



Live Evaluation of Auditory Preference (LEAP)

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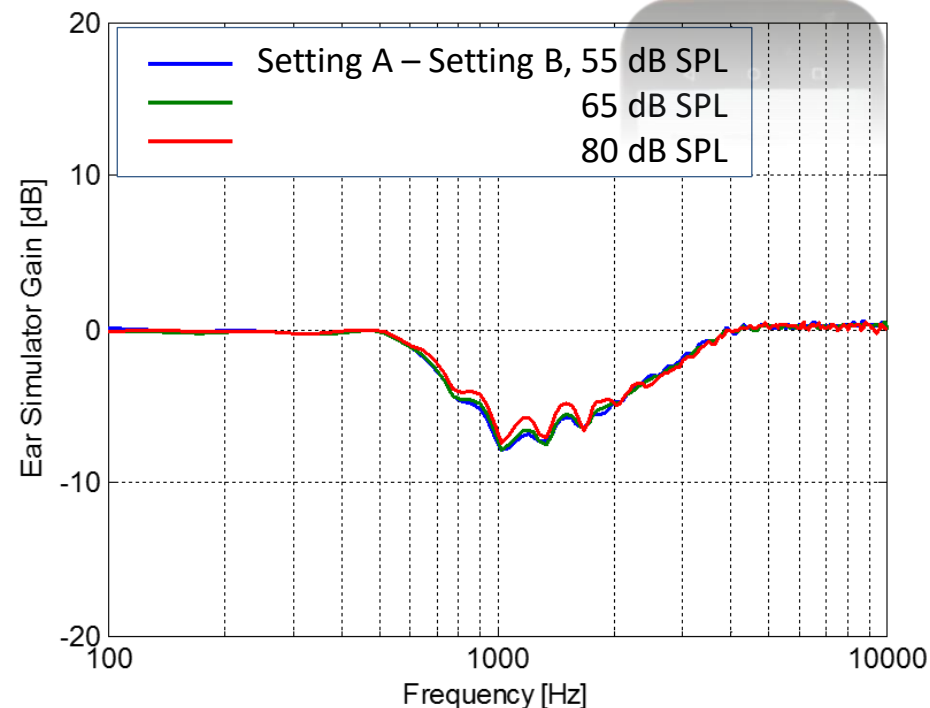
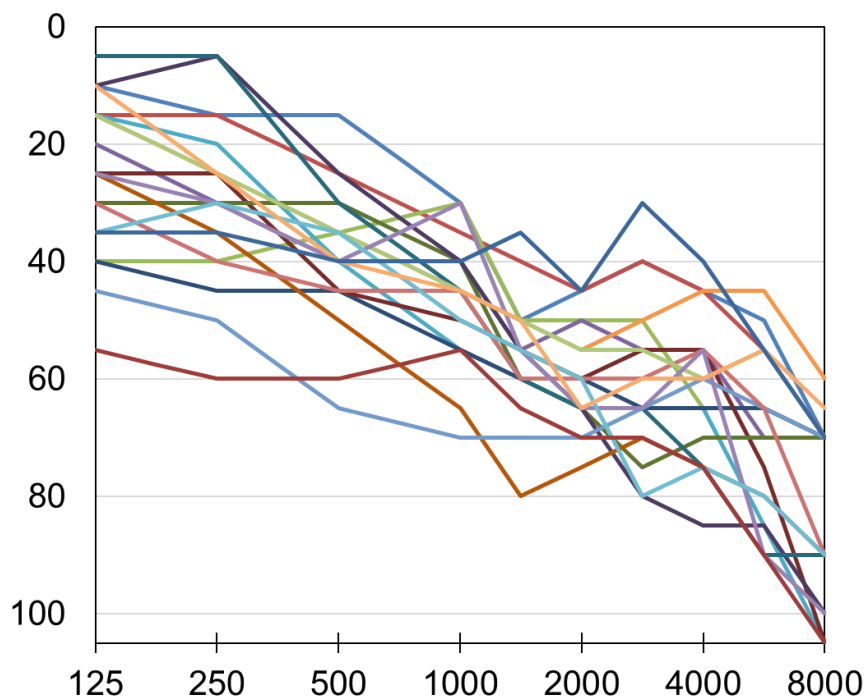
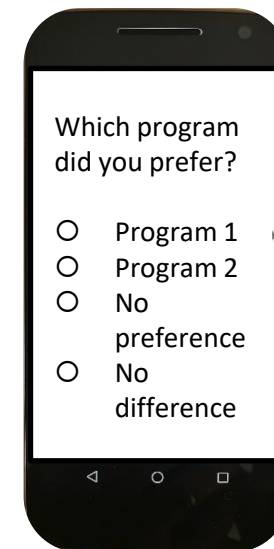
Intention	Speech communication						Focused listening				Non-specific			
Task	2 people		More than 2 people		Through device		Live sounds		Through media device		Monitoring surroundings		Passive listening	
	Two people having a conversation		Several people having a shared conversation		Two or more people having a shared conversation through a communication device		Focused listening to sound without being able to control the sound source		Focused listening to sound while being able to control the sound source		Conscious or unconscious screening of sound of relevance to current activity		Unconscious perception of environmental sounds, without relevance to current activity	
Scenario	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14
Occurrence														
Difficulty														
Importance														
Scenario	Conversation at home	Conversation on metro	Meeting in an office	Car ride with family	Phone call at home	Mobile call in the street	Lecture	At a concert	Watching TV	Listening to car radio	Vacuum cleaning	City walk	Relaxing with a book	Relaxing on train



