LEARNING TO READ
READING TO LEARN

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Abstract

This submission outlines a set of strategies for explicitly teaching reading writing at all levels of education across curricula, that are currently being applied across Australia and internationally. It begins with an analysis of literacy issues at each stage of the educational sequence, from early years to tertiary study. The development of literacy is viewed here as a continuous process of building skills, particularly in reading and learning from reading, that are required at each stage of the educational sequence. Current teaching practices at each stage prepare a minority of successful students with skills that they will need in the following stage, but do not adequately prepare other students. We consider that this complex of practices is the primary mechanism for producing inequality in educational outcomes in Australia. This inequality in preparation and outcomes is explicitly and practicably addressed by the strategies described here.

Background

The analysis and recommendations herein are based on findings of a long term action research project with education programs at primary, secondary and tertiary levels, across Australia and internationally. The project entitled *Learning to Read: Reading to Learn,* has developed a system of literacy teaching strategies that enable learners to rapidly learn to read and write at a level appropriate to their age and level of study.

Education programs participating in the *Learning to Read: Reading to Learn* program have included:
- *Anangu Teacher Education Program*, University of South Australia
- *Association of Independent Schools* of Western Australia
- *Batchelor Institute of Indigenous Tertiary Education*, Northern Territory
- *Catholic Education Office*, Melbourne and Western Dioceses, Victoria

- *Centre for Access and ESL*, Charles Darwin University
- *Department of Education and Childrens Services*, South Australia
- *Department of Education and Training*, NSW
- *Department of Education and Training*, Victoria
- *Koori Centre*, University of Sydney
- *Koori Education Strategy Team*, DET Victoria
- *Nelson Mandela Metropolitan University*, South Africa
- *Nyangatjatjara College*, Northern Territory
- *Office of the Board of Studies*, NSW
- *Peninsula Techikon*, South Africa
- *Stellenbosch University*, South Africa
- *University of Cape Town*, South Africa
- *University of KwaZulu Natal*, South Africa
- *Yirara College*, Northern Territory
- *Yooroang Garang School of Indigenous Health*, University of Sydney.

The *Learning to Read: Reading to Learn* program trains teachers to teach reading and writing as part of normal classroom practice at each of these levels across curriculum subjects, as well as intervention support for students in need. The program began with the DETYA Strategic Results Project *Scaffolding Reading and Writing for Indigenous Children in School*. The secondary school component of this project was managed by Dr David Rose. This component of the project was independently evaluated for DETYA, with the finding that in one year, "the average improvement in reading and writing was 2.5 levels... [with] much higher levels of student participation" (McRae et al, 2000: 24-6).

Since 2000 the strategies developed in this SRP project have been considerably expanded and refined to enable teachers at all levels of education to achieve comparable results. This has been achieved through the application of current research in educational linguistics (Christie 1999, Christie & Martin 1997, Martin & Rose 2003, 2005a, Rothery 1996) and learning theory (Bernstein 1990, 1996, Hasan 2001, Martin & Rose 2005b, Mercer 2000, Painter 1996, 1998, 2004), in collaboration with teachers across all sectors. Awards for participating schools have included Minister's Awards for Outstanding Contribution to Improving Literacy and/or Numeracy, Kurrawang CAPS School, Kalgoorlie WA 2000, St Monica's College, Epping Vic 2004, and National Quality Schooling for a School Improvement, Yirara College NT.

This submission begins with a broad analysis of literacy issues in the educational sequence, followed by a brief description of the *Learning to Read: Reading to Learn* strategies that address these issues. Because the program targets literacy issues at each stage of education, the analysis is focused on literacy at each of five stages, including tertiary study, secondary schooling, upper primary, junior primary, and before school.

Stages of literacy development in the educational sequence

The key principle in the following analysis is that underlying the overt content based curriculum in each stage of the educational sequence is a covert curriculum of

reading development. The overt curriculum content is set out in syllabus documents and course statements and is consciously implemented by teachers. However the underlying covert function of the learning activities associated with the content curriculum is to develop skills in reading and learning from reading. This function is not generally made explicit in syllabus documents, nor in teacher training, and teachers are not generally trained to teach reading beyond junior primary years. In addition to curriculum content, syllabus documents often refer to development of 'cognitive' skills but these not generally related directly to reading development.

Although reading skills are not generally explicitly taught beyond junior primary years, those students who are adequately prepared to acquire them tacitly from other learning activities will be able to proceed through the sequence to post-school further education. On the other hand, those students who are not so well prepared will not be able to do so. We consider the failure to explicitly teach reading skills associated with each stage of schooling to be the primary mechanism for producing inequality of educational outcomes in the Australian education system. Typical characteristics of reading development at each stage of education are outlined as follows.

Reading at tertiary level

At tertiary level, learning from reading is the primary pedagogic mode. Successful students acquire the course content through set readings. The function of lectures and tutorials is primarily to synthesise and interpret the content from readings, through oral monologue and dialogue. Attending to oral monologue in lectures involves skills in learning from reading written monologue in course readings. Comprehending lectures generally depends on having comprehended readings set before the lecture. The function of written assignments is to assess students' acquisition of the course content from their readings.

