

Embedded Researcher in Practice project

An action research project about how to improve the support by primary school teachers of children who are delayed in their readiness to write

Stella Parkinson

Clinical academic

Children's occupational therapist



Embedded researcher in practice

- Development as a clinical academic
- Supported research 'on the ground'
- Carried out first project as a lead
- First experience of PCIE
- Mentorship and guidance from NIHR
- Groundwork to carrying out larger projects
- Gained first experience of presenting at conferences and writing up study

Background and rationale

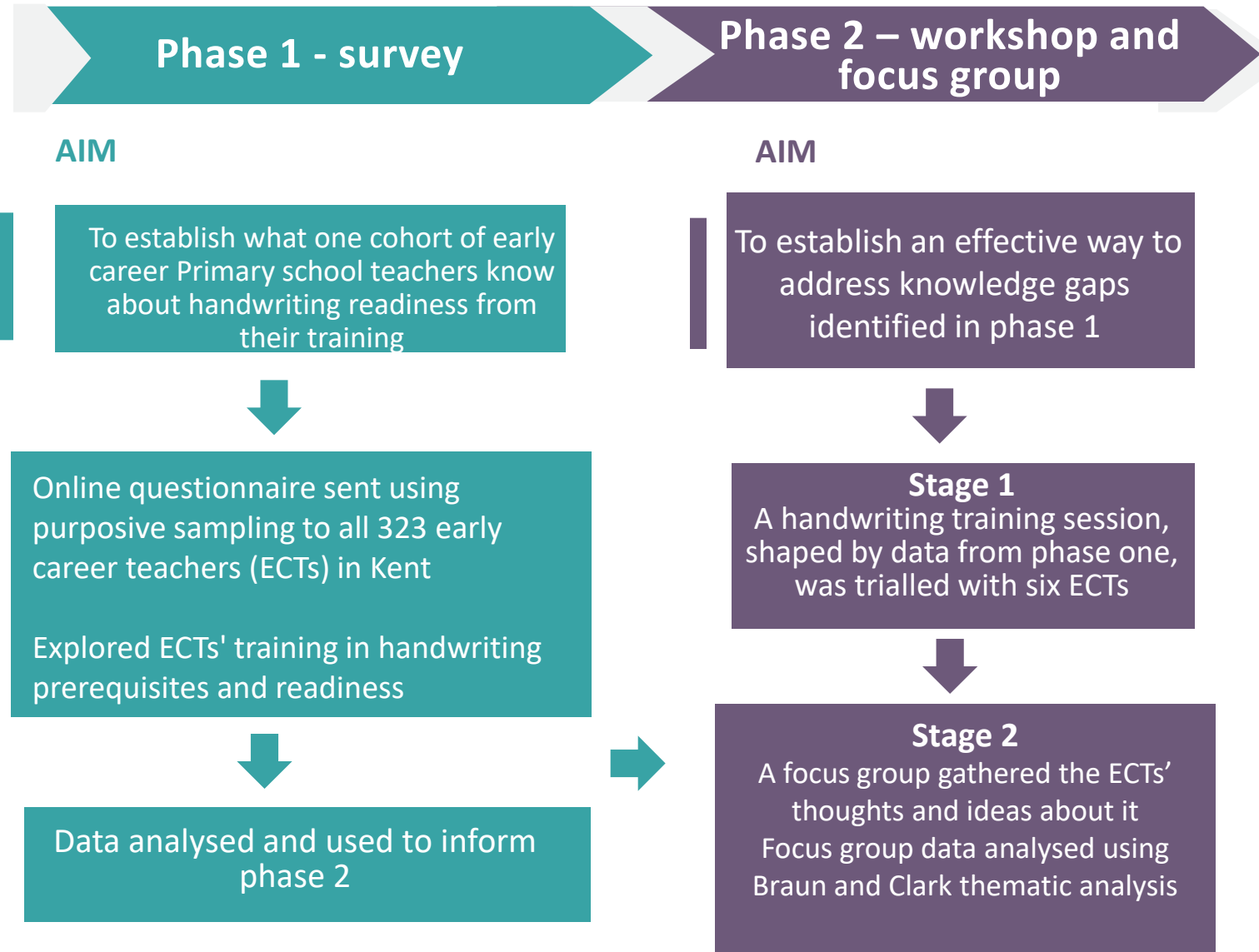


- Handwriting difficulties are estimated to affect 10%-30% of children
- Link between handwriting proficiency and reading ability, spelling ability, and working memory
- Most children start working on letter formation before they are ready in the UK
- Children's mental wellbeing and academic performance negatively affected by handwriting difficulties
- Studies (US) have highlighted gaps in teachers' knowledge of handwriting readiness from their training

