

Embedding comprehension within reading acquisition processes

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Contemporary understandings of reading development acknowledge the compilation and coordination of a range of skills and strategies (Paris, 2005). The development of both decoding and comprehension, integrated into reading acquisition processes, reflects this building of complementary reading skills. Hence, the research reported here aimed to examine early reading instruction to gain insight into how skilled teachers incorporate this duality of purposes into instructional practices. In order to closely examine students at the beginning stages of reading instruction 16 Reading Recovery teacher/student dyads were observed, with book reading interactions coded and analysed to detail teacher attention. The results reveal how teachers guide students towards the co-construction of text meanings and highlights teachers' and students' active engagement in talk interactions, as central to the instructional process.

Learning to read and reading to understand

Pedagogical reform initiatives and recent large-scale reviews of reading stress the importance of both decoding and comprehension in primary school curricula (Department of Education, Science & Training, 2005; RAND, Reading Study Group, 2002; Snow, Burns & Griffin, 1998). The report of the National Inquiry into Teaching Literacy strongly recommends direct, systematic instruction in phonics, but notes that as 'reading essentially involves two basic and complementary processes: learning how to decipher print and understanding what print means, an integrated approach to reading instruction is mandatory' (Department of Education, Science and Training, 2005, p. 34). This suggests teachers need to resist persistent and simplistic binaries, such as learning to read/reading to learn and learning to decode/learning to comprehend and to respond to the complexities of early reading instruction.

Studies of students' reading often associate weak word reading skills with poor comprehension; however, decoding competence does not automatically lead to better comprehension of a text (Connor, Morrison & Petrella, 2004; Gee, 2004; Rubman & Waters, 2000; Scarborough, 2001; Snow et al., 1998). Biemiller (2003) found teaching students to successfully identify words (to decode) is insufficient to support reading comprehension beyond a grade two level.

Likewise, Spooner, Gathecole and Baddeley (2006) state that 10–15% of students exhibit low-level reading comprehension despite having good decoding skills. Paris, Carpenter, Paris and Hamilton (2005) report the spurious relationship between early print knowledge and comprehension, noting that while these skills may be necessary precursors to expertise that does not make them sufficient enablers of later development (2005 p. 149).

The development of effective comprehension strategies has been the subject of extensive research and review (Blachowicz & Ogle, 2001; Hacker, 2004; Harrison, 2000, 2004a; Pearson & Duke, 2002; Pearson & Fielding, 1991; Pearson & Hamm, 2005; Pressley, 2000, 2006; Snow & Sweet, 2003; Tierney & Cunningham, 1984). There is consensus in the research literature around a list of strategies and principles of comprehension instruction. Central to this is the concept of comprehension monitoring, demonstrated as students detect and resolve errors in their reading (Hacker, 2004). Asking whether or not what they have read makes sense to them as the ‘ultimate criterion for making sense’ (Pearson & Fielding, 1991, p. 847), with this learning highly dependent upon what readers already know of the topic and the text genre. In addition, students’ ability to recall and summarise information – as well as to infer from texts they have read, evaluate information and identify the important from the unimportant – is central to this process.

Moreover, the need to avoid a prescriptive model of comprehension skills development, where extensive lists of comprehension skills are taught independently with exercises removed from the task of reading, is critical to the implementation of effective strategy instruction (Harrison, 2004a, Pressley, 2006). In contrast to a sub-skills approach, comprehension instruction is described as best achieved through collaborative, conversational approaches (Brown, Pressley, Van Meter & Schuder, 1996; Duke & Pearson, 2002; Palincsar, 2003; Pressley, 2000) that support a flexible, opportunistic use of strategies. Central to this is teaching for self-regulation and students’ metacognitive awareness of strategies to enhance comprehension, to ensure that they have well-articulated concepts of what strategies are available, how they function, when they should be applied and why they help comprehension (Paris, Wasik & Turner, 1991, p. 619).

Relevant to this discussion is Singer’s description of active readers as those engaged in ‘a continuous process of asking and searching for answers to self-posed questions’ (1981, p. 303). In their discussion of comprehension, Singer and Donlan (1989) contrast ‘comprehension as product’ (giving students teacher-posed questions to answer) with ‘comprehension as process’ (teaching students to formulate and read to answer their own questions). Students developing their own questions and answers is seen as a self-generating, cyclic process; the answers to their questions are then added to their knowledge for generating further comprehension questions.

