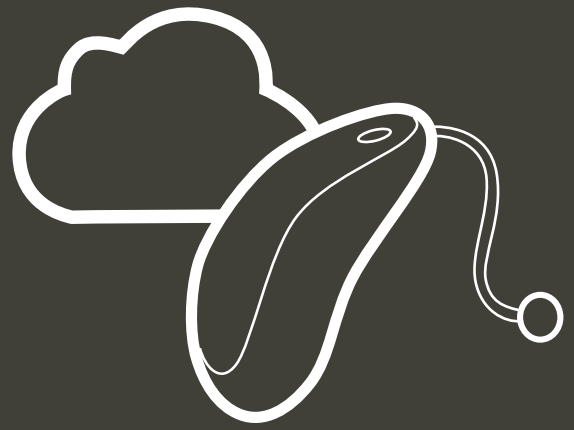
PHONAK
life is on



eAudiology: Engagement, Ease, Empowerment

Christine Jones, AuD
Vice President, Audiology

DIGITAL
TRANSFORMATION

IN ALL INDUSTRIES

eSolutions

WHY

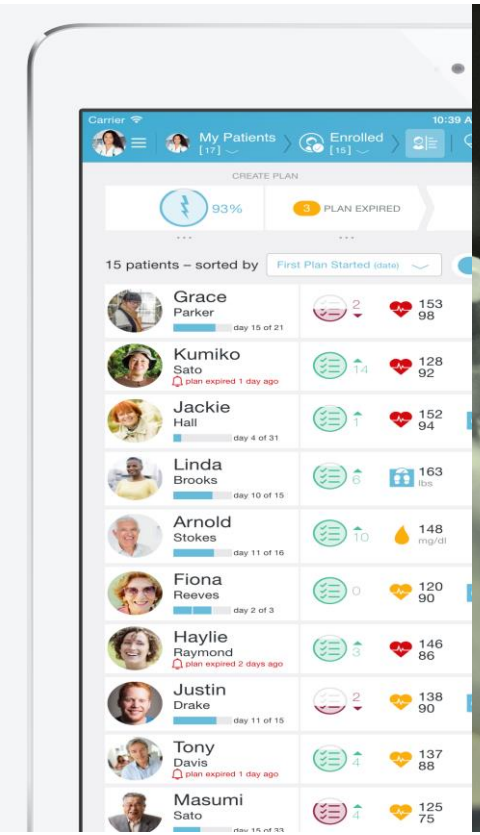
WHAT

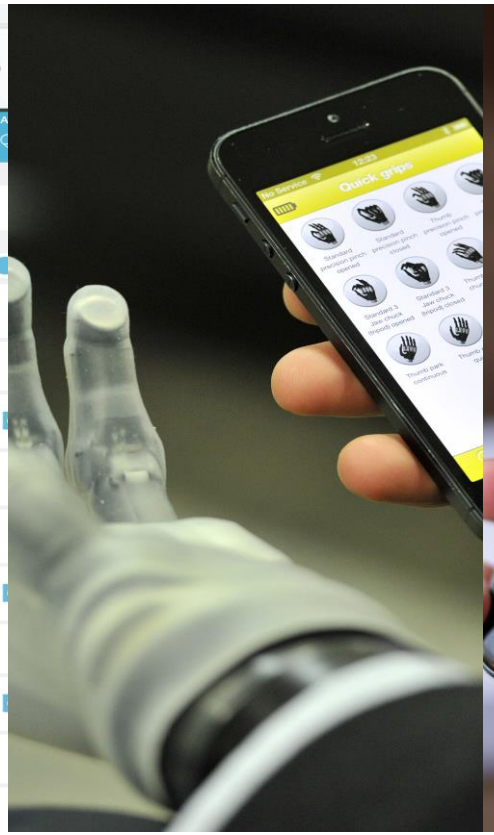
HOW

WHY

Digital Transformation
in Health Care

Digital Transformation in Healthcare





Self Diagnostics

Health Coaching

Self Adjustment

Online Assistance

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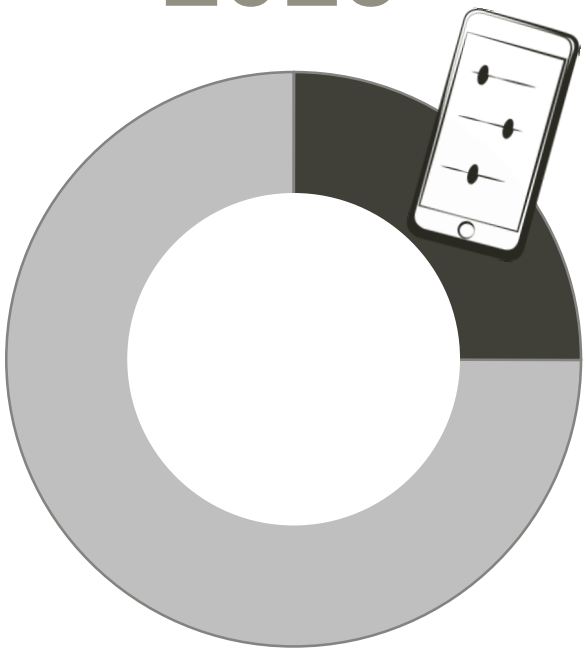
Change in consumer behavior

