



Institute for
Effective Education
Empowering educators with evidence

Enhancing reading skills in young learners

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About IEE Innovation Evaluation Grants

The first four IEE Innovation Evaluation Grants were awarded in February 2017. Funded by the Institute for Effective Education (IEE), these grants supported pilot evaluations of innovations of teaching and learning approaches based on the Research Schools Network's goal of improving the attainment of pupils by increasing the use of evidence-based practices.

Since then a further 26 projects have been successful in their application for an IEE Innovation Evaluation Grant, bringing the total number to 30. The applications we received included a wide range of interesting, school-led innovations – from after-school film clubs to improve the creative writing of Year 5 pupils, to the use of audio feedback with Year 12 pupils – and we were really impressed with the thought that applicants had put into how these innovations could be evaluated.

The evaluations are small-scale, and test the kinds of innovations that schools are interested in. This is very much a “bottom-up” exercise, allowing schools to get some indicative evidence behind real-world initiatives. Many evaluations are now coming to an end, and we are starting to publish reports on the findings. It is important remember that these are small-scale projects, often carried out in one school, so it is not possible to generalise their findings. In fact, the main benefit of the Innovation Evaluation projects may be in the process, rather than the findings.

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Executive summary

Description of the innovation

The intention of the evaluation was to investigate whether early reading skills could be further developed with the explicit teaching of sight word recognition and phonological awareness training.

Garden Fields is a large community school in St Albans. In January 2019, 5.8% of the pupils received free school meals, 20% of pupils spoke English as an additional language (EAL) and 26% of pupils had been identified with special educational needs and disabilities (SEND).

Following assessment using PM Benchmark (a reading age test which assesses reading accuracy and comprehension) and the PhAB2 (Phonological Assessment Battery: Second Edition Primary), 37 Year 1 pupils were identified as eligible for the planned intervention. The criteria for a pupil to be part of the intervention was if they were reading at a minimum of six months below their chronological age and/or profiled with a phonological awareness deficit. They were then randomly allocated to either the intervention group or a waiting-list control group.

The intervention ran over a 10-week period. The intervention group pupils were divided into three teaching groups and each group received four 20-minute sessions a week. Each session involved the explicit teaching of common sequences (for example, days of the week), consonant blends, high frequency sight words, rhyme and the segmenting of syllables (the latter two being elements of phonological awareness).

Summary of findings

Using Cohen's *d* effect size analysis on the results of the PM Benchmark there was a medium effect size of +0.4 for the pupils in the intervention. On average those pupils in the intervention group made 2.3 months more progress than the control group in reading age. The PhAB2 results were more variable, the intervention group made more progress in rhyme, fluency and digit naming, however, the control group made more progress in alliteration, blending, phoneme segmentation, picture reading and non-word reading. It should be noted that the sample size was very small and also the distribution of pupils profiling with a phonological deficit was uneven with a higher proportion in the intervention group. The evaluation shows evidence of promise that the intervention may improve the reading of Year 1 pupils with low reading age and/or poor phonological awareness.

Cost

The intervention cost £216 per pupil because staff were employed specifically for the intervention. The cost would be negligible if existing staff were used as the cost of resources is minimal.

Introduction

Description of the problem

We had noticed a recent trend of pupils entering our school in the early years foundation stage (EYFS) with lower literacy skills than previous years. Many arrive with weak knowledge of rhyme and syllables and with weaker alphabetic knowledge and fewer sight words known for reading. Speech and language specialists and occupational therapists suggested to us that younger children are not benefiting from sufficient exposure to rhyme, as traditional nursery rhymes are not being told as much by parents. We were also worried that the amount of time young pupils and parents seemed to be spending on tablets and smart phones might be reducing the amount of natural conversation. The school had introduced Read Write Inc (RWI) as a literacy programme in EYFS and Year 1; however, we were finding that increasing numbers of children were able to pass the Phonics Screening check but were not attaining at age-related expectations (ARE) in reading at the end of Year 1. RWI is a synthetic phonics programme that addresses phonological awareness at the phoneme level and has only a small amount of rhyme teaching. It does not include a rigorous teaching of high-frequency sight words. The irregularities of the English language mean that a phonics approach will not enable a child to read many of our high-frequency words. We believed that a supplementary programme that includes explicit phonological awareness teaching and sight word teaching was necessary to work in parallel with RWI.

