

Evaluating the task of language learning

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Introduction

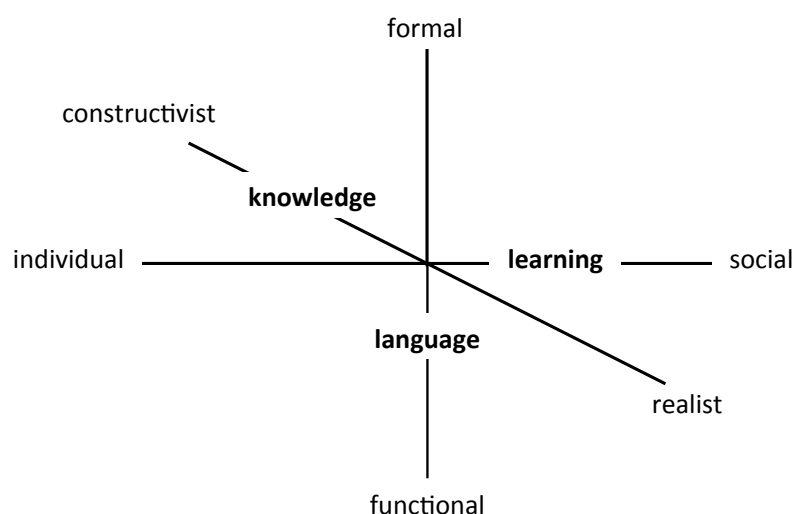
This contribution is concerned with the needs of students who are struggling with school, but it discusses their difficulties in relation to wider issues in education. The discussion emerges from the experience of a long term action research program known as *Reading to Learn* (Rose & Martin 2012, 2013, Rose 2008, 2014, in press). *Reading to Learn* began as a project with Indigenous children whose learning was on average 4-8 years behind their non-Indigenous peers (Rose, Gray & Cowey 1999, Rose 2011a). By the end of the project's first year, most of these students were reading at age appropriate levels, and independent evaluation showed average literacy growth at a rate normally expected over four years (McCrae et al 2000, Rose in press). Since then *Reading to Learn* has grown in scope as a classroom and professional learning program for primary, secondary and tertiary teachers, and in scale across Australia, Africa and western Europe (Coffin, Acevedo & Lövestedt 2013). The results of up to four times typical literacy growth rates have been consistently replicated (Culican 2006, Rose 2011b, Rose & Martin 2013). Significantly for the focus of this volume, this includes many students diagnosed with learning difficulties or special needs, who on average attain acceptable writing standards for their grade levels, within one year of the program.

This paper outlines how this growth is achieved and evaluated, but it is also concerned with why these students do not ordinarily achieve success in school. In doing so it seeks to relate evaluation to language, language to knowledge, knowledge to pedagogy, and pedagogy to social justice. Its starting point is with a social theory of knowledge in schools, in which students are more or less successful; a social theory of learning, in which learning emerges from the teacher/learner relation; and a functional theory of language, in which people exchange meanings through speaking or writing. The functional language model is applied to designing a writing assessment, illustrated with a student diagnosed with learning difficulties. This student's difficulties are then contextualised in a discussion of literacy development through the stages of school, and how this development differs between more and less successful students. This is followed by an examination of evaluation and pedagogy in learning theories that are focused on individual development or social learning. The paper concludes with a brief description of the *Reading to Learn* pedagogy, and assessment of the same student's literacy growth following its application.

Behind each evaluation can be found a theory of learning, a theory of knowledge, and a theory of language, whether these theories are explicit or tacit. But to be clear about the evaluations we use, we do need to be explicit about the theories that inform them. Theories of learning can be contrasted between those that construe learning as intra-individual processes modelled on biological development, including Piagetian cognitivist and behaviourist theories, and those that construe learning as a social process between teachers and learners, often associated with Vygotsky's social psychology. Theories of language can

be contrasted between those that focus on forms of words and syntactic rules for combining them in sentences, such as Chomskyan formalism, and those that focus on the social functions of meanings exchanged by speakers (Martin & Rose 2007a, 2008). Theories of knowledge can be contrasted between constructivist positions, that “knowledge cannot be transmitted, but must instead be constructed by each student individually” (von Glasersfeld 1998: 26), and social realist theories such as that of Bernstein (2000), that view learning as an exchange of knowledge between learners and teachers. These options in theories are schematised in Figure 1. In this paper I will present an approach to evaluation based on a social model of learning, a functional model of language, and a social realist model of knowledge.

Figure 1: Theories of knowledge, language and learning



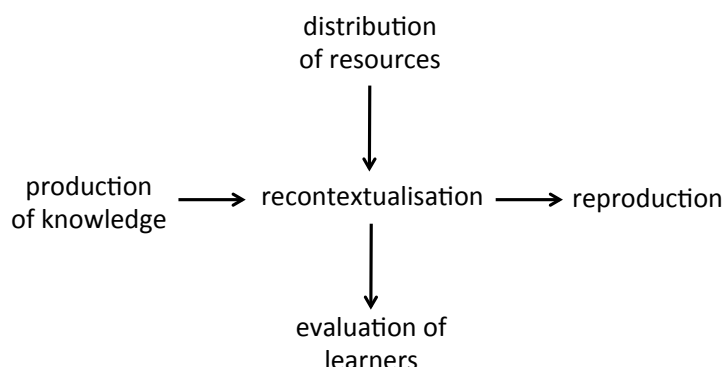
Knowledge

Bernstein’s theory of knowledge is embedded in an analysis of education as a social institution in which knowledge is produced and exchanged. In this model, knowledge is understood as an evolving social resource, that includes both knowledge about the natural and social worlds, and skills for acting in those worlds. Cultures can be understood as reservoirs of these resources, accumulated over many generations, from which each member gradually acquires their own repertoire, and exchanges them with others. School knowledge is a particular reservoir of resources, from which each student acquires a repertoire through their education.

Briefly, Bernstein analyses education systems in sociological terms, as institutional structures, and as sets of rules governing institutional practices. In terms of structures, he distinguishes 1) the ‘production’ of knowledge in the upper reaches of academia, 2) ‘recontextualisation’ of this knowledge as state syllabi and teacher training, and 3) ‘reproduction’ of recontextualised knowledge in schools. Recontextualisation refers to the transformation of knowledge and practices from economic contexts to pedagogic contexts, for example, from the work of physicists to school science curricula, or from the research of psychologists to classroom teaching. In terms of practices, he distinguishes 1) ‘distributive rules’ that regulate the distribution of resources to social groups; 2) ‘recontextualising rules’

that regulate the transformation of knowledge into curriculum and pedagogy; 3) 'evaluative rules' that regulate the acquisition of knowledge. These relations are simplified in Figure 2.

