

Maths Peer Mentoring

What happens when Year 5s mentor Year 2s?

Dr Marcus Witt, Senior Lecturer at UWE

External Evaluator of FunKey Maths Pilot 2017/18

Maggie Steel, Teacher and Founder of FunKey Maths



Overview

- What to do about children below ARE?

FunKey Maths

- What worked?
- What were the limitations?
- The impact on the mentors

Pupils 'can help teach each other to read and do maths'

By Hannah Richardson
BBC News education reporter

🕒 14 September 2011

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Children as young as seven can help teach each other to read and do maths, research suggests.

A two-year study of 7,000 pupils in 129 primary schools in Scotland suggests pupils benefit from tutoring each other in regular, short sessions.

These involve two pupils of different

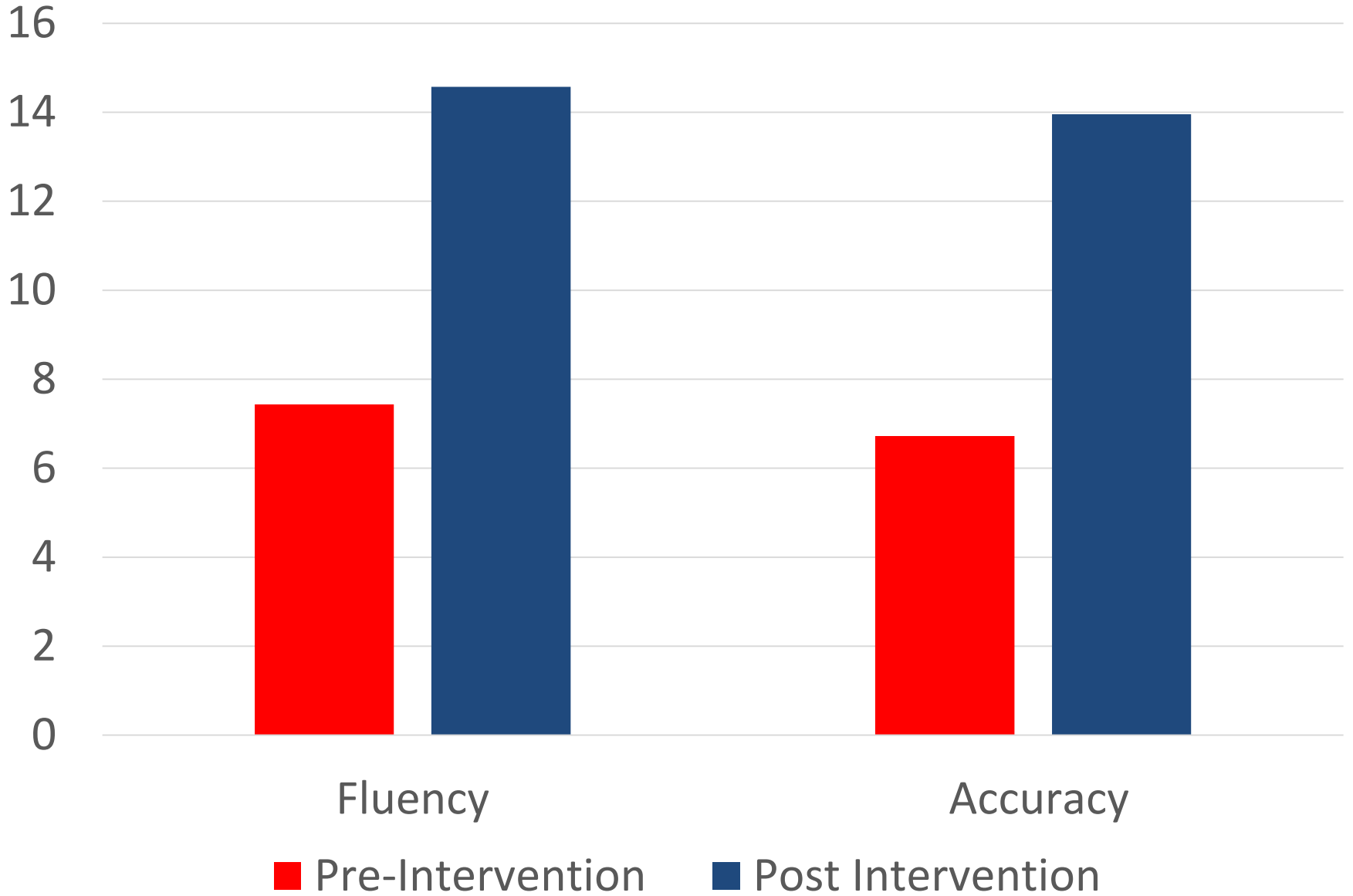


The study suggested the both the child tutor and the child tutee benefited

How do we know it works?

