



Smart Technology in Adult Social Care

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The Parliamentary Review of Health and Social Care in Wales

***“Maximise the benefits of
technology and innovation”***

A Revolution from Within:
Transforming Health and Care in Wales



Rhaglen
Llywodraeth Cymru
Welsh Government
Programme

Cymunedau
Digidol
Cymru

Digital
Communities
Wales

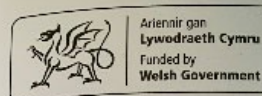


Llywodraeth Cymru
Welsh Government

Delivering Digital Inclusion:
A Strategic Framework
for Wales

CARDIFF
UNIVERSITY

PRIFYSGOL
CAERDYDD



Measuring
the mountain 

Measuring the Mountain:
What Really Matters in Social
Care to Individuals in Wales?

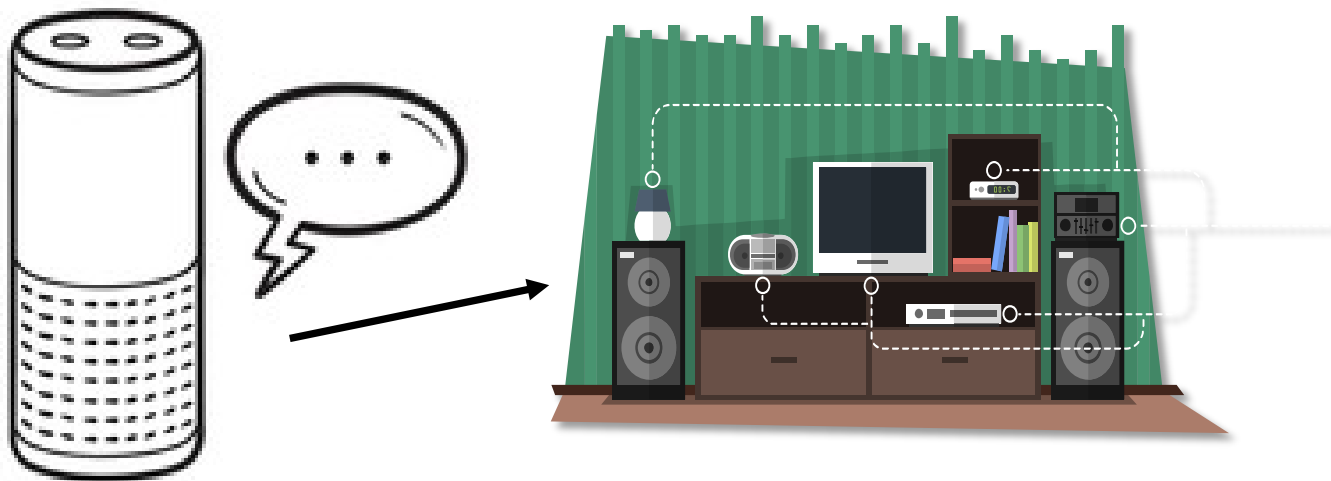
REPORT OF A CITIZENS' JURY



Research aims

- Empower people to live more independently
- Increase digital inclusion
- Improve wellbeing and loneliness

Why smart speakers?



Mainstream vs bespoke devices

- Inclusive, reduce stigma
- Constantly updated and evolving
- Fewer devices, lower cost