Despite significant attention to this area of reading instruction, Pressley

(2006) acknowledges the confusion over comprehension instruction as reflected in haphazard, fragmented strategy instruction and the lack of research-based evidence on how to develop teachers' knowledge to support students' learning. More particularly, researchers report a lack of comprehension strategy instruction in early years classrooms (Pearson & Duke, 2002; Pressley, 2006; Tracey & Morrow, 2002).

Building on understandings of the dynamic interaction between decoding and comprehension competencies, this study aimed to closely examine skilled teachers' teaching conversations, during the early stages of reading acquisition. This was intended to detail patterns and principles of effective instructional interactions that might support young readers to effectively engage with text meanings and develop complementary skills and strategies to prevent disparities in students' reading accuracy and comprehension outcomes (Chall, Jacobs & Baldwin, 1990; Gee, 2004; Snow et al., 1998).

Methodology

This study was designed to capture a period of reading acquisition, with the one-to-one teaching context selected as it afforded an opportunity to closely observe teachers as they supported students' reading development. In this, teachers' practices were explored and students' progress examined.

The study draws primarily on mixed method traditions. From a qualitative paradigm the observation of teacher/student dyads allowed for the close analysis of teaching interactions to gain insight into teachers' procedures and practices (Freebody, 2003; Patton, 2002). The coding of teaching interactions resulted in numerical summaries that allowed for the identification of quantifiable patterns and relationships in the data and the drawing of inferences (Lankshear & Knobel, 2004). The subsequent mapping of teaching interactions to students' reading outcomes was to consider the effectiveness of these early opportunities to learn.

Participants

Eight Reading Recovery teachers, each working with two students, participated in this study. Of the students selected, eight were female and eight male; their ages ranged from six years four months to seven years eight months. All students had failed to get underway with reading after a year of instruction and were identified as part of a high-risk group, selected for early intervention to keep problems from becoming debilitating and to diminish the effect of early difficulties (Pianta, 1990, p. 307). The nature of reading difficulties in young children is extremely complex (Elkins, 2002) and hence causes for the lack of progress for this group of students is largely unknown. However, their selection for Reading Recovery seen as an opportunity for targeted teaching, designed to support the students' early reading and writing development (Clay, 2005a). At the time of the study the students had been

participating in the Reading Recovery program for ten weeks and therefore were in the later stages of their individualised, literacy support program.

Reading Recovery is an early literacy intervention developed by Marie Clay (2001, 2005a). Students who participate in Reading Recovery are typically in their second year of school and falling behind their classmates, as they have not yet acquired effective reading and writing processes. Reading Recovery provides supplementary, daily, one-to-one instruction, with teaching based on detailed observations of the ways in which the individual child responds to language as a written code. The eight teachers in this study had all undertaken extensive professional training to develop their understandings of reading acquisition processes and were skilled in the design of teaching programs to support effective reading skills and strategies.

Data collection and analysis

Observations of teaching interactions

The observational data were collected across three paired lesson sequences during two reading segments of the Reading Recovery lesson: (1) the introduction and reading of the new book and (2) the rereading of the previous day's new book (Clay, 2005b). The analysis of teacher-student interactions commenced with the coding of all lesson observations. Lesson recordings were coded to consider the information that teachers supported students to attend to when reading, and the attention given to assisting students to draw on relevant knowledge and understanding in the comprehension of concepts, ideas and relationships within texts read. (See Appendix One for codes developed to categorise teacher talk.)

The computer software package *Studiocode* (Sportstec, 2004), specifically designed to capture and analyse video data, was used to code teaching interactions. This software enabled second-by-second continuous coding of the teaching. To complement this coding and quantified accounts of the data, excerpts of teaching interactions were transcribed. These provided illustrative accounts of teachers' and students' dialogue and allowed for a close analysis of teaching conversations.

Reading assessment

To consider the influence of teacher attention on student's accuracy and comprehension skills the Prose Reading Observation, Behaviour and Evaluation of Comprehension (PROBE) (Parkin, Parkin & Pool, 2002) was used. The PROBE test provides passages graded from reading age five years across 12-month age bands and comprehension questions across six elements: literal, reorganisation, inference, vocabulary, evaluation and reaction. For passages read with an accuracy rate of 90% and above, students' scores for each aspect of comprehension were determined.