Reading and writing at tertiary level involves two general types of written discourse – technicality and abstraction. Technicality is characteristic of natural science fields; it involves large bodies of accumulated knowledge that are hierarchically organised, with clearly defined sets of technical terms, and are acquired in steps prescribed by the organization of the field. Abstraction is characteristic of humanities fields; these bodies of knowledge are not so hierarchically organised, but involve sets of abstract concepts denoting institutional or symbolic entities and activities, that are explained and evaluated (Christie & Martin 1997, Halliday & Martin 1993, Martin & Veel 1998, Rose 1998).

This academic mode of pedagogy requires a high level of skills in independently learning from reading, including the abilities to recognise, interpret and reproduce both the information content of course readings, and the patterns of academic language in which it is expressed. These skills are not taught at the tertiary level, except where academic writing is taught in remedial support classes, but are tacitly acquired by successful students during secondary schooling. The function of matriculation examinations is to assess the acquisition of these skills, selecting successful students for university entrance. Matriculation examinees are assessed on their acquisition of both curriculum content and the varying patterns of technicality and abstraction in which it is expressed in different curriculum subjects.

However, of those secondary students who are assessed in matriculation exams as potentially capable of tertiary study, up to 40% drop out in the first year of university, at least partly due to the difficulty of independently learning from reading in the academic mode. A high proportion of students do not read or cannot understand course readings set before lectures, and so cannot adequately comprehend lectures. Tutorials then become repair sessions to enable students to gain basic comprehension of course content. The pathology of this pedagogic mode is diagrammed in Figure 1.

Figure 1: The academic cycle

Reading in secondary school

At secondary level. the underlying function of most pedagogic activity is for successful students to practice reading and writing technicality and abstraction across various curriculum subjects. The overt secondary curriculum is concerned to transmit large volumes of content in each subject area. The sheer volume of content requires two sites of acquisition – home and school. This pedagogic mode forces successful students to continually practise recognising, interpreting and reproducing the language patterns of each subject, together with the content. These language patterns are acquired tacitly through reading for homework and practising writing homework assignments.

Teacher feedback on written work guides these students towards successfully reproducing academic language patterns, but they are not explicitly taught how to do so. Classroom discourse prepares successful students for independently learning from reading, by orienting them to the content they will read, or may have previously

read, without explicitly teaching them how to recognise, interpret and reproduce the language patterns in which it is expressed.

To benefit from this pedagogic mode requires pre-existing skills in learning from reading, that are not taught at secondary level, but are acquired tacitly by successful students in upper primary schooling. Students who are not able to independently learn from reading by the end of primary school will not be adequately prepared for the pedagogic mode of secondary schooling and will immediately begin to experience failure. Students who are assessed as grossly under-prepared, who may not yet be able to independently read, let alone learn from reading, may be withdrawn from some secondary classes for remedial literacy teaching. However such remediation is invariably pitched far below the requisite reading level for their secondary grade, thus ensuring that few if any of these students ever catch up to their class average.

A third group of students acquire a level of specialised literacy characteristic of technology subjects and some science in junior secondary grades, which may enable them to successfully undertake vocational training that requires such specialised reading skills. This type of specialised written discourse differs from technicality and abstraction in academic sciences and humanities. It is primarily concerned with operating technology and involves specialised terms for technological equipment and processes (Gamble 2004. Rose et al 1992, Rose 1997, 1998, White 1998). Again this type of literacy is not explicitly taught in secondary school but is tacitly acquired by moderately successful students.

In Australia, proportions of students that do or do not acquire each type of literacy in secondary school are reflected in statistics of educational outcomes (ABS 2004). 17% of Australians receive professional training at degree or higher levels, 30% receive vocational training at diploma level or below. The remainder receive no further education after school. Figure 2 shows how these proportions have changed only 10% in the past twenty years, despite the resources poured into education over this time and apparent major changes in educational philosophy. However much of this small change can be attributed to basic education or workplace certificates associated with employment programs or workplace restructuring, and with reaccreditation of diplomas as degrees associated with amalgamations.

Figure 2: Education outcomes in Australia 1984-2004 (from ABS 1994, 2004)

Reading upper primary school

As in secondary school, skills in learning from reading are not taught directly in upper primary school, rather the overt curriculum focus is on content 'themes' – topics that are studied from various perspectives in each school subject area. However the activities associated with such content themes in each subject support successful students to practise learning from reading. These activities involve whole class and group work in which the teacher acts as authority and guide, orienting students to the topic though discussion, observation and physical activities, before and during reading.

Such variety and repetition of these multi-modal activities are necessary for successful students to tacitly acquire skills in learning from reading, because learning from reading is a highly abstract, esoteric form of learning that is probably not possible for children to acquire on their own. Learning typically occurs, in all cultures, in face-to-face interaction between teacher and learner, in which the teacher (or parent) models an activity for the learner, and then guides them physically and orally as they practise each step in the activity. This model of learning has been referred to as 'scaffolding' (Ninio & Bruner 1978, Wells 1999, Wood et al. 1976), but is actually the default pedagogic mode for learning most types of human activity. Learning can also take place through oral narrative, which is the evolutionary origin of learning from reading. But learning from oral narrative typically involves hearing the same story of a similar message over and again, with opportuin9ities for discussion and explanation from story-tellers and others.

