

A READING FLUENCY INTERVENTION IN THE UK, 2021

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Study details

This study evaluated a 12 week intervention delivered by regular teaching staff as a whole class, to assess whether it could make a difference for 8-9 year old children.

The study included 103 students from two Local Authority schools and five teaching staff. Both schools were rated as outstanding by the Office for Standards in Education (OFSTED) the UK's governmental body for overseeing standards in schools. Both schools had similar demographic statistics. Separate schools were used to prevent leakage of intervention practices into the control classes. There were 49 students and three teaching staff in the Intervention Group (IG) and 54 students and two teachers in the Control Group (CG).

Assessments

All students (IG and CG) were assessed for reading accuracy, pace and comprehension using the York Assessment of Reading for Comprehension (YARC). Their perception as readers was rated using Henk and Melnick's (1995) Reader Self Perception Scales (RSPS). Additionally, following the intervention IG staff were asked for their views during a semi-structured interview. This was undertaken to see if staff felt the intervention had been useful. Initially lessons were going to be video recorded to check implementation quality. However, staff felt self-conscious and asked if they could send their own video material. This did not happen and therefore the fidelity of intervention could not be measured.

The Intervention

This included:

1. **Assessment informed practices** (using the Three Minute Reading Assessment (3MRA, Rasinski & Padak) and Expression rubric) to identify areas of need and inform practice
2. **Instructional practices**

Staff were asked to use instructional methods identified from an extensive literature search as those that had an effect on enhancing reading skills. Staff were asked to use these regularly in their everyday teaching practices.

These are described below:

Reading aloud

Adults modelled appropriate use of pace and expression when reading. The adults were asked to talk explicitly about pacing and expression, demonstrating different styles.

Repeated Reading (RR) of texts three times was encouraged as a strategy for promoting fluency. Staff were asked to carry out RRs with the class wherever they felt it was appropriate e.g., as a whole or in small group reading groups. Staff were told to read a text to the children, repeat the reading together and then asked the children as a class or in groups to read the text back independently.

Reading in phrases

Staff were shown how phrasing could alter the meaning of a sentence:

Woman without her man is nothing!

Phrasing was used to model the use of appropriate expression. Emphasis was placed on attending to punctuation as a reminder to breathe and take stock of what had been read (i.e., attend to the meaning, rather than merely as a grammatical tool).

Assisted reading

Paired reading (Morgan, 1986) involved the pairing of a competent reader with a less able one. Adults, particularly the teaching assistant was asked to use this approach when supporting individual students. They were informed that if a student had difficulty recognising a word, they should wait three seconds before offering the whole word. Staff were told to reassure students that they would never struggle with their reading again as they, the adult, would assist them with all unknown words. This approach allowed students to access more challenging texts.

Choral readings

This involved students reading a text aloud together. This benefitted less able readers as they were able to hear the more competent students reading accurately, at a greater pace and with expression. This procedure allowed less able students to sub-vocalise and not have their difficulties exposed. Staff were also shown how the class could be divided into small groups to read different passages.

Wide reading

Staff were encouraged to apply these instructional techniques whilst reading a wide variety of materials (poetry, songs, facts and fiction). Staff were reassured that by utilising choral and paired reading techniques students would be able to access more sophisticated texts and benefit from the richer vocabulary used.

Introducing challenging texts

The use of the 3MRA identified a significant proportion of students who were not reading texts that were considered challenging (see blog 1). Head teachers replaced books available to the students to increase the level of challenge for the more able readers.

Reciprocal Teaching (RT)

RT was designed by Palinscar and Brown (1984) as a tool to foster comprehension. Its method aims to train students to engage in *knowledge extending strategies*. All staff were trained to use the four specific strategies in RT:

- prediction

- questioning
- clarifying
- summarising

Prediction – students are asked to predict what might happen at different points in the text.

Questioning - students generated questions about a text

Clarifying - students identified areas of uncertainty, this included individual words or phrases, as well as seeking greater meaning.

Summarising - students were asked to describe what had happened in the text.

