

Meaning beyond the margins: learning to interact with books

David Rose

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Introduction

It's a strange form of communication, reading and writing. Like speaking it involves at least two interactants, a reader and a writer, but sunders them utterly in time and space. It could hardly be more remote from Trevarthen's portrayal of dialogic interaction:

In a dialogue, face-to-face, two persons fill the space between with expressions of emotion. They are linked by many threads of contact between senses and movements. Each emotion is a test or judgement in that space between selves in the eyes of each other, a vibration in the threads. Eyes make a reciprocal link, each person's regard both signalling interest, or disinterest... But the voice carries a more intimate message of rhythms and tones, and the hands are active in gesturing the impulses of intention and memory, often referring in explicit mimetic ways to absent places and events, and to hopes and fears of protagonists in the spoken narrative... By the way all these parts of the body move in concert, the traffic of thoughts and feelings in one's mind are offered to, and crave response from, the sensibility of the other (2005:104).

For most of us this is the lived experience of everyday social interaction, but for a few of us there is an additional parallel universe of interaction mediated by written texts, disembodied from the direct relationship between speaking people, and the actual times and places in which we speak. Yet as intangible as the written world may be, it can be as real and meaningful for writers and readers as the spoken world of interacting people, things and events. I am not thinking here merely of losing oneself in the plot of an absorbing novel, but of scholars exploring new fields of knowledge, or excavating old ones, making discoveries and recharting the borders of their disciplines, all through the virtual world of the written word.

Writing makes available the realms of knowledge that have accumulated over the centuries, as our power to control the natural and social worlds has expanded. But these 'vertical discourses', as Bernstein calls them (1996/2000), are still only available to the small minority of citizens who have learnt how to read them, to enter their imaginary pathways and interact virtually with their writers, primarily those of us with a tertiary education. The hierarchy of educational opportunity created by such disparities in reading skills has large scale long term consequences for individuals and communities. In a wealthy nation such as Australia, only 10-20% of citizens are afforded access to higher education, another 30% access vocational training, but the majority receive no further education after school, including 10-20% who will spend their lives in poverty (Saunders, Hill & Bradbury 2007). Perhaps more disturbing is the fact that it is overwhelmingly the children of tertiary educated parents who acquire the reading and writing skills in school that are needed to matriculate to university; other children are much less likely to do so. A meagre 10% improvement in university access in Australia in three decades (Rose 2004, 2007, Australian Bureau of Statistics 1994, 2004) indicates that whereas up to 90% of children from tertiary educated families may matriculate, perhaps 10% of children from other families do so.

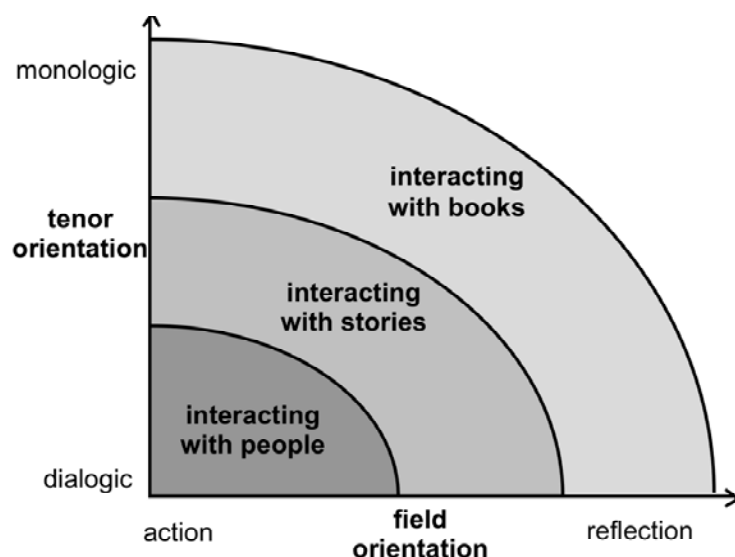
It is widely recognised that children's experience of reading in the home is a major factor in their success in school. Children in literate middle class families reportedly spend up to 1000 hours in parent-child reading before starting school (Adams 1990), and large-scale research has found significant differences between tertiary educated and other parents, in the way that they read with their children (Torr 2004, Williams 1995). Beyond reading, ethnographic studies have found general semantic differences in parent-children interactions in families with different educational backgrounds (e.g. Hasan & Cloran 1990, Painter 1996). As interest in multimodal discourse analysis has grown, there have also been several studies of semantic patterns in children's picture books (e.g. Unsworth & Wheeler 2002). The focus of these studies is particularly on what is being learnt in the home, i.e. variations in the grammatico-semantic resources that children are acquiring. What is less well understood is how children learn to engage with books as a mode of communication, and how this provides a foundation for learning from reading in school. Yet this is an essential further step if we are to design teaching practices that can provide these resources to all children equally. The aim of this paper is to outline some aspects of how children learn to engage with reading in the home, and how these insights can be used to design interactional practices in school that enable all students to succeed.

1 Interaction in speaking and writing

To trace the movement from spoken to written modes of interaction, the first step is to sketch relations between the modes themselves, that is variations in the roles of language in communication. The analysis here assumes the stratified model of language in social context described by Martin & Rose (2007a, 2008). At the level of register, the tenor of relations between speakers may be equal or unequal, close or distant, and fields of activity may be everyday, specialised, technical or institutional. The roles of language are to simultaneously enact the tenor of relationships and construe these fields of experience. These dimensions of register are coordinated at the higher level of genre, the types of text-in-context that are recognisable in a culture, from stories to arguments to casual conversation, each of which may vary in its tenor, field and mode.

As language both enacts relations and construes fields, its mode varies in two dimensions: in terms of field, from texts that accompany activity (language-in-action) to texts that constitute their own field (language-as-reflection), and in terms of tenor, from spoken dialogue to written monologue. Values along these two dimensions are independently variable, for instance one can talk like a book, or write speech down. But taking both together, at the most dialogic end of language-in-action are direct interactions between people, the mode in which children first acquire language. Further along the continua are oral stories, in which speakers reconstruct past experience in face-to-face contact with listeners. More remote again are written texts that construct new fields, from literary fiction to academic theory. A focus of this paper is on what happens to the relationship between interactants in this progression, from interacting directly with people, through interacting with oral stories, to interacting with books. These variations in mode are modelled in Figure 1, and illustrated with Texts 1-3.

Figure 1: Mode variations



1.1 Interacting with people

Dialogic language-in-action is illustrated here with an exchange between two people engaged in an activity. It is translated from the Australian language Pitjantjatjara, in order to illustrate these pan-cultural patterns of spoken discourse (original in Rose 2001). The activity is digging for the desert delicacy, honey ants, which store nectar in their distended abdomens, in an underground chamber. The person doing the digging is learning how to identify and follow the tiny tunnel leading to the honey ants' chamber. The other person is directing the activity, teaching her how to find it. The genre is thus a pedagogic interaction.

The exchange is analysed as follows (after Martin & Rose 2007a). As the learner is doing the work, she is the 'primary actor' in the exchange, labelled here as A1. The teacher is telling the learner what to do, and so is 'secondary actor' or A2. The teacher also provides information, as the 'primary knower' or K1, while the learner asks for information, and so is 'secondary knower' or K2. The purpose of each move is also labelled, as the learner checks with the teacher, who evaluates, instructs what to do, and directs attention.

Text 1: Digging for honey ants

	Move		Purpose
Learner	K2	<i>What's this?</i> [points to tiny hole]	check
Teacher	K1	<i>No that's no good.</i>	evaluate -
	A2	<i>Throw more soil over here.</i> [points to other side of excavation]	instruct
Learner	K2	<i>This?</i> [pointing]	check
Teacher	K1	<i>Yes exactly, that hole there.</i>	evaluate +
Learner	A1	[starts to dig]	comply
Teacher	K1	<i>No, that's become no good.</i>	evaluate -
	A2	<i>Look.</i> [pointing to other side]	direct attention
	K1	<i>This is good.</i>	evaluate +
	A2	<i>Look.</i> [pointing]	direct attention
	K1	<i>It's over yonder.</i>	direct attention
	A2	<i>Dig away on the other side.</i>	instruct

Learner	K2	This? [pointing]	check
Teacher	K1	Yes, that's it!	evaluate +
	A2	Try that there .	instruct
Learner	A1	[starts to dig]	comply
Teacher	K1	That's it!	evaluate +
Learner	K2	Aha!	recognise

The teacher-learner relation is directly enacted move-by-move in the exchange here, as the learner asks for information and the teacher provides it, while the teacher directs activity and the learner performs it. However a key role of the teacher, as primary knower, is to provide evaluations to the learner's questions and actions. The evaluations are positive or negative, and steadily guide the learner towards the pedagogic goal: competence in the task of recognising the honey ants' tunnel. In addition, the field of the text is entirely dependent on the context, accompanying the activity of digging and looking for the tunnel. Each thing or place is referred to by exophoric pronouns (in bold), directing the learner's attention around the context. And these verbal directions often accompany manual pointing.