Focused listening			
Live sounds		Through media device	
Focused listening to sound without being able to control the sound source		Focused listening to sound while being able to control the sound source	
#7	#8	#9	#10
Lecture	At a concert	Watching TV	Listening to car radio



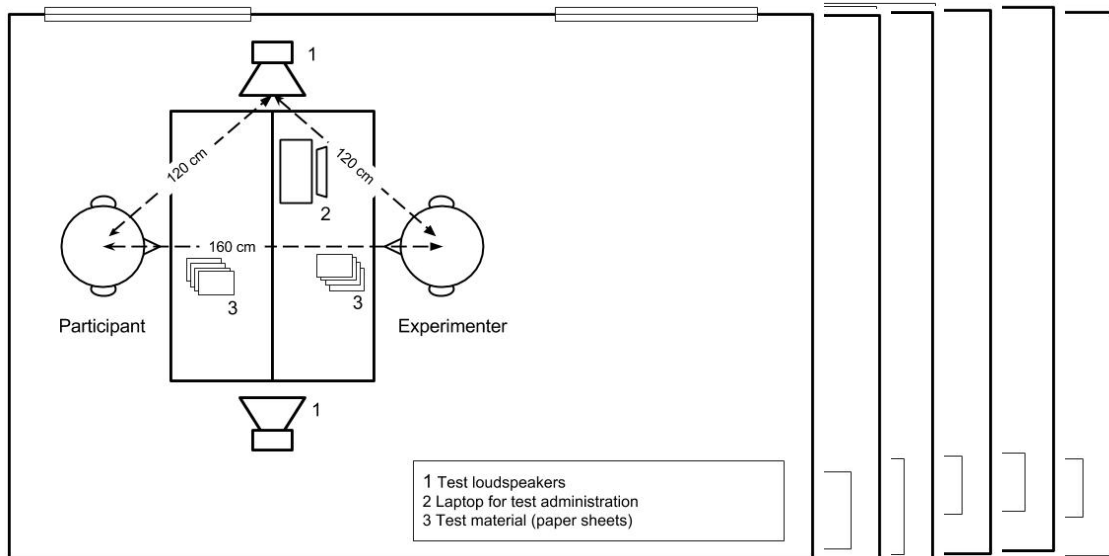
- 19 hearing-impaired test participants (avg. 74 yrs)
- Fitted with test HAs, two settings
- Smartphone questionnaire
 - Paired comparisons of preference
 - CoSS data





