SOUND MASKING

For Schools

Recent studies have drawn attention to the less than acceptable acoustic conditions in many schools.

Noise intrudes from both interior and exterior sources, affecting speech intelligibility in the classroom. When students can't hear clearly, they strain to listen to their teacher's words rather than putting effort into understanding the lesson, or their concentration simply wanders.

That's why several countries, including Australia, Canada, Sweden and the United States, have developed standards to address classroom acoustics.

But while learning is the primary activity schools host, they also accommodate administrative, nursing and counseling offices, as well as staff rooms. The activities that take place in these areas have different acoustic needs.

Telephone or in-person conversations between students, parents and staff members can involve academic, health and financial information, as well as other sensitive topics.

Even if these conversations happen in closed offices, doors and even slab-to-slab walls are usually not enough to ensure speech privacy. Any gaps or penetrations can provide clear paths for overhearing discussions that should be confidential.

Furthermore, the acoustics in other areas, such as libraries and computer labs, can impact academic performance as much as those in classrooms. In these areas, conversations and noise are distracting to students engaged in activities that require a high level of concentration, such as reading, writing or studying.

LogiSon®
ACOUSTIC NETWORK©

Meet Leslie.

Yesterday, she talked to her counsellor about problems at home. Today, it's the hottest topic at school because someone overheard their conversation and repeated it to his friends. She's feeling anxious and embarrassed.

SOUND MASKING
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A FEW OF OUR EDUCATIONAL CLIENTS
• Katherine Gibbs School • Lake Arrowhead School District
• Fanshawe College • Northwestern University • University of Toronto

The LogiSon® Solution

The LogiSon Acoustic Network is part of a proactive approach to providing students and staff with the comfortable environment they need to excel.

This technology distributes a soothing, engineered background sound throughout the area. Though most compare this sound to softly blowing air, it's actually designed to mask the frequencies in speech, increasing privacy and reducing disruptions. It also covers up incidental noises that would otherwise impact comfort and concentration.

The loudspeakers are typically installed out of sight, in a grid-like pattern above a suspended ceiling; however, they easily blend in with other exposed components in open ceiling applications. Small zones and fine control over both volume and frequency allow the masking sound to be customized to local conditions, ensuring that it's comfortable and effective across the entire space.

The system can also distribute paging and music. Its high level of component integration dramatically reduces the costs, energy and space requirements typically needed for audio equipment, while networked control allows custom page zones to be created on demand.

Benefits Include
- Noise control
- Speech privacy
- Improved concentration
- Paging and music functions
- Lower project costs
- Facility flexibility
- Quick ROI

For more information about the system's advanced features, see our brochure or contact your local LogiSon Representative.

Using Sound Masking in the Classroom?

As a general rule, classrooms wouldn't benefit from the installation of sound masking because it would further decrease students' ability to hear their teacher.

Children under the age of fifteen have been shown to be particularly inefficient listeners. When contending with high noise levels, they tend to tune out speech. And because their language development hasn't matured, they lack the experience required to fill in the gaps or put what they do hear into context.

The detrimental impact of noise is cumulative. Over time, children demonstrate difficulty with speech recognition, reading and comprehension, as well as reduced motivation and poor long-term memory. These problems present additional obstacles for children with learning or developmental disabilities. Students' inability to hear their teacher can also cause frustration and anger.

Because they have to speak louder and repeat instructions, teachers working in noisy classrooms can suffer from voice fatigue. They may be less likely to speak to students at length and may not always read aloud, affecting the learning experience. Additional concentration is required to listen to students' questions and responses. Working in this type of environment on an on-going basis can be stressful and tiring.

A voice amplification system can be of benefit in these settings. This technology allows the teacher to use a normal voice level and easily be heard throughout the classroom.

Universities & Colleges

As competition for funding, faculty researchers and students increases, universities and colleges are working to improve the design of their facilities.

Libraries
Libraries serve many functions, creating a varied acoustic landscape that poses challenges to conventional noise control methods and staff's ability to enforce a policy of silence. Though areas may be allotted to particular activities, they might not be large enough to accommodate the number of patrons who want to use them or they're located next to areas in which other types of activities are taking place. Conversations and noises are disruptive to patrons who are engaged in tasks that require a high level of concentration, such as reading, writing and studying.

Research Laboratories
Following the precedent set by private-sector research laboratories, many post-secondary institutions now favour open plans. These labs feature large, open spaces designed to encourage collaboration between researchers and across disciplines, as well as modular furniture that can easily be moved to accommodate different types of work. The acoustical issues created by this kind of space and the number of individuals sharing it are similar to those experienced in open plan offices.

Residential Buildings
A number of institutions combine learning and living spaces, a strategy that's been shown to reduce dropout rates while maximizing the use of valuable real estate. Residential buildings now house classrooms, computer centers and faculty offices in addition to dorm rooms, creating a diverse acoustical landscape. Without the appropriate acoustical treatments, students may find it difficult to concentrate in this type of environment, impacting their academic performance. Because students spend a lot of time working in their rooms, quality housing is one of the factors that attract them to a particular institution.

Staff, counselling and health services offices can also benefit from improved speech privacy and noise control.