1.2 Interacting with stories

The intermediate values along the two mode dimensions, of spoken monologue that reconstructs experience, are illustrated in Text 2, a traditional Pitjantjatjara story about the origin of fire. The story genre is a narrative: its Complication is that only the plains bustard *Kipara* possessed fire, and the people, who are likened to crows, could not snatch it from him, as he travelled across the country and submerged it in the ocean; the Resolution is its rescue by the black falcon *Warutjulyalpai* (literally 'snatches-fire'), who distributes it to the people. This story, among many others, would be heard often by Pitjantjatjara children, particularly around the evening fire. The Complication comprises a series of worsening problems, and the Resolution includes a solution followed by the people's reaction. These phases are labelled to the right (for discussion of story phases see Martin & Rose 2008, Rose 2006).

Text 2: *Kipara*

Orientation

This is a Dreaming story (*tjukurpa*), it is said. The people were living in this setting land. In all the land, it's said, lived the people.

Complication

And they, those people, had useless fire, with black firesticks (i.e. useless for igniting a fire). With black firesticks it's said they were living. problem 1

Look, they were unable it's said to obtain fire. It was like perpetual night, like living in darkness, in the dark night, and those people were living in ignorance. problem 2

And it's said one man, *Kipara* (plains bustard), was living with fire with good firesticks. So in numerous places men were thinking of this one man, of getting that fire from him. problem 3

And they were unable to get it, as they followed him and followed him continuously, snatching at the fire. All those men were unable to snatch the fire from him. problem 4

And this journey became the *tjilka* (the annual pilgrimage for male initiation ceremonies). It was the *tjilka* host itself that was carried along in this journey. comment

And they were unable to snatch it, as they followed him continuously, snatching at the fire. And he kept going continuously, travelling through yonder country, travelling and travelling across the land. problem 4

At another place, at the sea he arrived, at the great ocean, and those men also he carried along with him. Into the sea it's said *Kipara* submerged, into the ocean. problem 5

Resolution

And *Warutjulyalpai*, the man, the bird *Warutjulyalpai* (black falcon, literally 'fire- solution

snatches'), soared through the sky, as *Kipara* it's said submerged. Here on his head the fire was burning. And it's said *Warutjulyalpai*, flying swiftly, snatched the fire.

He brought it back this way. To *Watar* he brought it, and he cast out firesticks to various places. And *Watar* is now the place of 'fire burning', the sacred well of fire. The sacred well of fire is *Watar*, Mt Lindsay. And from there he cast out firesticks to many different places.

And those crows who lacked fire (i.e. the people) saw it and said, "Hey, fire is burning towards us!" and they snatched up firesticks. Then they jumped up and danced, singing "Waii!" Joyously, it's said, those crows who lacked fire, who had been crouching miserably, it's said, jumped up at that, and they saw "There is fire over there with firesticks." It was burning. And they danced with great joy. That's how it was. reaction

And that is all the fire, the fire that we now have. It is ignited by rubbing sticks. And fire is a good thing. That's how it was. comment

In oral story telling, the personal relation between speakers in a dialogue is displaced, at least in part, to a personal relation that listeners engage in with protagonists in the story. The affective core of this relation is empathy or antipathy. Empathy may be enacted by presenting protagonists with whom the listener can identify; protagonists encounter problems that create feelings of apprehension or commiseration in the listener, which are eventually relieved by resolving the protagonists' problems. Empathetic feelings may be intensified by introducing antagonists who threaten the protagonists, by building problems in a crescendo, and by the protagonists expressing their own reactions to the problems and solutions.

In the *Kipara* story, the protagonists are initially the people, whose problem of lack of fire is compounded by the darkness in which they must live, contrasting with the light and warmth of the family fire, around which children listen to the story. The people's misery, *Kipara's* villainy in denying them fire, and *Warutjulyalpai's* heroism in rescuing it, are not stated explicitly in the words of the story, but are all expressed by the sensory contacts between storyteller and listeners that Trevarthen describes – eyes widening and narrowing, hands gesturing intention and direction, the voice intimating pity, frustration, fear, relief, joy. Furthermore the children listening are familiar with the protagonists, crows who crouch in darkness and snatch at scraps, the bustard who walks in long strides with his beak in the air, and the black falcon who hovers high above grassfires and dives into them after prey.

Where attention was directed in Text 1 by exophoric references to the context, in the story listeners' attention is directed by anaphoric references to previous mentions in the text (underlined), and by the textual organisation of its clauses. For example each shift from one phase to the next is signalled to the listener by marked starting points in a clause. The first problem is signalled by iterating identities *And they, those people*, the next problem by a series of circumstances *Like perpetual night, in darkness, in the dark night*, the third problem by iterating an identity *And it's said one man, Kipara*, the fourth problem by a series of circumstances *At another place, at the sea*, and the solution by again iterating an identity *And Warutjulyalpai, that bird Warutjulyalpai*.

In sum, the resources that storytellers draw on to engage listeners include (at least):

- global structures such as a Complication and Resolution,
- more local phases that build and release tension and intensify feelings,
- empathy for protagonists and antipathy for antagonists,
- bodily expressions that give visceral values to empathy and antipathy,

- textual prominences that direct listeners' attention to salient events.

In each of these respects, patterns of interacting with stories are recognisable in one culture after another (see Rose 2005 for a survey).

1.3 Interacting with books

In contrast, written texts cannot call at all on the resources of sensory contact, and far less on familiarity with their field to engage listeners. In their place, lexical and grammatical resources become more developed in written modes. This trend is illustrated in an extract from the novel *Follow the Rabbit Proof Fence* (Pilkington 1996), in which the Aboriginal girls at the heart of the story are taken from their families by a white policeman. In Text 3, the stages of this anecdote are labelled – Complication and Reaction¹ – along with the story phases within each stage, including worsening problems, a description, characters' reactions, and a final comment by the author. In addition, words that enrich description (lexis) are marked in italics, and words that express attitudes (appraisal) are in bold type.

Text 3: *Follow the Rabbit Proof Fence* (extract)

Orientation

Molly and Gracie finished their breakfast and decided to take all their dirty clothes and wash them in the soak further down the river. They returned to the camp *looking clean and refreshed* and joined the rest of the family in the shade for lunch of *tinned corned beef damper and tea*. setting

Complication

The family had **just** finished eating when all the camp dogs began barking, *making a terrible din*. "Shut up," *yelled* their owners, throwing stones at them. The dogs *whined and skulked away*. problem 1

Then *all eyes turned to the cause of the commotion*. A *tall, rugged* white man stood on the bank above them. He **could easily have been mistaken** for a *pastoralist or a grazier with his tanned complexion* except that he was *wearing khaki clothing*. description

Fear and anxiety swept over them when they realised that the **fateful** day they had been **dreading** had come **at last**. They **always** knew that it would **only be a matter of time** before the government would track them down. reaction

When Constable Riggs, *Protector of Aborigines*, **finally** spoke his voice was **full of authority and purpose**. problem 2

They knew **without a doubt** that he was the one who took children *in broad daylight* - not like the **evil** spirits who came into their camps at night.

"I've come to take Molly, Gracie and Daisy, the three half-caste girls, with me to Moore Rive Native Settlement," he *informed* the family.