Figure 2: Structures and practices in education systems



This model is useful to us here because it enables us to relate evaluation of students, all the way up to the distribution of resources in a society. The relationships produce circular feedback loops. On the vertical axis, the rules that govern distribution of resources (equal or unequal) shape the recontextualising rules that govern forms of pedagogy, which shape the rules governing evaluation, and evaluation of students determines the knowledge they will have access to in their education careers. The feedback helps to explain the tendency of schools to reproduce social inequalities, as students from lower socio-economic groups are likely to be evaluated as less successful, and given access to different kinds of knowledge than more successful students. For example, while the latter may study sciences and calculus in preparation for university, less successful students may study 'life skills' and 'functional maths'. While the most successful may study literary criticism, the least successful may be given remedial literacy lessons. This inertia is compounded on the horizontal axis, as knowledge about education is produced by describing its reproduction in schools (education research). As inequality is the fundamental structure observed at the level of reproduction, theories of 'differentiation' are proposed at the level of knowledge production. These theories are then recontextualised as differentiated curricula and pedagogies, according to students' evaluations, and inequality is not only reproduced, but legitimated theoretically.

Learning

We can also locate evaluation in a social theory of learning, in terms of the teacher/learner relation unfolding in time. Rose & Martin (2012) propose that learning occurs through activity, that a learning task is the core element of the activity, and that only the learner can do this task. In this last sense, the model might seem to align with theories of learners 'constructing knowledge' for themselves, but it diverges with the role of the teacher. In Piagetian or constructivist theories the teacher merely 'facilitates' learning, but in Vygotskian or social-psychological theories the teacher is the authoritative guide, the source of knowledge (Christie 2004). Two core roles of teachers in a learning activity are to specify the learning task (e.g. with a spoken or written question), and to evaluate its performance. We can refer to the specifying phase as a Focus, giving a three phase sequence, illustrated in Figure 3.

Figure 3: Nucleus of pedagogic activity



The Focus gives the learner the parameters of the Task, its performance shows the teacher the success of acquisition, and the evaluation tells learners how successful they have been. What learners demonstrate in performing the task is the knowledge they have acquired; the evaluation tells them how well they have learnt. As far as we can tell, this is a fundamental structure of learning activities, in all pedagogic contexts, no matter what the learning theory. The task is the core phase. It may be done independently without any specification or evaluation, but in formal education it is usually specified and evaluated by teachers.

The Focus may give more or less explicit criteria for the task. The more explicit the criteria, the more likely the task will be done successfully. But this only applies so far as the criteria match learners' existing knowledge. If a learner does not understand the focus question, they are unlikely to do the task successfully. To this end, a teacher may prepare learners for a task, by building the knowledge required to do it successfully. Furthermore, successful performance of a task provides a platform of understanding on which more knowledge can be built. We can therefore distinguish two more potential phases in a learning activity, preparing for a task, and elaborating with more knowledge, illustrated in Figure 4.

Figure 4: Optional phases of pedagogic activity



This structure is evident in many classroom activities, in which the teacher provides knowledge on a topic or skill, through demonstration, explanation or discussion, the students then do individual or group tasks, which the teacher evaluates, and the knowledge or skills acquired are elaborated in the next lesson. Many learning tasks in school involve reading and writing. By secondary school, individual reading and writing may become the central learning tasks, for which classroom lessons prepare and elaborate. The same structure can be seen at the level of teacher/learner exchanges in classroom discourse. At this level, the Focus is typically a question addressed to the class, the students' Task is to respond to the question, which the teacher always evaluates. If it is affirmed, the teacher typically uses the successful response to elaborate with further knowledge. If there is no successful response, the teacher may prepare with more specific criteria. This pattern has often been labelled 'IRF' or 'initiate-response-feedback' cycles, but the analysis is more delicate, and expanded in detail in Martin & Rose 2007a, b, Rose 2010, 2014a, Rose & Martin 2012.

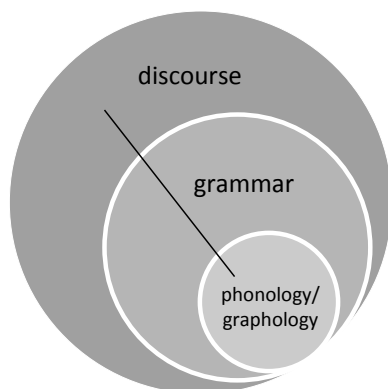
Teachers' roles in preparing, specifying, evaluating and elaborating learning tasks require a detailed understanding of the nature of the task. This is apparent in manual activities, in which the teacher is an expert, and guides the learner to do the activity in steps. Such modelling and guidance may be a fundamental pedagogic pattern across human cultures. But in the school, most learning activities involve language, and more often than not the task is constituted entirely in spoken or written language. Hence teachers' understanding of learning tasks in school must involve some model of language.

Language

Frequently, the model of language applied in pedagogic activities, including assessments, is the 'bricks-&-mortar' model of formal and traditional school grammars, dating back to ancient Greece. Following earlier models, the Greeks wrote their language using alphabetic symbols to represent the sounds of words. Thus written words appeared to be composed of letters representing sounds. They also found that words made up sentences. Each word expressed a definable meaning ('bricks'), and words were combined into sentences by grammatical rules ('mortar'). In various forms, this model has dominated European linguistics for two and a half millennia.

The functional model of language takes a different perspective, although words and grammar obviously still have a place. In this social semiotic view, language is defined as a resource for meaning, as in Bernstein's model of knowledge as reservoir and repertoire. Speaking, reading and writing involve exchanging meanings with each other. Language and its social contexts are complementary dimensions of the process of making meaning, in which language enacts relations between interactants, and construes their experience. Social relations and social activity are realised as unfolding patterns of discourse in texts, that are in turn realised as patterns of wordings, or grammar, that are in turn realised as patterns of sounds in speech or letters in writing. These three levels of language are illustrated in Figure 4 as a series of nested circles, with discourse realised as grammar, realised as sounds (phonology) or lettering (graphology). A language consists of systems of resources at each of these levels. Learning a language means accumulating these systems of resources, by exchanging meanings with others.