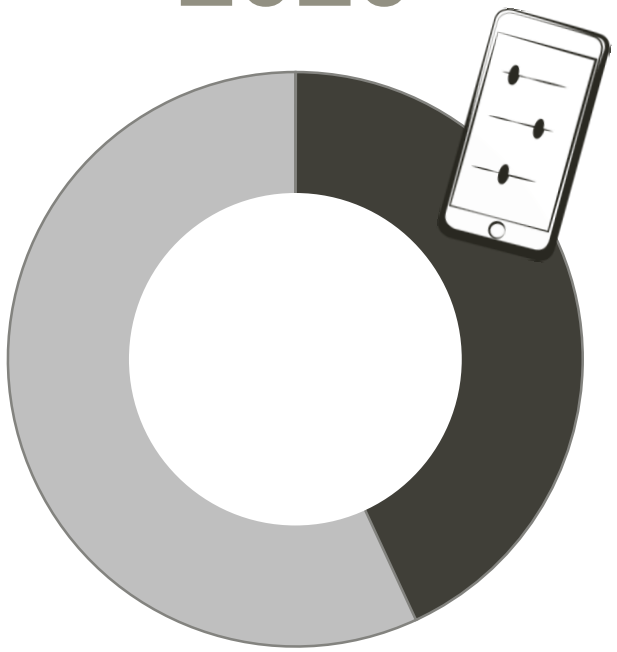
2016



25%

Modern, Self-reliant

2020



40%

Modern, Self-reliant

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life is on

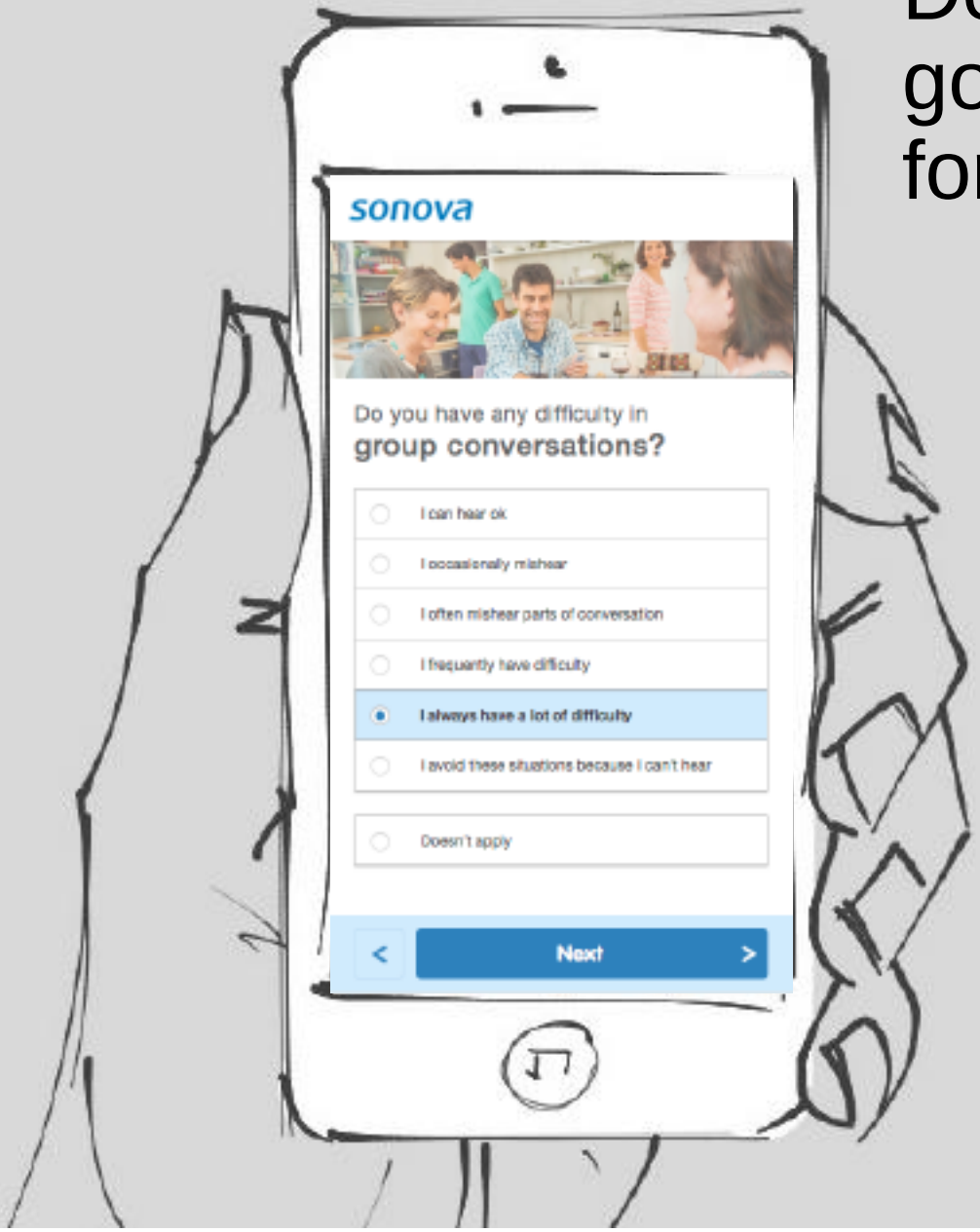
WHAT

Meet Steve and his future

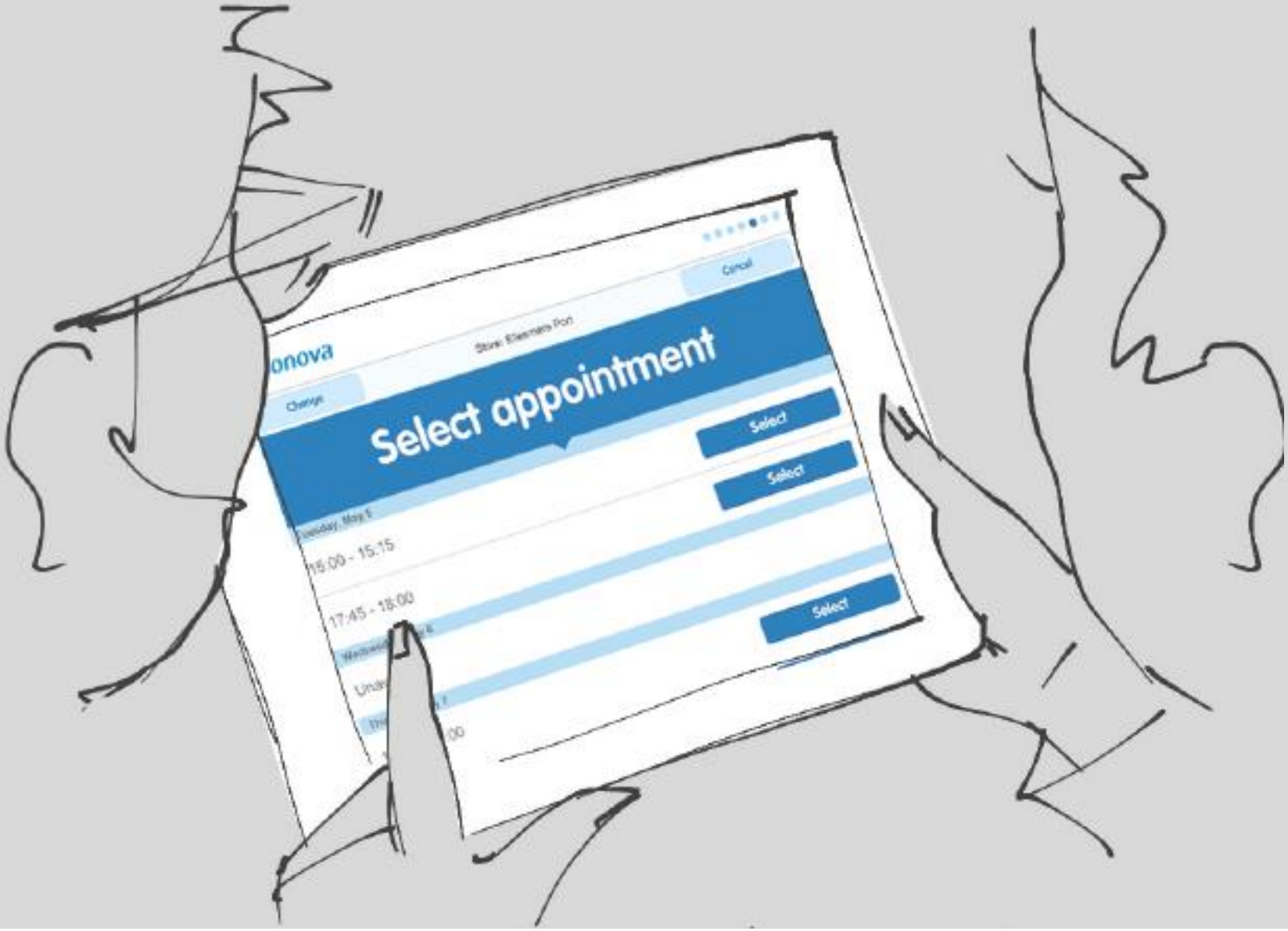
eAudiology journey

3 min hearing screening, calibrated for iPad

Defining hearing goals is the baseline for whole journey



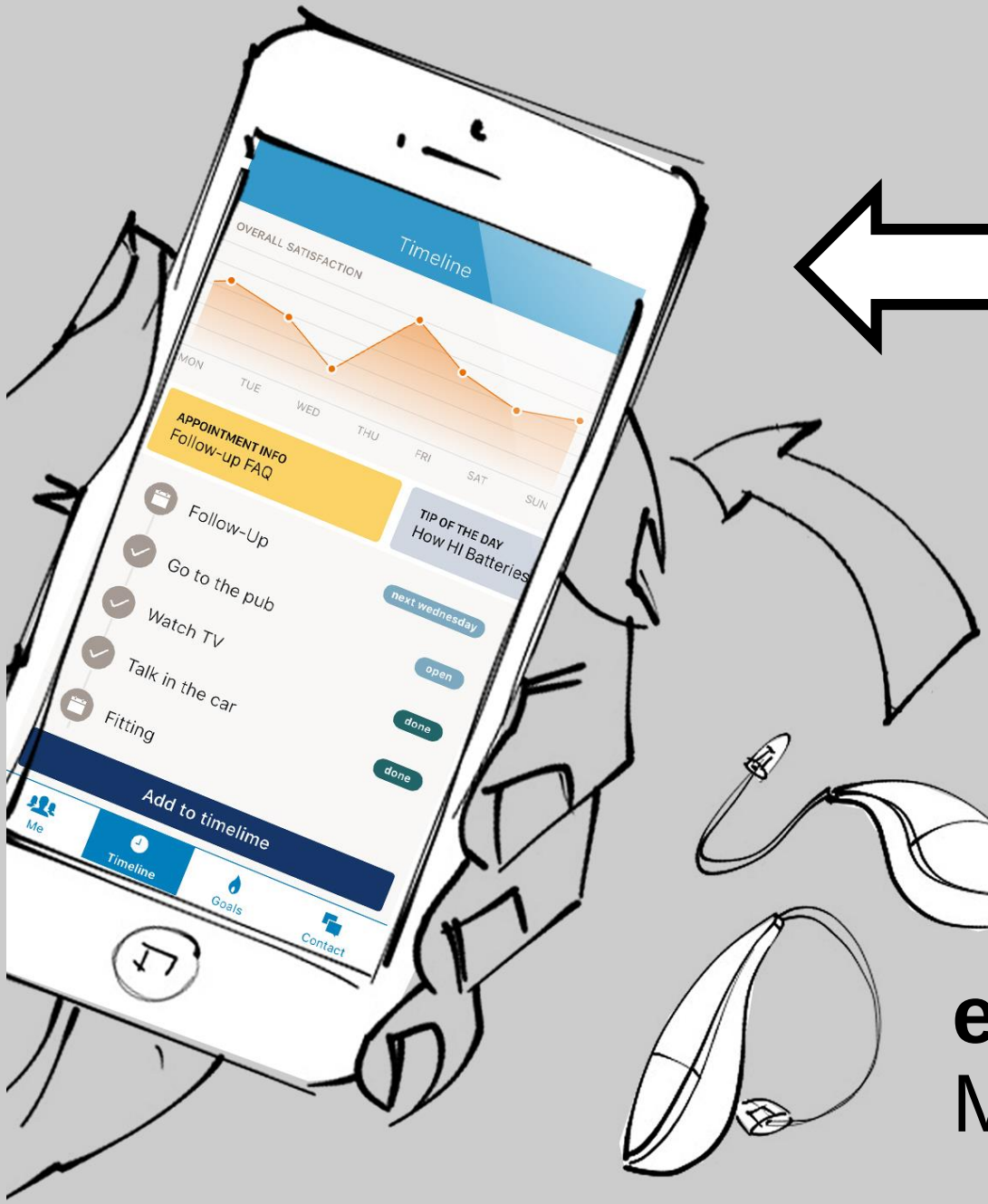
Direct booking into the CRM



Day 1 – A new hearing system

Counseling starts

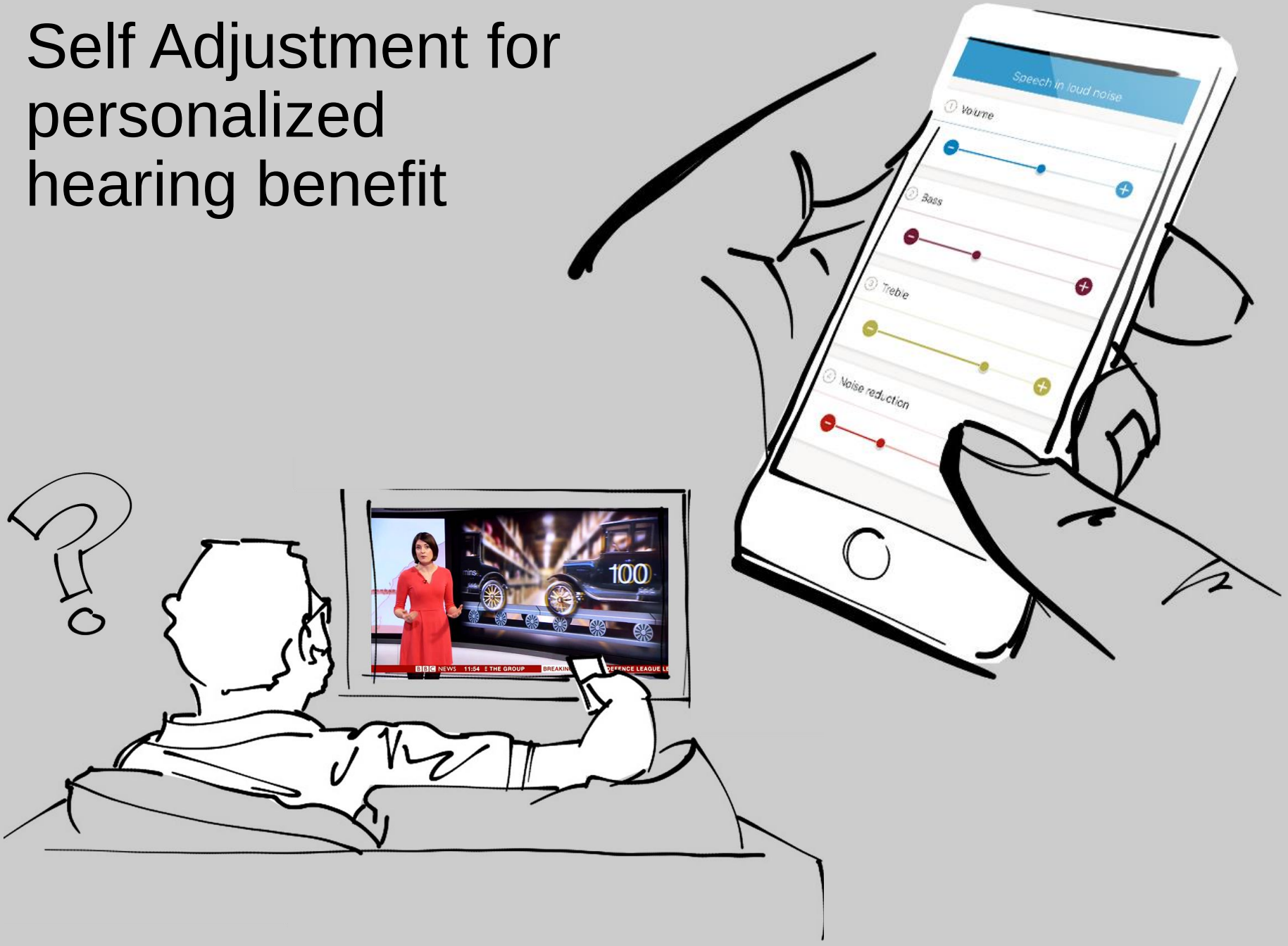
Adaptation starts today with his new hearing system…



