

# Numbers Count



## Interim Report September 2019 to January 2021 all schools

based on data recorded by 17/01/2021



Edge Hill  
University

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# INTRODUCTION

Numbers Count is an Every Child Counts intervention for children who have the greatest difficulties with mathematics. It helps them to make greater progress towards expected levels of attainment so that they will catch up with their peers. It has two versions:

- Numbers Count 1 is designed mainly for children in Years 1 to 3;
- Numbers Count 2 is designed mainly for children in Years 4 to 9.

In both interventions, children normally have daily, 30-minute lessons with a specially-trained Numbers Count teacher in addition to continuing to take part in their normal class mathematics lessons. Accredited Numbers Count teachers decide whether to deliver each lesson individually or to two or three children together, according to the children's needs and the circumstances of the school. Teachers who are in training deliver all lessons individually.

Numbers Count lessons take place in a dedicated teaching area where children can use a wide variety of resources. The teacher begins by making a detailed diagnostic assessment of what each child knows and then plans an individualised programme of lessons for what each one needs to learn next: no two children follow the same programme. Lessons focus on number and calculation, follow a set routine and are rigorous and active. The teacher aims to help each child to become numerate and confident, to enjoy actively learning mathematics and to develop the skills and positive attitudes needed to continue to make good progress in normal class mathematics lessons after completing his or her Numbers Count programme.



A Numbers Count teacher normally teaches several children every day, liaising closely with class teachers to review and plan together for the children's progress. The teacher sets regular homework and meets parents to discuss how they can support their children's learning at home. The teacher undertakes a specialised professional development programme to learn about Numbers Count and about effective methods for teaching number and calculation.

Numbers Count was devised by Edge Hill University as a part of its not-for-profit Every Child Counts programme, through which the University has supported over 7,500 schools to raise more than 200,000 children's achievement in mathematics and literacy. All Numbers Count teachers and teaching assistants have been trained and supported by local ECC Trainers, who in turn have been trained and supported by the University.

This report is based on data submitted by schools to the University's online data collection and analysis system. Its purpose is to inform evaluations of the effectiveness of the intervention. The level of detail in the tables depends on the data supplied. If you have any queries, please contact the ECC team on 01695 657 133 or at [ecc@edgehill.ac.uk](mailto:ecc@edgehill.ac.uk).

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Due to the ongoing coronavirus pandemic, no annual report was issued for 2019-20. So this report accounts for all children who began or completed a programme during the two school years 2019-20 and 2020-21. The delivery and outcomes of their programmes may have been disrupted.

## 1. PARTICIPATION IN THE PROGRAMME

Numbers Count is designed for pupils in Years 1 to 9 who have the greatest difficulties with mathematics.

**Table 1.1 Pupils receiving Numbers Count support all schools**

	NC 1	NC 2	all	Percentage of Entrants
<b>Entry</b>				
Pupils who began a programme	136	30	166	
<i>School Year</i>				
Y10	1		1	1%
Y9	1		1	1%
Y8	11	2	13	8%
Y7		1	1	1%
Y6	1	5	6	4%
Y5		8	8	5%
Y4	5	12	17	10%
Y3	12	2	14	8%
Y2	102		102	61%
Y1	3		3	2%
<b>Exit</b>				
Pupils who completed a programme	87	22	109	66%
Pupils who had not completed a programme	49	8	57	34%

Entered: all pupils who began a programme

Completed: all pupils who completed a programme and for whom entry and exit outcomes were reported

**Table 1.2 Schools providing Numbers Count support all schools**

	NC 1	NC 2	either
Schools	20	7	26
Staff	21	8	24
Local Authorities	13	7	17

all schools that recorded entry data for at least one pupil

## 2. LESSONS

A pupil's Numbers Count programme normally lasts for at least 40 lessons, including an assessment phase and a teaching phase. Assessment lessons and all lessons taught by new teachers in training are delivered 1-to-1. Accredited teachers decide whether teaching should be delivered 1-to-1, 1-to-2 or 1-to-3 to match the needs of the pupils and the circumstances of the school.

**Table 2.1 Length of programme and lessons received  
all schools**

<b>Numbers Count 1</b>	
<i>Number of pupils</i>	87
Average calendar weeks	20.3
Average calendar months	4.6
Average number of lessons	42.4
- diagnostic assessment lessons	4.4
- 1-to-1 lessons	17.9
- 1-to-2 lessons	15.2
- 1-to-3 lessons	5.0
<b>Numbers Count 2</b>	
<i>Number of pupils</i>	22
Average calendar weeks	18.8
Average calendar months	4.3
Average number of lessons	43.7
- diagnostic assessment lessons	5.2
- 1-to-1 lessons	26.1
- 1-to-2 lessons	12.4
- 1-to-3 lessons	0.0
<b>all pupils</b>	
<i>Number of pupils</i>	109
Average calendar weeks	20.0
Average calendar months	4.6
Average number of lessons	42.7
- diagnostic assessment lessons	4.6
- 1-to-1 lessons	19.5
- 1-to-2 lessons	14.6
- 1-to-3 lessons	4.0

pupils who completed a programme and for whom the programme length or number of lessons was reported

### 3. TEST OUTCOMES

Schools are encouraged to test pupils' mathematics when they enter and exit from the programme. Entry testing helps to identify their initial attainment and learning needs and exit testing provides an objective measure of the progress that they have made.