Terry Peterson
Public Research Partner

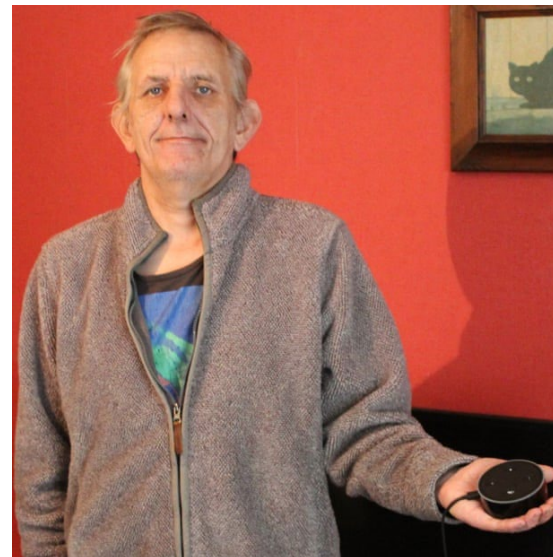
My HCRW research fellowship

People with a learning
disability in supported
living settings



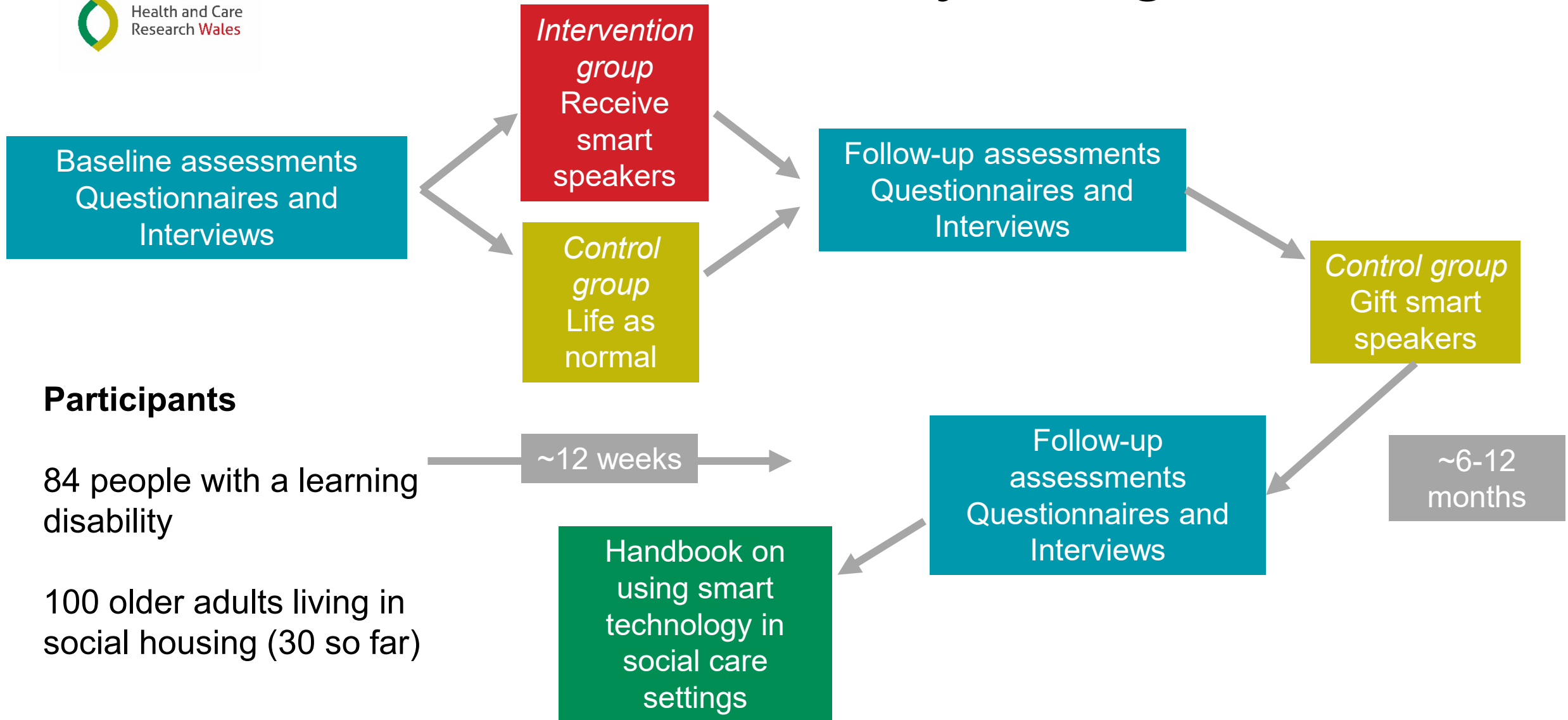
Innovate
Trust

Older people in
social housing



 newydd

Study design



Results: People with a learning disability

80% liked smart speaker & felt it increased independence

Social value

“It’s nice to always have the company even though I do know she is a robot”

Entertainment and fun

“[I like] being able to play music whenever I like”

Agency

“Definitely makes them feel more independent”

Support worker

Challenges Perseverance Support

“Staff have been trying to help me say Alexa. I’ll get there in the end”

Possible improvement in speech intelligibility?

**Recorded speech
before and after using
smart speaker**

“As [the person I support] has a speech impairment, having the device seems to encourage them to speak a little slower and clearer”.

Support worker



**Intelligibility rated
more clear after
using smart
speakers**

**Speech and
language
therapists**

Why?