This approach taught students to pay attention to what they were reading. It helped them to focus on the content and encouraged them to formulate a narrative and ideas about the text. Staff in the IG were asked to focus on these techniques in their English lessons each day. The CG were told to continue with their English lessons as normal. Both groups had an hour a day assigned for English. Staff were also told to continue with the additional support for small groups and individuals in the same way they would normally do. The IG were asked to use the practices in these sessions too; the CG would carry out interventions as usual. The CG group were not given any additional information to use in their teaching. They were offered the training later after the initial study had been completed.

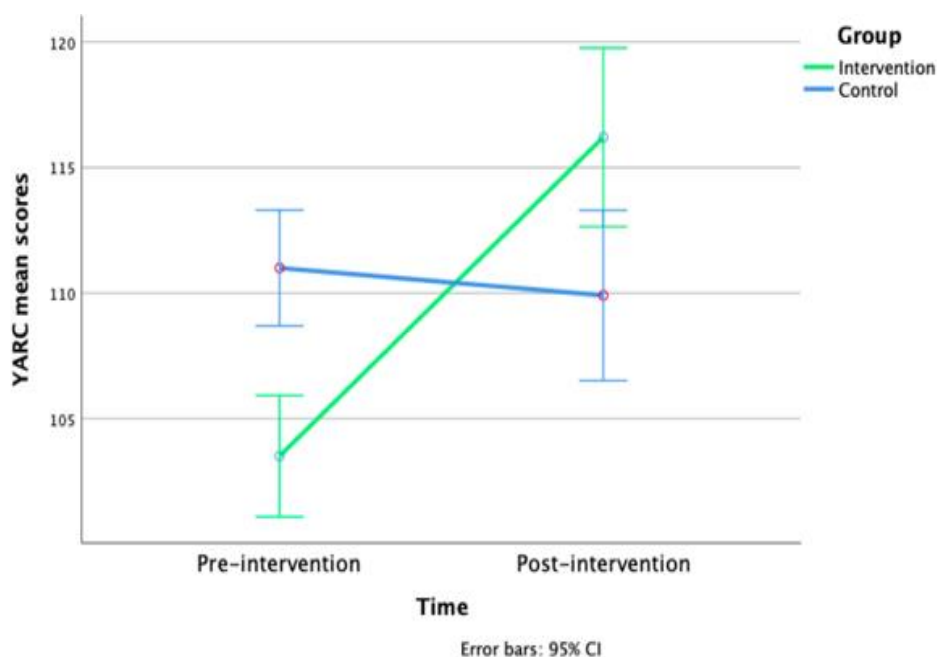
The results

1. Quantitative findings

All of the students (IG and CG) mean Standard Scores on the YARC and RSPS were compared from pre to post intervention (approximately 16 weeks in the end).

Accuracy

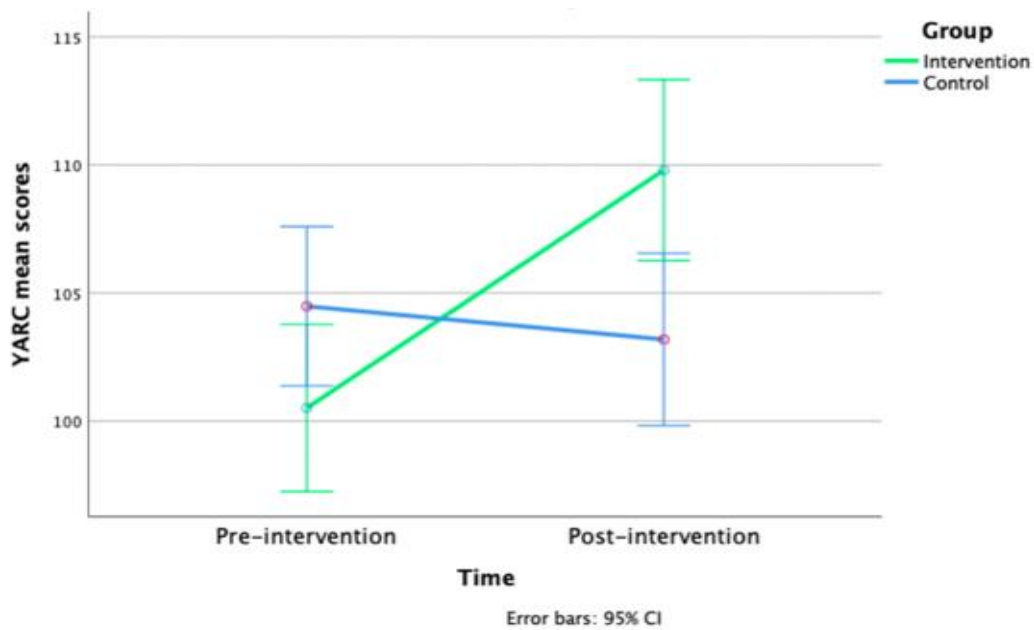
There was a significant increase in YARC **reading accuracy** ($F(1,101) = 30.00, p < 0.001, \eta^2 = 0.23$) for students in the IG compared to those in the control group.



