

What are the benefits of synthetic phonics teaching?

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Our studies of analytic and synthetic phonics

- From 1992-95 we studied the implementation of analytic phonics in 12 classes in Scottish primary schools
- From 1995-7 we carried out our first intervention study comparing analytic and synthetic phonics.
- From 1997-2004 we carried out a comparison between analytic and synthetic phonics (the Clackmannanshire Study).

What is Synthetic Phonics?

- Starts before children are introduced to reading scheme books, before any sight word recognition is established
- Teaches letter sounds very rapidly, explicitly showing children how to sound and blend letters in all positions of words right from the start
- Words are not pronounced for children prior to them sounding and blending them
- Sounding and blending is taught in the first few weeks of formal schooling

What is Analytic Phonics?

- Children start out by recognising whole words.
- The sounds for the letters of the alphabet are taught in the context of alliterative words, often one week for each letter, e.g. *gate, green, girl, glove* etc
- Letter sounds are then taught at the end of words
- When letter sounds are taught in the middle of words, CVC words are introduced
- Sounding and blending is introduced when CVC words are taught
- It gradually progresses to teaching blends and digraphs, e.g. *cl/p, coat, fast*

What is phonemic awareness?

- Phonemes are the smallest meaningful units of sounds in words
- Phonemic awareness is the ability to hear and pronounce phonemes, without access to print
- Phonics is an approach to teaching reading that connects letters with phonemes, e.g. f - l - a - g

First synthetic and analytic phonics study, 1995-97

- All of the children carried out their classroom analytic phonics programme in addition to the intervention
- The programme started shortly after they started school
- The extra training was in small groups for two 15 minute sessions a week. Total teaching time was 4.75 hours

1995-97 Study Intervention Conditions

i) Controls, n = 29

The children were exposed to the new print and were told what the items said.

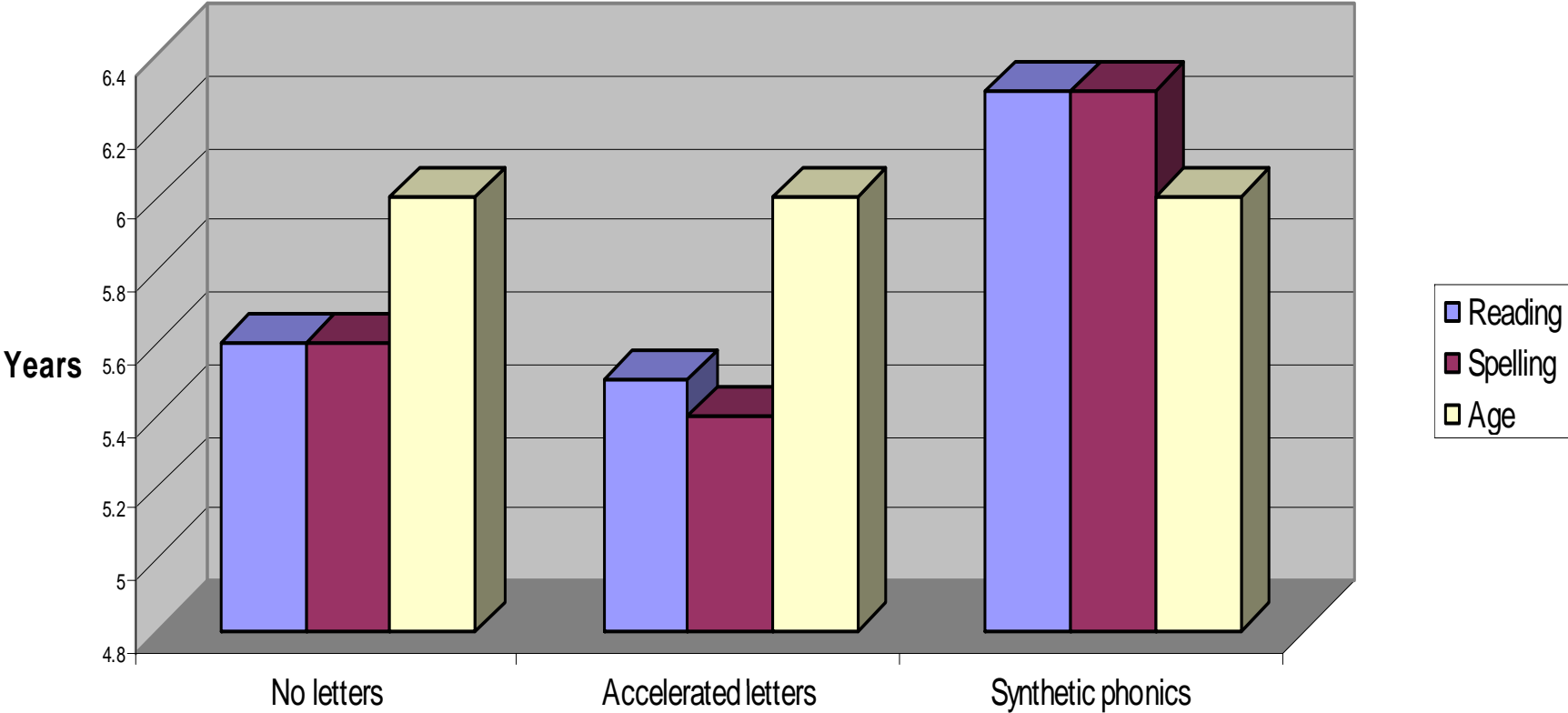
ii) Accelerated letter learning group, n = 33

Two letters a week were taught. These letter sounds were taught in the context of the new print vocabulary, in the initial position of words.