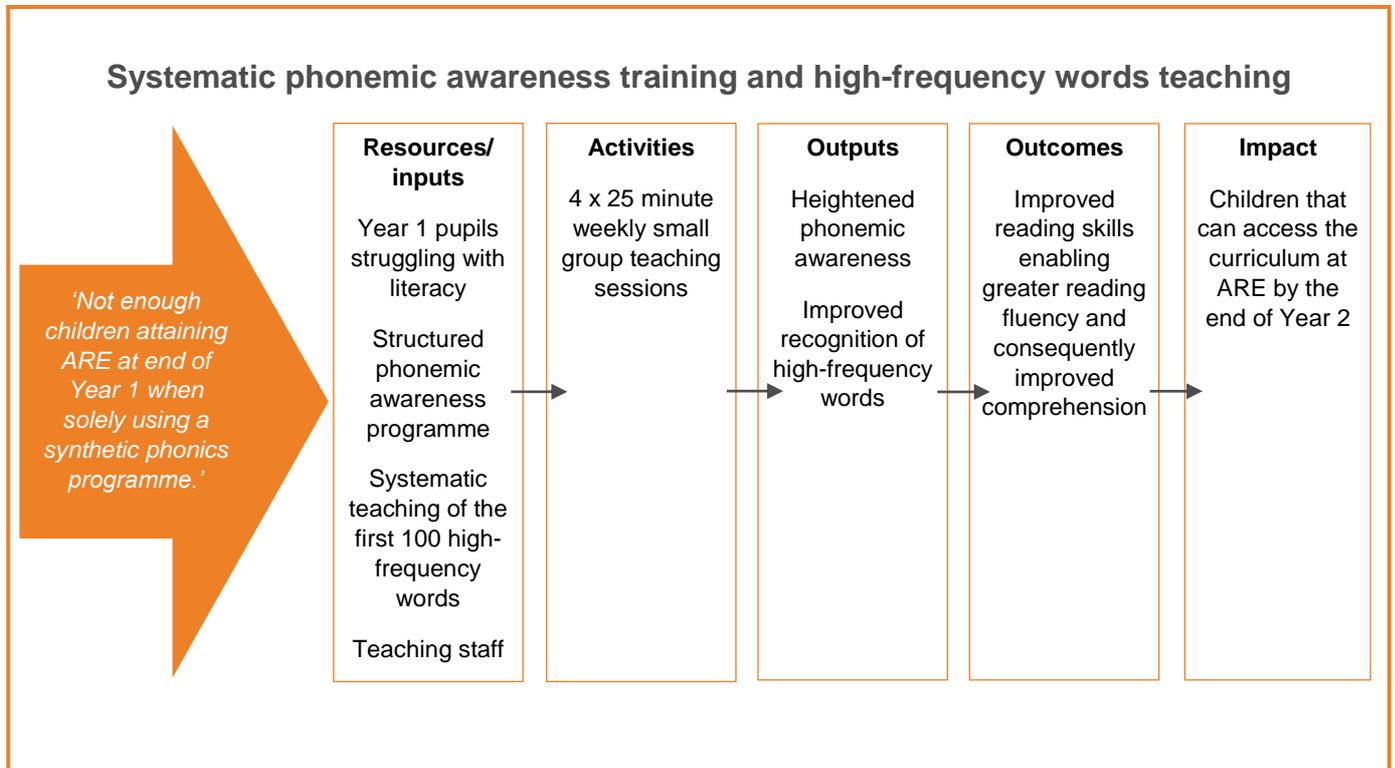
Review of existing research

Andrew Davis (2013) argues against the sole use of synthetic phonics as a tool to teach reading. In his article *To read or not to read* he states: “Synthetic phonics, with its accompanying phonics ‘check’, fails, at least in its pure and exclusive version, to take account of the true character of reading, and of the gulf between reading and mere decoding.” In reference to the phonics screening check he argues that the skills it attempts to check are actually blending skills rather than reading skills. This would explain why children can pass the phonics check yet not be reading at ARE. Wyse and Goswami (2008) make the point that “The phonological complexity of syllable structures in English, coupled with the inconsistent spelling system, mean that direct instruction at levels other than the phoneme may be required in order to become an effective reader”. The full importance of phonological awareness on reading and spelling is discussed by Goswami and Bryant (2016) in their book *Phonological skills and learning to read*. Their research emphasises the importance of rhyme, alliteration, and onset and rime. Awareness at the word and syllable level precedes awareness at the phoneme level. Finally, the Education Endowment Foundation (EEF) in their *Improving literacy in Key Stage 1 guidance report* state: “Both decoding and comprehension skills are necessary, but not sufficient, to develop confident and competent readers...If pupils are not making expected progress it may be that they are not engaged ... and require a different approach that motivates them to practise and improve.” We believed that our intervention would address this.

