

CHAPTER 6. DATA ANALYSIS: CASE STUDIES OF INDIVIDUAL CHILDREN

Introduction

The purpose of this chapter is to consider individual cases which are illustrative of particular aspects of the data. Whereas Chapter 5 gave an overview of the information gathered in group terms, this chapter provides "windows" on the data in that aspects of individual performance which are considered to have a bearing on the performance as a whole have been selected for discussion. For example, aspects of individual children's literacy backgrounds are described in order to illuminate the statistical results of the previous chapter.

Thus this chapter addresses the following research question as previously enunciated in Chapter 4:

Research Question

3. How are the answers to the previous questions reflected in the literacy performances of individual children in 1990/1 and in 1995?

Selection of Case Studies

In order to highlight particular aspects of individual and group performance, case studies of five children were selected for detailed analysis and description. Thus the performances of Patricia, Lindsay, Carl, Kiagh and Toni were chosen on the basis of the following information:

- (1) Information about family background which included:
 - representative aspects of family background and performance
 - special aspects of family background and performance.

As outlined in Chapter 3, social, family and ethnic background are considered by the research literature to play an important part in literacy development (Eckermann 1994; Goelman, Oberg & Smith 1984; Strickland & Morrow 1990; Taylor & Dorsey-Gaines 1988).

- (2) Ability rankings for the 1990/1 data derived from Rasch Analysis (see Table 6.1)

(3) 1995 data gathering raw score rankings (see Table 6.2)

Thus there were representative aspects of performance such as parental literacy experience, child literacy experience at home, health issues and family crisis which reflected conditions common to many of the children in the group which governed the choice of several children as case studies. Other aspects deemed to affect performance such as parental education experience, higher parental income, parental employment in white collar jobs and rich print experience governed the choice of several children as case studies. In most cases, familial conditions both representative and special operated in the choice of case studies for illumination.

It should be remembered that the family backgrounds of all five children selected for case study examination have been and are affected by the racial oppression of Aboriginal people in the past and in the present. This has been discussed in some detail in Chapter 2. Thus family background issues must be seen in the context of wider social conditions affecting Aboriginal people.

Ability rankings for both 1990/1 and 1995 were considered in concert with the family background information as enunciated above in the selection of case studies to provide "windows" on the data. Thus one case study looks at poor performance in relation to family background and literacy experience over the whole five and a half years (Patricia); another at poor performance in pre-school, improved performance by the end of Kindergarten and continued improved performance in middle primary school (Lindsay); another at consistently high performance over the whole of the five and a half years of the study in relation to family background and early literacy experience (Carl); another at a generally unstable performance in pre-school, Kindergarten and middle primary school (Kiagh); and the last looks at poor performance in 1990/1 and improved performance in 1995 (Toni). In addition, children from the case studies are compared with one another to provide additional support for the speculations being made in relation to the complex interactions between environment, school, home and child.

Data Presentation

Each child's performance in all tasks is described in relation to all five data gathering sessions in 1990/1 (S1-S5) and the last one in 1995. Thus performance of individuals in the various tasks is described in more detail than was possible in the group analysis in Chapter 5. In addition, data collected in interviews in 1990 and updated in 1995 are used to present in each case, an overview of the child's socio-environmental background. As outlined earlier, parents, teachers and the Director were all interviewed.

Table 6.1
Children's Ability Rankings in all Tasks: Sessions 1 and 5

N = 22

| Name | EPT | Letter ID | Pic Seq | Reading | Retell | Sand | Writing |
|----------|-----|-----------|---------|---------|--------|------|---------|
| Alex | 2 | 4 | 4 | 7 | 2 | 3 | 9 |
| Amelia | 21 | 17 | 8 | 18 | 5 | 14 | 9 |
| Aurora | 8 | 7 | 20 | 19 | 18 | 18 | 20 |
| Carl | 1 | 1 | 1 | 3 | 4 | 1 | 11 |
| Danielle | s | 15 | 16 | 12 | 13 | 12 | 4 |
| Debra | 11 | 12 | 16 | 8 | 19 | 9 | 16 |
| Gail | 3 | 4 | 8 | 4 | 9 | 3 | 6 |
| Graham | 8 | 21 | 4 | 11 | 18 | 14 | 20 |
| Gregory | 10 | 6 | 1 | 1 | 13 | 7 | 18 |
| Jason | 6 | 11 | 8 | 22 | 13 | 11 | 22 |
| Katrina | 6 | 2 | 8 | 2 | 2 | 2 | 4 |
| Kiagh | 5 | 2 | 1 | 17 | 1 | 10 | 8 |
| Korena | 18 | 13 | 8 | 8 | 5 | 14 | 7 |
| Lindsay | 4 | 9 | 8 | 16 | 9 | 5 | 1 |
| Luke | 17 | 22 | 16 | 20 | 13 | 21 | 13 |
| Maria | 18 | 14 | 8 | 6 | 12 | 7 | 16 |
| Patricia | 18 | 17 | 16 | 8 | 13 | 20 | 14 |
| Sally | 11 | 9 | 8 | 12 | 9 | 5 | 3 |
| Steven | 11 | 20 | 20 | 21 | 19 | 19 | 11 |
| Tanya | 16 | 16 | 22 | 14 | 21 | 14 | 15 |
| Toni | 14 | 8 | 4 | 14 | 5 | 13 | 2 |
| Walter | 14 | 17 | 4 | 5 | 5 | 21 | 19 |

Table 6.2
1995 Data Gathering Session: Rankings for Individual Tasks

| Name | Neale R | Neale A | Neale C | Comp 1 | Comp 2 | TRT |
|----------|---------|---------|---------|--------|--------|-----|
| Alex | 2 | 7 | 3 | 4 | 4 | 5 |
| Amelia | 9 | 15 | 18 | 8 | 11 | 10 |
| Aurora | 7 | 9 | 8 | 6 | 9 | 16 |
| Carl | 5 | 2 | 2 | 3 | 1 | 1 |
| Danielle | 11 | 10 | 6 | 8 | 11 | 7 |
| Debra | 10 | 11 | 9 | 8 | 7 | 15 |
| Gail | 1 | 1 | 9 | 5 | 7 | 1 |
| Graham | 14 | 13 | 12 | 8 | 11 | 14 |
| Gregory | 6 | 5 | 3 | 1 | 4 | 1 |
| Katrina | 3 | 3 | 1 | 1 | 2 | 5 |
| Kiagh | 14 | 8 | 6 | 8 | 6 | 12 |
| Korena | 14 | 15 | 12 | 7 | 11 | 18 |
| Lindsay | 8 | 4 | 15 | 8 | 2 | 4 |
| Luke | 14 | 15 | 16 | 8 | 11 | 7 |
| Patricia | 14 | 15 | 16 | 8 | 11 | 13 |
| Sally | 12 | 11 | 9 | 8 | 11 | 16 |
| Tanya | 13 | 14 | 12 | 8 | 11 | 11 |
| Toni | 4 | 6 | 5 | 8 | 9 | 9 |

Patricia

Background

Patricia was chosen as the subject of a case study partially because her family background is representative of a number of children in the group. Patricia is deemed by her school to have a language learning difficulty diagnosed by specialists. She goes to special classes to help alleviate this problem. Several other children in the group have similar problems. In the 1990/1 data gathering sessions, Patricia's performance was in the lower half of the group in terms of ability rankings. Her best ability ranking was eighth in the Reading Task (see Table 6.1). When Patricia was in her Kindergarten year, she made some progress in literacy learning which was confirmed by her teachers (grade teacher and special education teacher) who gave examples of increased learning in phonemic awareness and decoding. However, in 1995 Patricia was four years below her chronological age in reading and to all intents and purposes was a non-reader. Thus her performance rankings for 1995 were low (see Table 6.2).

Patricia's mother comes from a very large family in a remote country town. She indicated in interview that she had few parenting skills because as a child she had little parenting herself. Patricia and her siblings are never spoken to in a conversational manner. Interaction with parents usually consists of being given directions and/or shouted at in reprimand. Shouted reprimands and directions are rarely followed through. Patricia's mother is a non-drinker. Her father is not in employment and, whilst he drinks heavily, he is not violent. Both parents are illiterate. There are few books at home, no-one to model reading and writing and the children are not read to.

1990/1 Performance

Environmental Print Task

Over the whole data gathering period, Patricia's scores improved only slightly. Patricia had considerably more difficulty with Phase Two of the task (photocopy of brand names in trade format) than Phase One (brand names in trade format on actual items) and her performance in Phase Three (brand names in decontextualised print) showed minimal development in word recognition skills. In the Environmental Print Task Patricia's ability was rated by Rasch Analysis as -1.83 with a percentage score of 29.31% and a group ranking of eighteenth (see Table 6.1), the lowest in the group.

Examination of Patricia's KidMap for this task shows a depressed ability level with response patterns indicating a low level of achievement. Thus the bulk of Patricia's responses fell on the right side of the KidMap which depicts non-achievement. A number of items do not appear at all since she did not score on these items at any stage

(eg. Items 5, 17, 21, 24, 25, 26, 29, 31, 32, 38 etc). Only one item from the third phase of the task was completed successfully.

Letter/Sound Identification Task

In the whole eighteen month period of testing Patricia did not score at all until the last data gathering session (S5), when she scored 7 out of 54. Patricia's best score placed her in the third stanine in her age group using Clay's (1966) study for comparison purposes (see Table 5.20).

Rasch Analysis gave Patricia an ability rating of -4.82, a percentage score of 8.24% and a ranking in the group of seventeenth (see Appendix 6.1). Examination of Patricia's KidMap for this task showed that many items do not appear on the scale because they received zero scores across all sessions. Many fewer items appeared on the "achieved" side of the map than on the "not achieved" side and the ability level was almost as low as it could go on the scale. She did not identify any letters from her own name.

Picture Sequencing Task

It was not until S5 that Patricia showed some knowledge of directionality in this task. In the last two sessions she showed that she knew that meaning could come from pictures whereas at no stage did she demonstrate an understanding of sequence in story. Only in S5 did Patricia indicate that she understood the point of the story (see Appendix 6.1).

For the Picture Sequencing Task, Patricia's ability level was rated as -.99 with a percentage score of 33.33% and a ranking in the group of fifteenth (see Appendix 6.1). Examination of the KidMap for this task shows a low level of achievement with two items not appearing (Items 4 & 6) because of zero scores and only two of the easier items (both in Session 5) appearing as "achieved".

Reading Task

In all data gathering sessions, Patricia was able to place the book the correct way up with the front facing. She also used pictures to infer meaning in these sessions and told the story from memory whilst turning the pages. In all but S3 she turned the pages efficiently. Patricia showed evidence that she understood that print carries a message on three occasions (S1, S4 and S5). In three data gathering sessions, she showed that she knew writing and print were different, pointing to the text whilst 'reading' (S1, S4 and S5).

Patricia used personal experience and prior knowledge to help her make meaning on only one occasion (S4) but expressed her interest and enjoyment in the task on all four

occasions. Awareness of book language was evident in S3 and S5. In S1 and S4 Patricia showed some knowledge of directionality.

Rasch Analysis determined that Patricia's ability level in this task was $-.42$ with a percentage score of 41.67% and a ranking in the group of eighth (see Appendix 6.1). Examination of the KidMap for this task showed an ability level which fell about the middle of the class. There was a preponderance of "harder not achieved" items especially for the S5 items clearly indicating fairly low reading achievement. Many items are missing from the map. Patricia's low level of reading performance thus reflects the Department of Employment Education and Training (DEET 1994) figures as shown in Figure 2.3.