Analysis of teaching interactions

Attention to word solving processes

Importantly, teachers' prompts during the first reading supported students' attention to the semantic and graphophonic information in text, extending their linking and searching systems to effectively process text (Clay 2001). Quantified analysis of the talk interactions indicate teachers were most frequently directing students' attention to the meaning of the text at points of difficulty in the reading. The range across the 16 dyads was from a low of 2.9% of average lesson time allocated to the book introduction and first reading, to a high of 15.8%. This includes time dedicated to directing students' attention to the meaning of the text, including events, actions and characters, independent of other cue sources. This compares with 1.6%–11.9% of average lesson time in which teachers directed students' attention to the use of print, letter sounds, letter clusters and known words parts to support word solving at difficulty. In addition, when students experienced difficulty with text reading teachers inserted the unknown words, either to keep the reading progressing or after unsuccessful problem-solving efforts by the students. This occurred frequently throughout the reading interactions, with teachers solving difficulties for students from 0.7% to 9.1% of lesson time.

The transcript examples below are typical of the word solving support teachers provided for these beginning readers.

Transcripts One and Two

Late for football (Giles, 1994)

Child reading 'Mum my boots' said Tim [child pauses]

Teacher Have a look at that and have a go, what's it start with?

Child Pl, I don't know

Teacher Have another look, what's the next word here?

Child Placed

Teacher No, that doesn't make sense what would he say to mum?

Child reading Pl, please help me do up my boots

Going to the hairdresser (Wilson, 1996)

Teacher Here's another time we could stop and think what would make sense, is there something about that word that you know How does it start?

Child b

Teacher It does so let's try it again and think about what mum might say to Amber.

- Child reading It is getting in her eyes. We b
 Teacher Can you think of something that would make sense?
 Child *shakes her head*
 Teacher Try 'both' and see if that makes sense and sounds right.
 Child reading 'We both need a haircut,' says Mum.
 Teacher Does it make sense to say both? Good girl. I could think of something, next time you have to think of something. Keep reading.

In many instances teachers were observed to prompt the solving of difficult words in texts, with emphasis on ensuring the word selected made sense in the context being read. This approach to beginning reading encouraged word comprehension in relation to the overall meaning of the text (Pressley, 2000). Meaning based questions from the *Late for football* transcript such as 'What did Tim do?', 'What happened?' and 'What would he say to Mum?' are typical of those asked by teachers to support students' reading at the level of word solving.

However, it was the integration of information from semantic, syntactic and graphophonic sources observed that appears supportive of students' mastery of early reading texts. Evident within the teaching observed was teaching for parallel processing (Clay, 2001; McKoon & Ratcliff, 1998), the simultaneous amalgamation of information to support efficient data-driven solving (Rumelhart, 2004; Stanovich, 2000).

Consistent throughout the data set was the teachers' support of students' active, independent problem-solving, establishing and reinforcing the search-and-check actions of students. The effects of this evident in the students' self-correction behaviours. Research findings suggest self-correction, students' independent correction of reading errors, is a significant measure of students' developing reading ability (Clay 2001; Kaye, 2006; McNaughton, 1988; Schwartz, 1997). At each substitution the student initiates a search for more information, generates and evaluates a hypothesis, and makes a decision.

Attention to activating and building knowledge to support reading

The centrality of the readers' prior knowledge to the process of the integration of new information, enabling them to disambiguate texts, is acknowledged as having a profound impact on text comprehension (Bransford & Johnson, 1972, Lipson 1982; Duke & Pearson, 2002; Gaskins, 2003; Pressley, 2000; Snow & Sweet, 2003). This store of conceptual knowledge or schema for a given topic, present in an individual's memory, supports the ability to reconstruct information and comprehend written text (Anderson & Pearson, 1984; Gaskins, 2003; Pressley, 2000).

Teachers in this study built background knowledge and activated students' prior knowledge. These aspects of teaching place emphasis

on supporting students to use domain knowledge as they extracted and constructed meanings from text. Within the context of the lessons observed, the development of understandings prior to text reading occurred as teacher input, specifically as teachers developed students' knowledge of concepts, vocabulary and made links to their prior experiences. The teachers in this study worked to ensure students had a detailed, comprehensive overview of the text prior to reading.