TABLE 3.1 shows outcomes calculated by schools or approximate outcomes calculated by Edge Hill University based on raw data reported by schools.

Age	<i>A pupil's chronological age at the time of their entry and exit tests.</i>
Number Age	<i>A Number Age is the average age of pupils across the country who achieved the same test score as the pupil.</i>
Standard Score	<i>A Standard Score compare's a pupil's test score with those of other pupils of the same age across the country. A Standard Score close to 100 is 'average' and 84% of all pupils have a Standard Score of at least 85.</i>

**Table 3.1 Test outcomes  
all schools**

	<i>Number of Pupils</i>	<b>Entry Average</b>	<b>Exit Average</b>	<b>Gain Average</b>
<b>Numbers Count 1</b>				
Age (months)	87	88.3	93.0	4.6
Number Age (months)	87	69.6	85.9	16.3
Standard Score	82	84.4	99.0	14.6
<b>Numbers Count 2</b>				
Age (months)	22	108.4	112.6	4.1
Number Age (months)	22	87.2	104.2	17.0
Standard Score	20	79.9	90.4	10.6
<b>all pupils</b>				
Age (months)	109	92.1	96.6	4.5
Number Age (months)	109	73.1	89.6	16.5
Standard Score	102	83.5	97.4	13.8

pupils who completed a programme and for whom entry and exit scores were reported

## 4. ATTITUDES TO MATHEMATICS

When pupils have completed the programme, their class teachers can assess the attitudes that they show in class towards mathematics. The teachers use an Every Child Counts Attitude Survey to report on 8 aspects of each pupil's attitude, such as taking an active part in lessons, concentration and willingness to 'have a go' without asking for help. For each aspect, they decide whether the pupil is now more positive, about the same, or less positive than before taking part in Numbers Count.

**Table 4.1 Changes in pupils' attitudes towards mathematics  
(number of pupils)  
all schools**

	Pupils	Percent
<i>Number of pupils</i>	48	
Pupils who were more positive after the programme	45	94%
Pupils whose attitudes did not change	2	4%
Pupils who were less positive after the programme	1	2%
Net gain	44	92%

pupils who completed a programme and for whom an Attitude Survey was reported

**Table 4.2 Changes in pupils' attitudes towards mathematics  
(number of aspects)  
all schools**

	Aspects
Average number of aspects in which pupils became more positive	5.7
Average number of aspects in which pupils' attitudes did not change	2.2
Average number of aspects in which pupils became less positive	0.1
Net gain	5.7

pupils who completed a programme and for whom an Attitude Survey was reported

## 5. PUPIL CHARACTERISTICS

TABLE 5.1 analyses pupils' participation and outcomes in relation to their background characteristics. It is designed to help schools to monitor the progress of relevant vulnerable groups.

**Table 5.1 Pupils' background characteristics and key data all schools**

	----- Pupils -----		---- Programme ----			----- Progress -----				
	NUMBER	AGE	LENGTH	LESSONS		NUMBER AGE		ATTITUDE		
	%	months	months	1-to-1	Total	Entry	Exit	Gain	Improved	
							months		proportion	
<b>All pupils</b>	<b>109</b>	92.1	4.6	19.5	42.7	73.1	89.6	16.5	94%	
<b>School Year</b>										
Y8	8	7%	149.8	4.6	29.6	33.6	70.6	82.3	11.6	-
Y6	5	5%	128.7	5.2	20.6	41.2	109.2	127.8	18.6	-
Y5	4	4%	118.3	5.0	39.8	45.0	89.5	108.8	19.3	1 / 1
Y4	16	15%	103.8	4.0	18.5	42.2	80.4	94.9	14.5	100%
Y3	14	13%	91.6	3.7	19.1	40.4	73.0	90.4	17.4	6 / 7
Y2	59	54%	78.5	4.8	16.8	44.7	67.9	84.9	16.9	93%
Y1	3	3%	73.7	5.9	25.3	40.0	63.0	82.3	19.3	-
<b>Gender</b>										
Boy	55	50%	93.8	4.2	20.4	42.6	73.2	89.8	16.6	97%
Girl	54	50%	90.4	5.0	18.6	42.8	73.1	89.4	16.3	89%
<b>Pupil Premium Entitlement</b>										
Yes	46	44%	101.2	4.3	19.9	41.2	75.0	90.3	15.3	100%
No	59	56%	85.5	4.8	19.7	44.2	71.9	89.3	17.3	90%
<b>Special Educational Need Status</b>										
Yes	40	38%	103.9	4.2	21.4	38.6	70.5	84.7	14.2	94%
No	65	62%	85.7	4.8	17.9	45.4	75.4	93.3	17.9	97%
<b>First Language</b>										
English	78	73%	94.9	4.8	20.6	42.6	74.0	90.4	16.4	97%
Other	29	27%	84.6	4.1	16.6	42.4	70.9	87.6	16.6	89%
<b>Season of Birth</b>										
Autumn	32	30%	97.4	4.9	20.0	43.0	77.9	95.6	17.6	86%
Spring	42	39%	92.3	4.3	19.5	42.0	69.3	84.2	15.0	94%
Summer	33	31%	86.7	4.5	19.7	43.6	71.4	88.3	16.9	100%

pupils who completed a programme and for whom relevant data was reported