

Soundfield amplification – the easy and cost-effective solution

“Unfortunately the modern classroom can be described as providing a hostile environment for listening.... The research results for soundfield amplification have been exceptional and make it one of the most effective and cost-effective methods of improving classroom success for all children.”

Dr Mark Flynn Senior Lecturer in Audiology,
Department of Speech and Language Therapy
University of Canterbury

Users say that Easy Listener™ soundfields are helping improve:

- Ⓞ oral language
- Ⓞ literacy levels
- Ⓞ classroom harmony
- Ⓞ increasing on-task behaviour
- Ⓞ reducing special education referrals and costs.

Since trialling the Easy Listener™ soundfields, many primary schools are now so enthusiastic about the benefits that they have installed soundfields in every classroom. A formal research study is being carried out over three years at Windley School in Porirua to quantify the difference that an Easy Listener™ soundfield makes to educational achievement.

Easy to use

The Easy Listener™ soundfield works through ordinary FM radio signals. The teacher wears a “Madonna-style” microphone, that is easy to use and barely noticeable to the wearer. The teacher’s voice signal is transmitted wirelessly to four separate speakers in the classroom with very little maintenance required.

“Soundfield systems are making a significant difference to our children’s learning right across the school. Our special needs referrals have decreased significantly since soundfields have been installed, especially in the reading area.”

Columba Boyack, Principal, Windley School, Porirua

Find out more

Contact

The Oticon Foundation in New Zealand,
PO Box 9128, Wellington.
Tel +64 4 473 3330 or 0800 OTICON (684 266)
Fax +64 4 473 4440 or 0800 FAX OTICON (329 684)

E-mail: info@oticon.org.nz
Website: www.oticon.org.nz
or
your local hearing care professional



**Helping
kids
to
achieve**

Easy Listening
in Classrooms

the oticon foundation

Our classrooms are too noisy!

Our classrooms are noisy places. In fact, a recent independent New Zealand study¹ found that classroom noise is a problem for most students and most teachers. One of the main reasons for this is that a lot of the work done at primary level is “group work” which is very noisy. Studying patterns of sound in a range of classrooms including asking teachers about their experiences, has shown that sometimes background noise is actually higher than the teacher’s voice, which makes listening and learning extremely difficult.

This noise makes all children “hard of hearing”

The noise causes problems for all children, regardless of their hearing ability. Because children’s brains are not fully developed for listening until they are in their teenage years, primary age children find it harder to correctly hear their teacher’s voice. They miss key words, phrases and concepts in poor listening conditions and don’t really understand the words that have been spoken. International research² has shown that children with “mild” hearing loss are at twelve times higher risk of educational failure than their normal hearing peers.

Research has shown a wide range of children at increased risk of educational failure including children with:

- ⊗ temporary hearing loss from ear infections
- ⊗ glue ear
- ⊗ speech and language difficulties
- ⊗ learning disabilities
- ⊗ behavioural problems like attention-deficit disorders
- ⊗ permanent hearing impairments
- ⊗ English as a second language

¹ *Classroom Acoustics Research Group Report*. Oriole Wilson (project co-ordinator) et al. National Audiology Centre, 2001.

² “Children with Minimal Sensorineural Hearing Loss: Prevalence, Educational Performance, and Functional Status”, in *Ear & Hearing*, October 1998, Fred H Bess, Jeanne Dodd-Murphy and Robert A Parker.

And teachers suffer vocal strain!

Classroom noise is also a major contributor to the incidence of vocal strain, recognized as a serious occupational hazard for teachers. This occurs when teachers need to speak for long periods of time at an elevated voice level. More than a third of New Zealand teachers surveyed in the classroom acoustics research project say they need to speak at a level that strains their voices. Around half of all teachers said that they needed to raise their voices during group work which along with mat work takes up around two thirds of class time.

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A range of architectural solutions can assist in making classrooms quieter by cutting down sound reverberation times. This includes installing acoustic ceiling tiles, carpet with underlay, and decking that is not attached directly to the classroom.



Reading aloud is a breeze with the Easy Listener™ soundfield, worn by teacher Cherie Arlidge at Porirua's Windley School.

Dr Mark Flynn, Senior Lecturer in Audiology at Canterbury University, recommends that soundfield systems be installed in every classroom. “These allow teachers to talk in a normal voice, wherever they are in the classroom, and to the child it sounds as if they are standing right next to them – all the time.” Purpose designed soundfield systems remove the barriers to easy listening for the benefit of all classroom users.

Easy Listener™ soundfields have been installed in more than 150 classrooms across the country and hundreds of children are benefiting every day. Teachers, principals and parents are thrilled with the results.

“I find this sound system reduces teacher stress levels because:

- ⊗ *Whispering and speaking softly is easier to hear than loud talking on this system*
- ⊗ *Children can hear more easily. This surely must facilitate concentration levels*
- ⊗ *When outside noises (eg lawnmower) intrude it is so easy to adjust the volume*
- ⊗ *Children also use the microphone, and enjoy this experience*
- ⊗ *It is so much fun reading aloud to children because I can vary my voice accordingly, and all children can hear”*

Maree Hudson, Totara Grove Primary School, Whangarei

“It completely transforms the listening environment. The amount of energy required to listen is reduced enormously. Teachers do not have to raise their voices to be heard and it makes their job a lot less stressful.”

Joy Allcock MEd, Occupational Therapist, Wellington

I find this sound system reduces teacher stress levels