Retell Task

In all five sessions, Patricia, in her retelling, commented on the characters in the story and its main events. Only in S4 did she indicate that she recalled some of the details of the story. She commented on causes and effects in the story, indicating an understanding of its point only in S5. Openings and closures were signalled only in S3.

On three occasions Patricia expressed herself in simple sentences (S1, S3 and S5). Mispronunciations related to immaturity were observed in S1 and S3. Clear dialectal differences were observed in three sessions (S1, S4 and S5).

For this task, Rasch Analysis determined Patricia's ability level as $-.48$ with a percentage score of 43.48% and a ranking in the group of thirteenth (see Appendix 6.1).

Sand/Concepts about Print Test

In all five sessions Patricia knew where the front of the book was. She knew that the story came from the print rather than the pictures in the last three sessions. In the third session she could point to the top left of the page when asked where the story began and in the last session could identify the beginning and end of a line of print. In all but the last session Patricia could identify correctly the bottom of an inverted picture and in S3 and S4, show that she knew the left page preceded the right.

Comparison of Patricia's performance with Clay's research showed that Patricia's best score at age 5 years and 6 months placed her in the third stanine for her age group. Individual performance compared to age expectations as determined by Clay (1991) may be seen in Table 5.38 and in Appendix 5.20.

Patricia's ability level in the Sand/Concepts about Print Test was determined by Rasch Analysis as -4.24 with a percentage score of 10% and a ranking in the group of twentieth (see Figure 6.6). Examination of the KidMap for this task shows that many items are missing because scores were zero for both sessions. Very few items were recorded as "achieved." Thus Patricia's knowledge of print and print conventions was still at a very basic level by the end of her Kindergarten year.

Writing Task

Patricia knew that writing meant making marks on paper and in two of the later sessions she demonstrated she knew that writing carries a message by 'reading' back in sentences. In the later sessions of both tasks, Patricia printed and approximated printing. In S3 she drew pictures to express what she wanted to say. Also in this task in S1 she clearly approximated cursive writing. Patricia's writing performance was immature (rough execution with reversals) and, in the early tasks, illegible.

By the last session she could write her name but she displayed no awareness of letter formatting conventions. Patricia had no bank of words that she could write accurately from memory other than her own name, but she was able to write in letter strings using some of the letters in her own name in one of the final sessions.

By the last two sessions of both tasks Patricia showed a clearly developing accuracy in left-to-right progression. In only three of the eight sessions did she hold the pencil in the conventional manner. Patricia did not use punctuation, nor did she 'sound out' whilst writing.

Rasch Analysis determined Patricia's ability level to be -.92 for this task with a percentage score of 33.33% and a ranking of fourteenth (see Appendix 6.1). Examination of the KidMap for this task shows some achievement in S5 items whilst S1 items displayed were deemed harder and "not achieved". Once again, many items were omitted from calculations because of zero scores.

Examination of Raison and Rivalland's (1994) *Writing Developmental Continuum* shows Patricia's performance still located in Phase One (Role Play Writing) by the end of her Kindergarten year.

1995 Performance

Neale Analysis and Title Recognition Test

Patricia's chronological age on completion of the Neale Analysis tasks was 9.10 years. Her average speed of reading the one passage she completed was 12 words per minute which did not allow her raw score to register on the tables. Similarly her error rate in the accuracy category did not allow her raw score to appear on the tables. Patricia's comprehension score placed her at 6 years, and had a percentile ranking of 43 and a stanine of 5. Patricia missed 9 of the 10 identified target words in the one passage she completed.

Most of Patricia's errors (71%) were substitutions which indicated she had no idea of the sense or meaning of the passage. The substitutions she made bore little resemblance to the graphic appearance of the words. Refusals formed 21% of her errors. When she came to an unknown word, Patricia sounded it out - frequently unsuccessfully. She reversed 'b' and 'd' several times and 'p' and 'q' as well as reading 'noes' for 'ones'. Patricia did not have the idea of reading for meaning and she did not use syntactical structure to assist the reading process. She could not recognise 'chunks' of words or use syllable recognition to decode. She guessed but could not predict on the basis of the context or meaning of the passage. This, of course, is not surprising, given that she was unable to identify most of the words.

Patricia's performance in the Neale Analysis was ranked as 14th for rate of reading, 15th for accuracy and 16th for comprehension (see Table 6.2).

Title Recognition Test

She scored 17% in the Title Recognition Test with a ranking of thirteenth in the second lowest score grouping for this task (see Table 6.2). Thus Patricia's print experience may be said to be small in comparison to the rest of the group and also in comparison with Cunningham and Stanovich's (1990) results with children in California and Michigan.

Comprehensions

Patricia was unable to read either passage at all and the researcher stopped her after the first line in each case. She therefore scored zero for both sets of questions.

On both comprehensions, therefore, Patricia ranked lowest in the group. It should be noted, however, that 11 other children scored zero in Comprehension One and 8 others in Comprehension Two.

Free-Writing Task

Patricia talked as she wrote. She decided to write a letter to Santa Claus but had no idea of letter-writing conventions. She introduced herself first using capitals and lower case letters indiscriminately and omitting the verb: "My NaMe Patricia". She reversed the "N" in the second word. Capital letters and a full-stop at the end were the only punctuation used. She used familiar beginnings to her 'sentences' such as "My name...." and "I like....". She read her work back to me changing words and inserting omitted words orally as she went so that it made sense.

Patricia's spelling was progressing from the Semi-Phonetic Phase to the Phonetic Phase. She had a small bank of words she knew how to write correctly. In a number of words she omitted letters eg 'Sate'= Santa; "press = 'presents' {omitting post-vocalic nasals is fairly common and has a phonetic explanation (Byrne 1997)}; yrs' = 'yours'; 'yrs' also equalled 'of yours'; 'god' = 'good'. As it stood, Patricia's writing did not make sense although what she read back to me made sense. She relied heavily on the most obvious sounds of a word and looked around the room to find clues to what she wanted to write. Whilst she did not write correct sentences, her own reading of her work showed that she was beginning to use the sentence as a medium of written expression. She wrote in the first person using simplified oral language structures.

Patricia was judged to be in the Experimental Writing Phase (Phase Two) of the *Writing Developmental Continuum* (Raison & Rivalland 1994). Whilst the Developmental Continuum is careful to avoid stipulating school year/developmental phase correspondence it is clear that children generally experience Phase Two of the Continuum in Kindergarten - Year One. Patricia, at this time, was in Year 4.

The reasons for the nature of Patricia's literacy development performance throughout pre-school/Kindergarten and in middle primary school are elaborated later via a comparison with Lindsay's performance now to be described.

Lindsay

Background

Lindsay is one of a large family of seven children. He has a young mother who has been physically and mentally abused by her husband. His father is an alcoholic who frequently disrupts the family by trashing the house and leaving and returning at various unexpected times in a violent and abusive manner. He has a full-time job but does not support the family. Lindsay's mother is an energetic and resourceful woman who has a full-time job in local government as a resource officer. She supports the family and is

very active in various community sporting organisations. She spends a lot of time with her children in sporting activities. There are many similarities between Lindsay's family and those described in the Taylor and Dorsey-Gaines (1988) study.

During pre-school, Lindsay was constantly beset by respiratory infections which interfered with physical activity. At this time also, the uproar caused in the family by his father was at its height and Lindsay became withdrawn. His siblings also showed evidence of socio-emotional problems. He spent a year in the Transition Class at Djannara before proceeding to a town primary school.

Lindsay's mother, despite critical family problems, has always been interested in supporting her children's education. She was part of Djannara's management committee for a number of years. The younger children have been read to (often by older siblings) and there are books, magazines and newspapers in their home. Lindsay's mother also explained that when her older children were young she had no knowledge that early reading experiences were important for literacy development and as a result her older children had few early literacy experiences. She became aware of the importance of book experiences for children through workshops the researcher was conducting at Djannara Pre-school and since then has ensured that her younger children were read to and had other literacy experiences at home. As a result she maintains that whilst her three older children have had many difficulties with literacy her three younger children (including Lindsay) have had few difficulties becoming literate.

1990/1 Performance

Environmental Print Task

Lindsay's performance in Phases One and Two showed little evidence of progression and there were minimal differences between the phases. In the last session of Phase Three, however, clear indications of developing word recognition skills were evident. Rasch Analysis rated Lindsay's ability level at 0.75 for this task with a percentage score of 58.62% and a ranking of fourth (see Appendix 6.2).

Letter/Sound Identification Task

In the first three data gathering sessions, Lindsay demonstrated little evidence of letter/sound knowledge. In the second six months of his Kindergarten year, however, he scored 20 and 28 out of 54 in S4 and S5. Lindsay's best score placed him in the fifth stanine in his age group using Clay's (1966) study for comparison purposes (See Table 5.20).

Rasch Analysis rated Lindsay's ability level at -2.14 for this task with a percentage score of 32.94% and a ranking of ninth (see Appendix 6.2).

Picture Sequencing Task

In all but the first data gathering session Lindsay showed some knowledge of directionality and was able to infer meaning from pictures. In the first three sessions he showed some knowledge of sequence in story but not in the last two sessions. He understood the point of the story in the last three sessions.

Rasch Analysis rated Lindsay's ability level in this task at -.03 with a percentage score of 50% and a ranking of 8th (see Appendix 6.2).

Reading Task

Lindsay knew how to position the book the right way up with the front facing in all five sessions. In the first two data gathering sessions, however, he had difficulty turning the pages and crumpled them quite badly. In all but the first session, he used pictures to infer meaning and repeated parts of the text from memory. In the last three sessions, Lindsay demonstrated that he knew print carried a message. He linked his reading to personal experience, commenting on the text and frequently showing interest in the task in S2, S4 and S5.

He told the story from memory whilst turning the pages in all but the first session and in the last three sessions indicated that he knew pictures and print were different through examining the pages and by pointing at the text as he read. His 'reading' showed evidence of an awareness of literary language in the last three sessions. Lindsay showed he had some knowledge of directionality in all but one session (S2).

Rasch Analysis rated Lindsay's ability level in this task at -1.07 with a percentage score of 33.33% and a ranking of sixteenth (see Appendix 6.2). Lindsay's low performance ranking in this task reflect the DEET (1994) general literacy performance of Aboriginal children.

Retell Task

In all but the third session, Lindsay commented on the story characters and the main events of the story. He recalled story details in all five sessions. On three occasions he commented on causes and effects in the story (S1, S2 and S4). In all but the third session Lindsay showed clearly that he understood the point of the story.

Lindsay expressed himself clearly in simple sentences in all five sessions. In three sessions, he showed clear evidence of dialectal difference (S1, S4 and S5). In the first session he repeated some of the text of the story verbatim.

Rasch Analysis rated Lindsay's ability level in this task at .35 with a percentage score of 56.52% and a ranking of ninth (see Appendix 6.2).

Sand/Concepts about Print Test

In all five sessions Lindsay knew where the front of the book was and knew that the story came from the print rather than the pictures. He could also identify the bottom of an inverted picture correctly. In all but the first session, he pointed to the print on the top left of the page when asked where the story began and he knew that the left page preceded the right. In all but the first two sessions he moved his finger left to right over a line of print. Over the last two sessions he could do this correctly over the whole page, demonstrating a clear knowledge of directionality. He could also still do this correctly after the print was inverted. In addition, Lindsay matched words verbally and on the page correctly as well as identifying the first and last parts of the story.

Lindsay located successfully two capital and lower case pairs in the last two sessions and could locate one and two words on request. In the last three sessions, he could locate one and two letters on request and in the last session he could locate both a first and a last letter and one capital letter.

Lindsay's best score at age 5.10 years placed him in the sixth stanine for his age group. Individual performance compared to age expectations as determined by Clay (1991a) may be seen in Table 5.38 and in Appendix 5.20.

