Literacy development in the first year of schooling

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This paper draws on the research study *100 children go to school: Connections between literacy development in the prior to school period and the first year of schooling.* The study was conducted in 1996-1998 by a research team made up of Susan Hill, Barbara Comber, William Louden, Judith Rivalland and Jo-Anne Reid. The paper will discuss the findings of the study, pose questions about universal, sequential linear notions of literacy development and raise issues to do with literacy pedagogy.

The study *100 hundred children go to school* was funded by the Commonwealth government and aimed to provide (1) a short historical summary of preschool, child care and other prior to school experiences in Australia; (2) a map of the prior to school experiences of a range of children in the year prior to school and the first year of formal schooling; (3) measurable outcomes and qualitative case studies of a sample group of children's prior to school and first year of school experiences focusing on literacy development. The literacy assessments were undertaken with more than 100 children during the year prior to school and the first year of school. Qualitative case studies were also prepared for a smaller group of 20 children. These case studies included observations of the children at home, in their prior to school contexts and during their first year at school. The case study children were chosen to represent a range of Australian contexts, including family financial resources, home language, ethnicity and geographic location.

Literacy outcomes were collected from a range of theoretical perspectives: The home and community tasks developed especially for this study included a set of everyday print items and a set of environmental print awareness items. The environmental print items were based on photographs of familiar food items, toys and retail signs. The everyday print awareness items were based on a widely available 'junk mail' Christmas toy catalogue. All of the items in the everyday and environmental print assessments were familiar to children in the remote, rural and urban locations chosen for this study. Other assessment tasks were based on previously published materials. The prior to school assessments included Concepts About Print (Clay, 1993), Writing Observation (Clay, 1993), Letter Identification (Clay, 1993), Phonemic Segmentation (Yopp-Singer, 1995) and Reading Behaviours on Text Gradients (Fountas & Pinnell, 1996). Some additional items were added to the second round of assessment, in order to reflect children's increased literacy knowledge after attending school. The additional items included retelling tasks from the School Entry Assessment (Ministry of Education, New Zealand, 1997), Ready to Read (Clay, 1993), and the First Steps spelling and writing levels (Education Department of Western Australia, 1994a, 1994b). A total of 58 assessment items were used in the 1996 prior to school phase and 75 assessment items were used in the 1997 school assessment phase.

Analysis of the assessment tasks revealed that most students made substantial progress in literacy learning during their first year at school. The study also showed clusters of children who were learning at a different pace or in a different order. The quantitative study identifies literacy domains in which children learned most in their first year at school and demonstrated that literacy development for many children is

not a linear sequential developmental continuum. The qualitative case studies of children revealed that what children take up in an early literacy curriculum is inextricably connected to the repertoires of practices and knowledges that children already have. When children moved from their prior to school contexts to the first year of schooling there were differences in the environments, resources, time, dispositions of bodies, social norms and language and literate practices.

Literacy progress in the first year of school

To answer the question 'How much did children learn about literacy during their first year of school?' the researchers compared the percentage of children able to complete items before school, and after three terms in school. At the time of the pre-school assessment phase, there were eight items that more than 70% of children successfully completed. These eight items demonstrated that most children had some logographic knowledge, understood book orientation, had some knowledge of numbers and were beginning to attend to print. Table 1, below, lists the items and percentages of children scored as correct on these items.

Table 1. What could children do before school?

Item	% children
Show me the front of this book	95.3
Point to the writing on this box (LEGO)	92.7
Inversion of picture	79.4
Can you tell me what the number is? (calculator key pad)	78.9
Are there any letters that are the same (Coco pops only)	75.2
Print carries a message	72.9
Point to the part that tells it's McDonald's	72.5
Tell me what these numbers are (Coke bottle)	70.6

After three school terms, most of the children had achieved dramatic increases in their literacy knowledge. Compared with eight items in Table 1, there were 37 items scored as correct for more than 70% of the children. That is, more than 70% of the children were scored as correct on about half of the 75 assessment items in 1997. Many of these items represent literacy knowledge and skills that were explicitly part of the teaching learning program in the schools. Almost all children understood the directionality of text and understood the concept of letters and a printed word. Most children learned to identify capital letters and full stops. Their ability to identify sounds increased with school experience. Almost all children learned to identify some letters and numbers in context and most learned to identify them out of context. Most learned to produce a recognisable sentence and could read a simple book and a few familiar sight words. Most children could retell and demonstrate comprehension of a story they had read with an adult. Table 2 below lists the items and percentages of students successfully completing each item.

Table 2. What almost all (>80%) children could do after seven months of school

Item	% children
Point to the writing on this box (LEGO)	100.0
Show me the front of this book	100.0
Print carries a message	100.0
Can you tell me what the number is? (calculator key pad)	99.0
Show me any letters that are the same (Coco pops words only)	98.0
Can you tell me any other numbers you know?(Calculator key pad)	98.0
Can you point to a letter? (calculator key pad)	96.0
Print starts at top left: "Show me where to start"	96.0
Left to right orientation of print: Which way do I go?	96.0
Return sweep: "Where do I go after that?"	94.1
Point to the part that tells this is McDonald's (sign & logo)	93.1
Can you tell me what the letter is? (calculator key pad)	93.1
Left page before right page	92.1
Tell me what these numbers are (Coke bottle)	92.1
Can you read this (McDonald's word only)	92.0
Can you find a number in the picture? (BP)	90.1
Can you find a number in the picture? (Shell)	89.1
Response to Inverted Print	88.1
Letter concepts: just one letter	88.1
What sound does this letter make? (T)	88.1
Tell me the name of any letters (Coco Pops)	86.1
Inversion of picture	85.1
First & last part of story	84.2
First & last letter concepts	82.2
Word concept "Show me one word"	82.2
Would you read this please? (Coca Cola words only)	78.2
Can you show me where the page number is?	77.2
What does this word say? (LEGO)	76.2
Writing Observation: language level 4 (any recognisable sentence) & above	76.2
Capital/lower case correspondence	75.2
Punctuation: Full stop	75.2
Book reading behaviours level 5 (reads print)	75.2
Numbers identified in catalogue	74.3
Capital letters: show me a capital letter?	73.5
Word by word pointing	72.3
What is the name of this letter? (T)	72.3