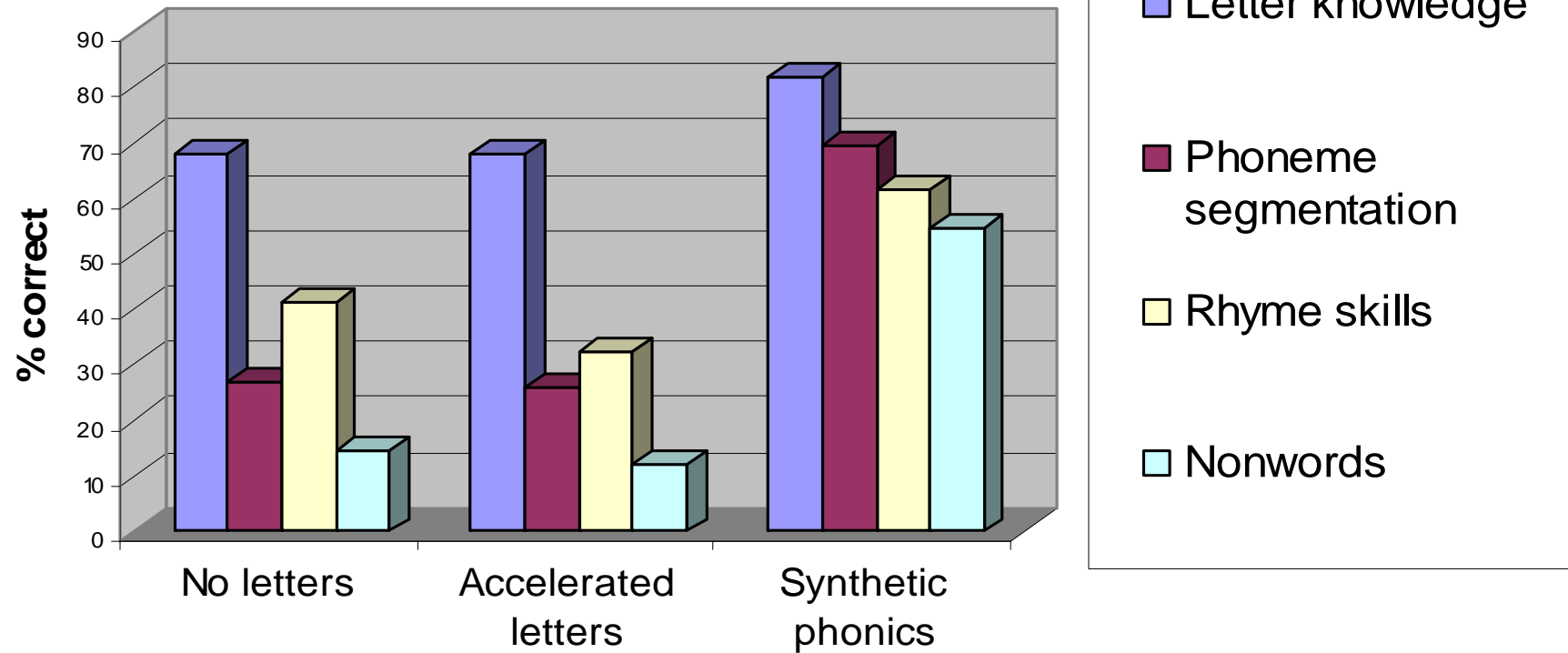
iii) Synthetic phonics group, n = 30

The children learnt two letters per week, but were shown them in initial, middle and final positions of the words. They were taught to sound and blend the letters in order to pronounce the words. They also segmented spoken words for spelling.

Reading and spelling ability at start of second year at school



Letter knowledge, phoneme segmentation, rhyme skills and nonword reading at start of second year at school



Clackmannanshire Study

1997-2004

- This study implemented analytic and synthetic phonics programmes at their typical speeds
- This allowed an examination of the effects of direct phoneme awareness training in a third condition
- The amount of time spent on phonics and related teaching was held constant, and the groups were exposed to the same set of printed words
- The rest of the reading programme continued unchanged

Intervention Conditions

i) *Analytic Phonics Group, n =104

The controls carried out a systematic analytic phonics programme, learning one letter sound per week.

ii) *Analytic Phonics + Phonemic Awareness Group, n = 75

This group also learnt to read by a systematic analytic phonics method, but half of their programme was devoted to the synthesis and analysis of sounds in spoken words.

iii) Synthetic Phonics Group, n = 113

Letter sounds were taught at the pace of 6 letters every 8 days. They sounded and blended words in order to read them, and segmented spoken words for spelling (i.e. analysis and synthesis of sounds with letters).

*At the end of the programmes, after post-testing, the first two groups carried out the synthetic phonics programme.