Similar in intent was the teachers' attention to prediction, considered a key strategy in building a comprehension curriculum (Duke & Pearson, 2002; Palincsar, 2003; Pressley, 2000). Through prediction, teachers encouraged students to use their prior knowledge to facilitate their understanding of new ideas encountered in text. Just above 0.2% to 6.3% of the book introduction and first reading lesson time was dedicated to students' text predictions, with the majority of teachers requesting students anticipate the events in texts for 1.5%–4.5% of average total time. By comparison, this aspect of teacher-student talk ranks second, with the introduction of content the only category attended to more frequently in pre-reading discussions.

Skillfully, the teacher in the transcript that follows invited the student to co-construct the text. Her explicit use of open-ended questions – such as 'I wonder what it might be?' and 'I wonder how?' – to initiate the conversational exchanges and her responses with the comments 'Do you think?' and 'Let's see, you turn the page and see if you're right' involved the teacher and student collaboratively describing the storyline as it unfolds. Here the student had an opportunity to rehearse the construction of text meanings – drawing on prior understanding, linking the new content to familiar concepts, to effectively articulate what is known (Raban, 1999).

Transcript three

Mitch to the rescue (Smith, 1997)

- | | |
|---------|--|
| Teacher | Now, there is a problem for the last duck, for the last duckling. I wonder what it might be? |
| Child | He's too little and he's not very fast. |
| Teacher | Well the water around the rocks actually goes very fast, so you could be right, maybe it's taking him away and he can't keep up. Do you think? Is that what you were thinking? |
| Child | Cause all the water's going that way and he's over there, and there is the water and it's flowing. |
| Teacher | OK what's going to happen? |
| Child | He's trapped. |
| Teacher | He's trapped. Now if Mitch comes to the rescue in this story, what might Mitch do? |

- Child Well he'll save it.
- Teacher I wonder how?
- Child He hops out of the boat and pops onto the rock and he puts his bucket and puts it in there with some water.
- Teacher Well, that's a good idea, actually it is his sun hat. He was minding the sunhats. So he uses the sunhats, well isn't that a good idea. Now let's see if he gets it, quickly turn the pages. But there 's still the problem isn't there of the duckling being way from the family. I wonder how they get the duckling back to the family, let's stop here. What do you think might happen?
- Child They're stopping at the shore and they're taking the duckling over to it.
- Teacher So how might he get him back to the family, and he's got him in the hat.
- Child He's got to walk him.
- Teacher Along the bank, this is called the bank, you're right its another word for the shore. Let's see, you turn the page and see if you're right. Good idea, is that a good idea. Mitch really did come to the rescue didn't he, that poor little duckling might have been lost otherwise

Through this talk prior to reading, teachers were assisting students to apply what they know to a new context and make connections between already known information and the new concepts in texts (Raban, 1999).

After reading discussions

To further support students' understanding of texts a short conversation after text reading was conducted, during which details of texts were recalled and students' insights into the texts read were gleaned. The intent here was to see what teachers focused on during these discussions and how they engaged students in talk related to text comprehension. The following categories were used to code teacher interactions as texts were discussed:

- literal – comments or questions that required students to recall text details, in particular, the order of events, characters' actions
- inference – questions that required students to consider why events might have happened, or to elaborate events
- reaction/evaluation – teachers' questions or comments that required students to express an opinion about the text or events and occurrences in the texts
- child's experiences – comments prompting discussion that related to students' experiencing something similar to the events in the text

- extending knowledge – comments that clarified students’ understandings or built upon their current knowledge base.

Details of teachers’ interaction time particular to these aspects of comprehension and understanding – as an average of total time allocated to the second reading – show that teachers were most likely to request literal details of the text from students. This activity occurred in from 0 to 9.8% of lesson time. Time allocated to inference and reaction/evaluation type interactions were distributed similarly across the dyads; for 75% of students up to approximately 2% of lesson time was dedicated to these discussions. Here teachers requested responses to why and/or how questions, with students able to draw on knowledge from outside the text to support their answers. Smaller periods of time were recorded for discussion related to the students’ own experience and to extending their understanding of concepts included in texts. The following transcript, longer than typical, is included as the teacher calls for the details of text to be recounted, alongside a co-construction of text-based inferences that allowed the student to think about and respond to the events in the text.

