Sound Training: data analysis

Data and methodology

All data scrutinised were collected during the Spring, Summer and Autumn Terms 2014. Data from four cohorts of pupils undertaking the Sound Training programme in a range of schools during that period were analysed to look for trends and patterns according to their year group and chronological age at the time they took test. These cohorts were:

Cohort A - dates of birth ranging from 1.9.98-31.8.99, these pupils undertook the training in either the Spring or Summer of Year 10 or the Autumn Term of Year 11.

Cohort B - dates of birth ranging from 1.9.99-31.8.2000, these pupils undertook the training in either the Spring or Summer of Year 9 or the Autumn Term of Year 10.

Cohort C - dates of birth ranging from 1.9.2000-31.8.01, these pupils undertook the training in either the Spring or Summer of Year 8 or the Autumn Term of Year 9.

Cohort D - dates of birth ranging from 1.9.01-31.8.02, these pupils undertook the training in either the Spring or Summer of Year 7 or the Autumn Term of Year 8.

Reading ages (WRAT test) at the beginning and end of the training were used to identify progress in months.

Overall progress

The data shows that most pupils, regardless of their reading age at the start of the programme pupils made progress.

The average gain across all cohorts, as measured by reading age, was 27 months. However there were variations within and across cohorts. On average the greatest gains were seen by pupils who undertook the training whilst in Year 10 and beginning Year 11 (Cohort A). These pupils averaged 32 months progress by the end of their programme. This compares to Cohort C, whose average progress was 21 months, the least of all 4 cohorts.

Within each cohort, there were the following variations:

Cohort A

This cohort had 207 participating pupils and represents the smallest of the 4 analysed cohorts.

The group which made the most progress were those whose reading age at the start of the programme was between 12 and 24 months below that of their chronological age. With average gains of 47 months for this group, these pupils exited the programme with reading ages up to 24 months above their chronological age.

Pupils with a reading age 2-5 years below their reading age at the start of the programme made between 31 and 38 months progress.

36% pupils in this cohort who undertook the training already had reading ages which were in line, or above their chronological reading age. They demonstrated gains of between 25 and 31 months, in most cases taking their reading ages to above that of their chronological age.

Cohort B

This cohort was made up of 679 participating pupils and was marginally larger than Cohorts C and D.

The group which made the most progress were those whose reading age at the start of the programme was broadly in line with that of their chronological age. With average gains of 76 months for this group, these pupils completed the programme with reading ages well above their chronological age. However this group was very small in number, representing 10% of the cohort.

The group which made the next largest gains were those whose reading age at the start of the programme was between 24 and 36 months below that of their chronological age, with average gains of 63 months for this group, most of these pupils completed the programme with reading ages up to 12 months or more above their chronological age.

Pupils with a reading age of more than 5 years below their chronological age made an average of 25 months progress. However this group represented only 2.6% of the cohort as a whole.

37% pupils in this cohort who undertook the training already had reading ages which were in line, or above their chronological reading age. They demonstrated gains of between 10 and 30 months, in most cases taking their reading ages to above that of their chronological age.

Cohort C

This cohort was made up of 588 participating pupils.

The group which made the most progress were those whose reading age at the start of the programme was broadly in line with that of their chronological age. With average gains of 36 months for this group, these pupils completed the programme with reading ages well above their chronological age. However this group was very small in number, representing 3% of the cohort.

Pupils whose reading age at the start of the programme was between 6 and 12 months below that of their chronological age made average gains of 27 months progress.

Pupils whose reading age at the start of the programme was more than 12 months below that of their chronological age(28% of the cohort as a whole) made less progress than other groups within the cohort. Progress for these pupils ranged from 7 to 17 months, with pupils of a reading age of 9 years or less making the least amount of progress.

28% pupils in this cohort who undertook the training already had reading ages which were in line, or above their chronological reading age. They demonstrated gains of between 10 and 36 months, in most cases taking their reading ages to above that of their chronological age.

Cohort D

This cohort was made up of 661 participating pupils.

The group which made the most progress were those whose reading age at the start of the programme was broadly in line with that of their chronological age. With average gains of 39 months for this group, these pupils completed the programme with reading ages well above their chronological age. However this group was very small in number, representing 11% of the cohort. Gains of between 10 and 33 months were evident amongst pupils whose reading age was above that of their chronological age(19% of the cohort).

Pupils whose reading age was between 6 and 12 months below that of their chronological age made average gains of 26 months. These pupils represented 21% of the cohort.

Table 1 Average progress in months according to reading age at the start of Sound Training

Reading age in years/months at start of programme	Cohort A DOB 1.9.98-31.8.99	Cohort B DOB 1.9.99-31.8.2000	Cohort C DOB 1.9.2000-31.8.01	Cohort D DOB 1.9.01-31.8.02
9 years or less		25	7	9
9.01-10.00	31	29	15	17
10.01-11.00	37	63	17	26
11.01-12.00	38	38	27	36
12.01-13.00	47	48	33	39
13.01-14.00	40	76	35	33
14.01-15.00	31	30	34	30
15.01-16.00	26	17	21	22
16.01+		11	10	10
Average gains	32	29	21	26
Total number of pupils	207	679	588	661
Chronological age range at start of programme	14.04-16.01	13.04-15.01	12.04-14.01	11.04-13.01

Please note- significant variation in groups sizes across each reading age range.

	Pupils whose reading age was broadly in line with or above their chronological age at the start of the programme
	Pupils whose reading age was broadly between 6 months and 2 years below their chronological age at the start of the programme
	Pupils whose reading age was between 2 and and 4 years below their chronological age at the start of the programme
	Pupils whose reading age was more than 3 years below that of their chronological age at the start of the programme

Discussion

Overall, pupils who undertook the programme during the Spring/Summer Terms of Year 8 or the Autumn Term of Year 9 made less progress on average than pupils from other year groups who undertook the programme. Nevertheless, these pupils did make between 7.3 and 36 months improvement in their reading ages.

Data suggests that pupils who undertook the programme whilst in Year 10 (spring/summer) or who had just begun Year 11 were likely to make the most progress. However, this cohort was significantly smaller than subsequent cohorts.

When comparing cohorts of similar size, pupils who undertook the programme during the Spring/Summer of Year 9 or Autumn Term of Year 10 on average made the most progress.

There were variations in gains across cohorts, even when the pupils reading age at the start of the programme was the same. For example, pupils with a reading age of between 9.1 and 10 years who undertook the programme during the Spring/Summer of Year 10 or Autumn of Year 11 made considerably more progress (average 31 months) than pupils within the same reading age range who undertook the programme whilst they were in the Spring/ Summer of Year 7 or Autumn of Year 8 (17 months).

The programme appears less successful for pupils with a reading age of 9 years or less at the start of the programme, with gains tending to be of less than a year.

Data would suggest that pupils in Year 9 and 10 with a reading age of between 10 and 12 would benefit significantly from the programme, as it has the potential to bring these pupils' reading ages in line or above their chronological age.

More work is needed to analyse the relationship between reading age and performance at GCSEs, as well as any potential impact upon learning behaviours in the classroom.

March 2015