Yvette Zgonc (2010) argues that phonological awareness and sight word recognition, combined with a systematic, explicit phonics programme and integrated with a literature and language-rich environment provides the best chance to be reading fluently by the end of Year 4. Providing struggling readers with intensive phonological awareness instruction 15–20 minutes a day has been shown to result in considerable gains (Ball and Blachman 1991, Byrne and Fielding-Barnsley 1991, 1993, 1995).

Description of the innovation

The innovation entailed the explicit, multisensory teaching of phonological awareness and sight words to supplement the synthetic phonics programme already taught to Year 1 pupils. The research supported our belief that this would enable more pupils to attain ARE.



Research questions

What impact does explicit phonological awareness training and the teaching of sight words, in addition to a synthetic phonics programme, delivered over a 10-week period, have on reading attainment and phonological awareness for Year 1 pupils who are reading at least six months below their chronological age and/or have below average phonological processing and production skills compared to similar pupils taught using a phonics programme alone? (Reading attainment as defined by the PM Benchmark system which explicitly assesses a pupil's instructional and independent reading levels).

Method

Sample

Garden Fields JMI School is a large, community school in St Albans, which since September 2015 has had three forms of entry. When this project began the school had three forms of entry up to and including Year 3 and two forms of entry in Years 4, 5 and 6 (they will become three forms of entry over the next three years), with 514 children on role. 20% of pupils have English as an additional language (EAL), with 39 languages spoken, and 26% have special educational needs and disability (SEND). 5.8% of pupils are eligible for free school meals.

There were 86 Year 1 pupils in the school in September 2018. Every pupil's reading ability was assessed using PM Benchmark. PM Benchmark is a reading age test which assesses reading accuracy and comprehension. Pupils who scored in the top 20% on the PM Benchmark were removed from the sample. The remaining 80% were then assessed using the Phonological Assessment Battery: Second Edition Primary (PhAB2). These assessments were carried out by an independent teacher. The PhAB2 includes nine subtests which assess children's phonological processing, their ability to perceive, analyse and manipulate phonological segments and also to assess their phonological production skills. Any pupils who were assessed as falling in at least one of the following categories were part of the research sample:

- scores below 85 on at least three subtests of the PhAB2
- PM Benchmark reading age at least six months below their chronological age.

At the end of the assessments there was a sample of 37 pupils: 20 boys and 17 girls. Of those pupils, 19 had a PM Benchmark reading age at least six months below their chronological age, three pupils were not reading six months below their chronological age but scored below 85 on more than three subtests of the PhAB2, and the remaining 15 pupils met the criteria on both the PM Benchmark and the PhAB2.

Parents were informed about the project by the headteacher at the parent and teacher Year 1 information evening and meetings. They were asked to inform the school if they wanted to withdraw their child from the project. It was explained that the intervention would run during the first half of the school year, so that those pupils in the waiting list control group could then have focused/intensive teaching over the second half of the year if the evaluation suggested that the intervention was effective.

Assignment to condition

The 37 pupils who met the inclusion criteria were randomly allocated to either the intervention group or the control group. Nineteen pupils were allocated to the intervention group and 18 to the control group. The 19 pupils in the intervention group were then divided into three teaching groups.

Innovation

The intervention aimed to teach phonological awareness and reading of sight words.

Although we initially intended to have two teaching groups it was decided to have three groups running simultaneously. Consequently, there were two groups of six pupils and one of seven

pupils. The intervention was delivered by three teaching assistants (TAs) from our SEND team. Timetabling constraints and complications meant that the three TAs were from Year 1 which wasn't what had been planned. To try and minimise any influence this may have on the evaluation the TAs did not work with children from their own class. They were also unaware of which pupils were in the control group.

Fortunately, because the TAs teaching the intervention were experienced in small-group interventions and were familiar with phonological awareness teaching and the teaching of sight words, the training necessary was reduced. Two sessions of approximately one hour were given to prepare for the delivery of the intervention. Each TA worked from the same lesson plan and with the same resources. The resources and training were provided by the school's Inclusion Co-ordinator (INCO) and Specific Learning Difficulties (SpLD) teacher. The INCO and SpLD teacher also met weekly with the TAs to ensure that the intervention was running as planned and to answer and address any questions or concerns.

Lesson plans for the ten weeks were consistent in format. The programme 'Phonological Awareness, Assessment Tools and Strategies', by Yvette Zgonc, was used as a framework with additional activities and tasks used to supplement this. The first 100 high-frequency sight-words were used and taught through various games, and initial consonant blends were explicitly taught. The resources were either produced in-house or were already existing resources. Please see Appendix 2 for an example of a lesson plan. See Appendix 1 for the sequence of teaching.