EMA in field

- 1-week field-trial period
- Alarm prompt every 2 h
 - Paired Comparisons
 - CoSS
- Self-initiated responses (optional)



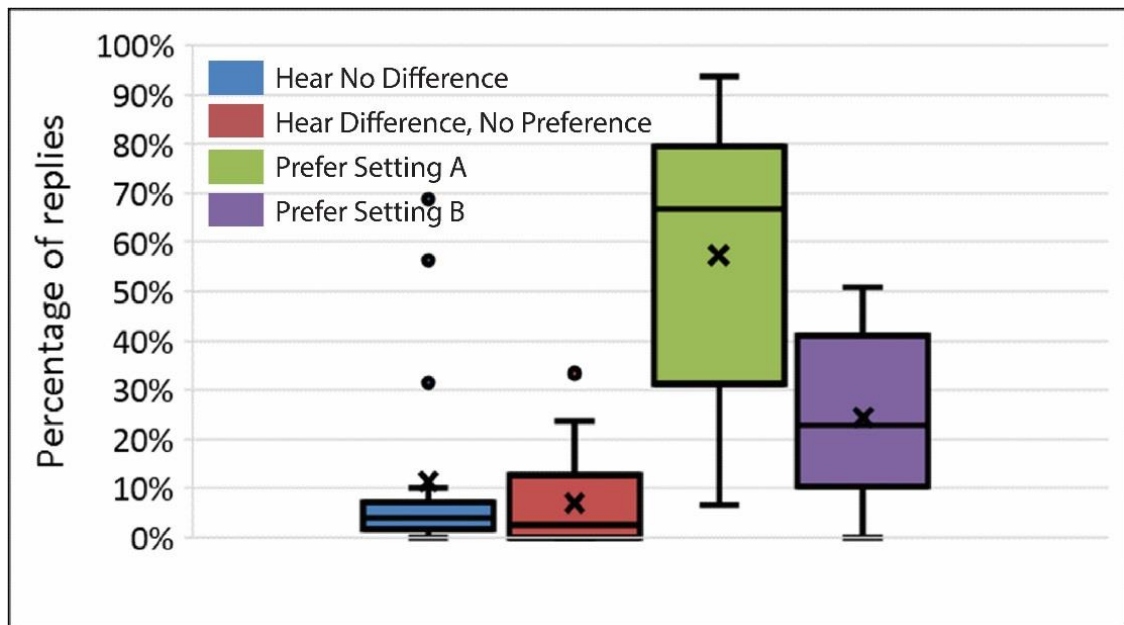
LEAP in lab

- Simple lab setup
 - Office space
 - Dialogue cards
- 6 test scenarios (based on CoSS) + EMA
 - Communication 2 people in “quiet”
 - Communication 2 people in car noise
 - Communication 3 people in restaurant noise
 - Focused listening to TV
 - Focused listening to radio
 - Passive listening, sorting paper
- 3 repetitions of each set of scenarios/visit
 - 3 visits