Rasch Analysis rated Lindsay's ability level in this task at .37 with a percentage score of 53.33% and a ranking of fifth (see Appendix 6.2).

Writing Task

Lindsay demonstrated a large range of writing skills across both writing tasks. He knew writing meant making marks on paper and that it carried a message in S1. In all sessions he approximated printing or actually printed and approximated cursive writing in all but the last session.

Lindsay could write his name partially in the first three sessions and correctly in the last two sessions. He did not display any knowledge of conventional letter formatting.

He could write several words accurately from memory and also wrote a clearly legible sentence: "Lindsay si ot bue" which he read back as: "Lindsay is too blue". He wrote a

number of letter strings using the letters from his own name and the more obvious consonants from the words he was trying to write.

His knowledge of directionality showed a clear progression and in the last two sessions he started top left, proceeded to the right and returned down left.

In all sessions but one, Lindsay held the pencil conventionally. He did not 'sound out' as he wrote or use punctuation. He did read back in sentences on four occasions.

Rasch Analysis rated Lindsay's ability level in this task at 1.58 with a percentage score of 76.92% and a ranking of first (see Appendix 6.2). Examination of Lindsay's performance on this task in relation to the *Writing Developmental Continuum* (Raison & Rivalland 1994) placed him in Phase Two (Experimental Writing) which is normal for his age and year at school.

1995 Performance

Neale Analysis

Lindsay's chronological age was 9.8 years at the time he did the Neale Analysis tasks. The average speed of his reading was 51 words per minute which placed his score at 7.11 years, gave him a percentile ranking of 71 and a stanine of 6. His accuracy score placed him at 9.3 years with a percentile ranking of 37 and a stanine of 4. His comprehension score placed him at 6.6 years with a percentile ranking of 61 and a stanine of 6. In the four passages he completed, he missed 9 of the 40 identified target words. There is a considerable discrepancy between Lindsay's accuracy score and his comprehension score. He was very keen in this task, to give a good oral reading performance. Thus his careful concentration on this, may have resulted in this discrepancy. Certainly, his later performance in the comprehension tasks was better, indicating some support for this contention.

About half of Lindsay's errors (47%) were mispronunciations which interfered considerably with the sense of the passage. He self-corrected successfully several times but seemed oblivious to punctuation cues. Most of his other errors were substitutions, which did not actually interfere with the sense of the passage.

Lindsay ranked eighth for his rate of reading, fourth for his accuracy and fifteenth in comprehension (see Table 6.2).

Title Recognition Test

Lindsay scored 38% in the Title Recognition Test with a ranking of fourth. Thus in comparison to the rest of the group Lindsay's performance was good but in relation to

Cunningham and Stanovich's (1990) results with children in California and Michigan his results were limited.

Comprehensions

In Comprehension One, Lindsay scored 9 out of 13 for the passage questions. He used self-correction and prediction and was clearly reading for meaning as a result. He was observed to use phonics and chunking to decode when necessary for the nonsense words and actually indicated his enjoyment of decoding the nonsense words. His decoding skills were efficient and he frequently decoded correctly. He ranked eighth in this task.

Lindsay scored 6 out of 10 for the passage questions in Comprehension Two answering two of the inferential questions incorrectly. He ranked second in this task.

Free-writing Task

Lindsay chose to write a recount of a movie story at length. He mixed cursive writing and printing indiscriminately for this task. He wrote in simple sentences, occasionally using more complex forms with such conjunctions as 'because.' Lindsay used the past tense consistently all the way through. He used capital letters indiscriminately. When Lindsay used full-stops, they were used correctly. He also used direct dialogue and tried to use quotation marks and apostrophes, both types of punctuation incorrectly. Attempts to edit writing were made, though not on a structural basis - more in terms of re-expressing sentences he wasn't happy with. Occasionally he left words out or put extra ones in which were not corrected. A number of spelling miscues were made: 'thier' for 'their'; 'passegers' for 'passengers'; 'owd' for 'found' (the same phenomenon in relation to post vocalic nasals was observed in Patricia's performance); 'explod' for 'explode'; 'alavator' for 'elevator' indicating that Lindsay is moving into the Transitional Spelling Phase where children are moving from a heavy reliance on phonics to being able to use the visual and meaning-based strategies to spell. Lindsay's fairly lengthy story shows a clearly developing bank of vocabulary and the ability to write sequentially for narrative purposes. 'Book' language was used and some of his piece was written in the first person. Subjects and verbs generally agreed.

Lindsay was moving into the Conventional Phase (Phase Four) of the *Writing Developmental Continuum* (Raison & Rivalland 1994). Many of the features of his writing still belonged to the Early Writing Phase but such features as his use of direct dialogue and attempts at more complex sentences and punctuation as well as his developing vocabulary and awareness of narrative form indicated that it would not be long before he moved into Phase Four completely. This is judged to be normal for Lindsay's age group and year at school.

Patricia and Lindsay

In many ways the early childhood experiences of Patricia and Lindsay are similar, with parents frequently in crisis and many early experiences related to family crisis. There are, however, also some crucial differences in their early childhood experiences which, it may be speculated, have resulted in entirely different literacy development. Patricia's parents are both illiterate and there are no books at home and few literacy events in everyday life at home. There are few connections made with the children's school lives and Patricia's parents are not active at school or pre-school.

Lindsay's mother, on the other hand, is employed in clerical work and has good literacy skills. As Lindsay is one of the younger children in the family, he has had the benefit of being introduced to books at an early age. Now there are books at home and stories are read to the children by older siblings and other family members. Other literacy events occur as a natural part of the home scene. Lindsay's mother takes an active part in her children's school lives and supports the school's activities for her children's sakes.

Thus, whilst Patricia is still a non-reader in middle childhood, Lindsay's reading is amongst the best in the group. There is a big gap in his performance between pre-school and school on the one hand, and his later performance in middle primary school on the other. Whilst Lindsay's early literacy experiences would certainly be less intense than perhaps a middle-class Anglo-Celtic child's experiences, it is clear that enough was provided for the school to build upon during his Kindergarten year to ensure his continued growth in literacy knowledge. Lindsay had serious respiratory problems, common in early childhood to Aboriginal children (discussed in Chapter 2). This could have affected his performance at school.

By the end of his Kindergarten year, Lindsay was beginning to pull away from his peers and demonstrate a faster and more complete rate of growth in literacy development.

Patricia's literacy growth was both sporadic and uncertain during the research period. Frequently she could not maintain knowledge already acquired, this despite intense specialist help at school. A specific learning difficulty, independently diagnosed at school, has compounded her difficulties with learning to become literate. Thus it is surmised that with Patricia's home situation making it difficult to provide support for literacy development and a Specific Learning Difficulty in the area of language, the conditions for easy transition to literacy competence are not present. The school is also clearly unable to provide the literacy education needed to facilitate Patricia's transition to literacy as outlined in Chapter 2.

Both children's performances highlight the effects that literacy experience in early childhood has on later literacy competence as demonstrated by Taylor and Dorsey-Gaines (1988); Jaggar and Smith-Burke (1985); Neuman and Roskos (1993), Clay (1991b); Wells (1986) and many others.

Carl

Background

Carl was chosen as a case study because his performance was consistently high through the five data gathering sessions in 1990/1 and the last one in 1995 (see Tables 6.1 and 6.2). For all tasks except the Writing Task, Carl was ranked in the first four children for ability. In four of the seven tasks he rated as first in the Rasch Ability rankings (see Chapter 5). He is representative of a small group of the children who performed consistently better than the group as a whole.

Carl is the second child of four children in his family. His mother is a registered nurse and is now head coordinator for Aboriginal HomeCare (a government organisation providing care in the home for elderly and infirm clients). His father works for the Commonwealth Employment Service. There are books, newspapers and magazines in the household and the children are read to. A feature of family interaction is that the children are not spoken down to or shouted at. Carl's mother takes an interest in her children's education and an active part in school life supporting their education at home, participating in school activities and providing a variety of quality early childhood experiences for them such as camping and beach holidays. Carl's father spends a lot of time with the children on sporting activities. It is clear that the school finds it less difficult to support Carl's literacy education than it does other children such as Patricia.

1990/1 Performance

Environmental Print Task

Carl's performance in the Environmental Print Task remained fairly stable until the last six months of his Kindergarten year when correct answers in Phase Three increased sharply in response to formal teaching for literacy learning. Totals for the last two data gathering sessions show clear indications of the development of reading proper. Carl's KidMap records his ability level as 3.03 with a percentage score of 82.76% (see Figure 6.15). His ranking for this task was first. The 72 items on this map consist of the 36 items which consist of the responses for S1 (Items 1 - 36) and the 36 items (Items 37 - 72) which show location of the responses for S5 (see Appendix 6.3).

The KidMap rates Carl's ability level as high for this task over the eighteen month period, showing the more difficult items not achieved (see figures in the top right: Appendix 6.3).

Letter/Sound Identification Task

Carl's performance in this task outweighed that of all his peers. In the first data gathering session he scored 29 out of a possible 54 (upper and lower case alphabet plus variations of 'a' and 'g'). His closest peers scored only 2 out of 54. Only in S4 and S5 did his classmates even begin to close the gap. In the last two sessions he scored 53 out of 54. His best scores placed him in the fifth stanine in his age group using Clay's (1978) study for comparison purposes (see Table 5.20).

Carl's ability level as determined by Rasch Analysis was rated at 5.96 with a percentage score of 95.29% (see Appendix 6.3). This gave him a ranking of first in the group.

Picture Sequencing Task

In all five data gathering sessions over the eighteen month period Carl scored correctly on all concepts. Thus in all sessions he displayed knowledge of directionality, ability to infer meaning from pictures, the concept of sequence in story and an understanding of the story itself. Carl had a perfect score in both S1 and S5. This gave him a ranking of equal first in this task with Kiagh and Gregory.

Rasch Analysis rated Carl's ability level in this task at 3.03 with a percentage score of 82.76% and a ranking of first (see Appendix 6.3).

Reading Task

Carl's familiarity with books was obvious from the first data gathering session. He could handle books easily throughout the whole data gathering period, turning pages, placing the book the correct way up and opening it at the beginning. He also inferred meaning from pictures and in S4 and S5 clearly indicated that he knew that meaning came from print. In the last data gathering session Carl used grapho-phonics to identify unknown words. He also used prediction, context and his own life experiences to get meaning from the print. In all but the last session when he was reading conventionally, Carl told the story from memory, using the literary language of the book whilst turning the pages. In the last two sessions he pointed at print, clearly knew that print was different from pictures and went from left to right also recognising some of the letters of the alphabet and their sounds. In S4 he identified a part of his name in print. He recited parts of the text from memory in all but S2, the last session being an interesting combination of memory, decoding and sight recognition.

In S4 and S5 Carl used contextual knowledge and prior experience to make meaning, asked for assistance in particular tasks such as decoding or word recognition and showed a good knowledge of letter/sound relationships. He also used initial sounds to predict words and when his predictions did not make sense he returned to the text for more detailed examination. There were many specific words he recognised, pointing to them as he read and demonstrating that he was beginning to build a large bank of sight words. By the last session, Carl's reading was beginning to show some fluency although even when it was evident that he recognised words immediately he tended to read word by word as if by force of habit.

He lost meaning occasionally in S4 and S5 through the overuse of phonics but could be seen to use his knowledge of sentence structure and punctuation. His use of self-correction also demonstrated that he was reading for meaning. Thus by S5 Carl showed clear evidence that he was employing all three systems (grapho-phonetic, syntactic and semantic) in his reading.

