales for infant, toddler, preschool, and school-age classrooms.

Making environments more peaceful

Well-trained and responsive teachers are the most critical element in an early care and education environment. Your face, movements, and voice establish the classroom as a safe and welcoming place for a community of young learners. Your experience and skill are evident in your knowledge of children in general and your interactions with the specific children (and their families) in your care. Your classroom supports children’s investigations and learning; the environment reflects children’s interests and your ability to instill curiosity, self-regulation, and creativity.

Stripped to its basic six surfaces (walls, floor, and ceiling), a classroom has only a few essential features. It has 1) spaces for bodily functions like eating, toileting, cleaning, and resting; 2) spaces for work and play; 3) spaces for communication; and 4) space for storage. These four areas reflect a room’s architectural

features, budget, aesthetics, and children's developmental levels. An infant room, for example, probably dedicates more space to bodily functions (diapering table, highchairs, rockers, and refrigerator, for example) than a preschool classroom.

In your environment evaluation, list essentials and support features separately. In the infant room, for instance, is it essential to have a large rug printed with zoo animals (*M, monkey*, cartoon picture of monkey)? The rug is essential, but the riot of color, cartoon, and print on the rug doesn't reflect the developmental skills or needs of infants.

Use the following suggestions to spark personal and team reflections on how and why you can make your environments more peaceful, as you reduce the visual and auditory noise.

The visual environment

Encourage children's sense of ownership in the space. Peaceful environments help children feel secure and encourage self-regulation.

- Areas of the classroom—and their functions—are clear. Help children recognize the areas that are intended for quiet play, work, or relaxation and those for groups engaged in louder activities.
- Children have storage space for personal objects. Instill ownership by inviting children to label and decorate their personal spaces.
- Materials are safe, interesting, and inviting. They meet children's developmental needs and interests.
- Materials are accessible to children—placed at eye-

level—and invite independent choice.

- Storage areas are labeled so that children learn to return materials to the proper places.
- Personal hygiene areas encourage independence and self-help skills.

Strive to make the space beautiful.

- Use natural and real objects to quiet the visual noise common to preschool classrooms.
- Make the space appealing to all the senses with invitations to touch (bamboo placemats for lunch) and to smell (a fresh flower in a vase on the lunch table).
- Provide real objects for play. Colored plastic pans for the dramatic play area don't measure up to the real ones donated by a parent.
- Reduce clutter. *Habituation* is a psychological condition that allows us to stop responding to something we see or experience repeatedly. We are habituated when we stop noticing the stop sign on the corner; we automatically stop the car at that place. It's easy to become habituated to clutter—we stop seeing it. Reevaluate materials regularly and store anything that's no longer engaging children in active play. Clear or labeled containers make it easy to identify (and reintroduce) materials.
- Use color meaningfully. Color is a powerful stimulant to the senses and emotions—and is subjective. Strive for balance—neutral tones for large areas and walls and deliberate, distinct colors to highlight specific spaces. Consider solid-color fabric covers for wall panels made of ceiling tile or Cellutex® insulation board—both sound dampening and aesthetically pleasing (if not covered with haphazard notices, pictures, and cartoon graphics).
- Display children's work respectfully and deliberately. Display only recent work and alternate pieces so that every child has work displayed. Documentation panels demonstrate the progress of children's learning with photographs, drawings, and verbal descriptions and quotes. Documentation is ongoing; the panels change regularly to tell the story of the children's work.
- Order begets order. Make tidying tasks and clean-up time more about sustaining a beautiful learning environment than about making space for a new activity. Model your commitment to a peaceful, calm environment by describing why you're putting away materials (including your own bags and coat).

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Respect children's physical needs and abilities.

- Flooring materials are easy to clean and sanitize. Rugs, pads, and floor pillows add warmth and comfort.
- Windows are clean, operable, and screened to allow fresh air flow.
- Classroom lighting is flexible to allow task lighting with wall-hung fixtures (over the art easel or puzzle table, for example) as well as overhead lighting for general illumination. Dimmers are especially useful. Glare from natural light can be harsh; control it with window coverings that soothe rather than stimulate.
- Interest areas and materials are consistent with children's developmental abilities. A preschool classroom, for example, may include a cooking area for self-served snacks; a toddler classroom uses a colored walking rope for transitioning to the outdoors.
- Materials take into account children's temperaments, experiences, and personalities.

The auditory environment

Commit yourself to sound modulation. Acknowledge that early care and education classrooms are rich in auditory stimuli—voices, music, banging materials, electronic sounds, and often crying. Some noise is inevitable, but constant and loud sounds are damaging to young ears and to the peaceful environment you're trying to create.

- Learn to recognize hard surfaces—tile floors and tabletops, for example—that amplify sound, and introduce soft furnishings that soften sounds. Rugs, insulation panels, cushioned furniture, fabric coverings, and pillows help absorb loud noise.
- Deliberately create quiet areas for the classroom. Repurpose a large cardboard box, for example, or arrange standing shelves to create a partially enclosed area that allows you to supervise adequately. Furnish the area with a quilt and pillows or a beanbag chair; offer books or audio recordings of calming instrumental music and earphones.
- Use, model, and help children use whispers, low tones, and conversational voices. As the classroom gets louder, make your voice quieter. The children will quiet the environment as they try to hear your voice.
- Encourage children to move closer to each other for conversation; do the same with your interac-

tions. Calling across the classroom teaches children that it's OK to do the same.

- Use music deliberately. Like color, our response to music is subjective and personal. Avoid adding to the auditory noise of your classroom with music that plays all day. Music and movement activities are deliberate learning experiences. Rhythm instruments and children's songs are essential in the curriculum, but the continuous chatter of talk radio, nursery songs, or even classical music can contribute to auditory overload.

Enjoying the benefits of noise reduction

As you reduce visual and auditory noise, you'll find the benefits of a peaceful environment impact both you and the children. As the noise—and its resultant sensory overload—diminish, you and the children will discover the gift of relaxed, supportive, and meaningful interactions.

General tips for reducing sensory overload

- Check your tone of voice—and what it communicates.
- Be aware of nonverbal communication, and avoid giving mixed messages.
- Keep the environment calm and simple.
- Consider aesthetics, always ensuring that the classroom invites and welcomes.
- Minimize transition times.
- Slow down, especially during transition times.
- Stay organized and maintain a predictable sequence in the day's activities.
- Incorporate calming activities—sensory rests—throughout the day.

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