CHAPTER 3. LITERACY LEARNING

Introduction

This chapter discusses literacy learning, focusing briefly on presenting a view of literacy processes relevant to the purposes of this study. Views of reading and writing and literacy development as an intregrated process, are developed from the current literature. The research in emergent literacy is reviewed and critical areas enunciated on which are based the design of the children's tasks in this study. The implications of cultural difference for literacy learning are discussed and the limited research that exists in relation to Aboriginal people is used to support discussion.

Whilst reading and writing are the focus of this study, the primacy of oral language learning and the dependency of literacy development on it must be acknowledged (Liberman & Liberman 1992). Learning to read and write is a part of the language learning process in communities with writing systems. Psycholinguistic research established that reading was not primarily a perceptual event but a language-based event (Kavanagh & Mattingly 1972; Pearson & Stephens 1994; Vellutino 1979). Thus, since the 1960s, research has linked reading and writing to language learning as a whole. It is clear, however, that whilst learning written language parallels oral language in some ways (Cambourne 1988), it is also significantly different since learning speech is a natural process for human beings whereas learning to read is a socio-cultural phenomenon (Liberman & Liberman 1992)

This chapter begins by briefly examining oral language, its relationship to written language, and the complications which may arise as a result of cultural/linguistic difference. Thus this study places reading and writing in the context of language learning as an integrated process.

Oral Language

For the purposes of this study, a general description of oral language development by Wells (1986) is presented in order to provide a basis for later discussion concerning literacy development. Wells (1986) makes the point that the differences between children in their rates of oral language learning are enormous and that the differences between various cultural groups speaking the same language are even greater. Thus the differences between different language groups must be considered before reasonable comparisons may be made. These differences make it very difficult to look at language

development processes in a coherent fashion. Researchers have been trying to find evidence that language learning sequences are the same everywhere and in a *general* sense this has been established (Wells 1986).

We know that children babble first, then produce recognisable words, then two-word utterances appear before two-clause utterances. We also know that "direct imperative requests in all situations precede the appropriate matching of the various forms of indirect request to the particular status of the person addressed." (Wells 1986, p. 20).

It is natural, says Wells (1986), for babies to be sociable. They relate to faces and can distinguish human voices from other sounds at a very early age. They also interact through smiling, moving their lips, vocalising and physical movement. Babies also usually have caregivers who expect to and delight in interacting and communicating with them from birth. There seems to be a natural basis for communication since parents and significant others are predisposed to treating infant behaviour as meaningful and intentional. Thus when babies discover that they can make people do things by behaving in particular ways, they also discover that they can communicate.

At this stage, we enter the world of cultural behaviours since the ways of communicating that are learned by children from their parents and significant others are culturally determined. Parents provide what is considered to be appropriate feedback to infants which will control behaviours in specific ways. These behaviours are reinforced by many opportunities to repeat them and the consonant development of ability to predict successfully and thus provide satisfaction (Wells 1986).

By six months of age infants have discovered that attention is a two-way process. This, of course, is the basis of human communication. Wells (1986) calls this *intersubjectivity*. Later, babies discover that the wider environment can be included in the communication process. For example, mother may draw the infant's attention to an object such as a toy and set up what Wells (1986) calls *playful routines* such as playing with a ball or a rattle which involve giving and taking and also opportunities for the child to observe the way in which oral language is associated with the actions involved. Children thus discover the existence of a code of communication. Then they have to learn the code or language which their society uses. As Wells mentions earlier, children seem predisposed to notice some things in their environment and not others.

> .....*they notice people and clearly defined objects, especially if those objects can be touched and manipulated or if they move or cause other objects to move.....the internal model of the world that they build up is largely organized in terms of movement,*

> *appearance and disappearance, and the relationships of cause and effect that bring about those perceptible changes.* (Wells 1986, p. 38)

Piaget (1974) notes that children make sense of the world through building themselves categories: e.g. things which taste good, things which taste bad. Wells (1986, p. 38) observes that the categories are encoded in the language which is experienced by young children. Children have to match the utterances experienced with the situation to which they apply and to "work out how the former encodes the latter".

They use the situational context to do this. Often, of course, the context is familiar and the connection dealt with many times before. Adults also talk to children often in terms of the things they can see and hear at that particular time. Utterance approximations are made using the context of situation and responses come from the parent or significant other.

> *For each new linguistic distinction to be mastered, children first have to become aware that such a distinction exists in their community's way of interpreting experience, then they have to discover how it is expressed in the language spoken by that community.* (Wells 1986, p. 39)

When that community is an ethnic minority, as is the Australian Aboriginal community, ways of communicating may differ considerably from that of the mainstream majority as was demonstrated in Heath's (1983) study and Harris' (1984, 1990) studies of traditional Aboriginal people in the Northern Territory. For example, some Aboriginal groups do not say "please" or "thank you". In some groups it is considered impolite to ask direct questions. Differences in ways of communicating may also easily affect the ability of children from that minority to succeed in mainstream majority schools especially in the area of literacy development as earlier discussion in Chapter 2 showed (Malin 1994).

Wells (1986) maintains that all children learning English as their first language follow the same stages of development. This study concerns a group of Australian Aboriginal children whose first language is certainly English. It is, however, a dialect of English and the group which speaks it is one in which marked cultural differences from mainstream norms have been described in great detail in a large body of research. These differences concern learning behaviours, communication styles, perception, world view and time orientation, to mention a few, and are such that Wells' argument that all children learning English use the five stage sequence defined may need to be varied or modified. Since their language has not been researched in any systematic manner and

neither has their culture or lifestyle, it may not be correct to assume that children in this study develop language in the same way as mainstream children.

The Social Context of Language Development

Sociolinguists in the sixties and seventies were concerned with relationships between dialects of English and Standard English. Studies done by Labov (1972) and Barratz and Shuy (1969) showed that dialects, far from being 'inadequate' forms of Standard English, were in fact fully developed linguistic systems which provided clear avenues for language development just as any language does. Notions that dialects and creoles provided inferior linguistic development were debunked and the idea of linguistic and cultural deficits formed on the basis of dialect or creole spoken proven incorrect (Eckermann 1994; Pearson & Stephens 1994; Meek 1991).

The sociolinguists examined more closely the role of context in language and literacy development. The work of Halliday, Heath and Wells has defined and determined the nature of the social construction of literacy processes. Heath's (1983) cross-cultural study of three communities shows clear parallels between oral language learning and literacy learning. Halliday's work { 1975, 1991 (& Hasan), 1993} highlighted the social functions of language and paralleled those with the functions of literacy learning. Wells (1986) has established that pre-school literacy experiences directly affect success at school in reading and in general school performance.

Halliday (1975) took the view that although the linguistic system and the social system are two different things they need to be conceptualised in such a way that the two can be brought together in a developmental context. He proposed that the social system be viewed as a system of meanings (a semiotic) which is realised through the linguistic system. The linguistic semiotic (semantics) is one of a number of systems symbolic of the culture. It is, maintained Halliday, the most important one.

Bernstein's work in the 1970s was extremely influential in the interpretation of language learning and differences between social groups. Halliday examined Bernstein's (1971, 1973) research which had been interpreted as ascribing cultural and linguistic deficits to culturally different or disadvantaged children in the light of current linguistic speculation. Halliday dismissed cultural/linguistic difference as a cause of disadvantage for children at school and maintained that the cause was 'social' (Halliday 1978). Bernstein's work:

> *suggests that there may be differences in the relative orientation*
> *of different social groups towards the various functions of*

language in given contexts and towards different areas of meaning that may be explored within a given function. (Halliday 1978, p.106)

Thus as far back as 1978, Bernstein's work, on which were based many of the assumptions of Deficit Model theory and Compensatory Education still evident in Australian education systems today (see earlier discussion in Chapter 2), was seriously challenged.

In any educational process there are bound to be assumptions and practices that are at variance with values, communication patterns and the learning styles of various subcultures and these will certainly affect minority group children's reactions to schooling (Halliday & Hasan 1991). In Aboriginal communities of various kinds, for example, it has been shown that some communities have very different styles of learning from those commonly offered in schooling in Australia (Christie, Harris & McClay 1987; Harris 1990; Harris & Malin 1994; Menary 1981). On this basis alone, it is not difficult to predict that Aboriginal children will experience discontinuity between home and school, especially in the area of language.