Reaction

The old man nodded to show that he understood what Riggs was saying. The rest of the family **just hung their heads**, *refusing to face* the man who was taking their daughters away from them. **Silent tears welled in their eyes and trickled down their cheeks**. reaction

Molly and Gracie sat *silently* on the horse, **tears streaming down their cheeks** as Constable Riggs turned the *big bay stallion* and led the way back to the depot. reaction

A high pitched wail broke out. The **cries of agonised** mothers and the women, and the **deep sobs** of grandfathers, uncles and cousins **filled the air**. Molly and Gracie looked back **just once** before they *disappeared through the river gums*. Behind them, those remaining in the camp found sharp objects and *gashed* themselves and *inflicted deep wounds* to their heads and bodies as an *expression of their sorrow*. reaction

The two **frightened and miserable** girls **began to cry, silently** at first, then **uncontrollably; their grief made worse** by the **lamentations of their loved ones** and the *visions* of them sitting on the ground in their camp letting **their tears mix with the red blood that flowed** from the cuts on their heads. reaction

This *reaction* to their children's *abduction* showed that the family were now in **mourning**. They were **grieving** for their *abducted* children and their *relief* would come only when the **tears ceased to fall**, and that will be a long time yet. comment

After presenting the protagonists, the author introduces tension with the dogs barking, pauses to describe the antagonist who caused it, and intensifies it with the family's feelings towards him, then worsens the problem with his brutal announcement, followed by a series of climaxing reactions, which are then explained to the reader. As in the oral Pitjantjatjara story, shifts from phase to phase are signalled by their starting points, the first description with *Then all eyes turned*, the reaction by *Fear and anxiety*, the next problem by an iterated identity *When Constable Riggs, Protector of Aborigines*, and the series of reactions by shifts from one identity to another *The old man, Molly and Gracy, A high pitched wail, The two frightened and miserable girls*.

So written stories can deploy the same resources of generic stages and phases as oral stories do for enacting empathy and antipathy, apprehension and commiseration, tension and relief. But in the absence of sensory contact with storytellers and familiarity with the field of a story, the events are expanded instead with far more diverse descriptive lexis and appraisals (including metaphors), as well as with grammatical expansions. In this extract descriptive lexis and appraisals comprise a full third of the total words. The immediate sensory exchange between speakers in a dialogue, and between storyteller and listeners in an oral story, has been replaced by words alone. Instead of a living, feeling, speaking, gesturing person, the reader now interacts with words on the pages of a book.

2 Learning and interaction

Follow the Rabbit Proof Fence is a novel written for adult readers, but the capacity for being absorbed by its events, characters, scenes, feelings and judgements begins for most readers in early childhood, particularly with parent-child reading in the home. How do young children learn to do without the direct expressions of interpersonal relations in spoken interactions, and instead engage on their own with emotions expressed by written words? The answer, of course, is that reading most often begins not as a solitary activity, but as a medium for the sharing of emotion and attention between adult and child.

In this respect learning to read is no different from learning to speak. Careful observers consistently foreground the sharing of emotion and attention in early childhood learning. Painter (2003) shows how language begins in infancy, not with experiential categorisations, but with affective appraisals of perceptions that are shared with caregivers. Halliday (1993) describes how each new breakthrough in language learning occurs in the context of emotionally charged events. Trevarthen (2005) describes how communication between child and adult begins immediately after birth with the exchange of emotion. Work on the neurophysiology of learning shows the central role of emotion in focusing attention:

Critical effects of emotional arousal relate to modulation of attention. First, attention appears to be focused on emotionally arousing stimuli, increasing the likelihood that emotional aspects of experiences are perceived. Second, emotionally arousing items appear privy to prioritized or facilitated processing, such that emotional items can be processed even when attention is limited... Because the ability to attend to and to perceive stimuli is a necessary requirement for remembering information, these effects of emotional arousal on attention influence the frequency with which emotional information is remembered (Kensinger 2004: 242).

What needs emphasising here is the intimate relation between emotion, attention and interaction. From about nine months, children are able to attend to both the adult and external phenomena simultaneously, a peculiarly human behaviour known as joint attention (Tomasello 2000). Joint attention then becomes the medium for cultural learning, as adults direct children's attention, or follow their attention to things and activities, then name them, evaluate, demonstrate, explain and so on. Again, shared emotion is critical as adult and child exchange evaluations of things and actions. These processes are illustrated in Figure 2, in which an adult demonstrates an activity (drawing), directs the child's attention, and evaluates it with positive emotion, indicated by the smiles of both adult and child. This positively evaluated demonstration then prepares and motivates the child to attempt the activity, watched by the adult who will warmly praise his efforts.

Figure 2: Directing attention and emotion



Source: author

Such cycles of learning interactions can be observed in all manner of pedagogic contexts. In classroom interactions they have been dubbed 'IRF', or initiate-response-feedback cycles, in which the teacher's initiating move is typically a question. In other contexts, such as the parent-child interaction in Figure 2, the initiating move typically prepares the learner to perform a task – here demonstrating and directing attention. Such preparations by demonstration are common in learning domestic activities, manual trades and crafts, sports and technical professions, from engineering to medicine. Preparations are designed by teachers to enable learners to successfully do a task, or steps in a complex task, so that the feedback can be affirming. The affirmation provides the 'emotional arousal' for attending to a further step, in which the task may be elaborated on in some way, extending the learning. For example, a child's drawing such as in Figure 2 may be interpreted, by the adult identifying elements in it, or by asking the child to say what she had drawn.

3 Reading in the home

Parent-child reading works with this same repertoire of emotion and attention, to engage young children in the act of reading as a meaningful activity, that is, to learn to interact with a book as a partner in communication. How this engagement with books develops is illustrated in the following interaction between a mother and her 18-month old child (from McGee 1998:163), around *The Three Little Pigs* (Kellogg

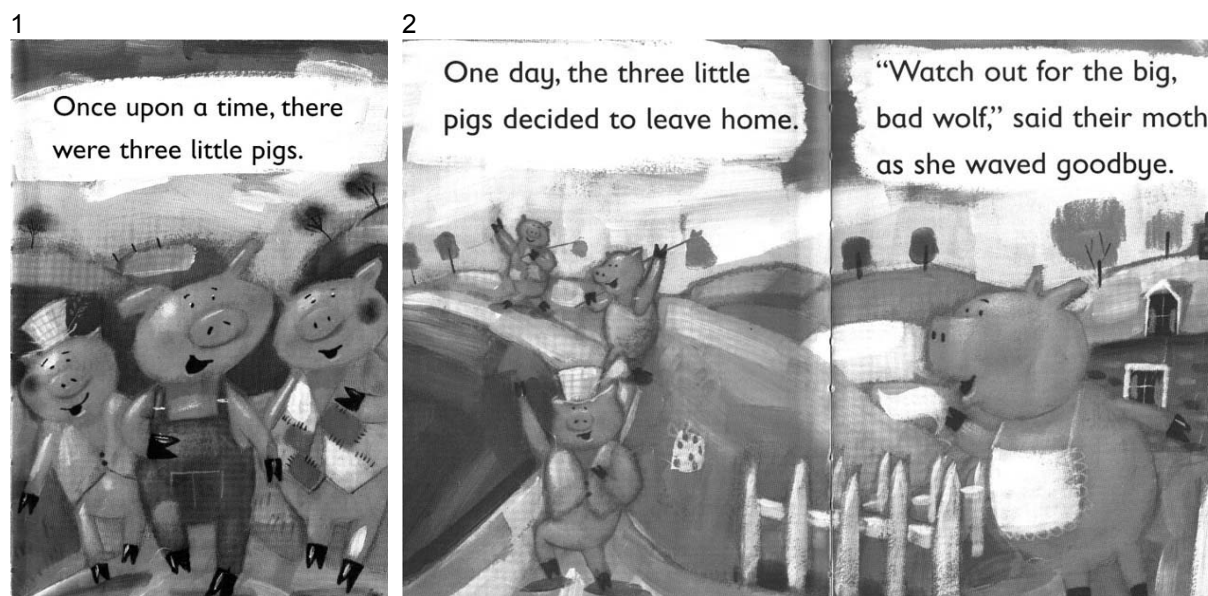
1997), with relevant pages shown in Figures 3 and 4. The extract includes three cycles of interaction, over four pages of the book.

As with Text 1, each move is labelled as K1, K2, A1 or A2. Non-verbal moves are further distinguished as 'nv'. For example, the first move in the exchange is the child bringing and opening the book. This is labelled A2nv, as she is implicitly demanding her mother read it.

In addition, the purpose of each move is labelled in two steps. Firstly each interaction cycle consists of four types of phases. In one phase, the mother **prepares** the child to recognise a feature of the text; in the second the child **identifies** a text feature; in the third the mother **evaluates** her response; in the fourth she may **elaborate** with more information.

Within each of these phases, the purpose of each move is further specified. For example, in the first interaction cycle, the mother draws the child's attention to an image in the book by pointing at it. This move is labelled as A2nv, as the mother is implicitly demanding the child pay attention to the image. She then names the image, and this move is labelled as K1, as she is giving information.

