



# Roger™ SoundField for education

## Learning without limits

A Sonova brand

**PHONAK**  
life is on

# Hearing more means learning more

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 with background noise. 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 that noisy classrooms pose, Phonak has developed a portfolio of products that allow all students in the classroom to concentrate, learn, confidently participate and achieve academic performance.<sup>1</sup>

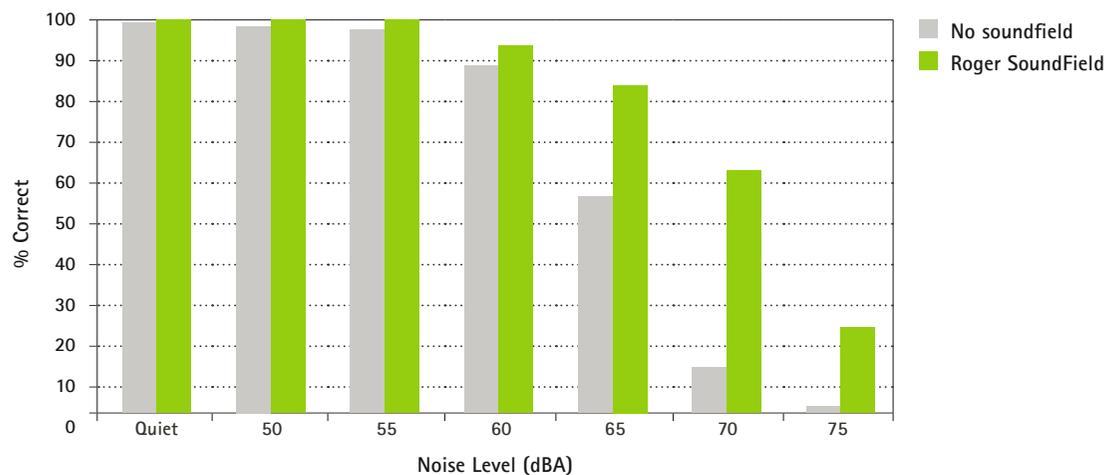


# Benefits of a Roger SoundField System in the classroom

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.

## Easy as A, B, C

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

## 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>

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> 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.

<sup>5</sup> 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>

<sup>6</sup> 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>.

# Real learning through active engagement and discussion

The Roger DigiMaster loudspeaker and Roger Touchscreen Mic are the core of the Roger SoundField System. The Roger Touchscreen Mic continuously estimates the surrounding noise and automatically optimizes the volume, ensuring that speech remains loud and clear, even with higher background noise.

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 N2 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. With a comprehensive portfolio including a range of Roger microphone and speakers to suit your needs, listening challenges in the classroom can be reduced. Students can simply learn – and teachers teach – without limits.



## Roger Touchscreen Mic

The Roger Touchscreen Mic pairs with personal Roger receivers, Roger NeckLoop and Roger DigiMaster to provide Roger sound quality and improved speech understanding for all students.



## Roger Charging Rack

Small and lightweight, it allows up to 4 devices to be charged simultaneously and provides a consistent charging spot for remembering and collecting multiple devices without the need for additional cords or plugs.



## Roger Pass-around

The Roger Pass-around mic is designed to enhance classroom discussions so that not only the teacher, but every student, can be heard clearly as well. It is automatically activated by voice or can be configured for Push-to-Talk functionality. Plus, it's easy even for kids to hold and control.



## Roger MultiMedia Hub

This versatile transmitter used in a Roger network features audio mixing, allowing a teacher's voice to be heard simultaneously with an audio signal. It connects to any multimedia device used in a classroom for group activities or for an individual student, such as audiobooks, tablets, smartboards, TV, etc.

# 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 can transmit over a larger area and has the option of being connected in a network of two speakers, therefore covering double the range of one Roger DigiMaster 5000.

# The right set-up for every room



Floor Stand



Desk Stand



Tripod



Wall Mount

# A fully connected classroom

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

At Phonak, we believe that well-hearing equates to well-being and is essential to living life to the fullest. For more than 70 years, we have remained passionate about creating a world where 'life is on' for everyone. Our innovative hearing solutions are designed for people of all ages and all degrees of hearing loss, to connect socially, thrive mentally and emotionally.

[www.phonakpro.com/rogersoundfield](http://www.phonakpro.com/rogersoundfield)



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