Second, to explore which literacy assessment items and item groups the children learned most about in their first year of formal schooling, the item and item groups were compared. Figure 1 identifies the item groups and the knowledge and abilities represented in each item group. Before attending school only eight items from three item groups were successfully completed by most children. Three terms later most children completed most of the items in logographic knowledge, attention to print, attention to words, book orientation, directionality of text, number identification and letter concepts. In addition, many children completed most of the items grouped in punctuation, print order and attention to sounds. Many children could identify 40 or more upper and lower case letters, write one or more sentences recording their own

ideas, and could read more than five sight words out of context. Many children could answer three questions on an oral retelling task, using developed sentence structure and including all of the main points.

Figure 1. Assessment item groups

Item group	What children know and are able to do
A Logographic knowledge	Know that people get messages from printed materials
B Attention to print	Know what print looks like
C Attention to words	Know that written words are groups of letters, with spaces in between
D Book orientation	Know that print in books is organised in certain ways
E Directionality of Text	Know that there are rules about what to attend to first
F Number identification	Know that numbers are different from letters and they are to do with counting
G Letter concepts	Know that the same letter can have variations in appearance, yet it always retains its individuality from other letters
H Punctuation	Know that there are marks in writing which are not letters, but which provide information about the text
I Print order	Know that, in order to make sense, all components of print must appear in the right order
J Attention to sounds	Know that words are made up of a series of sounds, and these can be represented by letters or groups of letters
K Letter knowledge	Know that letters have names, which always stay the same; they represent sounds, but sometimes these change
L Writing	Are able to write and spell in conventional ways
M Reading	Are able to read independently and accurately
N Retelling	Are able to retell orally a written story read with an adult

Third, to explore what profiles of performance may be distinguished among the 100 children in the study, a hierarchical cluster analysis was conducted. The cluster analysis identified five groups of children with profiles of similar performance. There were statistically significant differences between clusters for all literacy item groups.

Cluster 1: Children with a consistent profile of above average performance, rising over time. In 1996, about a quarter (24%) of the children in the study had already achieved a profile of above average performance all item groups. By 1997, the relative advantage of these children had increased, especially in independent reading, writing and retelling (mean z-score +0.9 to +1.2 SD).

Cluster 2: Children with a consistent profile of average performance. About a third of the children (32%) in the study made consistent, average progress on all item groups. In 1996 and 1997, none of the scores of this group of these children on any items strayed far from the average (mean z-scores ±0.5 SD).

Cluster 3: Children with an inconsistent profile of about average performance. A small group of children (22%) moved from an average performance on all item groups in 1996 to an inconsistent profile of performance in 1997. The 1996 scores of these children were similar to the scores of children in Cluster 2 (mean z-scores ±0.5 SD). In 1997, their scores rose on print order, attention to sound and letter knowledge. Their letter

knowledge score was particularly high (+1 SD) in 1997, but their reading, writing and retelling scores fell below the mean.

Cluster 4: Children with an even profile of below average performance, declining over time. A small group of students (10%) shared a common profile of poor performance in 1996. In 1997, their absolute performance increased, but their relative performance decreased. The mean z-scores of children in this group fell on most item groups, but among the most dramatic deterioration was in reading (from -0.5 SD to -1.2 SD) and writing (from -1.2 SD to –1.7 SD).

Cluster 5: Children with an uneven profile of below average performance, declining over time. The scores of the small group of children (7%) in Cluster 5 were more varied in 1996 than those of children in Cluster 4. Their 1996 scores on logographic knowledge, attention to print and book knowledge were slightly above average and their scores for letter knowledge, attention to sound and punctuation were below average. In 1997, more of their scores were below average, but their relative performance was inconsistent. Scores fell for attention to print, directionality, letter concepts, reading and writing, but their attention to sound was scored as well above average.

The cluster analysis supports the argument that young children learn literacy in a range of paces and patterns. This conclusion is somewhat at odds with the developmental view implicit in contemporary curriculum documents such as the First Steps developmental continua and the various state versions of the National Statements and Profiles. Differences in pace of learning, such as those shown in clusters with even and rising performance (Cluster 1), or even performance falling in relation to other children (Cluster 4), may be accommodated in a developmental view of learning. These children can be thought of as making slow or fast progress along the same developmental path as the average performing children in Cluster 2. Children in Clusters 3 and 5, however, appear to following different sequences in their leaning. A number of questions arise. Can their differences be explained away by reference to the particular teaching strategies their teachers used? Or are there differences in family circumstances, culture or literacy experience that explain the patterns of similarity and difference shown in these clusters of children?