In learning from reading, the whole weight of the pedagogy rests with the learner and the text. To be able to learn from reading, one must first be able to read independently with both comprehension and engagement. That is the learner must not only be able to understand the text, but must recognise its function as a partner in communication. Reading is never simply a passive absorption of information, but always involves active processes of recognisti0on, interpreting, predicting and

recalling. In other words, a reader always interacts with the text as though it were another speaker, as you are interacting here and now as you read these words.

Although skills in independent reading with comprehension and engagement are a prerequisite for starting to learn from reading in upper primary school, they are not explicitly taught in upper primary grades, except sometimes in remedial teaching for students assessed at most at risk. Rather these skills in independent reading are acquired in junior primary years.

Reading in junior primary school

It is only in junior primary years that reading is an explicit core focus of the curriculum. Current junior primary teaching practice in Australia approaches reading from three perspectives. One is to teach the alphabet and letter-sound correspondences associated with letters and certain 'blends' of letters. These so-called 'decoding' skills are often associated with 'phonics' reading programs, but are actually much older in the evolution of literacy, probably associated with the origin of alphabetic writing systems, but documented as a teaching approach at least from the 18th century. Another complementary approach is from the perspective of recognising whole words, teaching children to recognise a set of 'sight words' that may be common in many texts. Again this is a traditional strategy that has been popular at least from the mid 19th century. A third complementary approach is from the perspective of meaning in whole texts, particularly children's story books. A key activity here is known as 'shared reading' (Holdaway 1979, 1982). , in which the teacher reads and discusses a story with the junior primary class until they understand it thoroughly and can read it aloud along with the teacher. 'Big books' are often used for this activity in which the teacher points at words and the class reads along. This perspective on reading is often associated with 'whole language' programs promoted from the 1960s, but probably originate with the popularity of children's story reading in the 19th century.

Despite the explicit focus on reading in junior primary grades, using these types of activities, a significant proportion of children are not independently reading with comprehension and engagement by the end of year 3. These children are more likely to be from families of oral cultural backgrounds, where parent-child reading is not a major home activity. For example, results of a survey of Indigenous community schools in north-west South Australia are shown in Figure 3.

Figure 3: Reading and writing levels in remote SA community schools against national averages (from Rose et al 1999)
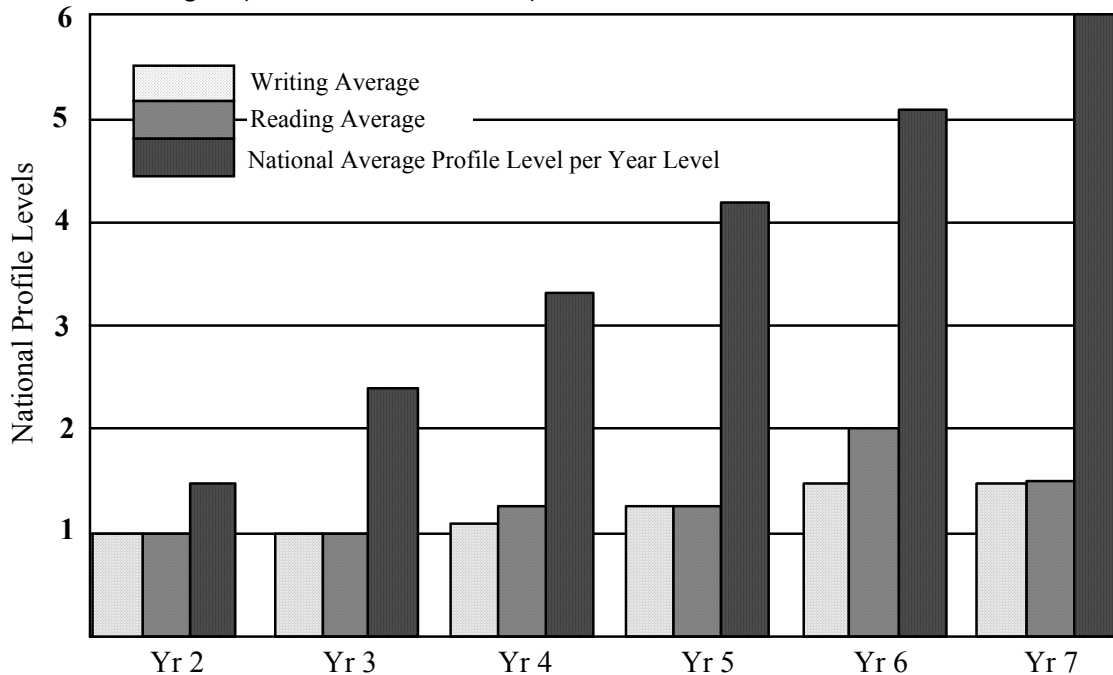
In Year 2, students' average performance would be classified as 'emergent literacy'. This is already behind the general pattern in Australian schools, since most mainstream students are normally writing by Year 2. This lag in literacy achievement was even more marked in Year 3, when still no students had progressed beyond Profile Level 1. By Year 4 only 10% were now at Profile Level 2, while the remainder were still emergent writers. There was a very slight improvement by Year 5, with 25% at Profile Level 2, but still no students were writing above junior primary level (Profile Levels 1 and 2). By Year 6, half the students were writing at Profile Level 2, and 20% at Profile Level 3. However it is a matter of serious concern that by this time, no students were reading and writing above middle primary level (Profile Level 3), and 40% were still emergent writers (Rose et al 1999).

