



For example, some teachers felt that the planning, implementation and refining stages of delivering such an intervention required vast knowledge of relevant literature that they did not have access to. Others who responded also commented on the pressures associated with deciding how best to prioritise monetary resources.

The findings of this survey were surprising, especially as the goal of reading is to extract meaning from text, and many children cannot fully achieve this goal.

So, what should we be doing for the students who are struggling in this area?

The first task is to identify them. Usually, a “poor comprehender” is deemed to be a pupil with a deficit in their comprehension that is discrepant with their word-reading accuracy: essentially, these students read accurately but do not always understand what they have read (Clarke et al, 2010).

The processes needed for understanding the meaning of text are complex, as it involves interconnected cognitive processes at the word, sentence and discourse level (Hulme and Snowling, 2011). Because it is complex, it is perhaps not surprising that a significant minority of children struggle to understand much of what they read. Available evidence suggests that the percentage of children in unselected samples who meet the criteria for the “diagnosis” of poor comprehender is between 3 per cent and 10 per cent (Nation, Cocksey, Taylor and Bishop, 2010), and the difficulties associated with poor reading comprehension become apparent when word reading is more fluent from around the age of 8 years old.

It is particularly important for us to ensure that poor comprehenders at the transition from primary to secondary school are identified and are receiving appropriate interventions to ameliorate their comprehension difficulties for a number of reasons.

- Firstly, there can be a re-emergence of reading difficulties for students in Years 7 and 8 who were diagnosed with developmental language disorder (a condition whereby children have problems understanding and/or using spoken language) in primary school (Snowling, Bishop and Stothard, 2000).
- Secondly, Year 7 and Year 8 can mark the start of a divergence in reading ability among poor and good readers (Cain and Oakhill, 2011).
- Thirdly, students can experience difficulties associated with “reading to learn” when presented with challenging texts (Saenz and Fuchs, 2002).
- Finally, the difficulties that poor comprehenders face can lead to implications for their academic attainment (Ricketts et al, 2014) and psychosocial development (Arnold et al, 2005).

But what to do in terms of intervention is far from clear. Despite the importance of reading comprehension interventions for students entering secondary schools and the large number of students with very poor reading comprehension skills, there is a paucity of rigorous research into effective interventions for these students, and the majority of the research has been carried out with students of primary school age (Paul and Clarke, 2016).

One study that was carried out with pupils of primary school age was led by Paula Clarke, associate professor at the University of Leeds, and her colleagues, who carried out a randomised control trial (RCT) involving 84 pupils aged 7 and 8. The aim of the RCT was to assess the effectiveness of three interventions delivered by a teaching assistant working in the school the children attended.

The first programme focused on developing oral language skills (OL), and included activities aimed at improving vocabulary, figurative language, spoken narrative and listening comprehension skills.

The second intervention programme involved text-level training (TL) within the written language domain, including inference training, direct instruction to develop metacognitive strategies and a written narrative.

The third intervention was an integrated programme (COM) that incorporated activities to improve oral language and text-level processing.

All participants in the study were assessed prior to the start of the intervention, 10 weeks later at the midpoint of the programme, and then following a further 10 weeks at the end of the intervention. The pupils were also assessed 11 months later to investigate the maintenance of gains.

All groups made significant progress over 20 weeks and made an average gain of three points in their reading comprehension standard score, indicating that there were similar benefits associated with the TL, OL and COM intervention programmes when compared with the control group.

However, it is striking that the OL group maintained these improvements and continued to progress to make significant gains (an average gain of seven standard points) when tested 11 months after the intervention programme finished. Although all interventions improved comprehension skill, the effect was most durable when oral language was specifically targeted.

The lasting effect of the oral language intervention allowed the authors to conclude that training in oral language is particularly likely to help adolescent readers improve their reading comprehension in the long-term. Furthermore, they concluded that improvements in vocabulary knowledge were a significant factor in the improvements made in reading comprehension.

Despite the success of this intervention with primary-age students, it was not clear whether these findings could be applied to poor comprehenders of secondary school age. So, I decided to run a test myself.

I decided to study the effect on reading comprehension standard score of using a textbased intervention versus an oral language intervention for 150 students aged between 11 and 13, using a similar structure to the RCT used by Clarke and her colleagues.

The text-based intervention consisted of explicit and cumulative training in metacognitive strategies, reciprocal teaching with text, written narrative and inferencing from text. In contrast, the oral language intervention consisted of training in vocabulary, reciprocal teaching with spoken language, spoken narrative and figurative language. Students discussed and listened to all activities in the oral language intervention, and students read the relevant text and responded in writing to the equivalent activities in the text-based intervention.

Improvements were measured in terms of the amount of progress made in their reading comprehension standard score. The student's verbal ability, vocabulary knowledge, perceived value of reading and reading self-concept were also recorded before and after the intervention.

Overall, my research showed that evidence-based interventions can feasibly be implemented within a secondary school environment to ameliorate children's reading comprehension difficulties, and interventions directly targeting both students' oral language comprehension and text-based skills produce significant gains in the reading comprehension of secondary-age students relative to a control group. Indeed, students who were part of the interventions were able to close the gap between themselves and their peers, and the oral language intervention delivered approximately six months' progress in reading comprehension over just eight weeks.

The significant improvements in reading comprehension for the oral language group support the idea that oral language training is important for poor comprehenders of secondary school age, and that oral language deficits are a critical factor in reading comprehension difficulties.

I also found that reciprocal teaching strategies (predicting, questioning, clarifying and summarising) and a collaborative discursive learning approach contributed to the success of the intervention. The reciprocal teaching approach involves a gradual transfer of responsibility from teacher to student, with the eventual aim of helping students to develop their reading comprehension skills independently as well as generalise their skills to other contexts (Rosenshine and Meister, 1994). This process was achieved through scaffolding, feedback and modelling of strategies until I was acting only as a facilitator to a student-led dialogue.

The significant improvements in reading comprehension for the text-based group were due to improvements in inference making, metacognition skills and improvements in word reading. In particular, the inference training helped students to establish links between events in the text and facilitate connections with relevant background knowledge to form an integrated and coherent representation of text.

Although most students made excellent progress with their reading comprehension in this study, 15 students with severe impairments in their verbal ability made little progress in their reading comprehension. This invites further research on how factors such as verbal ability are related to response to reading comprehension intervention.

In a follow-up student survey after the intervention, the students spoke incredibly positively about the effects of the intervention on their enjoyment of reading, the value they placed on reading and their confidence in their own reading ability. These are all factors that should contribute to further improvements in their reading comprehension.

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