It is also clear that this situation is not the result of some cultural deficit on the part of these communities but the *social effect* of cultural difference (see discussions in Chapter 2). So we are distanced from the idea of language failure so prevalent in deficit or difference perceptions of Bernstein's research (Halliday 1978). Thus Bernstein's codes can be seen as he intended, simply differences of orientation within a total semiotic potential. Meaning and social function are considered more important than the forms of language.

If this view is taken, it is difficult to establish such a condition as language/cultural deficit in relation to any particular cultural/social group (see later discussion in Chapter 2 about Deficit Model Education). It is especially pertinent when we remember that all cultural groups can establish adequate procedures for the development of language and cognition in their young (see earlier discussion). Wells, in his seminal study asked:

Is there a causal connection between socioeconomic status, language experience in the pre-school years and educational achievement? If so, what are the specific linguistic skills, important for success in school, that are associated with membership of one social group rather than another, and what can be done to give children from all types of family background a more equal opportunity at school? (Wells 1986, p. xi)

These questions are important to the focus of this study because they assist a developing understanding of Aboriginal literacy performance at school and the complex interactions of Aboriginal cultures and mainstream society which underlie it.

Oral Language Development and Literacy

There is a large body of research which indicates important links between oral language development and literacy. Thus textual comprehension, developing print skills and oral skills, it is claimed, emerge in concert and are said to support later literacy skills Berko Gleason (1993). The research endeavour in this field is important to this study because the oral language skills of the minority children in this study are likely to be different from the language skills of mainstream children. This research will now be reviewed.

Ruddell and Ruddell (1994) identify a number of important findings of recent research results in literacy development. They maintain that what is emerging from the research is the idea that children build and test theories and hypotheses when learning language whether it be oral language (Clark & Clark 1977; Clay 1991b; De Stefano 1978; Ruddell & Haggard 1985; Ruddell & Unrau 1994), writing (Clay 1980, 1991b; Dyson 1984b; Ferreiro 1978; Harste, Woodward & Burke 1982), spelling (Chomsky 1975; Gillet & Temple 1990; Read 1975) or reading (Clay 1969, 1979d; Sulzby 1985). The important factor in this activity is the idea that children are constantly seeking to make sense of their world through the construction of meaning as demonstrated by Halliday (1975), Clay (1983), and Goodman and Goodman (1994).

Pappas & Brown (1987) and Purcell-Gates (1988) contribute to the growing body of evidence that links oral development to text comprehension and print skills. Their research reports that children's emergent literacy behaviours clearly demonstrate an awareness that the language associated with books is different from oral or conversational language. There is evidence from these studies which gives credence to the contention, often made by psycholinguists, that oral discourse and comprehension of extended texts supports literacy development.

There are clear indications that the "reading" done by very young children is developmental and that children start by talking about a book and labelling pictures. They then move away from merely conversational imitations of the text to re-create texts that closely resemble the text as it is written. These findings are supported by research completed by Sulzby (1985) and Sulzby and Zecker (1991).

Dickinson & Snow's (1987) research finds links between discourse skills and literacy skills. Their work with pre-schoolers correlated the ability to recognise letters and write, with the ability to understand stories and communicate information. The work of Clay (1991a) and Ferreiro and Teberosky (1982) in multicultural settings also supports this. By later primary school age, there is a correlation between the use of connectives in children's storytelling and their oral reading competence. This is also supported in studies by Weber (1990) and by Cox, Shanahan and Sulzby (1990). In addition, the research of Michaels and Collins (1984) demonstrated that oral discourse skills transfer to written discourse skills in terms of the ability to tell time-sequenced narratives that show evidence of scene-setting, character development, and time marking.

Berko Gleason (1993) further demonstrates the link between oral and literacy skills by making the point that children who display evidence of severe reading problems also show evidence of immature narrative skills such as forgetting to use causal and temporal connectives. This is supported through research by Roth & Spekman (1986), Weaver and Dickinson (1982) and Dickinson and McCabe (1991). The present study acknowledges the importance of oral language competence in the development of literacy skills. Although it is largely concerned with reading and writing development in early childhood, it examines a small range of oral competencies in the light of their connections to reading and writing and in acknowledgement of the fact that children in this study speak a dialect of English.

If we perceive language development as an evolving continuum of interacting aspects of communication from birth, as do Clay (1991b), Teale and Sulzby (1986) and Raison and Rivalland (1994), then children are developing reading and writing abilities along with speaking abilities from a very early age. Vygotsky (1986), for example, described the child's first gesture as the beginning of writing. Linking speech development to writing development, he views language as dynamic, an area of conflicting forces. Such a position is more complex than viewing language merely as communication.

By age four most children have had many literate experiences in their homes and their social environment (Clay 1991b). They have seen parents and significant others reading and writing and some understand that meaning can be gained from both pictures and print. They can model reading and writing and many can write their names by the time they get to school. Thus reading and writing development goes hand-in-hand with oral language development.

The interrelationships which are apparent between oral language, reading and writing are complex indeed. With preparation in terms of cognitive, linguistic and social

development, children move from being able to communicate only in an oral sense to being able to communicate both orally and in written language in a complex and sophisticated manner.

Language Developmental Continuum

It is the position of this study that language learning is a continuum of experience which operates throughout life (Parker 1983b). Vygotsky (1986), Neuman and Roskos (1993) and Y. Goodman (1986) see language as a continuous developmental process which involves the parallel development and interaction of movement, speech, play, writing, reading and drawing. At certain stages, particular aspects of language learning are more overt than others. For example, in very early childhood oral language learning is obvious whilst in later childhood written language learning is more obvious.

Constantly, children learn by using language and they use language already learned as a scaffold to learn more. Wells (1986) calls this *making meaning*. Halliday (1975) calls it *learning how to mean*.

Implicit in language learning, in learning how to communicate, how to make sense of the world in ever more sophisticated ways, is the notion of context. Human beings are, by their nature, social beings driven to communicate. Learning is never accomplished in a vacuum, always in a communicative (language) context (Berko Gleason 1993; Halliday 1993; Wells 1986). Thus the social and physical contexts of communication interact with language. Differing social and physical environments result in differing forms of communication, differing forms of the same language, differing languages.

The brief view of literacy above is focused on process. However, as intimated in the previous section, a view of literacy solely based on process or developmental description is, at best, a restricted one because it does not take into account the social context of literacy development or its power relationships as identified by Halliday (1975, 1991, 1993), Wells (1986), Freire (1970, 1973, 1978, 1985, 1995), Shor (1993), Shor & Friere (1987), Lankshear (1991, 1994) and others. For this reason a discussion of the social context of literacy development and the position of Aboriginal people in relation to it has been included in Chapter 2.

Focus on Literacy Processes

Because the present study is concerned with literacy processes in early childhood and their relationships to later literacy competence it was considered essential to review the literature on early literacy competence, what is involved and how it is achieved.

Reading is a highly complex, multidimensional activity. It has been described as getting meaning from print and taking meaning to print (Smith 1988). Writing in turn, may be described as creating meaning through print. Thus reading and writing may be viewed as receptive and expressive language (Rosenblatt 1994; Teale & Sulzby 1986; Temple, Nathan, Temple & Burris 1993).

Early literacy is seen by Cochran-Smith (1984) in a more wholistic sense than mere focusing on the processes of reading and writing (the acts of reading and writing themselves), or encoding and decoding. Cochran-Smith (1984) maintains that in addition to competencies in specific reading and writing processes, early literacy competence involves being able to do the following:

1. *Effectively organise and use print for one's own purposes*

2. *Use the appropriate strategies for interpreting contextualised print in a wide variety of situations.*

3. *Use oral language to interpret and organise written language.*

4. *Prepare mentally and physically for reading the decontextualised print of storybooks.*

5. *Make sense of storybook texts by:*
    a. *Consistently balancing and relating world information and textual information.*
    b. *Bringing relevant world knowledge to bear upon a text.*
    c. *Interpreting textual language in terms of common connotations.*
    d. *Relating pictures and text on a holistic level.*
    e. *Understanding literary conventions.*
    f. *Appropriately inferring from pictures and texts.*

6. *Use storybook texts in one's own life by:*
    a. *Knowing the kinds of information contained in books.*

b. *Seeing relationships between book events and real life situations and experiences.*

c. *Coming to books for entertainment and relaxation.*

d. *Using books as avenues of access to knowledge and information and a wide range of topics.*

(Cochran-Smith 1984, p. 257)

In addition she makes the following point in relation to the above:

> *None of these aspects of early literacy is directly related to the processes of encoding or decoding print. The perspective I have been describing here allows us to see these aspects as a foundation for literacy to which the important mechanical skills of encoding and decoding can later be added...........encoding and decoding were preceded and supported by a great deal of knowledge about how to use print. Without knowledge of how to use print, the abilities to encode and decode print are meaningless.* (Cochran-Smith 1984, p. 258)

In the 1960s and 70s, when psycholinguists established that reading was language-based rather than merely perception-based, changes began to happen in the nature of reading instruction. At this time psycholinguistic research may be said to have split into two schools of research endeavour: that which was concerned with the relationship of reading to *meaning, context and inference*, and that which was concerned with the relationship of reading to *phonological skills*. Berko Gleason (1993) identifies the former as the community of scholars involved in researching higher-level linguistic processes led by such scholars as the Goodmans and Frank Smith, and the latter as the community of scholars involved in researching lower-level linguistic skills led by such scholars as Shankweiler and Liberman.