All the resources used for the intervention were low cost and easy to make. Many of them were provided by the school's SpLD teacher, a few were free resources found online.

The intervention ran for 10 teaching weeks from 8 October 2018 to 14 January 2019. This is not for as long as was initially intended but the results of the initial assessments raised enough concerns that the senior leadership team decided to make a seismic change to the way literacy was taught in Year 1, which meant that our intervention had to be reduced.

The intervention ran over a 25-minute session and was given four times a week, Monday to Thursday. The sessions were run in separate learning spaces with few, if any, distractions. To increase the commitment to the intervention and reduce the risk of cancellations or interruptions a dedicated slot was given and shared with the whole school. There were only very few occasions when the intervention had to be re-timetabled to an alternative time.

The intervention sessions took place while the rest of the class took part in guided reading carousel activities, however, the children in the intervention group still received a teacher-led guided reading session on a Friday. The control group had the usual class-led guided reading activities.

Outcome measures

PM Benchmark and the PhAB2 were used as outcome measures. The PhAB2 consists of nine subtests which assess children's phonological processing, their ability to perceive, analyse and manipulate phonological segments and also to assess their phonological production skills. These subtests are alliteration, blending, phoneme segmentation, rhyme, fluency, picture naming, digit naming, non-word reading and phonological working memory. Scores for each subtest are generated but no overall score is given for the PhAB2.

Over a three-week period prior to the intervention commencing, pupils in both the intervention group and control group were assessed using PM Benchmark and the PhAB2. During the three-weeks after the intervention finished, the pupils from the research sample were reassessed using the PM Benchmark and those who profiled with a phonological deficit in the pre-test (those who scored below 85 in three or more subtests) were also reassessed using the PhAB2.

The PM Benchmark and the PhAB2 were conducted by teachers with no vested interest in the research. They did not know to which group the pupils had been allocated, to ensure there is no bias when carrying out the assessments. The PM Benchmark measured reading accuracy and comprehension and gave a reading age for comparison and the PhAB2 gave nine standardised scores for the different aspects of phonological awareness. Both PM Benchmark and PhAB2 are standardised, norm-referenced assessments.

Process evaluation

Pre-intervention questionnaires were given to parents of both the intervention group and the control group asking about their perceptions of each pupil's ability, attitude and behaviour towards reading: within the intervention and beyond. We had planned to send post-intervention questionnaires to parents but unfortunately, due to unforeseen circumstances, we were unable to do this. The research lead spoke to some parents of intervention group pupils about their perception of the intervention and their child's reading at the end of the intervention, but these parents were not selected randomly and their views were not collected systematically.

Class teachers and class TAs were interviewed pre- and post-intervention regarding their views on both the intervention and the control pupils' attitude and ability regarding reading. Pre- and post- intervention questionnaires using Likert scales were carried out with pupils to measure their perceptions and feelings towards aspects of reading. These were carried out by the external teacher while carrying out the PM Benchmark assessments. Observations were made of both the intervention and the control groups during the timetabled sessions. Further discussions were had with those who taught the intervention to identify how easy/difficult the programme was to deliver.

Analyses

Outcomes

PM Benchmark scores are reported as reading ages in months. The mean reading age in months was calculated for the intervention and control groups in the pre- and post-tests. The mean progress between the pre- and post-test in months was calculated for each group and an effect size comparing the progress between the groups was calculated.

Scores in each of the PhAB2 subtests are reported as standardised scores (the norm-referenced mean score for all PhAB2 subtests is 100 with a standard deviation of 15). The mean standardised score was calculated for the intervention and control groups at the pre- and post-tests. The mean progress between the pre- and post-test was also calculated for each group and an effect size comparing the progress between the groups was calculated.

Process

Selected representative quotes from the interviews and questionnaires were considered and median scores for the Likert scales were calculated to evaluate the pupil's views.

Cost

Description	Cost
3 x TA teaching 4.5 hours a week	£411
10 weeks of teaching	£4,110
Cost of the intervention per pupil	£216

Results

Outcome findings

The PM Benchmark assessment produced data for the reading age of the pupil. The mean test scores and progress for the intervention and control group are reported as months. The Phonological Assessment Battery: Second Edition Primary (PhAB2) gave nine standardised scores, one for each of the subtests. The mean test scores and progress reported for the intervention and control group are reported as standardised scores.

The results of both the assessment tools used are summarised in Tables 1 and 2 below.