Figure 4: Three levels of language

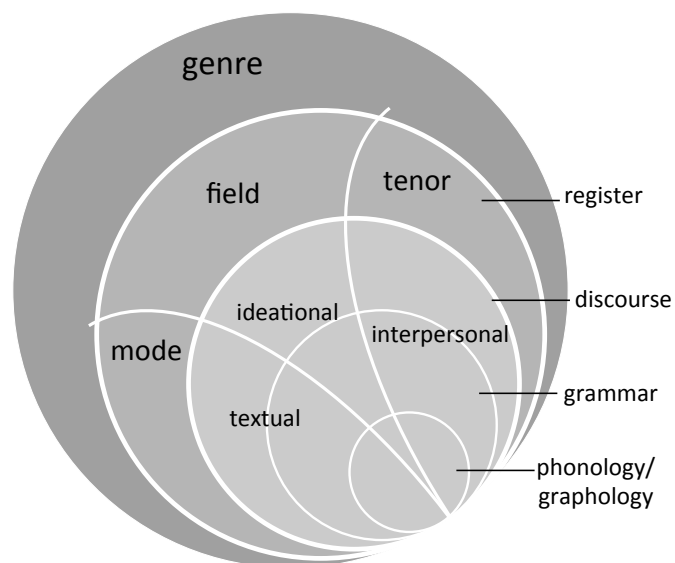


The language system is immensely complex, but we can describe its outlines with a few basic dimensions, highlighted in bold as follows. We can distinguish general dimensions of the

social contexts of language, including the **tenor** of social relations, **fields** of social activity, and the **mode** of language, as dialogic or monologic, spoken or written. These three dimensions are known in systemic functional linguistics (SFL) as **register**. A culture consists of a huge variety of options in tenor, field and mode, but these options are woven together in consistent configurations that are recognisable to members of the culture. These recognisable configurations of tenor, field and mode are known as **genres**. Each genre goes through predictable stage to achieve its social purposes. For example, a narrative may expect a complicating event and a resolution, a debate expects one side to be argued, and then another side, and so on (Martin & Rose 2008).

The relation between genre, register and language is realisation. A genre is realised by patterns of tenor, field and mode, and genre and register are realised in turn as patterns of language. But language does not consist merely of words in sentences, rather social contexts unfold as texts. Patterns of unfolding meanings in texts are referred to as **discourse**. Tenor is realised as patterns of interpersonal meanings (such as moves in a dialogue), field as ideational meanings (such as sequences of events), and mode as textual meanings (how information is organised). These patterns of meaning in texts are realised as patterns of wordings in sentences, or grammar, which are realised in turn as patterns of sounds or letters. The whole model is illustrated in Figure 5, with genre as the coordinating outer circle, realised in turn as register, discourse, grammar, and phonology or graphology.

Figure 5: Language in social contexts



Evaluation of language resources

This language model enables us to interpret learning tasks in school in terms of genre, register and the language patterns that realise them, and to evaluate tasks in the same terms. Based on this model, a writing assessment was designed in the *Reading to Learn* program, to accurately analyse the language resources that each student brings to the writing task (Rose 2014, in press).

Teachers identify these language resources in students' writing, using 14 criteria. At the level of genre, evaluation focuses on the social purpose of the text, and its organisation into

stages, and phases within each stage. (A phase of meaning is typically expressed as a paragraph in writing.) At the level of register, it focuses on the text's field, tenor, and mode. At the level of discourse, interpersonal, ideational and textual features are identified. Ideational features include 'content words' (lexis), and conjunctions that link sequences of events. Interpersonal features include evaluative items (appraisal). Textual features include reference items (pronouns, articles). At the level of grammar, the variety and accuracy of grammatical resources are evaluated. At the level of graphic features, spelling, punctuation and graphic presentation are marked. The sequence of analysis is thus from the 'top-down', from genre to register, to discourse, to grammar, to graphology. Questions are used to interrogate each of these criteria, summarised in Table 1.

Table 1: Writing assessment criteria

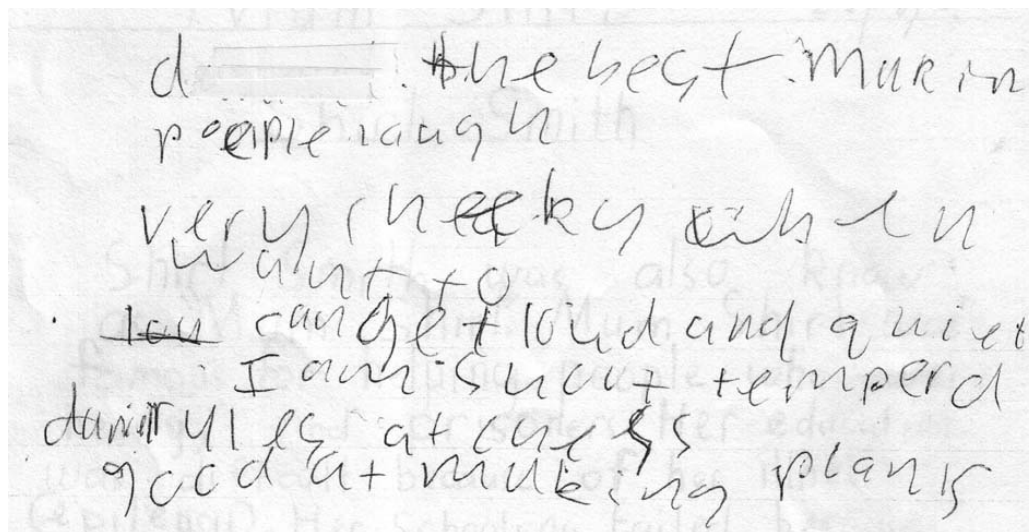
GENRE	[Genre stages and phases can be marked and labelled.]
Purpose	<i>How appropriate and well-developed is the genre for the writing purpose?</i>
Staging	<i>Does it go through appropriate stages, and how well is each stage developed?</i>
Phases	<i>How well organised is the sequence of phases in each stage?</i>
REGISTER	[Quick judgements are made about these register criteria.]
Field	<i>How well does the writer understand and explain the field in factual texts, construct the plot, settings and characters in stories, or describe the issues in arguments?</i>
Tenor	<i>How well does the writer engage the reader in stories, persuade in arguments, or objectively inform in factual texts?</i>
Mode	<i>How highly written is the language for the school stage? Is it too spoken?</i>
DISCOURSE	[Discourse criteria are marked in the text, to give an accurate measure.]
Lexis	<i>What are the writer's lexical resources? How well is lexis used to construct the field?</i>
Appraisal	<i>What are the writer's appraisal resources? How well is appraisal used to engage, persuade, evaluate?</i>
Conjunction	<i>Is there a clear logical relation between all sentences?</i>
Reference	<i>Is it clear who or what is referred to in each sentence?</i>
GRAMMAR	[Quick judgements can be made about grammar.]
	<i>Is there an appropriate variety of sentence and word group structures for the school stage? Are the grammatical conventions of written English used accurately?</i>
GRAPHIC FEATURES	
Spelling	<i>How accurately spelt are core words and non-core words?</i>
Punctuation	<i>How appropriately and accurately is punctuation used?</i>
Presentation	<i>Are paragraphs used? How legible is the writing? Is the layout clear? Are illustrations/diagrams used appropriately?</i>

Each criterion is scored 0-3: 0 = no evidence; 1 = present but weak; 2 = good but could be improved; 3 = excellent for the student's grade level. The assessment thus gives equal weight to each component of the writing task. Like all assessments it involves teacher judgements, but they are constrained to a 0-3 choice within each criterion.