Transcript four

The trouble with grandad (Cole, 1988)

- Teacher This bit, tell us about it. What’s happening in this picture?
- Child Grandpa’s telling us that it has worms.
- Teacher That’s right, and we know what kind of worms were inside it. Tell me about them, what was inside it?
- Child A huge caterpillar.
- Teacher It was enormous wasn’t it, a very huge caterpillar. And he ate and ate until all the tomatoes had gone. Wow, that’s unbelievable isn’t it? I wonder how Grandpa is feeling when he sees that big caterpillar.
- Child Yeh.
- Teacher I wonder how he’s feeling.
- Child Mm, pretty angry.
- Teacher Do you think? Why would he be feeling angry?
- Child Because.
- Teacher Why would Grandpa be feeling angry when he saw that enormous caterpillar coming out of the tomato?
- Child Um because he um, like he took all the care for it, to water it and that, and he had to all these things to do it, and as it did that it made it the thing, the thing grow and grow and grow.

- Teacher Oh OK. Was this one of Grandad's plants or did it come from somewhere else?
- Child Um, it came from somewhere else.
- Teacher Do you remember where it came from?
- Child Yes
- Teacher Where?
- Child He came from the other ex um petition.
- Teacher The exhibitors.
- Child The exhibitors.
- Teacher That's right, so do you think it was a good, big plant or do you think it might have had a trick in it? Cause you have a look, go back to that page where the exhibitors gave Grandad the plant. To that part. What does it say on this page?
- Child reading So one of them gave him a funny looking tomato plant.
- Teacher So I wonder if Grandad was suspicious about it. Do you know what suspicious means?
- Child No
- Teacher Suspicious means you're not quite sure if something is right. Do you think he might be thinking, um, this is interesting?
- Child Yes
- Teacher Does it look like it's growing bigger than all the other vegetables?
- Child Yes, it looks like (*pointing to picture*)
- Teacher Yes, it's getting very, very big isn't it? I think this plant might have been a dangerous one right from the beginning. Because all those animals, this caterpillar that popped out of it. None of this happened to Grandpa's normal plants did they? Let's have a look at the ones he went into the vegetable show with.

The after reading conversations observed, provided critical opportunities for students to engage with a range of text meanings with the assistance of a more skilled co-participant. Discussion provides a vehicle for students to reflect upon, interrogate and revise their understandings of text meanings. However, as Wells states, 'children need to see and hear enactments of those inner mental processes that are the essence of literate behaviour so they can appropriate them and deploy them for themselves' (1991, p. 88). Thus, collaborative talk apprentices the young reader to engage with texts in ways appropriate to their different forms and purposes.

Despite teachers' individual attention to varying aspects of comprehension, a pattern is evident from the talk interactions across the teacher-student dyads. When talking with students about texts read, teachers directed their attention most frequently to the literal content. Closer analysis of this interaction type found teachers' requests for text recall came mainly through calls for text summaries. This allowed the students' freedom within their responses to self-select the information they considered important to reiterate, but with little questioning and probing by the teachers for further specific text details. Quantified analysis of the talk interactions also indicated that literal comprehension questions were followed by requests for a personal response or an evaluation of texts. Students' opinions and preferences were reliant on the readers' response to text, with teachers encouraging a predominately aesthetic rather than efferent stance to discussions after the reading event (Rosenblatt, 2004). The terms 'aesthetic' and 'efferent' are used by Rosenblatt to describe the aspects of text readers bring to the centre of attention. An efferent stance is one that centres on the abstraction of ideas, information or directions retained after the reading; in contrast, an aesthetic stance focuses on feeling and intuitions gained from the reading event.

However, reaction/evaluation questions posed by teachers often required students to move towards a critical, reflective stance to assess the message of the text. While not explicitly analysed as a subset of this data, teacher questions that asked students to comment on the opinions and values presented in the texts requested a critical response to the reading. For example:

Transcript five

Jonathan buys a present (Smith, 1997)

Teacher Was he clever? ... Did he make a good choice about his present?