Figure 3: Images in text 4



Source: Kellogg 1997

Text 4: First cycle

	Move		Purpose
Child	A2nv	[Brings the book, sits on her mother's lap, opens the book]	
1 Mother	A2nv	[points to each of the pigs on page 1]	Prepare image
	K1	<i>The three little pigs.</i>	name
Child	A1	[points to picture of a tree]	Identify image
	K2	<i>Tee</i>	name
	K2nv	[looks up at mother]	Evaluate expect affirm
Mother	K1	<i>Yes</i>	affirm
	K1	<i>It's a tree.</i>	Elaborate wording
Child	A1	[turns to page 2 and points to another tree]	Identify image
	K2	<i>Tee</i>	name
	K2nv	[looks up at mother again]	Evaluate expect affirm
Mother	K1	<i>Um, um.</i>	affirm

In the Prepare phase, the mother draws attention to the story's main characters by pointing (A2nv) and names them (K1). The child is too young to recognise the significance of the characters, but interprets the mother's move as preparing her to likewise point and name. The Identify phase thus involves her pointing at the background images of trees (A1) and naming them (K2).

Significantly the child does not simply imitate her mother, but responds with her own innovation on pointing and naming. Her motivation for doing so is apparent as she looks to her mother to affirm her effort. This move is labelled K2nv as she is asking for evaluation, so that the mother's affirmation is K1. The Evaluation thus involves both these moves, apparently initiated by the child.

The positive emotion induced by success and affirmation expands the child's potential for learning something more. Elaboration phases capitalise on this positive emotion, and on the learner's attention to what has just been identified. Although the child has not recognised the significance of the characters here, the mother capitalises on her attention, by repeating what she had said, with correct pronunciation in a full sentence. The child has thus received a micro-lesson in grammar and articulation, at the moment when she is affectively and cognitively most likely to retain it.

The child then innovates again by turning the page and identifying another tree, and asks and receives another affirmation. However the mother does not elaborate this time, but takes advantage of her attention to initiate a second cycle, drawing her attention to the characters, and elaborating on their actions.

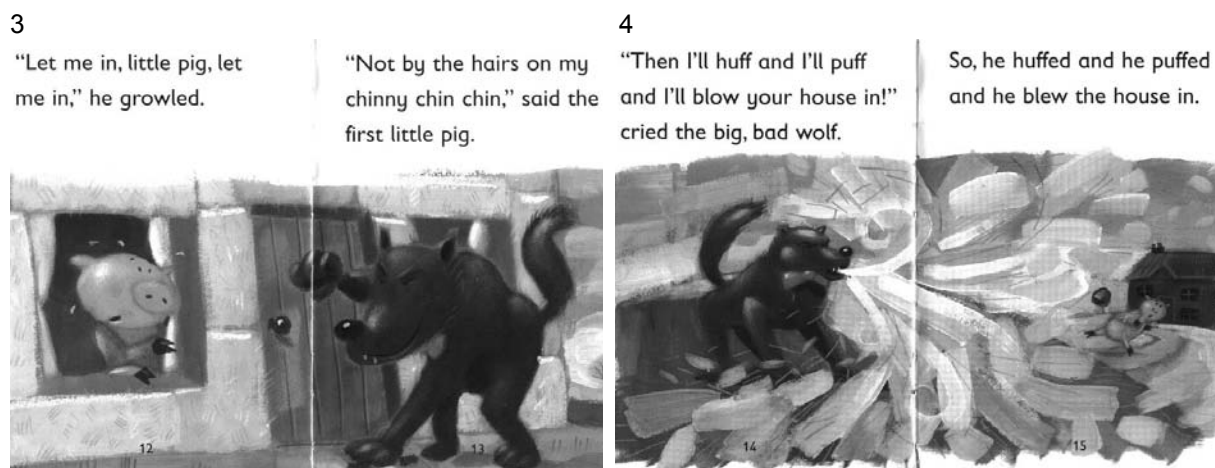
Text 4 (cont): Second cycle

2 Mother	A2nv	[Points to the little pigs on page 2]	Prepare image
	K1	<i>Here are the little pigs.</i>	name
	K1	<i>Bye bye mama.</i>	Elaborate image
	K1nv	[waves her hand]	activity
	K1	<i>We're going to build a house.</i>	expectancy
Child	K2nv	[laughs]	Identify affect
		[waves at the mama pig in the illustration]	image
	A2nv	[turns to page 3]	expectancy

In this second cycle, the learning goal progresses from identifying characters to engaging the child's empathy with their activities, and expectancy of events to come. Again the mother prepares by pointing and naming the characters, but then elaborates their activities in words and a gesture "Bye bye mama [waves her hand]. We're going to build a house." These are not the words in the text, rather the images are re-interpreted in terms she knows the child will recognise from her own experience.

The child can thus see herself reflected in the characters, in their activities and their relationship with their mother. This identification with the protagonists is the seed of empathy. Accordingly the child laughs in recognition, repeating the waving gesture. Her identification also engages her interest in the characters' intentions, and so in the events to come, so that she turns the page to see what happens next.

Figure 4: Images in text 4 continued



Source: Kellogg 1997

Text 4 (cont): Third and fourth cycle

3	Mother	A2nv	[points to the wolf]	Prepare	image
		K1	<i>Oh oh,</i>		affect
		K1	<i>I see that wolf.</i>		self
		K1nv	[eyes get larger as if in fright]		affect
	Child	A1	[turns to page 4 and points to wolf]	Identify	image
		K2	<i>Oh oh.</i>		affect
	Mother	K1	<i>Oh oh.</i>	Evaluate	affirm
4	Mother	K1	<i>He huffed and puffed</i>	Prepare	wording
		K1nv	[blowing on child]		activity
		K1	<i>and he blewww that pig away.</i>		wording
		K1	<i>Very bad, isn't he?</i>	Elaborate	judgement
			[in different tone directed toward child as an aside].		

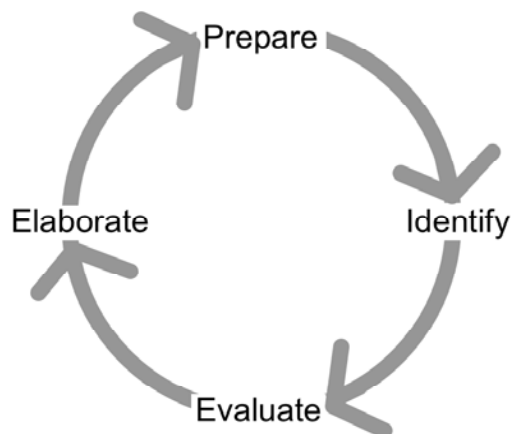
In the third cycle the learning focus progresses explicitly to feelings of empathy and antipathy. This time the mother directs attention to both the image by pointing, and her own facial expression with *I see that wolf*. She evaluates the image with the apprehensive *Oh oh*, interpreting the pig's facial expression with her own, modelling the reader's empathy with the protagonist, and the antipathy to the antagonist. The child thus recognises both the emotion and expectancy inherent in the apprehension, and responds by turning the page, and pointing to the next picture of the wolf and repeating *Oh oh*, which the mother affirms by repeating *Oh oh* herself.

In the fourth cycle the mother reads the words on the page for the first time. She prepares the child to recognise their relation to the image by blowing on her, imitating the wolf in the image. Recognising the wolf's behaviour in both words and image then provides a context for elaborating with a moral judgement *Very bad, isn't he?*

Here are the core elements to be found in any learning interaction: the teacher directs attention, or follows the learner's attention, and models a behaviour, the learner applies the model, the teacher evaluates, and may then capitalise on the learner's success and positive feelings, by elaborating with more information. The teacher is almost always the primary knower, with the authority to evaluate the learner's responses, as well as providing information, as we saw in Text 1. The learner is by definition the secondary knower, the beneficiary of the information provided, whose own offerings are evaluated by the teacher/parent.

We have described these patterns as scaffolding interaction cycles (Rose 2004, 2007). In the parent-child reading genre they appear to consistently include the four phases, Prepare, Identify, Evaluate, Elaborate, diagrammed in Figure 5.

Figure 5: scaffolding interaction cycles in parent-child reading



5 The pedagogic genre

In this brief excerpt, the child's attention has been drawn to features that identify main characters, engage readers in their activities, expect sequences of events, enact emotional reactions, and judge their behaviour. The continual affirmations serve to engage the child in the activity of story reading, rewarding her for responding to the mother's preparing moves. But the affirmations also function to give intense positive value to the meanings that the mother presents and the child repeats. Each exchange of value-laden meanings then enhances the child's capacity for understanding a further elaboration, which the mother usually takes advantage of.