This contrasts with assessments influenced by the bricks-&-mortar language model, in which teachers tend to give more weight to the lower criteria – spelling, punctuation, presentation, grammar – as they are immediately visible. Problems with conjunction and reference may be treated as grammar errors. Lexis and appraisal are usually collapsed as 'vocabulary'. Genre and register may be construed in psychological terms, such as 'intention', 'comprehension' or 'audience'. Where the functional model treats all criteria equally as resources, formal models treat the lower criteria as skills that may be taught with drills, but may treat the higher criteria as content or attitudes, learnt through study or critical inquiry.

We can use the criteria to assess the following Text 1, written by a 14 year old Indigenous student in Year 9. The writing task asked students to write about themselves.

Text 1: Year 9 student



In the following transcript, appraisals are underlined.

d[avid] the best makin poeple laugh
very cheeky when want to
can get loud and quiet
I am short temperd
david rules at chess
good at making plans

Table 2: Assessment of Text 1

criteria		comments
Purpose	1	personal description – very simple
Staging	0	no stages
Phases	0	no phases
Field	1	brief personal knowledge
Tenor	1	simple personal evaluations
Mode	0	far too spoken for Year 9 – Year 1 standard
Lexis	1	only two items - <i>chess, plans</i>
Appraisal	1	simple judgements (underlined)
Conjunction	0	no conjunction – simple list
Reference	1	only two personal references - <i>I, david</i>
Grammar	0	very simple, many missing items
Spelling	1	most common words correct, some errors
Punctuation	0	no punctuation or letter cases
Presentation	0	very poor handwriting
Total	7/42	well below grade standard

From a glance at Text 1 this very low assessment is intuitively predictable, but the criteria make specific weaknesses apparent. After nine years in school, this student appears to have learnt very little about written language. He is apparently unable to form legible letters, or structure and punctuate simple sentences. He apparently only has words to express simple

evaluations of his personality traits. His written language resources are so far behind his grade level that mode is scored at 0.

Evaluation and literacy development through school

This student's apparent inability to learn basic components of written language led to classifications of 'learning disabilities' and 'special needs', for which he has been prescribed remedial literacy programs throughout his schooling. As he has been unable to read curriculum texts independently, most school knowledge has been closed to him. As he lacks such knowledge he has been unable to participate actively in classroom learning. Continual failure over years has contributed to behaviour problems, that led to his placement in a special program for such students, in which he was subject to further remedial literacy programs. His attempt in Text 1 illustrates the educational outcome of this nine year history.

This student's classification of disability/special needs is framed within an intra-individual psychological theory of learning. But there are three evident problems with this diagnosis. One is that this child has learnt the immensely complex system of spoken language, as do almost all children before they start school; it is only the written mode that he has had difficulty learning. Another is that he claims to 'rule at chess', a notoriously difficult game to learn. The third, and most troubling, is that an alarming proportion of Indigenous students show similar problems with learning the written mode. For example, Rose, Gray and Cowey (1999) found that no children in the Indigenous community schools they tested¹ were reading independently before the end of grade 3, and none could read and comprehend more than basal picture books by the end of primary. Consequently, these Indigenous children were subjected to remedial alphabet, phonemic awareness, phonics and word recognition drills year after year, with little discernible benefit.

These interventions, prescribed by the reductive bricks-&-mortar language model, seriously disadvantage Indigenous and other children struggling to read and write (Gray 1990, Rose, Gray & Cowey 1999). They dis-integrate the language learning task, isolating low level grammatical and graphological components from the higher strata of meaning making. Struggling readers and writers tend to experience these activities as meaningless drills, with little discernible relation to meaningful communication. Hence, while these children may engage actively in shared book reading with their teachers and classes, they often perceive individual reading as a meaningless task of recalling memorised 'sight words' and decoding unknown words letter-by-letter. For these children, continual failure at reading and writing tasks can induce significant stress that further reduces their learning capacities (Rose 2011a). They may appear to teachers and specialists to lack perceptive, cognitive and motor skills, but these may be merely symptoms of problems that originate with ineffective teaching.

A social theory of learning, together with a realist theory of knowledge and functional theory of language, looks beyond characteristics of individual learners, to pedagogic relations between teachers and learners, and their institutional contexts, to explain differences in assessments. From these perspectives, learning in school is dependent on capacities to read for meaning, and to learn from reading. These capacities develop through each stage of schooling, enabling successful students to accumulate knowledge through reading, and to engage actively in classroom learning.

In this social semiotic view, the most significant difference between children when they start school is their experience of written language in the home. Children from literate families have typically experienced 1000 hours of parent-child reading before starting school (Adams 1990). In tertiary educated families, this reading typically involves elaborate talk-around-text that consciously orients children to written ways of meaning. Large scale studies have shown that less highly educated families may read with their children, but often without this elaborate talk-around-text (Williams 1995). In other families there may be little or no parent-child reading, especially in oral cultures, such as some Indigenous communities.

Parent-child reading in literate middle class families prepares children for both the literacy activities of the infant school, and the talk-around-text that characterises classroom learning. The practice orients children to reading as a meaningful mode of communication, of exchanging meanings as a pleasurable social activity. It orients them to interpreting the fields of written stories, to inferring connections between meanings as a text unfolds, and to recognising patterns of meanings in written sentences, along with building a rich vocabulary. In other words, it provides them with an elaborate repertoire of resources at the levels of genre and register, including genres and fields of written stories, and the tenor of talk-around-text; at the level of discourse, to infer connections between meanings; and at the level of grammar patterns, that differ markedly in speaking and writing (Halliday 1985).

The only part of the reading task that may not be addressed in parent-child reading is the level of 'decoding' written words as letter patterns. This is precisely the level that is targeted in early years literacy activities, with alphabet, phonics, and 'sight word' memory drills. These practices, that date back to classical and medieval times, usually work for children with extensive experience of written ways of meaning, who thus rapidly learn to read and write independently. Their experience of parents' talk-around-text also prepares them for the interpretive question-response pattern characteristic of classroom dialogue (Alexander 2000, Martin & Rose 2007b, Rose 2010, Rose & Martin 2012, Wells 2002, Williams 1995). As early years teachers are trained to continually assess and rank their students' performances in spoken and written activities, these children are likely to be assessed with high learning abilities. Children with less or none of this experience learn to read and write more slowly, as they do not have the same orientation to written ways of meaning. As a result they find it more difficult to recognise relations between alphabet, phonics, and word drills, and reading as meaningful communication (Rose 2010). Without the home experience of talk-around-text, they may engage less actively and less successfully in teacher/class dialogue, and are likely to be assessed with lower learning abilities.