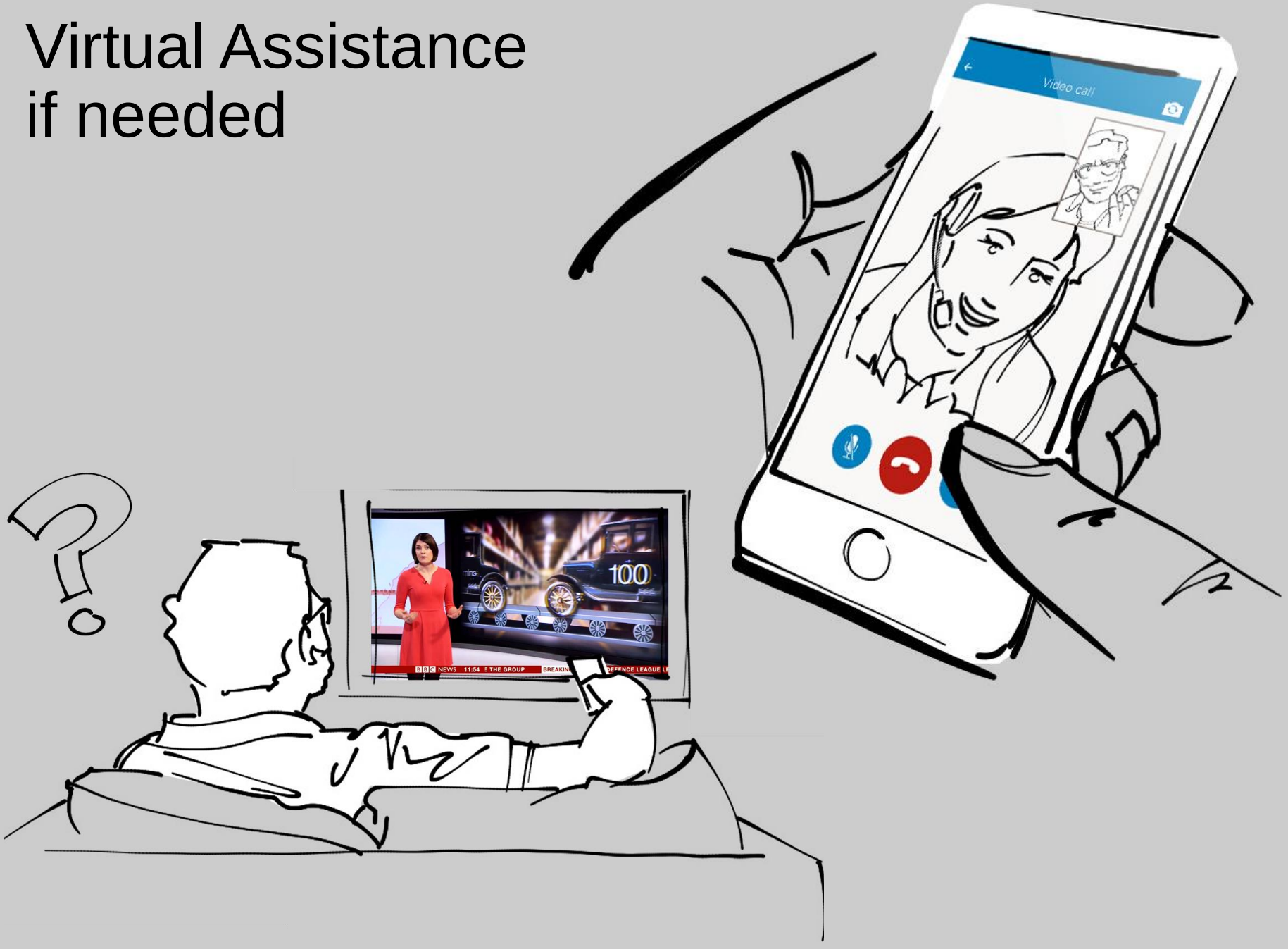
Sonova
hearing care
platform

eCoach App
Monitor & Engage

Self Adjustment for personalized hearing benefit



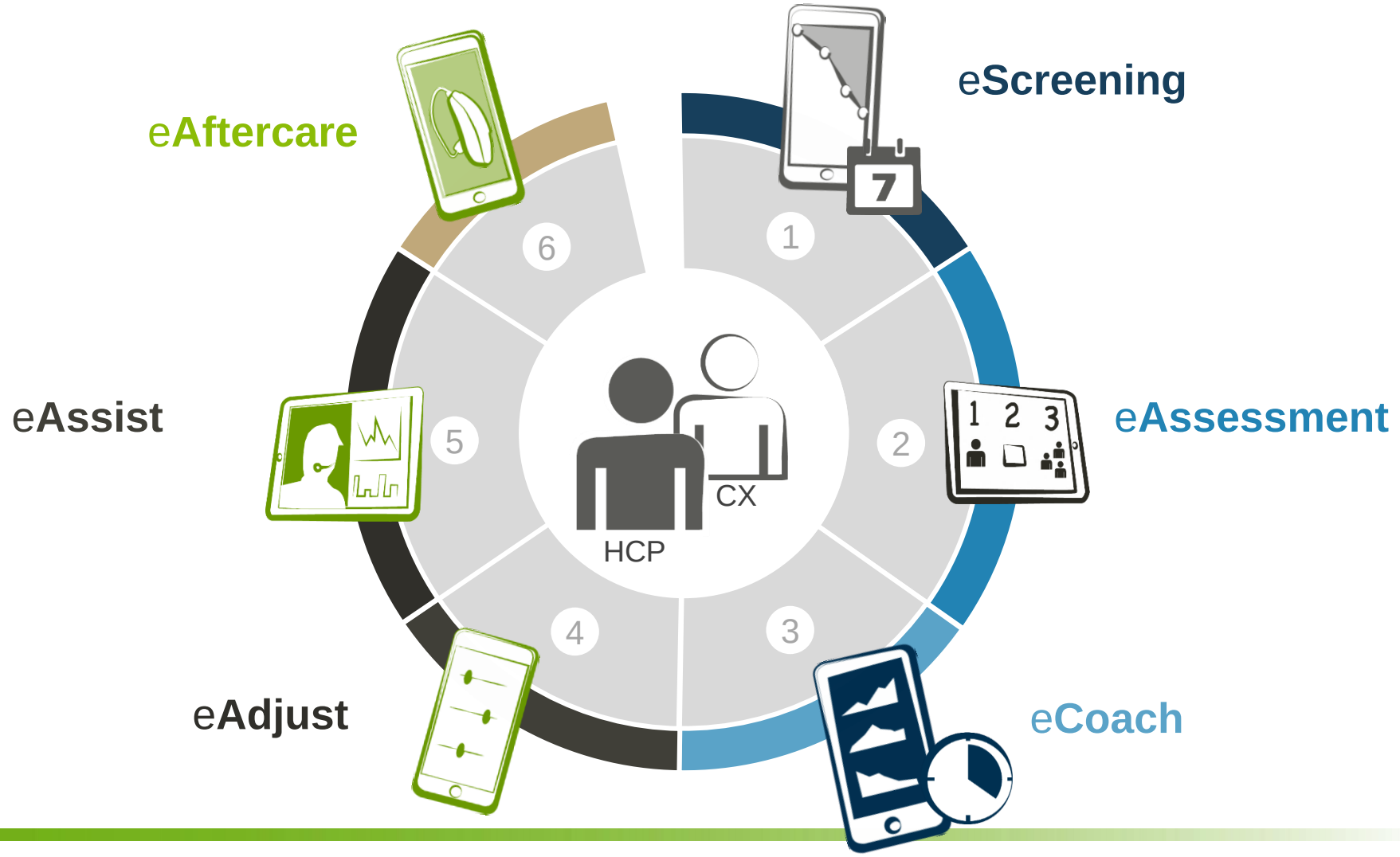
Virtual Assistance if needed



HOW

Our solution portfolio

eSolutions - Coming to you in 2018



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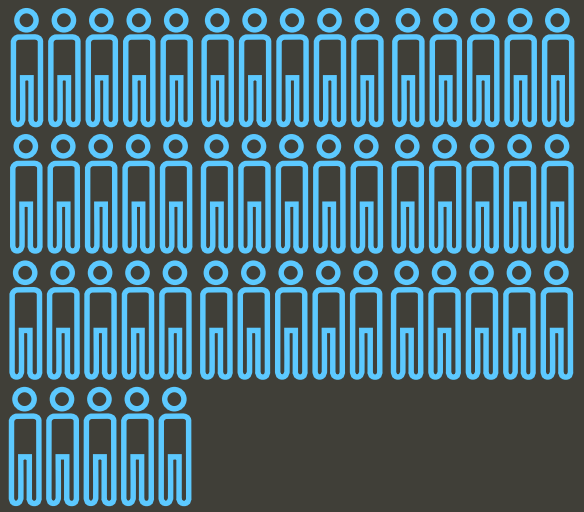
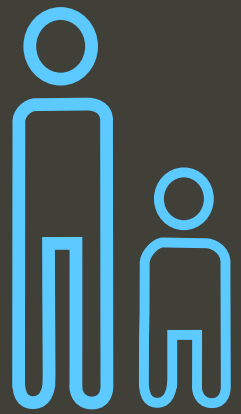
life is on

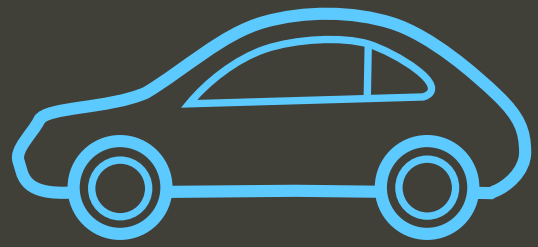
Users in study were ...



50
Participants

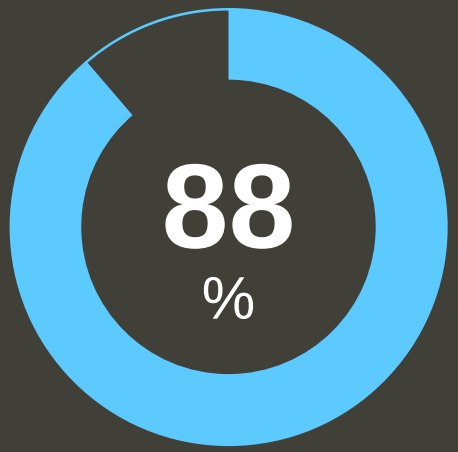


65
Age avg.

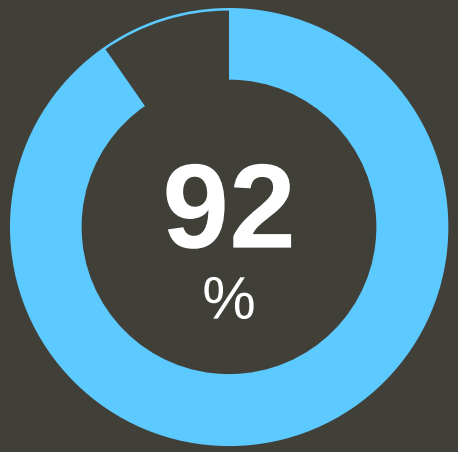


35
Minutes avg.

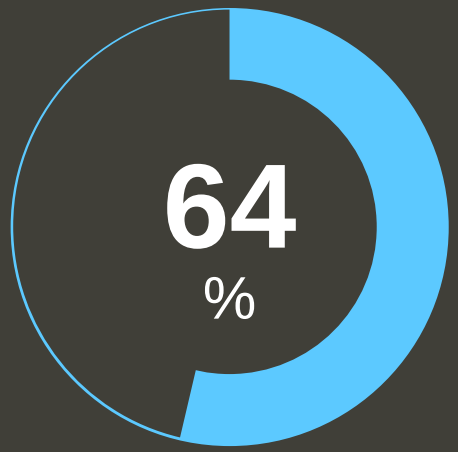
Users in a tele health study reported ...



prefer tele sessions under difficult conditions

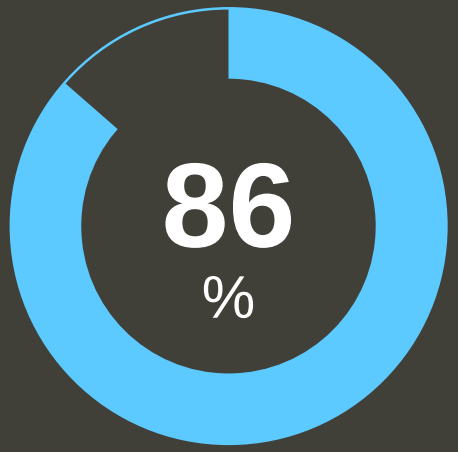


would **recommend** tele sessions to other users

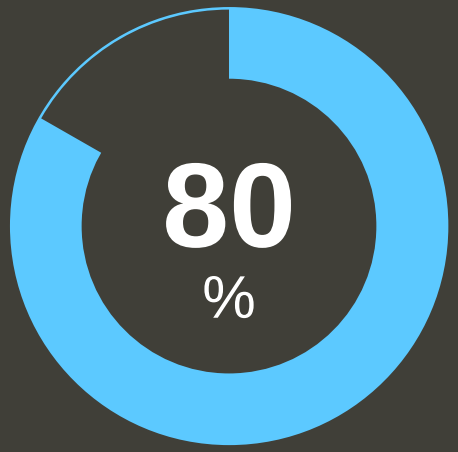


would prefer tele sessions if offered a **choice**

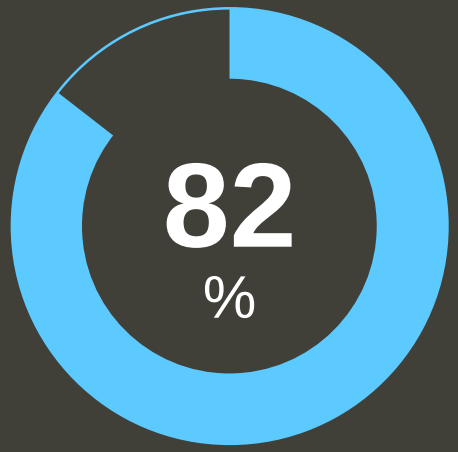
HCP reported ...