Thus, these instructional interactions might be interpreted as 'a site for contesting the status quo' (Siegel & Fernandez, 2000), with students being apprenticed into critical literacy practice (Comber, 2001; Luke & Freebody, 1997; Zammit & Downes, 2002).

After reading discussions provided distinct opportunities for students to engage in talk interactions, to reconstruct text meanings and to mediate understandings (Brown et al., 1996). At this early stage of students' reading development, the importance of negotiation and interpretation is acknowledged as impacting on comprehension processes. Critical to positive reading outcomes were teachers' contributions that challenged students to share and defend views presented, to make connections between that which was known and the new information, and to review ideas. The opportunities provided to share and communicate ideas enabled the 'individual student to

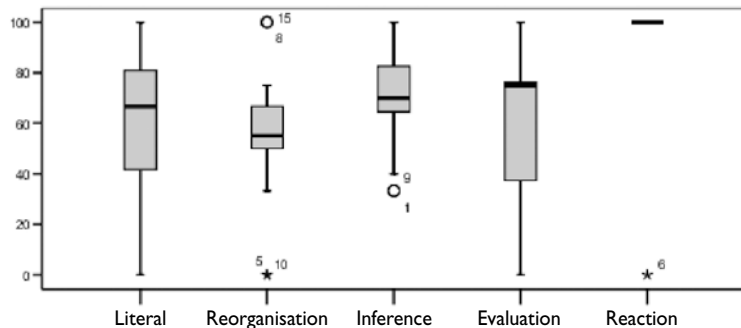
explore and create a depth of meaning not always available to the isolated thinker' (Raban, 1999, p. 105).

Links to reading outcomes

A summary of the discussion above indicates that teachers directed attention to word solving process and text meanings across the first and second book readings. When focussed on comprehension, teachers were most likely to request literal details of the text from students. This activity occurred from 0 to 9.8% of lesson time. Time allocated to inference and reaction/evaluation type interactions were distributed similarly across the dyads; for 75% of students up to approximately 2% of lesson time was dedicated to these discussions. Smaller periods of time were recorded for discussion related to the students' own experience and to extending their understanding of concepts included in texts.

The PROBE graded reading passages required students to transfer the skills developed in Reading Recovery contexts to new, unfamiliar texts. Students' reading accuracy for fiction texts, indicates that they read passages across a difficulty range graded 6 to 8 years, commensurate with their chronological ages. Table 1 shows students' correct responses to PROBE comprehension taxonomy for all passages read at 90% accuracy and above.

Figure 1 – PROBE comprehension results*



*Vocabulary not assessed in the passages students read at 90% accuracy or above.

The students generally responded correctly to questions requiring a literal recall of information, with a median value of 70% across the student cohort. PROBE inference questions and evaluation type questions required students to extrapolate information that is not given in the text. Test data indicate a median score of 70% for inference questions. Further, a median score of 75% was evident for evaluation questions. Reorganisation questions require students to combine two or more pieces of information contained in the

text, and while these questions were fewer in number overall, they proved somewhat challenging for students, the median score 66% for this question type. Reaction questions asked students to express an opinion based on information supplied in the text. The set of data for reaction questions was small; only five students were required to answer one question of this type and, among these, four responded correctly.

As previously outlined teachers prioritised literal and inference type responses. Moreover, these results indicate higher levels of performance when students were required to insert prior knowledge or draw on personal experiences. Analysis of inference questions from the *PROBE* passages see these as linked primarily to knowledge-based inferences (Carnine, Kameenui & Woolfson, 1982). Here students were required to consider information that was implied but not given in the text; similarly, the evaluation type questions also required students to extrapolate information beyond the text (Parkin et al., 2002).

An analysis of *PROBE* errors reveals examples of text-based questions answered with reliance on prior knowledge and experience rather than generating responses for information the text. Hence, students' self-actualising accounts for poor responding. For example:

Do all birds fly, how do you know?

No because we watched a video some birds can't fly. (*Student 1*)

No some birds have a broken wing, Jason's bird... (*Student 13*)

Discussing a similar pattern of results Dewitz and Dewitz (2003) consider students use of excessive elaborations as a default strategy; unable to make the necessary inferences, and needing to say something, students either draw upon what they already know or simply invent ideas (2003, p. 430). However, this also reflects teachers' requests for students' personal responses to texts in after reading discussions.

