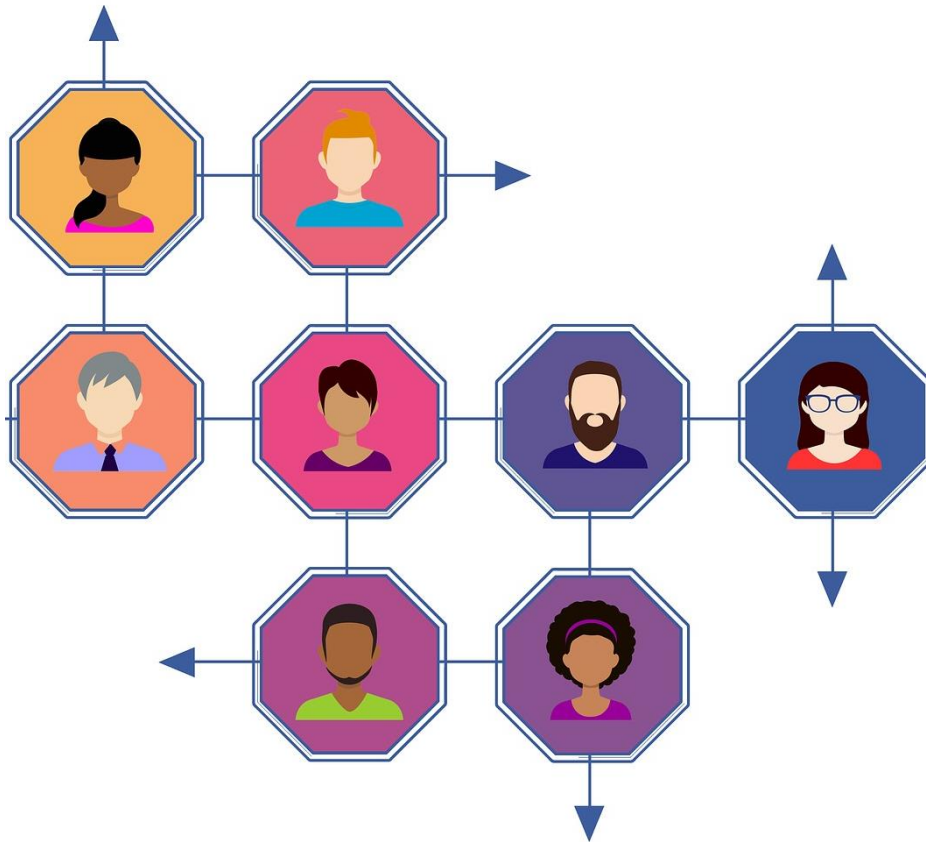


A Think Aloud evaluation of multimedia videos tailored to friends and family

Helen Henshaw, Yasmin Ali, Alex Barker,
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Aural rehabilitation: Involving others is beneficial



- In the UK, NICE recommends the provision of good quality information to patients and family
(NICE, 2018)

Involving others in rehabilitation can improve HA adoption and use
(Singh & Launer, 2016)

- Aligned coping can facilitate the process of adjustment to HL
(Barker et al. IJA, 2017)

A novel approach: Reusable learning objects (RLOs)

Evidence-based multimedia educational videos

(Ferguson et al. *Ear Hear*, 2016)

- RLOs developed using a participatory approach
 - 33 hearing aid users & 11 audiologists

(Ferguson et al. *IJA*, 2018)

- Improve knowledge about hearing loss & HAs
- Focus groups identified a need for information tailored to CPs.



