Paired Reading and Related Methods for Improving Fluency

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Abstract

The initial vignette outlines some of the complexities of the use of Paired Reading (PR) in a real situation. A description of PR is followed by a brief summary of evaluation evidence. A number of related techniques are briefly described and the evidence for them considered. The utility of PR in relation to fluency is then discussed. The advantages of PR are then listed. Further questions such as "How does PR work?" and "How are gains to be sustained?" are then raised. A conclusion specifically about the effect of PR on fluency is offered.

Keywords: Paired reading, Fluency, Repeated reading, Effectiveness, Advantages.

Introduction

Marlon and Suzy are working together on reading. Marlon is a second grader and Suzy is a fourth grader. Suzy is not that good a reader (she is accurate at sight words whether by phonological or other means, but has some fluency difficulties and is not so good at comprehension). Marlon is also not that good at his own grade level. However, Marlon reads quite differently – his visual attention is not good, so he makes many word recognition mistakes and is consequently dysfluent. However, his comprehension is remarkably good considering how poorly he decodes the text.

Suzy and Marlon are working as a cooperative pair of buddies in a peer tutoring program which takes place in school three times per week for about 25 minutes. Suzy is the tutor and Marlon is the tutee. Marlon wasn't too sure initially how much a girl would be able to help him, but he has now become used to Suzy and the help she gives.

The pair has chosen a book to read which is of high interest to Marlon – it is about American football. Suzy is somewhat less interested in this topic, but she is grinning and bearing it – hopefully the next book will be more to her liking! Crucially, the difficulty level of the book is a little above Marlon's independent reading level – but of course not so high that

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Suzy has difficulty with it. It is in this area of choosing the right level of difficulty that the teacher has given the pairs guidance – while leaving content and interest levels up to the children.

So how does Marlon manage with this hard book? The pair begins by both reading together out loud in synchrony. Learning how to do this and adjust the pace between the pair was hard at first, but after a few sessions of practice the pair is good at it. Of course, Marlon is not just listening to the words and repeating them, the pair is reading together. Because Marlon's visual attention tends to be rushed and impulsive, Suzy is deliberately reading together in a very measured, almost metronomic way, to try to get him to adopt a better pace.

However, when Marlon says a word wrong, he is given a few seconds to correct it (which he doesn't usually do because he is rushing on), and then Suzy interrupts by saying the problem word again for him correctly. Marlon then has to take his eyes back to the problem word and repeat it correctly, before the pair carry on reading together. At first Marlon found this very tedious, but then he realized that the solution was dependent on his own behavior – so he is learning to go slower and read more accurately so he doesn't get interrupted so much.

From time to time (like at the end of a paragraph) Suzy pauses and asks Marlon questions about what he has just read. (As her own comprehension is not so good this puts some strain on her own processing). The pair is not content with yes and no answers, but engages in a spritely discussion about the paragraph. Suzy also takes the opportunity to give Marlon some subtle praise about his efforts. She is aware that not all children respond equally well to praise, and respond differently to public and private praise, so she is careful about this.

After a few minutes Marlon gets into the book and becomes more and more confident. Before this would be when he would begin to race through the book and his visual attention and therefore comprehension would fall apart. But now things are different. He makes a signal for Suzy to stop reading together with him (a signal so as not to interrupt the flow of the reading – a tap on the book or table is usual). Suzy goes quiet and lets Marlon read alone.

Marlon reads alone until he comes to a hard word he can't read correctly (the book is full of these as it is a bit too hard for him). Before he used to rush past these words but now he is more careful. He is given four seconds to try to figure out the word. But if he doesn't get it right within four seconds, Suzy gives him the word, he repeats it, and the pair goes back to reading together. (Marlon is given only four seconds because any longer than that and he would have rushed past the problem word and become detached from the meaning - going back would then confuse him.)