TABLE 1

Test	Intervention group n=18			Control group n=17			Effect size
	Pre-test reading age mean (months)	Post-test reading age mean (months)	Group progress reading age mean (months)	Pre-test reading age mean (months)	Post-test reading age mean (months)	Group progress reading age mean (months)	
PM Benchmark	57.7	69.4	11.8	59.1	68.6	9.5	+0.42

TABLE 2

Test	Intervention group n=12			Control group n=6			Effect size
	Pre-test mean standardised score	Post-test mean standardised score	Mean group progress	Pre-test mean standardised score	Post-test mean standardised score	Mean group progress	
PhAB2:							
Alliteration	86.8	90.6	3.8	85.2	91.8	6.7	-0.21
Blending	94.2	102.8	8.7	88.3	103.7	15.3	-0.92
Phoneme segmentation	92.4	105.7	13.3	87.8	103.7	15.8	-0.30
Rhyme	76.3	96.8	20.5	80	93.7	13.7	0.50
Fluency	84.3	104.8	20.6	82.2	100.7	18.5	0.19
Picture naming	87.3	90.7	3.4	94.5	106	11.5	-0.60
Digit naming	75.4	87	11.6	90.3	97.8	7.5	0.37
Non-word reading	92.9	103.3	10.3	85.7	101.3	15.7	-0.51
Phonological working memory	90.6	98.1	7.5	88.7	96.3	7.6	0

Using Cohen's d effect size analysis on the results of the PM Benchmark there was an effect size of +0.42 for the pupils in the intervention. On average those pupils in the intervention made 2.3 months more progress than those in the control group.

The results from the PhAB2 are more mixed. There were positive effect sizes of +0.5 on the rhyme subtest, +0.37 on the digit naming subtest and +0.19 on the fluency subtest for the pupils in the intervention. There was an effect size of 0 on the phonological working memory subtest. However, there were negative effect sizes of -0.92 on the blending subtest, -0.6 on the picture naming subtest, -0.51 on the non-word reading subtest, -0.21 on the alliteration subtest and -0.3 on the phoneme segmentation subtest.

Process evaluation findings

Class teacher and TA views

The responses to the questions asked of the class teachers and the class teaching assistants about the children in the intervention and control groups were very similar before and after the intervention.

Pre-intervention: they felt that while the pupils in the research project had reasonable phonic knowledge they struggled to blend sounds, didn't notice 'special letter friends' (digraphs) and couldn't read many of the high-frequency words. They showed lack of enthusiasm towards reading, avoidance behaviours, and lack of confidence. The children preferred to look at picture books and make up their own story. Pupils readily became disheartened and needed a lot of reassurance. They weren't using pictures to support their reading, and although they enjoyed being read to were reluctant to read themselves.

Post-intervention: comparing the intervention group to the control group: there was a massive improvement amongst those pupils that had the intervention in their knowledge of high-frequency words which made books more accessible to them. Those in the intervention were much more likely to participate in group discussions – not just in literacy but across the curriculum. They were much more engaged in literacy lessons. It had been a great confidence boost. Pupils found books less intimidating and began to see themselves as a reader. They were much more willing to attempt to read and 'give it a go'. Improved learning behaviours were shown, again, not just in literacy lessons but across the curriculum. There was more confidence in general – "they have developed an 'I can' attitude". Children were excited to read and share their knowledge, and showed an improved attitude towards writing.

Pupil views

Using a Likert scale the children were asked five questions about their views on reading. Median scores for the intervention and control pupil responses are presented below.

TABLE 3

1=very happy 2=happy 3=neither happy nor sad 4=unhappy 5=very unhappy

		How do you feel when you read a book in school?	How do you feel when you read a book at home?	How do you feel when you read aloud in class?	How do you feel when someone reads a book to you?	How do you feel when you are asked to read your reading book at home?
Intervention n=18	Pre	1	2	3	1	4
	Post	2	2	4	1	4
	Change	-1	0	-1	0	0
Control n=17	Pre	1	1	5	1	3
	Post	1	2	1	1	2
	Change	0	-1	+4	0	+1

The administrator of these questionnaires felt that although there was a visual image used to convey the emotions attributed to the numbers that the children were not always considered in their choice.

The only noticeable change in opinion was regarding how the pupils felt about reading aloud in class. The pupils in the control group went from feeling very unhappy about this to feeling very happy. There were many more pupils profiling with a phonological deficit in the intervention group than the control group (12 pupils in the intervention group versus 6 in the control group) and these pupils may be more likely to dislike reading aloud. The children were randomly allocated to the intervention and control group, they were not separated into those profiling with a phonological deficit and those not profiling prior to allocation which unfortunately led to such an uneven distribution.