Carl's KidMap rated his ability as 1.28 with a score of 66.67% and a ranking of third in the group (see Appendix 6.3). Carl is one of the children in the group whose performance is better than that indicated for Aboriginal children in the DEET (1994) report.

Retell Task

Carl commented on characters and main events in the story as well as recalling story details in all five data gathering sessions. He also commented on causes and effects in the story and retold the story in sentences in all five sessions. In three sessions he used complex sentences (S1, S4 and S5) Carl indicated an awareness of sequence, signalled openings and closures and commented on the setting in S4. In all but S4, Carl showed he understood the point of the story.

Immature pronunciations were recorded in three sessions (S1, S4 and S5) and in S1 and S4 there were clear indications of dialectal difference such as dropping and inserting initial aitches in a non-standard manner. In S2 and S4 Carl repeated dialogue from the story.

Rasch Analysis gave Carl an ability level of .94 and a percentage score of 65.22%. This performance gave him a ranking of fourth in the group (see Appendix 6.3).

Sand/Concepts about Print Test

In all five sessions, Carl was able to identify the front of the book and demonstrate he knew that the story was contained in the print which started in the top left corner. He could identify the top and bottom of a picture when presented with the picture upside down.

In all but the first session, he could move his finger left to right over the print on any line and proceed to continue to do so correctly down the page. In all but the first session, he could point to the text word for word and indicate the beginning and end of the story. In three sessions (S2, S4 and S5), Carl correctly responded to inverted print, turning it the correct way up and indicating knowledge of directionality. In all but the first session, he demonstrated he knew that the left page preceded the right. Carl noticed at least one change of word order and letter order in S4 and S5.

He identified a question mark in S4 and S5, and a full stop and a comma in S4. Carl could locate two pairs of capital and lower case letters in three sessions (S1, S3 and S4). He pointed correctly to *was* and *no*. could locate a capital letter on request and one word and two words on request. In the first four sessions he could locate one letter and two letters on request and in S2, S3 and S5 Carl could locate a first and last letter.

Carl's best score at age six years and four months placed him in the seventh stanine for his age group according to comparison's with Clay's (1966) research (see Table 5.38 and Appendix 5.20). Rasch Analysis gave Carl an ability level of 2.93 for this task with a percentage score of 80% and ranking in the group of first.

Writing Task

Throughout the five sessions, Carl showed a limited understanding of the writing process. In the early sessions, he interpreted the task as one in which he should write as many words as he could and by the fifth session he could write more than seven words correctly from memory. In two of the later data gathering sessions, Carl showed that he understood that writing was communication by reading back what he had written in sentences.

Carl used drawing as well as writing approximations in the first two sessions. He used printing or approximations of printing. This printing became clearer and more legible as time went on. By the last two sessions, he could write his name and had a bank of words he could write correctly although he showed no knowledge of conventional forms of letter writing.

In S4 Carl also wrote a grammatically correct and clearly legible sentence. He also read back in sentences in two of the later sessions of the writing task.

In none of the sessions did Carl attempt to write cursively.

After starting the Writing Task without displaying a definite knowledge of correct directionality, by the last two sessions Carl had clearly mastered left-to-right progression.

He did not 'sound out' aloud as he wrote nor use punctuation. It *is* clear, however that Carl probably 'sounded out' silently in S5 as he wrote "*a rasing car set*" and "*sooper Man soot*". Throughout all sessions Carl held the pencil confidently in a conventional manner.

Rasch Analysis gave Carl an ability level of $-.58$ and a percentage score of 38.46% (Appendix 6.3). Carl ranked eleventh in this task in marked contrast to his performance in the other tasks. Examination of Carl's writing performance in relation to the *Writing Developmental Continuum* (Raison & Rivaland 1994) shows that Carl is in Phase Two (Experimental Writing) of the Continuum which is normal for his age.

1995 Performance

Neale Analysis

At the time of the Neale Analysis, Carl's chronological age was 10.4 years. Carl read at an average rate of 67 words per minute which placed him at 9.4 years, a percentile ranking of 54 and a stanine of 5. For accuracy his score placed him at 10.2 years with a percentile ranking of 34 and a stanine of 4. His comprehension score placed him at 9.8 years. Carl missed 7 of the 50 identified target words in the five passages he completed reading.

The first two passages of the series were read without error. Forty-four percent of Carl's errors in the later passages were mispronunciations which altered sense. He self-corrected successfully five times, indicating he was reading for meaning. Another 44 of Carl's errors were substitutions, which also indicated that he could not predict successfully what the word might be. Rather than sound out, Carl tried to predict what a word might be by using chunking.

Carl ranked fifth for his rate of reading, second for accuracy and second for comprehension (see Table 6.2).

Title Recognition Test

Carl scored 42% in the Title Recognition Test with a ranking of first. Thus Carl's print experience is ranked as the best in the group although in comparison to Cunningham and Stanovich's (1990) results his performance is only fair.

Comprehensions

Carl scored 7 questions correct for the first comprehension passage. In trying to decipher unknown words he used chunking, syllabification and phonics. He didn't get "stinopodum" or "Advenosaurus" but used the skills quoted to get close approximations. More importantly, in trying to predict and use self-correction in relation to this, he clearly demonstrated that he was reading for meaning and using the previously quoted skills after all else had failed. In Comprehension One, Carl ranked third.

Carl scored 9 for the second comprehension passage questions. All inferential questions were correct except for Question 10 which he declined to answer. In Comprehension Two Carl ranked first.

Free-Writing Task

For his writing task Carl chose to write a letter to Santa Claus. He demonstrated a clear knowledge of letter-writing conventions starting with 'Dear Santa' and finishing with 'from Carl ' and using titles and headings appropriately as far as they went. Correct addressing conventions were not evident in his letter. He selected an appropriate vocabulary to use for the purposes of the specific genre chosen, choosing the kind of letter that was personally significant to him. Carl used capital letters and full-stops appropriately and could correct his own punctuation. His sentences were grammatically correct with subject/verb agreement and maintenance of tenses. Awareness of differences in genre types was evident in his choice of genre and the expression of it. He also attempted to make use of a hyphen when he ran out of space at the end of a line.

Carl demonstrated that he was between Phases Three and Four on the *Writing Developmental Continuum*. That is, he was progressing from Early Writing to Conventional Writing. This is judged to be normal for his age group and year at school.

In the pre-school/Kindergarten data gathering period (S1 & S5), Carl's performance in the Environmental Print Task, the Letter Identification Task, the Picture Sequencing Task and the Sand/Concepts about Print Test was the best of the group. Scores in the Sand/Concepts about Print Test and the Letter Identification Test and in Phase Three of

the Environmental Print Task in the children's Kindergarten year have been identified in Chapter 5 as being clear indicators of later reading performance.

His performances in the Reading Task and the Retell Task were among the best in the group, and his competence in early reading skills at pre-school and in Kindergarten is clearly reflected in his reading performance four years later in middle primary school. Thus in the Neale Analysis of Reading Ability, Carl is one of the few children performing at his chronological age level. Interview information placed Carl securely in a family environment in which literacy is valued and in which many literacy events occurred in early childhood. This information is backed by Carl's score in the Title Recognition Test (42%) which, whilst not outstanding, is the best of the group.

Carl and Lindsay

Carl's performance in literacy tasks stood out from the rest of the group from the first testing period onwards in the middle of his pre-school year. Examination of important factors in Carl's early childhood in relation to literacy development shows that Carl has had little social/emotional disruption in early childhood and that both of his parents were clearly educationally-oriented and able to provide early literacy experiences and other quality childhood experiences which have enabled Carl to progress more easily to literacy competence than many of his peers.

Carl's consistently high performance in literacy tasks may be contrasted with Lindsay's. Lindsay has experienced major forms of family disruption such as violence and the break-up of his parents' marriage. Provision of early literacy experiences was not consistent and some of his older siblings are still not literate. Despite the many problems associated with trying to raise six children in difficult and demanding circumstances, Lindsay's mother has tried to provide appropriate experiences for her younger children which will help their literacy development. Lindsay has responded to this parental support in a positive way in terms of a developing literacy competence. Support for school activities by his mother has also assisted the school to provide appropriate literacy education for Lindsay. A combination of school and parental support as well as positive responses by Lindsay to the school's literacy programs has contributed to the strides in literacy development made since he has been at school. Thus the gap between Lindsay's early literacy performance and his performance in 1995 in middle primary school is larger than might be expected from his early results.

Carl and Lindsay come from different familial background experiences which may be reflected in their literacy performance over a long period of time. Both have parental

support in relation to their schooling, both are being provided with literacy experiences at home and both have responded to literacy education programs offered by the school. Lindsay's early experiences have been less continuous and less intense and family upsets may have contributed to a less consistent though, in many ways, more spectacular performance.

Kiagh

Background

Kiagh was chosen as the subject of a detailed case study because she is one of a small group of children whose literacy performance showed unstable and/or inconsistent characteristics in pre-school and Kindergarten (see Tables 6.1 and 6.2). For example, in four of the tasks her ability rankings fall into the first five, including two firsts. In three other tasks her rankings are 8th, 10th and 17th. Thus there are some tasks she can do extremely well, enough to rank first, and other tasks where her performance is middling to mediocre. Four years later her reading age is at least two years below her chronological age, she has difficulty with comprehension tasks devised for her age/grade level and is in the Early Writing Phase of writing development.

Kiagh comes from a family of five children. Her father has been in long-term employment at the Jobsearch Centre. He finished high school and has completed part of a university degree. Her mother does some cleaning for Homecare and is semi-literate. There are few books in the home and the children are not read to. In Kiagh's early years, her father was frequently away from home doing seasonal sheep-shearing work and her mother coped on her own. Kiagh's mother coped by treating her children in the same way that her own single mother treated her, by shouting directions at them constantly and seldom following through. Thus Kiagh's early years featured interaction with one parent in a manner which may not have been conducive to language and literacy development.

Kiagh stated during the 1995 Data Gathering Session that she did not like or enjoy school except for the sporting activities and that she wanted to leave as soon as she was able. Although she agreed to complete the tasks as requested by the researcher, she stated that she was bored by the tasks. Kiagh expressed clearly the fact that the kind of schooling she was experiencing was unable to provide her with the kind of education which would enthuse and motivate her. Her attitude is reflected in the high school drop-out rates of Aboriginal students in later high school (DEET 1994).

1990/1 Performance

Environmental Print Task

Kiagh's performance over the whole testing period showed minimal progression in all three phases. Differences between Phase One and Phase Two were also minimal and in Phase Three there is little evidence of developing word recognition skills. Kiagh's performance ability was rated at 0.59 and her score was 56.9% (see Appendix 6.4). She ranked as fifth in the group over all five data gathering sessions in all three phases of the task. Thus even though she ranks fifth, her absolute level is low, a possible indicator of later performance in 1995.

Letter/Sound Identification Task

Letter/sound knowledge demonstrated by Kiagh in the first three data gathering sessions was minimal, her scores being 0, 0 and 3. In the last two sessions, in the second half of her Kindergarten year, however, she scored 41 and 52 out of 54. Kiagh's best score placed her in the fifth stanine in her age group using Clay's (1978) study for comparison purposes (See Table 5.20). Rasch Analysis gave Kiagh an ability level of .86 and a percentage score of 60% for this task (see Appendix 6.4). She ranked second in the group.

Picture Sequencing Task

Throughout the eighteen months of the data gathering period in all sessions Kiagh showed evidence of knowledge of all items. Thus, from the first data gathering session, she demonstrated knowledge of directionality, knew that meaning can come from pictures, that stories had sequence, and understood the point of the story.

Rasch Analysis rated Kiagh's ability level in this task at -1.26 with a percentage score of 31.43% and a ranking of sixteenth (see Appendix 6.4).