This study examines the skills and competencies of the children in this study in both areas and seeks to delineate the importance of social context in the development of the complex range of skills necessary for literacy. The following sections provide a review of literature that is relevant to the study, namely those concerned with reading and writing processes, literacy development; the place of cultural difference; and emergent literacy.

A View of Reading

Goodman first enunciated his view of reading in 1967 in response to the developing nativist language acquisition paradigm. He maintained that the process of reading involves the use of three major cueing systems employed in getting meaning from print (Adams 1994; Goodman, Watson & Burke 1987; Gough, Ehri & Treiman 1992;

Ruddell, Ruddell & Singer 1994). These systems are termed the graphophonic, syntactic and semantic systems. Complexities of the reading process were further enunciated by researchers expanding on Goodman's research. Goodman's model, discussed below, is restricted in that it focuses primarily on process, and places only indirect emphasis on the socio-cultural context of literacy learning. For the purposes of this study, the model can be used to provide a view of significant reading processes. An acknowledgment of the influence of cultural context in literacy learning provided by such researchers as Wells (1986), Halliday (1993) and Heath (1983), then assists in placing reading in a broader context of literacy learning and the development of communicative skills in general (see earlier discussions in this chapter).

The **graphophonic** system enables readers to get reading cues from the letter-sound knowledge which they bring to the print. Good readers have extensive knowledge of patterns and relationships between sounds and symbols and are able to use their knowledge quickly and efficiently to serve the reading process (Dunn, Knight & Axtell 1993).
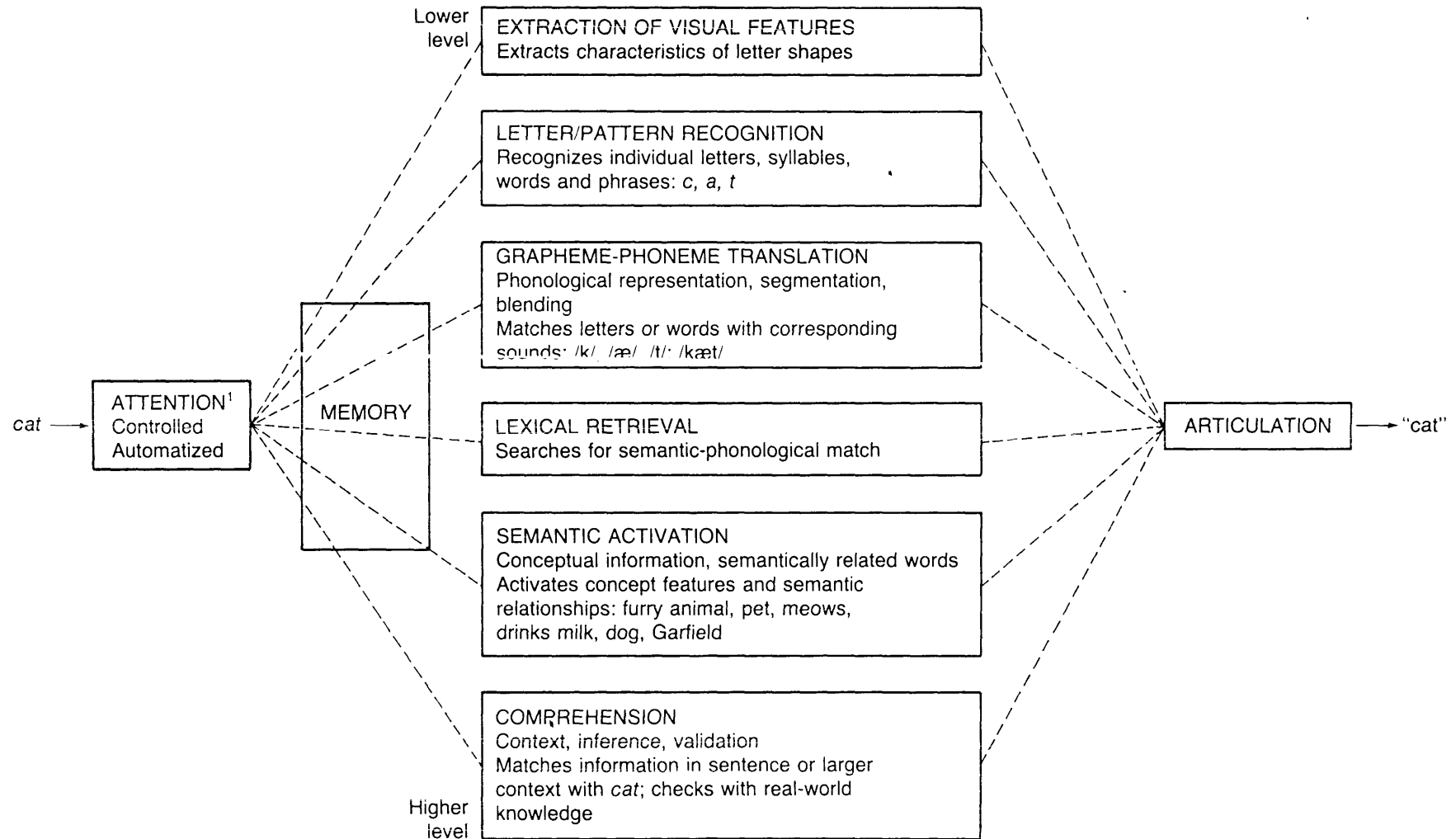
Share (1995) posits a number of mechanisms by which children may learn to recognise particular words. These are: direct instruction, contextual guessing (see syntactic and semantic sections) and phonological recoding. He maintains that because so many unfamiliar words are encountered that the direct instruction method is ineffective. In addition, such rote learning does not facilitate learning the orthographic structure " which ultimately forms the basis for proficient word recognition" (Share 1995, p. 153).

Phonological recoding, Share (1995) maintains, is the most effective way to learn proficient word recognition since the act of recoding involves constant reinforcement of the sound and appearance of words. Thus recoding has a self-teaching function which is not present in direct instruction or contextual guessing. Such a contention has not yet been fully researched and thus is not yet supported in the literature (Share 1995).

The **syntactic** cueing system allows readers to get reading cues from their knowledge of syntax, or the structure of the language. Knowledge of sentence structure, punctuation conventions, ability to predict using syntactical knowledge and ability to self-correct are important for syntactic competence in reading (Dunn, Knight & Axtell 1993).

The semantic system allows readers to use their past experience and their knowledge about language to sample, predict and confirm what a passage or cluster of words means. The ability to predict, take risks freely, self-correct on the basis of reading for meaning, to make use of past experiences in the reading process, and to use all three

Figure 3.1

Overview of processes in first reading cat

(Berko Gleason 1993, p. 380)

Lower level

EXTRACTION OF VISUAL FEATURES
Extracts characteristics of letter shapes

LETTER/PATTERN RECOGNITION
Recognizes individual letters, syllables,
words and phrases: c, a, t

GRAPHEME-PHONEME TRANSLATION
Phonological representation, segmentation,
blending
Matches letters or words with corresponding
sounds: /k/ /æ/ /t/ /kæt/

cat → **ATTENTION[1]** Controlled Automatized

MEMORY

LEXICAL RETRIEVAL
Searches for semantic-phonological match

SEMANTIC ACTIVATION
Conceptual information, semantically related words
Activates concept features and semantic
relationships: furry animal, pet, meows,
drinks milk, dog, Garfield

COMPREHENSION
Context, inference, validation
Matches information in sentence or larger
context with cat; checks with real-world
knowledge

Higher level

ARTICULATION → "cat"

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cueing systems, indicate efficient use of the semantic system. Levels of comprehension, whether literal, interpretive or inferential, and knowledge of literary conventions such as plot, characterisation, style and genre, are also indicators of the level of use of the semantic system for reading purposes (Mallan 1991).