Duration of Programme in Clackmannanshire

- The programme started in the middle of September of the first year at school with around 300 children
- The sessions were 20 minutes a day for 16 weeks, and were carried out with the whole class
- Reading scheme books were introduced in November

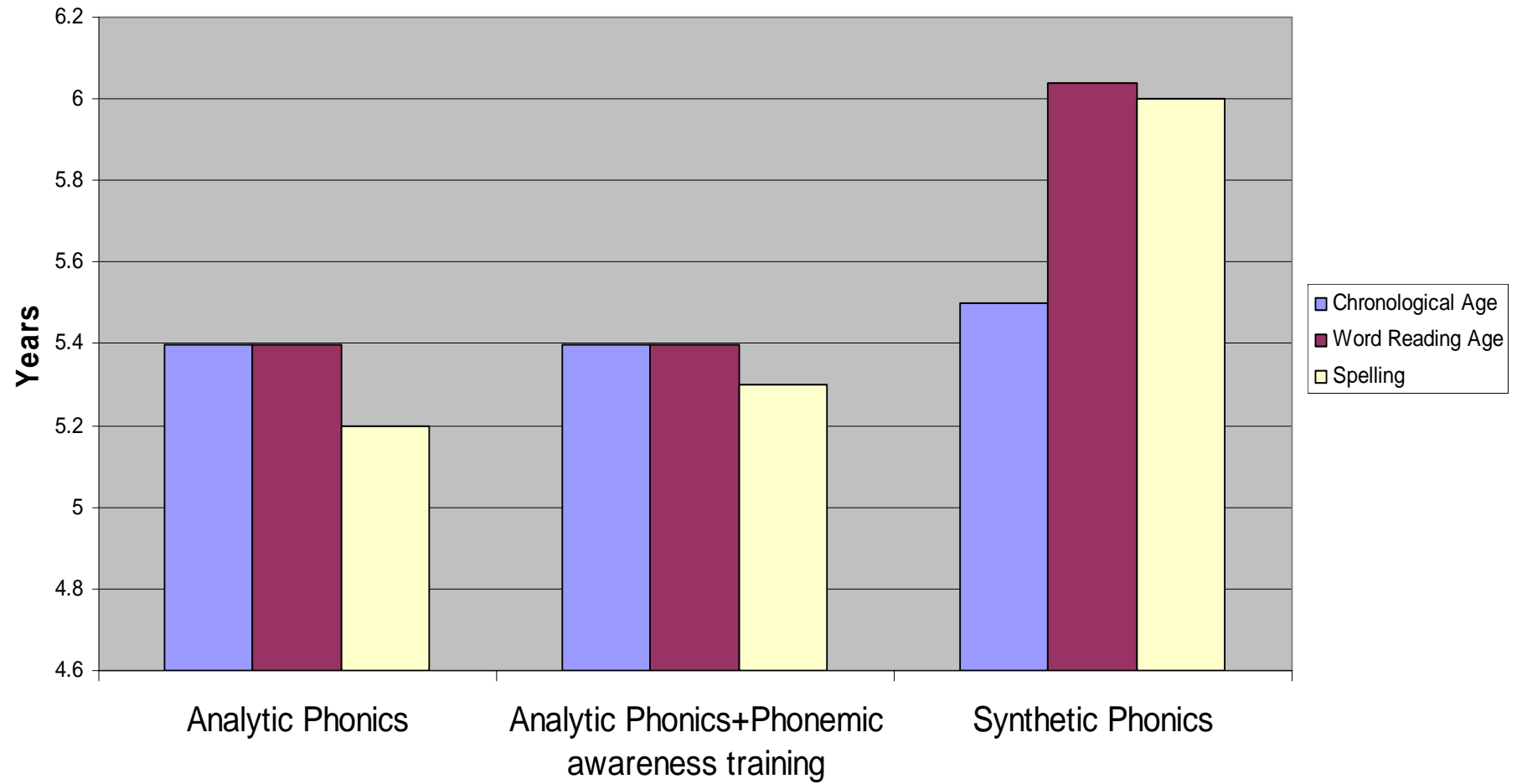
Clackmannanshire Sample

- Clackmannanshire is in the top 10% for deprivation in Scotland.
- Around half of our sample came from areas of moderate to severe deprivation, the other half came from moderately advantaged areas