Research aims and methods

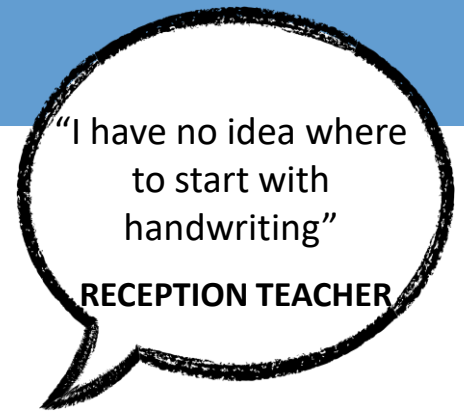
Aim:

To examine whether teachers in the UK are given instruction in handwriting readiness when they undergo teacher training and establish how best to support them if they are not








Results – phase one

- 124 responses received (38% response rate)
- 82% reported **no training in handwriting development**
- 88% reported **no training on handwriting prerequisites**
- **90% were not taught how to identify children with handwriting difficulties**
- 49% report feeling **not confident** with handwriting and handwriting difficulties

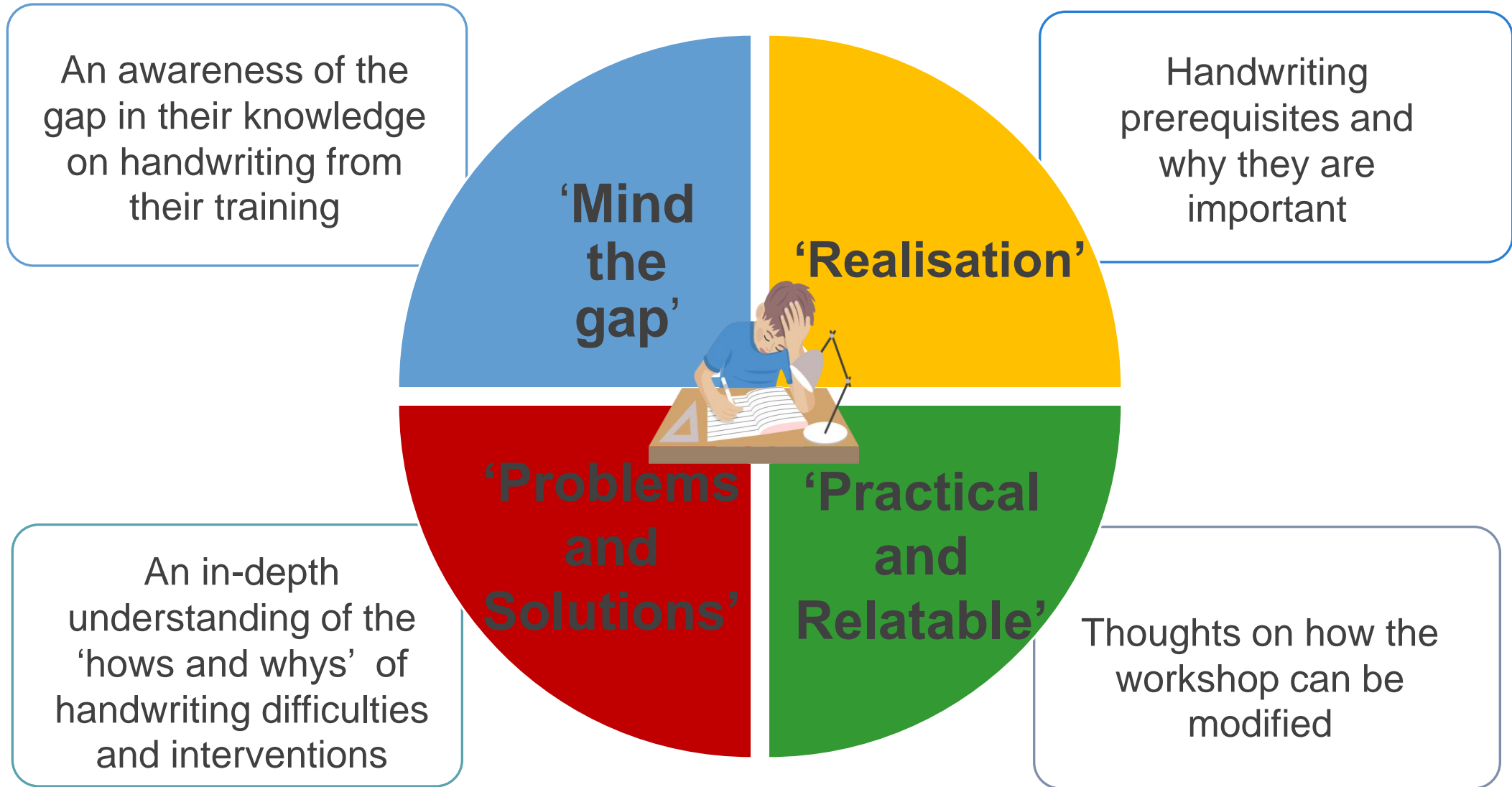


OVERALL, HOW CONFIDENT DO YOU FEEL WITH HANDWRITING AND HANDWRITING DIFFICULTIES FROM YOUR TRAINING?