Reading Task

In all five sessions Kiagh was able to turn the book up the correct way with the front facing and use pictures to infer meaning. In all but the first session, she turned the pages efficiently whilst telling the story and repeating parts of the text from memory. She demonstrated she knew that print carried a message on two occasions (S3 and S5). She showed she knew that print and pictures were different in the last three sessions pointing to print or differentiating through observation. In the last session she was able to recognise some letters of the alphabet and thus show evidence of some knowledge of letter/sound relationships. She pointed to the text as she read on two occasions (S3 and

S5) and commented on the text in S4. Knowledge of directionality was displayed in S3 and S5 and an awareness of literary language was evident in the last three sessions.

For the Reading Task Kiagh's ability level was rated at -.42 with a percentage score of 41.67% and a ranking of seventeenth (see Appendix 6.4).

Retell Task

Kiagh recalled story details in all five sessions as well as being able to comment on the characters in the story and the main events. On three occasions, she showed some awareness of story sequence (S1, S3 and S5) and in all but the second session she commented on causes and effects in the story. She demonstrated that she understood the point of the story on three occasions (S1, S3 and S4).

In all five sessions, Kiagh retold her story in coherent sentences also using complex constructions. In all but the fourth session, she mispronounced words in an immature fashion and in the last three sessions showed clear evidence of dialectal difference, dropping all initial aitches in conjunction with the extended use of 'and' in retelling her story and using 'gunna' several times instead of the Standard English 'going to.' Kiagh's intonation as she spoke was also observed to typify Aboriginal English.

Kiagh's KidMap for this task (see Appendix 6.4) determines her ability level as 2.38 with a percentage score of 82.61% and a ranking of first.

Sand/Concepts about Print Test

In all five sessions, Kiagh could identify the front of the book and point to the print at the top left to indicate where the story started. She could also identify correctly the bottom of an inverted picture. In all but the first two sessions, she moved her finger along the print from left to right but could not do it correctly for the whole page until the last session. She could do word by word matching correctly in the last two sessions and demonstrate that she knew the left page precedes the right. In all but the first session she knew that the story came from the print rather than the picture. In the last two sessions Kiagh identified two capital and lower case pairs and located one and two letters on request.

Kiagh's best score at age 5.8 years placed her in the second stanine (see Clay 1991a) for her age group (see Table 5.38 and Appendix 5.20).

Rasch Analysis gave Kiagh an ability level of -.85, a percentage score of 40% and a ranking in the group of tenth (see Appendix 6.4).

Writing Task

In all five sessions for the Writing Task, Kiagh either approximated printing or actually printed. Her printing, over the time period involved, steadily became more accurate, more controlled and clearer. In S5, it could be called good. At no stage did Kiagh attempt to write cursively.

In four of the sessions over both tasks Kiagh 'read' back in sentences indicating that she knew writing carried a message. She wrote letter strings which contained some of the more obvious consonants in the words she 'read' back and also contained some of the letters of her own name. In the first two sessions, Kiagh could write many of the letters of her own name and in the last three sessions she wrote it correctly. She did not display any knowledge of conventional letter formatting.

Kiagh did not have a stock of words which she could reproduce accurately from memory and several times copied words from around the room. Her knowledge of directionality improved steadily over the time period involved and by the last two sessions of both writing tasks it could be said that her directionality knowledge was good.

Kiagh held the pencil conventionally in all but one session (S5) when she did not rest her hand on the page.

Rasch Analysis rated Kiagh's ability level in this task at $-.27$ with a percentage score of 43.59% and a ranking of eighth (see Figure 6.28). Examination of Kiagh's writing performance in relation to the *Writing Developmental Continuum* (Raison & Rivalland 1994) placed Kiagh in Phase Two (Experimental Writing) which is normal for her age.

1995 Performance

Neale Analysis

Kiagh's chronological age at the time of completing the tasks for the Neale Analysis was 10.4 years. Her average reading speed was 26 words per minute which did not allow her to be placed on the Neale Analysis scale for reading rate. Her accuracy score placed her at 8.0 years with a percentile ranking of 22 and a stanine of 3. Her comprehension score placed her at 7.10 years with a percentile ranking of 11 and a stanine of 1-2. In the three passages she completed reading, Kiagh missed 10 of the 30 identified target words.

Many of Kiagh's errors (62%) were substitutions, some of which did not interfere with the sense of the particular sentence she was reading although they interfered with the meaning of the passage. For example, she substituted 'burnt' for 'buried' in the following sentence "He had found a palace that had been buried long ago". Another 30% of her errors were refusals. Kiagh made no attempt to decode phonically. The predictions she made in her substitutions indicated she was not chunking or sounding out although they generally contained some graphic similarity to the actual words. For example, she substituted 'driver' for 'diving' and 'air-horse' for 'air-hose'.

Kiagh ranked fourteenth for rate of reading, eighth for accuracy and sixth for comprehension (see Table 6.2).

Title Recognition Test

Kiagh scored 19% in the Title Recognition Test and was ranked as twelfth. Thus her performance on this task was rated as being towards the lower end of the group and in comparison to Cunningham and Stanovich's (1990) research her print experience is very low.

Comprehensions

Kiagh had difficulty reading the first comprehension passage. It was obvious she did not get the point of it at all. Some phonemic awareness was evident but she was not reading for meaning and made a lot of guesses at words, being unable to use the context to make informed ones because of her poor word identification skills. There was some small evidence that she was attempting to use chunking or syllabification but these efforts were not really successful. She scored zero on the passage questions and was placed at the lowest ranking.

Kiagh scored five for the second comprehension passage questions. Of the five correct answers, two were inferential (Questions One & Five). She inferred that Pat had been waiting for Chris and also that the jam Grandma had made was highly likely to be strawberry. It should be noted here that Kiagh read taking no notice at all of the full-stops in the passage. In the final four questions, her concentration lagged badly and she was obviously impatient and bored with them. Kiagh ranked sixth in Comprehension Two.

Free-Writing Task

Kiagh chose to write about her favourite activity in the first person - playing different kinds of sport. She oriented her audience with an introductory statement to her factual account. Her account was simple with little elaboration and was written in 'book'

language rather than being oral language written down. She wrote in very simple sentences but used no punctuation except for an incorrectly used capital letter, until she finished with a full-stop. She started a lot of sentences with 'I' but did vary her sentence beginnings considerably. A number of spelling errors was evident but her writing was not difficult to understand and she was clearly beginning to move from phonetic spelling to using visual and meaning-based strategies (Transitional Spelling). For example, 'highlight' for 'highlight'. Kiagh edited her writing, crossing out an unnecessary word and correcting her own spelling five times. She made other editing alterations when she read over her writing. Her subjects and verbs agreed and her tenses were maintained correctly.

Kiagh's writing is solidly located in the Early Writing Phase (Phase Three) of the *Writing Developmental Continuum* (Raison & Rivalland 1994).

Kiagh and Patricia

Kiagh's performance in the Pre-school and Kindergarten phase of data gathering indicated that she had a chance of continuing literacy development through into the primary school years. Her rankings (see Table 6.1) indicate a high standing in four of the seven tasks although her reading performance ranking was not high. This placed her towards the top of the group in terms of rankings for the 1990/1 tasks.

If Kiagh's rankings for the 1990/1 data gathering sessions are examined, it can be seen that two tasks in which she ranks highly (The Picture Sequencing Task and the Retell Task) do not involve the kinds of literacy skills identified by the research as important for later literacy competence (Adams 1994; Ruddell et al. 1994). In a third task in which she ranks highly (The Environmental Print Task), Kiagh's performance improves only minimally over the eighteen month period of data gathering in 1990/1. In fact, the only task which has been identified as important for later literacy competence in which Kiagh ranks highly (second) is the Letter Identification Task. Thus what appears to be a competent performance in four of the seven tasks in 1990/1 does not really lead to an assumption of later literacy competence. This speculation is certainly reflected in her reading performance in 1995.

Patricia's position in the group changed only minimally from 1990/1 to 1995 (see Tables 6.1 and 6.2). At both times she performed at a level which placed her in the lower third of the group and thus did not appreciably improve her position whilst Kiagh's position actually worsened during this period. Patricia thus had nowhere to go downwards whilst Kiagh had room to drop her performance.

Whilst Kiagh had no identifiable crises in her early family life (except, perhaps, for the extended absences of her father in her early childhood) as had Patricia, both children see few books at home and have parents or a parent who are not literate or barely literate. In Kiagh's case, her early life was spent with her mother who is semi-literate and her older siblings are also semi-literate. Similarly, Patricia's parents are illiterate, as are her older siblings.

Both children have not responded to the primary school environment in terms of literacy learning. Kiagh stated to the researcher that she disliked reading and writing and that the only thing she liked at school was the sport. She clearly indicated both boredom with and resentment of the idea of completing the tasks which the researcher asked her to do, although she reluctantly consented to do them. Patricia was very keen to do all tasks requested of her but frequently could not understand instructions for completion of the tasks and was quite unable to cope with their requirements. Her concentration was fragmented and she frequently digressed from the task in hand.

Patricia is socially isolated in the classroom as she frequently has headlice, often sleeps in her school clothes and smells of urine (reported by the teacher and observed by the researcher). Whilst both sets of parents have expressed the desire for their children to do well at school and later get good jobs, they are unable to provide the kind of support needed for the school from the home environment. In turn, the school is unable to provide appropriate measures to support the home environment so that both children are able to develop their literacy skills to their fullest potential. Patricia receives special tutoring for her language disability but the teacher informed the researcher that this had made little difference to her literacy development to date.

Kiagh's interests basically lie outside the classroom and she has little patience with classroom activities. Both her parents are active in the local sporting arena and Kiagh follows their interests as shown in the choice of sporting activity for her writing task.

The interaction of home, school and individual factors have clearly affected literacy development adversely in the cases of these two children.

Toni

Background

Toni was chosen as a case study because her early performance in pre-school and Kindergarten does not predict well her later performance in 1995. Toni lives with her mother, sister and grandparents in an extended family situation. When Toni was in her

Kindergarten year, her young father died unexpectedly. Thus, at a crucial time for literacy learning, Toni was experiencing considerable social/emotional disruption which may have affected her ability to cope with such learning. Not unexpectedly, her mother and extended family were also experiencing crisis at this time and were unable to provide the school support they might otherwise have provided for Toni. The literacy experiences which her father had provided were also no longer forthcoming. Toni was noticeably shy, withdrawn and lacking in self-confidence during the 1990/1 data gathering period. The 1995 story is somewhat different in that, whilst Toni was initially still very shy and difficult to get a response from, once she felt comfortable with the researcher, she was much more self-confident and eager to do the tasks.

Toni's teacher informed me in 1990/1 that absenteeism was a problem. She herself informed me in 1995 that her father who was now dead frequently read stories to her when she was little.

Toni was chosen for the case study section because of the differences in her performance in 1990/1 and 1995. In 1990/1 her performance in the tasks was patchy. In some tasks she performed very well indicating some literacy knowledge. In others she performed at a much lower level. By 1995 her literacy performance was much more evenly distributed and she had made solid progress. Examination of possible factors resulting in these performance differences was therefore thought to be worthwhile since the occurrence of factors such as early parental death in Aboriginal families is common (see Chapter 2).

1990/1 Performance

Environmental Print Task

Toni made a steady improvement over the whole data gathering period with only minimal differences registering between Phase One and Phase Two of the task supporting the previous conclusion that Phase Two of the EPT chiefly involved logographic skills. Achievement in all three areas was not high with logographic recognition at a basic level. Phase Three development was insignificant and demonstrated little indication of the development of word recognition skills.

