



# Roger™ SoundField.

Learning without limits





# Understanding the classroom challenges

Classrooms are noisy places. Lively discussions and interactions between teachers and students are vital for effective learning. Unfortunately, the reality is that classroom acoustics are usually less than ideal. Teachers are often speaking to students from a distance and in background noise in a room full of reverberation. This means that a student's daily learning environment and a teacher's routine come with many challenges.

Fortunately, with the Roger SoundField System, these challenges can be easily overcome. The Roger SoundField System effectively distributes sound from the teacher, students and other sound sources throughout the entire classroom.

By understanding the challenges noisy classrooms create, Phonak has developed a portfolio of products that overcomes learning barriers – regardless of where someone is seated, how loud the environment is, or whether they are wearing hearing aids.

This allows learning without limits where students can concentrate, learn, confidently participate and achieve academic performance.<sup>1</sup>

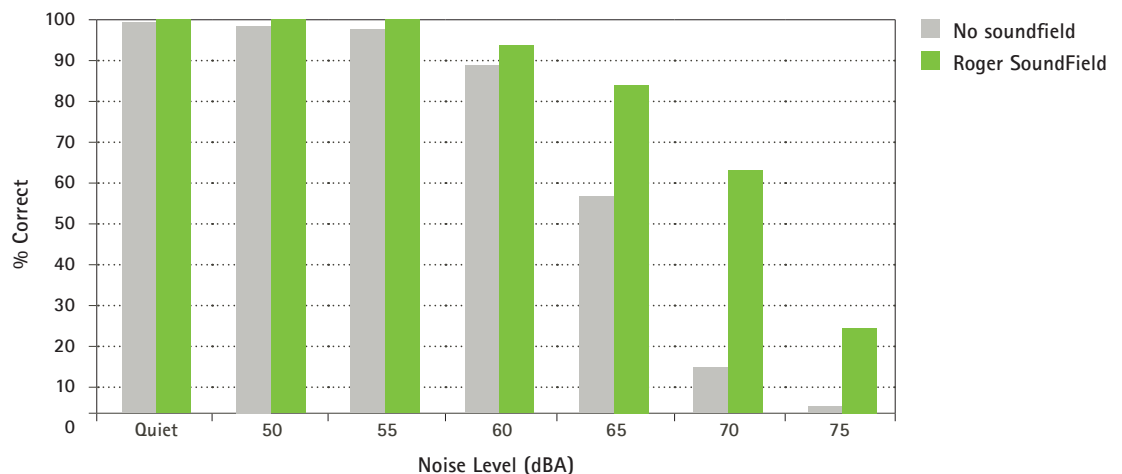


# Benefits of a Roger SoundField System in the classroom

In order to understand speech in noisy classrooms, students require a favorable signal-to-noise ratio (SNR).<sup>2</sup> A soundfield system significantly boosts a student's chance for academic success by providing an improved acoustic environment for listening and learning. It helps children pay attention, hear and understand the teacher better.<sup>3</sup>

## Evidence of excellent performance

A study was conducted evaluating the performance of personal FM and classroom soundfield systems. It revealed that speech recognition scores for children with normal hearing were significantly better when using Roger SoundField in the classroom than with no soundfield amplification.<sup>4</sup>



Average speech recognition scores across noise conditions for normal hearing children with no soundfield compared to with Roger SoundField system.

## Protecting teacher's voices

Noisy classrooms can result in teachers suffering from vocal strain – leading to poor vocal health in the long term and increased costs due to teacher absences. A study showed that using a Roger SoundField System in a classroom, for just one period of the school day, was enough to improve dry throat symptoms, voice quality, fatigue while talking, and vocal strain in teachers.<sup>1</sup> Students being able to hear and respond to instructions better has not only shown improvements in academic performances<sup>5</sup> but in-class discipline is also easier to maintain.<sup>6</sup>

## Easy as A, B, C

The Roger SoundField System is simple to set up – just plug in, turn on and let learning begin.

- 1 Cruz, A. D. da, Silvério, K. C. A., Ribeiro, V. V. & Jacob, R. T. de S. (2016). Dynamic soundfield system impact on the teacher's voice: case report. *Revista CEFAC*, 18(5), 1260–1270.
- 2 Appleton-Huber, J., Bacic, L., Drexler, J., & Venkatesan, A. (2018). A review of classroom soundfield amplification systems. *Phonak Compendium*. Retrieved from [www.phonakpro.com/evidence](http://www.phonakpro.com/evidence), accessed April 19th, 2022.
- 3 The Use of Sound Field Amplification of the Teacher's Voice In the Regular Education Classroom – A Summary of Studies. THE MARRS Project: Mainstream Amplification Resource Room Study. Retrieved from [www.phonakpro.com/evidence](http://www.phonakpro.com/evidence), accessed April 19th, 2022.
- 4 Wolfe, J., Morais, M., Neuman, S., et al. (2013). Evaluation of speech recognition with personal FM and classroom audio distribution systems. *Journal of Educational Audiology*, 19, 65–79.
- 5 Simberg, S. (2004). Prevalence of vocal symptoms and voice disorders among teacher students and teachers and a model of early intervention. (Thesis), University of Helsinki. Retrieved from <http://ethesis.helsinki.fi/julkaisut/kay/fonet/vk/simberg/prevalen.pdf>
- 6 Cutiva, L. C. C. (2013). Voice Disorders in Teachers and Their Associations with Work-Related Factors: A Systematic Review. *Journal of Communication Disorders*, 46(2), 143–155. <https://doi.org/10.1016/j.jcomdis.2013.01.001>.