The mother carefully and deliberately interprets the meanings in the book for the child. She adjusts, translates and reduces the meanings expressed by words and images in the book, down to the level of spoken language she knows the child will understand. This includes making implicit meanings explicit, that must be inferred by readers from the co-text, or interpreted from their own experience and values. So in order to make the text's field accessible to the child, the mother commits less wordings than are presented in the text, but commits more meanings that are implicit in the text. In Bernstein's theory of pedagogic classification (2000), the boundary between the child's oral experience and the written discourse of the book is

weakened in each preparation move. But once the child understands each meaning in her own terms, the boundary is then strengthened in elaboration phases, to extend her understanding of the esoteric field of the book.

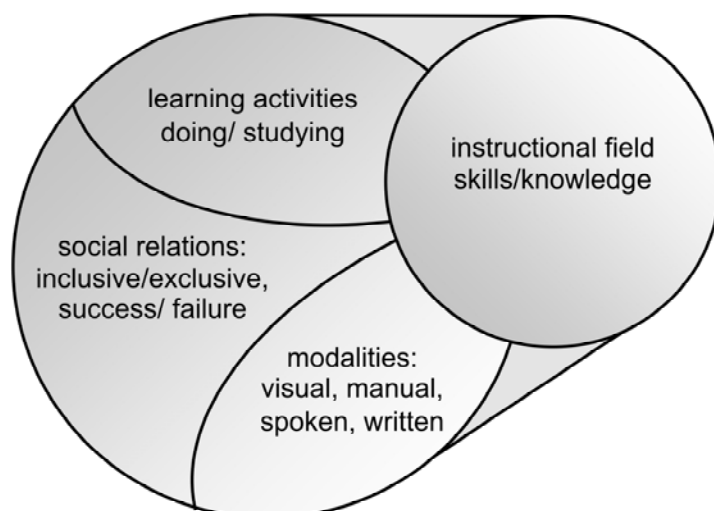
Over weeks this book will be read again and again. Each time the new meanings presented in elaborations become shared meanings, that then become the basis for preparing more new meanings, until the child is thoroughly familiar with both the book's words and its semantic patterns. These patterns will then be identified and further elaborated in the next book. Over months and years the complexity of reading books increases, that is their mode becomes more highly written. The long term instructional sequence, through which the child's repertoire is steadily expanded, is thus shaped by the system of written language, the reservoir of meanings she encounters in children's literature. At the same time, the child will tacitly acquire a general orientation towards recognising, interrogating and interpreting patterns of meaning in written texts. This is the semantic orientation that generates and is fed by the play of layered meanings in literature, the literary 'gaze' that distinguishes members of the middle class' inner circles. Furthermore, the child is building an orientation to interacting about these meanings with her parents, or talk-around-text. When she gets to school, the child will be ready to apply these orientations to texts and talk-around-text, and so display an aptitude for school learning that will win her constant praise from her teacher, which will in turn enhance her capacity for further learning, and so on, into the bright future of a successful student.

The elements of learning that we have identified to this point constitute what we shall call the pedagogic genre, including four dimensions:

- learning activities (doing or studying)
- modalities of learning (visual, manual, spoken, written)
- social relations and identities (inclusive/exclusive, successful/failing)
- instructional field (skills/knowledge).

The instructional field is projected or brought into being by the pedagogic activities, modalities and relations, as the act of saying 'projects' what is said (after Halliday's 1994/2004 description of the grammar of saying). The projecting relation between the instructional field and pedagogic activities, modalities and relations is modelled in Figure 6.ⁱⁱ

Figure 6: The pedagogic genre



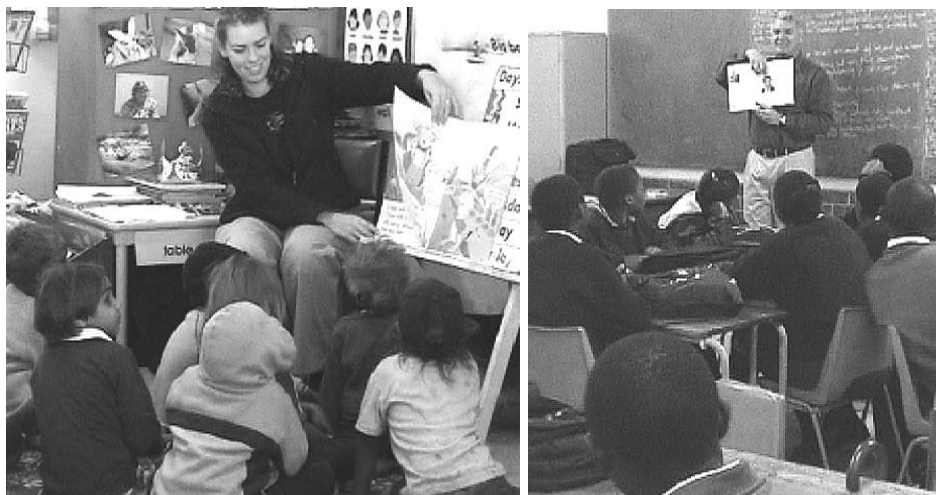
Re-interpreted in these terms, the instructional field in parent-child reading includes both the story of the particular book, and general patterns of meaning to be found in written stories, such as characters, expectancies, feelings and judgements. The child is acquiring an orientation towards recognising, interrogating and interpreting such semantic patterns, a discourse about discourse, or metadiscourse. The field of the story is made explicit for the child, but the metadiscourse is necessarily implicit, as the mother cannot name the categories of discourse she is drawing the child's attention to. This two-level acquisition is made possible by the cycles of preparation and elaboration in the pedagogic activity of parent-child reading, that shunts between spoken, written, visual and manual modalities, and provides continual affirmation to enhance the potential for understanding, well beyond the child's independent competence.

4 Reading to learn

These lessons from parent-child reading are applied in the literacy pedagogy, *Reading to Learn* (Martin 2006, Martin & Rose 2005, 2007b, Rose 2004, 2007, 2008, www.readingtolearn.com.au), together with an explicit metalanguage designed from genre and register theory and discourse analysis (Martin & Rose 2007a, 2008). The sequence of the pedagogy is informed by this model of language-in-context, ordering the complex task of reading and writing in manageable steps, from patterns in the context, to the text, to its sentences and words, enabling all learners to succeed with each component in turn.

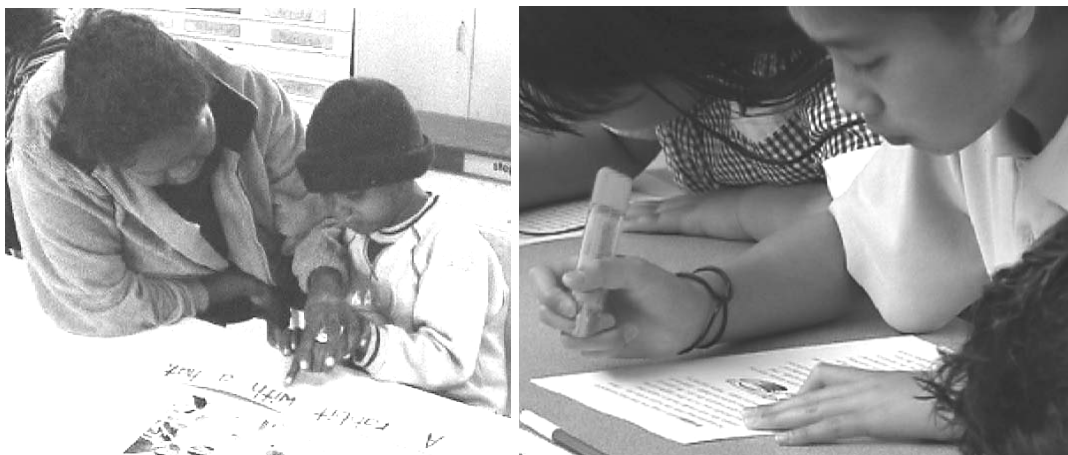
The first step prepares learners for following a text as it is read aloud, using spoken, visual and manual modalities to explore the text's field, depending on the nature of the text and the needs of students. In early years classes for example, the teacher may talk through a picture book with children, using discussion around the pictures, similar to that above in Text 4. As with parent-child reading, the text may be read again and again until the children are thoroughly familiar with the field and can say and understand all the words of the text. With older students, visual images may be used to explore the field, including illustrations in books, video or other images. The sequence of the text will then be orally paraphrased or summarised by the teacher in terms familiar to the students, providing a framework for them to follow with general understanding as it is read aloud, illustrated in Figure 7.