Differences in performance among clusters appear to have been produced through the interaction of many factors. Recent Australian studies of primary school children's literacy, such as the National School English Literacy Survey (Masters & Forster, 1997) and the Victorian Quality Schools Project (Hill, Holmes-Smith & Rowe, 1993), have distinguished between student, teacher and school factors in explaining differences in literacy performance. Student factors include age, gender, social class, home language and Aboriginality. Teacher factors include variables such as teachers' experience or pedagogical style; school factors include variables such as urban, rural or remote location, and qualities of the school culture and leadership.

The differences in student characteristics seem to have contributed in some degree to the cluster in which children were grouped. Age differences might explain the superiority of Cluster 1 children's performance. On average, they were three and a half months older than the children in Cluster 2, five months older than the children in Cluster 4 and six months older than the children in Clusters 3 and 5 were. But age differences do not explain differences in performance among the similar aged groups of children in Clusters 2, 3, 4 or 5.

Gender differences frequently contribute to differences in performance, but a one-way analysis of variance found no significant gender difference in the performance of the clusters in this study ($p<0.05$). Social class differences may have contributed to the relatively high performance of children from Hillview, most of whom are in the above average performing group in Cluster 1 or the average group in Cluster 2. However, the influence of social class on membership of Clusters 3, 4 and 5 is much less clear. There are some children from all schools in these three clusters of relatively poor performing students.

Differences in home languages are frequently associated with lower performance in school literacy assessments. Children from Riverside and The Wattles – where the language variation was greatest – were mainly in Cluster 3; a cluster characterised by inconsistent but near average performance.

Cultural differences between home and school may have contributed to the cluster location of the four Aboriginal children from Gibbs Crossing; two of them were in the poor performing Cluster 4 and the scores of another two failed to cluster with the scores of any other children in the study. Children's home circumstances also appear to have contributed to some differences in performance. Three of the case study children who were in the low performing Cluster 4 missed significant periods of school through lateness, absenteeism or transience. For several other case study children in this cluster, low literacy performance reflected significant difficulty in meeting school expectations about classroom participation and may have been related to difficulties the children were experiencing in their home life.

Teacher- and school-level factors may also have contributed to the cluster in which children were grouped. In Australia, rural location has sometimes been associated with slightly poorer performance, and remote location has frequently been associated with very poor performance. In this study, children from the remote school were located in average or below average clusters, or were not allocated to clusters. Children from the rural school, Sweetwater, were predominantly located in the average or above average performing clusters. This result may have reflected the social class and expectations of parents more than the rural location of the school. The evidence on the impact of teachers' pedagogical preferences is mixed and – like most of the other factors – conflated with a range of potential causes. Children from Hillview were mostly in the average or above average performing clusters, and they had experienced more explicit teaching of letter names and sounds than other children in the study. Most of the children from Sweetwater were in Cluster 2. What these children had in common pedagogically was teachers working from the *Keys to Life* program. Most of the children from The Wattles and Riverside were in Cluster 3. The children from these two schools had several things in common: the school-level factor of reception classes with several adults and about fifty children, relatively high proportions of children from families eligible for school cards, and relatively high proportions of children whose home language was not English.

Questioning literacy development

The cluster analysis of literacy assessment data opened up some questions about the uniformity of students' literacy development. To explore some of the differences we

refer to two case studies from the Wattles site in South Australia. These case studies concerned children known by the code names of 'Pete' and 'Christianne'.

Pete

Pete is the middle child in the family with a younger and an older sister. Pete's mother, at the time of the study was a student working part time on a Diploma in Counseling. Pete's father, a fitter and turner by trade, was involved in an accident at work and was home on workcover insurance until his shoulder recovered. Pete's extended family is large, on his mother's side -- there are uncles, aunts and grandparents, living in the same suburb. Pete's father's family lives in Queensland and he has not had much contact with them since he left home at 13 years of age.

Pete's Dad liked building model Harley Davidson bikes and was drawing a mural of a large motor bike on Pete's bedroom wall. They both loved racing fast cars, going to the drag racing and both had motor bikes for 'bush bashing'. Pete rode his motor bike over the nearby paddocks near his house. Pete and his Dad watched lots of television, sports and the Foxtel discovery channel. They had computer games like Nintendo and played these games together.

Pete, at home, was constructed by his family as a boy who liked cars, bikes and toy soldiers and he was encouraged to play outside on his bike and inside in his room with his army men. When he watched his dad make motor bike models or work on the mural in his room, the interactions were demonstrations, not verbal instructions. Pete's dad said he showed Pete how to do things, whether it's drawing or making models of motor bikes. Pete's mum said that Pete has a mind of his own and if you could show him, not tell him what you were trying to say, then he was happy.

The parents did not believe they had a strong tutoring role in this learning: they provided the experiences on which the child drew and they rewarded signs of their successfully coming to know. The parents had a view of 'Let them be kids while they can' and being a kid meant playing outside with wheel toys, or inside playing with computer games or watching TV. Pete's parents claimed that children learned through experience and it didn't matter how much you tell them they had to learn through their mistakes.

Pete attended many family gatherings, barbecues and birthday parties and lots of family stories were told. One family story was about how Pete set fire to his bed when he was playing with a cigarette lighter. The whole house burnt down and the family lost everything, but what was important was that no-one was hurt.

At preschool

Pete attended the Wattles pre-school for two days of the week and took part in an individualised, child-centred curriculum. There was child choice of the range of activities and lots of enjoyable immersion in books, songs and poems, but literacy may have occurred in one or two of the ten activities offered to the students. At this age, Pete did not appear to see many purposes for literacy other than writing and reading his name on his possessions and being entertained by the illustrations in a picture book.