These children cannot take advantage of the standard junior primary reading practices at all. In the shared reading activity, as the teacher points to each word the children in these classes may say them aloud, but very few can recognise the words being pointed to.

In terms of time on task the most significant reading activity in junior primary years is not actually explicit teaching, but the activity sometimes known as 'sustained silent reading', in which children select books they wish to read, and the teacher circulates and listens to each child read in turn. When a child can demonstrate that they have finished reading a book, the teacher ticks it off, and they can choose another to read. Children who are able to benefit from standard alphabet, phonics and word recognition activities can rapidly become independent readers through the silent reading activity. Children who cannot benefit from standard alphabet, phonics and word recognition activities are severely disadvantaged by the silent reading activity.

They may be stuck on low level basal readers in this activity for years, as is commonly the case in Indigenous community schools. Some invent their own version of reading, in which they have a small set of 'sight words' and look up at the teacher as soon as they strike an unknown word. The teacher will usually immediately tell them the word, which they will memorise. Over a couple of weeks they can memorise and so appear to be reading a whole basal reader, so that the teacher ticks it off and they can start on a new one.

The most significant writing activity in junior primary years is writing stories of personal experience, variously known as 'journal writing' or 'process writing'. Children who are most successful at this activity are unquestionably those with the most experience of reading stories in the home and school. Children who are least successful are those who have little or no experience of story reading in home and school, particularly those from oral family backgrounds.

The crucial point here is that both the silent reading and story writing activities of junior primary school evaluate children on experience they have brought with them from the previous stage of their education – in the home.

Reading before school

There is a clear and well-documented relationship between children's preparation in the home, and their ability to benefit from standard literacy practices in junior primary teaching. This cline of preparedness can be divided into three broad groups: most prepared are those from literate middle class families, where children experience an average of 1000 hours parent-child reading before starting school (Bergin 2001, Burgess 2002); moderately prepared are children from literate working class families, where parent-child reading may be similar in quantity but may differ in quality (Williams 1999, 2001); least well-prepared are children from oral family backgrounds (Rose et al 1999). An example of parent-child reading in a literate middle class family is shown in Exchange 1, an extract from a parent-child reading session with an 18 month old child and her mother.[1] The extract is analysed into five interaction cycles, in which each move is labelled to the right. In one type of move, the child selects the book or the page she wants to look at (Slct). In another move, the mother prepares the child to recognise a feature of the text (Prep). The child then identifies a text feature (Ident), the mother affirms her (Affm), and may elaborate with more information (Elab).

Exchange 1: Parent-child reading

Ch	[Brings the book, sits on her mother's lap, and turns the book so the cover is facing right-side-up.]	Slct	1
M	The three little pigs [points to each of the pigs on the cover of the book].	Prep	2
Ch	[Opens the book and turns several pages while her mother is talking]	Slct	
Ch	[points to picture of a tree] Tee [looks up at mother].	Ident	
M	Yes	Affm	
	It's a tree.	Elab	
Ch	[points to another tree in the picture] Tee [looks up at mother again].	Ident	
M	Um, um	Affm	
M	[Points to each of the little pigs in the illustrations]. Here are the little pigs. Bye bye mama [waves her hand]. We're going to build a house.	Prep	3
Ch	[laughs, waves at the mama pig in the illustration and turns the page]	Ident	
M	Look, the first pig…	Prep	4
Ch	[Turns the page].	Slct	
M	Oh, oh, I see that wolf [points to the wolf, eyes get larger as if in fright].	Prep	5
Ch	[turns page and points to wolf] Oh, oh.	Ident	
M	Oh, oh.	Affm	
	He hufffed and puffffed [blowing on child] and he blewww that pig away. Very bad, isn't he? [in different tone directed toward child as an aside].	Elab	

Each of the exchange cycles begins with the mother's preparation move (Prep), with the exception of move (1), in which the child selects and arranges the book, but of course these behaviours have been repeatedly modelled, i.e. prepared by the mother in earlier interactions. In each of the mother's preparations she directs the child's attention and names characters, 'The three little pigs', 'Here are the little pigs', 'Look, the first pig', 'I see that wolf'. But she also directs attention to more complex features, including expectation of events 'Bye bye mama [waves her hand]. We're going to build a house', and feelings 'Oh, oh… [eyes get larger as if in fright]'.

The child is too young to follow the narrative sequence, but is tuned in to the interaction cycle of identifying text features, for which she expects to be rewarded with her mother's affirmation. Accordingly, she responds to the first preparation move (2) by identifying a text feature as 'tee'. The mother affirms this, but also elaborates it with correct articulation in a complete sentence 'Yes. It's a tree', and the child repeats her identifying move, which the mother again affirms 'Um, um'.