Tele sessions had **stable connection**



Tele sessions as **efficient** as face-to-face



Tele sessions clinician was **satisfied**

PARC
Phonak Audiology Research Center

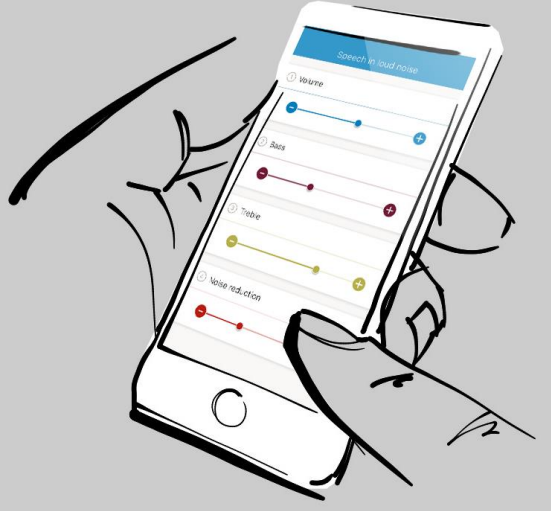
eAdjust

PARC

Lisa Standaert

Marius Beuchert

Nicola Hildebrandt

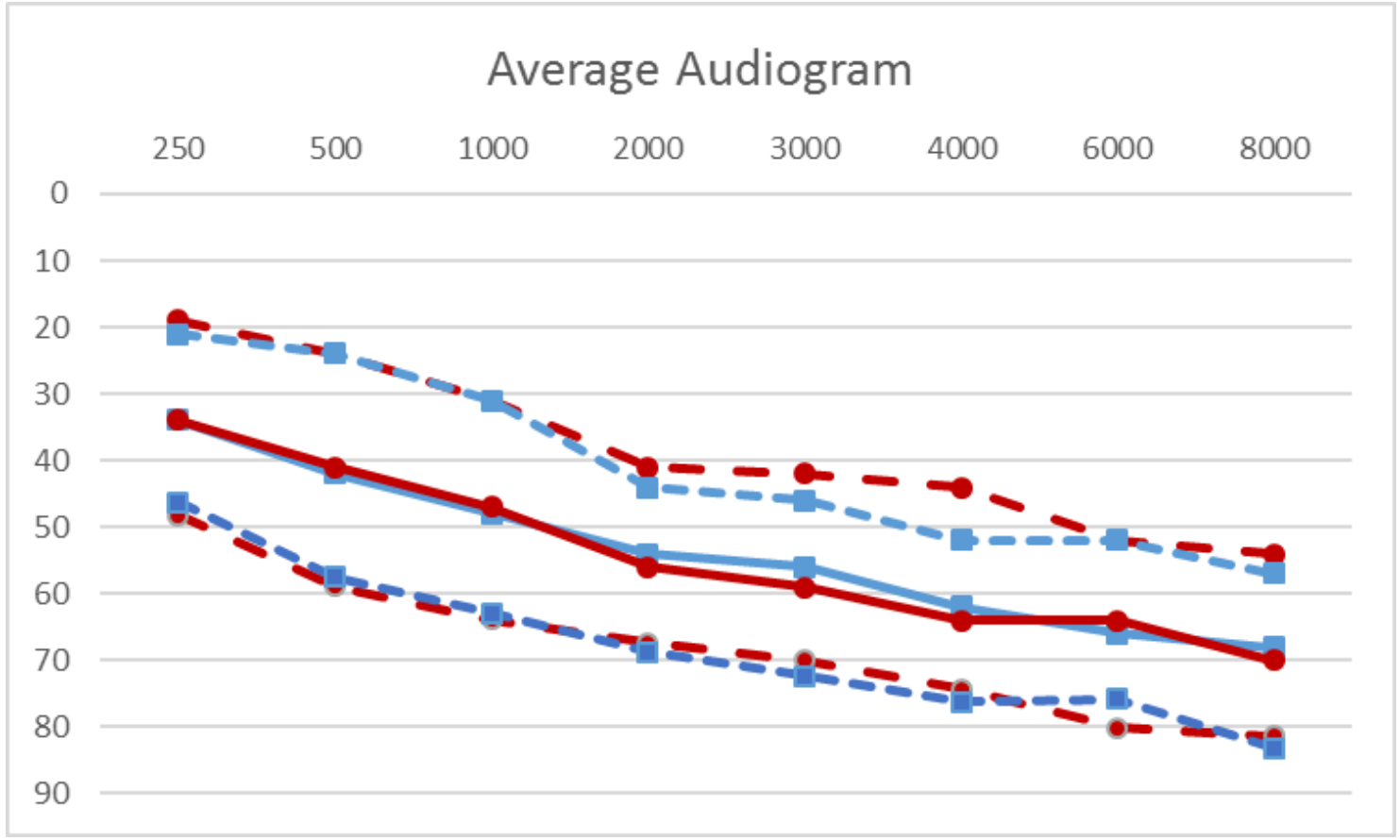


How do HA users adjust their settings?

How does performance with personalized settings compare with performance with HCP settings?

Do users prefer their own settings?

eAdjust Participants



N = 22
Average age = 66 y

5 New Users
17 Experienced Users

Consumer Segment:
Self-Reliant = 3
Traditional = 6
Modern = 13

PHONAK
life is on

Visit 1

-1st fit
-Intro to app

Home Trial 1

-Create custom pre-sets in real life settings

-Complete survey

Visit 2

-A/B comparison between Auto and self-adjusted settings in 4 lab scenes

Home Trial 2

-Create custom pre-sets in real life

-Complete survey

Visit 3

-Repeat A/B comparison between Auto and self-adjust settings

-SPIN testing between Auto and self adjust settings

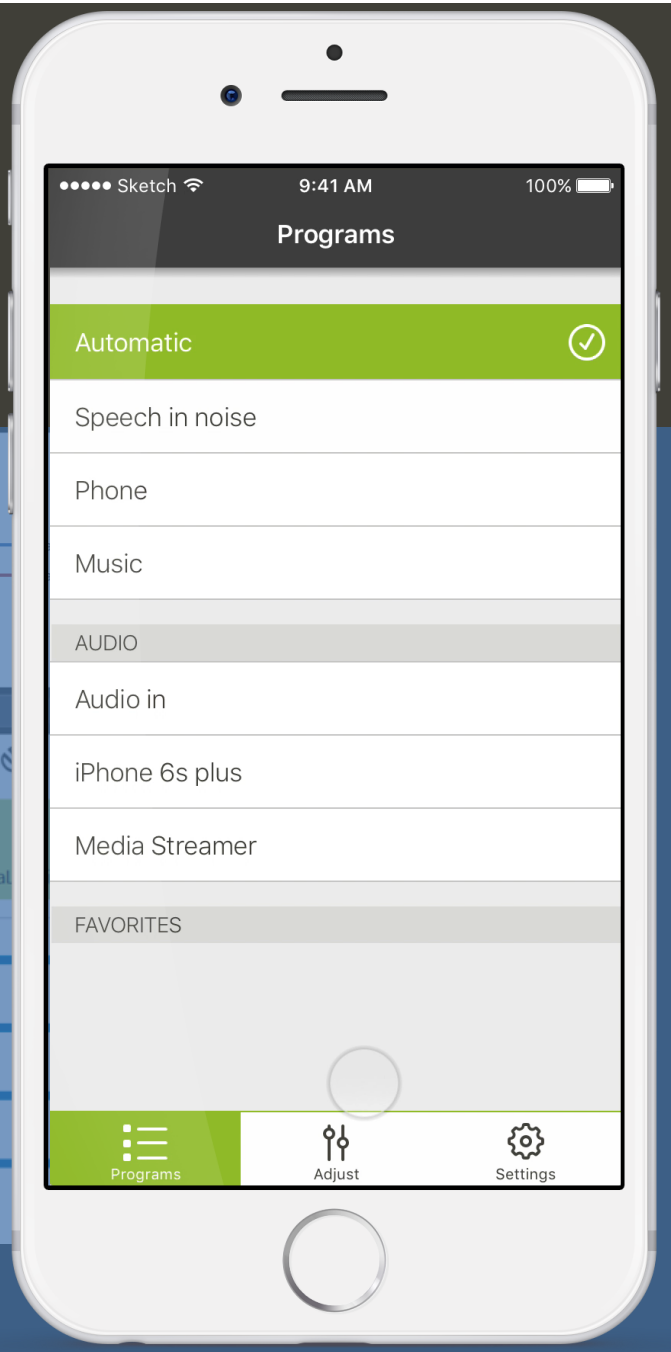
-REMs

PHONAK life is on

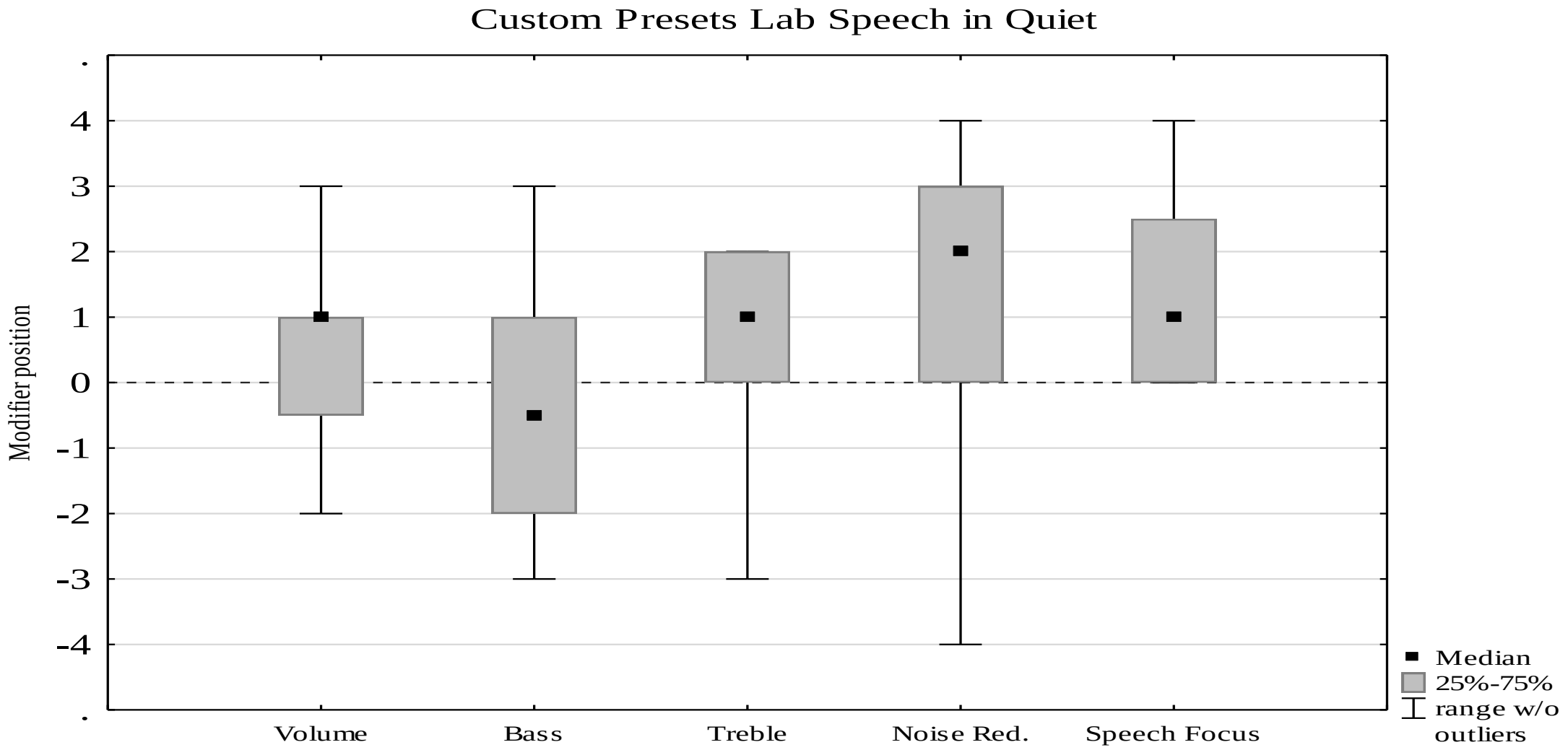
eAdjust (Self Adjust)