At school

Pete found the transition to school easy because the pre-school and his classroom were on the same site. However, the organisation of time, space and the content of the curriculum were different in school. Time was organised into lesson blocks of twenty to thirty minutes, and instead of a half-day, school went until approximately 3.00pm. The space in the classroom was taken up with tables and chairs and there were few spaces for play or construction. In school, formal literacy instruction began with small groups learning to read caption books and learning the alphabetic principle of letter-sound relationships. The small reading books were taken home to be read to parents (and had to be remembered and brought back each day); there were handwriting lessons, phonics lessons, mathematics, science and more.

Pete brought lots of oral language context to what he read and wrote. When reading unfamiliar decontextualised school literacy, he did not attend to print and instead liked to make up stories. Perhaps school literacy in reading books was too decontextualised for Pete? Perhaps his reading was an attempt to provide the 'conversational context' (Snow, 1983) he suspected he was missing, as the following transcript of Pete's reading and a retelling of a story reveal.

The text: Pete read:
    Here is the checkout.   Then she went to the counter and she
    Here is the bill!   showed the man who gave her money.

Pete's retelling:
    Bernie wiggled it that way and that way and it couldn't it, didn't come out.
    Mum was gonna pull it out with the clicker, but it didn't come out.
    Dad strangled, got his legs and picked it up and it didn't come out.
    Brother roped it up to his teeth and he put the rope on the door
    and it didn't fall out.
    He brushed his teeth, it came out and he wiggled it
    he brushed his teeth he wiggled he brushed it that way and that way.
    He showed Mum and Dad and his brother and he said, "It came out!"

    Pete's retelling of *The Lost Tooth*, September 1998.

Literacy learning

Assessment after eight months in school showed that Pete had learnt a lot about letters and sounds; he told stories, recreated stories from the illustrations and had a good memory for narrative. He demonstrated that he knew lots about individual parts of the code, but not how to get it all together to make sense. The concept of a neat continuous, linear sequential development in every aspect of literacy was not apparent in Pete's beginning to read and write. At home and at school Pete had a positive view of himself as a learner and said with bravado, that learning was easy. This view was not shared by his teacher who said he worked at it, but 'just didn't get it'. Figure 2 provides a profile of Pete's literacy learning.

Figure 2. Pete's literacy learning profile

Pete Z-Scores 1996-97
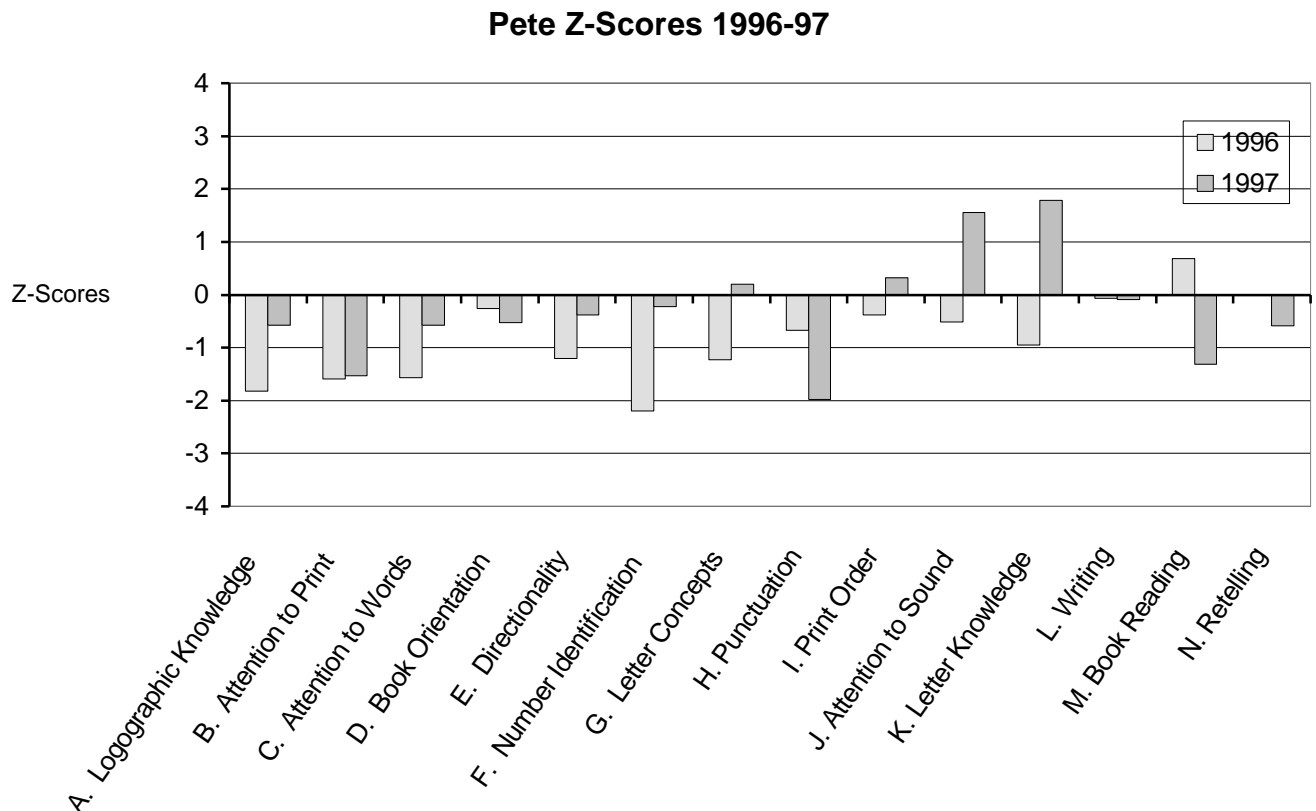
Literacy learning for all students may not proceed smoothly and without tension. Power and identity issues are constantly negotiated with every literacy transaction as a moment of self-definition in which people take action within and upon their relations with others. As Solsken (1993) in her study of gender and literacy points out, if literacy is perceived at home and at school as female behaviour this can lead to rebellion against print, mothers and sisters. Literacy is not just a school event, it is embedded within family relations and Pete, a boy with an older and younger sister, perhaps saw literacy a bit like being captured and held in alien gender country.