After a little while Marlon again becomes more confident and again signals for Suzy to be quiet. This time he manages to read on his own for a little longer before Suzy has to come in to help him again.

As the pair progress, Marlon is learning to pace his visual attention and consequently comprehends better and is becoming more fluent. For Suzy meanwhile, the reading together is helping her with flow when reading aloud, and consequently is also improving her comprehension and fluency, which asking questions is adding to. For Suzy in particular, the effect on her self-esteem of being considered a good enough reader to tutor somebody else is enormous.

Peer tutoring using Paired Reading is yielding benefits for both members of the pair. This is an important point to make when talking to parents about the benefits of well-organized

Paired Reading – otherwise they might think that the tutor was getting no benefit and was just being "used".

What Exactly is Paired Reading?

The term Paired Reading has a nice rounded feel to it, which has led to the application of phrase to many things which are actually not the method which has been proven to be effective. The Paired Reading (PR) method for peer or parent tutoring is a form of supported oral reading which enables students to access and comprehend texts somewhat above their independent readability level, within a framework of predictable and non-intrusive error correction. This structured support used with high motivation texts offers dysfluent readers a flow experience, which is likely to impact on their reading style and socio-emotional aspects of the reading process. Importantly, the method also has benefits for tutors, who are likely to improve their reading in similar ways.

Paired Reading is a straightforward and generally enjoyable way for more able readers to help less able readers develop better reading skills (i.e. a form of cross-ability tutoring). The method is adaptable to any reading material, and tutees select texts which are of intrinsic interest to them but a little above their independent readability level (otherwise the support of PR is pointless). This might include newspapers, magazines, community literature or texts in electronic environments. Of course the texts must be within the independent readability level of the tutor, but a relatively modest differential in reading ability is recommended if the hope is to improve the reading of the tutor as well as the tutee.

The pair might use the "Five-Finger Test" of readability:

1. Open a page at random

2. Spread 5 fingers on one hand

3. Place fingertips on the page at random

4. Child attempts to read the 5 words

5. Repeat on another 4 pages.

If the tutee has struggled on several words but not more than five, the book is about right in terms of difficulty. If the tutor has struggled on more than one or two (peculiar) words, the book is too hard for the tutor. This is not perfectly scientific, but gives the pair a ritual to remind them to think about readability. Additionally, if the tutee has a fanatical interest in one topic which is not shared by the tutor, negotiation is needed.

Encouragement to read 'little but often' is usual. Pairs commit themselves to read at least three times per week for at least 10 minutes per session for at least six weeks. This minimum frequency is needed in order to develop automaticity with the technique, and give it a fair test. At the end of 6 weeks, pairs consider if they wish to continue with greater or lesser frequency or at all, or perhaps vary partners or some aspect of the method.

The technique has two main aspects. Initially, tutor and tutee read out loud simultaneously in close synchrony. This is termed "Reading Together". The tutor adjusts their reading speed to the tutee's pace. The tutee must read all the words out loud correctly. Errors are corrected merely by the tutor again giving a perfect example of how to read the error word, and ensuring that the tutee repeats it correctly - then the pair continues reading.

The second aspect is termed "Reading Alone" or independent reading. When the tutee feels confident enough to read a section of text unsupported, the tutee signals by a knock, nudge or other non-verbal signal for the tutor to be silent. The tutor praises the tutee for

taking this initiative, and subsequently praises the tutee very regularly, especially for mastering very difficult words or spontaneously self- correcting.

Any word not read correctly within a pause of four seconds in treated as an error - the tutee is not left to struggle. When the tutee makes an error when Reading Alone, the tutor corrects this as before (by modeling and ensuring perfect repetition), and then joins back in reading simultaneously. (However, tutors often have difficulty learning to give the tutee this time to self-correct – without which they will never learn to self-correct). Throughout there is a great deal of emphasis on praising the tutee for correct reading and pausing from time to time to discuss the meaning of the text. A graphic model of the process is given in Figure 1 below.