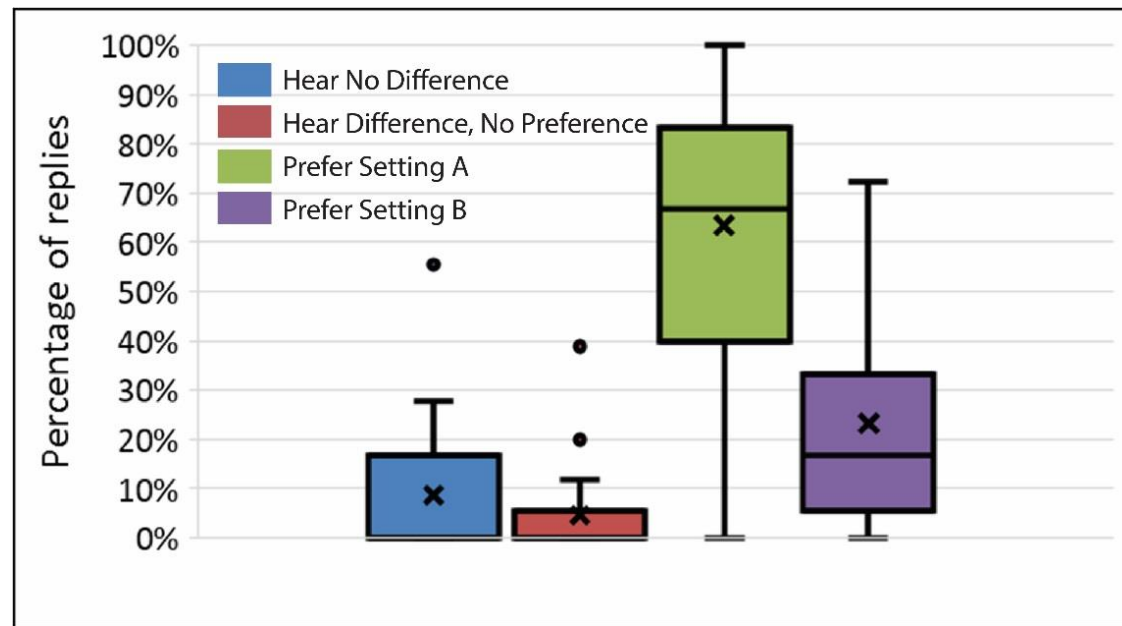




EMA Field

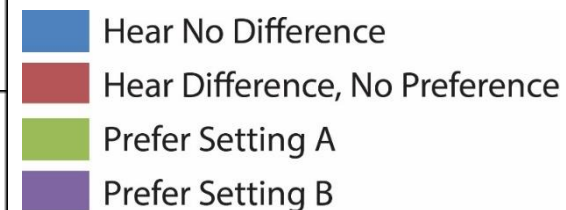
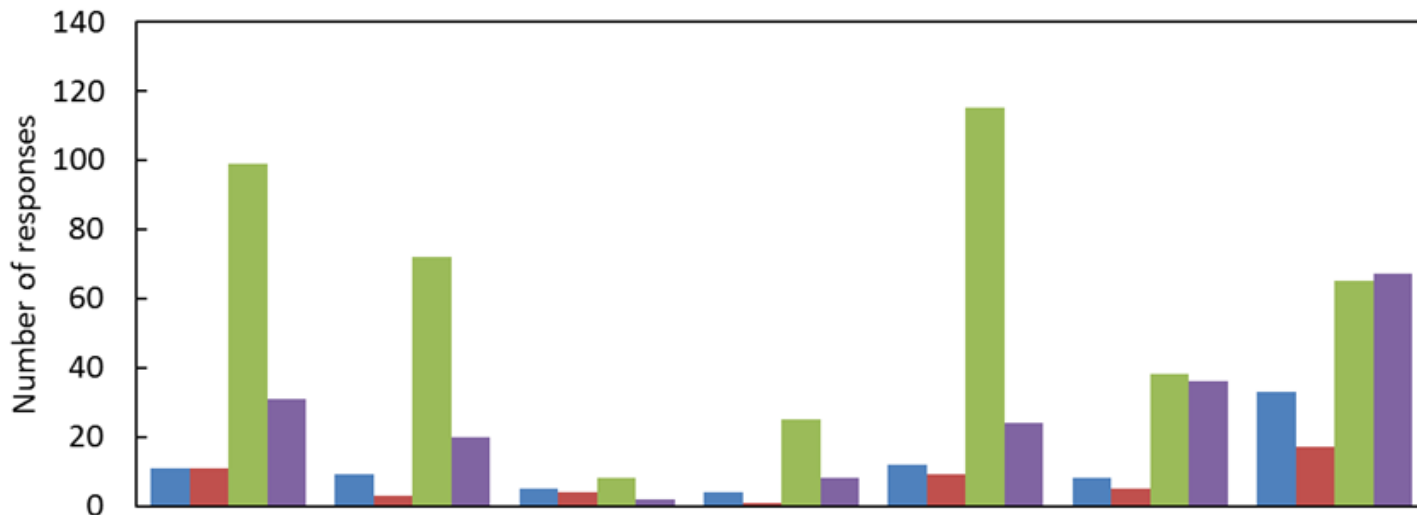