Christianne

Christianne was 4.9 years old when this case study began and according to her mother, a teacher, she was reading and writing from about 3.0 years of age. Christianne was selected as a focus child because her grandmother, Yaya, who is literate in Greek, not English, cared for Christianne from three months of age.
Yaya said:

> She likes to be the teacher. When all the kids get together she plays with them in the spare room. Sometimes she puts her dolls out and she is the teacher. She gets paper and writes. I've got the books from my son in the drawers and she opens them. She always wants books, books, books to read. But her brother is different. He sits there and watches TV and then plays with toys.

Yaya lived near the school that had a high proportion of low income families, however, Christianne's family were mid to high income and both parents worked as professionals. Yaya was concerned about not being able to read and write English and said:

> I was very sad yesterday because Christianne asked me to spell dog and cat, and I said to her mother I couldn't tell her. My daughter says d-o-g is dog, Mum. But it's very hard for me. I speak in Greek, but she answers in English. I transfer all the songs into Greek like *Father Christmas comes to town* and *Jingle Bells* and *Twinkle Twinkle Little Star*s and she sings them.

At about three years of age, Christianne convinced her mother to teach her how to read and write. She chased her mother around the kitchen asking her how to write words like ball and cat and they played 'I spy' in the car traveling twenty or so minutes to Yaya's house and returning home each evening. Christianne's mother taught her the 'at' words and how to use analogy to figure out new words.

Christianne constructed written recounts of family events well before school and was drawing and making cards and letters for friends who lived nearby. Christianne's mother said that she did not push her and it seemed to occur naturally, and she really only remembered formally teaching Christianne how to write her name because it has eleven letters. Her mother's method of teaching was a conversations used to build 'shared histories' between mother and child (Snow, 1983:185). Here, the mother asks the child questions about past shared events and thus provides help in recounting and building internal representations of those events. This constructed, shared history often follows rules which are similar to a well-written paragraph.

Home was set up for Christianne to acquire a range of literate practices. Her bedroom had books, papers and pencils similar to school. She had several alphabet friezes on the walls and alphabet books and phonics cards. She often played school with her brother, taking on the teacher role.

Christianne spent much of her time coercing her mother, to teach her to write and read. She played at being a teacher, wrote to friends and she engaged in similar activities at the pre-school, which she attended for four sessions of an approximate total of twelve hours each week, and the rest of the day she was at home with Yaya.

At preschool

At the pre-school, Christianne moved about confidently, choosing to write and read rather than play with sand, paint or other construction materials. She regularly requested information and assistance from adults in a self assured manner. This manner is described by Goodnow, (1990, quoting Bourdieu, 1979), as an expression of one's relationship to the social world where 'one's proper place in it is never more clearly expressed than in the space and time one feels entitled to take from others... in the space one claims with one's body... through bearing and gestures... .through the interaction time one appropriates and the self assured or aggressive, careless or unconscious way one appropriates it' (p. 474).

Christianne's prior to school experiences allowed her to move between different social spaces modifying her interactions as she went. With her grandmother, she and her

brother were indulged, read to, and they heard of how well they were doing, and would do in the future, and how clever they were whenever they were writing, reading and talking in English. Christianne probably felt very powerful, clever and superior about being able to read and write in English for Yaya.

When Christianne was with her mother she changed (according to the teacher). Christianne argued about the truth and accuracy of events; she debated and tried to persuade her mother to buy things, and tried to convince her mother to do what she wanted, but her mother was not as easy to manipulate as Yaya. Christianne argued with her brother often trying to place him in the role of student as she played school teacher. He resisted the student role and was very uncontrollable which made Christianne cross and she had to draw on different strategies to try to control him.

Christianne at school

When Christianne went to school, she was a model, neat, hard working student. She sat attentively, asked questions, read quietly and was independent and self reliant. At the end of the first year of school, she always chose to sit next to older girls, and spent time watching and learning from them. The notion of habitus, combined with social capital brought to the pre-school and school, meant that Christianne became known by the teachers as a bright student.

Christianne knew about the school discourse from her teacher mother. She was familiar with the IRE sequences, initiation-reply-evaluation, repeatedly described as the central structural feature of classroom lessons (Heath, 1994). In the IRE, the teacher asks the students questions which have answers prespecified in the teacher's mind. After the student responds the teacher provides feedback usually in the form of an evaluation. Training in the ways of responding to this pattern begins very early in the labeling activities of mainstream parents and children.

Most children from school oriented homes have learned to listen and wait for appropriate cues, which signal their turn to display school knowledge about literacy. They have learnt the rules for getting certain responses from parents (or teachers) in the reading interaction.

For students like Christianne, the pre-school years have enculturated them into the appropriate interactional styles for displaying what they know about literacy. They have learned the behaviour, which displays that they are paying attention to texts, and have learned how to give definitions and explanations. This learning has been fine-tuned and its habits are highly interdependent. The patterns of behaviours learned in one setting reappear again and again, as children like Christianne learn to use oral and written language in literacy events and to bring their knowledge to bear in school-acceptable ways.