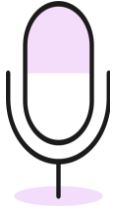
	EXTREMELY CONFIDENT	4
	SOMEWHAT CONFIDENT	20
	NEUTRAL	39
	SOMEWHAT NOT CONFIDENT	44
	EXTREMELY NOT CONFIDENT	17



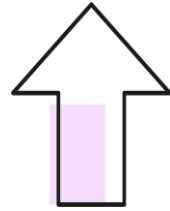
Results – phase two



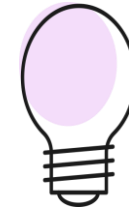
Analysis and Conclusion



Teachers in the UK do not get sufficient training on handwriting readiness



This means children do not always get the right support



An OT workshop can help bridge this knowledge gap

A larger study planned to:

Refine and manualise the workshop: using the TIDieR template

Measure the impact in the classroom: next study will look to test feasibility and impact of workshop

Acknowledgements

I would like to thank the participants of my PCIE group, the schools and children/young people I work with, my NIHR mentor Dr Devyn Glass (University of Sussex), my supervisor Dr John-Paul Riordan (Canterbury Christ Church University), and the ARC KSS who were invaluable in helping me to plan and carry out this project.

Thank you!

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This was funded by the **National Institute for Health and Care Research (NIHR) Applied Research Collaboration Kent, Surrey, Sussex**. The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health and Social Care.

KSS Autism: Parameters and Future Care

ARC KSS Embedded Researchers in Practice 2023-2024

Sophie McGrevey

Overview of project

Two parts to study:

- Survey for SENCOs about their autism prevalence in their school to find out the prevalence of autism in schools in KSS
- Semi-structured interviews with autistic children and/or their parents about their experiences in school, particularly the support they receive in school and the support they would like to receive that they are not currently receiving
- Aim: Understand autism prevalence rates in KSS and understand the support needs of autistic children in schools

Preliminary results - questionnaire

Survey of SENCOs

- 9492 total pupils (304 diagnosed autism or 3.2%), 266 suspected (2.9%)
- Autism not translating over to a clinical diagnosis

Preliminary results – qualitative interviews

Interviews with CYP

- Support varies from school to school, county to county, city to city, no uniformity of care
- Few have 1:1 care
- Many want safe, calm and quiet environments
- “Small provisions make a huge difference”
- Small but important changes that can help autistic young people to thrive in school: breaks, access to fidget toys, space to regulate sensory environment

‘Do you have a like a teaching assistant? Any one to one at all?’

‘In some of the classes, but not all of them.’

‘And in the classes that you do, do you find it helpful?’

‘No, because they are mainly there to help some of the other kids.’ (CYPInt002)

‘I also would like to say that the school should give frequent breaks to autistic children because they love breaks.’ (Parent of CYPInt013)

‘If they can provide a structured routine and also help our social training, our social skills and supporting us also... and to also help in creating a sensory friendly environment for us, thereby helping us to minimise the distractions and providing a quiet place’
(CYPInt012)

‘Sometimes when I’m being asked questions, they [teacher] keep repeating it for me every time so I get to understand’ (CYPInt006)

‘I just really need the thing that they have that allows them to go a couple extra minutes earlier... It’s a 5-minute pass. It allows them to go 5 minutes earlier than everyone else, and it also allows them to go to LS1 [quiet area] for a bit. The main reason I want it is so I can get lunch.’
(CYPInt003)

‘So when I bring my fidget toys into school, they’d tell me to put them away, and then they might end up giving me a log because... they’re thinking I’m lying about like, I need the fidget toys and stuff.’ (CYPInt003)

‘What would your perfect classroom have?’
‘Have a quiet area... go sit in the quiet area to work.’
(CYPInt004)

Impact

- Gain a better understanding of the true prevalence of autism in KSS
- Understanding the support needs of autistic children (with and without a diagnosis) in school will help students who cannot access support through traditional means (NHS, EHCP)
- Many families and schools have found it beneficial to share their experiences: ‘my children have expressed a strong desire to share their experiences, stories, and challenges with the community. They are eager to raise awareness about autism and educate others about their unique perspectives. I believe that their voices and stories have the power to inspire and empower others’

Benefits

- Working across services e.g. healthcare professionals that work in autism services and schools
- Allowed for unique opportunities e.g. PSASN-R
- Positive experiences – first research grant, learning about the research process e.g. ethics, developed useful skills to take with me in future projects



Thanks for listening!