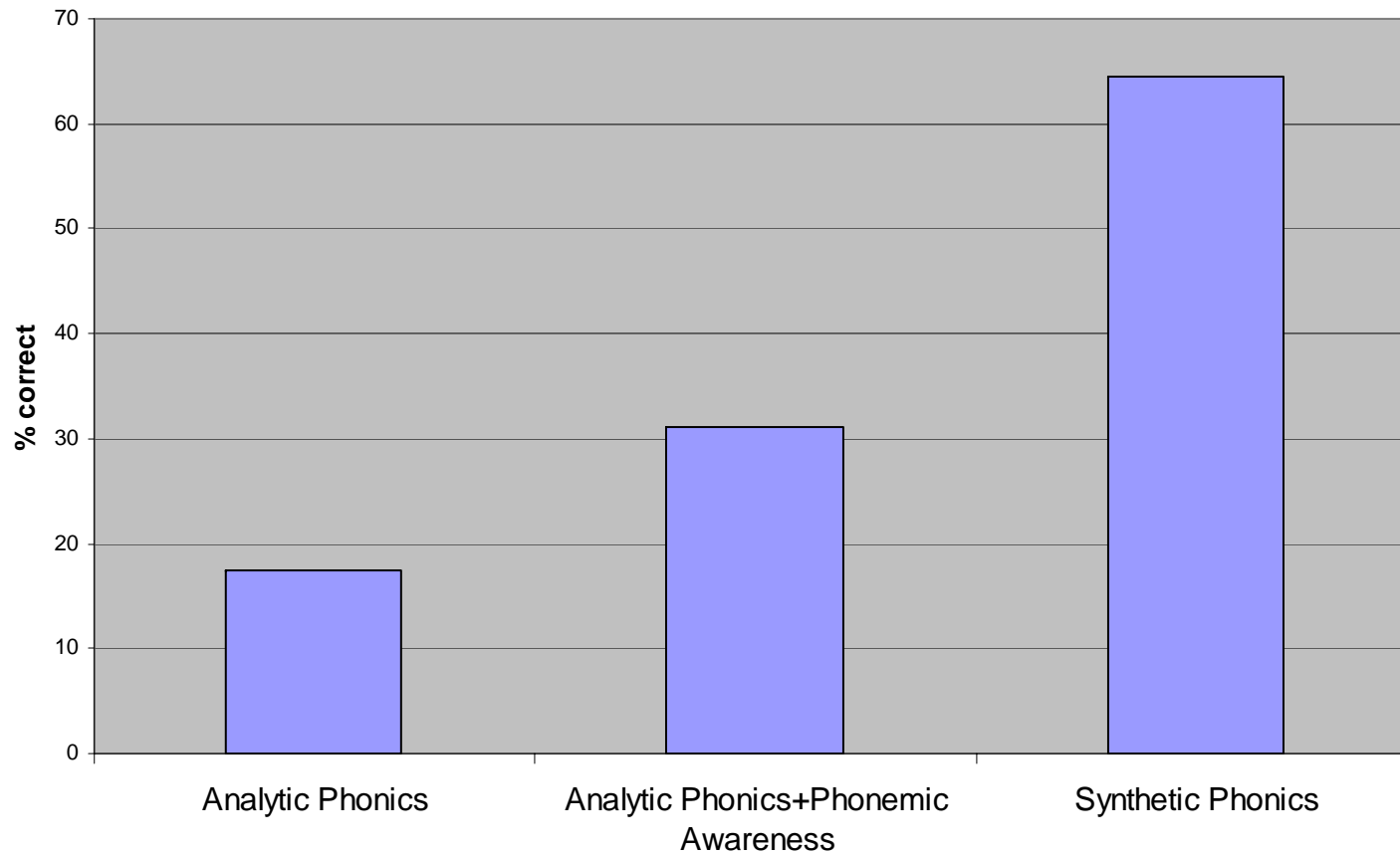
Tests Used

- British Abilities Word Reading test (from Primary 6 WRAT Word Reading Test)
- Schonell Spelling Test (from Primary 7 WRAT Spelling Test)
- Primary Reading Test (from Primary 4 Group Reading Test)
- British Picture Vocabulary Scale in Primary 1 (in Primary 6 English Picture Vocabulary Test)
- Yopp-Singer phoneme segmentation test in Primary 1
- Nonword reading test in Primary 1

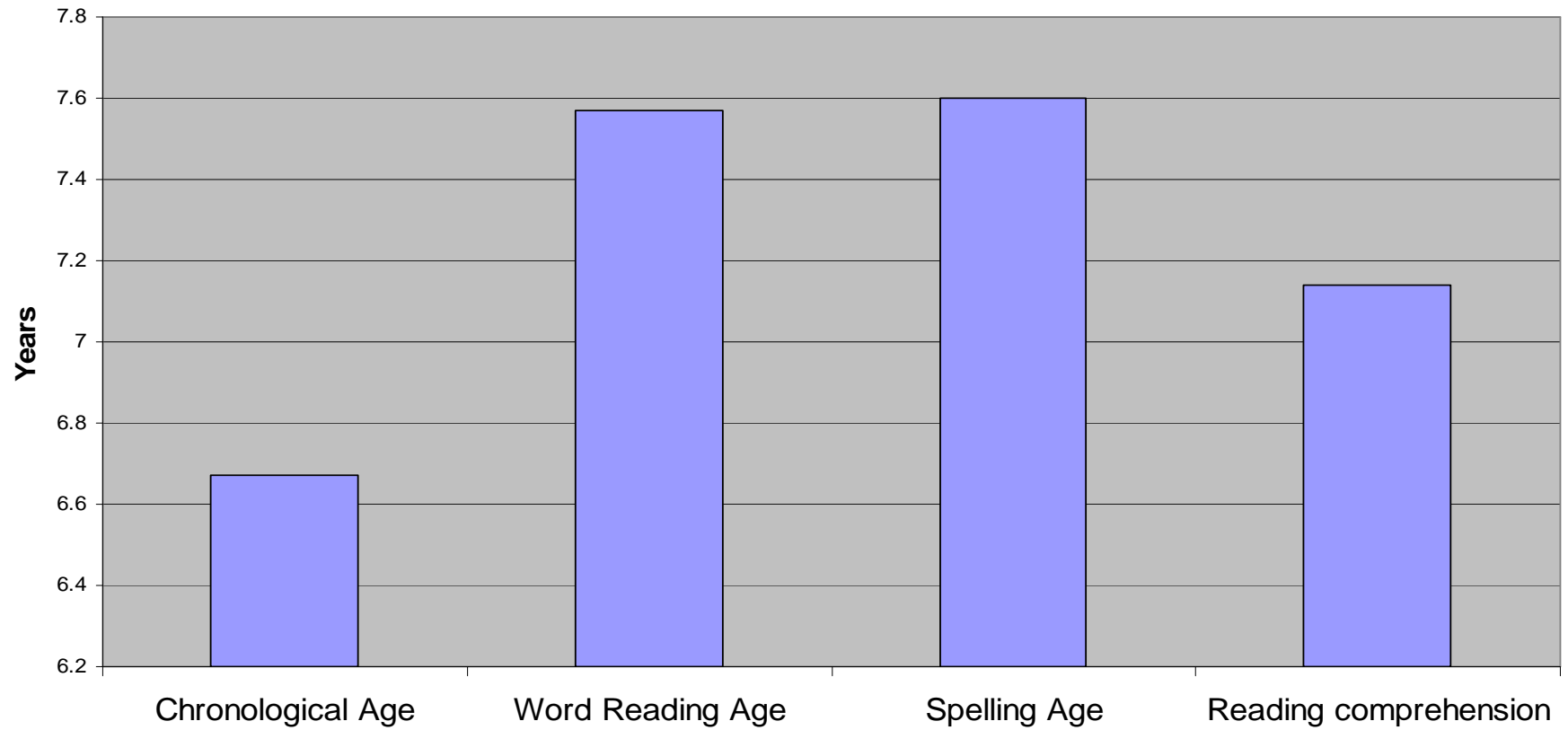
Reading and Spelling at the end of the programme, Easter of the first year at school