Literacy learning

Christianne knew how to do school and what behaviours to use in a group in the classroom, and what behaviours to display when doing the literacy assessment tasks. However, her literacy development raises some questions. On the assessment procedures used in the study, Christianne showed uneven development. She knew lots

about letters and sounds, but was not confident when reading simple texts. Figure 3 identifies Christianne's literacy learning profile.

Figure 3. Christianne's literacy learning profile

Christianne Z-Scores 1996-97
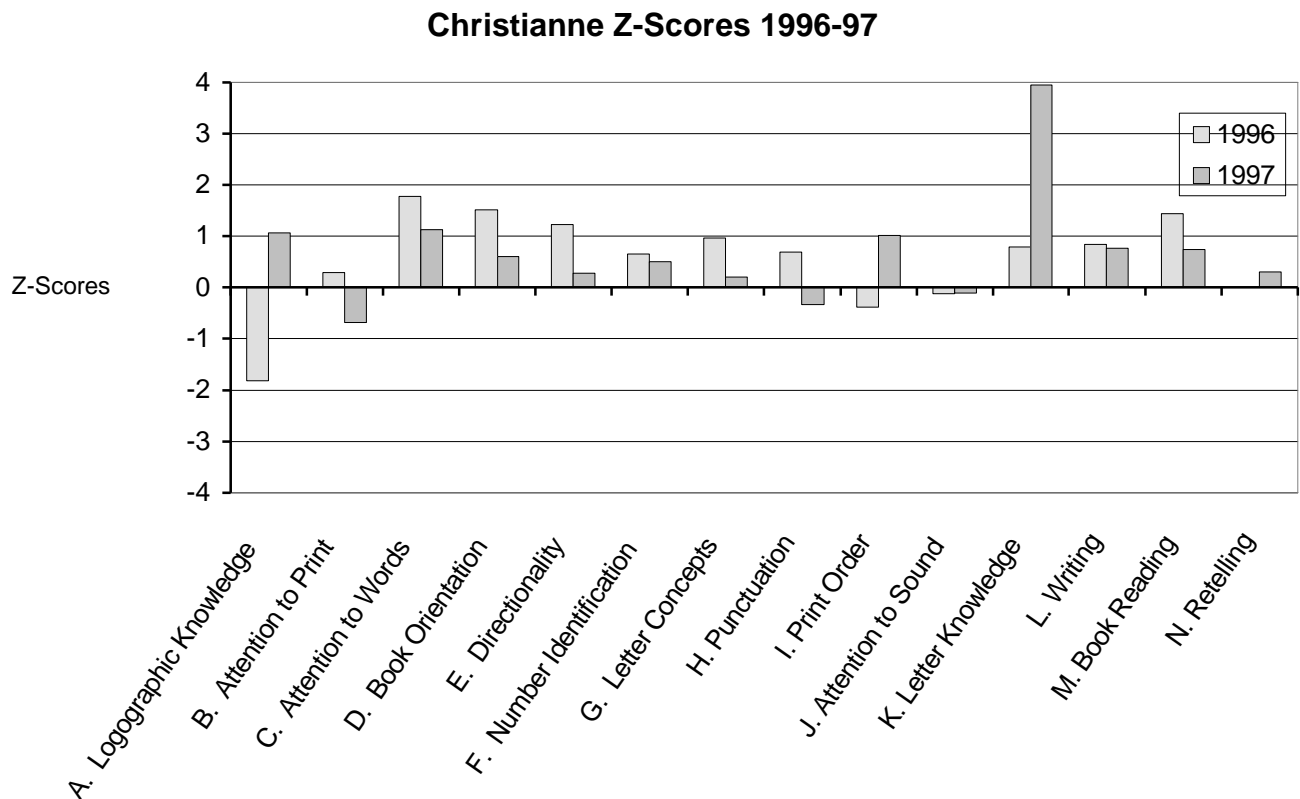
At a quick and superficial glance, students like Christianne may appear to be performing at quite a sophisticated level. However, careful analysis of their literacy development reveals many uncertainties, as new information is integrated into existing thought patterns. Christianne main strategy was spelling out words using the letter sounds. This means that difficult texts, where there is a lot to decode, made little sense to her.

Research in early literacy

The research team decided to take a wide view of literacy to avoid the polarization introduced by any attempt to separate out the technical features of literacy, as though the cultural bits can be added later. This wide lens does not deny technical skills or the cognitive aspects of literacy, but rather understands them as they are encapsulated within cultural wholes and within structures of power. In this view, the concept of 'literacy practices' refers to both the behaviour and the social and cultural conceptualisations that give meaning to the uses of reading and/or writing (Street, 1995). Literacy practices incorporate not only 'literacy events', which are particular activities where literacy has a role, but the general cultural ways of utilizing literacy that people draw on in a literacy event.

Theories are viewed as tools that shed light on different ways to understand literacy. We took the view that no one theory can be all things to all educators and that admitting to holding an incomplete theory of how children learn can promote dynamic, and ongoing inquiry into the wonder and the complexity of how children learn to read and write.

Taking a wide view does not deny the importance of focussing on technical skills or the cognitive aspects of spoken language, but rather understands them as they are encapsulated within cultural wholes. This approach allows for various theories to be used as tools with inherent advantages and disadvantages. This wide view is based on Foucault's idea that working from one particular theoretical position, with its particular process and discourse is not bad in itself, but that everything is 'dangerous' if we cannot think and understand outside the frames and rules of only one discursive position.

