

# **Accelerated Reading and Writing with Synthetic Phonics and Virtual Elimination of the ‘Tail of Underachievement’: A Seven Year Longitudinal Study**

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## **Introduction**

Grant (2004) reported on a study of about 500 Reception pupils in which the effectiveness of synthetic phonics for initial teaching was demonstrated. The study also investigated the progress which 84 pupils made from Reception to Year 2 as indicated by their Key Stage 1 SATs results (Standard Assessment Tests for seven year olds). The report, in addition, examined the progress which 66 pupils made from Reception to Year 6 as measured by their Key Stage 2 SATs results (Standard Assessment Tests for eleven year olds). The report found that successive cohorts of Reception pupils who had low entry assessments and who started synthetic phonics from the beginning of their schooling were on average about 15 months ahead of chronological age for reading at the end of their Reception years and about 17 months ahead of chronological age for spelling. The systematic and structured nature of synthetic phonics teaching was found to be successful at raising literacy standards for all pupils but the positive effects appeared to be more pronounced with boys. The study indicated that 11 year old boys appeared to be more able writers than girls, but that the girls as well as the boys in the study outperformed national averages for writing. Level 5 boys’ writing was found to be 33.3% compared with the figure of 9.5% for the LEA and 11% nationally. Statistically this is a highly significant acceleration.

The present report tracks the progress, from Reception to Year 6 of the whole of the first cohort of children taught literacy from the beginning through synthetic phonics. No child was left out of the results. The progress is measured in terms of their Key Stage 2 English SATs results in 2004 compared with the LEA, statistical neighbour and national figures. A value-added analysis is made of English results at Level 5 compared with pupils in similar schools. Value-added is also examined by comparing the study group’s KS2 SATs results for reading and writing with expectations predicted from their KS1 SATs results. The results of pupils at the lower ability end of the cohort are also examined. The interest in these results has been stimulated by the recent report of Johnston and Watson (2005) on the effects of synthetic phonics teaching on reading and spelling attainment of Primary pupils in Clackmannanshire, Scotland over a seven year study.

## **Methodology**

A three form entry of 90 pupils was taught Jolly Phonics (a commercial synthetic phonics programme) in Reception starting soon after entry, (Autumn 1996), covering 6 phonemes a week for about 20 minutes a day. Synthetic phonics teaches phoneme/grapheme correspondences (sound/letter matches) very rapidly and children are shown how to blend the sounds together to pronounce unfamiliar words and how to segment spoken words into their constituent sounds and write them down. Word reading and spelling were measured at the end of the Reception year (Summer 1997).

A major advantage of synthetic phonics is that children can decode unfamiliar words when they are introduced to text. The need for decodable texts to provide beginning readers with a bridge between word reading and their Oxford Reading Tree books became apparent for this cohort and Phonics First Books (decodable texts) were written and made available to the cohort in their second academic year (Year 1), 1997-1998. Sound Discovery® (a commercial synthetic phonics programme which builds on Jolly Phonics) became available during 1999-2000 as the cohort started Key Stage 2, in their fourth academic year (Year 3).

Underachieving children were able to receive Snappy Lesson® interventions for at least 2 sessions per week throughout Key Stage 2. Snappy Lesson® teaching is the method of teaching, based on psychological learning theory, used by the Sound Discovery® programme. Snappy Lesson® has been recognised by Ofsted as being a part of successful interventions (Ofsted, 2004). In addition, for all the children from their fourth year onwards (Year 3), Sound Discovery® and Snappy Lesson® teaching became integrated into the phonics rich environment of the whole classroom for quality first teaching and for differentiated small group work. The achievements of this cohort were measured by National Curriculum tests (SATs) at the end of their seventh year in school (Year 6).

### **Phonics approaches for the teaching of literacy using the Snappy Lesson®**

In this version of synthetic phonics the adult (teacher or teaching assistant) and the children use phoneme cards, magnetised phoneme cards and white boards to build up words and to manipulate sounds within words. This helps children to learn that sounds are represented by letters and that sounds can be blended together to pronounce words. It also helps children to understand how spoken words can be segmented into sounds which are represented by visual symbols (letters). For reading, there is work on sounds and blending of words and sentences. For writing, again there is work on sounds, words and sentences which are written down from dictation.

A typical session using Snappy Lesson® could be as follows:

At Step 1.1 of the Sound Discovery® phonic progression children work at 3 phoneme consonant-vowel-consonant level: Let us consider children at the very beginning who have been taught the sounds for the letters s, a, t, p, i, n and are working at Step 1.1:

For reading,

- these letters are shown on phoneme cards as a pack and reviewed with the children.
- The adult says sounds ‘s-a-t’ (‘robot speech’) pupils say word ‘sat’ (oral blending). Repeat for sap, pat, tin, nip.
- With the vowels at the top of a large magnetic white board and the consonants at the bottom, the teacher says a word. The pupils fold ‘phoneme fingers’ and flick a finger up for each phoneme in the word. One child comes up to the board, makes the word and reads it. The teacher says the next word with one sound changed. The children flick up their ‘phoneme fingers’ and another child has a turn to change one letter, make the word and read the new word, and so on e.g. tin, tip, nip, nap (Manipulation of sounds which integrates blending and segmenting).
- Next the pupils read words as a pack e.g. pat, tap, pan, nit, tin, nip (Reading words).
- The children then read sentences (Reading sentences) e.g. It is a tin. Tap a pan.