LEAP Lab

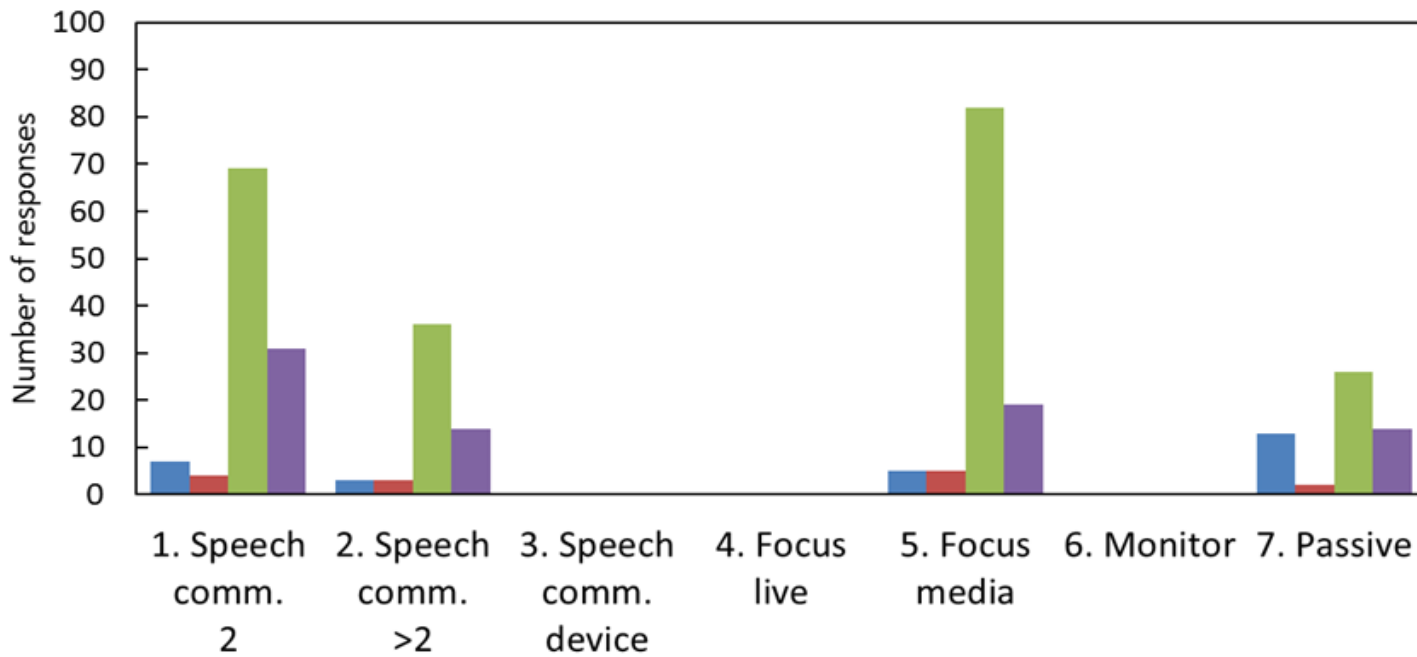




EMA Field



LEAP Lab



Speech Communication

Focused list.

Non-specific



Focus on ecological validity \Rightarrow potential to reproduce real-life preference

- Focus on realistic communication aspects (e.g. social pressure)
- Uses audiovisual communication cues
- Evaluation of own voice

On the other hand

- Passive scenarios difficult to include
- Resource heavy if communication with several people included

Thanks for
listening!