Rasch Analysis rated Toni's ability level in this task at $-.50$ with a percentage score of 44.83% and a ranking of fourteenth (see Appendix 6.5).

Letter/Sound Identification Task

Toni's maximum score in the first three data gathering sessions was 3 out of 54. In the last two sessions, she respectively scored 12 and 34 out of 54, showing a developing

letter/sound knowledge. Her best score placed her in the third stanine in her age group using Clay's (1978) study for comparison purposes (See Table 5.20). Rasch Analysis rated Toni's ability level in this task at -1.52 with a percentage score of 40% and a ranking of eighth (see Appendix 6.5).

Picture Sequencing Task

Toni showed some knowledge of directionality in all but S1. In all five sessions, she knew that meaning could come out of pictures. Some knowledge of the idea of sequence in story was evident in Toni's responses for three data gathering sessions (S1, S3 and S4). In all but S1 Toni clearly understood the point of the story.

Rasch Analysis rated Toni's ability level in this task at .95 with a percentage score of 66.67% and a ranking of fourth (see Appendix 6.5).

Reading Task

In all five sessions Toni could place the book the correct way up with the front facing and turn the pages efficiently. She also used pictures to infer meaning in all these sessions and told the story from memory whilst turning the pages, repeating parts of the text verbatim in all but S3 and modelling reading.

Indications are evident in the last three sessions, where Toni pointed at the text, that she knew print carried a message and that writing and pictures were different. In the last two sessions she commented with interest on the reading and expressed her enjoyment of the task. In S3 she used prior knowledge and experience to make meaning.

There is evidence of some directionality knowledge in the last three sessions and some awareness of book language.

Rasch Analysis rated Toni's ability level in this task at -.99 with a percentage score of 34.29% and a ranking of fourteenth (see Appendix 6.5).

Retell Task

In all five sessions Toni commented on the characters in the story and on the main events. She also recalled story details in all but the last session. Only in the first session did she show some awareness of story sequence. Evidence of an understanding of the point of the story was observed in S1 and S5. On three occasions Toni retold her story in sentences (S1, S3 and S5) using a connective in S1. Toni mispronounced words in three sessions (S1, S2 and S5) and showed clear evidence of dialectal difference in the

first two sessions. In all but the last session, she used repetitive parts of the text in her retelling.

Rasch Analysis rated Toni's ability level in this task at .64 with a percentage score of 60.87% and a ranking of fifth (see Appendix 6.5).

Sand/Concepts about Print Test

In all five sessions Toni could identify the front of the book. It was not until the last two sessions, however, that she indicated she knew print held the story rather than the pictures. Also, in the last two sessions, she could point to the top left of the page when asked where the story began, move her finger left to right over a line of print and continue, using correct directionality, down the page. In S4 she could do word by word matching. In all but S4, she could correctly identify the bottom of an inverted picture and in the last three sessions indicate that she knew a left page preceded a right.

In the last session, Toni could identify a full stop and locate two capital and lower case pairs whilst in S4 she could locate one letter and two letters on request.

Toni's best score at age 6 years placed her in the first stanine for her age. Individual performance compared to age expectations as determined by Clay (1991a) may be seen in Table 5.38 and in Appendix 5.20. Rasch Analysis rated Toni's ability level in this task at -1.79 with a percentage score of 30% and a ranking of thirteenth (see Appendix 6.5).

Writing Task

Toni used printing and approximated printing throughout all sessions. She did not attempt cursive writing. Toni knew that writing meant making marks on paper and in all sessions, she demonstrated that she knew writing carried a message by 'reading' back her work in sentences. In all sessions, Toni wrote her name successfully.

In the first three sessions, Toni's writing contained reversals and rough approximations of letters. By the last two sessions her fine motor control was much improved, there were few reversals and her printing was legible.

The first session showed that Toni had some familiarity with conventional letter formatting; "Dear Santa bring me some dolls." This was only partially evident in the following four sessions. Toni frequently wrote in letter strings using a range of the letters in her own name, those of her friends and others that were related to what she was writing.

From the earliest sessions, it was evident that Toni had a clear knowledge of left-to-right progression. She had trouble with her pencil in three sessions but may generally be said to have held it conventionally. Toni did not use punctuation and did not 'sound out' whilst writing.

Rasch Analysis rated Toni's ability level in this task at .98 with a percentage score of 66.67% and a ranking of second (see Appendix 6.5) reflecting the considerable range of skills Toni displayed in this task.

1995 Performance

Neale Analysis

When Toni did the Neale Analysis tasks she was aged 9.11 years. Her average reading speed was 69 words per minute which placed her at 9.5 years with a percentile ranking of 56 and a stanine of 5. Toni's accuracy score was 8.9 years which gave her a percentile ranking of 64 and a stanine of 6. For comprehension Toni's score placed her at 8.4 years with a percentile ranking of 55 and a stanine of 5. She missed 3 of the 30 identified target words in the three passages on which this analysis is based.

Half of Toni's errors were substitutions which only minimally interfered with the sense of the passage. Another 50% of her errors were refusals. The researcher did not observe her trying to sound out words she did not know. In the first two passages, she made no errors at all. She self corrected twice and showed evidence of reading for meaning.

Toni ranked fourth for rate of reading, sixth for accuracy and fifth for comprehension (see Table 6.2).

Title Recognition Test

Toni scored 25% in the Title Recognition Test with a ranking of ninth. Thus her ranking in this task placed her in the middle of the group. In comparison with Cunningham and Stanovich's research her performance demonstrated that her print experience was small.

Comprehensions

Toni got really stuck on "2001" in the passage (Comprehension One). When she did not know a word she simply stopped and did not respond to any kind of prompting whatsoever. She did not 'sound out' aloud and would not say anything until she admitted that she didn't know it. She did exactly the same thing at five years of age. Toni got one question correct - the names of the children. She ranked eighth in this task.

In Comprehension Two, Toni was silent when she didn't know a word. As before, she would not respond to any prompting of any sort. In this passage, Toni got two questions correct - Questions 3 and 5. Toni ranked ninth in this task.

The contrast between Toni's performance in the Neale Analysis and the two comprehension tasks is remarkable. The Neale Analysis was conducted on a different day from the two comprehensions - this could account for the differences in performance. It is possible the researcher extracted her from class at a bad time or that she was simply having a day when she did not feel like responding to the researcher's demands on her. It is also possible she did not relate to the comprehension passages as well as to those in the Neale Analysis. The Neale Analysis is a very structured test and specific procedures to be followed are explained to children at the outset. For example, the children get to practice the task first. Whilst the comprehensions also had specific procedures to be followed, these were more generalised and relaxed than those of the Neale Analysis. Thus it could be surmised that Toni felt 'safer' following the more structured procedures of the Neale Analysis. Given the reluctance to take risks which she exhibited earlier, such procedures could have resulted in a better performance in that task than the more open comprehension tasks.

Thus it may be speculated here that some performance measures may considerably underestimate true levels. Examination of the scores for the two comprehension tasks shows a high number of zero scores - 11/18 in Comprehension One and 8/18 in Comprehension Two. There are possibly cultural/methodological factors at work here which need to be looked into in relation to the performance of Aboriginal children on these tasks.

Free-Writing Task

Toni chose to write about playing video games, her favourite activity. She wrote a simple factual account in the first person in one long sentence in which the various parts were joined frequently by "and." She did, however, use a number of conjunctions such as 'because' and 'when.' At the beginning of her piece she made an orienting statement by way of introduction. Toni had a fast developing bank of words she could write correctly from memory. She used no punctuation except a full-stop at the end. The beginnings of narrative form can be discerned in the sequencing and organisation of Toni's writing. Subjects and verbs agreed and she wrote most of her piece in the present tense using past tense incorrectly a couple of times. The characteristics of Toni's writing place her in the Early Writing Phase (Phase Three).

Only two spelling mistakes were evident in Toni's piece of writing: "evry" and "their." The second is actually a grammatical error rather than a spelling error since she used the wrong homonym. Toni appears to be well on the way to the Independent Spelling Phase (Phase Five) although it should be noted that other children were much more adventurous than she was in her choice of words. Certainly, many characteristics of her spelling are found in Phase Four (Transitional Phase) of the Spelling Developmental Continuum.

Carl and Toni

Across the pre-school/Kindergarten period of data gathering, Carl's performance was consistently high except for his performance in the Writing Task. For all other tasks he ranked in the first four of the 22 children in the group. Toni's rankings in the pre-school/Kindergarten period were more ambiguous. In three tasks she ranked in the first five. In another three she ranked in the lower third of the group. The circumstances of Toni's early childhood including the sudden and unexpected death of her father at a young age early in the data gathering period may have contributed to the unevenness of this performance. Such circumstances are not uncommon in the Aboriginal community whose mortality rates are much higher than Non-Aboriginal Australians (Eckermann et al. 1992).

As stated previously, examination of important factors in Carl's early childhood in relation to literacy development shows that Carl had little social/emotional disruption in early childhood and that both of his parents were clearly educationally-oriented and able to provide consistent early literacy experiences and other quality childhood experiences which have enabled Carl to progress more easily to literacy competence than many of his peers.

Toni, on the other hand, suffered considerable social/emotional disruption in her early childhood. Her mother and extended family were unable to provide the continuous early literacy experiences, some of which had been provided by her father when he was alive. During the 1990/1 data gathering period, the researcher noticed that Toni was frequently very withdrawn and unwilling to take risks when completing a task. As noted previously, if Toni was unsure of her response or did not know an answer immediately, she simply refused to proceed further rather than attempt the task and thus take a risk. This may have been a function of the social/emotional disruption she was experiencing at the time.

The story of Toni was a somewhat different one in 1995. Although reading performance, as determined by the Neale Analysis, was still well below her chronological age (1 year and 7 months), it was among the best in the group. In the other three tasks she ranked in the top half of the group. Thus Toni's relative performance has improved considerably in the four years since the first data gathering period in 1990/1. Whilst Toni was still shy, withdrawn and unwilling to take risks in the 1995 data gathering period, she was happy to do the tasks requested and expressed enjoyment on several occasions during conversations with the researcher. The classroom and school environment which the researcher observed over a period of several days was warm, secure and relaxed and Toni was obviously at home there. Provision of such an environment for children who have experienced social/emotional disruption has clearly assisted Toni's learning in the school context.

Conclusion

An overview of the information provided by the case studies of these five children reveals important factors identified in other research concerning the early literacy development of children. Several co-occurring factors emerge: parental values in relation to literacy, early literacy events and parental involvement in school activities all of which may be affected by cultural difference from school norms.

It appears that parental values in relation to literacy development may be a more crucial factor in the development of literacy competence. The modelling provided by parents is clearly of considerable importance in relation to the development of literacy competence. Such a contention is supported by evidence from overseas research (Cochran-Smith 1984; Jaggar & Smith-Burke 1985; Taylor & Dorsey-Gaines 1988 ; Wells 1986). It should be remembered (see discussions in Chapters 2 and 3) that Aboriginal children frequently come from backgrounds whose cultural orientations do not include an emphasis on literacy events in early childhood. The evidence of the five case studies in this report certainly supports such a notion in relation to parental values and literacy development when the literacy competence of Patricia and Kiagh on the one hand is compared with that of Carl, Lindsay and Toni on the other.

As discussed in Chapter 3, literacy development is also supported by the frequency and quality of literacy events in very early childhood. Knowing some letters prior to coming to school, knowing some print conventions and having an understanding of what reading and writing are, are thus emergent literacy skills which assist later literacy development. However, it appears that such developments in emergent literacy are dependent upon parental values in relation to literacy and the modelling of such values at home.