Any questions?



My experience of being an Embedded Researcher

Hannah Griffiths

Principal Clinical Scientist, Quality Manager

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ARC KSS Research week, September 2024



Excellent care at the heart of the community

My project

- **The affect the provision of AAC has on the mental health and wellbeing of children and young people with complex communication difficulties.**
- Some children and young people (CYP) who are not able to communicate verbally are also unable to use alternative methods of communication, such as writing, due to cognitive or physical disabilities.
- For these children expressing needs, wants, and particularly emotions can be very difficult.



- Augmentative and Alternative Communication (AAC) systems have the potential to enable these children and young people to communicate with those around them.
- There have been a limited number of studies looking at the mental health and wellbeing of those using AAC and particularly CYP using AAC



Study Design


Phase 1

- Achieve stakeholder agreement of an appropriate verified psychological questionnaire and to develop the interview schedule.
- Themes for the interview schedule taken from the work of Broomfield et. al. 2022¹





Phase 2

- Semi-structured interviews
 - Interviews to take place
 - before or just after provision of a communication aid
 - 6 months later.
 - At the same time points parent(s)/carer(s) to complete the Psychosocial Impact of Assistive Devices Scale (PIADS)² on behalf of their CYP.
 - Qualitative analysis of interviews
 - Statistical analysis of questionnaire results
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Initial Findings

- 2 families, 1 Speech & Language Therapist have been recruited to the study
- Initial themes include
 - Frustration at not being understood which can result in throwing things or shutting down/ will stay where they are with a blank expression
 - Unfamiliar people wouldn't understand them
 - Unlikely to communicate with those they don't know
 - All the parents struggle to understand their child at times
 - Makaton taught at school is helping communication at home
 - Children more confident in areas and with people they know
 - Use total communication (gestures, pointing, signing)
- Both families aspire for their children to communicate how they want to and to be able to interact with more people
- One child who had just received their communication aid, but not had training was starting to use it to communicate some things with their parents

Next steps

- Complete second set of interviews and questionnaire
- Write up study
- Scope potential and funding opportunities
- Scope other study designs
- Use data to inform/highlight service/health need



Reflections

- Amazing opportunity
- Learnt a lot about research and research processes
 - Application
 - Ethics
 - Stakeholder/advisor engagement
- Outside my comfort zone
- Appetite for research
- Limitations



References

1. Broomfield K., Harrop D., Jones G., Sage K., Judge S., (2022), “A qualitative evidence synthesis of the experiences and perspectives of communicating using augmentative and alternative communication (AAC)”, Disability and rehabilitation: Assistive Technology, 1-15
2. Day H, Jutai J. The psychosocial impact of assistive devices scale: PIADS manual. Toronto: Authors; 1996.

Any Questions?



Matt Bushell, OT Care Leavers research

**Embedded Researcher
Kent, Surrey and Sussex ARC - NIHR**

11th September 2024

Social Worker/ Manager – Kent County Council

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My Research Journey

2015-2019 Led Autism and Enablement (Occupational Therapy) research

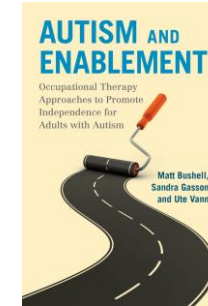
2017 Worked with Health and Europe to successfully bid for EU Ensure (peer support research funds – autism)

2018 Successfully bid for NIHR Building Capacity funds to complete postgraduate Research Methodologies

2022 Successfully bid for embedded researcher funding from KSS ARC 0.4FTE

2023 Led Care Leaver OT project in Kent

2024 KentCC Special Educational Needs (autism/ND) researcher



‘What lies behind us and what lies before us are
tiny matters, compared to what lies within us.’
— Ralph Waldo Emerson

The Calf Path – Samuel Walter Foss – 1895

*‘They follow in the beaten track,
And out and in, and forth and back,
And still their devious course pursue,
To keep the path that others do’.*



OT/Care Leavers Research - Background



The UK governments Care Review 2022, and its Case for Change, identified that:

- Many care leavers felt they were forced out of a care too early and without learning essential skills.
- Even when care leavers felt they left care at the right time, not all of them felt that they had the skills they needed.