Early years evaluations are framed in psychological and neurological terms (e.g. learning abilities, motor skills), but the evidence is in children's spoken and written language. What is evaluated are differences in their repertoires of genres, registers and language that they have acquired before they start school. These assessments are often legitimated as determining children's learning needs, so that activities can be tailored to their abilities. This differentiating practice provides children with different levels of learning tasks, at different paces according to their assessments. One effect is that students assessed with lower abilities will acquire smaller repertoires at a slower pace than children assessed with higher

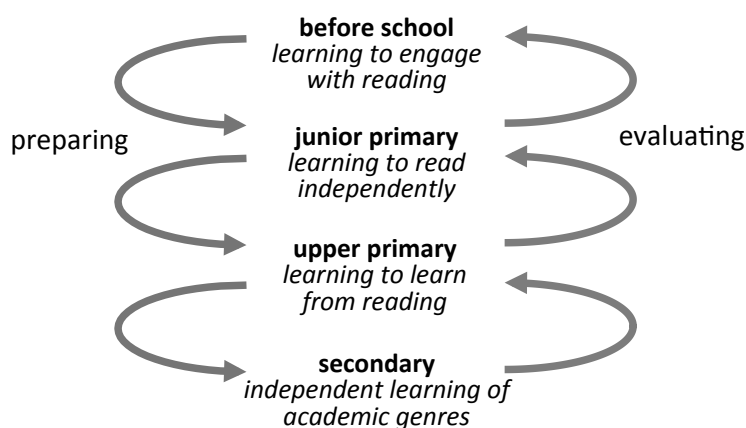
abilities. As a consequence, many children are still not reading independently or writing coherently after one, two or more years of school.

Those children who are reading independently and writing coherently by the end of Year 1 or 2 are well prepared for the next stage of school, when they will learn how to learn from reading, and to demonstrate what they have learnt in writing. They will learn a variety of new genres for learning and demonstrating curriculum knowledge, for engaging in imaginary worlds of fiction, and for evaluating texts, issues and points of view (Martin & Rose 2008). Again their learning abilities will be assessed, but the evidence is in their written language resources, and in their spoken resources for engaging in classroom learning. The foundation of these repertoires is acquired through the literacy practices of the junior primary years. Those children who still cannot read independently and write coherently may be assessed with low learning abilities, and may be given remedial literacy activities. As their reading and writing displays weak decoding skills, remedial activities will be targeted primarily at the levels of letter/sound correspondences, word recognition, vocabulary, spelling and grammar. As these are precisely the activities that failed to work for them in the early years, any improvements in their literacy are likely to be slight.

In the secondary school, successful students spend six years practising independent learning from reading and writing for assessment, in preparation for university study. Secondary teachers are generally trained in specific curriculum fields, on which students are assessed through writing. But few secondary teachers are trained in teaching the literacy skills involved in learning from reading and writing for assessment. Students who have not adequately acquired these skills in the primary school may instead be given less demanding curricula, such as 'life skills', 'functional maths' and remedial literacy activities. Despite 'tracking' of secondary students into different classes according to ability assessments, most secondary teachers still struggle to work with a wide range of students' literacy skills in their classes.²

This sequence of development in reading and writing skills through each stage of school has been referred to as a 'hidden curriculum' (Rose 2004). For successful students, each stage prepares them for the reading and writing tasks of the next stage. But as these tasks become more and more elaborate, there is less and less explicit teaching of the literacy skills involved. Indeed it is only in the junior primary that foundation skills in reading and writing are explicitly taught. If children do not adequately acquire these skills, they will not be prepared for the next stage. They may be given remedial literacy activities in subsequent stages, but they are unlikely to catch up to their more successful peers. While each stage prepares successful students for the next, all students are evaluated on how well they acquired skills in the preceding stages. This bi-directionality of the literacy development curriculum is schematised in Figure 6. The pedagogic focus is given for each stage.

Figure 6: The literacy development curriculum through school



In this hidden curriculum, successful students tacitly acquire skills in each stage, building on skills they acquired in preceding stages. One outcome is that the gap between most and least successful students is maintained throughout the whole of school. This pattern is graphically illustrated in Figure 7, which aggregates writing assessments from teachers training in the *Reading to Learn* program. Teachers are asked to assess writing samples from students in top, middle and bottom groups in their classes, before implementing the *Reading to Learn* literacy strategies. Figure 7 shows results for these 'pre' samples, averaged across assessments by 400 teachers in one training program in 2010, representing at least 10,000 students (Rose 2011b, in press, Rose & Martin 2012, 2013).

Figure 7: Pre-intervention scores show gap between student groups before R2L teaching

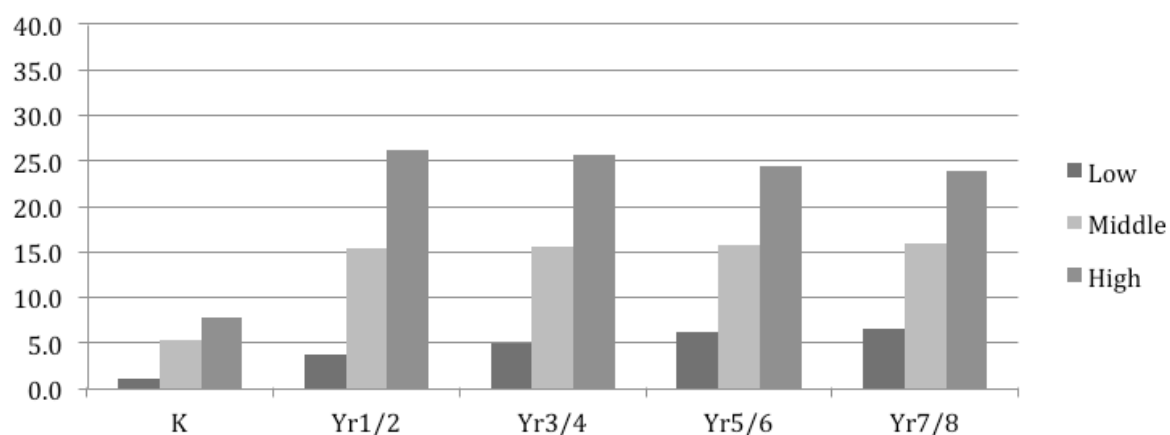


Figure 7 is useful because it shows the mean differences in written language resources of high, middle and low achieving student groups in each school stage. As this is a large sample across classes and schools, it may be read as approximating differences in the Australian and similar education systems as a whole. What is particularly interesting is that the gap between top and bottom groups is comparatively narrow at the start of school, labelled K for kindergarten, but after a year or two the gap has tripled, and remains steady through each following school stage. The top group has clearly benefited from the literacy practices of their early years teachers, as their average results have shot up to the median standard for the school stage. These children are now reading and writing independently, and are likely to be actively engaged in learning from reading. The middle group has also obtained some benefit, but the bottom group appears to have received very little benefit from these