PAIRED READING
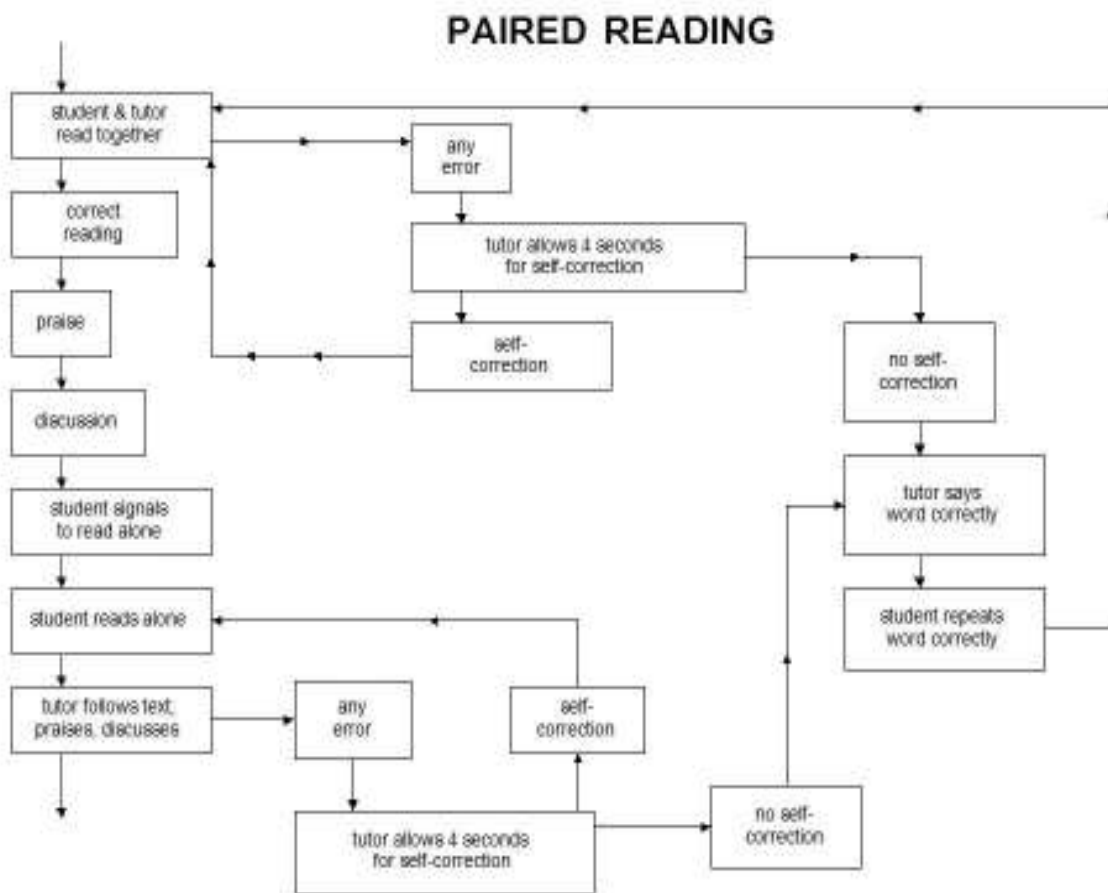
Initially, much reading is usually done simultaneously, but as the tutee improves and makes more appropriate choices of reading materials, more and more independent reading occurs (until the tutee becomes more ambitious and chooses harder books, of course). Any tendency to rush on the part of the pupil is usually resolved by consistent use of the correction procedure (although sometimes a shorter pause is needed initially) and/or visually 'pacing' the reading by the reader pointing to each word as it is to be pronounced (usually only on harder texts with smaller print and closer spacing).

