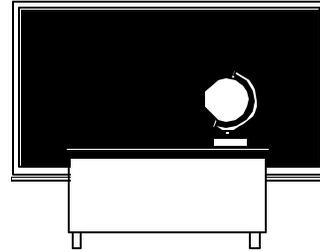


LISTENING FOR LEARNING 1:



THE IMPORTANCE OF GOOD CLASSROOM ACOUSTICS

As parents we are often concerned about the quality and effectiveness of our schools.

- Do they have good experienced teachers?***
- Are the books and materials effective and up to date?***
- Do they have access to modern teaching methods, computers, and other technology?***

When we ask these questions, another, just as important, but less in the public eye, is often missed:

- Can my child hear and understand what is being taught in his or her classroom?***

How much of what goes on in your child's classroom is he or she missing? Is the design of her classroom interfering with learning to read? To do math? Is unnecessary noise making it more difficult to understand everything the teacher -- or other students -- say? Is your child's classroom designed to maximize her ability to learn?

Listening in noise. We all know how hard it is to understand speech in noisy situations. A conversation in a noisy restaurant, construction noise outside of our office window, a loud air conditioner, any one of these conditions leaves an adult straining to hear. Adults are experienced and skillful in listening in noise, but it's a much harder task for your child, whose listening and language skills are not yet well developed.

There is no question that children with hearing loss experience the greatest challenges in acoustically inappropriate classrooms; quiet rooms allow them to use hearing aids and cochlear implants far more effectively. But research shows that all children will benefit from classrooms with low background noise and short reverberation times. Even children with hearing in normal ranges can miss as much as one-third of the words in a teacher's message when they are listening in noise. To understand what they are being told, they need to have voice volumes that are noticeably louder than the background noise in the room. If the room is too noisy, even the most expert teacher will have difficulty achieving sufficient loudness for good understanding.

Kids at risk. Good acoustics -- quiet learning spaces -- are especially important for young children, for those whose home language is not English, for kids who have learning disabilities and those with speech impairments, and for children with temporary (because of colds and earaches) and permanent hearing loss. If you add up the numbers, as many as one-third of the children in your elementary school may be doubly disadvantaged by excessive noise and reverberation in their classrooms -- noise that most adults wouldn't identify as a possible cause of educational delay and failure.

New classroom acoustics standard. Parents and education professionals across the country have been working hard to ensure that America's classrooms are not subject to unnecessary noise that interferes with our children's education. One of the most important victories in this effort was the establishment, in June, 2002, of a new standard for classroom acoustics. ANSI/ASA S12.60-2002, developed by the Acoustical Society of America working with the US Access Board and other stakeholders -- parents, teachers, and organizations like SHHH and AGBell -- was published by the American National Standards Institute for the use of parents, school systems, and school planners and designers. It sets maximum levels for background noise and reverberation to insure good speech intelligibility in learning environments. Designing to meet these criteria will provide room conditions that enable all children to hear and understand.

Next steps... You, as a parent or advocate, have an important role to play to ensure that your child's classroom is an environment that encourages learning, not one with obstacles to understanding. You can help by contacting school officials in your community and educating them on the importance of implementing the standard when new schools are built and the greatest opportunity for change can be realized (for more information, see *Listening for Learning 2: Will Our New Classrooms Meet the Standard?* and *3: Counting the Costs of Noisy vs Quiet Classrooms*).

Many parents have found the new standard useful in obtaining acoustic accommodations under the Individuals with Disabilities Education Act (IDEA). Information on IDEA is available from the US Department of Education at <http://www.ed.gov>. Set the standard as an objective when existing classrooms are being altered to provide a student accommodation. See *Listening for Learning 4: A Checklist for Classroom Acoustics* and then follow up to assist your school and its decisionmakers in remedying those problems with *Listening for Learning 5: Retrofitting a Noisy Classroom*.

For more information... The ANSI/ASA S12.60-2002 standard for classroom acoustics was developed by the Acoustical Society of America (ASA) in collaboration with the U.S. Access Board and other stakeholders. Information on ordering the standard and other materials on classroom acoustics, including a videotape, design manuals, and a bibliography, are available on the Board's website at <http://www.access-board.gov/publications/acoustic-factsheet.htm>. The Board also maintains a toll-free technical assistance line at 1/800/872-2253 (v); 1/800/993-2822 (tty).