1. The Y2s' knowledge and understanding
2. Teachers tell us enthusiastically time and time again about all kinds of benefits.

Pre- and Post-Intervention Scores



It's taken a load off my workload with the lower attainers – the repetition has worked so well and they are applying it in lessons.

Sara Phillips (TA in Year 2, Ledbury Primary, Summer 2018)

Dear Clare

We were wondering if there were any plans to do the FunKey intervention again this year. I know it would mean training new Year 5s, but we did think it was hugely beneficial last year.

Thanks Kirsty

(Kirsty Wheeler Year 2 teachers, to Clare Christie, Maths and Phase Leader at Brunel Field, and Primary Hub Lead, September 2018)

Year 2 pupils “liking” maths and contributing more in lessons -
Shakira Rumjaun, Deanwood Primary Kent

The Year 2s enjoy it - definitely building confidence - Georgina
Fox, Palm Bay Primary, Kent

The Year 5s are definitely more confident and taking lots of pride
in their role - Georgina Fox, Palm Bay, Kent.

Very responsible - developed them as a ‘person’

Enjoy it and eager to do it

More confident in own maths lessons, they now think they are
good at maths

Louise Creane, Temple Ewell Primary

Main reasons for success

1. Highly structured programme of training and activities
2. The positive working relationship which can develop between two children is more productive than many relationships between an adult and a child needing intervention

Reason 1: Highly Structured Programme

- Mentor training covers
 - safety, communication, the impact of negative emotions, overcoming negative emotions, persuasion, how memory works, leadership, assessment
 - ensures Year 5s know what to do and how to do it
- Structured programme of activities and games
 - minimises teaching and maximises facilitation of planned “intelligent practice”
 - visible, achievable goals, with progress recorded
 - online activity videos
 - designed to minimise demands on supervising teacher

Example of Structured Activities

Brainstorm: You want your TA to teach a child to count backwards from 100?

What will you advise him/her to do?

Counting backwards from 100

What did your TA do?

What skills will the child have learnt?

Will it be 1:1?

How often will they practise together?

For how long?

FunKey Counting: What they do

- Learn to count backwards in 10s by rote
- Learn to sequence all multiples of 10
- Learn to place multiples of 10 onto an empty number line
- Spot errors in a sequence of multiples of 10
- Spot missing numbers in a sequence of multiples of 10
- Practise bridges from 50
- Practise counting back from 50 with cards to scaffold
- Practise counting back from 50 with fewer and fewer cards
- Practise counting down from 50 with actions
- Practise bridges from 100
- Practise counting back from 100 with cards to scaffold
- Practise counting back from 100 with fewer and fewer cards
- Practise counting back from 100 with actions
- Practise one less than any number and one less on bridges
- Play Hide and Seek to use counting back from 100 for a real purpose!

- 15 skills developed within 10 structured activities

FunKey Counting : What they learn

- Counting in 10s from 100 - 0
- Saying 10 more and 10 less than a multiple of 10
- Placing a multiple of 10 on an empty numberline
- Counting in 1s from 100 - 0
- Saying one less than any number up to 99



I've got this!

1. Now You See It, Now You Don't (Counting back in 10s)

2. That's out of order! (Ordering 10s)

3. Before and After (Practising 10 less and 1 less than)

4. Card count from 50 (Counting back from 50 with cards)

5. Mad Marching! (Counting back from 50 without cards)



Reason 2: Positive Working Relationships

- Mentors can form better relationships with mentees than adults can
 - Year 5s are more desirable working partners
 - Year 5s less likely to trigger maths anxiety
 - Year 5s more enthusiastic and energetic
 - “Working’ with another child feels like play
 - Dedicated 1:1 relationship three times a week
 - Long term relationship
 - Only such relationship for both parties – protégé effect
 - Older child’s attitude to maths and learning is catching

Impact on the mentors

- Responsibility and Confidence
- Organisation
- Reinforcing mentors' own mathematical understanding
- Pride in the school
- Pedagogical Sophistication – do good mentors become good learners?

Izzie: 'you are teaching yourself to interact better with other people.'

Josh: 'I like FunKey Maths because I like going home knowing I taught somebody something.'

Growth Mindset

Are you familiar with the idea of a 'growth mindset'?

How effective has it been in helping children with their maths?

How have you tried to instil a 'growth mindset' into your children?

‘Knowing that if you practise and are determined, you’ll get better, because that’s what happened to them.’

(Comment from a Y5 Mentor)

Where Next?

Looking to recruit schools in Bristol to be part of an further evaluation scheme

looking at:

- the durability of the mentees' gains
- exploring the ideas about 'growth mindset' among the mentors.

funkeymaths@gmail.com