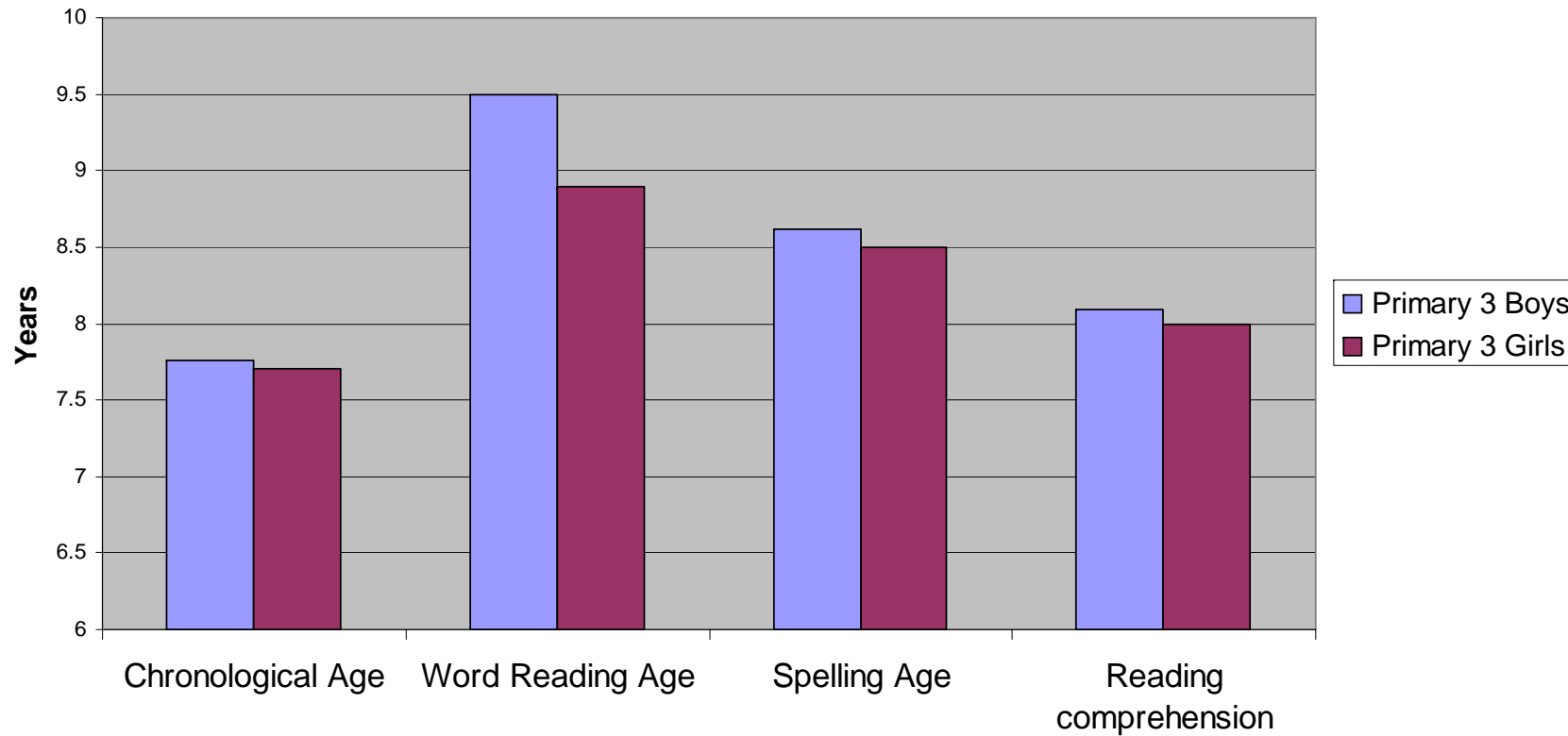
Phonemic Awareness at the end of the programme, Easter of the first year at school