<https://www.youtube.com/c2hearonline>

(Ferguson et al, *E&H*, 2016)



Restaurant activity

Communication tactics RLO

→ Mobile-enhanced (mRLO)

- Modular → **Individualised**
- Increased activities & **interactivity**
- **Inclusive**: information tailored to CPs

Evaluating the mRLO

Individual and joint-working conditions

Participants

18 individuals took part (n=9 PHL/CP dyads)

PHL	CPs
BE PTA _{0.25-4kHz} = 41.9 dB HL	8 spouses, 1 child
60-81 years old	30-80 years old
Mean = 70.3 years old	Mean = 65.1 years old
PC skill: 2 beginner, 7 competent	PC skill: 3 beginner, 6 competent

Aim

- To examine usability, relevance and impact of the enhanced mRLO compared to the original, across two conditions:
 - Individual working n=4 dyads
 - Joint working n=5 dyads



Evaluating the mRLO

A mixed-methods approach

Usability, Relevance & Impact
assessed using:

1. uMARS
2. Think Aloud techniques



Mobile Application Rating Scale: user version (uMARS)

App Name: _____

Circle the number that most accurately represents the quality of the app you are rating. All items are rated on a 5-point scale from "1.Inadequate" to "5.Excellent". Select N/A if the app component is irrelevant.

App Quality Ratings

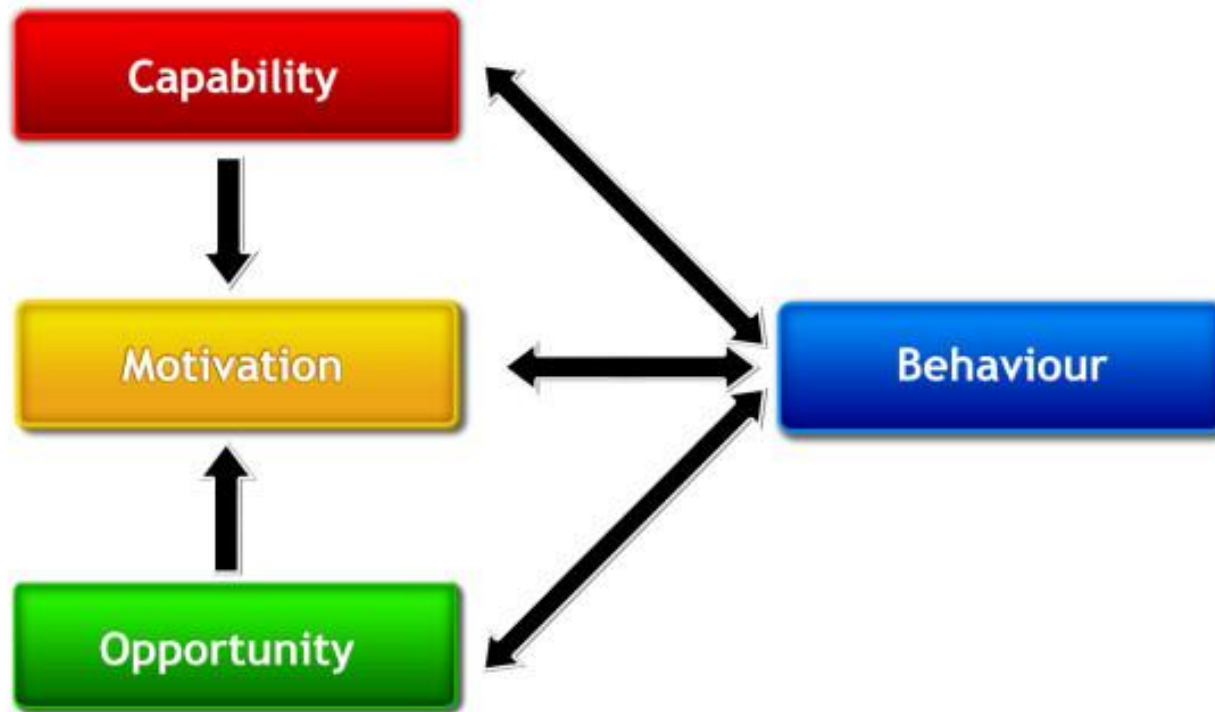
SECTION A

Engagement – fun, interesting, customisable, interactive, has prompts (e.g. sends alerts, messages, reminders, feedback, enables sharing)

1. Entertainment: Is the app fun/entertaining to use? Does it have components that make it more fun than other similar apps?
 - 1 Dull, not fun or entertaining at all
 - 2 Mostly boring
 - 3 OK, fun enough to entertain user for a brief time (< 5 minutes)
 - 4 Moderately fun and entertaining, would entertain user for some time (5-10 min)
 - 5 Highly entertaining and fun, would stimulate repeat use
2. Interest: Is the app interesting to use? Does it compare well to other similar apps?