Berko Gleason (1993) in reviewing the research on the act of reading, presents a detailed schema of the processes involved in reading the word *cat*. This diagram clearly demonstrates some of the complexities of reading processes (see Figure 3.1) detailing graphophonic factors: the visual features of print, letter/pattern recognition, grapheme-phoneme translation and semantic factors lexical retrieval, semantic activation and comprehension. Activation of syntactical knowledge is, however, not a part of her model and the possible role of contextual factors in the reading process is therefore downplayed.

Share (1995) is critical of the use of syntactical and semantic factors in teaching reading. He quotes many studies which document a limited place for prediction in reading processes (Gough 1983; Nicholson & Hill 1985; Perfetti, Goldman & Hogaboam, 1979; Rubenstein & Aborn, 1958). Thus his contention is that whilst use of contextual information may help immediate text comprehension it is not an efficient technique for developing word recognition proficiency.

It is the view of this researcher that, whilst the pre-eminence of graphophonic aspects of reading and teaching reading in the literature is noted and discussed, it is the *interaction* of grapho-phonic, syntactic, semantic and pragmatic factors which is of prime importance in the reading process. Such a view has implications for the teaching of literacy but is not relevant to the focus of this study.

A View of Writing

Adams (1994, p.13) defines writing as "a system for conveying or recording messages through constellations of visual symbols." She maintains that a writing system must be able to represent that range of expressions that its culture wishes to record or convey. It must also be easy to reproduce by hand or by machine and it must be able to be reconstructed by the reader to approximate the author's meaning, that is, the reader and the writer must get a similar meaning from the text read and created (Adams 1994).

Berko Gleason (1993) points out that there are many similarities between writing and reading, maintaining that writing draws on similar cognitive processes and oral

language resources, makes important use of previous life experiences and uses symbols to create meaning. In both reading and writing children must "compare, contrast, analyze, synthesize, and evaluate" (Berko Gleason 1993, p. 393).

Vygotsky (1986) maintains that the development of writing is different in many ways from oral language development. Stotsky's (1986, 1987) research shows that the development of written language does not parallel that of oral language. Dyson agrees that:

> .....*written language stands in a different relationship to consciousness than oral language, being a more deliberate, a "second order" system.* (1994, p 96)

Temple, Nathan, Temple and Burris (1993) observe that early writing consists of writing down oral expression. As writing develops and becomes more sophisticated, however, it depends less on oral expression and more on the expressive conventions of the written word.

Research on writing in the late seventies and early eighties was focused on writing as a developmental activity (see later discussion). Sequential writing stages were posited which threw considerable light on the process itself (Britton 1975; Graves 1979; King & Rentel 1979). Such research in writing development examined sentence structure, genre, spelling and text manipulation (Vygotsky 1978).

Whilst this study makes use of important research on writing development (see later discussion on writing development in Emergent Literacy), the limitations of hierarchical development models must be acknowledged, more especially since children's writing development does not seem to occur in a strictly lock-step fashion (Dyson 1994). In addition, Vygotsky (1978) maintained that many other systemic processes (of which writing is only one) which are interactive and dependent on one another develop simultaneously in young children. Raison and Rivalland (1994), in developing their 'Phases of Writing Development' (on which the writing analysis of this study is based), support Vygotsky's (1978) contentions and hasten to point out that the phases are hierarchies of skills which children do not necessarily develop in a tidy and lineal fashion.

Thus a view of writing as language, for the purposes of this study, needs to encompass the process itself, as defined by Adams (1994) above, developmental perspectives, and an awareness of the fact that writing is a complex dynamic and interactive process.

Literacy Development

If we perceive language as involving the development of different aspects of communication from birth (see previous discussion) as Vygotsky (1986) does and as do Clay (1991b), Teale and Sulzby (1986) and Raison and Rivalland (1994), then children are developing reading and writing capabilities along with speaking abilities from a very early age. By pre-school age, children are deemed to have had considerable experience with receptive and expressive language in both oral and written modes in literate societies.

Language development can be viewed as a process whereby children learn how to make sense of their world and how to manipulate that world. There are many learning opportunities presented to them in early childhood by their parents and significant others. These learning opportunities are essentially informal, usually unstructured, diverse in nature and culturally determined. This point is of considerable importance to the present study whose participants belong to a minority ethnic group.

Aspects of Cultural Difference in Language and Literacy Learning

Universally, children learn language by using it (Altwerger, Edelsky & Flores 1987). They learn it in the context of everyday life. Literacy learning is language learning. Thus a sociopsycholinguistic view of literacy learning processes is concerned with a model of acquisition through real use, because language activities are both relevant and functional. There is an assumption here that this is also a good model for helping children acquire reading and writing competencies (Altwerger et al. 1987).

Certain teaching methods in current use associated with a sociopsycholinguistic view of language acquisition make the assumption that writing is a natural part of social life. For example, Walton's (1986) study of Aboriginal children and writing showed that the use of "process writing" assumed a literacy background of a particular kind (Anglo-European) and that this assumption was a cause of failure. Many children attempting "process writing" did not find their tasks functional, relevant or meaningful and certainly not "natural".

Orality and Literacy

Thus what is 'natural' in one culture is not necessarily natural in another as Luke et al. (1989) demonstrate in their critique of Cambourne's work. Aboriginal cultures are oral in character as opposed to literate. A quote from *Ingelba and the Five Black Matriarchs* (Cohen & Somerville 1990, p. xv) will throw some light on what is meant by orality in a

culture. Somerville is talking in the introduction about the origins of the book in the contact she had with Aboriginal students in a college of Technical and Further Education where she was teaching:

> *In any Aboriginal community there are people at all stages between orality and literacy, and the importance they confer on these different forms of knowledge varies. The older Aboriginal students in T.A.F.E. had always insisted that Aboriginal culture was 'what the elders told us', while younger students were able to accept the growing body of Aboriginal writing as additional evidence of Aboriginal culture. However, their cultural roots were still in the experiences and traditions of orally-held knowledge and as such their thinking was characterized by primary orality, the orality of a culture that had not been deeply influenced by the patterns of literate thought.* (Cohen and Somerville 1990, p. xv)

The white European culture of the school assumes that, because Australia is a literate society, literacy is somehow a natural thing or that literacy development can be natural for all through common learning experiences. The difficulty here, as inferred previously, is that orality in a culture can mean differences in cognitive processes, differences in patterns of thought, communication styles and learning styles (Eckermann 1994). Thus even accepting a sociopsycholinguistic teaching position and providing appropriate conditions for Aboriginal children to become literate - that is, providing similar conditions to the ones in which they learned language - still does not necessarily mean that they are going to become literate because literacy is not yet an integral or natural part of some Aboriginal communities and may never be.

Further, it is demonstrably true that Aboriginal cultural experiences are peripheral to mainstream culture (see discussion in Chapter 2). This is perceived to be so by mainstream culture and by Aboriginal people themselves (Bain 1992; Keen 1988). In many Aboriginal communities, literacy is of marginal importance as well as being essentially alien to their cultures and lifestyles. Authority comes from people, not the written word (Harris 1987a; Cohen & Somerville 1990).

In an examination of three different cultural groups and the pre-literate environments they provided for children, Schieffelin and Cochran-Smith (1984) concluded that literacy is many things to many people and that literate environments vary enormously. They pointed out that the *form, function and meaning* of literacy varies with communities, cultures and social groups. They decided that there are no hard and fast identifiable pre-requisites for literacy and that the only really identifiable theme which came out of their three-part study was the fact that:

> *......for an individual to become literate, literacy must be* **functional, relevant and meaningful** *for individuals and the society in which they live. It must be able to meet the needs of individuals for their own social purposes and goals.* (Schieffelin & Cochran-Smith 1984, p. 22)

Perceptions of Literacy

Perceptions of literacy thus might vary from culture to culture and, of course, within cultures. For example, Price (1990) describes literacy as a common form of art and ideas. Mainstream Australians consider literate societies to be those which preserve and develop their history, heritage, and culture in written form. Language, in its written form, records the nature of society in books, on paper, vellum or stone. Price (1990) gives a different perspective on literacy. She talks about a traditional Aboriginal literacy which enshrined the history, heritage and culture in paintings on bark, on bodies, on cave walls and in sand, a literacy that was privileged information depending on wisdom or maturity, a literacy also enshrined in dance and song.