Young readers sometimes assume that they are expected to read more and more Alone as they get better at reading. In fact, this is only true if they stick to books of just the same difficulty. It is much more advantageous if, as they get better, they tackle harder and harder books and therefore still need a good deal of support from Reading Together. Some readers regard silent reading as the "grown-up" way of reading and might be resistant to Reading Together, especially if the point of it is not made clear to them and they do not use it to attack texts beyond their independent readability level.

Paired Reading can do a lot of good, but equally important is that it seems to do little harm and be widely ideologically acceptable. Paired Reading works in parallel with a school reading curriculum based on look-and-say, phonics, language experience, pictograms, precision teaching, direct instruction or any other kind of approach. Those who wish to read more about the theoretical underpinnings of Paired Reading and its connections with the wider literature on how children learn to read should consult Topping and Lindsay (1992a).

Does Paired Reading Work?

Paired Reading is a well evaluated method, the focus of a great many studies over the years. The English government included it their review of What Works in Literacy Interventions (Brooks, 2013), and recommend it as part of the national literacy strategy. Importantly, it has been shown to work both in carefully controlled research studies and in naturalistic large scale field trials. It has been used as an intervention for students with reading delay, and also as a broad spectrum mainstream method deployed inclusively for all students. Gains in reading comprehension as well as reading accuracy are very commonly reported. The PR research literature has been reviewed by Topping and Lindsay (1992b) and Topping (1995, 2001).

Studies reported in the literature include 19 control or comparison group studies. Control group studies are generally considered by researchers to yield better quality data capable of supporting firmer conclusions. Overall, the mean experimental accuracy gain was 2½ times larger than the control group gain. For comprehension, experimental gain was 2.1 times larger than control gain. Where effect sizes were calculable for parent tutored projects, the mean accuracy ES was 1.6 for accuracy and 1.4 for comprehension. For peer tutored projects, the overall effect size for reading accuracy was 2.2 and that for reading comprehension 1.6 (but with great variability), including results from peer tutors and tutees. These effect sizes are large when compared to those cited in other meta-analytic reports. Fifteen studies compared PR to some other intervention technique. Overall, PR gains averaged 1.5 times alternative intervention gains.

Topping (1995) reported large scale field study data from one school district, with a substantial majority of district schools participating (i.e. no selection of "co-operative" or "enthusiastic" schools). In 37 comparison or control group projects (*n* = 580 participant and 446 comparison children), scores in both accuracy and comprehension for participant children were statistically significantly greater than for controls. Overall effect sizes for reading accuracy were 0.9 and for comprehension 0.8, less than reported on average in the literature (as might have been expected), but nevertheless substantial (although reduced by high control group variance). Twenty-three projects featured baseline measures (total *n* = 374), using each student as their own control over time. Overall, gains in the intervention phase in reading accuracy were twice as large as gains in the baseline period. Follow-up data were gathered in 17 projects over short periods (typically 4 months) and longer periods (typically 12 months). PR students continued to show accelerated rates of gain over the follow-up period, although not as sharply as during the intensive phase of the intervention (some of these students would have continued with PR, some not). There was no evidence of

"wash-out" of experimental gains over time. It is considered unrealistic to expect acceleration at well above normal rates to continue indefinitely. Gains in reading accuracy were similar for parent-tutored, same-age peer-tutored and cross-age peer-tutored participants. Pre-post gains of peer tutors were greater than those of peer tutees in reading accuracy, but the difference was not statistically significant. There was a tendency for participants of lower socio-economic status to make larger gains in reading accuracy.

Data from ten peer tutor projects were reported in Topping (1987), the follow-up data in Topping (1992a), the socio-economic data in Topping and Lindsay (1992c), data on the effectiveness of paired reading in ethnic minority homes in Topping (1992b), subjective feedback from a great many participants in Topping and Whiteley (1990), and the effect of gender differences in PR peer pairings in Topping and Whiteley (1993). Research on the use of PR with adults of restricted literacy was reported in Scoble, Topping and Wigglesworth (1988).