Figure 7: Preparing before reading: spoken - visual



Once students are familiar with the sequence of meanings in the text, they are supported to read it themselves, sentence by sentence, in an activity known as Detailed Reading. With young children beginning to read, the teacher first writes sentences from the reading story on cardboard strips. The children are then shown how to point at each word in the familiar sentence as they say them, and then to cut up words and word groups, put them back in the sentence and read it again, until they can read the sentence accurately. This practice is a powerful catalyst for children to make the semiotic journey from the spoken to the written medium, via visual and manual modalities. Older students are orally guided to identify each group of words in each sentence from the reading text, using cues for their meaning and position in the sentence. The students then mark the words with highlighters or underlining, and their meaning may be elaborated. These techniques are shown in Figure 8

Figure 8: reading manually with sentence strips and highlighters



The manual practice of manipulating and marking wordings powerfully reinforces the movement between aural and visual modalities, leading to reading with understanding and fluency. These activities materialise the semiotic relations between meaning and wording and between spoken and written expression. When a child is first learning to read, they must consciously recognise the Token=Value relation between the spoken wordings they know and the written wordings on the page. The acts of pointing and naming, and cutting up and manipulating word groups and words in a sentence, focus the child's attention on these functional segments, as they are both physically and semiotically in control of these objects-as-meanings.

Once this control has been mastered, the Token=Value relation of spoken and written expression evaporates, as graphology replaces phonology as the medium of expression. That is, experienced readers do not translate from written to spoken expression in order to recognise meanings. Martin (2006) describes this as a shift in the child's understanding of reading from 'book tells us meaning' to 'writing realising meaning'; the semiotic relation shifts from projection (a says "b") to identification (a = b). The automaticity of written expression then allows the reader to focus their conscious attention wholly on semantic patterns in the content plane. This is what Vygotsky observes in the development of 'higher psychological functions':

At the centre of development during the school age is the transition from the lower functions of attention and memory to higher functions of voluntary attention and logical memory... the intellectualisation of functions and their mastery represent two moments of one and the same process – the transition

to higher psychological functions. We master a function to the extent that it is intellectualised. The voluntariness in the activity is always the other side of its conscious realization (from Wertsch 1985a: 26, cited in Hasan 2004).

Detailed Reading aims to make ‘the intellectualisation of functions and their mastery’ explicit. The combination of spoken, visual and manual modalities enhances learners’ voluntary control, supporting them to distinguish patterns in both expression and content planes. This is a complex activity that supports all students in a class to read and interpret at both instructional levels, of the meanings within the text and the general semantic patterns they instantiate, and so requires careful planning. It is applied at all levels of education, in all curriculum fields, to enable all students to read texts with detailed critical understanding, and to identify patterns of meaning that they can then recognise in other texts, and apply in their writing.

The carefully planned interaction cycles in Detailed Reading are illustrated here with a Year 6 class (Text 5). The school is in a low socioeconomic area, and most students are from non-English speaking backgrounds. The text that they are reading is from a novel about an earthquake, that would normally be well beyond the independent reading capacities of most. The teacher has prepared and read the first chapter to the class, and has selected a short passage from it for Detailed Reading.

In the first step, the teacher prepares the class to follow the first sentence of the passage as she reads it to them. She begins with the visual mode, directing students’ attention to its position in the text. She then generalises the experiential meanings in the sentence as ‘the sound’ and ‘where the sound came from’. Then she instructs them to look at the sentence as she reads it aloud.

Text 5: Read sentence

	Move		Purpose
Teacher	A2	So if we look at that very first sentence,	position
	K1	the writer begins by describing the sound to us, OK, and just where the sound came from .	grammatical meanings
	A2	So if we have a look at it...	read along
Students	A1	[look at sentence]	
Teacher	K1	...it says, <i>It started with a long low roar that seemed to be approaching from the north of the city.</i>	

In terms of modalities, the movement here is from directing students’ visual attention to the text, to a spoken preparation that directs attention to segments of meaning in the sentence, to visual attention to the written sentence and aural attention to the words of the sentence, as the students follow the written words as the teacher reads aloud.

In some respects, teaching reading here displays similarities with teaching digging in Text 1, with the instructions to ‘look’ and the directions to positions ‘very first’ and ‘begins’. A key difference is the use of metalanguage to direct attention to semiotic things, including the grammatical segment ‘sentence’, the lexical category ‘sound’, the grammatical functions ‘describing the sound’ (Epithet+Thingⁱⁱⁱ) and ‘where the sound came from’ (Medium+Place), and the expression-content relation ‘it says’. Metalanguage is the semiotic equivalent of gesturing manually and referring exophorically in material activities, illustrated in Texts 1 and 4. But it is far more diverse as the semiotic phenomena it directs attention to are more complex.

In addition, the metadiscourse is concerned not just with the text, but with the pedagogic activity and social relations. The students are expected to recognise the interpersonal metaphor, 'if we have a look', as commanding their attention, at the same time as including them with the teacher. Secondly, 'the writer begins by describing the sound to us' makes the communicative act of writing explicit in the reading activity.

In the next cycle, the teacher prepares the class to identify the first element in the sentence. She begins by directing attention to its position in the sentence, then generalises the meaning as 'what the earthquake did', then asks a particular student to say the wording. When the student says the words, the teacher affirms her, and then instructs the class in exactly what words to highlight.

Text 5 (cont): Identify wording

	Move		Purpose	
Teacher	K1	So in that very first sentence, right at the beginning...	Prepare	position
Students	A1	[look at sentence]		attend
Teacher	K1	...it tells us what the earthquake did .		grammatical meaning
	dK1	What did it do? Chanila?	Focus	meaning&position
Student	K2	<i>It started with a long low roar.</i>	Identify	wording
Teacher	K1	That's great, fantastic. So <i>It started</i> .	Evaluate	affirm
	A2	So let's highlight <i>It started</i> .	Highlight	instruct
Students	A1	[highlight wording]		highlight

This cycle shares many similarities with the parent-child interaction in Text 4. The students' task is to identify text elements. The teacher prepares by directing attention and interpreting meanings, and evaluates with affirmation. But in addition she uses a 'Focus' question to elicit a response from one student, and a 'Highlight' instruction to ensure that all students mark the same words (Martin 2006). Here the direction of attention is from the position in the text and sentence, to the grammatical function 'what the earthquake did' (Medium+Process), to the grammatical structure *It started*. Instead of manually pointing, the teacher explicitly states the position (K1), which implicitly demands the students look at the position (A1).

The meaning cue is then restated as a Focus question, directed to a particular student. This question is labelled dK1, for 'delayed primary knower', as the teacher already knows the answer. The purpose of dK1 questions, which are pervasive in classroom discourse, is to get students to attend to and repeat information. They function to hand control over to students to do a task themselves, rather than simply listening to the teacher, and then allow the teacher to evaluate and elaborate on students' responses.

As one student says the wording aloud (K2), all the others are also seeing it and reading it silently, interpreting it in terms of the semantic category given by the teacher. The teacher's affirmation and repetition of the wording intensifies the affective value of the identifying activity, then the manual activity of highlighting the wording (A1) cements its value for each learner.

As they repeatedly do the task of identifying word groups from such cues, all students rapidly come to consciously recognise relations between grammatical functions, denoted by the natural metalanguage of *who* or *what*, *what did/happened*, *where*, *when*, *how*, and so on, and the written grammatical structures that realise

these functions. (At this stage a more technical metalanguage is not yet required for students to identify such function structures.)

Next the teacher capitalises on the shared foundation of successful activity, positive feeling, and understanding of the wording's semantic value, to add another layer of meaning to it. Here she moves from the meaning within the sentence (Medium+Process), to its meaning beyond the sentence (reference to previous mentions of the earthquake). In elaborating phases such as this, student responses shift from identifying wordings in the text, to selecting meanings from their memories.