The borders between orality and literacy become somewhat blurred when such perceptions of literacy are considered. Further, such ideas have implications for teachers in that different kinds of literacy mean different classroom practices for literacy teachers because there are different cognitive processes involved.

Literacy and Poverty

In an important piece of longitudinal research, Taylor and Dorsey-Gaines (1988) describe the successful literacy development in a group of black inner-city families living in urban poverty in the U.S. They detail the literacy events which shape the lives of these families and in doing so cast aside many stereotypical assumptions concerning literacy and poverty and literacy and cultural difference. They show that the social and physical context of communication interacts with language and that this may be used in a meaningful way to develop literacy competence. We know that a high proportion of Aboriginal children live in relative poverty and that Aboriginal languages and cultures are different from the mainstream (Lippmann 1994). The Taylor and Dorsey-Gaines (1988) study tells us that poverty and cultural difference do not necessarily prevent literacy development and thus directs us to look more to systemic problems as the causes of low literacy levels in Aboriginal communities.

Interactions with Text

Reading involves the interaction between reader and text (Harste & Burke 1980). It is highly likely that no two readers will read or understand a particular text in exactly the

same way, especially in multicultural settings (Smith 1988; Goodman, Y. 1986; Au 1993). In the case of culturally different readers, the readers' constructions of reality in terms of such things as time, values, work and future orientation are likely to vary considerably because of differing cultural norms (Luke et al. 1989). Readers' perceptions of the world, based on past experiences and on a culturally determined world view, will determine their comprehension of particular texts. Thus each person's interaction with text is different just as every interaction with text is different as is implied in Berko Gleason's (1993, p. 380) schematic diagram of the reading process (see Figure 3.1). In this diagram it is clear that semantic activation and comprehension are partially determined by life experiences. These life experiences include oral language acquisition which is culturally determined.

Thus there are bound to be problems if mainstream white European expectations of literacy are imposed on persons with an oral cultural orientation. Luke et al. (1989) identify language socialisation practices and site-specific language as of particular importance in their critique of Cambourne's 'natural conditions' for learning. Whilst they do not contend the probable universality of Cambourne's natural learning conditions (since these are supported by the cross-cultural literature), they take issue with the qualifying examples used because they are uniformly white European in orientation which keep teachers from perceiving differing ways of achieving literate behaviours in children. Harris (1987b), Christie et al. (1987), Malin (1994) and Trouw (1994) also discuss these factors in terms of cultural differences in aspects of verbal behaviour and sociolinguistic rules in Aboriginal interpersonal communication as they apply in some Aboriginal communities.

The seminal work of Heath (1983) in the U.S. shows us the enormous differences in language socialisation practices and communication styles which can occur. *Ways with Words* (1983) not only details the nature of these differences between communities which live almost side by side but demonstrates that these differences must, of necessity, be provided for in literacy teaching and learning in schools if all children are to become literate.

In summary then, it is clear that different cultures and societies place different values on written language. Whilst it is assumed that common meanings may be extracted from text by any literate individual, there are also culturally and individually determined meanings with may vary from group to group or from individual to individual. In the terms of this study then, it may be speculated that Aboriginal children achieve lower levels of literacy than their mainstream companions because their cultures place different values on written language and because the written language they encounter is

not essentially derived from their cultural millieu. In addition, it is the stance of this study that the social position of Aboriginal people in Australian society identifying them as a racially oppressed and marginalised minority group (see Chapter 2) contributes towards lower levels of literacy.

Emergent Literacy

As this study was concerned to compare the literacy development of very young children to that of children in middle childhood, a review of earlier research and literature in the area of emergent literacy was undertaken. An overview of this review follows.

Children engage in language development activities from birth (Teale & Sulzby 1989; Wells 1986; Halliday 1975). Vygotsky (1986) sees language and literacy development as occurring in the context of everyday life from a very early age. Thus social, emotional, physical and intellectual development interact in the literate growth of children.

While there is agreement amongst researchers that a certain range of literacy activities is involved in literacy development, there is disagreement about the *relative importance* of specific activities. Major surveys of research into early literacy (Adams 1994; Gough, Ehri & Treiman; Ruddell et al. 1994) may be said to identify six broad areas: oral language competence, story knowledge, book handling knowledge, print knowledge, book reading knowledge and writing knowledge.

In literate environments, children grow up surrounded by print in various forms. Over a period of years in early childhood they interact with that print in concentrated and less concentrated ways. They will see print on television, and in their physical environment outside and inside their homes. People - most often parents and siblings - will help children interact with print and prepare to interact with print in their early lives through reading stories, telling stories, talking and discussing and writing letters, notes and lists. Bissex (1980) and Durkin (1974/5) point out that it is not unusual for children to become literate without formal instruction Such children, however, are usually from literate homes. Most children need instruction in phonemic and orthographic awareness as is shown in the research of Ehri & Wilce (1985) and Masonheimer, Drum and Ehri (1984). This ties in with contentions (described earlier) that literacy learning, whilst it parallels oral language learning in many ways, also involves other learning which is socio-culturally determined.

If we consider literacy development in the context of early childhood development as discussed above, it is very difficult to locate a time in a society such as ours, when children are pre-literate or non-literate, since engaging in literate activity is simply a part of contemporary living. For this reason the term *emergent literacy* will be used to describe early evidence of literate activity in young children. Strickland and Cullinan (1994) make the same point in their critique of Adams' (1994) survey of research on early literacy.

Sulzby (1994, p. 278) defines emergent literacy as "those reading and writing behaviors and concepts that develop into conventional literacy." It is concerned with the evidence of literacy development that is demonstrated in the activities of young children who are constantly learning, relearning, constructing and creating their world. The term implies a developing language and literacy knowledge which interacts with and is mutually dependent on cognitive development (Campbell 1995; Hall 1987; Piaget 1974; Strickland & Morrow 1989).

Hall (1987) describes emergent literacy activity in a pro-active sense as:

(1)   The developing/emerging literacy knowledge of early childhood.

(2)   Children making sense of the print which is an integral part of their early childhood environment. For example, identifying environmental print at home and elsewhere.

(3)   Children as active learners making use of literacy knowledge (including print) to construct their world. For example experimenting with writing or 'reading' a storybook after watching adults.

(4)   Children engaging with adults in meaningful literacy events such as storyreading and verbal interaction with adults involving scaffolding and schema building and scribbling.

Thus emergent literacy is a continuous process of learning and unfolding increasingly complex literacy knowledge in early childhood. Knowledge of the purposes and functions of written language also depends on the quality and quantity of children's emergent literacy learning (Teale & Sulzby 1989). Examination of children's literacy knowledge at ages four and five, as intended in the present study, should therefore provide both broad and specific evidence of the nature of previous literacy experience and (it is hypothesised) clear indicators of later literacy competence. Evidence of literate

growth shown in children who cannot yet read and write has been the subject of considerable research activity in a number of specific areas. Research in these areas: environmental print, phonemic awareness, storyreading, home culture and writing knowledge will now be detailed. They are of importance to the present study because they provided pointers to the data required to address this study's research questions.

Reading Knowledge

Environmental Print

Y. Goodman (1986) argued that literacy events connected with *environmental print* were important steps towards reading in that they could provide both motivation and venue for later understanding the decontextualised print in books. Visual and interactive experience with print and printed symbols such as labels and logos commonly seen in homes and communities were identified as integral parts of early literacy development. This was supported in studies done by Sulzby & Teale, (1991). Goodman and Goodman (1979), Hall (1987), Harste et al. (1982) and Hiebert (1981). Included in the present study is a task which examines children's environmental print knowledge.

Examination of such awareness in young children reveals a number of insights into children's emerging literacy development. Their past experiences with print, including their level of attention to it and their understanding of the purposes of written language, can be assessed. Their awareness of the relationship between spoken language and written language can also be determined (Mason 1990).