Empower user to change some settings

Market Trial in 2017

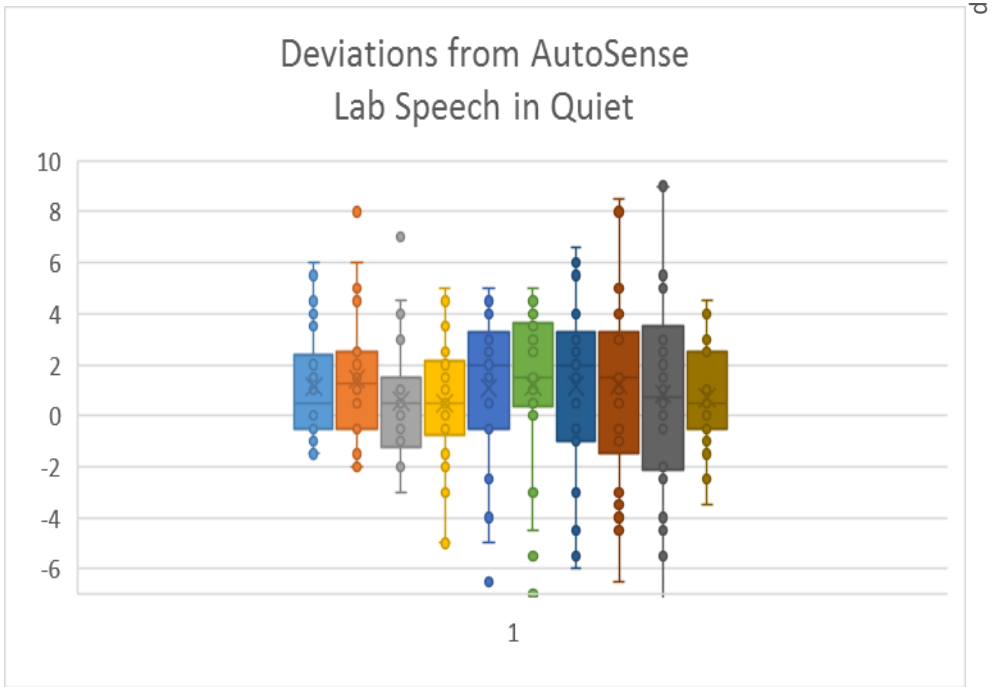


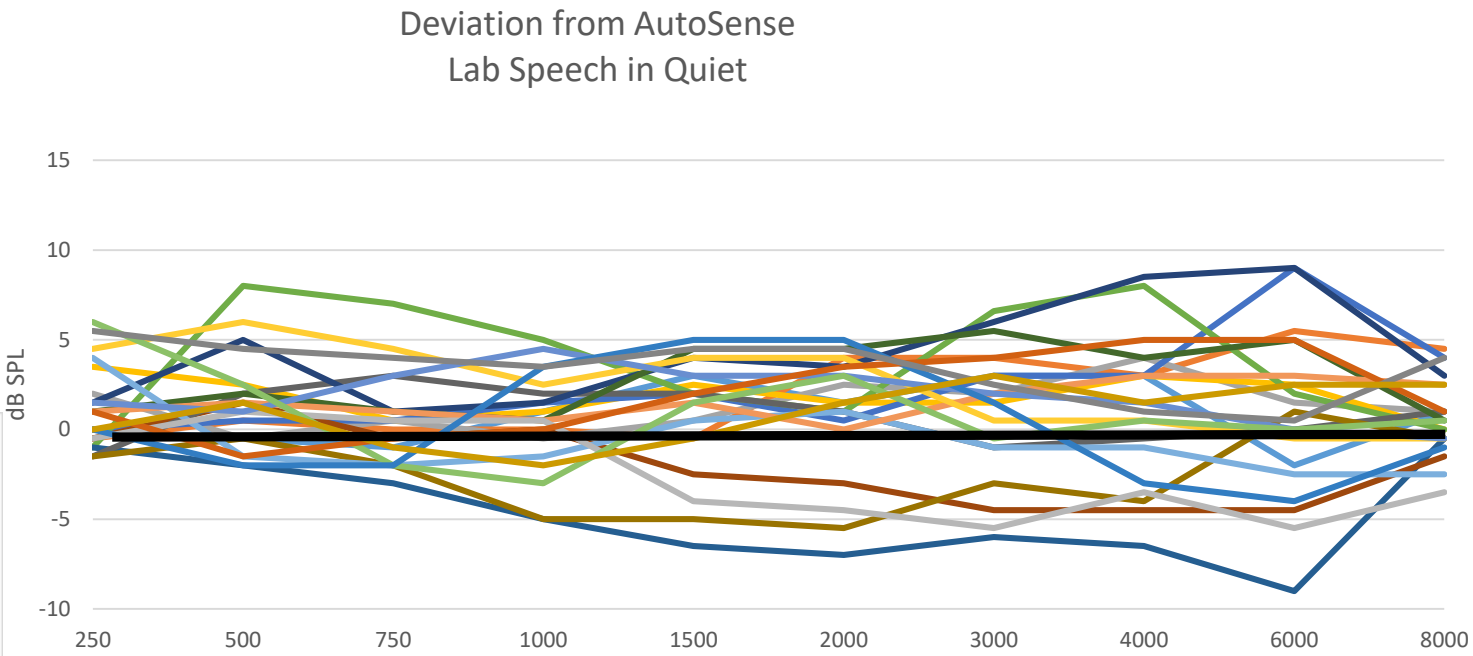
Modifier Positions for Lab Speech in Quiet scene



Lab Comparisons: REM results Speech in Quiet

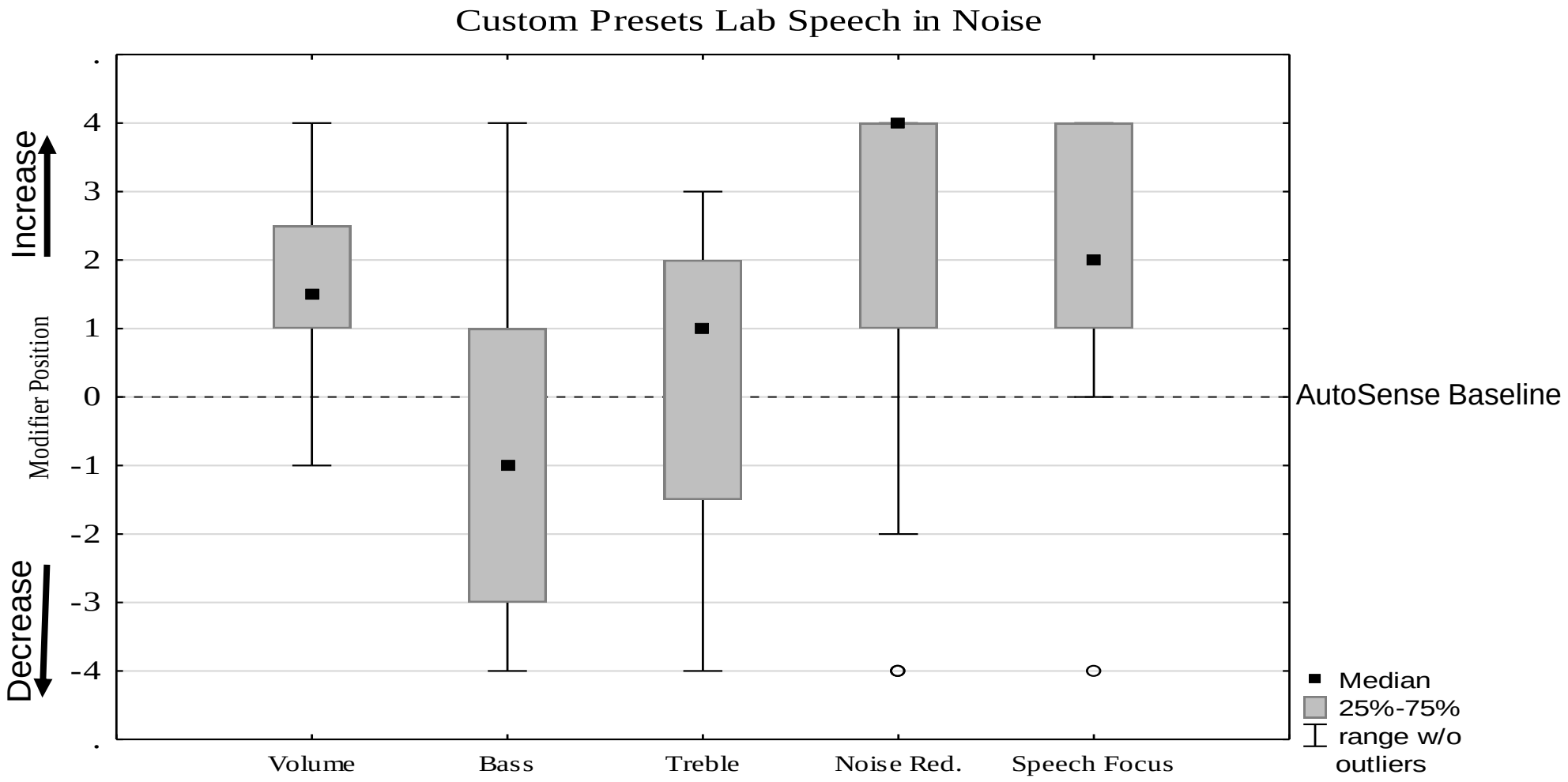
-Effects of modifier positions on real ear results





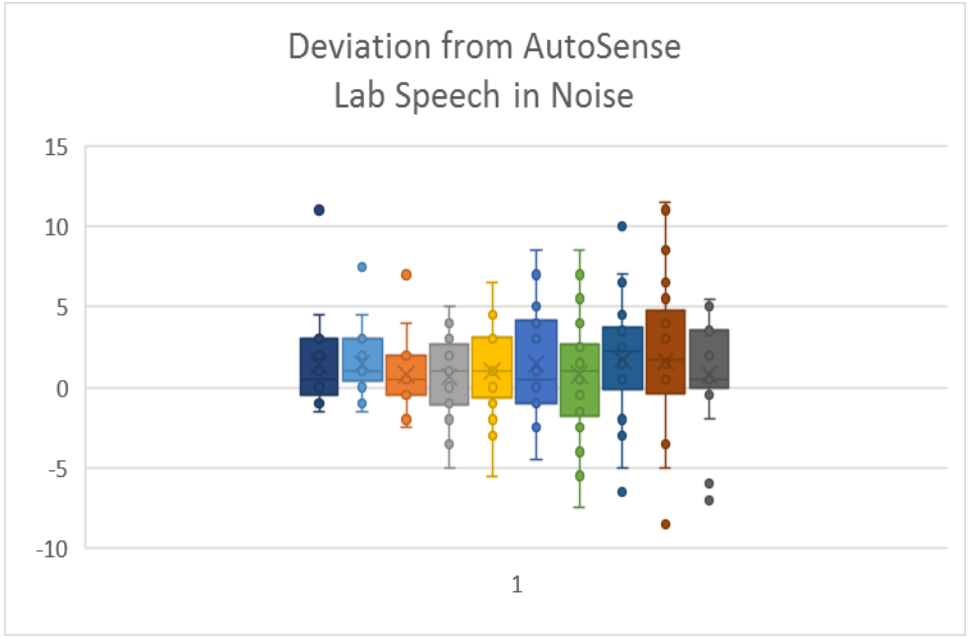
PHONAK life is on

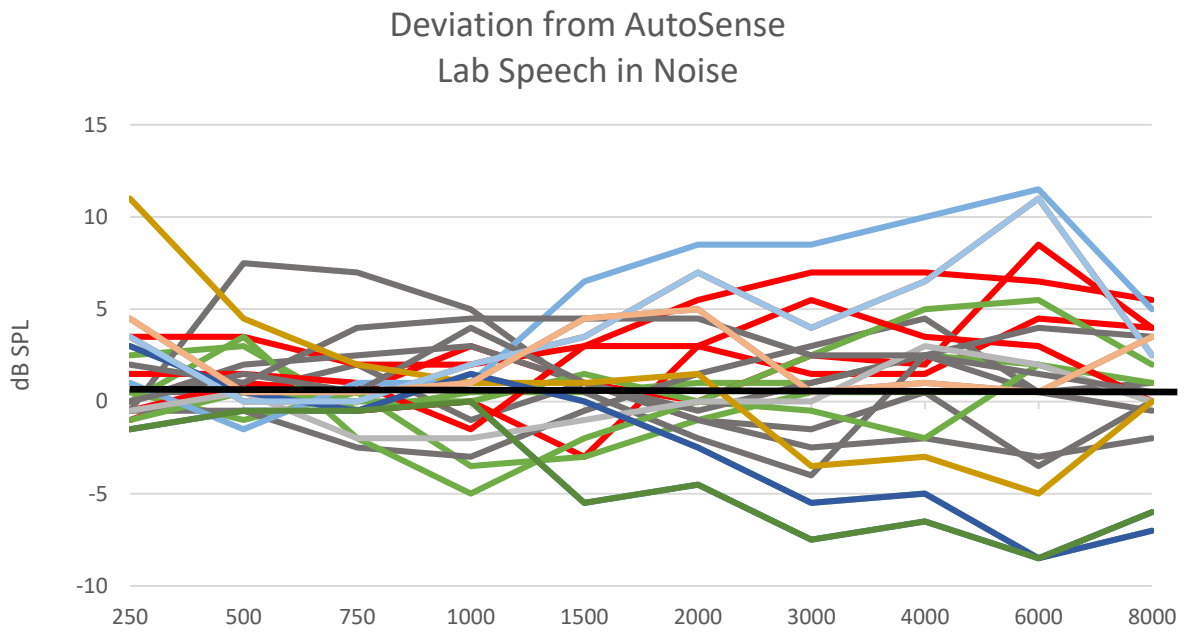
Modifier Positions for Lab Speech in Noise scene