The document's Conclusion states: 'Care leavers need a gradual transition and to be taught the skills they need to live independently.'

30 care leavers, PAs, Kent Young Adults Council, academics helped me to identify some key questions and we felt that this this was the key question.

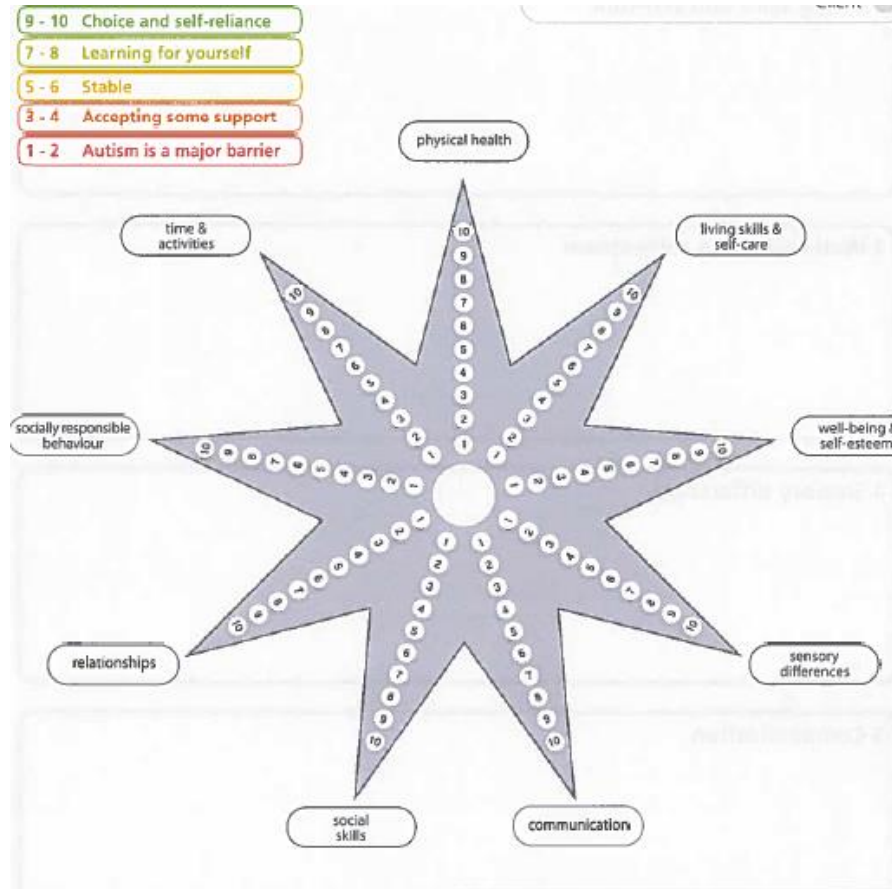
Funding from research

NIHR | Applied Research Collaboration
Kent, Surrey and Sussex

No significant research on subject nationally
Currently no OT supporting Care Leavers in UK
Collaboration with Canterbury Christchurch Uni
Research funding for part of my time,
OT supervisor, equipment etc
6 months of intervention Jan-Jun 23
Final report and recommendations
Building on Autism and Enablement findings