- **Intrinsically motivating**
- **Natural reinforcement**
 - **No social stigma**



Case study of smart home

- 8 4 participants
- 8 Varied speech and intellectual ability, 24hr support needs
- 8 Moved into a new smart home in Cardiff

Amazon Alexa – in communal area and in own room

Music subscription

Multiroom lighting and automatic lighting

Video door bell

Thermostat system

Smart sockets for electrical appliances, e.g., kettle

Motion detector for TV control

Echo show for phone calls/skype



Overall opinions
about smart house
were very positive

- More fun
- More safe

Participants reported
feeling better able to do
things for themselves

BUT, no objective change
in independence

Perseverance was high -
communication and skill
development

BUT, more
practice/training to use full
range of features

Tailoring of smart technology to needs is needed

Making a difference



Innovate
Trust

**A handbook for using smart
technology in supported living settings**



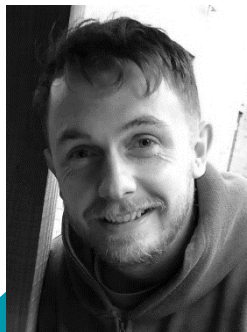
Recommendations

- Smart technology could empower people with a learning disability to live more independently
- Accessing entertainment and information easier and more fun
- Provide reminders, reducing anxiety
- Could help people to feel safer

BUT

- One size does not fit all - need to tailor devices
- Need for training and on-going support

Smart
speakers for
older adults
in social
housing



Smart technology
to support
sensory needs at
home



Companion
smart speaker -
proactive,
tailored to needs



Ongoing projects

Privacy
assistant for
smart
technology



Smart speakers
for children with
speech
difficulties





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Dr Lizzie Smith



Charlotte Griffin



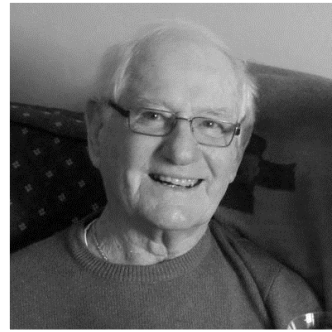
Prof Petroc Sumner



Lauren Makin



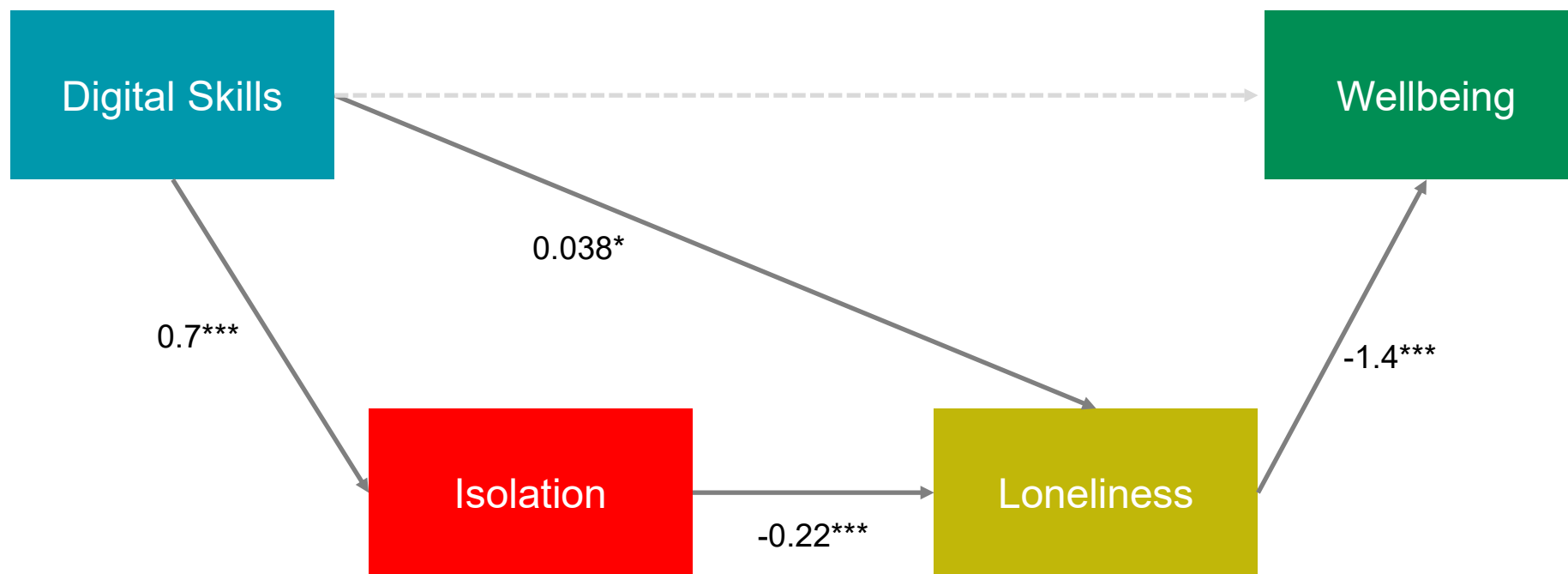
Prof Katherine
Shelton



Public research
partners



Digital skills is related to psycho-social factors



Number of Participants = 3850
50% were 65+ years

*** $p < 0.001$
* $p < 0.05$
-----> no association