Implications for practice

This research provides solid evidence to reinforce conceptualisations of early reading as a process of contemporaneous comprehension and meaning extraction. Further, through rich descriptions of teaching conversations, the study affords insights into the 'verbal accompaniment to reading' (Scull & Lo Bianco, 2008) as a critical dimension of the essential support teachers provide to develop students' comprehension processes. The types of questions asked and the ways that teachers supported students to engage with text meanings, across a range of comprehension skills, details teacher practice. The results provide clear demonstrations of how skilled Reading Recovery teachers direct students' attention to integrated acts of information processing and of message construction and reconstruction.

Teacher guidance

Underpinning the accounts of the effective early reading practice was teacher modelling and guidance. Noted as critical is the teaching that involved students in activities that developed understanding of the text they were reading, helping them attend to the task of constructing meanings before, during and after the reading. Through talk, teachers activated and built on students' knowledge of the concepts in texts and modelled effective linking and prediction strategies, for students' later independent use and adaptation (Lyons, 1999; Tharp & Gallimore, 1988; Wood, 2003). Thus, participation in collaborative tasks, particular to comprehension, supported students to become aware of the how and why of specific activities, moving first from acts, to awareness and then to talking about awareness (Clay, 1998).

Strategy instruction, designed to help readers become more metacognitively aware in their approach to reading, is widely acknowledged as related to improving comprehension outcomes (Brown et al., 1996; Palincsar, 2003; Pearson & Duke, 2002; Pearson & Fielding, 1991; Pressley, 2000). Indeed, developing an awareness of how different strategies might be applied to text reading, self-directing the goals and the processes for achieving these goals is linked to increased reading competency. However, it should be noted that generally awareness lags considerably behind success in action, with children often knowing more than they can tell (Downing & Leong, 1982, p. 101).

Learning facilitated through interactions is consistent with theories of assisted performance and the primacy of speech in making tasks clear (Tharp & Gallimore, 1988). Teachers' questions in this study modelled those asked of and by active readers to build a repertoire for engagement with texts (Duke & Pearson, 2002; Singer, 1981; Singer & Donlan, 1989). The goal of such teaching is for students to guide their own thinking, using self-directed questions (Duke & Pearson, 2002) to achieve their own understandings and subsequently to increase their ability to comprehend reading texts. Underpinning this model of practice is teachers' awareness of their own thinking, making explicit to students the comprehension strategies they use as thoughtful, purposeful readers of texts. Knowing the questions readers ask and when they ask them, requires teacher self-reflection alongside clear understandings of comprehension strategies, as the process for understanding texts is shared with students.

Students as conversational partners

The results of this the study highlight the challenge of teaching comprehension as knowing the task, knowing when to intervene and knowing how to support student learning (Wood, 2003). Recognised is the role of conversation, and the need for tight, focused interactions designed to elicit engagement with text meanings as facilitative of students' learning. This involves not only consideration of the information teachers guide young

students to attend to when teaching them to read, but equally critical to an understanding of effective practice are the qualities of the interactions that enhance communication. As revealed by the data sets, supportive teaching was characterised by collaborative, participatory processes to actively engage students in teaching and learning interactions aimed to assist in the comprehension of texts.

Significant also was the role of the teacher in conscripting students as partners in teaching conversations, scaffolding interactions to support their participation. The co-construction of text meanings is largely dependent on teachers modelling ways to articulate responses to texts and establishing interaction patterns that promote discussion to enhance and enrich engagement with text (Hughes & Westgate, 1998; Palincsar, 1998). Teachers play an important role as conversational partners, mediating the discourse by seeding the discussions with new ideas or offering alternatives that push the students' thinking and prepares them to engage in interactions (Palincsar, 1998, p. 365). Salient from the transcripts reported in this research was the analysis of conversational turns that show teachers orchestrating discussions; requesting answers or further explanations to facilitate students' active participation.