# Learning through active engagement

Roger is the hearing companion that helps children focus, participate and thrive – in the classroom and everyday life.

Specifically the Roger SoundField system features quality sound and plug-and-play simplicity to amplify sound from the teacher, students, and other media sources to the entire class, including both those with and without assisted hearing.

1

The **Roger Touchscreen Mic** sends the voice from the teacher to the DigiMaster loudspeaker. It's a simple and intuitive microphone for teachers to use and wear.

2

When the **Roger Multimedia Hub** is used in a network, the audio mixing feature allows a teacher's voice to be heard simultaneously with an audio signal, e.g. music or video.

3

**Roger DigiMaster** is the loudspeaker designed to amplify the teacher's voice in a noisy classroom. It also amplifies students' voices with the Roger Pass-around.



4

The **Roger Pass-around** can be handed from one person to another or placed in the sturdy stand in front of the student. It is automatically activated by voice or can be configured for Push-to-Talk functionality.

5

Student with hearing aids.



The Roger DigiMaster firmware can be upgraded over time whenever new features are available through the USB connector.



A Bluetooth connectivity module added inside the Roger DigiMaster V2 loudspeaker supports wireless connection to devices such as tablet or computer.



# The right solution for every teacher and student

With more than four decades of expertise in pediatric hearing solutions, Phonak continuously develops innovative solutions for education.

The Roger for Education portfolio has been carefully designed for the classroom. With a comprehensive range of Roger microphones and speakers to suit your needs, listening challenges can be reduced. Students can simply learn – and teachers teach – allowing for more authentic, meaningful connections in the classroom.



## Roger Touchscreen Mic

With an automatic microphone function, it conveniently switches from an individual talker to Small Group mode, depending on its placement. The user interface makes Roger Touchscreen Mic simple and intuitive to use.



## Roger Charging Rack

A small and lightweight battery charger that allows up to four Roger devices to be charged simultaneously, making teachers ready for the next day in the classroom.



## Roger Pass-around

A student microphone designed to enhance classroom discussions. It can be passed from one student to another, allowing the child with hearing loss to hear not only the teacher, but also their classmates.



## Roger WallPilot

A wall-mounted device that automatically connects students' Roger receivers and teachers' microphones to the room's existing Roger network, saving up teachers' time to get students ready for class.



Learn more about the Roger  
for Education portfolio

# The right speaker for every room



## Regular-sized classrooms

Roger DigiMaster 5000 is an excellent solution for average-sized classrooms. Coupled with a Roger Touchscreen Mic and Roger Pass-around mics, this system offers instant sound performance.



## Larger classrooms, lecture halls and auditoriums

Roger DigiMaster 7000 is the system of choice for larger spaces. The system features 15 high-quality mini loudspeakers that can be combined with another unit, covering double the range of one DigiMaster 5000.

## The right set-up for every room



Floor Stand



Desk Stand



Tripod

(for Roger DigiMaster 5000 only)



Wall Mount

# A fully connected classroom

## Roger Multimedia Hub

Staying connected is crucial for everyone nowadays and it is not different when it comes to schools. Multimedia devices that are used in classrooms such as TVs, MP3 players, smartboards, laptops and tablets can easily be connected to the Roger Multimedia Hub, which wirelessly transmits to Roger DigiMaster loudspeakers.

The connectivity through the Bluetooth® in Roger DigiMaster V2 and the Roger Multimedia Hub ensures students are in a fully connected classroom.



# life is on

Since 1947, Phonak is dedicated to preserving life quality by opening new acoustic worlds. Already back then, in the days of our foundation, our company was driven by a formative conviction: We believe that well-hearing equates to well-being and thus is essential for living life to the fullest. In fact, the sense of hearing is directly linked to social, emotional, cognitive and physical well-being. Today as in future, we thrive to offer the broadest portfolio of innovative hearing solutions. And, together with our hearing care professionals, we keep on focusing on what matters most: improving speech understanding, changing people's lives and having a positive effect on society as a whole.

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