

Phonak Work Life

Hearing solutions for the classroom and workplace

This is an outline of the powerpoint presented by Bill Bieleski on September 13, 2017.

Agenda

Mission

Why consider hearing assistive technology?

Phonak Work Life Solutions

What next?

Mission

Provide innovate hearing solutions for adults in the post-secondary education and the workplace

Holistic approach

More than a hearing aid – complete solution

Current United States Landscape

According to research conducted by Johns Hopkins Medicine 20% of adults report some degree of hearing loss; about 48 million people.

60% of the people with hearing loss are either in the workforce, or in educational settings

Of those who could benefit from hearing accommodations, some hesitancy to identify themselves still persists due to stigma or lack of knowledge regarding resources available, especially new resources!

When hearing loss is identified a hearing aid is typically the first device prescribed...BUT

Hearing aids are a solution for near field situations

Workplace/classroom is typically a far field situation

Why Wireless or FM technology?

Hearing Aids **alone** cannot effectively overcome noise, distance, reverberation

Noise: Background noise negatively impacts signal to noise ratio (SNR); masking important speech information necessary for understanding

Hearing aid directional microphones only improved the SNR between 3-5 dB. (Ricketts, 1999).

For individuals with hearing impairment, the SNR loss is around 12 dB, dependent on severity of loss (Wilson and McArdle, 2005)

An FM/DM system can boost the SNR at the hearing impaired individual's ear by 15-25 dB. (Hawkins, 1984; Crandell and Smaldino, 2000).

Adds an extra layer of difficulty in sound localization

Distance

The greater the distance the poorer the sound quality

With greater distance the lower the dB SPL reaching the ear

Inverse square law: with each doubling of distance there is a 6 dB SPL decrease

Reverberation

Reflection of sound (especially late reverberation) from hard surfaces in a room can increase the background noise = lower signal to noise ratio; as well as a degraded signal reaching the ear.

Examples: Brick walls, high ceilings, bare or tile floors, chairs with no dampening

Noise + Distance + Reverberation = help!

With conversational speech in 60 dB of noise the SNR degrades to 0 dB after only 2 meters (about 3 feet).

Where Roger excels:

...So, why FM/DM wireless technology?

Hearing aids/directional microphones alone cannot effectively solve all issues!

What can best improve SNR?

FM/DM wireless technology

FM/DM is not only for hearing impairment!

Recent studies have shown FM/DM benefit with CAPD, attention disorders and autism.

Phonak Roger Technology

Adaptive, wireless transmission on the 2.4 GHz band

Frequency hopping

Avoids interference issues

No channels to program or manage

Fast transmission time

No time delay, no echo

Encrypted signal

Up to 66-100 ft. range

Full audio frequency bandwidth

200 Hz to 7,300 Hz

Bluetooth compatibility – *Roger Pen only*

Hearing aid/CI (cochlear implant) Compatibility

Maximum performance

Roger offers the industry's best ever speech-in-noise performance, with proven improvements of up to 35 % over Dynamic FM technology and 54 % over other FM systems.

Phonak Roger: Products

Roger Pen

Ideal for lecture, 1 on 1 conversation and dynamic high noise situations

The microphone modes in the Roger Pen are chosen automatically (based on the acoustic scene and the orientation of the device), though a manual override is available

Modes: Lecture (vertical), Interview (45° angle), Conference (flat/lying on table)

Roger microphones continuously monitor the surrounding background noise level

With increasing noise, the output of the Roger receivers increases too, maintaining the good signal to noise ratio delivered by the hearing aids to the ear. This unique behavior has been scientifically proven to deliver outstanding speech understanding in even high noise levels.

Roger Table Mic

Ideal for group work

Especially designed for meetings

MultiTalker Network

with several Roger Table Mics or other Roger microphones in the Roger Work Life portfolio

Range – up to 100 ft. to receiver

Compatibility – with virtually every hearing aid & CI there is a compatible **Roger receiver**.

Remote control – control your listening environment

20 hour battery life

Roger Clip-On Mic

Ideal for lecture

Directional mic

Adaptive, wireless transmission on the 2.4 GHz band

Frequency hopping -Avoids interference issues; no channels to program or manage

Fast transmission time - No time delay, no echo

Encrypted signal

Up to 66-100 ft. range

Full audio frequency bandwidth - 200 Hz to 7,300 Hz

Roger Receivers

Roger X

Mini receiver worn on the HA/CI or BAHA

Excellent compatibility

Uses the hearing aid battery as power source

Roger MyLink

Body worn receiver with neck loop

Used with T or MT setting on hearing aid

Visual indication for on/off

Volume control

Utilize with t-coil on HA, CI or BAHA

Roger Focus

On ear solution for students with APD, ADHD, or autism spectrum disorders

Uses standard 312 hearing aid battery

Works with all Roger microphones

Comes in wide variety of colors to match skin or hair

Resources

For more information visit: www.morethanahearingaid.com/us

Check out our Blog @: <http://us.morethanahearingaid.com/blog/>

Contact me directly:

Bill Bielski

Audiologist & Product Specialist

Phonak, LLC

4520 Weaver Parkway

Warrenville, IL 60555

United States

Phone: 888-421-0843

Direct: 708-221-5362

E-Mail: bill.bielski@phonak.com

Internet: www.phonak.com