In cycle (3) the mother again directs attention to the main characters 'Here are the little pigs'. This time the child recognises a more complex relation between the mother's preparation 'Bye bye mama [waves her hand]' and the illustration, which she identifies by laughing and waving at the picture. In (4) the mother tries to direct attention to the sequence, but the child turns the page. In the fifth cycle (5), the mother captures the child's attention with the expectant 'Oh, oh, I see that wolf'. The child recognises this affective meaning and responds by turning the page, and identifying both the wolf and the feeling 'Oh, oh', which the mother affirms by repeating 'Oh, oh.' This preparation provides a foundation of shared understanding for the mother to then read the text, and tell the child what it implies about the wolf's character 'Very bad, isn't he?'

Through the medium of this highly predictable interaction cycle the mother is repeatedly orienting her child to several crucial features of written stories, long before the child is even ready to follow and understand the story. These include the complex relation of illustrations to the story, judgement of characters and their actions, and expectation of problems. This interaction cycle involves features that are probably fundamental to human learning, including 'joint attention' of parent and child (Tomasello 2000), but has been uniquely adapted in parent-child story reading to maximise children's preparation for school. The type of support the mother provides to the child to understand the story has been described as the **scaffolding interaction cycle** (Rose 2004). This is diagrammed in Figure 5.

Figure 5: Scaffolding interaction cycle

It is important to note here that the middle class activity of parent-child reading has evolved in tandem with the evolution of mass schooling itself, that is the two have co-evolved over the past two centuries. The reading practices of middle class parents have evolved to give their children maximal preparation to take advantage of teaching practices in the junior primary school. At the same time, these junior primary teaching practices have evolved to take advantage of the preparation that middle class parents give their children. Children who are not from this kind of background may be excluded from this equation, most particularly those from oral family backgrounds whose cultural practices have not co-evolved with those of school.

It has been a common response to this problem for at least the last century, to conclude that home reading practices in non-middle class families must be changed to better prepare these children for school. We consider that this response is seriously flawed. It also resonates with the attitude frequently expressed in secondary schools, that students should have been better prepared for secondary study in primary school, and in universities and colleges, that students should have been better prepared for tertiary study in secondary school. All these attitudes reflect an underlying problem with the covert reading development sequence of schooling. This is that each stage of the sequence prepares successful students with skills they will need in the next stage, but that these skills are not explicitly taught within the stage where they are required, in a way that all students need. Nevertheless in each stage, students are evaluated on the skills they have acquired in the preceding stage: in junior primary they are evaluated on experience of story reading they bring from the home; in upper primary they are evaluated on skills in independent reading they acquire in junior primary; in secondary they are evaluated on skills in learning from reading they acquire in upper primary; and at tertiary level they are evaluated on skills in academic reading and writing they have acquired in secondary school. This sequence of preparation and evaluation is diagrammed in Figure 6.

Figure 6: The underlying reading development curriculum of schooling

Strategies for teaching reading and writing in all stage of schooling

The pathology of the underlying reading development curriculum is addressed in the *Learning to Read:Reading to Learn* program by teaching requisite reading and

writing skills at each stage of the education sequence (Martin & Rose 2005b). This skills teaching is built into normal teaching programs across the curriculum, so that teachers are able to cover the curriculum content required by the syllabus, while teaching all learners in their class the skills they need. These strategies benefit both the weakest students in a class and the most successful, as they explicitly teach skills that successful students learn tacitly. The strategies are outlined as follows, including *Reading and writing in the early years*, *Reading and writing stories*, and *Reading and writing factual texts*. Each of these sets of strategies is demonstrated in teacher training videos available on DVD (Rose 2004b,c&d).

Reading and writing in early years

Learning to Read strategies in the early years of schooling capitalise on the standard junior primary practice of *Shared Reading* (Holdaway 1979, 1982). In this activity the teacher reads a children's book to learners repeatedly over 2 or 3 weeks, explaining it and engaging them until they understand it and can say almost every word in the story, or part of it. Commonly a big book is used which enables the teacher to point to the words as she and the children say them together. The *Shared Reading* activity is partly modelled on parent-child reading practices, in which books are read repeatedly until children know them intimately. It serves to engage children in the pleasure of reading, a pleasure that derives from the communal activity with the teacher as surrogate parent, affirming, supporting and encouraging the children.

Shared Reading is unquestionably the most valuable standard activity in junior primary for preparing children to become readers, as it tunes them into the joy of reading for pleasure and constructs shared identities as participants in reading as meaningful communication. For learners from literate family backgrounds it reinforces the experience of parent-child reading, contributing to their rapid development as independent readers. For children from oral family backgrounds it introduces them to these pleasures and identities for the first time. But then there is a gap. As the teacher reads the big book, pointing to the words, children with a developed concept of the printed word as communication, from experience of reading along with their parents, are soon able to recognise the words as the teacher points. But children without this experience are frequently unable to recognise the communicative function of the printed words, to relate the printed objects to the spoken words they are reciting. For many of these children, concomitant activities teaching the alphabet and sound-letter correspondences have no effect, as they do not have a sufficient meaning base to apply these abstract symbols to recognising their function in expressing meaning. In Indigenous community schools in central Australia, where parent-child reading does not occur, we found that no children had learnt to read before Year 3, and most were still on basal readers at the end of primary school (Rose, Gray & Cowey 1999). Some form of this problem undoubtedly occurs in many contexts, where the home culture is oral rather than literate or where parent-child reading is not a regular activity (cf. William 1999 on differences between middle and working class orientations to parent-child reading).