Lab Comparisons: REM results Speech in Noise

-Effect of modifier positon on real ear results





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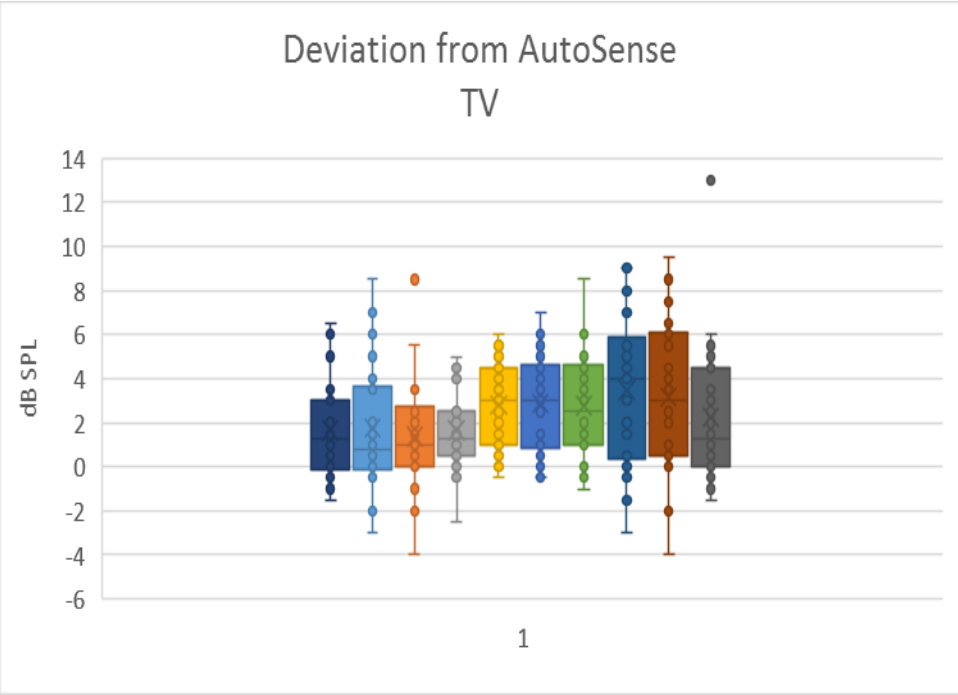
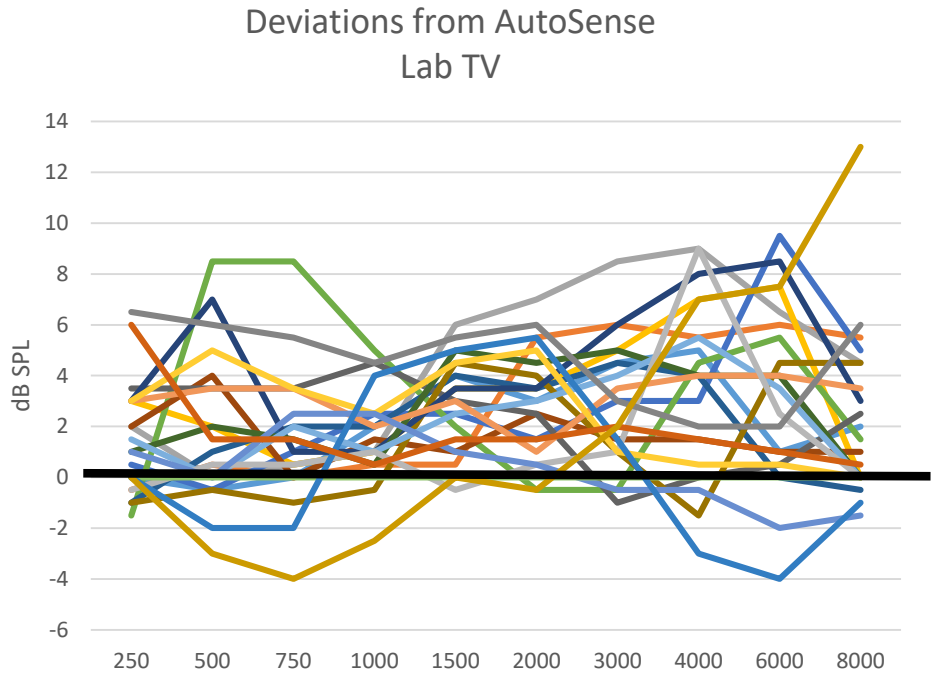
Lab Comparions: REM results TV scene

-Effects of modifier positions on real ear results





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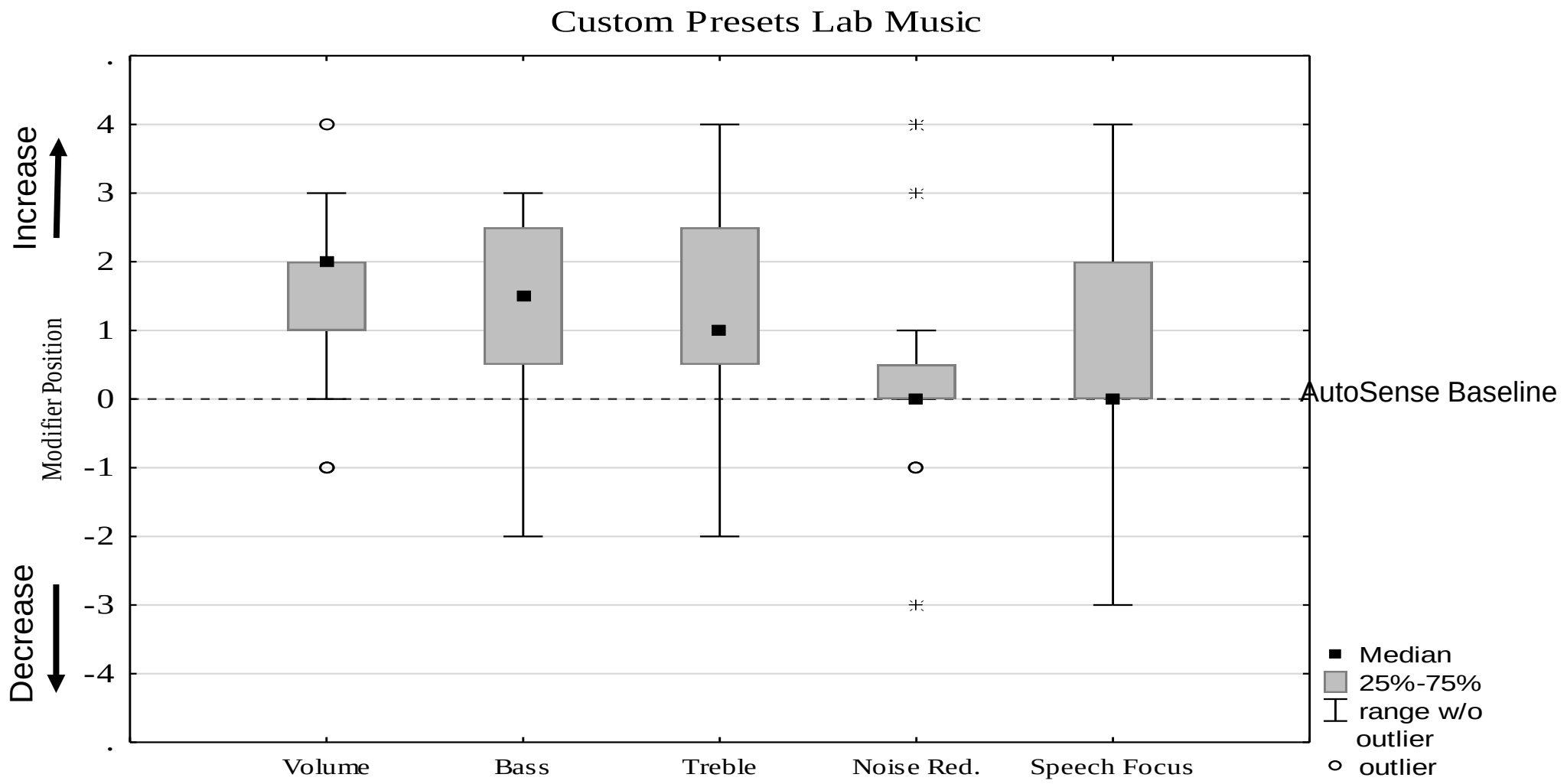
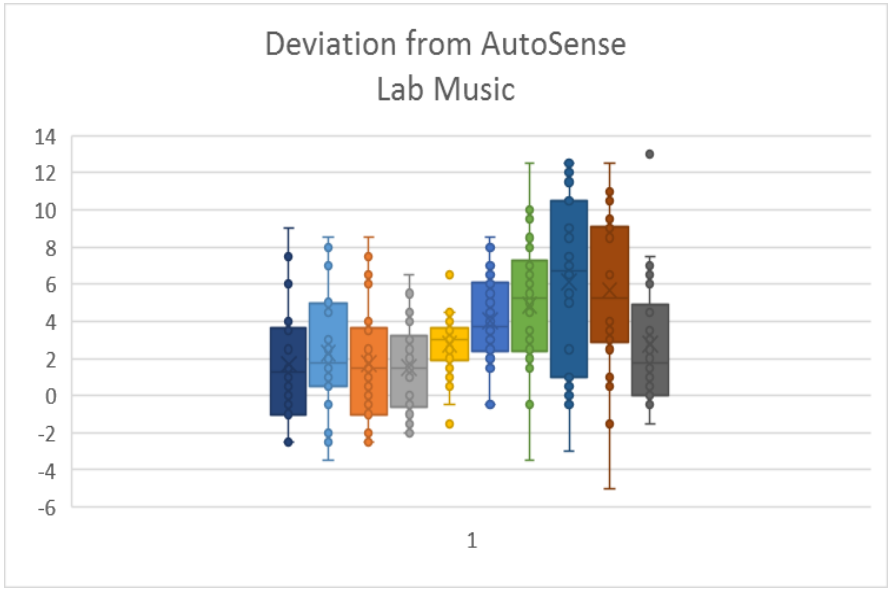
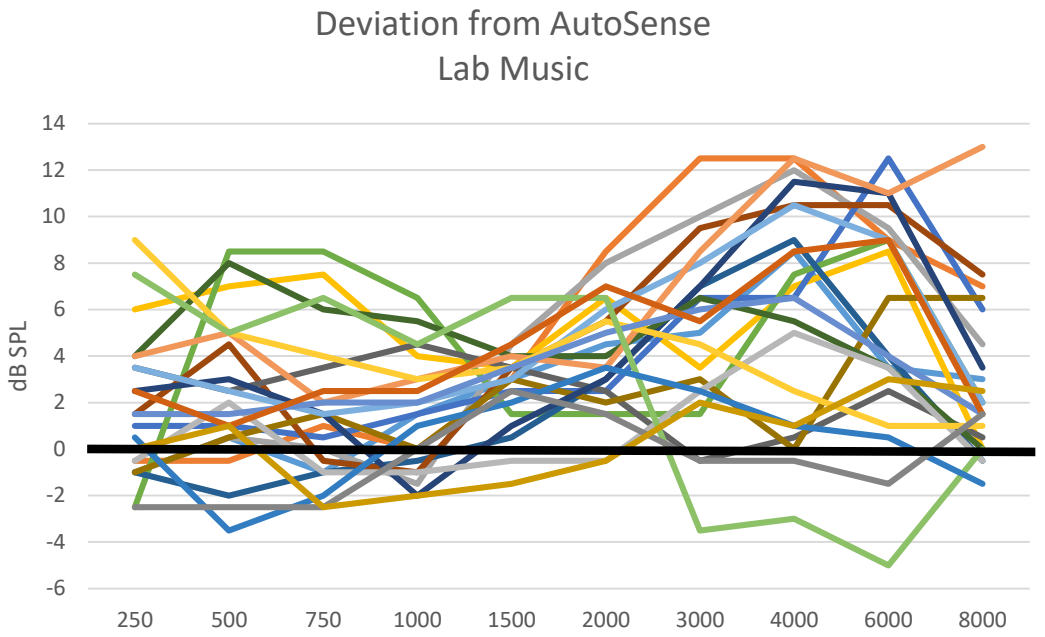
Modifier Positions for Lab Pop Music scene