literacy practices; their results are still near zero, and improve only slightly through each subsequent stage. The children who were failing at the start of primary school are still failing at the start of secondary, despite all the interventions prescribed by various literacy theories. These large-scale data confirm what teachers know intuitively, that the gap between the top and bottom students in their classes and schools will essentially be the same at the end of each year, and each student's school career, as it was at the start.

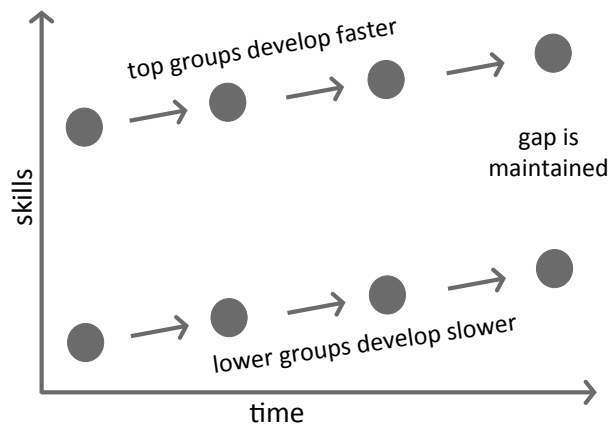
Nevertheless, the mean scores of bottom groups do appear to improve slightly in each school stage. Two factors may contribute to this growth. One is that these students absorb some literacy skills over the school years, even though they are not sufficient to engage successfully in curriculum learning. Another is that those students assessed with the weakest literacy may be prescribed remedial literacy activities, which marginally improve their skills. The assessments and the remedial interventions are legitimated on the basis that students at risk are identified and their specific learning needs addressed. But as Figure 7 and Text 1 illustrate, the net effect of both is that these students stay in the failing range throughout their school careers. As Bernstein's model predicts, the distributive rules of an unequal social order are recontextualised as evaluative rules that reproduce the unequal social order. Theories of 'differentiation' legitimate the reproduction of inequality, masking it as addressing each student's individual learning needs.

Evaluation in a social learning theory

Vygotsky's famous 'zone of proximal development' refers to a contrast between two modes of evaluation, independent or guided. He defines ZPD as "the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (1978: 86). But this also points to a contrast between two approaches to knowledge and pedagogy. Assessment of 'actual development' is of course what most school assessments are concerned with, in order to rank students and determine their education programs, pathways and outcomes, as discussed above. Concomitantly, 'independent problem solving' is the ideal learning activity in constructivist knowledge theories and individuated pedagogies in general.

In these theories and practices, the ideal learning activity is one in which students are doing learning tasks ('solving problems') individually. As the task is done independently, its difficulty must be close to the student's assessed learning ability, sometimes referred as their 'instructional level'. As students have different assessed abilities, they must be given different levels of tasks. As they complete each task, their performance may be evaluated, by observation or by a formative assessment task. If they are successful, they may be deemed ready for a further learning task that is just beyond their new competence, and the cycle continues for that task. Thus learning progresses in incremental steps, from one learning task to the next, each extending slightly further than the last. In Figure 8, such a learning sequence is modeled as development of skills over time. Each learning activity in the sequence is represented as a dot, and each successive activity is slightly higher than the preceding one.

Figure 8: Development through individualized learning tasks



The initial dots in Figure 8 represent different groups of students who start with different levels of skills. High achieving students are given more complex tasks at each step, and low achieving students are given simpler tasks. In addition, the pacing of the high group's learning may be faster, and the pacing of the lower group's learning slower. Figure 8 is a conceptual representation of the trend we see demonstrated statistically in Figure 7. The gap is maintained through each year, each school stage, and the whole sequence of schooling. It is reproduced by constraining students' development to their assessed ability levels. It is simultaneously legitimated by these assessments, as though 'ability' was a natural explanation of unequal outcomes. Bernstein for one does not accept this explanation:

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 (2000: xxiv).

Bernstein's conclusion proposes a radically different explanation: rather than 'inborn facilities', the cause of failure and inequality is 'ineffectiveness of teaching'. This explanation shifts the focus of evaluation from the individual learner, not simply towards the teacher, but onto the teaching practice, in other words, onto the pedagogic relation between learner and teacher. This is Vygotsky's second option for evaluation, the learner's 'potential development as determined through problem solving under adult guidance'. This 'potential development' is the knowledge/skills that are possible for a learner to acquire with effective teaching. From the perspective of knowledge and pedagogy, the ZPD is the difference between what a learner already knows, and the knowledge she could be taught. This is a radically different view of knowledge and pedagogy from constructivist and individualist theories. Vygotsky is quite explicit about this:

Any function in the child's cultural development appears twice, or on two planes. First it appears on the social plane, and then on the psychological plane. First it appears between people as an inter-psychological category, and then within the child as an intra-psychological category (1981: 163).

In other words, the notion of learners 'constructing knowledge' individually is an illusion. All 'cultural development', i.e. knowledge, begins with the pedagogic relation between learner

and teacher. It is through this relation that the culture's reservoir of semiotic resources is negotiated, in order to build the learner's repertoire.

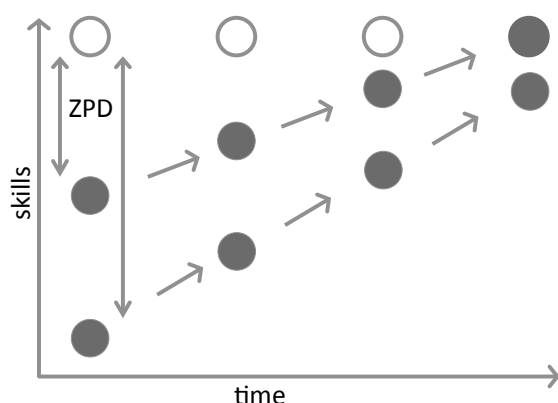
From evaluation to pedagogy

If we accept Bernstein's and Vygotsky's views, then any assessment is not merely an evaluation of individual learners' abilities; what it actually evaluates is the effectiveness of teaching that learners have experienced. If students are failing in school, such as the writer of Text 1, then their teaching has been ineffective. This is not to say that the teaching is ineffective for all, but that it is less effective for some students than for others, creating and reproducing inequalities. The important question for evaluation of struggling students is then, not what skills the learner lacks, but what factors make teaching ineffective. Clearly if the role of the teacher is constrained, as in constructivist and individualist pedagogies, this would be one factor. Where the teacher does have a clear authoritative role, another potential factor is a failure to understand the learning task, and another is a failure to design effective preparations for learners to do the task successfully.