This gap is a terrible waste of opportunity to make all children successful engaged readers, which could then give them sound preparation for learning from reading in

upper primary, and so to succeed in secondary school. The gap results from our failure to train junior primary teachers in techniques to teach children from oral backgrounds to recognise the words they are reading, and so to independently read the books used in shared reading. Yet these techniques are very simple, and are developed from strategies often used by experienced primary teachers in the past, that were abandoned as progressivist philosophy took over early childhood teacher training, and vilified them as rote learning.

As *Shared Reading* constitutes the curriculum stage of preparing for reading in early years, the next stage of detailed reading involves supporting children in *Recognising Words*. Here the first sentence of the story they know thoroughly is written out on a cardboard strip. The teacher and children then point at each word as they say them together, until each child can read the sentence accurately, pointing at and saying the words. This may initially involve the teacher pointing at the words as they jointly read the sentence 2 or 3 times, then holding the child's hand as they point and read again 2 or 3 times, before the child is able to point and say the words themselves. With these simple strategies on a well known sentence, accurate reading can be achieved in a matter of minutes, even with children who previously had no concept of words. In large classes, children simply take turns to point at the words with the strip on an easel, as the whole class recites them.

Once they can read the sentence accurately, the teacher asks children to point out particular words, then to cut off these words or groups of words, put them back in the sentence, and read it again. The cut up words can then be mixed up, so that learners put them back together, and read the sentence again. These activities firstly support young children to recognise the relation between written words as material objects and the meanings they express, and secondly to recognise graphic differences between each word in the sequence of meanings in a sentence. At this stage they need not recognise the spelling patterns of each word, but can differentiate them by visual cues such as first and last letters, supported by the sequence of the sentence. (*Sentence Making* techniques resemble strategies used in the *Breakthrough to Literacy* program (Mackay et al 1978), but use known sentences from reading books, rather than composing new ones. They also resemble strategies used in the *Reading Recovery* program (Clay 1994), but this is an incremental learning program with over 20 assessed levels.)

Once all children can recognise words in and out of the sentence, they are ready for the next stage of *Spelling*, as a first step from reading to preparing for writing. Here the teacher shows learners how to cut up a word into its letter patterns, including syllables and onset and rhyme patterns. Children then practise writing each letter pattern on slates (small white or black boards), before practising to write the whole word. At each step, they observe the letter pattern or word, write it from memory, and then check for themselves if they are correct, in order to encourage self-correction. Repeated practice of letter patterns and whole words, whose meanings they are thoroughly familiar with, rapidly enables young children to remember how to spell them. The practise with letter patterns then enables them to transfer this knowledge to recognising other words.

The sequence of acquisition is thus from meaning to wording to lettering, the reverse of incremental learning models, that treat written language compositionally as letters making up words making up sentences. In contrast, the *Learning to Read* approach does not depend on the ability to name or sound out letters of the alphabet, but takes meaning in context as the starting point for teaching the components of the reading task in manageable steps. On the same principle, accurate letter formation can also be taught in the context of spelling, as the teacher demonstrates and learners practise on their slates.

When learners can automatically spell the main words in the sentence they can jointly reconstruct the whole sentence on their slates, with the teacher supporting by writing words not spelt and the children writing the words they know. The sentence can then be rubbed out and practised again until each child can independently reconstruct the whole sentence. The entire process can then be repeated for the next sentence, and so on until they are able to independently read and write whole paragraphs. Eventually the class can begin to practise writing new stories patterned on the stories they have been reading. This technique is described below for stories in the middle years.

Stories in the middle years

Techniques for reading and writing stories in primary and junior secondary school support learners to read with engagement and enjoyment, to develop identities as readers, and to recognise and use literate language patterns in their own writing. In the first stage, *Preparing before Reading*, the story or part of it is read aloud with the class, but learners are first prepared to follow the words with understanding, by giving them the background knowledge they need to access it, by telling them what the story is about, and by summarising the sequence in which it unfolds. Like shared reading, giving learners background information and the topic of a story are typical good teaching practice, but summarising its sequence goes a step further, to enable all learners to recognise what is happening as the story unfolds.

Learners' understanding of the overall meanings of a text then provides a sound context for recognising the more detailed meanings within each sentence in the *Detailed Reading* stage. At this stage of the pedagogy, students can begin to read the wordings for themselves, but the complexity of this task is alleviated by selecting a short passage and reading it sentence-by-sentence, while providing adequate support for all learners to recognise wordings from the perspective of their meaning. This involves three preparation cues: firstly a paraphrase or summary of the meaning of the whole sentence in commonsense terms; secondly a position cue that tells learners where to look for the wording; and thirdly the meaning of the wording in general or commonsense terms. Learners then have to reason from the meaning cue to the actual wording on the page, and so identify and then highlight the wording.

Once they have successfully identified a wording, learners are prepared for an elaboration of its meaning, by defining technical or literate wordings, by explaining new concepts or metaphors, or by discussing students' relevant experience. In general the distinction between the meanings used for preparing to identify wordings, and the elaborations that follow, is between local meanings within the sentence and more abstract meanings beyond the sentence. The local meaning cue gives all

learners initial access to the wording, but the elaboration explores its meaning in depth. Through this double move learners gain control of the total complexity of language patterns in the text, but in manageable steps. And each step is continually contextualised in the sequence of meanings in the text. The interactive process of detailed reading allows every learner to read a grade appropriate text with fluency and comprehension, no matter what their independent reading level.