Think Aloud sessions were video recorded and inductively analysed. Codes then mapped to COM-B system of health behaviour change.

COM-B system



Michie et al. Implementation Sci. (2011).

Results



*National Institute for
Health Research*



mRLO preferred by CPs

uMARS

(0 = poor, 5 = excellent)	RLO	mRLO	
	PHL	PHL	CPs
Overall app quality	3.60	3.69	3.91
Perceived impact	3.56	3.53	4.13

Think Aloud RLO vs. mRLO

*"It's split up into smaller chunks, nice little bits of information, rather than one big long video."
(CP4, female)*

*"I didn't realise when I pressed next I had to hone in on the actual arrow...."
(CP1, female)*

*"That's me (...)
that's me (...)
We do this all the time."
(PHL2, female)*

*"Absolutely."
(CP2, male)*

Greatest impacts: joint-working

Individual & joint-working:

1. Increased knowledge of hearing loss, HAs & communication

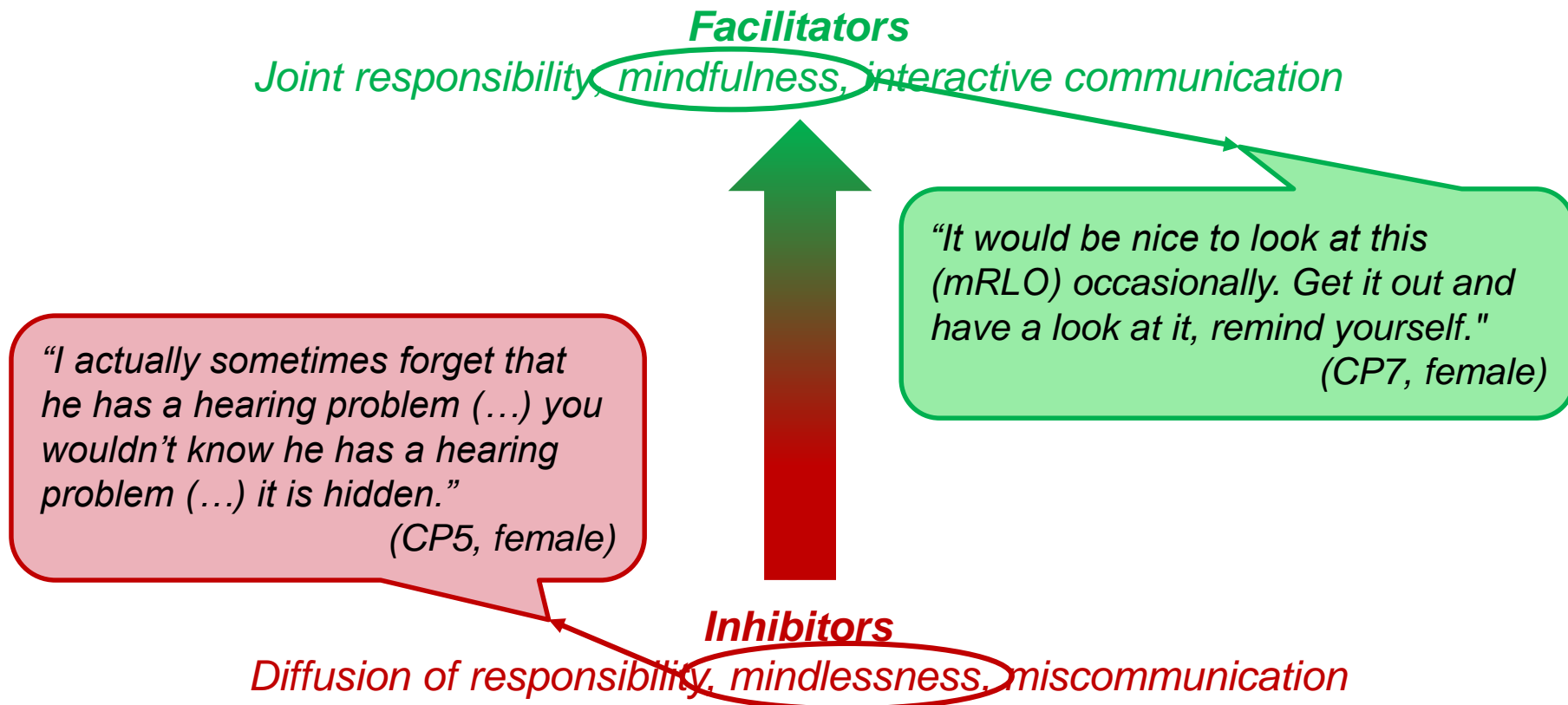
Joint-working:

2. Provoked novel discussions about communication difficulties
3. Prompted users to change their behaviours to aid communication.



Prompted behaviour change

Joint working with the mRLO prompted PHL & CPs to identify behaviours that **inhibit** communication and plan future behaviours to **facilitate** communication.



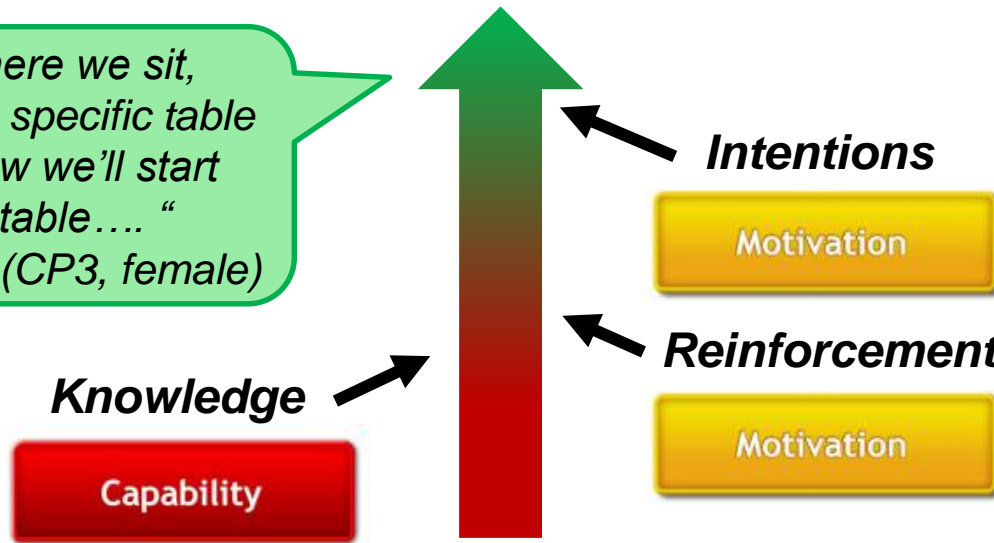
Prompted behaviour change

Joint working with the mRLO prompted PHL & CPs to identify behaviours that **inhibit** communication and plan future behaviours to **facilitate** communication.

Facilitators

Joint responsibility, mindfulness, interactive communication

“We never plan where we sit, we never ask for a specific table or area do we? Now we’ll start asking for specific table.... “
(CP3, female)



Inhibitors

Diffusion of responsibility, mindlessness, miscommunication

Summary and conclusions



@hlh1

@Mel_Ferguson1

@hearingnihr

Usability

- RLOs rated as high-quality
- Mobile-enhanced RLO preferred over the original, particularly for CPs

Relevance

- mRLO content reflected users own views and actions

Impact

- Greatest impacts were shown for joint working conditions
 - Improved knowledge about HL and HAs
 - Provoked novel conversations between PHL and CPs
 - Prompted behaviour change plans to
- **Part of a larger programme of research: benefits also shown for non-audiological healthcare professionals & carers.**