Within this wide view, the research team used a range of theoretical tools such as those provided by the theories of Foucault (1972) and critical sociologist Bourdieu (1986) to understand how school literacy is taken up by different groups of young students learning to read and write. Bourdieu, in particular, provided a way to analyse the cultural and social capital children bring to pre-school and school, and what is taken up by the children in different social spaces. In addition, the study had a strong outcomes component and employed a range of assessment procedures from different theoretical position --- reading everyday environmental print (Purcell-Gates, 1996), phonemic awareness (Yopp, 1995) and Concepts About Print (Clay, 1993) --- were used to understand literacy development prior to school and in the first year of school.

Problems with book levels and measuring literacy development

In the project *100 children go to school*, book levels were used as one procedure to measure progress. Reading Recovery levels were used based on the Foundations program. Books were 'leveled' using features such as text layout, vocabulary, and sentence structure predictability of text and illustrative support.

The advantages of using book levels are to do with students reading complete texts rather than words out of context of individual letters and sounds. There are some cautions about book levels in that there is no agreed interval between the levels (Iversen & Tunmer 1993). For example the difference between level 1 and 2 is not equal to the difference between level 15 and 16.

Another problem has to do with the selection of texts as benchmark books for assessing reading levels. The benchmark books are not previously read by students, and it rests on the judgement of the teacher or researcher as to what books suit particular communities and localities. In addition, there are issues to do with children's identities and social worlds, and the way the texts relate to children's experiences.

Innovative assessment procedures

To tackle the issue of how texts related to children's social worlds, we developed some innovative text procedures that drew on the children's' everyday literacy practices out of school. We used chip packets and tarzos, Coca cola and Toys R Us catalogues, and so on. We found that many items, such as reading page numbers, working out what toys cost, and items similar to the Concepts about Print test by Clay could be gained from using everyday texts.

We can speculate here for a moment about relating assessment to children's lives. There is one line of thought that environmental print is primarily logographic and contextualised and prompts children to guess at the words, or worse, read words as pictures and not attend to the letters and sounds within words. Another line of thought is that everyday print is literacies from the community and is part of the student's world and, therefore, is the place to make connections between what the child knows and school literacy. There are excellent programs operating where teachers ask children to bring texts from the community to school. They use these as a resource for building ABC dictionaries, word walls, and books that are made using pictures and print from catalogues and leaflets. There is potential here to do more and not just dismiss everyday print as logographic, but it depends on skilful pedagogy.

One can't help but think that if the code meaning text types or genres, and text critic resources used by literacy learners are understood by teachers and the community, then designing assessment procedures using everyday texts may be a useful way to proceed.

Literacy and 'development'

The pedagogy in early childhood education has been plagued by myopic psychological theories that propose universal views of how all children at particular ages learn. The developmental psychology perspective draws on the work of Piaget. First, this perspective states that all children move naturally through developmental stages in learning. Second, no stage can be skipped. The process of acquiring oral language occurs within a sequence of stages. Teachers observe and monitor children as they move through these developmental stages. Age related, developmentally appropriate practices guide the curriculum activities. Formal direct instruction, particularly the teaching of skills, is seen as inappropriate for young children, as they must be encouraged to create their own conceptual frameworks for how language works.

This perspective discourages teacher-directed large group instruction, preferring child initiated play or activity-based settings. The developmental principles reinforce the belief that generic patterns of language learning can be expected from all children, regardless of their sociocultural experiences. If there is a deviation from the series of cognitive developmental stages, this is seen as a deficit. Learning happens best through active and meaningful engagement.

Developmental psychology works to produce a set of practices where the teacher observes the child for 'normal' development through ages and stages. Walkerdine (1984) suggests such practises are normalising in that they constitute a mode of observation and surveillance, and a particular construction of children. The great diversity amongst children is discounted while a narrow band of behaviours is searched for and monitored. Walkerdine writes of how teachers monitored the child for normal development:

> [T]he observation and monitoring of child development became a pedagogy in its own right because those understandings taken to underlie the acquisition of knowledge were presumed to be based on a 'natural' foundation. The new notion of individualized pedagogy depended absolutely on the possibility of the observation and classification of normal development and the use of spontaneous learning (1984:177).

The discourse of developmental psychology has so dominated our experiences that we talk about ourselves and others as slow, advanced, mature, weak in a particular domain, or ready for a particular experience (Cannella 1997). As Cannella warns, the surveillance, measurement of what is judged as normal, and comparison of children (and other human beings) creates the conditions for social control, adult over child, middle-class over the poor, and man over woman. It is difficult to conceive of these practices as any kind of pedagogy that could potentially 'liberate' children or celebrate diversity and difference. Developmental psychology can prompt teachers to focus on what children need to do next, rather than what children can do in different contexts. In this way, it can lead us to underestimate and miss out on what different children can do in a variety of situations.

New models to describe development

We need new models to describe literacy development. Table 3 allows us to consider the three views of development in literacy — individual, adult-guided and dynamic.

Table 3. World views of development in literacy

	Individual development	Adult-guided development	Dynamic development
Teachers' worldview	The world is experienced in the same way by each person. Existing knowledge has to be uncovered by each individual.	There is a firm fixed adult view of how the world works for everyone in it.	The world is not experienced in the same way by each person. The world is constantly changing and being recreated.
Learners	Individual learners must actively construct knowledge.	Learners are apprenticed into existing knowledge.	Teachers and learners are active contributors to evolving knowledge.
Pedagogy	The teacher immerses children in literature and encourages exploration.	Teachers and older students are experts and guide children who are novices.	The teacher connects the learner's worlds to school literacies.
The texts	Texts are for individuals to explore and uncover how	Texts guide students into an adult view of the world.	Written texts are worlds held still for joint reconsideration.

language works.