Outcome Star



6% overall benefit

4 OT students supported within two two-person 12 week placements

10 young people completed the Intervention of 14 referred

8 people had support between 6-10 weeks

2 people had support between 10-18 weeks

Results of the pilot

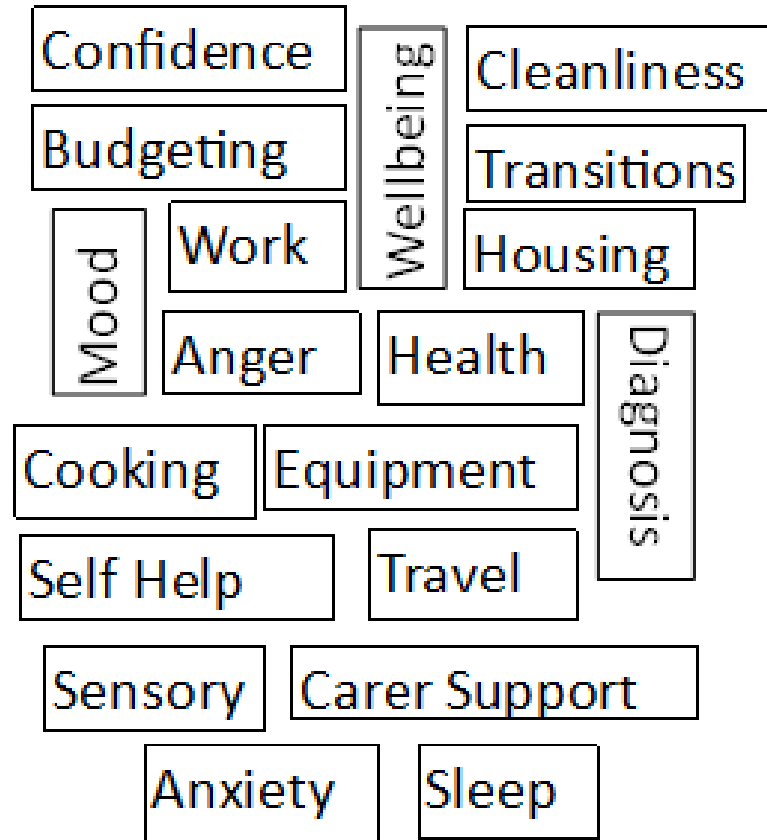
- ★ 50% of participants said that the support did not go on long enough
- ★ 40% of participants had needs that justified a sensory assessment, and the young people said they found the assessment transformative
- ★ 60% of participants said they would be happy to support care leavers to understand what a future OT offer could provide, because they didn't fully understand the potential at first
- ★ 60% of participants specifically mentioned that the offer helped them to trust professionals more
- ★ 70% of participants specifically stated that the OT helped them to 'open up' – one participant said it is hard as a male to discuss your mental health, but he quickly opened up to the OT

Real life outcomes

- Unpacked belongings after six weeks in new property
- Travelled to day opportunity unaided for first time
- Greater ability to self-regulate emotions (3)
- Requests for diagnostic reassessment (3)

100% of participants stated that they better understood themselves

Outcomes supported with Young People



I found this support really useful and found I could really talk to the OT, and open up, more than I have with most professionals I have met.

OT worked with helped in ways I didn't expect, you didn't realise you were being helped until the end; now I know myself much better and more in control

That first call was one of the most powerful moments with a helping professional ever

They listened without putting labels on me and understood me. I got so much out of it'

Just one of the most useful things I have experienced in a lifetime of MH support



It was the most positive support I have had for a while, professionals normally let me down and don't offer anything

I really enjoyed these sessions and she helped me out of a crisis time.

I was really pleased to accept the OT support, and found it good quality

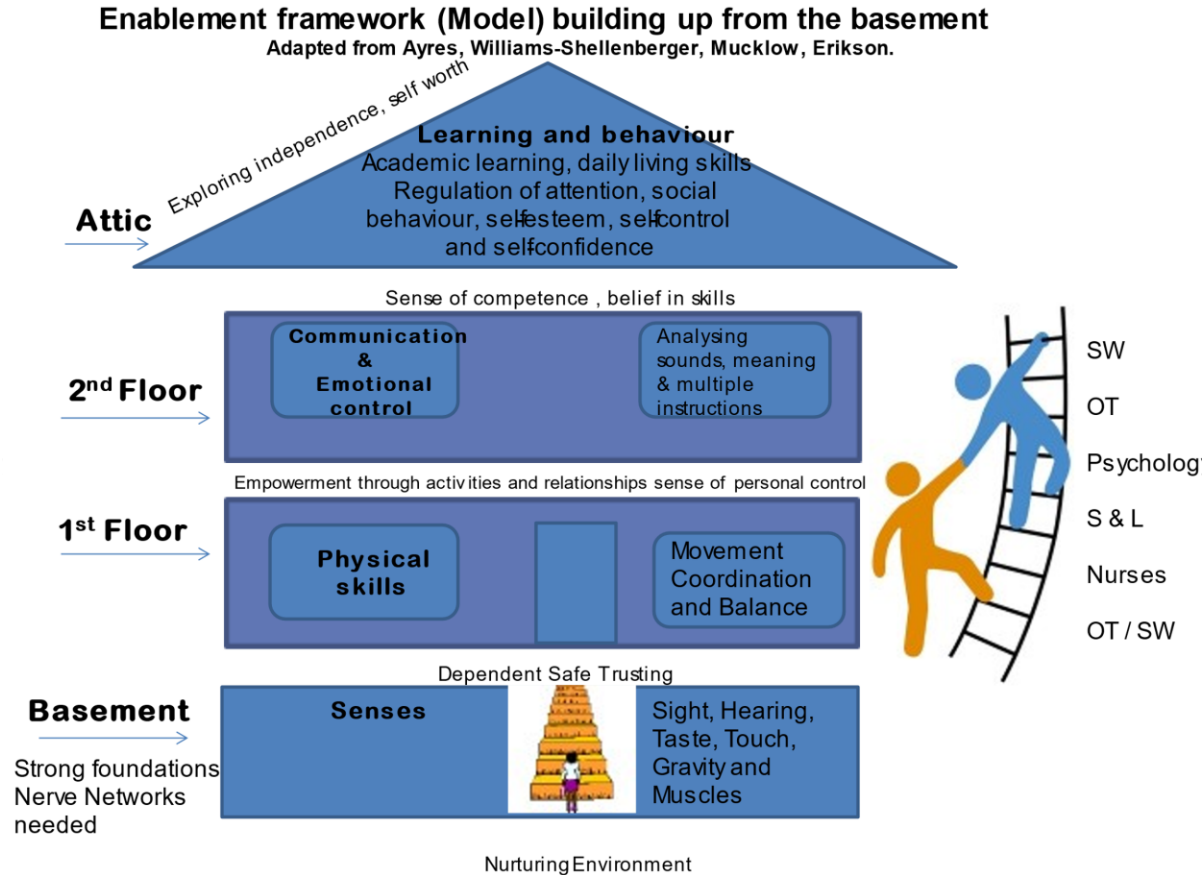
I genuinely found her support helpful, and we worked a lot of my self worth which was an area I needed help within.