Text 5 (cont): Elaborate discourse function

1	Teacher	K1	Now I used the word earthquake, because we know it's an earthquake.	Prepare	preceding cycle preceding text
	Teacher	dK1	What have they used instead of earthquake? What's the word they've used, there to begin that paragraph? Bonita?	Focus	reference item wording position
	Student	K2	<i>It.</i>	Identify	wording
	Teacher	K1	<i>It.</i>	Evaluate	affirm
2	Teacher	K1	And we can use <i>It</i> because we already know what <i>It</i> is.	Prepare	reference item
	Teacher	dK1	<i>It</i> is...?	Focus	position
	Students	K2	The earthquake.	Select	referent
	Teacher	K1	OK, fantastic.	Evaluate	affirm
3	Teacher	dK1	Now what do we call little words like 'it' that refer to other words?	Prepare	metalanguage
	Students	K2	Pronoun.	Select	metalanguage
	Teacher	K1	Exactly, <i>it</i> is a pronoun.	Evaluate	affirm

This elaboration includes three cycles. In cycle 1, the teacher first directs attention to remembering the preceding preparation 'I used the word earthquake', then to remembering the preceding mentions in the text 'we know it's an earthquake', then to the discourse function 'what have they used instead of earthquake' (anaphoric reference), then the wording 'what's the word they've used' (a pronoun), then the position in the text 'there to begin that paragraph'.

In cycle 2, she uses affirmation and repetition to intensify students' attention to the discourse function, getting them to repeat the referent back to her, and strongly affirming them. This creates a firm semantic basis in cycle 3 for asking the class to remember a linguistic term that denotes a word class and its discourse function, 'pronoun'. Repetition and affirmation of terms like this, within elaboration phases, will eventually enable all students in the class to remember and use such metalanguage appropriately. In this way, the class builds an explicit, systematic and consistent metalanguage, through experiencing instances in actual texts.

The next element to be identified is a grammatical metaphor *long low roar*, which the teacher prepares by glossing as a 'sort of sound'. As 'roaring' is actually a process, and the qualities *long low* are normally associated with concrete objects, many children may not recognise this lexical item without such support.

Text 5 (cont): Prepare wording

Teacher	K1	Now, so the earthquake started, now when <i>it started</i>	Prepare	position
	dK1	what sort of sound did it make?		lexical meaning
	K1	It tells us it started <i>with</i> something.		position
Teacher	dK1	What was it that <i>it started with</i> ? Chanila?	Focus	position
Student	K2	<i>Long low roar.</i>	Identify	wording
Teacher	K1	Fantastic.	Evaluate	affirm
	A2	So let's highlight <i>long low roar.</i>	Highlight	instruct

Again the cycle of attention begins here with the position in the sentence 'when it started', then the lexical category 'what sort of sound', then the position of the grammatical structure 'it started with something', so the students know that the wording follows *with*, making it easier to identify. And again one student says the words, is affirmed, and the class is directed to highlight the words.

Next the students are guided to interpret the conceptual image evoked by *long low roar*, by reference to their previous experience.

Text 5 (cont): Elaborate field

1	Teacher	dK1	Now can you think of something else?	Prepare	memory
		dK1	What else do we associate with that roar sound?		everydayfield
		dK1	What do you think?	Focus	memory
	Student	K2	A lion roar.	Select	field
	Teacher	K1	OK, a lion roars.	Evaluate	affirm
2	Teacher	dK1	What else do we associate with a roar? Another thing?	Prepare	field
	Student	K2	The sea can roar.	Select	field
	Teacher	K1	The <u>sea</u> ,	Evaluate	affirm
		K1	on a really stormy day.	Elaborate	field
		K1	Yes it does give a bit of a roar.	Evaluate	affirm
3	Teacher	dK1	Justin?	Focus	memory
	Student	K2	A tornado?	Select	field
	Teacher	K1	Yes.	Evaluate	affirm
		K1	Those other natural disaster types of sounds.	Elaborate	curriculumfield
		K1	Yes.	Evaluate	affirm

Here the teacher begins by directing students' attention to their memories of other fields (dK1). As each student proposes a field associated with roaring sounds (K2), the teacher affirms and may elaborate the field (K1). Finally she takes advantage of one response, to associate 'a tornado' with the curriculum field of 'natural disasters' that the class is studying.

The aim of this exchange is to reveal the Token-Value relation between an elaborated lexical item or metaphor in the text, and readers' material experience, that is, its role in evoking imagery. Even though the students select responses from their own memories, the primary knower remains the teacher, as she affirms and elaborates. In so doing she includes their personal experience within the field of school knowledge. This repeated affirmation and inclusion intensifies students' attention to the Token-Value relation between written wordings and readers' imaginations.

On this basis, the teacher next guides their attention to remembering a more specific field, the roar of a jet engine. This excites the memory of one student, which she

takes advantage of to relate the jet roar to a specific feature of the story's field 'ground starts to shake'.

Text 5 (cont): Elaborate discourse function

Teacher	dK1	Ever heard a jet?	Prepare	everydayfield
	K1	Oh, you've all been to the airport.		memory
	dK1	The roar of the engine?		field
Student	K2	An airshow.	Select	field
Teacher	K1	The airshow, exactly.	Evaluate	affirm
	K1	The whole ground starts to shake.	Elaborate	field
	K1	Exactly.	Evaluate	affirm
	K1	So that sound vibration even makes the ground move, doesn't it?	Elaborate	field
	K1	Yes, fantastic.	Evaluate	affirm
	K1	And it starts off low, and builds up, doesn't it?	Elaborate	field
	K1	So we have this roaring sound, but it starts off long...low.		discourse

Again the teacher uses repeated affirmation here, to intensify the class' attention to the next elaboration, which focuses on two features, the qualities 'long low' and process 'starts'. The goal of this sequence is to direct students' attention to the function of these elements in the discourse structure of the text 'it starts off long...low'. That is, tension builds through the text passage as the earthquake approaches. A key technique the author uses to build tension is to start *low* and uncertain *seemed to be approaching*.

The students need to understand both the meaning of each of these elements within the sentence, and their discourse function in the text. The teacher's strategy is to relate the local meaning to their own experience, drawing their attention to aspects that are relevant to the discourse function. As the Detailed Reading of the passage continues, she will point out the global discourse patterns of mounting tension, and remind them of the aspects of each wording that contribute to this pattern.

5 Options for pedagogic interactions

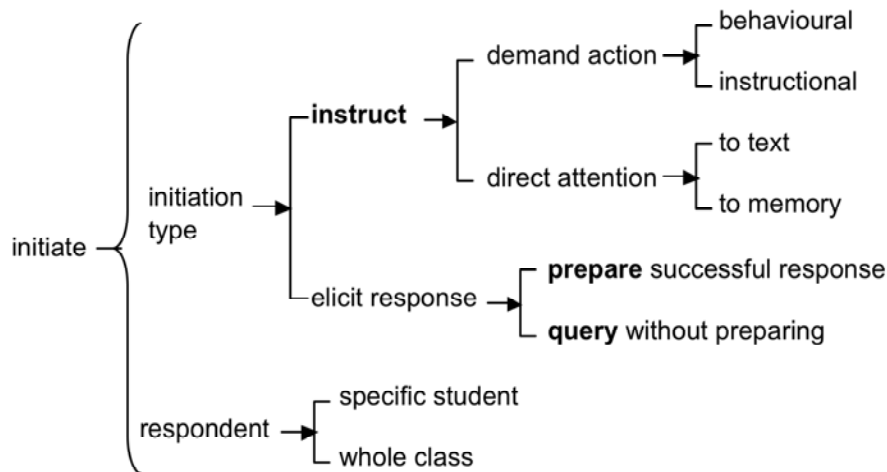
From analyses of pedagogic interactions that are exemplified in Texts 1, 4 and 5, the following systems of options emerge, for each phase in an exchange, including initiating phases, responses, and feedback. Firstly, initiating moves (Figure 9) either instruct students to perform an action, or elicit a verbal response. Instructions and elicitations may be directed to an individual student, or to the class a whole

Instructing moves may demand an action, that may be associated directly with the pedagogic activity, e.g. 'throw more soil over here', 'let's highlight *It started*', or the demanded action may be behavioural control, such as admonishments. Alternatively, instructing moves may direct learners' attention, either to an object or text, 'if we look at that very first sentence', or to the learner's memory, 'what else do we associate with that roar sound'. Instructing moves may also be non-verbal, where the learner's responding action can be assumed, e.g. Mother: [points to the wolf].