This was regarded as a large effect size (0.51) and equated to an average of 19 months progress on Brook's (2007), ratio gains measure.

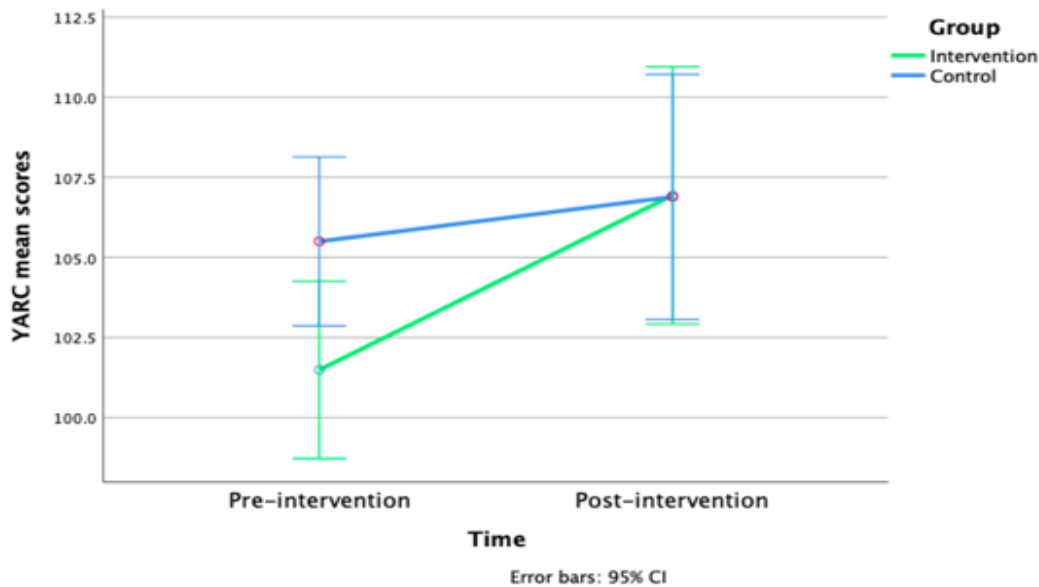
Rate

This was regarded as a large effect size (0.33) and equated to approximately 17 months of progress on Brook's (2007) measure.