Lab Comparison: REM results Music Scene

-Effect of modifier positions on real ear results

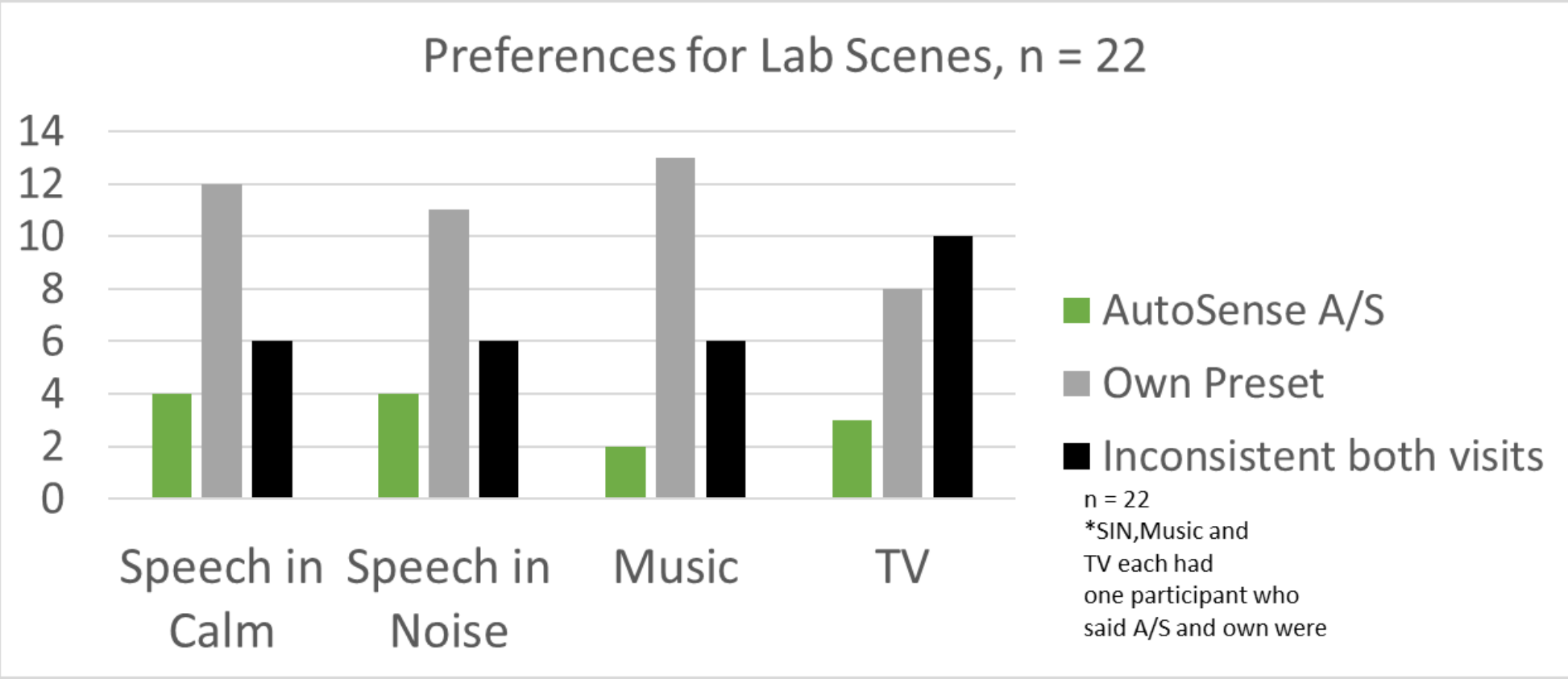




PHONAK life is on

Lab Comparisons: AutoSense vs. Custom Preset for Lab Scene

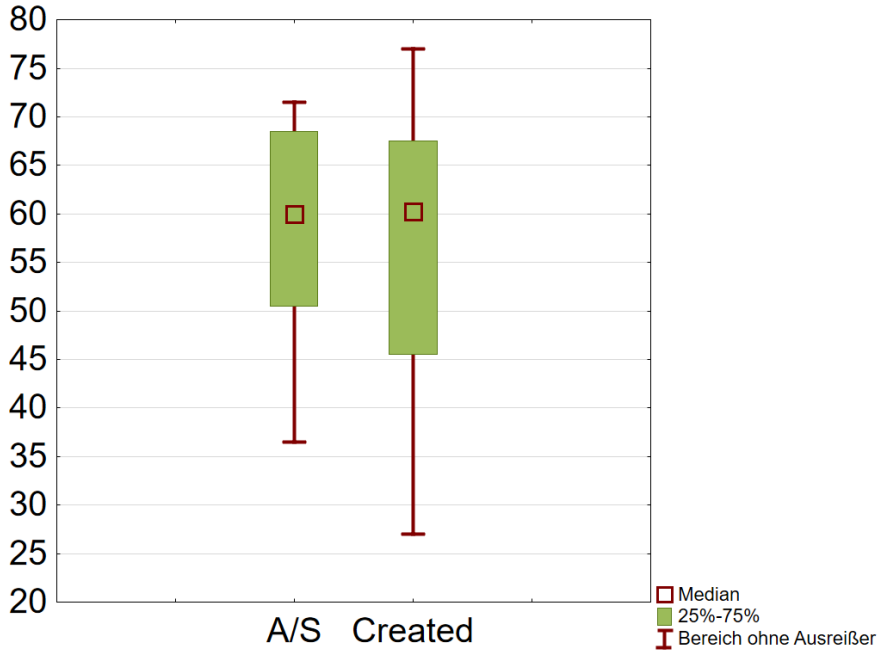
- Participant Preferences visits 1 and 3

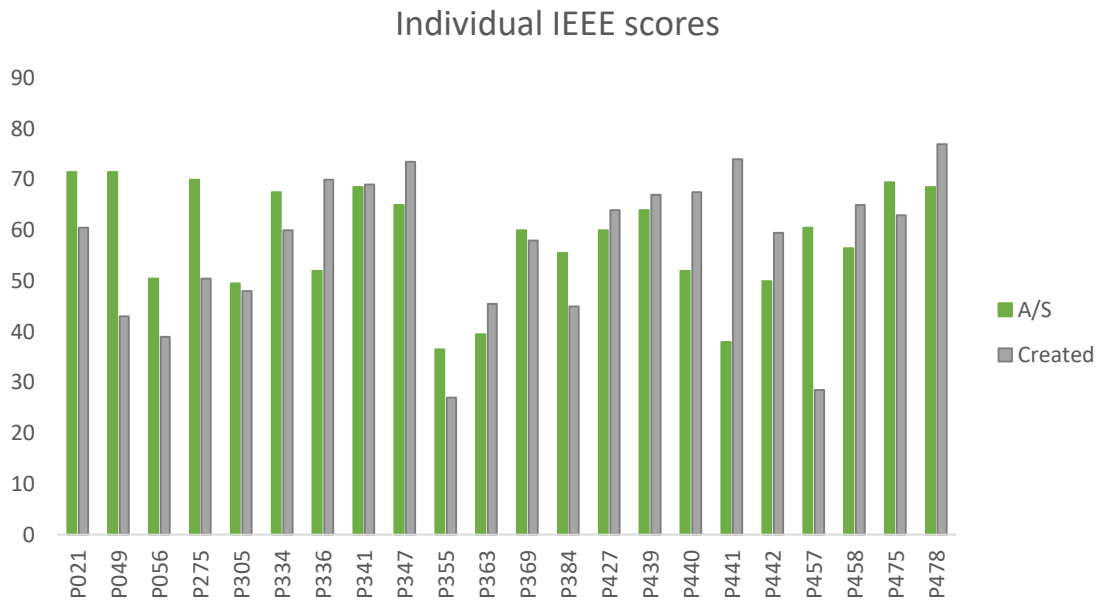


PHONAK life is on

IEEE scores

- Participants created their own program to use for IEEE testing at the final visit.
- Simulated IEEE in noise through Adobe Audition scene to create program.
- IEEE in noise presented in ListPlayer for actual test.
- SNR was determined in AutoSense with two practice lists for a score between 30-70%, and then testing was done blindly between A/S and own/created program.

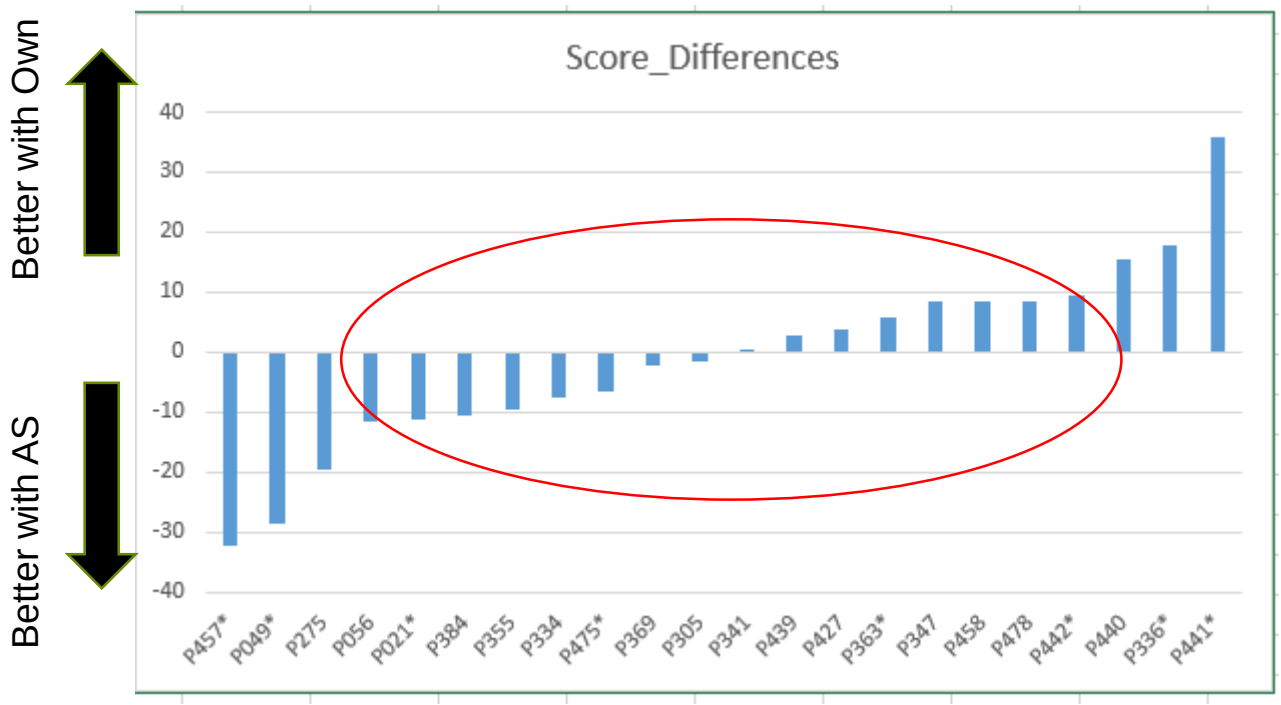




PHONAK life is on

IEEE Score Differences

Differences between AutoSense score and Own setting score



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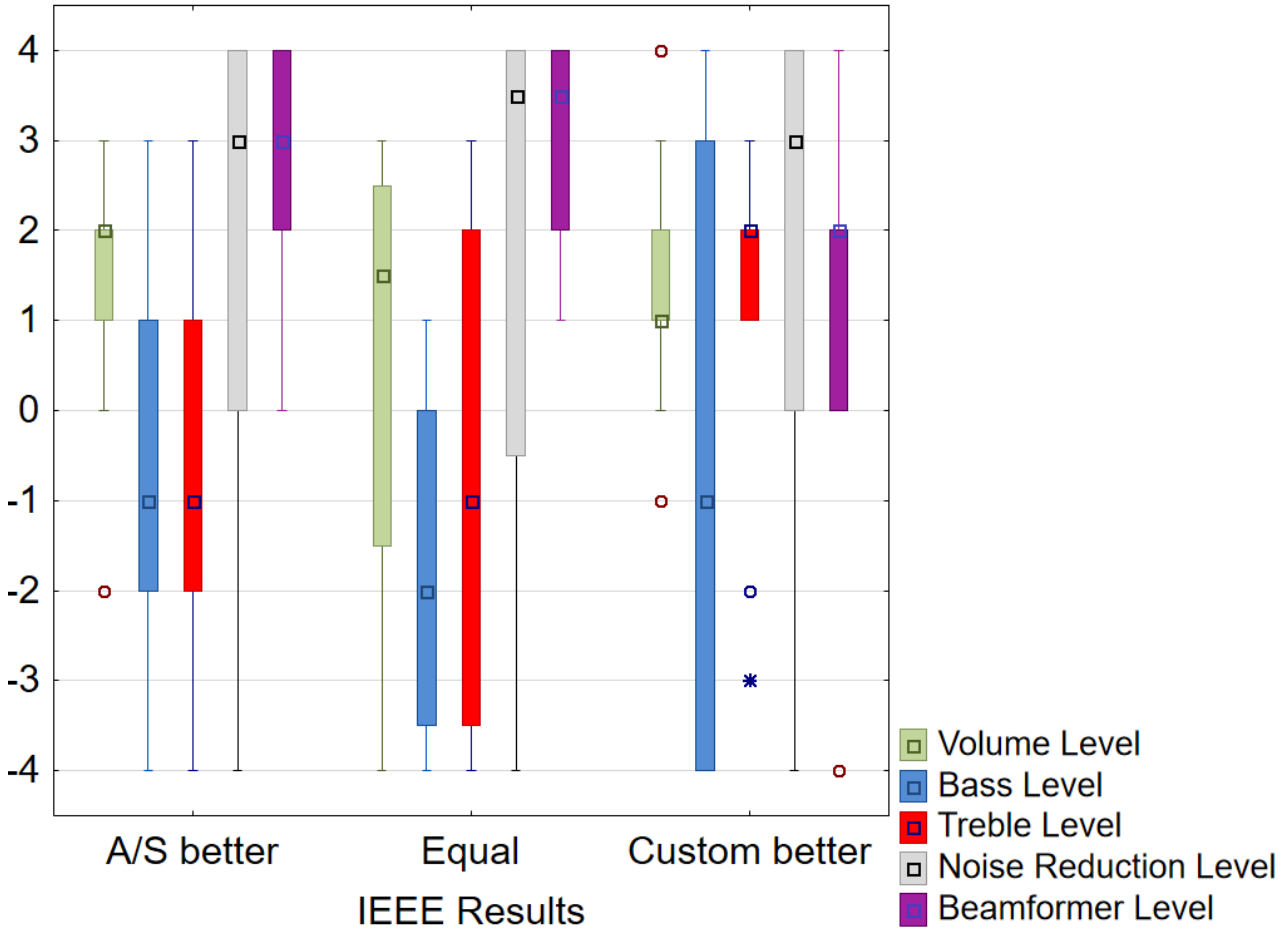
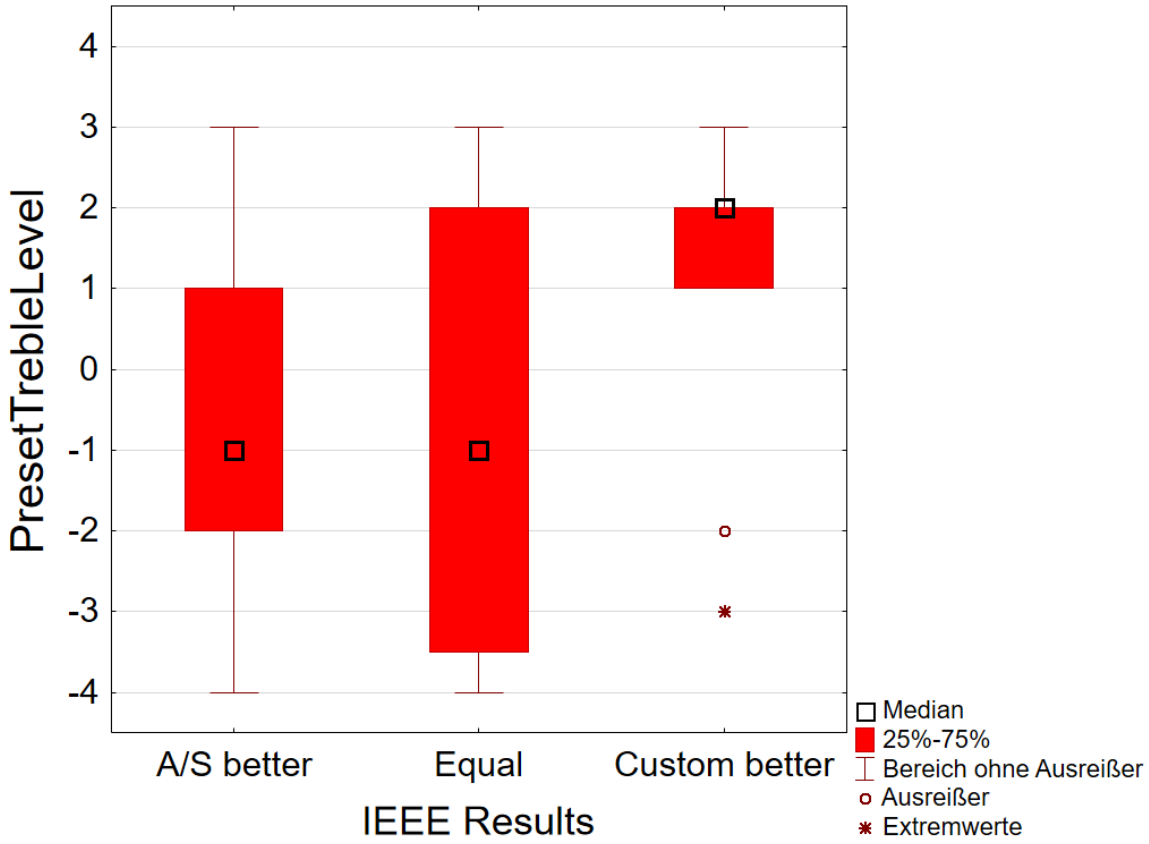
Deviations from AutoSense, IEEE Testing