I couldn't travel on buses alone and can now. I am still not 100% anxiety-free but I hope that the more I do the journey, the more I will feel settled. I didn't imagine I could ever do it and have never travelled independently before.

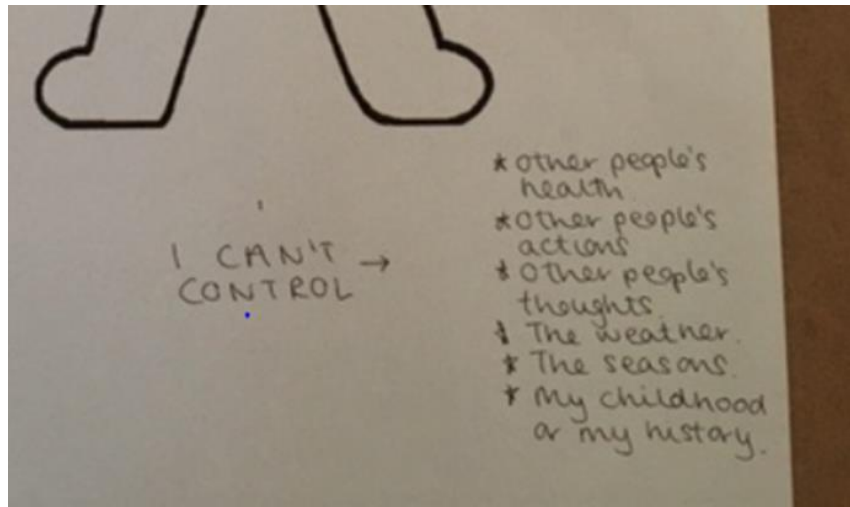
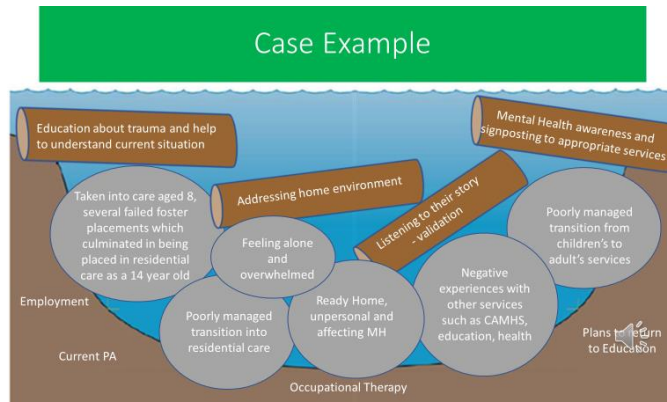
I cant explain how important they are, key for care leavers; cannot express my gratitude enough to her (The OT). OT vital to so many aspects of mental, physical challenges – which are all linked.



Our House Model (neurodevelopment) was relevant



Tools used



What to do if....

...14:30 bus hasn't arrived?

- Have you missed it? Check your watch or smartphone for the time
 - If yes, wait at bus stop for 15:00 bus
 - If no, check bus app (if no battery or no phone, check bus timetable at the bus stop)

...15:00 bus hasn't arrived?