The third factor - parental involvement in school activities - is seen by the researcher as a part of the modelling of parental values mentioned above. Children observe their parents demonstrating that school activity is valuable and worth striving for. Thus literacy knowledge prior to schooling and parental involvement in schooling are seen to be dependent on the modelling of parental values in relation to literacy and the interaction of these three factors is crucial scaffolding for literacy competence in the later years of primary school.

CHAPTER 7. CONCLUSIONS

Introduction

This research project aimed to describe the emergent literacy skills of an entire pre-school cohort, follow them through into their first year at school (Kindergarten year) and then to re-examine their literacy skills in middle primary school in comparative terms. The study also aimed to examine the significance of relationships between pre-school/Kindergarten literacy skills and literacy skills in middle primary school for this group of children.

The cohort was given a range of literacy tasks to complete which examined story knowledge, print knowledge, book handling knowledge, reading and writing knowledge (The Environmental Print Task, the Letter Identification Task, the Picture Sequencing Task, the Reading Task, the Retell Task, the Sand/Concepts about Print/Concepts about Print Test and the Writing Task). They completed these tasks five times over a period of eighteen months from July 1990 through to November/December 1991. From the data collected, a picture of the children's emergent literacy skills was developed.

In 1995 the children's reading and writing skills were again examined. Reading comprehension, reading accuracy and rate of reading were examined as well as print experience and writing skills (Neale Analysis of Reading Ability, Comprehension One, Comprehension Two, the Title Recognition Test and the Free-Writing Task). From the data collected, a picture of the children's literacy skills emerged. The group's early literacy skills were then compared with their later literacy skills via correlations to determine in what ways the relationships defined were significant that is, whether emergent literacy skills could predict later literacy competence.

Children's early literacy background was also examined through information gathering from parents and the school in 1990/1. In 1995 their print experience was examined by means of the Title Recognition Test developed by Cunningham and Stanovich (1990).

Findings: a Summary

The 1990/1 Tasks

The Environmental Print Task

By the end of their Kindergarten year the group's reading knowledge was still principally logographic in nature and the children were unable read in the conventional

manner using grapho-phonetic, syntactic and semantic information. It was evident, however, that literacy learning had taken place, especially during the children's kindergarten year when formal literacy instruction was established. Analysis determined that there was a clear relationship between oral and visual/pictorial skills and logographic reading.

The last phase of the Environmental Print Task (involving reading decontextualised print) at the end of the children's Kindergarten year was a good predictor of reading ability four years later in 1995 since it correlated substantially with the Neale Analysis, both comprehension tasks and the Title Recognition Test (print experience). Thus those children who had the best EPT 5/3 scores for reading decontextualised print had substantial print experience, better comprehension, accuracy and reading rates in middle primary school.

Letter Identification Task

In the middle of the children's pre-school year, their letter identification skills were almost non-existent. At the end of their kindergarten year, 18 months later, the children still did not have a comprehensive knowledge of letters and sounds but there were clear indications that significant learning in this area had taken place.

In the latter half of Kindergarten year the children's letter identification skills, as tested, began to interact significantly with their skills in decontextualised reading, their conceptual knowledge about print and the skills tapped in the Reading Task. Thus most literacy learning took place in the children's Kindergarten year during the time when formal literacy instruction was established.

As early as the end of the children's pre-school year, significant relationships were recorded between letter identification and reading accuracy and comprehension in middle primary school. In addition, their letter identification skills in the latter half of Kindergarten year were related to the assessment of their print experience four years later. Thus the letter/Sound Identification Task established itself as an important predictor of later reading competence for this group of children.

Reading Task

Reading knowledge changed and expanded over the 1990/1 data gathering period but the group was still not reading conventionally by the end of the children's Kindergarten year. Most development in reading occurred after the children had finished pre-school during their Kindergarten year when specific literacy instruction was being carried out.

At the end of their Kindergarten year, clear relationships were established between the children's reading skill then and their reading competence four years later in middle primary school. Thus reading skills in 1991 (S5) were substantially related to reading rate, accuracy and comprehension, to their writing skills and to their print experience in 1995. The Reading Task as conducted at the end of the children's kindergarten year was established as a good predictor for this group of later reading competence.

Sand/Concepts about Print Test

By the end of their Kindergarten year in 1991 the group's knowledge of print concepts is still limited and well below that of their peers in New Zealand and the US. The Sand/Concepts about Print Test, however, was clearly and quite extensively related to the Environmental Print Task, the Letter Identification Task and less extensively to the Reading Task (as might be expected since the Reading Task involves more comprehensive literacy skills than the other tasks listed). The later data gathering sessions of this task are also clearly related to the Picture Sequencing Task and the 1991 Writing Task. Thus the Sand/Concepts about Print Test related consistently to some of the very basic literacy skills.

The Sand/Concepts about Print Test was also an important predictor of later literacy skills in middle primary school. Remarkably, there were clear relationships between the very earliest testing (S1 & S2) in pre-school and reading accuracy and comprehension in the Neale Analysis of Reading Ability as well as the two comprehension tasks in 1995. Later sessions of the Sand/Concepts about Print Test (S4 & S5) also relate significantly to print exposure as measured by the Title Recognition Test and to writing skills. Thus the Sand/Concepts about Print Test has established itself as a good predictor of later reading and writing competence.

Picture Sequencing Task

The Picture Sequencing Task is less satisfactory than other tasks in terms of its ability to demonstrate literacy skills in directionality, story sequencing and understanding story meaning and its ability to demonstrate relationships with other tasks. There appears to be a clear change in the group's ability to infer meaning from pictures and the task does, at the beginning of the children's Kindergarten year, relate significantly to three major aspects of reading (Neale Analysis and the two comprehension tasks), to print experience and to writing skills four years later. However, later data gathering sessions (S4 & S5) do not relate so consistently giving rise to speculation about the measurement efficiency of this task.

Retell Task

The Retell Task did not relate to the other 1990/1 tasks in a consistent manner. Formal literacy instruction in the last half of the children's Kindergarten year clearly intensified relationships between the Retell Task and the Letter Identification Task. Substantial relationships between the children's retelling skills in the middle of the children's Kindergarten year and their conceptual knowledge about print from the end of pre-school onwards indicates a possible consistent connection between print knowledge and the ability to retell a story very early in the children's literacy development. The Sand/Concepts about Print Test, the Letter Identification Task, the Environmental Print Task (Phase Three), and the Reading Task, however, appear to be much better and more consistent predictors of literacy competence in middle school than the Retell Task.

The Writing Task

The Writing Task was also less satisfactory than other tasks in both the 1990/1 and 1995 data gathering periods which relate significantly and more consistently to each other. As early as the end of the children's pre-school year, writing skills are significantly related to knowledge about print and the relationships are stronger towards the end of the 1990/1 data gathering period when the children have had formal literacy instruction in reading and writing. There are some relationships demonstrated between writing skills and retelling skills in the 1990/1 data gathering period.

The Writing Task did not demonstrate significant relationships with any of the 1995 tasks and so is not considered a good predictor of later literacy competence. This is probably because the children's writing skills in 1990/1 were at a very basic level combined with the fact that writing is more dependent on active or direct instruction than other literacy skills.

Summary Statement: 1990/1

At the end of their Kindergarten year at school this group of children had increased their print/reading knowledge but were not yet reading single decontextualised words automatically even after demonstrating a high degree of familiarity with logographic representations of particular words. During this period also they increased their knowledge of letters and sounds but still did not have a comprehensive knowledge of them. Their letter/sound knowledge was much more limited than children of similar ages in the US and New Zealand. Emergent reading knowledge expanded over the eighteen month period of testing. However, items examined which concerned conventional reading drew low performance ratings. The children, as a group, were not yet reading conventionally. They demonstrated increased story knowledge and were able to express themselves orally in more complex ways by the end of their

Kindergarten year. The Concepts about Print Task revealed that the children in this group were performing well below their peers in the US and New Zealand in their knowledge of print and books. Writing knowledge showed significant progress over the 18 month period of data collection with an increase in directionality knowledge, improvements in letter formation quality and increases in grapho-phonetic and syntactic knowledge.

The 1995 Tasks

The Neale Analysis of Reading Ability

The Neale Analysis demonstrated that all but a few children were below their chronological reading ages in 1995. Since the Title Recognition Test was significantly related to all three aspects of the Neale Analysis (rate of reading, accuracy and comprehension), it may therefore be concluded that one of the reasons for low levels of reading ability was the level of the group's print experience. This is reinforced by information collected from the pre-school and the parents on the children's literacy experience in very early childhood.

The Neale Analysis was also significantly related to the Environmental Print Task S5, Phases 1-3, the Letter Identification Task (as early as S2), the Reading Task (S5), and the Sand/Concepts about Print Test (as early as S1). Relationships with these tasks demonstrated their importance as predictors of later reading competence.

Consistently significant relationships between the Neale Analysis and the other 1995 tasks strengthen the notion that the 1995 tasks form a clearly connected battery of valid tasks in literacy assessment for these children in middle primary school. The tasks support and validate one another and may be said to give rise to the idea that a "general literacy factor" is involved.

Comprehensions One and Two

Since eleven children were unable to read Comprehension One and eight were unable to read Comprehension Two well enough to answer any of the comprehension questions successfully, the reading levels revealed by the Neale Analysis were thus confirmed. Most children demonstrated some grapho-phonetic knowledge but many were unable to use this knowledge effectively. Most children were also unable to answer the inferential questions effectively.

Comprehensions One and Two demonstrated significant relationships with the Environmental Print Task as early as the beginning of the children's Kindergarten year

with substantial and more consistent relationships showing in EPT S5, Phases 1-3. Significant relationships with the Letter Identification Task appeared in the second half of the children's Kindergarten year when formal literacy instruction was well established, demonstrating the effectiveness of the Letter Identification Task as a predictor of later literacy competence. Similarly both comprehensions showed substantial relationships with the last session of the Reading Task (S5). The Sand Test, however, showed significant relationships with Comprehension One and Comprehension Two occurring as early as S1, confirming the Sand test as a good predictor of later literacy competence. Relationships were less stable and consistent between the two comprehensions and the Picture Sequencing Task, the Retell Task and the Writing Task.

Title Recognition Test

No children scored higher than the 41%-50% band in this task, showing low levels of print experience in comparison with children's results in Cunningham and Stanovich's (1990) studies of American children. These conclusions are confirmed by other tasks such as the Neale Analysis and by information supplied by the pre-school and by parents about early literacy experiences.

The Free-Writing Task

Children were located on one or more of the six stages of the Writing Continuum as enunciated by Raison and Rivalland (1994) for this task. No children appeared in Phase 5 or Phase 6 and only one child was located in Phase 4, with four others between Phase 3 and Phase 4. Most children were in the lower stages of writing development using this system of location on a continuum. Thus 17 of the 18 children who completed this task fall into Phase 3 or below indicating a basic level of writing achievement.

The Free-Writing Task showed no significant correlations with the Environmental Print Task, the Retell Task or the Writing Task. Significant relationships were recorded, however, between the Letter Identification Task and the Sand/Concepts about Print Test in the last half of the children's Kindergarten year when formal literacy instruction had been established. Some significant correlations were demonstrated between the Free-Writing Task, the Reading Task (S1 & S5) and the Picture Sequencing Task (S1) although these are less easy to interpret because of their inconsistency.

Summary Statement: 1995

The Neale Analysis of Reading Ability demonstrated that as a group the 18 children who completed all five of the tasks in the last data gathering session in 1995 had reading skills which were generally below Australian norms. Thus the children's

reading ages fell below their chronological ages. Half of the group were located in the six year old age group in comprehension skills. Their accuracy rates were better but still well below chronological age. Three did not appear on the accuracy scale at all. Reading rates were also low with five children reading too slowly to appear on the scale.

