

# Why we need Every Child Counts

 $\bullet \qquad 15 million adults in the UK have very poor numeracy skills$ 

 One in six companies currently has to provide remedial mathematics classes

Numeracy failure starts early – each year between 30,000 and 35,000 children aged 11 years old (6% of their age group) leave primary school with numeracy skills at or below the level expected of the average seven year old

• Numeracy failure carries high social costs – the proportion of the prison population with very poor numeracy skills, for example, is even greater than the proportion with poor literacy skills. A recent KPMG report (http://www.everychildachancetrust. org) estimates that £1 spent on Every Child Counts will save the public purse between £12 and £19, in the costs of Special Needs, behaviour and truancy support in schools, in unemployment benefits and lost taxes, in the costs of treating depression and in the costs of crime.



Blackburn with Darwen Barking & Dagenham

Barnet

Bexley

Birmingham

Blackpool

Bradford

Brighton & Hove

Bristol

Cheshire

Cornwall

Coventry

Cumbria

Derbyshire

Devon

Doncaster

Dudley

Ealing

Enfield

Essex

Gateshead

Hackney

Hampshire

Hartlepool

Hertfordshire

Hull

Islington

Kent

Kirklees

Lambeth

Lancashire

Leeds

Leicester City

Lincolnshire

Liverpool

Luton

Manchester

Middlesborough

Newham



Norfolk

North Somerset

North Tyneside

North Yorkshire

Oldham

Oxfordshire

Peterborough

Portsmouth

Reading

Redbridge

Redcar & Cleveland

Rochdale

Salford

Sandwell

Sheffield

Somerset

South Gloucestershire

South Tyneside

Southend on Sea

Southwark

Staffordshire

Stockport

Suffolk

Sunderland

Surrey

Sutton

Tameside Thurrock

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Tower Hamlets

Walsall

Wandsworth Warrington

West Sussex

Wiltshire

Wolverhampton

Worcestershire

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### **Every Child Counts Impact: Individual Children**

don't think
there's any doubt
ECC is a fantastic
programme. I'd like us to
be able to reach double
the numbers of children.'
Headteacher

'Hannah
has really flown
since Numbers Count. It
wasn't just a flash-in-the-pan
quick fix - it's still helping her now. She
knows all the strategies for working out
additions and subtractions, and she is really
good at spotting patterns and deciding what
to do. And it's just unbelievable how all that
counting forwards and backwards in different
steps has helped her with multiplication
- she knows all the multiples! Hannah
is more confident and is not afraid
to tell me when she does not
understand.' Teacher

#### 7,820 children were taught, of whom:

- 53% were boys
- 51% were identified as having Special Educational Needs
- 41% were eligible for free school meals
- 27% were learning English as an additional language
- Average gain in Number Age 14 months in 21.5 hours of individualised teaching
- Tests at three and six months after the programme ended showed children continuing to make gains and catch up with their peers
- 91% of children improved in their confidence and attitude to mathematics
- Of 7,820 children, none were predicted by their schools to achieve nationally expected levels in mathematics at the age of seven but over 72% achieved this

The greatest gains were made by the initially lowest achieving children

**Every Child Counts Impact: Whole School** 

WAVE 2

Small group additional intervention with trained and supported teaching assistants.

WAVE 3

Individual or very small group additional intervention with trained and supported teaching assistants.

Numbers Count

All children

Just below national expectations

Struggling

Lowest attaining

Every Child Counts is a whole school improvement programme. At its core is the expertise of the specialist Numbers Count teacher who not only provides individualised teaching to the lowest attaining 5% of children, but can also help the school to improve overall standards in mathematics.

Analysis of statistics for attainment in National Assessments of seven year olds show that schools participating in Every Child Counts exceeded national trends, showing an overall improvement of 1% point at the expected National Curriculum Level 2, as compared to no improvement in schools not involved in the programme and an overall improvement of 1% point at National Curriculum Level 2b as compared to a decrease of 1% point in schools not involved in

the programme.

'ECC
has had
an amazing
impact on the whole
school because it has
changed the way
we teach maths.'
Headteacher



Impact data provided by Edge Hill University.

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### Case Study: St Peter's Catholic Primary School

**St Peter's Catholic Primary School, Manchester,** serves a socially deprived area where a quarter of the pupils have an ethnic minority background and the number of pupils receiving free school meals is twice the national average. The number of pupils with Special Educational Needs and learning difficulties is average. In late 2008 the school emerged from a short period in special measures, with the raising of

standards in mathematics being one of the three main priorities for further improvement. This led to the appointment of David Wilson as deputy Headteacher with a specific remit to lead improvements in mathematics.

Every Child Counts was identified as the key driver to support improvements in mathematics because of the evidence of impact on the progress of the lowest attaining children and also of the way in which the 'layered' approach of the programme addresses both whole class teaching and additional intervention, with the intensive intervention 'Numbers Count' forming the key of the programme. The core role of the Numbers Count teacher was undertaken by David.