For writing,

- pencil grasp, posture for writing and letter formation of s, a, t, p, i, n are reviewed with the children and they write the letters from dictation on large or small white boards aiming for correct start point, exit stroke and relationship to the line.
- Next the adult says a word and the pupils flick fingers for each sound as they say the individual sounds in ‘nit’: n-i-t, ‘tan’: t-a-n, ‘nip’: n-i-p, ‘tin’: t-i-n (oral segmenting)
- The adult then dictates words e.g. nap, sin etc. and children tap with their fingers and write the words one sound at a time.
- The adult dictates sentences one word at a time and the children write the sentences, one word at a time, e.g. Is it a pin? Tap a pan.
- Pupils then read back the sounds, the words and the sentences that they have written on the white board.

This Snappy Lesson® could be delivered to a whole class or to a small group.

## **Results at the end of the Reception Year, Summer 1998**

**Table 1: average reading and spelling scores above chronological age for whole Reception cohort**

Reception Pupils	No. of pupils	Reading	Spelling
Summer 1998	90	+12 months	+17 months

At the end of Reception the 90 pupils with low entry assessments who had been taught by synthetic phonics were on average 12 months ahead of chronological age for reading and 17 months ahead for spelling. The gap between reading and spelling was noted and the need for decodable texts to provide beginning readers with a bridge between word reading and their Oxford Reading Tree books was recognised. Phonics First Books (decodable texts) were written and made available to the cohort in their second academic year (Year 1), 1997-1998.

### **Reading irregular words**

One concern about such a method is that it might only be effective with words which are spelled regularly and that it might prove to be a handicap in reading irregular words, such as ‘was’ and ‘said’. However, at the end of the Reception year the study examined the children’s ability to read the 45 High Frequency Words in the National Literacy Strategy List 1. The study found that on average, for the whole cohort of 90 pupils, the children could read 40 words from the list and that 53% (48 pupils) could read all 45 High Frequency Words correctly.

## **Results at the end of Year 6 for Key Stage 2 English SATs, Summer 2004**

**Table 2: Key Stage 2 English SATs results 2004 for the study school using synthetic phonics compared with others**

	Level 4+	Level 5
study school	<b>94%</b>	<b>65%</b>
LEA	82%	29%
Statistical neighbours	80%	28%
England (maintained only)	77%	27%

The Level 4+ results for English and the Level 5 results for English are significantly above both statistical neighbours and all maintained schools, at 5% level of significance.

The above analysis does not take account of the prior ability of the pupils. Therefore a value-added analysis was undertaken by the LEA Information and Research Service. This service used the Fisher Family Trust school level value-added report to reveal that the English Key Stage 2 SATs result of 65% Level 5 is significantly above expectations for similar pupils in similar schools, and puts the study school at the 4<sup>th</sup> Percentile Rank against all maintained primary schools (Percentile rank ranges from 1 for the highest value-added scores, top 1% of schools). The results were also significantly above expectations in terms of the mean National Curriculum level for all pupils, putting the school at the 9th Percentile Rank nationally.

Examining the results of individual pupils the LEA Information and Research Service was also able to show that a large number of pupils in the cohort performed significantly above expectations in English. This is borne out by reading to reading progress figures (Key Stage 1 SATs to Key Stage 2 SATs) and writing to writing progress figures ((Key Stage 1 SATs to Key Stage 2 SATs) of 13.7 National Curriculum points.

National expectations are for 12 National Curriculum points progress from KS1 to KS2 SATs. 13 National Curriculum points progress is considered “high attaining” for this LEA.

In 2004, this LEA had an average of 12.3 points progress for reading and an average of 11.5 points progress for writing.

**Table 3: KS1 to KS2 National Curriculum Points Progress for Reading and Writing in 2004**

	Reading	Writing
The study school	<b>13.7</b>	<b>13.7</b>
National expectations	12.0	12.0
LEA averages	12.3	11.5
Points considered “high attaining” for the LEA	13.0	13.0

Hence the study school’s figure of 13.7 for both reading and writing progress is clearly highly significant. The hypothesis is that the phonics rich environment in mainstream classes throughout Key Stage 2 and the Snappy Lesson® interventions for lower ability pupils has enabled this significant improvement to occur above expectations.

### **Underachievers**

Another area of interest was to examine the impact of synthetic phonics on the incidence of moderate and severe literacy difficulties within the cohort. The percentage of children with moderate literacy difficulties (Level 3) was 6% compared to 15% nationally. There were no children with severe literacy difficulties (Level 2 and below) compared with 7% nationally. There were no results in the cohort below Level 3B, indicating virtual elimination of the ‘tail of underachievement’.

**Table 4: Key Stage 2 English SATs results 2004 for the study school using synthetic phonics compared with national figures**

	Level 3	Level 2 and below
The study school	<b>6%</b>	<b>0%</b>
England (maintained only)	15%	7%

### **Discussion and conclusions**

The study has found that the beneficial effects of synthetic phonic teaching are evident for accelerated reading and writing achievements in Key Stage 2 SATs results compared with the LEA, similar schools and nationally. The beneficial effects are also seen at the lower end of the cohort where the ‘tail of underachievement’ has been virtually eliminated. There were no results below Level 3 B. Nationally the severe ‘tail of underachievement’ is 7% (Level 2 and below) compared with 0% for the study school.

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### **References**

Grant, M (2004) *Raising literacy attainment of all pupils in a mainstream primary setting with particular reference to boys' writing – a six year longitudinal study*, paper prepared for publication.

Johnston, R and Watson, J (2005), *A Seven Year Study of the Effects of Synthetic Phonics Teaching on Reading and Spelling Attainment*, Scottish Executive Education Department.

Office for Standards in Education (2004) *Reading for purpose and pleasure – an evaluation of the teaching of reading in primary schools*, page 25, Reference Number HMI 2393.

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