The guided reading that the control group experienced, that the intervention group did not, may have given them more opportunities to read aloud which may have improved their confidence – this should be considered for any future intervention. That said, as mentioned before, the administrator of this questionnaire is not confident in the data collected so the effect may not be real.

Parent views

Unfortunately, due to unforeseen circumstances, the school decided not to send out the post-intervention questionnaire to parents. Consequently, any views expressed by parents in conversation with the research lead are anecdotal. Parents were very enthusiastic and complimentary about the intervention and the impact it had on their child’s reading ability. One parent commented that “finally my child sees themselves as a reader”. This child had gone from refusing to come into school and being disruptive to wanting to come to school because he didn’t want to miss his intervention group. Another mother commented that going out and about always took longer now as the child wanted to stop and try and read everything.

Intervention TA views

The TAs that delivered the intervention were, overall, very positive about the whole experience. They were amazed at the progress that the children made and while they could see that some pupils made more progress than others they felt that every child benefitted in some way. They

found the pressure of having to deliver the intervention four times a week stressful to begin with. However, they found it less so once they got into the routine of it and as it became accepted by other staff that it was a timetabled fixture that should only be changed if absolutely necessary. They commented that the children really loved going to the intervention, there was real enthusiasm and excitement and the children loved all the games that they played. They found the lesson plans to be very good, clear and easy to follow. They liked the resources. They found the experience very rewarding and were very pleased to have been a part of the process.

Observations

All observations found that the intervention was delivered according to the lesson plan.

Discussion/Conclusion

Interpretation of findings

On this occasion pupils in the intervention group made 2.3 months more progress than the control group in reading age. The evaluation shows evidence of promise that the intervention may improve the reading of Year 1 pupils with low reading age and/or poor phonological awareness.

The children in the control group also made good progress (9.5 months), although the intervention children made more (11.8 months). This is likely to be because reading, and guided reading specifically, was made a priority for training and development within the school after the end of year assessments.

The progress made in phonological awareness (measured by the PhAB2) is more variable however there is a possible explanation for this. As part of developing reading within the school training on phonological awareness was given and teachers were asked to timetable teaching elements of it. In Year 1 this was often timetabled within their guided reading slot which is when the intervention group were having their session. With hindsight, the intervention group should have been timetabled so that they did not miss the guided reading sessions. The group who were post-tested in the PhAB2 were also a very small group which was unevenly distributed across the intervention and control groups. This weakens the conclusions that can be drawn from these results.

As a point of interest, the school uses Target Tracker to record pupil progress. It is interesting to note that at the beginning of the autumn term, 2018, 53.9% of the cohort were assessed as attaining below age related expectations (ARE). By the summer term of 2019, when all the children in the intervention group and the control group had received the intervention, only 25.8% were assessed as attaining below ARE.

Limitations

The issues and concerns raised from the pre intervention assessments, (ie, the percentage of Year 1 pupils reading below ARE), were discussed with the Key Stage 1 team. It may be that the Year 1 teachers, feeling under pressure to raise reading levels, began implementing changes over the time that the intervention ran which could have influenced the results.

An obvious limitation was the sample size. Ideally this evaluation would have involved other schools. However, the option for this was limited as it was dependent on them using a synthetic phonics approach only. The synthetic phonics scheme used by the school includes the teaching of high frequency words but at a pace that was too quick for the weaker readers. It wasn't rigorous enough to develop automaticity of word recognition for those children who need a lot of overlearning. What this intervention highlighted is the importance of the overlearning of high frequency words for your weakest readers so the intervention can be generalised to any other school, whether using a synthetic phonics approach or not.

Due to timetabling constraints, and the wish by senior staff for the intervention to occur at the same time on the same days, there was no alternative but to have the Year 1 teaching assistants (TAs) carry out the intervention. To try and reduce any conscious or unconscious bias we tried to ensure that they did not work with children from their own class and were not aware of who, from their own class, was in the intervention or control groups.

The PhAB2 was only administered post-intervention to those children who had profiled with a phonological awareness deficit at the pre-test. This decision was made when one of the project leaders was absent from school. It was thought that if they hadn't profiled with a phonological deficit at the initial assessment it was unlikely that they would have profiled with one at the post assessment. On one hand this makes the sample size for the PhAB2 data smaller, however, as the children not retested had not shown any phonological deficit prior to the intervention (and in fact on some subtests had scored the maximum score) their data was unlikely to have changed much.