Eliciting moves may deliberately **prepare** students for a successful response, by providing specific criteria. Texts 4 and 5 give many examples of such preparations. In Text 4, these may include a preparation directed to the whole class, and a focus question inviting one student to respond. However teachers more often than not elicit with a **query** that does not provide such criteria. When queries are directed to the whole class, only those students who can infer the desired response are able to

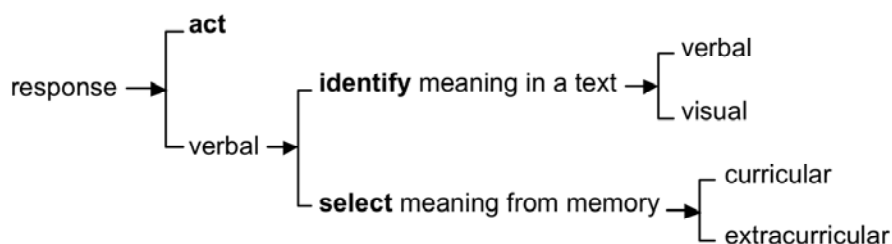
respond successfully. There are no examples of such queries in the parent-child reading and designed interaction in Texts 4 and 5, but see Rose (2004) for analysed instances, and almost any transcript of classroom interactions will include copious examples.

Figure 9: Options for initiating



Secondly, responses (Figure 10) are either to **act** on an instruction, e.g. [starts to dig], [points to picture of a tree], [highlight wording], or to give a verbal response to an elicitation (preparation or query). Verbal responses either **identify** features in texts, including wordings (verbal) and images (visual), or **select** information from the learners' memory. Remembered information may have been previously taught (curricular), e.g. 'what do we call little words like 'it'? - pronoun'. Or the response may be from personal experience (extracurricular), 'What else do we associate with that roar sound? - a lion roars...the sea can roar...the airshow'.

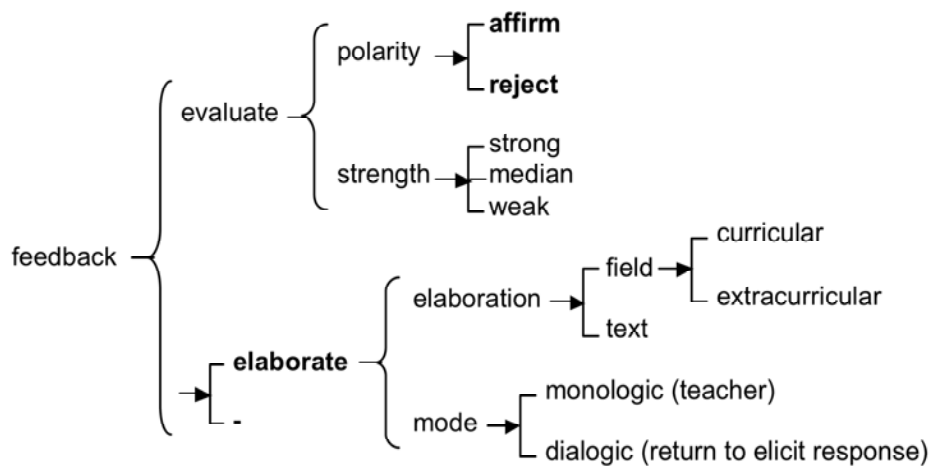
Figure 10: Options for responding



Thirdly, feedback moves (Figure 11) always involve evaluations, that either **affirm** or **reject** the response, with more or less strength. For example, affirmations may range from 'yep' to 'fantastic' and are often intensified by repetition; rejections range between qualifying responses, ignoring, negating or even admonishing. Where affirmations function to enhance learning capacity and engagement, rejections may have the opposite effect, particularly for students with weak learner identities. In the stratified context of the typical classroom, affirmations and rejections can thus serve to differentiate students. On the other hand, where differentiation is not an issue, an interplay of affirmation and rejection can serve to guide learners towards a goal, as in Text 1.

In addition feedback may **elaborate** on the response, providing more information about either the text or the field. Again the field of elaboration may be curricular or extracurricular. The mode of elaboration may be a teacher monologue, or a dialogue with students. If the elaboration is dialogic, the cycle begins again with eliciting a response (usually elicited by the teacher but students may also ask questions that demand elaborations). Elaborations are optional (shown by the minus option in Figure 11), but teachers typically use students' responses as stepping stones in a lesson, expanding them with more technicality or detail, either strengthening the boundaries between everyday and esoteric knowledge, or traversing back and forth between them, as illustrated in Texts 4 and 5.^{iv}

Figure 11: Options for feedback



Conclusion: Tools for redesigning pedagogy

One thing that stands out in our analyses is the central function of evaluation in pedagogic interactions, realised as the obligatory KI move in an exchange. For Bernstein, “the key to pedagogic practice is continuous evaluation...evaluation condenses the meaning of the whole [pedagogic] device” (1996:50). In texts 1, 4 and 5, evaluations are used to guide learners towards a goal and to enhance their learning capacity and engagement. But in the standard initiation-response-feedback cycles that pervade classroom practice across the world (see Alexander 2000 for variations), evaluations also rank students on their capacity to respond successfully to teacher queries. In a stratified socioeconomic order, the broadest social function of the education system is to reproduce unequal outcomes. So the meaning condensed in each evaluation of student responses is one of inequality.

From their first day in school, children start to learn, not only that some responses are more successful than others, but that some students are more successful at responding than others. Naturally the more successful responders are those who have been well-prepared by extensive talk around text in parent-child reading. They will not only be evaluated as more ‘able’ learners, but will consistently receive the lion’s share of teacher affirmation, as feedback to their responses. By these means, the continuous micro-interactions of classroom discourse serve to relentlessly construct differential learner identities, as more or less ‘able’, naturalising the different experiences that children arrive at school with. These identities are internalised by children, and cemented over the years of schooling, by classroom evaluations, by formal assessments, and by ‘streaming’ of students into different classes and different activities within classes. Bernstein portrays this process baldly:

The school must disconnect its own internal hierarchy of success and failure from ineffectiveness of teaching within the school and the external hierarchy of power relations between social groups outside the school. How do schools individualize failure and legitimize inequalities? The answer is clear: failure is attributed to inborn facilities (cognitive, affective) or to the cultural deficits relayed by the family which come to have the force of inborn facilities (1996:5).

The *Reading to Learn* methodology subverts this universal inequity by redesigning the classroom pedagogic genre, in its four dimensions. Firstly, reading is recognised as the primary mode of learning in school, and spoken, written, visual and manual modalities are systematically deployed to teach the skills required for reading at each stage of schooling. Secondly, the activity of classroom learning is carefully redesigned to consistently provide students with the preparation they need to succeed in each task, and then to use their success as a basis for extending their understanding. Thirdly, the social interaction of learning is redesigned to ensure that all students are continually successful at the same task level, and are continually affirmed. The redesign of these three dimensions in the pedagogic register enables the instructional field to focus explicitly on patterns of discourse, at the same time as teaching the curriculum topics that these patterns realise. The payoff for all this design work is that students' results, for teachers trained in *Reading to Learn*, are consistently twice to four times beyond expected rates of growth (Culican 2006, Rose et al 2008), accelerating the learning of all students, while rapidly closing the gap in their levels of achievement.

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ⁱ Anecdotes are not resolved like narratives, but conclude with a Reaction (Martin & Rose 2008)

ⁱⁱ The model of pedagogic genre is derived from Bernstein's model of 'pedagogic discourse', including an instructional discourse "which creates specialised skills and their relationship to each other", but is embedded in and dominated by a regulative discourse "which creates order, relations and identity" (1996:46). Extending Martin (1998), Bernstein's regulative discourse is re-interpreted as the

pedagogic register, including the field of learning activities, the tenor of pedagogic relations, and the mode of learning. These three variables in pedagogic register project the instructional field of skills and knowledge to be acquired.

ⁱⁱⁱ Grammatical functions, such as Epithet, Thing, Medium, Place, are described in Halliday 1994/2004 and Martin and Rose 2003/2007.

^{iv} Some of the points made in this analysis have been identified by neo-Vygotskian activity theorists such as Mercer (2000) or Wells (1999). Key differences here include:

- detailed analysis of the functions of each exchange move, informing interpretations of learning interactions,
- emphasis on the Prepare (or 'initiate') phase, in addition to the Elaborate (or 'feedback') phase that neo-Vygotskyans value for developing 'higher order thinking',
- the role of the teacher/parent in preparing and elaborating, to enable and extend learning, far beyond what is possible in peer-peer interactions
- the focus on teaching reading as the grounding for elaborating meanings, in contrast to privileging 'talk'.

These analytic developments are crucial for designing pedagogic interactions that enable all students to read successfully.