We have termed the cycle of preparing, identifying and elaborating the **scaffolding interaction cycle**, diagrammed in Figure 11. This cycle formally describes the micro-interactions involved in parent-child reading (Rose 2004a). The formal description enables teachers to carefully plan a discussion around the language features in a text, to think through which language features will be focused on at each step, how the teacher will prepare students to identify them, and how they will elaborate on them.

Figure 11: Detailed Reading interaction cycle

The scaffolding cycle systematically renovates the 'triadic dialogue' or 'IRF' (Initiation-Response-Feedback) pattern, described by Nassaji & Wells (2000) among many others as endemic to classroom discourse. But there are three crucial differences between the typical IRF classroom pattern and scaffolding interactions. Firstly the initial scaffolding move is not simply a question eliciting a response from learners, but consistently *prepares* all learners to respond successfully; secondly the followup move is not simply feedback that evaluates or comments on responses, but consistently *elaborates* on shared knowledge about text features; and thirdly responses are always affirmed, whereas responses that are inadequately prepared in IRF discourse are frequently negated or ignored. By these means I suggest that IRF has evolved as the invisible central motor of classroom inequality that continually but imperceptibly differentiates learners on their ability to respond, from the first to last years of schooling. In contrast scaffolding interactions are explicitly designed to enable all students in a class to always respond successfully. One of the greatest difficulties teachers find in our inservice training is shifting from habituated IRF discourse to preparing each move, i.e. from continually demanding to giving information. This is because IRF discourse is not directly taught in teacher training, but is habituated through twelve or more years of our socialisation as learners in classrooms, a minimum 12,000 hours of intensive conditioning that can be very hard to undo.

Following *Detailed Reading*, activities that then prepare for writing include *Sentence Making*, *Spelling,* and *Sentence Writing*. As in the early years, *Sentence Making* involves writing sentences on cardboard strips, but at this level using a whole selected paragraph. The teacher guides learners to identify and cut out wordings, using same discussion as for *Detailed Reading*, but less preparation is now needed for them to identify words and groups, and these can be elaborated with more detail and discussion. In groups learners take turns to cut up sentences into phrases, and then words, put them back together, mix them up, rearrange them and construct new sentences with the cards. *Sentence Making* has three broad functions: it intensifies the identification and discussion of meanings and wordings from *Detailed Reading*, it

enables learners to manipulate wordings to create meaningful sequences without the added load of writing, and as individual words are cut out they can be used to practise spelling. In *Sentence Making* activities the learners are taking greater control of the reading and writing process, whether in groups or individually. The scaffolding movement from 'outside-in' is thus from whole class with teacher guidance, to group practice, to independence.

Spelling activities are essentially the same as those described for early reading. Learners can cut up words into syllables, onsets and rhymes and practise writing them on slates, using the standard practice of look-cover-write-check. Once all learners can automatically spell most of the words in the paragraph, they can practise writing the whole paragraph from memory on their slates. The value of this *Sentence Writing* activity is that they are supported to practise fluently writing long stretches of meaningful text, without the load of inventing a story for themselves. To support them to do so, most of the words in the paragraph are turned over, leaving only a few items such as sentence beginnings and grammatical words, as a framework to help them recall the sequence of meanings. When they have finished writing, the words can be turned back over for them to check their wording and spelling for themselves.

The next stage involves reconstructing the text patterns of the passage used for *Detailed Reading*, with new events, characters, settings and so on. This *Text Patterning* begins with the whole class as a joint activity before moving to independent writing. The first step is to read the whole passage again and reiterate the discussion of its global structures and key features. The class then brainstorms new story elements, the teacher scribes all ideas on the board or paper sheets for later use, and the class votes on which ideas will be used for the joint story. In the joint writing process learners take turns to scribe, but the whole class thinks of what to write and how to say it, closely following the original text patterns. This activity supports all learners to use the literate language of the accomplished author they have been reading, at the same time as creating a new story. Independent writing then involves using the same text patterns again, but with individual stories, using and expanding ideas discussed with the class. As with all other stages of the curriculum cycle, some students will be able to do this activity more independently, enabling the teacher to provide support for weaker writers in the class.

Factual Texts

Techniques for reading and writing factual texts can be used at any level, from primary to tertiary study, in any curriculum area. They support learners to develop skills in reading texts with understanding, identifying key information, selecting information for notes, and using it to write texts of their own. Along the way they also develop skills in interpreting and critiquing both the content of texts and how they are constructed.

As with stories, the first stage is *Preparing before Reading*, but this may include more extensive exploration of the overall field, as the text is typically embedded in a curriculum topic. Again the teacher summarises the topic of the text and the sequence in which it unfolds, in words all learners can understand, but also using

some of the terms in the text for learners to key into as it is read aloud. During and after reading, key terms and concepts may also be briefly explained. In *Detailed Reading*, meaning cues are more often paraphrases of technical or abstract wordings. These may draw from commonsense, or from previously built up knowledge in the field. Elaborations will tend to be definitions of technical terms, explanations of new concepts or discussion building on students' field knowledge.