In the individual development view, the child is seen as an inventor of pre-existing knowledge (Piaget, 1955). The peer culture and social world are not emphasized, because children are viewed to move along a predictable and sequential linear pathway of individual development.

In the adult-guided view of development, children are apprenticed into literacy (Vygotsky, 1978; 1987: Rogoff, 1990). In this view, each child functions at a particular level independently and has the potential to attain a higher level with guidance from an adult or a more capable peer(s). The difference between these two levels is called the 'zone of proximal development'. The more capable partner provides skills and understandings during joint problem solving that are within the child's zone of proximal development, and most importantly, the problem solving would not be present for the child without the social interaction. In this way the zone of proximal development is deeply contextualized and it does not exist independently of the actual interaction process (Tudge, 1992).

In an adult-guided view, children who interact only with adults usually progress developmentally in ways that are consistent with the adult culture. Even when children work with peers on tightly structured tasks, the partners adapt to each other and share purposes and meanings that they would not have created on their own. This approach does not consider the hierarchical and contested nature of power between different groups of people.

In the third view, development is viewed as dynamic. Learners undergo periods of stability, then change occurs and learners reorganise and transform their thinking. We need a dynamic view of learning to explain how novelty occurs, how children think thoughts never thought before and, to explain change and sudden acceleration in reading and writing.

In a dynamic view of development, there are multiple and continuous interactions at all levels of the system from the smallest cell to the wider culture. A dynamic view shifts the focus from a simplistic 'A causes B' to focus on *how* a whole system works, or how a particular child in a particular context is learning. In a dynamic view, '[a]ctions done in this moment, in turn, set the stage for behaviours in the next second, minute, week and year '(Thelan and Smith 1998: 625).

A dynamic view of development is important because it moves thinking along from 'either-or' opposing views such as nature versus nurture, learning versus maturation, continuity versus discontinuity, structure versus process. Only a framework of dynamics can erase the either-or dualities and shift the focus to *how* development occurs. In a dynamic view of literacy development, the focuses shifts to *how* learners change and *how* readers and writers problem-solve with text.

Reading and writing are a joint production of the child and the cultural agenda of the society. There are life long possibilities of change, multiple non-linear developmental pathways, and the emergence of new thinking and new forms of literacy. In a dynamic view, children who follow different pathways may reach similar outcomes. At the same time, very small differences in the beginning of learning to read and write can lead to widely different outcomes.

Using everyday texts

Drawing on the work of Louis Moll and his colleagues (1992), this study drew our attention to the fact that pre-schools and schools in the five sites were surprisingly similar, and the pedagogy was surprisingly the same, whether middle-class Perth or rural Victoria. We wonder why literacy curriculum development does not respond to the literacies in local communities.

Our experience supports the findings reported by Freebody and Ludwig (1995), and also those of McCarthey (1997), who conducted a study with a similar mediation between home and school to the one we had planned. McCarthey (p. 145) notes that school literacy curriculum is more congruent with the literacy experiences of children from middle-class homes than for other children, and that teachers tended to have more pedagogically-useful information about these students than others because of this. Teachers' own middle-class backgrounds, and what has been produced in equity discourses as a need to treat all students 'equally', is another problem for students whose home literacy experience is not 'equal' to the middle-class norm of school. Furthermore, and in accordance with other researchers (Christie, 1990) found that many teachers assume that students can make the connections between home and school on their own.

Teachers and researchers need to learn more about how children live in homes and communities. We don't know enough about the complexity of networks which support families with minimal economic resources, their sophisticated multilingual and/or multi-modal language use and production, their multiple responsibilities for siblings and elders, the independent negotiation of service encounters, their encyclopaedic knowledge of television and popular culture, and so on.

Our research points to a need to develop conceptual tools for explaining children's lifeworlds. This includes their cultural, linguistic and material resources; their families and households; and the reality of their daily lives without simultaneously assigning them to static categories, or unwittingly attributing deficit associations that accompany membership in particular disadvantaged groups.

For teachers to better understand (1) the complexities of early literacy development (2) children's lifeworlds and (3) how best to help children achieve their goals in literacy, they require additional professional support, and time allocated for understanding children's lifeworlds, more culturally relevant resources, and reduced class sizes. These factors are particularly important in communities marked by poverty and other forms of social and material inequities. However, given that, as all teachers are increasingly likely to teach in diverse communities, then all teachers need to reconsider their practices as 'community' practices with specific and often differential effects on different groups of children. Rather than 'outsiders' to school communities, teachers are key mediators of wider social values, goods and practices. The complexity and significance of their work requires increased public support in order to enhance their community standing.

Summary

In summary, this study explores the connections and disconnections among three distinct social spaces through which young children move -- home, pre-school and school. The

connections and disconnections children make between home and school are linked to the repertoires and knowledge children already have. The case studies suggest that success in playing the institutional game of schooling is contingent upon students using the social and cultural capital they have acquired from home, and also upon teachers' ways of building on children's different resources. Rather than children's success with literacy being contingent on what children already have experienced prior to schooling, the research team strongly endorses culturally inclusive curriculum and pedagogy. Therefore, the research team advocates a review of current literacy curriculum and pedagogy to examine school practices in terms of cultural inclusivity.

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