The teaching of the intervention was initially planned to last until February half-term however the results of the data gathered before the evaluation started were of such concern to the senior leadership team that they made the decision that they wanted to move away from the rigid synthetic phonics programme that had been used as soon as possible. Consequently, the intervention was cut short.

Two pupils, who had only just joined the school, were in the sample as their reading age was six months below their chronological age (both were allocated to the control group). One had arrived at the school with English as an additional language and the other had not had formal schooling. Both made exceptional progress that term, in all aspects of their learning. They made a lot of progress in their reading. It is unlikely that they would have met the criteria for the intervention if it had been carried out the following term.

Ideally a delayed post-intervention assessment would have been carried out six months after the intervention ended to measure the long-term impact. Unfortunately this was not possible as it was the wish of the school that the control group received the intervention as soon as possible in the school year.

The random nature by which pupils were allocated to the intervention and the control group meant an uneven distribution of pupils with low PhAB2 scores. It probably would have been better to divide the pupils into two sub-groups, low PhAB2 scores and not low PhAB2 scores, and then randomly allocated them.

Implications for practice

The school were so pleased with the results and the positive consequences of the intervention that they have decided to continue to run the intervention. This autumn, within the first few weeks, all Year 1 children were tested using the PM Benchmark. The children were then grouped depending on their reading ages. The intervention is being run exactly as it was for this research project for the children with the lowest reading ages.

If a school can use TAs that are already employed, thereby not incurring a cost, then the intervention would be extremely cheap to run.

Implications for further evaluation

It would be interesting to carry out the research again but with a much bigger sample, and ideally across other schools.

Another consideration would be to use two classes and give one the intervention and compare the two classes across all the different prior attainments.

References

- Ball, E and Blachman, B (1991). Does phoneme awareness training in kindergarten make a difference in early word recognition and developmental spelling? *Reading Research Quarterly*, volume 26, no 1, pp. 49-66
- Bryne B and Fielding-Barnsley R (1991). Evaluation of a program to teach phonemic awareness to young children. *Journal of Educational Psychology*, volume 83, no 4 pp 451-455
- Bryne B and Fielding-Barnsley R (1993). Evaluation of a program to teach phonemic awareness to young children – A 1 year follow up. *Journal of Educational Psychology*, volume 85, no 1 pp 104-111
- Bryne B and Fielding-Barnsley R (1995). Evaluation of a program to teach phonemic awareness to young children – A 2 year and 3 year follow up and a new preschool trial. *Journal of Educational Psychology*, volume 87, no 3 pp 488-503
- Davis A (2013). *To read or not to read: decoding synthetic phonics*. Impact No 20, The Philosophy of Education Society of Great Britain.
- Davis A (2014). *Reading lessons: why synthetic phonics doesn't work*. www.theguardian.com
- Education Endowment Foundation (2017). Improving literacy in Key Stage 1. London: Education Endowment Foundation
- Goswami U, Bryant P (2016). *Phonological skills and learning to read (Essays in developmental psychology)* Abingdon: Routledge
- Hatcher P (2001). *Sound linkage: Integrated programme for overcoming reading difficulties*, New Jersey: Wiley-Blackwell
- Wyse D and Goswami U (2008). Synthetic phonics and the teaching of reading. *British Educational Research Journal*, volume 34, no 6 pp 691-710
- Zgonc Y (2010). *Phonological awareness: Assessment tools and strategies*, Peterborough: Crystal Spring Books