As all learning tasks in school involve language, particularly reading and writing, and language is such an immensely complex phenomenon, it is hardly surprising that learning tasks are often poorly understood and their preparations often poorly designed. The problem is compounded by the bricks-&-mortar language model that often informs both assessments and remedial interventions, divorcing language learning from curriculum learning. An alternative is provided by the *Reading to Learn* methodology, that is informed by the functional model of language and social learning theory (Rose & Martin 2012). In this approach, learning language is integrated with curriculum knowledge, reading is integrated with writing, and preparations are designed to enable all students to do the same tasks successfully.

Effective design of preparations can support students to succeed with learning tasks that are well beyond their independent capacities. Supported success with high level tasks can accelerate learning faster than independent practice with lower level tasks, as it targets learners' 'potential development', systematically guiding them to acquire new skills. Figure 9 illustrates this principle, again starting with groups of students with different levels of skills (indicated by the left hand dots). This time however, the learning task (the open dot) is above the independent skill levels of both stronger and weaker students, but is supported by the teacher. The zone of proximal development is larger for some students than others. If they are then assessed, the performance of both groups will be lower than the supported task level (the next dots), but the growth will be greater than with independent practice. Again, students are supported with a high level task, and their following assessments will again fall below the supported level, but will be higher than their previous assessments. As cycles of supported tasks are repeated, the skill levels of weaker students accelerate faster than those of stronger students, and the gap between them narrows.

Figure 9: Supported practice



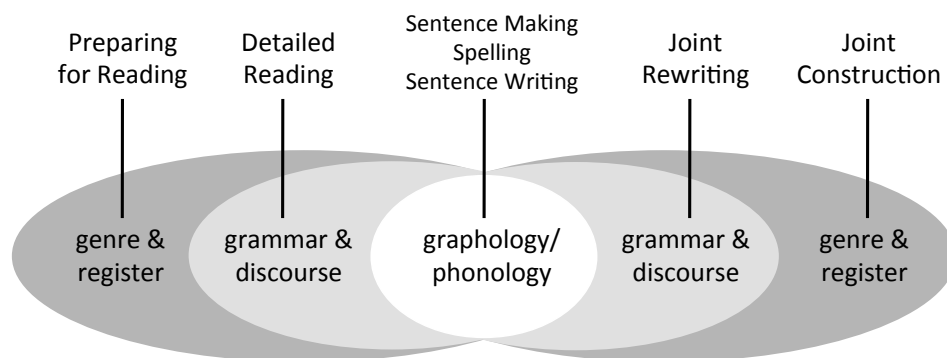
In *Reading to Learn*, students are supported with tasks that may be well beyond their independent competences, through a carefully designed sequence of reading and writing activities, informed by the functional language model. The first activity, known as *Preparing for Reading*, supports students to follow a text with general comprehension as it is read aloud, by the teacher orally summarising the sequence in which it unfolds, in terms that all students can understand. As the field of the text is prepared, all students know what to expect and need not struggle to comprehend as it is read. As it is read aloud, they need not struggle to decode unfamiliar written words. This massively reduces the load of the reading task, enabling even the weakest students to focus on the unfolding meanings in challenging texts. The next activity, *Detailed Reading*, supports all students to visually read passages of the text with detailed comprehension, by guiding them to identify wordings in each sentence, highlight them, and discuss their meanings. As they already have a general understanding of the text, the load of recognising words is reduced, enabling all students to comprehend their meanings in detail, and read the passage fluently.

To provide more support, *Detailed Reading* may be followed by *Sentence Making*, in which the teacher writes sentences from the *Detailed Reading* passage on cardboard strips, and guides students to cut them into chunks of meaning, and manually manipulate them. This manual practice gives students total control over words and meanings. It is particularly effective for young or struggling students. *Sentence Making* then leads to *Spelling*, in which individual words are cut into their letter patterns, which students practise writing on small whiteboards. They then practise using these words in *Sentence Writing* on their whiteboards. *Sentence Making*, *Spelling* and *Sentence Writing* are key strategies for students diagnosed with special needs. Rather than drilling foundation skills in isolation, they are practised in the meaningful context of texts, passages and sentences that students understand and are engaged in, which rapidly accelerates their learning.

In the next activity, *Joint Rewriting*, students are guided to write a new passage, using what they have learnt from *Detailed Reading*. For stories, rewriting follows the precise language patterns of the reading passage, but changes the plot, setting and characters. This supports students to use the language resources of accomplished authors in their own writing. For factual texts, rewriting begins by students writing notes on the class board, of the information that has been highlighted in the reading text. The teacher then guides the class to use this information in a new passage. Finally, after building knowledge and language resources through this sequence of activities, the teacher guides students to construct

whole new texts, in the activity known as *Joint Construction*. The sequence thus follows the functional language model, focusing on each component of the language task from the ‘top-down’, beginning with genre and register in *Preparing for Reading*, followed by discourse and grammar in *Detailed Reading*, then graphology in *Sentence Making*, *Spelling* and *Sentence Writing*. It then builds back up through the model, through grammar and discourse in *Joint Rewriting*, to genre and register in *Joint Construction*. Relations between levels of the language task and the teaching sequence are illustrated in Figure 10.

Figure 10: Reading to Learn sequence and language levels



These activities are repeated through daily, weekly and monthly cycles, as the school program permits, embedding literacy learning in curriculum teaching. Students' literacy growth can be extremely rapid with consistent practice. Text 2 was written by the same student as Text 1, after a few weeks of these activities. It is a brief biography of the Indigenous Australian leader, Shirley Smith or 'Mum Shirl'. It was written independently, following a series of whole class activities, studying biographies of Mum Shirl, and practising writing.

Text 2: Same student following intervention

Mum Shirl 28/8/08

Shirl Smith

Shirl Smith was also know as Mum Shirl. Mum Shirl was famous for helping people who were needy, and prisoners. Her education was difficult because of her illness (epilepsy). Her schooling failed because she couldn't go to school. Back then times were difficult for aboriginal people. They took away your children. It was hard to trust anybody after it. Mum Shirl helped people become happy and comfortable. She fought for others. She helped others get on with their lives.