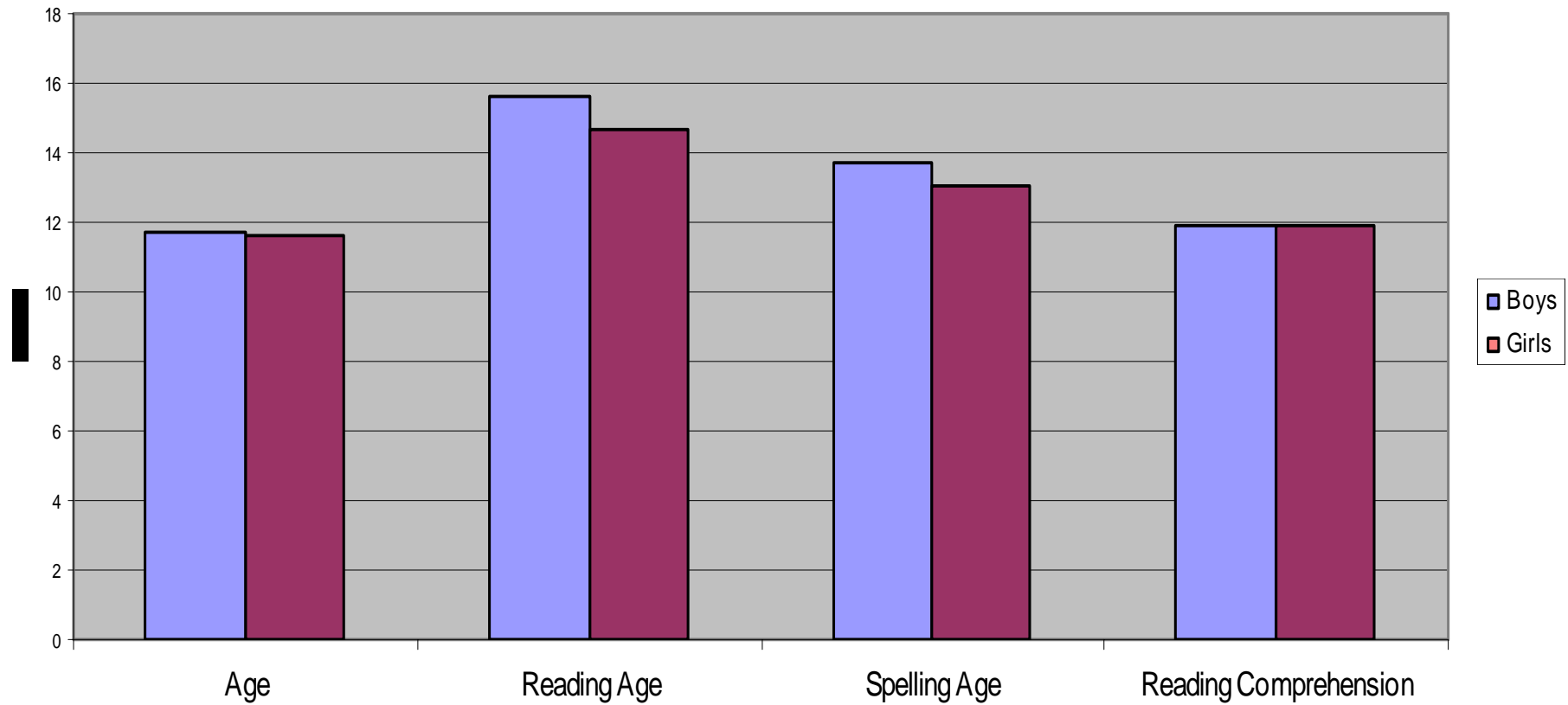
Reading and spelling at the end of the second year at school