Appendix 1

Sequence of teaching

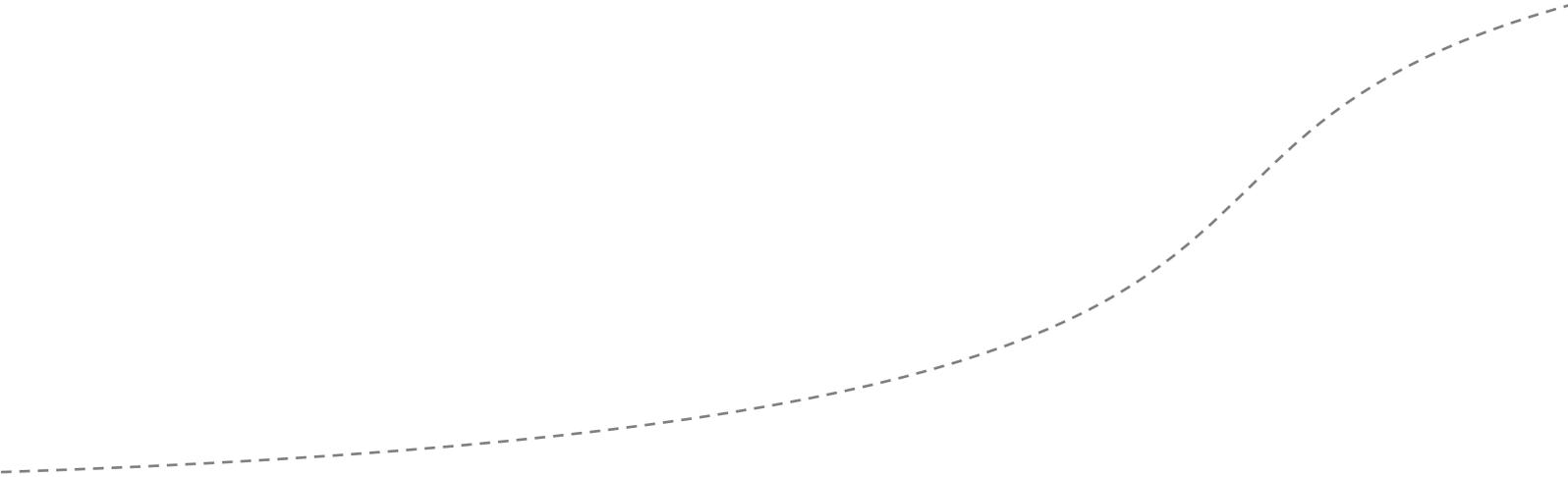
Terms plans

Week commencing	Consonant blends	HFW	Phonological Awareness
8.10	st sp sn	1-10	Rhyme recognition Alliteration
15.10	sk sm	11-20	Rhyme recognition Alliteration
22.10	bl pl cl	21-30	Rhyme completion Syllable blending
Half term			
5.11	fl gl sl	31-40	Rhyme completion Syllable blending
12.11	Revision of all taught so far	Revision 1-40	Rhyme Production Syllable segmentation
19.11	pr dr cr	41-50	Rhyme Production Syllable segmentation
26.11	br fr gr tr	51-60	Rhyme recognition Alliteration
3.12	sw tw dw	61-70	Rhyme completion Syllable blending
Christmas Holidays			
7.1	th ch sh wh ph	Revise 41-70	Rhyme Production Syllable segmentation
14.1	Revise those still not secure	Revise those still not secure	Revise weakest aspects

Appendix 2

25 minute lesson

	Monday	Tuesday	Wednesday	Thursday
0-5	Drill all cards Consonant blends and high frequency words	Drill all cards Consonant blends and high frequency words	Drill all cards Consonant blends and high frequency words	Drill all cards Consonant blends and high frequency words
5-10	Segmenting syllables: pupils are given a selection of cards with an illustration and numbers 1-4. They count the number of syllables in the word and peg the correct number e.g. picture of an elephant, they peg the number 3.	Segmenting syllables: Syllable Safari – pupils spin a spinner with numbers 1-4 and have to pick an animal picture card from a selection that has the number of syllables that they have spun.	Segmenting syllables: Syllable sort. Pupils have a selection of picture cards which they have to sort into piles according to how many syllables the object has.	Segmenting syllables: Syllable Stomp. Pupils line up on one side of the classroom/ hall/ playground and are, in turn, given a word, they then take one stride for every syllable in that word.
10-15	Consonant blends: Chain Game. Pupils have a selection of cards which link together if they choose the correct initial blend.	Consonant blends: Race to the Top. Blends are pictorially represented in a grid. They throw a dice onto a picture and then move their own counter up a blends ladder once they have identified the initial blend.	Consonant blends: pupils are given a selection of cards with an illustration and a choice of 3 blends. They identify the initial blend and peg the correct blend.	Consonant blends: Roll a blend. Each dice number is allocated a blend. The board has a sequence of pictures. Each pupil throws the dice and moves their player to the picture that represents the blend thrown.
15-23	Sight words: I have ... Who has..? Card game where the children have to read their card to know when to place their card.	Sight words: Hide and Seek. The words are placed around the room. The teacher gives a word and the pupils have to find the word.	Sight words: Snap. The cards are shared out and the children read the words calling Snap! when the words match.	Sight words: Kaboom! Pupils pull out sticks from a pot that have the words written on them. If they pull out a Kaboom stick they have to put all their sticks back in the pot.
23-25	Recap new learning	Recap new learning	Recap new learning	Recap new learning



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In collaboration with the Education Endowment Foundation (EEF) we support a national Research Schools Network and have developed resources aimed at people on the front line of education.

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