The relationships between reading development and children's understanding of concepts about written language are well established (Ayres et al. 1977; Clay 1979c; Day & Day 1980; Evanechko et al. 1973; Johns 1980; Lomax & McGee 1987; Mason 1980). Mason lists the dimensions of these connections covered by these researchers as:

> *awareness of the functions of written language, recognition of the graphic representation of language, awareness of the relationship between spoken and written language and knowledge of grapho-phonemic relationships.* (1990, p. 266)

Ehri (1992), posits three stages of development in sight word reading. In Phase One, children start to recognise words in their environment without any real knowledge of letters or sounds. Other visual cues such as colours shapes and logos can be related to words. The relationships are not phonological and children simply memorise them (Ehri 1991; Ehri & Wilce 1985, 1987a, 1987b). Ehri calls this *logographic reading.*

Studies have demonstrated that readers in this early phase of sight word reading development, when they read environmental print, do it by remembering visual cues accompanying the signs and pay little attention to the letters in the signs themselves (Dewitz & Stammer 1980; Goodman & Altwerger 1981; Harste, Burke & Woodward 1982; Hiebert 1978; Masonheimer et al. 1984). Without environmental cues they no longer read the signs and they do not notice when changes were made to letters in the logos. Such children also recognise few words in isolation and are not good at letter recognition. Their grapho-phonemic knowledge is not proficient enough for them to make the visual-phonetic connections that characterises Ehri's next stage of development in word recognition.

Ehri (1992) also showed that logographic readers often forgot words they had learned because they were not seeing relationships between spelling and meaning. Thus, an environmental print test was included in the design for this research in order to shed more light on important aspects of the processes of learning to read, to check whether this group of children in early childhood was identifying words logographically or whether they had proceeded beyond that to forming systematic visual-phonological connections between letters seen in words and their pronunciations (Ehri 1992).

The Alphabetic Principle and Decoding
The alphabetic principle may be defined as "the idea that the letters which comprise our printed language stand for the individual sounds which comprise our spoken language."(Byrne 1997, p.1). Goswami and Bryant (1990) and Tunmer, Herriman and Nesdale (1988) also identified as important in early reading development, awareness of the connections between the letters and sounds of the language and the patterns they make in phoneme-based writing systems, which are used for reading and writing purposes. Lomax and McGee (1987) argue that literacy abilities are hierarchically organised systems. After gaining an understanding of how books function and the purposes of print, children begin to develop phonemic awareness and acquire phonemic and graphemic knowledge (Adams, 1994). As they do this and begin to see the relationships between print and speaking, their oral language skills are supported and extended and they start to tackle more conventional forms of reading (Mason 1992; Snow & Dickinson 1991).

Since Jean Chall's (1967) famous study declared that early reading success was strongly predicted by pre-readers' knowledge of letter names, controversy has raged in literacy teaching over the role of teaching phonemic awareness in literacy education programs. Chall's evidence was supported by Bond and Dykstra (1967). The evidence seemed to suggest that teaching children letter names would help them learn to read more easily.

But these findings were called into question in later research (Ehri 1983; Gibson & Levin 1975).

Later research (Stanovich, Cunningham & Cramer 1984; Tunmer, Herriman & Nesdale 1988; Walsh, Price & Gillingham 1988) showed that the aspect of letter knowledge which was important was the *speed* and *fluency* with which children identified and incorporated letters and sounds into their reading activity. Automaticity, or the effortlessness of letter naming and the recognition of letter patterns in words, thus became indicators of later reading achievement. Blachman (1984) and Denckla & Rudel (1976) found, in addition, that poor readers were also not so good at naming colours, numbers and objects. This is supported by Clay (1979c) who found that children's logical and analytical abilities, linguistic awareness and their knowledge of print concepts were strongly related to their later reading achievement.

Children who read well show clear evidence of being able to make efficient connections between phonemes and graphic letters (Adams 1994) *though it is unclear whether their phonemic awareness is a result of progress in reading or their reading is a result of phonemic awareness.* Adams (1994) claims in addition that the best predictors of later reading achievement are letter knowledge and auditory discrimination of phonemes. However, Adams concludes:

> *It is neither the ability to hear the difference between two phonemes nor the ability to distinctly produce them that is significant. What is important is the awareness that they exist as abstractable and manipulable components of the language.*
> (1994, p. 65)

But Adams (1994) is aware that reading and writing involve complex interactions of many processes and makes the point that what really matters in literacy acquisition at school is *how much children know about literacy before they get to school.* She concludes that teaching children to decode (including the alphabet and associated sounds) forms only part of a range of literacy activity necessary for easy acquisition of literacy.

Nevertheless, this area of research indicated the importance of collecting information on the phonemic awareness of children who were to be participants in the present study. Examination of children's phonemic awareness in this study occurred in both contextualised and decontextualised ways. They were asked to identify letters and/or sounds in the context of storyreading and as decontextualised items of print. The writing task which they did for this study also determined the nature of their phonemic

awareness knowledge in context (details of these strategies appear in Chapter 4).

Storyreading

Harste, Woodward and Burke's research (1984) as well as that of Evans (1994) established that young children have a clear knowledge of sentence structure and can also understand story structure. They can use picture clues to enunciate meaning and can understand stories read to them orally (Evans 1994; Ruddell & Ruddell 1994). Their sense of story sequence develops along with an idea of plot (Applebee 1978; Evans 1994; McNeil 1987).

Studies completed by Clark (1976), Clay (1979a & 1991b), Mason and Au (1990), Mason, Peterman, Powell, and Kerr (1989) and Durkin (1966) showed that children who could read before they went to school often had extensive experience of being read to by parents or significant others. These children approached 'text with high expectations of meaning and possess knowledge and familiarity with story structure and the language of text.' (Ruddell & Ruddell 1994). They asked to be read favoured stories over and over again and modelled reading themselves using 'book' language. Other researchers showed that children who had been read to in early childhood were from higher socio-economic groups and did better in norm-referenced reading tests than those who had not (Shanahan & Hogan 1983; Sulzby & Teale 1983; Teale 1981a). Children who had been read to in early childhood thus became familiar very early with the idea that decontextualised print in books involves different kinds of language conventions in terms of expression and syntax (Snow & Goldfield 1983). They also developed understandings about the structure of stories as well as such cultural conventions as punctuation, directionality, and book handling knowledge.

Sulzby (1994) directs attention to two areas of recent research into children's story reading: parent/child and/or teacher/child interactions during storyreading and the nature of children's independent reactions to favourite stories. Studies in the former showed that storybook reading and associated activities increased children's awareness of and facility with the kind of language used in books (Cochran-Smith 1984; Green & Harker 1982; Schieffelin & Cochran-Smith 1984; Sulzby 1983). Studies in the latter revealed that children's 'reading' became more accurate over time (Holdaway 1979; Schickedanz 1981).

In Western societies many children begin to display knowledge of story conventions at an early age as a result of parental storyreading in early childhood. Studies completed by Peterson and McCabe (1983, 1991) showed that children who had been read to

included such information as setting, character development, chronological awareness and place awareness in their oral storytelling. They also used more connectives (eg *then, because, but*) to demonstrate relationships between story parts than children who had not been read to.

In England, Wells (1982) found that story reading at age three is linked to literacy knowledge and reading comprehension in later childhood. Mason and Dunning's work (1986) reported in Mason (1992) showed that reading stories to children at three years of age made significant differences in their literacy competencies later. They found that the number of children's books at home, reading to children regularly at home, early reading and writing experiences and amount of oral storytelling were all significant factors in reading competence in middle childhood. Strickland and Morrow's (1989) research demonstrated that the opportunities for early interaction with print directly affect children's performance in their early years at school. Other studies by Moon and Wells (1979) and Wells (1981, 1986) demonstrated close connections between knowledge of literacy in early childhood, quality and quantity of literacy interactions with parents in early childhood and later literacy competence in primary school.

Mason (1992) reviews the literature on intervention procedures using storyreading to improve later reading competence. The Feielson, Kita and Goldstein (1986) study in Israel showed clear differences in reading competence between those children who had been read to and those who had not. The findings are supported by Cochran-Smith's (1984) study. Children who had been read to "better understood stories, were more attentive to picture clues, were better able to infer causal relationships, and could tell more connected stories." (Mason 1992, p. 236). Intervention studies by Hewison and Tizard (1980), Tizard, Schofield and Hewison(1982), McCormick and Mason (1989), Mason et al. (1990) and Philips, Norris, Mason and Kerr (1990), which involved getting parents to become more active in children's literacy learning in terms of story reading, demonstrated that increasing literacy activity at home facilitates easier and more competent literacy development.