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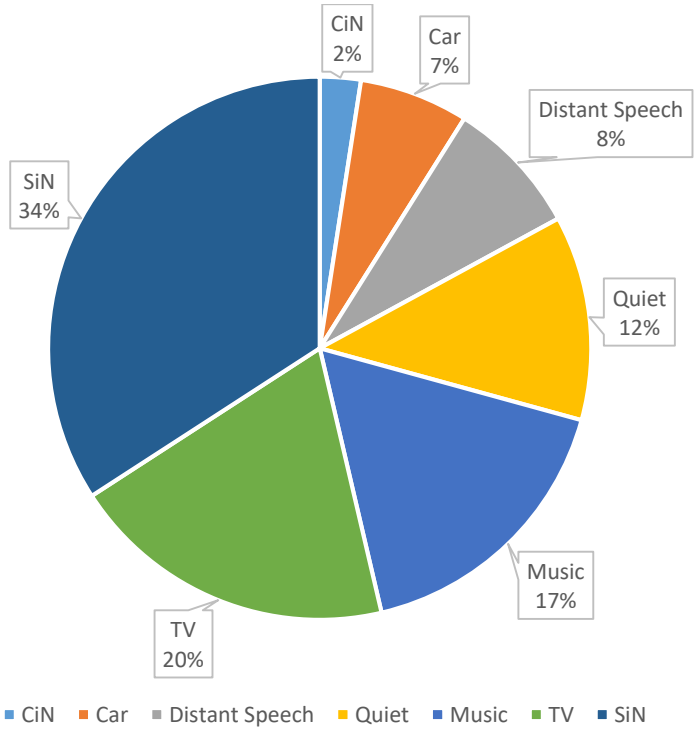
life is on

Custom Settings Distribution: Environments in which app was used



Quiet: quiet conversation, quiet office setting, “everyday”

Music: choir rehearsals, piano playing, band practice, concert

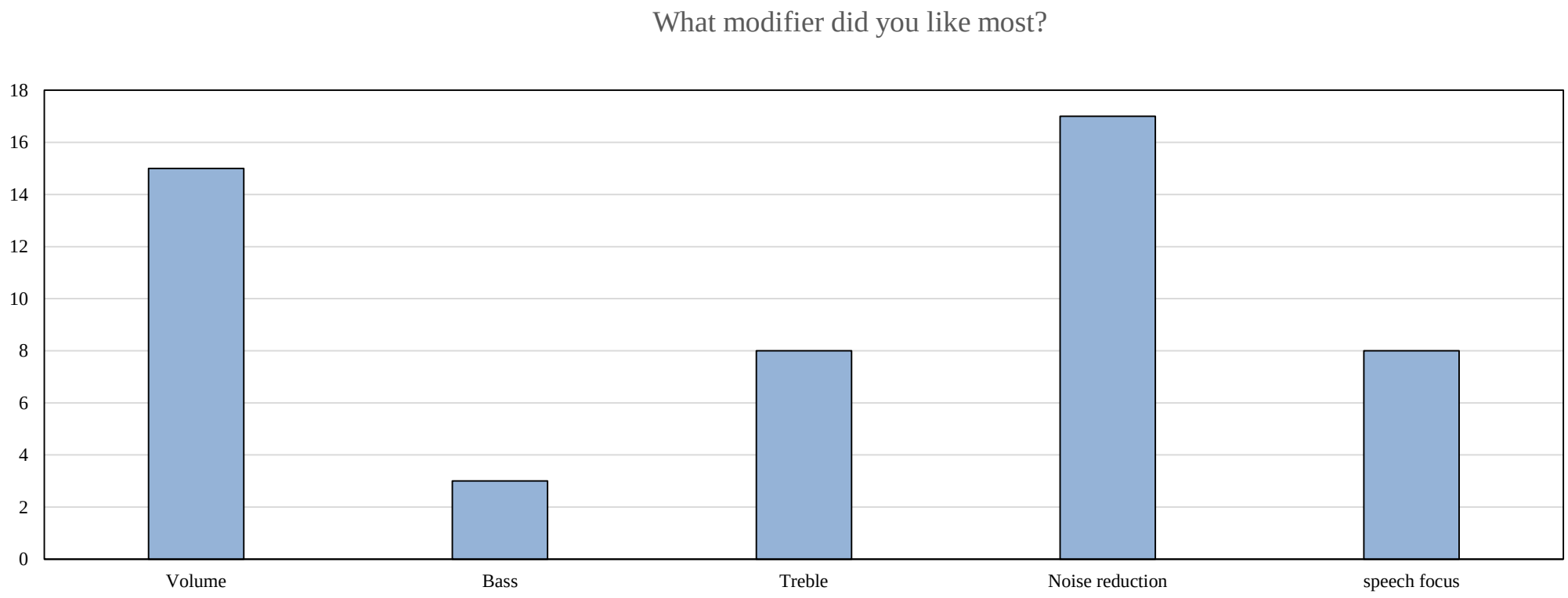
Distant Speech: lectures, presentations, church, play/live theater

SiN: restaurants, parties, family gatherings, work, exercise class

- Created during 2nd Home Trial
- Average number of created settings = 5/participant

PHONAK life is on

From SurveyMonkey survey:



N = 24
multiple answers possible

PHONAK life is on

Lab Comparisons

- Speech in Quiet
  - Preference was for whichever program they felt they could hear the voice clearer
  - ¾ who preferred AutoSense stated the bird chirping was less noticeable
- Speech in Noise
  - Those that preferred their own setting stated voice was clearer, more prominent, and less background noise
  - Those that preferred AutoSense stated less background noise and clearer speech
- Music
  - Those that preferred their own setting stated they could hear the lyrics better, more pronounced, was sharper or brighter
  - Those that preferred AutoSense stated it was more mellow, more comfortable and easier to listen
- TV
  - Those that preferred own setting stated dialogue was clearer and louder
  - Six participants said the two were very close and was difficult to choose a better setting

Subjective Comments

I like being able to program and have the ability to make as many adjustments as necessary when in a situation in which automatic is not enough

I left in automatic most of the time, unless I was in a unique situation

It's a life changer

I found myself in certain situations and going right to that app to see if I could increase the experience and make it better

I loved the flexibility of changing it

The longer I had the app, the less I used it, but I still see it as a long term solution. I would re-adjust the few presets that I had already created

I'm not anxious anymore when I walk into a new situation

Conclusions

- AutoSense does its job and does it well
  - Participants tended to stay in AS the majority of the time and loved it
  - Liked the security of having the app available to adjust in unique environment if needed
  - One size does not fit all: The same environment is a different experience for each person

- Average number of custom settings created = 5
  - Tendency to re-adjust created settings depending on current environment, but did not save as a new custom setting.

- Viewed app as a long term solution, i.e. would go back and ‘tweek’ custom created settings if needed.

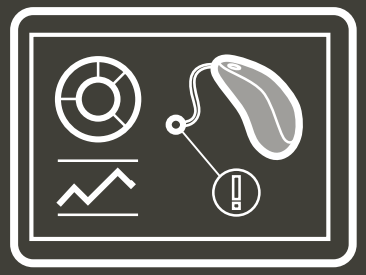
- Noise Reduction and Speech Focus mentioned as the most useful modifiers, especially in created noise settings.

Conclusions, continued

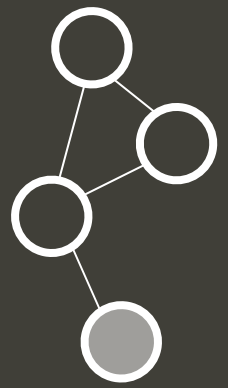
- Median modifier positions:
  - SiN: centered mainly on increased NR and SF
  - Music: close to AutoSense
  - TV: varied slightly more than for music

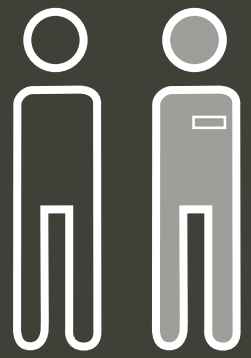
- 59% of participants performed either equal or better with their own setting compared to AutoSense.
  - These participants had a tendency to increase the HF and decrease the LF.
  - The nine participants who performed worse with their own setting had a tendency to decrease the HF (this may be resolved with additional training or counseling)

Engage
access

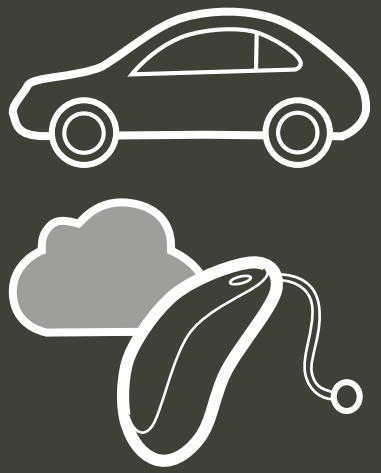


Empower
Optimize





Ease
Satisfaction



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eAudiology Webinar series 2018/2019

Digitalization is a big part of our daily lives - and now, the healthcare industry. In our webinar series on eAudiology we guide hearing care professionals through the digital transformation in audiology. To join a webinar or view recording please visit Phonak Learning.

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An introduction to eAudiology

By Danielle Glista, PhD

Learn more ›

A review of perceptions and report on findings

By Dr. Gurjit Singh

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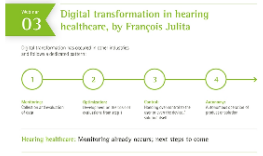
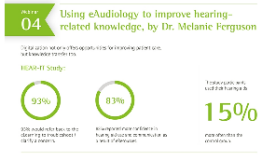


Digital transformation in hearing healthcare

By François Julita

Learn more ›



Using eAudiology to improve hearing-related knowledge

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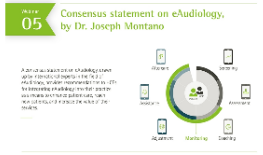

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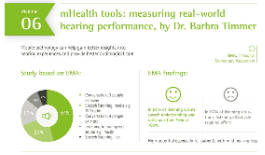

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