A large-scale randomized controlled trial (RCT) of PR peer tutoring in 80 schools in Scotland with 9-12 year olds was reported by Topping, Miller, Thurston, McGavock and Conlin (2011). On long-term evaluation, cross-age PR was significantly better than regular teaching, but same-age was not. However, on short-term evaluation, PR tutors and tutees did significantly better than control students in both years, and cross-age and same-age were similarly effective. Low socio-economic students, lower reading ability students, girls, and students who tutored or were tutored in both reading and math did significantly better. Technical aspects of correction were good and tutor mis-correction was very low. Interest in the book and talking were also frequent. However, other important behaviors were rarely seen. Thus, implementation was somewhat variable.

PR studies have emanated from a number of other countries, including Brasil (Cupolillo, Silva, Socorro & Topping, 1997; Murad & Topping, 2000) and South Africa. Research in the UK has developed into Paired Reading and Thinking (PRT). McKinstery and Topping (2003) found PRT very effective in high school settings, and Topping and Bryce (2004) found PRT added value in thinking skills for tutees in elementary school when compared with standard PR.

Related Methods

Various other interventions to enhance fluency have been promoted, and some of these have been evaluated. All are relative to text difficulty for the individual because most students are "surface fluent" at some readability level, even in only reading their own names. (Indeed, some teachers advocate having students read and reread texts below their independent readability level, with the intention of "boosting their confidence.") Some of these methods seeking to build component skills are construed as contributing to fluency in a rather linear way "from the bottom up-ward". Others are more holistic and offer the reader alternative pathways to fluency. Yet others aim to give the reader a "virtual" experience of being fluent so that they see what it means, why they should want to get there (and indeed that it is possible to get there). These methods give the student a "higher altitude," or more "top-down," view of reading and usually involve some form of support to boost the reader's limited processing capacity.

Repeated reading is a well-known method aimed at enhancing automaticity by many readings of the same text. LaBerge and Samuels (1974) identified the importance of automaticity many years ago. The instructional implications were then outlined in Samuels (1979). Students were required to read a 100-word passage out loud to an adult, and then they reread the passage silently repeatedly, with occasional further oral readings to check speed and accuracy, until they reached the criterion rate of 100 words per minute (wpm). As

students worked their way through a story doing 100-word segments at a time, results demonstrated that they were learning because each new segment led to increased starting speed and fewer repetitions needed to reach the criterion speed.

Dahl and Samuels (1979) compared RR to other strategies with second-grade struggling readers and found it effective in increasing reading speed and other aspects of reading. Carver and Hoffman (1981) and Dahl and Samuels (1979) found gains in comprehension on texts read repeatedly but no generalization to new texts. However, Young, Bowers, and MacKinnon (1996) found transfer effects in reading comprehension on new passages. Dowhower (1994) found RR had effects on prosodic features. Rashotte and Torgesen (1985) compared different variations of RR but found no effect for any of them. Mathes and Fuchs (1993) compared easy and difficult materials and found no difference in effects. Homan, Klesius, and Hite (1993) found no difference in outcome between repeatedly reading few texts or singular reading of more texts, suggesting simple engagement with print was the main underlying factor. Taking these studies together, it seems that RR can enhance reading speed, comprehension, and expression, but this enhancement is not guaranteed, and generalization of these improvements to new texts is not automatic. The latter might be especially problematic where the new texts contain few or none of the words practiced, and the new words require the redeployment of a range of word-recognition skills.