Comprehension

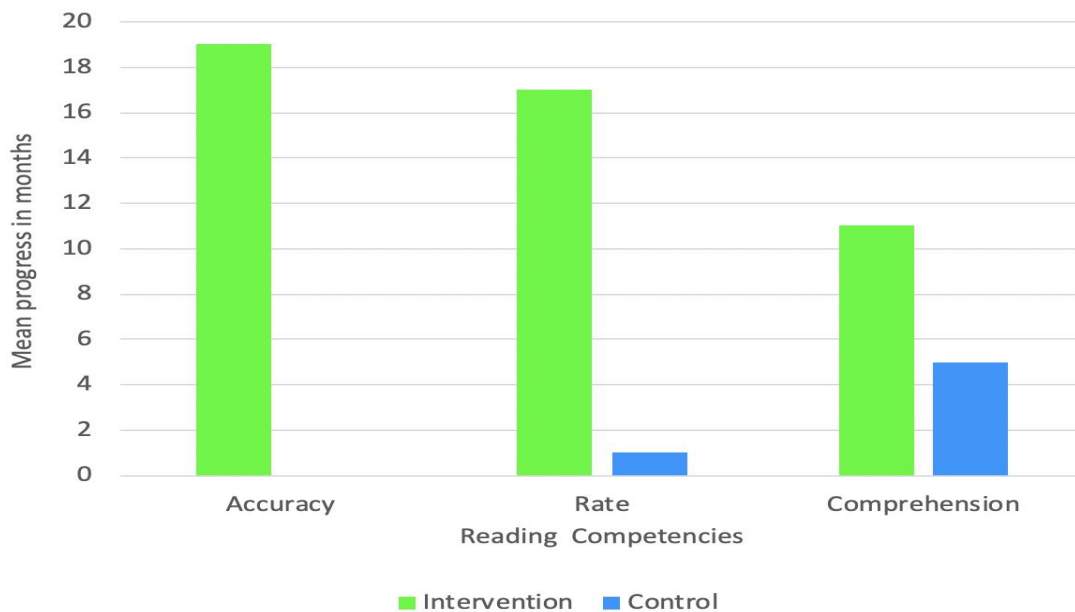
No significant differences were found for comprehension on the YARC. However, pre-progress scores were found to be significantly different between the groups, but after the intervention they were not. The IG students had caught up to their CG peers.



Using Brook’s measure, the IG had made 11 months of progress in their comprehension skills whilst the CG had only made 5 months progress.

The comparative results between the groups using Brook’s measure of progress are shown in the graph below.

Mean differences (in months) on the YARC of reading growth for accuracy, rate and comprehension by Group



NB the difference between the line graph and bar chart scores is due to different measures being recorded. Mean Standard Scores (SS) are used in the line graph which depict the

CG's scores for accuracy and rate as being less post-intervention than pre-intervention (they made no significant progress over time). Whereas the bar chart depicts children's progress in months (age equivalence, AE). The YARC provides SS, percentiles and AE measures. Standard Scores are regarded as the most reliable measure. Age equivalence scores are broader and less reliable than the SS and need to be treated with some caution. They were used here to highlight the potential difference in the IG and CG group for comprehension, where the statistical analysis reported no .

Self-perception

On the RSPS it was found that the intervention only had a significant impact on the IG's sense of progress measure ($F(1,98) = 5.23, p=0.02, \eta^2 = 0.05$. This is a medium size effect). No other ratings were found to be significant (in the areas of observational comparison, social or physiological feedback). The IG students felt they had made significant progress. Their CG counterparts did not recognise a significant change.

One key point that was noted in the responses was that the majority of students gave the statements *I like to read aloud*, and *my classmates like to hear me read the lowest ratings*. The highest ratings for the IG post-intervention were for *I read better now than I could before*, and *I am getting better at reading*.

2. Qualitative findings - What staff said

Staff were asked to say how the intervention had impacted upon their skills and practices and what changes they had noted in the students.

Impact on staff

Staff noted differences in the following areas:

- a. Raised awareness** – they felt the intervention had enhanced their knowledge of assessment and instructional practices.

Teacher 2: I suppose it was just a heightened awareness of knowing where they are at individually and the expression, I suppose it just made us more aware of exactly where they were.

They reported greater confidence in knowing what to do if a student was struggling.

Teacher 2: The assessment has signalled the need for lots of different strategies and enabled us to know where the input needs to go, for example, if you have a faster reader who shows no understanding then they need to focus on expression and slowing down so they can use better expression.

The teaching assistant (TA) described feeling more knowledgeable about practices

TA: [...] If they are struggling to understand, I'll re-read the page so that they can understand it and I'll say to them, well does that make more sense then now?

TA: 90% is the magic number if under it's too hard, as the accuracy has improved, we can work more on speed and focus on fluency.

TA: [...] I'm able to explore issues in more depth as a result of their improved understanding.

b. Self-efficacy

Staff reported feeling more empowered

TA to Deputy Head: I took the results from the assessments and told him we have to change these children's books.

And they began to enjoy teaching again

T2: Yes, you've given me permission to have fun!

c. Affect

Staff were positive about the intervention

TA: We've enjoyed it! And I've enjoyed it really because it's been fun.