In the comprehension exercises which were devised for general use in the wider school community (Byrne et al. 1996), eight children were unable to read them well enough to be asked the accompanying questions, thus indicating that the group was performing well below its age group. In both the Neale Analysis and the Comprehension Tasks, children had significant problems through underdeveloped grapho-phonetic knowledge. The Title Recognition Test demonstrated that, as a group, the children's reading background was limited and the Free-Writing Task saw all but a few children relegated to the early stages of writing development as enunciated by Raison & Rivalland (1994).

Correlations between the 1990/1 tasks and the 1995 tasks show significant relationships between literacy competencies at the end of the pre-school year and four years later in 1995. It should be recognised here that the 1990/1 measures of emergent literacy (e.g. Letter ID and EPT) do not independently predict the 1995 measures. They do correlate, however, so one, or both, or some third factor common to both of them, may be the psychologically important variable. Correlations between the 1995 tasks show that the measures used are valid indicators of literacy competence.

The Case Studies

The case studies of five individual children provided illustration of the group data. In particular, they brought out significant interactions which affect literacy development. These have been designated as interactions between the children's environment prior to pre-school/school, interactions between home background and school after formal literacy instruction has begun, and school/home/child interaction in Years K-5.

The case studies (Chapter 6) and the group study (Chapter 5) demonstrate that family literacy issues in early childhood (ages 0-5) including cultural and social issues affect literacy development. Thus, given the clearly established contextual issues outlined in Chapters 2 and 3, it may be assumed that racism, cultural difference and social conditions add up to educational disadvantage of a kind which depresses literacy development for these Aboriginal children.

Overview

It is clear that the information gained from the combined results of all the tasks completed in 1995 demonstrate that, as a group, these children's literacy knowledge is severely limited in comparison with their age group. It is also clear that very young children whose literacy skills are minimal for their age group show evidence of problems with literacy in middle primary school. Young children whose literacy skills show evidence of considerable literacy knowledge maintain this competence in middle primary school. Thus the tasks used in pre-school to measure emergent literacy skills predict children's literacy competence in later childhood. This means that either the early literacy skills are crucial to later literacy competence (see Figure 7.1), or that whatever it is that determines levels of early skills (e.g. parental values as outlined in the conclusion to Chapter 6) continues to operate and determine later skills (see Figure 7.2).

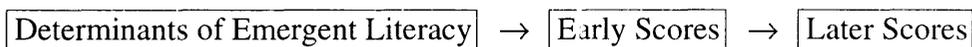


Figure 7.1

Model 1: Literacy Determinants

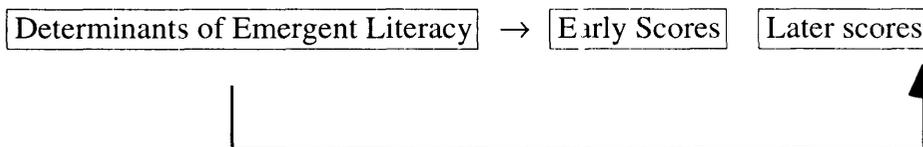


Figure 7.2

Model 2: Literacy Determinants

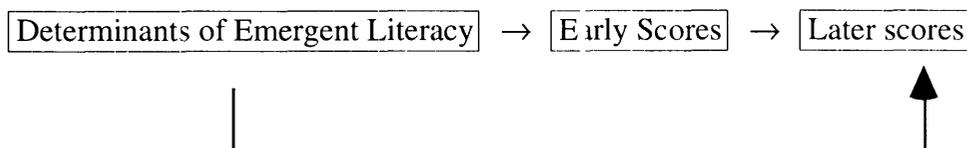


Figure 7.3

Model 3: Literacy Determinants

It is the contention of this study that the determinants of early literacy directly affect both early literacy and later skills. Thus a "hybrid" model emerges as shown in Model 3

with determinants of early literacy affecting early and later performance as shown (Figure 7.3).

Chapter 6 results gave rise to the contention that a major determinant of literacy competence was the effect of parental values in relation to literacy. Aspects of parental values included modelling of positive values in relation to literacy activity, the amount of literacy knowledge that children arrived at school with and parental involvement in school. These factors are seen to affect early literacy skills and through these, later literacy skills. The determinants are also seen to affect directly, later literacy scores, since they continue to operate throughout schooling. Thus the determinants outlined both directly and indirectly affect literacy competence in later childhood (see Figure 7.3).

Such determinants, it must be remembered are affected by cultural/ethnic values and by the history of Aboriginal people since contact and their treatment at the hands of dominant society.

This has clear implications for intervention procedures and literacy teaching for Aboriginal children in infant school. These implications will be discussed later.

Limitations of the Study

In contributing to the body of knowledge about Aboriginal children and literacy development, this study has established baselines for further research. Whilst the study is limited in scope to the literacy performance of a specific group of children, the importance of its longitudinal aspects and the wide range of its literacy research questions must be recognised since there are few such studies of urban/rural Aboriginal children. Thus the study's strengths lie in the breadth and depth of literacy enquiry whilst it is limited in the sense that only a small group of children's literacy skills have been examined.

The children completed a large number of tasks for this project: seven in the 1990/1 data gathering period and five in the 1995 data gathering period. Some tasks tapped into the same skills in order that particular skills were confirmed from different perspectives. In retrospect, such methodological design features were unnecessary and some tasks might well have been omitted on this basis, making the data gathering periods much shorter and also more effective. Thus such tasks as the Picture Sequencing Task, the Environmental Print Task and the Retell Task were really unnecessary since most of the skills they tapped into could be covered in the other four tasks in the emergent literacy

data gathering period in 1990/1 with either no alterations or minor ones such as adding a retelling segment to the Reading Task.

The Writing Task (1990/1) has problems in that few of the sessions correlate significantly with one another calling into doubt the validity of the task. In addition there are only a few significant relationships between the Writing Task and the other 1990/1 tasks demonstrated in the Sand/Concepts about Print Test, the Reading Task, the Letter Identification Task and the Environmental Print Task. It may be simpler, in future, to omit this task from any early literacy assessment since there are other tasks which tap into many of the same skills and children's writing ability in pre-school/Kindergarten is clearly very limited. The data gathered from the Writing Task could be shortened and streamlined by omitting the left to right progression segment adequately covered in the Reading Task and the Sand/Concepts about Print/Concepts about Print Test.

In the 1995 data gathering, Comprehension One and Comprehension Two could both have been omitted since the skills they examined were adequately covered by the Neale Analysis of Reading Ability. It should be noted here too, that there are no culturally appropriate reading tests for this group of Aboriginal children. The Neale Analysis is one of the closest possible being normed for Australian conditions. The Free-Writing Task could have been more directed and specific in nature. The children's choice of topics was wide, some topics lending themselves better than others to a more lengthy piece of writing capable of more in depth analysis. For example, those children (such as Carl) who chose to write a letter to Santa Claus or to their grandparents wrote from a more limited aspect than those who chose to write about their favourite occupation or about a TV program they liked. Thus their writing samples varied considerably and some were too short to reflect adequately the children's writing skills because of the limitations of their chosen topics. Refining the Free-Writing task, therefore would allow responses to be examined on a much more equitable basis. Inclusion of a retelling segment, perhaps in the Neale Analysis, would allow clear comparisons to be made between emergent literacy storytelling skills and those in later childhood.

The focus of this study is limited to the literacy development of a particular group of Aboriginal children. Thus it does not include an analysis of the appropriateness or otherwise of the literacy education provided for them by education systems and their schools. It should not be forgotten, however, that the effectiveness or otherwise of literacy education provided for Aboriginal children is likely to be of importance and should be the object of further study.

Implications of the Findings

Future Research

This study has begun a process of defining and describing the emergent literacy skills of young Aboriginal children. Whilst caution should be exercised in generalising the findings, they confirm the small amount of existing research evidence concerning Aboriginal children's literacy skills and thus may add to the existing pool of consistent research information. They also confirm the results of a much larger body of cross-cultural literacy research overseas.

Consequently, future research should include further case studies of a longitudinal nature in contemporary Aboriginal communities which are urban, rural and traditionally-oriented so that Aboriginal literacy development in a range of conditions may be determined. In addition, whilst early childhood literacy experiences are crucial to later literacy competence, reliable and detailed research information about Aboriginal literacy in later childhood and adolescence is also scarce and future research should address these gaps in educational knowledge about Aboriginal children.

Some research has already been completed on the educational implications of Aboriginal cultural characteristics. However, the bulk of this research has not concerned contemporary Aboriginal people in the south-east of the continent which is where the heaviest population concentrations are. Further research should also be completed concerning the nature of Aboriginal cultural difference and its educational implications for rural and urban people who form the bulk of the Aboriginal population. This kind of research would be a natural progression from this study which has begun to establish baseline information about Aboriginal children's literacy knowledge.

As a result of this research which began in 1990, many changes and developments have occurred which have been partly a result of this project. New literacy evaluation procedures have been instituted, a Literacy Nest has been established, new methods of facilitating literacy development in early childhood have been instituted, and staff have received further training in assisting literacy development. Partly as a result of this research, a new Aboriginal infant/primary school has been built and began operations at the beginning of 1997. These changes are of major import and have had a big impact on the Aboriginal community. It is of considerable importance that these innovative developments are documented, evaluated and the subject of future research.

Scholarly Understanding in the Field

The study clearly demonstrates that the group of Aboriginal children studied have considerable difficulty becoming literate for a variety of reasons. The nature of this group of children's literacy development leads to the conclusion that education systems (hence schools) do not provide an adequate literacy education for them.

As demonstrated in Chapter 2, many schools, teachers and education systems still operate on Deficit Model philosophy in relation to the literacy education of Aboriginal children. The results of this study show clearly that parental values in relation to early literacy knowledge directly and indirectly affect children's literacy development. Thus, whilst we know there are layers of cultural difference and social conditions affecting school performance in general, valuing literacy in the home seems to interact significantly with such factors.

Professional Practice

It is clear that Aboriginal children in general are less likely to develop literacy competence than mainstream children. The reasons for this are complex but may be basically attributed to parental values concerning literacy and schooling which may in turn be affected by cultural difference and social conditions. The findings of this study confirm these pre-existing conditions. To improve Aboriginal children's literacy learning, therefore, schools, teachers and universities must find ways of teaching literacy which involve parents in seeing the value of literacy activities in early childhood. Universities must develop the relevant cultural expertise to train teachers efficiently in communicating with Aboriginal parents and becoming community educators in the truest sense.

Support must also be provided for those Aboriginal communities who wish to conduct and control the education their children receive. Schools need to find effective ways of including Aboriginal communities in the education of their children. Classrooms and schools need to have an organisation flexible enough to be able to provide for Aboriginal cultural diversity.

In addition to demonstrating the importance of parental values in relation to literacy development, this study shows that there are certain literacy tasks which are good predictors of later literacy competence. Literacy assessment of children at an early stage in their literacy development using appropriate tasks, therefore means that early intervention for children at risk is possible. Thus professional practice and school

organisation should include a literacy assessment based on the tasks which proved to be good predictors of later literacy competence.

Conclusion

This thesis opened by making the point that the body of literacy research concerning Aborigines, especially in rural and urban areas, was small. The research completed in this study has described the literacy knowledge of a group of Aboriginal children at various stages in their literacy development over a period of five and a half years. It has identified effective ways of assessing their literacy knowledge so that early intervention procedures may be established when necessary. In addition, important determinants of later literacy competence have been identified. The study described has thus attempted to increase literacy knowledge about Aboriginal children, point the way to further research and improve professional practice.