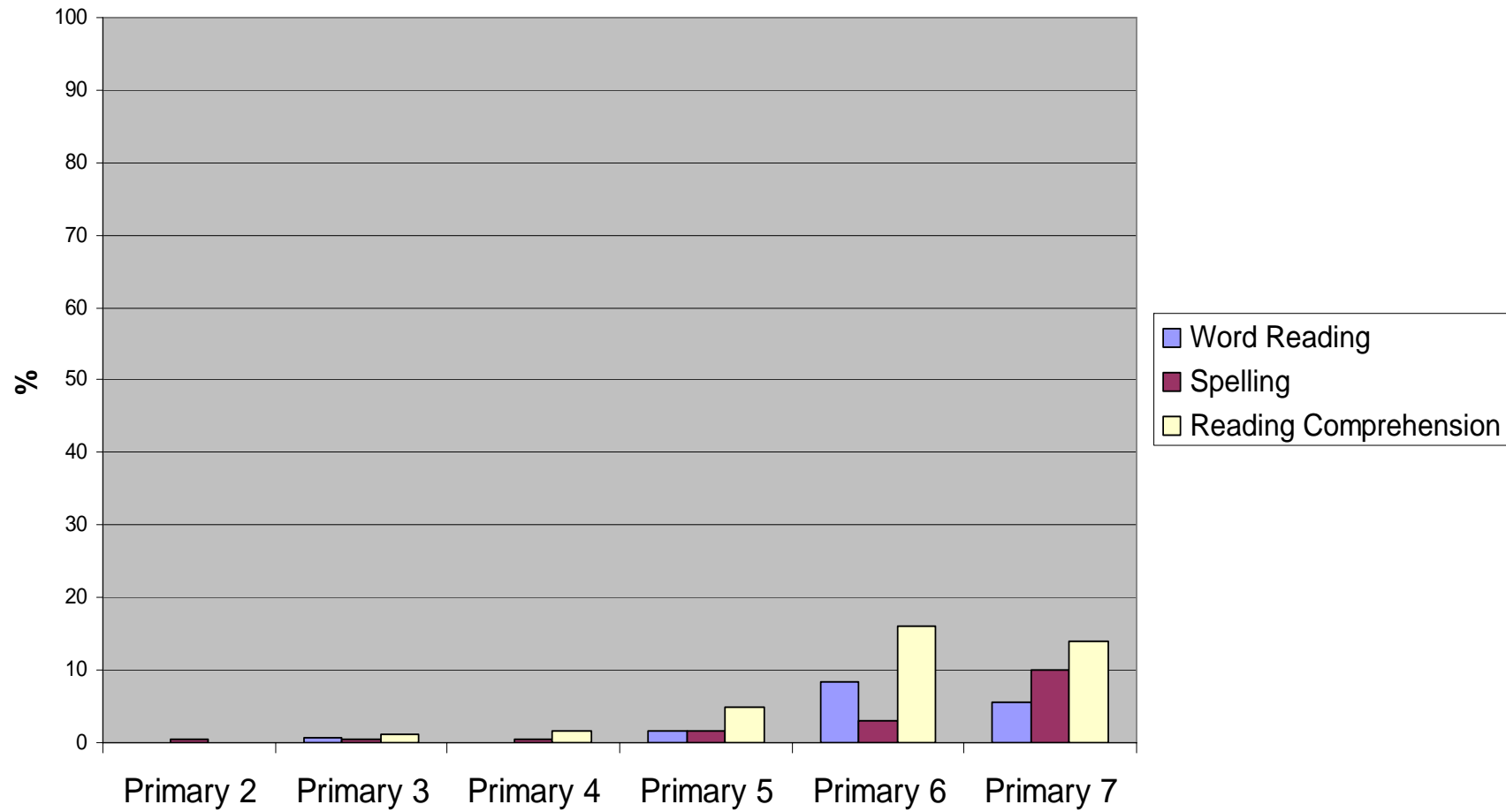
Reading and spelling at the end of the third year at school, boys versus girls



Reading and spelling at the end of the seventh year at school, boys versus girls



Proportion of underachievers in second to seventh year at school



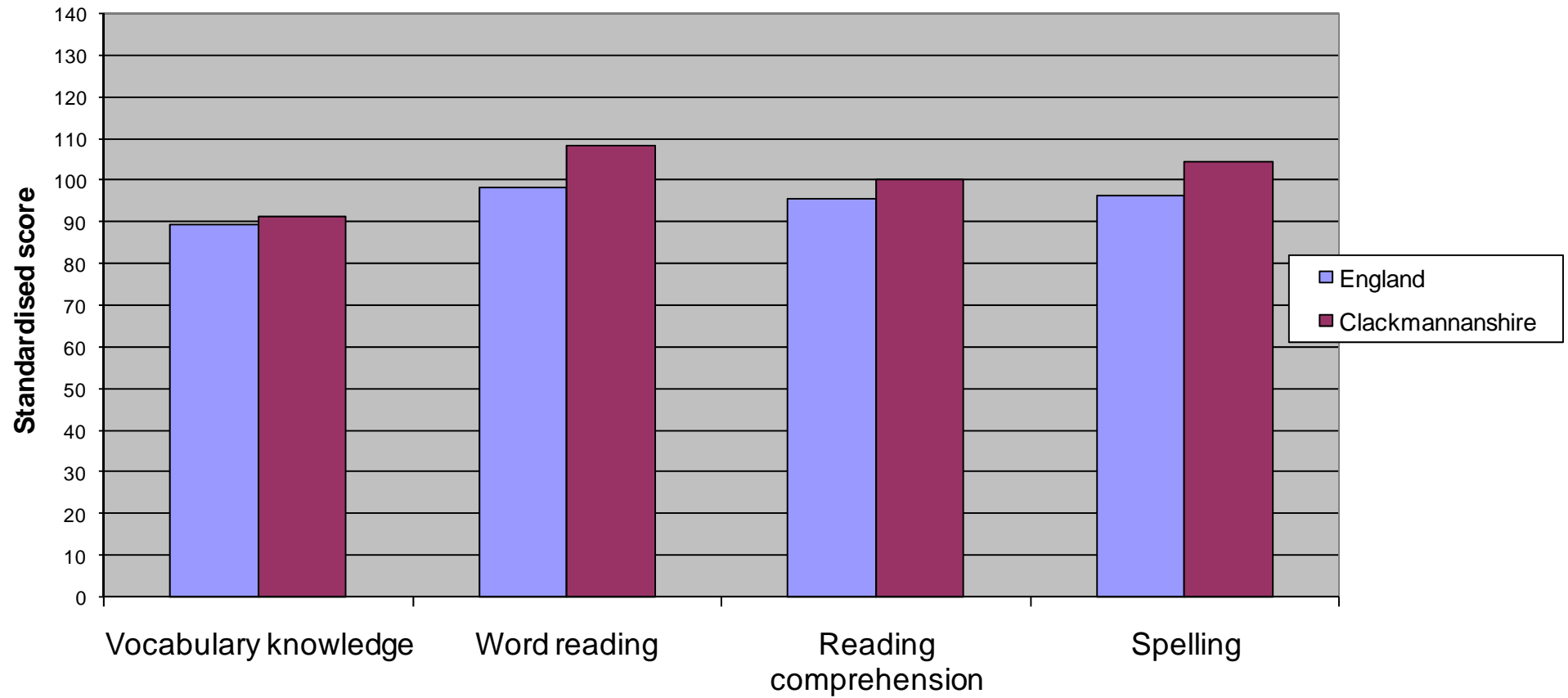
Summary of effects of social background, 1997-2004