In the *Note Making* stage students take turns to scribe, on the class board as a dot-point list, the wordings that have been highlighted during detailed reading. At this point the students take over control, as the class dictates wordings and spellings that they can all read, prompted by the teacher where necessary. This stage provides many opportunities to practise spelling (and pronunciation), and to further discuss the field and organisation of the text.

When one side of the board has been filled with notes, students take turns to scribe a new text on the other side. The teacher now steps in to support the class, firstly by pointing out discourse patterns and other key elements in the notes. This preparation before writing gives students the general framework of genre and field within which to rewrite the text. The teacher then prepares students to imagine new texts, by drawing attention to notes, suggesting alternative wordings, and further discussing the field. Now instead of identifying literate wordings from commonsense cues, students select more commonsense paraphrases for the literate wordings in the notes. Then the teacher may elaborate by rephrasing the selection, supporting them to check issues such grammar, letter cases, punctuation or spelling, and encouraging critical discussion of the way the original author constructed the field, and how they may reconstruct it. Such high level critical analysis is possible because of the supported practice in deconstructing and reconstructing meanings at all levels of the text. The scaffolding interaction cycle is thus employed for supporting writing, in the form of prepare-select-elaborate. Following the whole class joint construction, the text can be rubbed off and students can practise writing their own text from the same notes, in groups and individually, as a step towards independent research.

These strategies for teaching factual texts have been successfully adapted to primary, secondary and tertiary classrooms. The latter is described in the context of Indigenous tertiary programs in Rose et al 2004. The key to the strategies in the context of academic reading and writing is to reverse the academic cycle, to prepare students for independently reading and writing assignments, diagrammed in Figure 15

Figure 15: Scaffolded academic cycle

Conclusion: resources for teaching reading and writing through the sequence of schooling

This has been the merest sketch of some the literacy teaching strategies developed in the *Learning to Read:Reading to Learn* project. (Training videos that explain the strategies in more detail are listed in the references below.) As the research has expanded, involving more teachers in more educational domains, the possibilities have continued to open up. Each development has occurred through examining the nature of the learning task, using the functional language model, and devising ways to support all learners to practise each component of the task, using the social learning model. The strategies applied depend on the degree of scaffolding support required by the learners for the task, at each stage of a lesson sequence and learning program.

We have then an expanding repertoire of resources for scaffolding that can be arranged on a cline, from least to most supportive. Least supportive teaching practices include not reading in class, not preparing students to read, using inappropriate texts for readings, and not modelling writing tasks. More support can be provided simply by selecting appropriate texts in curriculum planning, for learners to read independently. The next level of support for independent reading can be provided by preparing before reading, including the background (overall field), what the text's about (text field) and what happens in the text (how the field unfolds through it).

More supportive again is to jointly read texts in the class, paragraph-by-paragraph, with learners taking turns to read. Scaffolding support can be provided for this by preparing with a brief synopsis of the paragraph before reading, so enabling all learners to understand as it is read, and then elaborating after reading with

definitions, explanations or discussion of key elements, where necessary. That is the scaffolding interaction cycle of prepare-task-elaborate is applied to each paragraph in joint reading. The combination of preparing the whole text, and then jointly reading the first few pages can be enough for many learners to read the remainder with high comprehension. Support can then be intensified for joint reading by highlighting the word groups realising key information in each paragraph. Learners can be shown how to systematically identify key information, including the paragraph topic in the first or second sentence, its point towards the end, and other key elements where required. These highlighted wordings can then be written as notes, and learners can be supported to write summaries from the notes, and to use them in the construction of new texts drawing on multiple sources.

More support is provided for reading a short passage sentence-by-sentence using the detailed reading strategies discussed above, preparing with sentence meanings, position and meaning cues, and elaborating on each identified wording. Together with preparing the whole text (and joint reading where appropriate), detailed reading of a selected passage can enable learners to read the whole text with high comprehension. It also forms the basis for joint and individual reconstruction of the passage, that in turn enables independent writing. Sentence making, spelling and sentence writing activities then provide the highest level of support for weaker and beginning readers and writers, manipulating and writing just one or two sentences or paragraphs. These six degrees of scaffolding support are set out as follows:

1   Selecting appropriate texts – according to genre, field, mode, ideology
2   Preparation before reading (whole text)
3   Paragraph-by-paragraph reading (eg. chapter/article)
4   Paragraph-by-paragraph text marking (key information)
5   Detailed reading (sentence-by-sentence text marking) (half to one page)
6   Sentence making, spelling & sentence writing (one or two paragraphs)

This set of scaffolding literacy resources can be drawn on at various levels in the education sequence, from early primary to tertiary study. The first two are recommended as part of normal teaching practice in undergraduate classes, to prepare students for academic readings. Strategies 1-5 are recommended as part of normal practice in primary and secondary classrooms, and in tertiary preparation and support programs. The last can be used in early to middle primary as part of everyday practice, and in upper primary and secondary where students need additional support. All these strategies can be applied across curricula to enable learners from any language or cultural background to learn to read with understanding and enjoyment, to use reading for learning, and to write successfully.

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