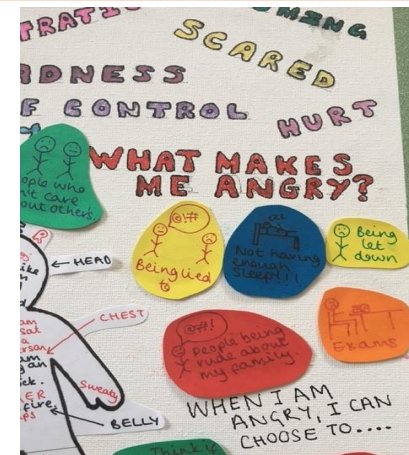
- Is the bus late? Check the bus app for any updates (if no battery or no phone, check bus timetable at the bus stop)
 - Yes, less than 15 minutes, wait at the bus stop
 - Yes, more than 15 minutes late, walk back to XXXX and call for a taxi to get home

...if bus stops mid-journey?

- Listen out for the announcements from the bus driver
- Check if route is on a diversion (such as road closure) by looking at the bus app
- Ask the bus driver "Excuse me. Is this bus stopping at XXXX Train Station?"

...if app says buses are cancelled?

- Walk back to XXXX and call for a taxi to get home
- If problem getting a taxi, call XXXXX



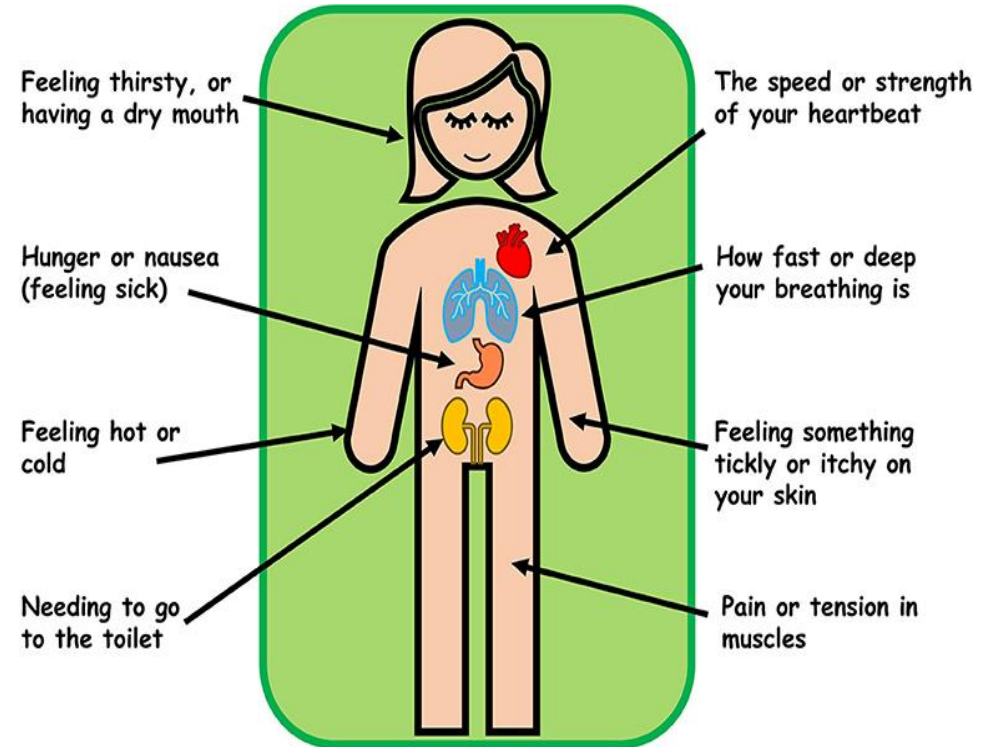
Learning from project

- Time to Plan needed and to build relationships
- Personal Advisors were outstanding, but need support and time
- OT liaison with other specialist workers was excellent
- Pathway Plans were not valued by young people overall
- Many young people living in the moment and no deferred gratification
- Sensory issues seen in all YP
- Diagnostic confusion but all seemed to be affected by trauma
- Young People will accept support in their own time

Learning from project (2)

Future research could explore the apparent link - from the OT pilot between sensory need (including interoception) and emotional regulation. Those with childhood trauma and those neurotypical were similar (a point made by Kelly Mahler US OT)

Biggest issue in upscaling is getting qualified OT resource funded by health or social care.



Advantages of being *embedded*

Main advantages are:

Can identify right questions and affect change through links to clients and staff supporting them.

Can better complete co-production.

Keeps day job interesting.

Some young people interviewed may not have let me into their homes if I was an academic and not attached to the Service.

Support from the ARC

Challenges of being *embedded*

Main challenges are:

Have a day job and backfill hard to find

Poor relation: Not being part of an educational institution have less access to opportunities

Harder to bid as an LA worker and as a lead researcher not having a PhD

Convincing internal stakeholders about merits of research

How do you know when next funding is coming and be able to plan (same for all researchers not fully employed I am sure)