Impact on students

a. Enhanced Skills

Students were described as better readers

T1: I think the pace has been good in terms of children reading more naturally. We've all thought that.

TA: [...] All the children are low-level readers and the choral reading has made a massive difference to their reading

Improvements were also found in:

- **Writing**

TA: The writing has also shown improvement with them being more motivated to write. A child with specific writing difficulties wants to write and knows what he wants to write as he knows the answers. They can now write with meaning.

- **Expression**

T2 [...] expression wise is really good, they're more confident people.

- **Comprehension**

TA: the children are understanding more, those who found it difficult to understand are benefiting from the repetition.

T2: They have a deeper meaning.

b. Self-efficacy

Children were reported to be more

- **Actively Engaged** - T1: *They seem more on board, more interested and less distracted and much more focused.*
- **Socially supportive** - TA: *[...] the more able readers became really good at supporting, yeh they were really supportive, and they were very good at encouraging.*

c. Affect

Students were perceived to have more

- **Enjoyment** - TA: *[...] they also feel good about themselves; all is good, they feel much better as well as having a greater sense of enjoyment*
- **Confidence** - TA: *Yeah, the paired reading really helps with their confidence.*

T2: *They are more confident*

How feasible is the intervention?

Staff were asked to report on the practicality of the intervention. They found it easy to deliver.

T2: what we liked was the simplicity of the approach and how it's enabled us to identify children needing specific help. It's easy to access strategies which seem to be making quite a difference for the children in terms of their reading skills, but also their self-confidence.

They acknowledged a need to

- *Have supporting materials – photocopies of the texts to carry out the running records*
- *Dedicate time to focus on reading, they were slightly concerned they may have neglected other areas*

They identified the benefits as being

- *The instructional practices leading to more efficient practices. They saw greater improvements with less input*
- *Generalisability - T2: I suppose as well yeah how it can be shoehorned into everything basically.*

An unexpected benefit was a perception that students were becoming more supportive of one another. As a result, T2 mixed up her class, they were previously grouped in ability sets.

TA: [...] the more able readers became really good at supporting, yeh they were really supportive, and they were very good at encouraging.

The instructional practices were relatively new to the teaching staff and they found all of them useful and beneficial. This led T2 to read the whole of 'The lion, the witch and the wardrobe' to the class.

TA: Yeah but even though the text has been really challenging, it has been challenging, they haven't been phased by it. That helped, reading the whole book [...] has made a really nice change from a little extract here and a little extract there.

Difficulties were identified in the use of Reciprocal Teaching as staff felt the students were not able to carry it out independently as Palinscar and Brown (1984) had intended. T1 identified the skills the students lacked: *resilience, patience, confidence in their roles, social skills, independent thinking, creativity and group working.*

Summary of findings

The results from the quantitative study suggested that the use of the instructional methods had led to a significant impact on all three YARC measures of the IG's reading competencies and on the IG's perception of their own progress. The qualitative results added greater evidence that the intervention was useful in improving teaching practices, had a positive impact on students reading competences and their attitudes, as well as being a relatively simple and effective way to improve reading fluency.

Limitations

A number of methodological limitations were identified in this study.

- The lack of video evidence weakens the results. It was not possible to assess the degree to which staff implemented the practices.
- It is not known to what extent individual practices made a difference.
- Staff characteristics, their personalities, style and motivation play an important role in how interventions are carried out (Savage, 2012). The staff involved in the intervention were taking part in a research project and this knowledge may have biased their performance and motivation.
- Whilst the research design employed a control group it only did so on a whole class basis
- The intervention study was relatively short and no long term measures have been carried out.

Conclusion

This study was the first step in seeing if a fluency intervention could be used in the UK to promote reading skills. The theory and evidence based practices that informed the intervention design played a role in its effectiveness. Fluency research appears not to have been incorporated into UK teaching practices. Furthermore little research has been carried out at a whole class level. The initial results from this intervention are promising, there is cautious optimism to believe a whole class fluency intervention could raise reading levels in Y4 students. It is proposed that the training delivered in this study could be rolled out in more schools to provide practitioners with greater insight into reading development and the instructional tools needed to achieve greater fluency.