In some of these studies questions of implementation integrity arose (e.g., concerns about whether the text passages used were appropriately adjusted for difficulty for each child, and concerns about prescribing a set number of readings rather than meeting a performance criterion—"intervention drift"). Kuhn and Stahl (2003) reviewed 15 controlled studies of the effects of RR on fluency. In seven of these, RR outperformed controls (although in one case without transfer effects to new text). The type of control condition varied: Some were no-intervention controls; others read equivalent amounts of text without repeating (i.e., effectively an alternative treatment, but one controlling for exposure to print, albeit not necessarily successful exposure to print).Where Kuhn and Stahl found a difference in fluency, they also found an increase in comprehension. Considering the Samuels version of RR and the variants in relation to the model of fluency, the original version appears to address the predisposing factors better than the variants. However, the RR method appears to address only increases in reading speed (surface fluency), and any transfer to strategic or deep fluency is left to chance or teacher judgment (as reflected in the reported uncertainty of transfer to new texts). Of course, some elaboration to ensure that such connections are made could be added.

One issue that seems little addressed in the literature is student motivation to repeatedly read brief texts that are not of their choosing— hardly an "authentic" literature experience. Another is whether any preteaching of passage vocabulary takes place. Yet another is whether the rationale for these procedures is explained to students (the analogy with sports practice is useful here), or the procedures merely "done to" them—which would be likely to affect student ownership and confidence. Teachers wishing to try out RR should perhaps use Samuels's (1979) original version in the first instance, implement it carefully, ensure the texts are of some intrinsic interest to the students, and consider how they can connect it to other activities to ensure transfer of fluency to comprehension of new texts.

A number of other methods involving various kinds of support for reading have been developed, and many of these seem likely to have positive effects on fluency. They usually involve some combination of modeling, practice, prompting, scaffolding, and feedback. They include neurological impress method (NIM); reading-while-listening (RWL); Prime-OTec; ARROW; talking books; and forms of assisted reading such as the lap method, shadow

reading, and duet reading (details follow of those that are more widely known and/or better evaluated). These approaches can be characterized by components present or absent with respect to the model of fluency.

NIM involves student and instructor reading aloud together in unison. The instructor leads the reading, sitting a little behind the student and speaking directly into the student's right ear while moving a finger along under the word(s) being read. No corrections are made during or after the reading. NIM is intended to be multisensory and to provide a model of accurate and fluent reading. Evaluation evidence is limited (often to case studies), but Heckelman (1986) did report use with delayed readers from 7th to 10th grade who showed gains in fluency and comprehension (no control group).

RWL was a development of NIM, involving practicing reading while listening to an audiotape recording of a fluent reading of the material and pointing at the words. It has been positively evaluated (Schneeberg, 1977). Hollingsworth (1978) used a mass-production version of this method; fourth- to sixth-grade delayed readers who were wired up to hear the same passage simultaneously showed significant gains in comprehension after 62 sessions compared to a control group (but leaving questions about the monitoring demands and quality). Prime-O-Tec is a similar method, which was designed for use with adult disabled readers, as reported in Meyer (1982).

NIM has the advantage of applicability to any text that might be of interest to the reader and of appropriate difficulty, while the texts available for RWL will be limited. However, it is difficult to see how either method could enhance fluency beyond surface fluency unless additional components or activities were added. More comprehensive is the ARROW (aural-read-respond-oral-written) technique, involving young children listening to their own recorded voices as a continuous prompt while reading, writing, or responding orally (Lane & Chinn, 1986). However, all of these are somewhat costly in professional time, preparation, and materials.

Carbo (1978) reported work in supporting reading development through talking books—audiotape recordings of real books. For struggling readers, the problem with many commercially available audio books is that they are *too* fluent; they are spoken fast at a speed designed for listening rather than simultaneously following the text, and they offer a model of fluency so far removed from the student's starting point that the gulf seems enormous and impossible. Carbo made tapes especially for the purpose, stressing phrases and cuing page turnover. Teacher monitoring was much lighter than in the previously described methods, which presumably raises concern about student engagement. Small groups of reading-delayed students made greater-than-normal gains in word recognition (Carbo, 1978), but no control group of any sort was measured. Dowhower (1987) compared RR to audio-supported reading with second graders and found some gains with both methods, although audio support had more impact on prosodic features. Rasinski (1990) replicated this finding with third graders.