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Table 3: Assessment of Text 2

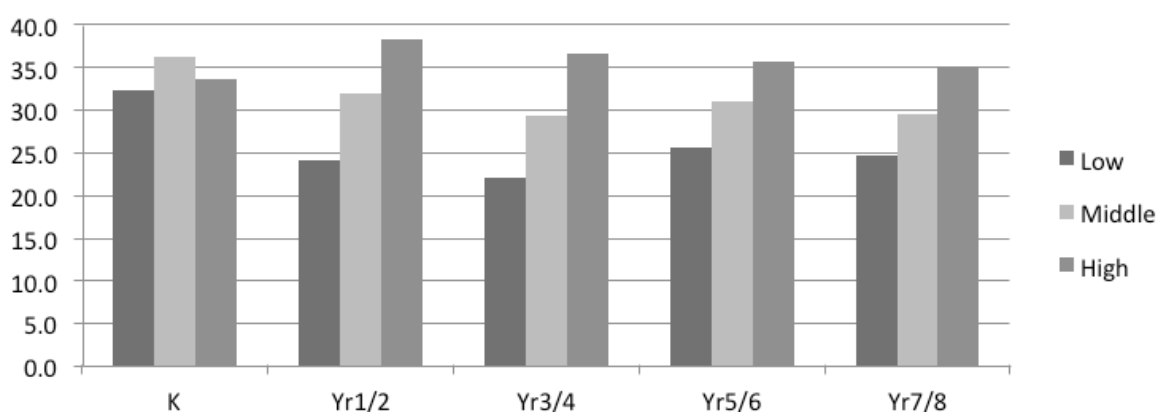
criteria		comments
Purpose	1	biography – simple
Staging	1	brief Orientation, no Life stages
Phases	1	clear phases - identity, early life, social context, life work
Field	1	Mum Shirl's work, early life, social context, but no detail of life
Tenor	1	objective evaluations
Mode	1	written language – middle primary standard
Lexis	1	builds simple field - <i>prisoners, education, epilepsy, schooling, Aboriginal people</i>
Appraisal	1	positive judgements of Mum Shirl, evaluates problems of Aboriginal people
Conjunction	1	reasons - <i>because</i> , historical sequence – <i>back then, after it</i>
Reference	1	keeps track with pronouns - <i>she, her, it, their</i> , and comparison - <i>others</i>
Grammar	1	appropriate but relatively simple
Spelling	2	variety of words correct
Punctuation	2	correct punctuation and letter cases
Presentation	1	legible handwriting, no paragraphs for phases
Total	16/42	below grade standard

The assessment in Table 3 shows consistent improvements in all areas of genre, register and language. A glance at the text shows that grammar and graphic criteria are vastly improved

on Text 1. This is not a result of drilling these features, as in remedial literacy programs. Rather it is an effect of gaining control of higher level features - genre, register, discourse - and practising grammar and graphic features in this meaningful context. However the student's language resources are still weak in most areas, below the standard expected for middle secondary school. This is not surprising, considering how much further Text 1 was below the standard. What may be surprising is the extraordinary gains this student has made in just a few weeks, after nine years of failure. Crucially these gains were not achieved by the student alone, but with the support of the teacher with the whole class. In the terms of Figure 9, Text 2 demonstrates growth after one or two iterations of supported practice with high level tasks. At the time, the teacher was undergoing training in the *Reading to Learn* program, and applying what he learnt with his class.

Figure 11 shows results for the same teachers and students as Figure 7, after 6-8 months of *Reading to Learn* training and classroom practice. Comparing results between Figures 7 and 11, post-intervention scores show average growth in kindergarten is 70% above pre-intervention scores; all groups are now scoring in the high range, and the gap between low and high achieving groups is halved. In the other year levels, growth is 30-40% above the pre-intervention scores, and the gap has halved from 50% to around 25%. These results were achieved after three or more iterations of supported practice. Crucially they were achieved mainly by teachers working with whole classes. Although *Reading to Learn* can be used for additional support with groups or individual students, Culican 2006 reports that "the whole class model of delivery produces better outcomes than withdrawal groups." While the ZPD is much larger for weaker than for stronger students, the *Reading to Learn* strategies support all students to do the same high level tasks together, as illustrated in Figure 9.

Figure 11: Post-intervention scores show gap between student groups after R2L teaching



Conclusion

There is no question that a proportion of school students diagnosed with learning difficulties may have significant neurological impairments that constrain their capacity to develop as readers and writers. But in my experience working with teachers of Indigenous and other groups of students diagnosed with learning difficulties, the problem is overwhelmingly not neurological but pedagogic; the failure is not in the student but in the ineffectiveness of teaching. I have argued in this paper that this ineffectiveness stems from an individuated view of learning, that fails to properly analyse the nature of learning tasks, and hence fails to

design effective preparations for learners to succeed with tasks. This failure is partly the result of a naïve, reductive ‘bricks-&-mortar’ model of language, that dis-integrates the language learning task, and focuses on the lowest levels of language, prescribing remedial literacy activities that are unlikely to ever enable struggling students to catch up with their more successful peers.

The evidence of assessments presented in this paper confirms that such remedial interventions have minimal effects on the inequality of learning and outcomes in schools. Students who are evaluated in the failing range at the start of school are likely to remain in this group through each stage of primary and secondary. Taking a wider view, this continual failure appears an endemic pattern of the school, which “necessarily produces a hierarchy based on success and failure of students” (Bernstein 2000:xxiv). As the problem lies with the school, the solution cannot be found by focusing on the difficulties of individual students. Rather we must look to teaching practices of the school that create and maintain these inequalities, and re-design these practices.

This has been the approach of *Reading to Learn*, which uses a functional model of language to integrate the language learning task in a carefully designed sequence of activities, and uses a social model of learning to guide all students in a class to practice high level reading and writing tasks, no matter what their assessed abilities. The writing assessment, designed as part of the *Reading to Learn* professional learning program, shows the full range of language resources that students bring to the writing task. It also shows the power of the methodology to close the gap between the most successful and least successful students, including those diagnosed with learning difficulties.

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¹ Reading accuracy and comprehension was tested by Rose, Gray and Cowey (1999) with running records and comprehension questions.

² In his large scale meta-analysis of education research, Hattie (2009:89-90) reports “individualized instruction to be barely more effective than the traditional lecture approach”, that “tracking has minimal effects on learning outcomes and profound negative equity effects”, and that ability grouping in primary classes has very low benefits for the learning of any group.