

Noise in the Classroom



Facts:

Did you know that based on studies...

- At least **45%** of the learning activities in a classroom require **listening** and **understanding** (Berg, 1993).
- For children from 5 to 12 years of age, 45.3% have difficulty **differentiating words** that sound similar (e.g., "bed" and "bread") in background noise (Smyth, 1979).
- Due to background noise and poor classroom acoustics, **90%** of Grade 1 students are **not hearing** all of their teacher's words and one in six words are not understood by the average Grade 1 student in the classroom in Canada (Bradley, 2005).
- In regular classrooms, only 9% of Grade 1 students, 40% of Grade 3 students and 52% of Grade 6 students have optimal **classroom acoustic conditions** for learning purposes (Bradley and Sato, 2004).
- Teachers are 32 times more susceptible to voice **problems** (e.g., laryngitis, hoarse voice) than those in similar occupations due to noise in the classroom (ASHA, 2011).

Who is Impacted?

- Noise impacts **EVERYONE** in the classroom!

Noise greatly impacts students with the following:

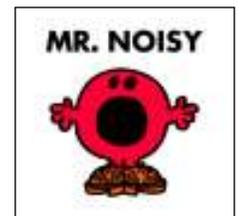
- Mild to severe hearing loss (permanent or temporary loss in one or both ears)
- History of recurrent ear infections
- Oral language difficulties
- Attention or behaviour issues
- Learning difficulties
- An auditory processing disorder
- English as a Second Language

How Does Noise Affect Learning?

- Noise can interfere with understanding and attention in the classroom, which can impact **oral language skills, literacy skills, behaviour and motivation**.
- Students with weak oral language skills are unable to fill in the blanks when they **don't hear information** in the classroom.
- Noise **limits** the number of **verbal interactions** in the classroom.
- **Less material** is covered due to time spent reviewing information that was not heard.
- **Teachers** are at greater risk for developing a **hoarse voice** or chronic laryngitis because they often need to raise their volume when speaking in a noisy classroom.

What Causes Noise in the Classroom?

- Ambient noise in the room
 - o Fluorescent lights or ventilation systems
 - o Doors / windows left open
 - o Noisy equipment (*ie. pencil sharpeners, projectors*)
 - o Moveable furniture that scrapes the floor
 - o Adjacent classrooms or hallways
 - o Students talking
 - o Group work (*particularly evident in split grades*)
- Classroom structure (*ineffective sound barriers*)
 - o Hard, flat, high ceilings (*they allow sounds to reflect*)
 - o Walls made of concrete, brick or drywall
 - o Hard surfaced floor
 - o Windows without coverings or hard blinds which reflect sounds



Tips for Reducing Noise in the Classroom



- Keep windows and doors closed.
- Place rugs over the floor where possible.
- Cover windows with fabric curtains.
- Cover unused blackboards and walls with softer materials (*eg., flags, corkboards, artwork, coats*).
- Place felt pads or tennis balls on the legs of chairs and tables.
- Encourage the use of headphones with audiovisual equipment (*e.g., computer, cd and tape players*).
- Avoid dividing the students into groups where one group is listening to audiovisual equipment and the other group is listening to the teacher.
- Use fabric-covered dividers in open-concept classrooms.
- Seat students away from noisy equipment.
- Turn off noisy equipment when not in use.
- Replace buzzing lights immediately.