The term *assisted reading* has been applied to a number of different methods, some of them not well defined (Hoskisson, 1975). All involve some element of synchronous reading with a more expert helper on difficult words. Hapstak and Tracey (2007) found assisted-repeated reading effective with four students. Shany and Biemiller (2010) investigated the effects of assisted reading practice and contrasted 14 children with below median gains in reading comprehension and 15 with above median gains. Children who gained significantly more vocabulary had also significantly higher gains in comprehension. Reading practice had a large beneficial impact on reading comprehension.

PR and Fluency

Given the difficulties of finding a measure of fluency that is more than superficial, directly researching the impact of PR on fluency is a tough assignment. However, there have been some studies (often small scale) that have explored the impact of PR on fluency, reading style, self-correction rates and reader confidence with both elementary and high school students. More detail of these studies will be found in Topping (1995) – just the main findings are summarized here.

Considering parent and peer tutored studies together, in eight studies error rates have been found to reduce in Paired Readers and in no cases have error rates increased. In seven studies Paired Readers showed decreases in rates of refusal to attempt to read a word and in two cases an increase. In seven studies use of context showed an increase, in one case no difference was found, and in no case was there a decrease. In four studies the rate or speed of reading showed an increase and in no case was there a decrease. In four studies self-correction rate showed an increase and in no case a decrease. In three studies the use of phonics showed an increase and in no case was there a decrease. Although not all these differences reached statistical significance (unsurprising in small scale studies) and only a few studies used either non-participant control or alternative treatment comparison groups, strong consistent trends emerge from all these studies considered together.

In the RCT study (Topping, et al., 2011), class gain in reading test score was plotted against the mean number of mistakes per minute. This indicated that there was an optimum rate for mistakes - about one mistake each two minutes. When talking was plotted against reading test score gain, there were greater gains when the pair stopped reading to talk about the book once between every five to seven minutes (not more frequently, although less made little difference).

If children 'learn to read by reading', one factor in the effectiveness of PR (or any supplemental tutoring intervention) might be the influence of extra reading practice alone. Thus, other things being equal, more time spent doing Paired Reading should be associated with greater gains in reading skill. Some workers have explored this relationship. However, only small correlation coefficients between reading accuracy/comprehension and time spent reading during a PR project have been found, so PR does not work merely by increasing time spent on reading. In the RCT study, significant pre-post gains in self-esteem (improved beliefs about personal reading competence) were seen in both same-age and cross-age pairings, for tutees and tutors, but not for controls. In addition, the scores of cross-age tutors showed further gains in wider self-worth, indicating that working with younger tutees provided extra benefits (Topping, et al., 2011). Whether improved self-esteem has a causative role or is a result of improved reading skill is still open to question.

The general pattern is of Paired Reading resulting in greater fluency, fewer refusals (greater confidence), greater use of the context and a greater likelihood of self-correction, as well as fewer errors (greater accuracy) and better phonic skills. One mistake every two minutes and talking every five to seven minutes seems optimal. There is some evidence that PR might work by developing self-esteem, rather than through more mechanical means.

So far we have by default discussed only PR in English. Does it work in Spanish? Or Polish? Or any other language? Most of the studies of PR in non-English-speaking countries have actually looked at the usefulness of PR in helping students learn English as a Foreign Language. However, some have investigated whether PR works in other languages. For instance, Cupolillo, Silva, Socorro and Topping (1997) found that PR was effective with repeating first graders in Brazil who used the method in Portuguese, tutored by their mothers, siblings or peers. After the six week project, 81% of the project children were more

fluent in reading. This was in contrast to the non-participant children, who showed no improvement at all, despite having received regular school tuition during this period.

What are the Advantages of Paired Reading?

1. Children are encouraged to pursue their own interests in reading material. They have more enthusiasm from reading about their own favorite things, and so try harder. Paired Reading gives them as much support as they need to read whatever book they choose.