Children who are not from literate environments may not experience the literacy events listed above with the same frequency or intensity as those from literate environments. These contentions are backed with research by Wells (1986), Jaggar & Smith-Burke (1985), Taylor & Dorsey-Gaines (1988) and Ferreiro & Teberoski (1982) to name but a few.

"Conventional reading appears to be a true reorganization of knowledge" (Sulzby 1994, p. 278) and the ability to make the transformations from the conventions of oral

language to those of written language is crucial. Storyreading in the early childhood family environment seems to facilitate the complex and culture-bound process of transition from the face-to-face interactions of oral language to the decontextualised interaction between reader/writer and print which is at the coalface of literacy development proper (Sulzby 1989; Pappas & Brown 1988).

This review shows that the link between storyreading and development of important skills for later literacy competence such as event sequencing and place awareness is well established in research. As the present study concerns early literacy skills and their relationships to later literacy competence, it was seen as relevant to collect information on certain of the participating children's skills by setting a number a tasks based on similar research as discussed above. It was decided to ask children to sequence pictures, retell stories they knew and 'read' stories to an adult. Storyreading also reveals children's familiarity with print conventions and their book handling knowledge.

Home Culture

Consideration of home culture was seen as critical for this study, because of the particular cultural experience of the children concerned in this study. Sulzby & Teale (1991) and Sulzby & Zecker (1991) identify home culture as a factor in differing relationships between oral and written language. Thus the fact that the Aboriginal children to be involved in this study speak a particular dialect of English was seen as likely to make a difference in their ability to transform and extend oral language knowledge into written language knowledge (see earlier discussions). This is because it is probable that the school is unable to build upon their oral language knowledge in the same way as those children who speak Standard Australian English. Other studies by Heath (1983), Taylor (1983), and Taylor and Dorsey-Gaines (1988) confirm this generality (see earlier discussions).

Research has found that different cultures, societies and lifestyles result in differences in schemata and thus differences in the structure of knowledge (Au 1993; Brewer 1986; McKay 1993). Berko Gleason (1993), Gee (1989), and Michaels (1981, 1991), citing studies of African-American children and Japanese children, note that cultural differences in narrative structure have important implications for literacy learning in schools dominated by white Western cultural norms. This point is also made by Dunn (1991) in relation to Aboriginal narrative structures.

Chakravarti (1990) points out that Aboriginal narrative style, in his experience of a particular group of Aboriginal people, is very different from the narrative forms of the dominant culture. To the Non-Aboriginal person, Aboriginal stories are often not

characteristic narratives. For example, there is no 'real plot', no developed characters, no resolution of issues or a recognisable conclusion (Dunn 1991). The work of Kintsch (1974), Meyer (1975), Stein and Glenn (1979) and Rumelhart (1975) pointed out that story grammars were important in reading comprehension but it was schema theory which emphasised the relationship between prior knowledge and reading comprehension. Anderson and Pearson (1984) and Rumelhart (1980) theorised about the structure of human knowledge in memory.

> .....*schema theory encouraged us to examine texts from the perspective of the knowledge and cultural backgrounds of our students in order to evaluate the likely connections that they would be able to make between ideas that are in the text and the schema that they would bring to the reading task.* (Pearson & Stephens 1994, p.32)

Thus, for example, if the structure of story in an Aboriginal community is quite different from the structure of story in school culture, Aboriginal children will be less able to create stories suitable for school culture and less able to comprehend 'school' stories. A conclusion from the foregoing discussion, then, is that Aboriginal children might have different perceptions of what constitutes narratives which could directly affect their acquisition of literacy (Chakravarti 1990; Dunn 1991) as taught in Australian primary schools or the interpretation of their literacy skills by their teachers.

Previous discussion has mentioned the inadequacies of Deficit Model Education and focused on the effects of such education on Aboriginal children in Australian schools. In literate societies children from many different cultures and lifestyles - many different backgrounds - learn to read environmental print (Dickinson & Snow 1987; Goodman, Y. 1986; Morgan 1987). Strickland and Morrow's (1989) research showed that, whilst recognition of cultural difference is important for reasons previously discussed, this in itself does not prevent children from becoming literate since children from many cultures and lifestyles with widely varying literate conventions become literate. It should be noted that the research in emergent literacy discussed here has been completed in such culturally diverse countries as New Zealand, England, America and Argentina. Thus the important issues which concern literacy development for children of cultural minorities (such as Aboriginal children) are likely to be those which concern the *mode of delivery* of literacy education and whether it fits the *preferred style* of literacy learning.

Writing Knowledge

A review of research into early writing knowledge was seen as relevant to the present study in order to delineate the writing areas which needed to be examined in the study. Sulzby, Teale and Kamberelis (1990) identify a number of characteristics of emergent writing important for later literacy learning. They note that children's interest in and performance of early writing is not consistent and the effort expended on it is not continuous (see also Vygotsky 1978). Their writing at home is usually negotiated with older family members and takes many forms ranging from scribbling on paper or on walls or books, making marks, drawing, colouring, writing letter strings to invented spelling and finally, conventional writing Dyson (1994). The negotiations which children and their parents conduct in relation to writing are a part of a whole range of negotiations which happen in the context of everyday life throughout the childhood years. Sulzby et al. (1990, p. 65) make the point that children's early writing seems to be related to their "growing awareness of themselves as agents - as people who can make things happen." Young children also write for aesthetic reasons and may spend long hours over days creating multimedia constructions which involve writing.

It has been found that children begin learning about the characteristics of written language in their community long before they begin to comprehend it, decode it or write it in a conventional manner (Dickinson, Wolf & Stotsky 1993). At an early age children try to get meaning across through print (Clay 1975; Harste et al. 1984) and through drawing (Bissex 1980; Calkins 1986; Dyson 1986; Graves 1983).

Research indicates that by four years of age most children are using print from a variety of sources in a range of different ways. They learn the difference between print and pictures (Harste et al. 1984), directionality, that print can be translated into speech in consistent ways and that time frames in books may be different from the here-and-now (Clay 1979c; Snow & Ninio 1986). Hypotheses are formed and tested about the interrelationships between print and speech (Ferreiro & Teberosky 1982). Attempts at encoding are made, especially writing names or short phrases (Baghban 1984; Bissex 1980; Clay 1977; Durkin 1966).

Scribble, squiggles and loops are often consistently used by children attempting to approximate conventional writing in their home cultures (Clay 1975; Harste et al. 1984; Sulzby 1986). Thus, as Dyson (1984a) maintains, the reading and writing of preschool children demonstrates their growing awareness of print, its conventions and its purposes.

Although writing (as defined in earlier discussion in this chapter) is certainly developmental as is oral language, it is a consciously learned activity and its pattern of development is different from that of oral language (Stotsky 1987). Thus whilst its pattern of development may be different. research has shown clear relationships between writing and discourse as discussed earlier. a number of researchers have developed models of writing development (Clay 1975; Dyson 1982a, 1982b; Ferreiro & Teberosky 1982; Gibson & Levin 1975; Parker 1983; Temple et al. 1993) These will now be briefly outlined.

The writing tasks used to collect data for the present study was based on the work of Goodman and Goodman (1994), Clay (1991a), Temple et al. (1993), Robinson (1973), Raison and Rivalland (1994) and the work of Hildreth (1964). Clay (1991a) presented a rating technique for early attempts to write stories based on language level, message quality and an analysis of directional principles. Goodman and Temple et al. looked at writing development in pre-school children and kindergartners, as did Raison and Rivalland (1994). Robinson (1973) and Hildreth (1964) examined tests of writing vocabulary. Both of their evaluative instruments were designed for children who had already started school. Bratcher (1994) and Tierney, Carter and Desai (1991) also examined methods of assessing early writing efforts. The tasks were modifed for pre-school children in this study (see design chapter for elaboration). A number of researchers have developed models of writing development (Clay 1975; Dyson 1982a, 1982b; Ferreiro & Teberosky 1982; Gibson & Levin 1975; Parker 1983; Temple et al. 1993). These will now be briefly outlined.