The underpinning principles of the Numbers Count intervention were employed across the full age range from Early Years to Year 6, to support the improvements identified in the Inspection report, which had identified poor teaching standards and high staff absence/turn-over as leading to a negative attitude towards mathematics and an impoverished experience for the children. Previous attempts to improve this situation had not worked and a more radical approach was required. David disseminated key aspects of the core pedagogy of Numbers Count to other staff in small, usable

chunks with the result being that teachers and teaching assistants grew in confidence and enthusiasm, accepting the changes required in their teaching and embracing them in all their lessons. Gaps in teachers' own subject knowledge were addressed and the Numbers Count pedagogy adapted for the daily mathematics lessons across the whole

age range. Each term two staff meetings were dedicated to mathematics with all staff attending

these meetings – Headteacher, teachers and teaching assistants.

Teaching Assistants were given specific training, including observation of Numbers Count lessons. As a consequence, their work in classes has become more closely targeted on the needs of the children they support and key resources are deployed to assist

them. One Teaching Assistant has undertaken further training to become a key support in mathematics for children in Key Stage 2.

The impact speaks for itself. Early Years Foundation Stage has been involved from the start and although children at entry are up to 12 months behind national averages they are now transferring into KS1 generally above national expectations. KS1 results for 2009/2010 were almost identical to the national average: over 84% of children left Year 2 working at Level 2 or above (when placed in Special Measures in 2007/2008, the school had only 63% of seven year olds attaining the expected Level 2 or above). Similarly, the number of eleven year olds achieving the expected Level 4 or above rose from a 2007/2008 score of 68% to a 2009/2010 score of 82.1%, slightly above the national average.

## What do people say about Every Child Counts?

Parents: 'Before my son Isaac began his programme he didn't like going to school. He did not like doing his numbers. Since this course began he is a changed little boy. He talks excitedly about going to school and what he will be doing. He asks me and his Dad to write him some sums to do. He can say his times tables up to seven. I can't believe how in such a short time Isaac has progressed. Now he can find answers for himself and I don't help him out as I did before.'

**Children:** 'I enjoy learning more about numbers. We have lots of fun and play games. I have learned how to double and halve numbers.'

didn't like going
school before she had
Numbers Count. She was always
like. "Oh I'm feeling poorly." But now
she can't wait for Mondays again. When
she had maths to do at home she was very
reluctant. She'd say, "I can't do this." Now
she's always counting and talking about
maths at home and she is very confident
about it. She'll actually get her
maths homework out and do it,
sometimes without us even
knowing!' Parent

'Now I
keep telling my
teacher every time I make
a new connection and she
thinks it's really funny. Sometimes
she looks at me and says have you
made another connection – then I
have to tell the whole class about it.
I thought maths was about doing
sums but now I realise how
much maths we do every
day.' Pupil

Numbers count Lessons ategood because now, Know number Never stop.

### What do people say about Every Child Counts?

'It's been

massive... I've

aot the tools now to

and where I need to

take them next'

Teacher

**Numbers Count teachers:** 'Being a Numbers Count teacher has made me reflect on and review my practice, question my methods and rethink my strategies. The amazing progress children make in such a relatively short time bears testament to the programme's success. Colleagues at school have seen my enthusiasm and have taken ideas away to incorporate into their own class teaching.'

Class teachers: 'The children in my class have really benefited from Every Child Counts. Not only has it impacted on their maths but also on their attitude to learning, their concentration and their eagerness to learn. I have been amazed at the results ECC has made in Year 2'

'Before Josh started Numbers Count, he couldn't count properly past 12. He'd say, "...10, 11, 12, 30, 40, 50..." He could use cubes to add two small numbers together like 'two and three', but he didn't know any number bonds and subtraction was a mystery to him. Now he counts forwards and backwards fluently in ones, twos, fives, and 10s to 100 and even

beyond it, and he's great at calculation. Yesterday I asked him, "What's 38 subtract five?" and he said, "Well, eight subtract five is three so it's... 33." His numeracy ability is just fantastic since he did Numbers Count!'

**Headteachers:** 'I've 'been there and done that', when it comes to intervention programmes but it always seems too little, too late to me. Too often it's been 'Let's wait for children to have failed for the last three, four, five years of their lives and become completely disengaged and then we'll hit them with a catch up programme.' The real success with Every Child Counts is that it doesn't wait for vulnerable children to fail – intervention is early and gives them a fighting chance.'

'Talk about impact! It has been wide ranging. After 12 weeks on the Numbers Count programme, see inside their minds the progress our children have made ranges between 10 and 20 months. One child made 25 months progress in a term. The impact on parents has been amazing. They consider it a privilege rather than a stigma when their child is selected for one-to-one help. Taking part in the lessons themselves has been a real eye opener for some

> Beyond attainment - I have seen increased levels of confidence and enthusiasm in our children. Mornings in my school see smiling faces, number rhymes and hands on maths experiences for everyone.'

of our parents and they are doing similar things at home.

'I have found the Every Child Counts programme to be one of the most effective interventions. It has made a tremendous impact in helping pupils to 'catch up' and narrow the gap with their peers. Similarly, comments from pupils, parents and staff are very positive. The programme makes a significant impact on mathematical standards.'

**Ofsted:** 'Support for individual pupils, through the school's 'numbers count' programme has led to significant progress in mathematics.'