2. Children are more in control of what's going on - instead of having reading crammed into them, they make decisions themselves in the light of their own purposes (e.g. about choice of books, going onto Reading Alone, going on longer in the session.)

3. There is no failure - it is impossible not to get a word right within 4 seconds.

4. Paired Reading is very flexible - the child determines how much support is necessary according to the current level of interest, mood, degree of tiredness, amount of confidence, difficulty of the books, and so on.

5. The child gets lots of praise - it's much nicer to be told when you're doing well, instead of just being moaned at when you go wrong.

6. There's lots of emphasis of understanding - getting the meaning out of the words - and that's what reading is all about. It's no use being able to read the words out loud mechanically without following the meaning.

7. Paired Reading gives continuity - it eliminates stopping and starting to "break up" hard words. Doing that often leaves children having forgotten the beginning of the sentence by the time they get to the end. With Paired Reading it is easier for children to make sensible guesses at new words, based on the meaning of the surrounding words.

8. During Reading Together, a child can learn (by example) to read with expression and the right pacing - e.g. by copying how the tutor pauses at punctuation, or gives emphasis to certain words.

9. Children are given a perfect example of how to pronounce difficult words, instead of being left to work it out themselves and then perhaps thinking their own half-right efforts are actually 100% correct.

10. When doing Paired Reading, children get a bit of their own their own peaceful, private attention from their helper, which they might not otherwise have had. There is some evidence that just giving children more attention can actually improve their reading.

11. Paired Reading increases the amount of sheer reading practice children get. Because children are supported through books, they get through them faster. The number of books read in a week goes up, the number of words children look at in a week goes up, and more words stick in the child's memory.

12. Paired Reading gives tutors a clear, straightforward and enjoyable way of helping their children - so no-one gets confused, worried or bad-tempered about reading.

In short, Paired Reading addresses many components of fluency. It is worth giving it a try as a component of your overall reading program.

Further Questions

A number of researchers have tried to answer the question: **How** does PR work? Few have had much success. It is clear that the impact on reading does not relate strongly to the amount of time spent doing PR (i.e. time on task), so the element of sheer practice is not the only factor operating. Recent work on self-esteem (Miller, Topping & Thurston, 2010) suggests that this may be another key factor. Many students have never considered themselves good enough to be tutors for another. The fact that they are so considered gives them much greater self-confidence. It also gives them a purpose for reading in a socially interactive context, which is thereby more interesting than reading on your own. This is especially true when you are given freedom to select your own book provided it is at the right level of difficulty, rather than being guided by the teacher's recommendations.

Another issue is the question of whether the gains from PR are sustained. The research suggests that the gains from PR are still evident up to two years later when there has been no PR in the interim. However, the quality of this evidence is not perfect, so further research is needed. Do the gains from PR transfer to other books which are required reading within the school curriculum? This is a question that has not been investigated, but clearly being able to read books you choose to read well might not necessarily transfer to other books automatically, not least because of motivational factors.

Conclusion

Fluency is an adaptive, context-dependent process. On a text of an appropriate level of difficulty for the reader, it involves the extraction of maximum meaning at maximum speed in a relatively continuous flow, leaving spare simultaneous processing capacity for other higher order processes. Various components of the reading process are involved in fluency, and PR offers a way of working with many of them – so that in a pair, two readers who have different reading strengths and weaknesses can learn to compensate for them in an interactive process.

The general pattern is that PR improves the reading skill in term of measured reading accuracy and comprehension for both tutees and tutors, provided it is organized correctly. Paired Reading resulted in greater fluency, fewer refusals (greater confidence), greater use of the context and a greater likelihood of self-correction, as well as fewer errors (greater accuracy) and better phonic skills. There is some evidence that PR might work by developing self-esteem, rather than through more mechanical means. PR has also now been broadened into Paired Reading and Thinking (PRT), extending higher order reading skills (Topping, 2001).

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