Children from areas of deprivation only started to fall behind the more advantaged children towards the end of primary schooling in word reading, spelling and reading comprehension

Comparison of Clackmannanshire sample with English sample

- A subset of the Clackmannanshire sample in Primary 6 was matched with a sample in England tested in Year 5/6.
- Some of the English children were tested early in Year 6 to control for time at school
- The English sample was taught by Progression in Phonics, a form of analytic phonics

Comparison of Clackmannanshire and English sample, aged 10



Word reading

% children with scores more than 15
points below 100

Sample	%
England	12.7
Clackmannanshire	4.7

Reading comprehension

% children with scores more than 15
points below 100

Sample	%
England	22.0
Clackmannanshire	9.4

Spelling

% children with scores more than 15
points below 100

Sample	%
England	27.0
Clackmannanshire	4.2

Gender differences in word reading, Clackmannanshire versus England

- The SP taught boys read words better than the SP taught girls.
- The AP taught boys read words as well as the AP taught girls

Gender differences in reading comprehension

- The SP taught boys had reading comprehension as good as that of SP taught girls
- The AP taught boys had reading comprehension scores lower than the AP taught girls

Gender differences in spelling

- The SP taught boys spelt as well as the SP taught girls
- The AP taught boys spelt less well than the AP taught girls.

Time per week on literacy activities in Reception class, Logan and Johnston (submitted)

Analytic phonics	Time	Synthetic phonics	Time
Phonics	0.80 hours	Phonics (reading, spelling, writing)	3.33 hours
Big Books/story time/whole word reading	3.50 hours	Big Books/story time activities	1.50 hours
Individual reading	0.20 hours	Group reading	0.42 hours
Writing activities	2.50 hours		
Total	7.00 hours	Total	5.25 hours
Reading Age	5.1 years	Reading Age	5.45 years

Does synthetic phonics teaching help underachievers?

Case Study of AF

At the start of the programme, AF's mean vocabulary score was 78. He had a history of delayed speech and language development coupled with a hearing difficulty, and he had a delayed start to schooling.

AF's Individual Educational Programme

This programme aimed to develop AF's delayed language skills and poor motor co-ordination.

AF

A speech therapist and learning support teacher worked on his poor articulation, oral communication, listening and attention skills, and understanding of grammatical structures.

AF

There was also work on his sound blending, visual memory, visual discrimination and visual closure, and there was a motor movement programme to improve spatial perception and fine motor control.

AF

	P1	P2	P3	P4
Age	6.3	7.6	8.7	9.3
Reading Age	0.0	5.6	6.1	6.8
Spelling Age	0.0	0.0	-	7.0
Comprehension	-	-	-	-
Vocabulary knowledge	78.0			

AF

In Primary 5, AF started to get help with his reading and spelling from a very experienced Support for Learning teacher. His programme revisited synthetic phonics, and he had a handwriting and reading comprehension programme.

AF

	P4	P5
Age	9.3	10.6
Reading Age	6.8	9.2
Spelling Age	7.0	8.9
Comprehension	-	8.0
Vocabulary knowledge		75.0

% correct nonword reading

	'plud'	'wolp'	'yoot'	'sode'	'blain'
AF	91.6	100.0	100.0	75.0	75.0
Reading age controls (Analytic phonics taught)	71.8	76.9	72.5	65.9	65.5

AF

	P6	P7
Age	11.4	12.4
Reading Age	10.2	12.4
Spelling Age	10.1	11.2
Comprehension	-	7.1

Summary

- Overall, the synthetic phonics approach developed better reading and spelling skills than analytic phonics
- Boys read and spelt at least as well as girls with synthetic phonics, which was not generally the case with analytic phonics teaching

Summary

- The synthetic phonics programme reduced the effects of social disadvantage on reading and spelling skills for much of primary schooling
- Levels of underachievement were much lower with synthetic phonics teaching
- A special needs child made excellent progress with a synthetic phonics revisiting programme

Conclusions

There is considerably less waste with synthetic phonics teaching