As an implication for practice, this sees teaching move along a continuum that extends from transmission to interpretation (Raban, 1999). At the extreme transmission end, the teacher as the 'one who knows' does all the talking with little room for student talk. In contrast, as teaching moves towards interpretation models, students are encouraged through collaborative exchanges to engage in their own meaning making (Cazden, 1988; Fisher, 2005; Palincsar, 1998; Sinclair & Coulthard, 1975). To support discussion that allows students to share their knowledge and logic, elaborate, explore and reformulate their thinking teachers need a 'pressing' strategy (Cazden, 1988; Mercer, 2000; Raban, 2001; Wolf, Crosson & Resnick, 2005). This creates opportunities for introducing higher level thinking and rigour to discussions that are intended for reading acquisition, thus preparing the young reader to challenge the monologic concept of text meanings and shift towards 'polysemic' readings and the 'difficult task of struggling to come to an active, personal and individual interpretation of meaning, and to engage in a personal search for unification' (Harrison, 2004b, p. 166).

Beyond one-to-one teaching

A primary finding of this research is the centrality of teacher-learner interactions as the key to students' breakthrough to independent processing and engagement with text meanings. Consideration of the principles derived from the teaching conversations reported in this study may contribute to effective early years reading instruction beyond Reading Recovery. This might also be pertinent to the teaching of students who display profiles of

high reading accuracy rates but low levels of comprehension (Chall et al., 1990; Gee, 2004; Snow et al., 1998). However, supplementary research detailing the close examination of classroom teaching practices is needed to isolate, identify and refine conversational formats designed to support students to engage with text meanings concurrent with the development of processing strategies in these contexts.

Conclusion

This study reveals the opportunities teachers created for comprehension instruction to be integrated into reading acquisition processes. In addition to details of the reading task that teachers guided students to attend to when learning to read, teacher-student discourse was demonstrated to support comprehension processes, as expert teachers modelled, questioned and scaffolded the young readers' understanding of texts. The conversations reported in this study contribute to our understandings of the social practice of reading and comprehension instruction, providing insights into targeted talk around specific aspects of actual reading, pre-reading and post-reading behaviour that helps to constitute in students' minds a clearer understanding of what reading involves, how it is tackled and what strategies they can usefully employ (Scull & Lo Bianco, 2008). Noticeably different from teacher-led transmission models of instruction are the collaborative exchanges that promoted students' active role in learning and increased participation as they engaged in the process of constructing and interpreting meanings from text.

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APPENDIX

Codes for the book introduction and the first reading of the new book

Content	Discussion pertaining to events, characters and actions as they occur in the text
Text structure	Discussion relating to the linguistic organisation of the text
Language features	The introduction of unusual or new phrasing, such as 'Be off with you'
Vocabulary	The elaboration of word meanings
Predicting	Teachers requesting students predict text content
Personal experience	Discussion related to the student's personal experience
World knowledge	Discussion linked to the student's knowledge of the world
Other texts	Discussion linked to other texts read

Child initiated comments - book introduction	Comments initiated by the student during the book introduction
Attention to meaning	Directing the student's attention to semantic cue sources
Attention to language	Directing the student's attention to syntactic cue sources
Attention to print	Directing the student's attention to graphophonic cue sources
Processing	An overarching category, applied when teachers were seen to support active problem-solving, such as when teachers required students to monitor and check reading and/or to consider multiple cue sources successively or simultaneously to support the reading, or to confirm effective reading
Teacher told	Teachers supplying unknown word/s for students during text reading
Fluency and expression	Attention to speed and prosodic aspects of reading
Child comments first reading	Comments initiated by the student during the first reading
Other	Comments extraneous to the text and text reading

Codes for the second reading

Reorientation	Teachers providing the title and reminding students of text content
Told	Teachers supplying unknown word/s for students during text reading
Processing	Teachers prompting students to monitor and check reading and/or to consider multiple cue sources successively or simultaneously to support the reading, or to confirm effective reading
Literal	Comments or questions that required students to recall text details, in particular, the order of events, characters and actions
Inference	Questions that required students to consider why events might have happened, or to elaborate events
Reaction/evaluation	Teachers' questions or comments that required students to express and opinion about the text or events and occurrences in the text
Child's experiences	Comments prompting discussion that related to students' experiencing something similar to the events in the text
Extending knowledge	Comments that clarified students' understandings or built upon their current knowledge base.
Fluency and expression	Attention to speed and prosodic aspects of reading
Child comments	Comments initiated by the student during the second reading and subsequent discussion
Other	Comments extraneous to the text and text reading