Gibson and Levin (1975) established that children learn writing wholistically in the initial stages rather than concentrating on the combination of letters into words: that is, they work from the general to the specific, from the whole to the part, rather than vice versa (see discussion below). This tallies with theories of infant perception or how children begin to make sense of their world (Temple et al. 1993). Clay (1975) discovered that when children begin to notice that writing is different from pictures they see the recurrent nature of the marks on the paper and imitate them. They enjoy making pages full of loops and sticks. Clay (1975) calls this the *Recurring Principle.*

Once the recurring principle has been established, children then begin to realise that the marks are in differently organised combinations which they themselves can generate (Galda, Cullinan and Strickland 1993). Clay (1975) labels this the *Generative Principle.* When children see that symbols on paper have meaning they show they are at the *Sign Concept* stage of development (Temple et al. 1993). They may not know what the marks mean but they know that they carry a message, a significant step in literacy

understandings. They then begin to learn that not all signs carry meaning, that some combinations of letters do carry meaning and that some letters can be altered to produce other letters. Clay (1975) terms this the *Flexibility Principle*. Next, when children notice the differences between letters, letter-like forms and words as well as differences between upper-case and lower-case letters, they have grasped the *Contrastive Principle*.

Both Clay (1975) and Dyson (1982a, 1982b) suggest that young children start with undifferentiated concepts of writing which gradually become more distinct and that they then unify these concepts into an integrated whole. Clay (1975) also created a list of developmental concepts about print which children display as they show evidence of acquiring the above principles.

They understand that print talks.

They form letters.

They build up a bank of common words they can construct out of letters.

They use these words to write messages.

They then increase the number and range of sentences used.

They become more flexible in using sentences.

They learn to discipline their expression using the spelling and punctuation conventions of written English.

(Clay cited in Galda et al. 1993, p. 94)

Using Clay's (1975) research and that of Temple et al. (1993), Raison and Rivalland (1994) developed the *Writing Developmental Continuum* which posits six stages of writing development, each involving content, organisation and contextual understandings, knowledge of concepts and conventions, strategies used and attitude towards writing.

Phase One:	Role Play Writing
Phase Two:	Experimental Writing
Phase Three:	Early Writing
Phase Four:	Conventional Writing
Phase Five:	Proficient Writing
Phase Six:	Advanced Writing

The indicators for these stages have been used to determine the relative writing development of children in this study (see Appendix 3.1).

Conclusion

Research in emergent literacy centres around indicators of early reading and writing knowledge such as phonemic awareness, orthographic processing and story knowledge. Developmental aspects of reading and writing have been the subject of research, and so have, to a lesser extent, the dynamic interactive processes identified in literacy activity. The influence of home culture on thinking and learning as well as specific literacy processes such as story grammar knowledge have also been acknowledged as factors in literacy acquisition. It is clear that, no matter what the culture, those children with experience of books, stories and writing before they go to school, have less trouble learning to be literate than those who do not have that experience.

Children's writing knowledge in this study was examined through completion of writing tasks which also helped determine their grasp of the alphabetic principle and decoding, and their knowledge of print conventions and book language.

Whilst this chapter reviewed the literature in particular literacy-related areas, it acknowledged wider social and political issues delineated in Chapter 2 in relation to Aboriginal people which are also connected with developing literacy competencies.

The chapter has focused on the literature concerning language learning in reading and writing which provided the basis for the design of this study (see Chapter 4). Brief overviews of the processes of reading and writing were enunciated and literacy learning in general discussed. Research concerning membership of cultural/linguistic minorities and the implications for literacy development was also reviewed. Emergent literacy was defined and the literature on environmental print knowledge, graphophonic knowledge, storyreading and writing was discussed. Thus the literature from which came the design of the tasks for the study came has been reviewed in order to substantiate the study's tasks as presented in the following chapter.

CHAPTER 4.   RESEARCH DESIGN AND PROCEDURES

Introduction

The literature review in Chapter 3 developed an overview of relevant research and literature on the nature of children's early literacy development. In Chapter 2 a number of complex background issues concerning Aboriginal children's literacy development were identified. These reviews contributed to the idea for this study and identified those areas which were considered important for further research. As previous discussion pointed out, although low levels of education and literacy among Aboriginal people have been well-known for many years, there is little research which describes the nature of literacy development in Aboriginal communities and little which contributes towards the knowledge needed to improve Aboriginal students' experience of literacy instruction.

Two areas of investigation were considered valuable in making contributions towards knowledge about Aboriginal literacy: describing early literacy development in Aboriginal communities and discussing the possible implications for later literacy competence.

Research Questions

As will be clear to the reader, each research question relates directly to the earlier discussed research and literature.

The research attempts to answer these questions:

1.   What is the nature of the emergent literacy knowledge in a group of Aboriginal pre-school children?

    1.1   Are children aware of the purposes of reading and writing?

        1.1.1   Do the children know that print carries meaning?

        1.1.2   What evidence is there of changes over time concerning 1.1.1?

    1.2   What levels of awareness do the children display towards environmental print?

        1.2.1   What kind of knowledge do the children have about environmental print?

1.2.2 Is their print knowledge chiefly related logographic reading knowledge?

1.2.3 Are the children able to identify words in print automatically in the manner of conventional reading ?

1.2.4 Is their ability to read print chiefly related to the use of a combination of logographic and grapho-phonic cues?

1.2.5 Are there changes over time concerning 1.2.1 through to 1.2.4?

1.3 What grapho-phonic knowledge is evident?

1.3.1 Can the children identify letters and/or sounds?

1.3.2 Can the children write letters and/or sounds?

1.3.3 Can they use initial sounds/letters to predict words in text?

1.3.4 What evidence is there of ability to identify words automatically?

1.3.5 Are there changes over time concerning 1.3.1 through to 1.3.4?

1.4 What do the children know about print conventions?

1.4.1 What are their book handling skills?

1.4.2 What is their knowledge of directionality?

1.4.3 What kind of knowledge do they have about words?

1.4.4 What knowledge of punctuation conventions do they have?

1.4.5 What changes occur over time 1.4.1 through to 1.4.4?

1.5 What story knowledge do the children have?

1.5.1 Do the children use drawing in their attempts at written language?

1.5.2 Do the children use literary/book language?

1.5.3 Do they display some awareness of story grammar?

1.5.4 Do the children know that meaning can come from pictures?

1.5.5 What levels of sentence complexity do they use orally and in writing?

1.5.6 What changes occur over time concerning 1.5.1 through to 1.5.5?

1.6 What reading knowledge do the children have?

1.6.1 Do the children model reading?

1.6.2 Do the children bring personal experience to bear on the reading task?

1.6.3 Do the children use context to make meaning?

1.6.4 Do children use syntax to make meaning?

1.6.5 Is children's reading fluent?

1.6.6 Do children use self-correction?

1.6.7 Are there changes over time concerning 1.6.1 through to 1.6.6?

1.7 What other knowledge do the children have about writing?

1.7.1 Do the children have a bank of words they can reproduce in writing at will?

1.7.2 What are the characteristics of their writing?

1.7.3 Do the children have an awareness of conventional writing forms such as letters?

1.7.4 Are there changes over time concerning 1.7.1 through to 1.7.3?

2. Is the literacy knowledge they possessed in pre-school and early primary school related to the literacy knowledge they possess in middle primary school?

2.1 What is the nature of the reading and writing (literacy knowledge) of this group of children in middle primary school?

2.1.1 Do children understand the purposes of reading and writing?

2.1.2 At what levels do children comprehend text?

2.1.3 What reading strategies do the children demonstrate?

2.1.3 How accurate is their reading?

2.1.4 What are the levels of automaticity in their reading?

2.1.5 What evidence of graphc-phonic knowledge is demonstrated?

2.1.6 What evidence of previous reading experience is demonstrated?

2.1.7 What levels of sentence complexity are demonstrated?

2.1.8 What is their knowledge of print conventions?

2.2 Is the literacy knowledge this group of children displayed in pre-school consistent with their literacy development in middle primary school?

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

The study examines a range of literacy skills possessed by the 1990 cohort of pre-school children (the four-year-old group) at Djannara Aboriginal Pre-school over a period of five years and six months. It has three major components. The first is a study of trends in emergent literacy development in a particular cohort. This also forms part of the second component, a longitudinal study of literacy development which determines whether the findings in the trend study predict later literacy development. The third component of the study consists of a series of case studies of the literacy development of individual children designed to provide ' windows" on the group data.

The Research Setting

Warbrook[1] New South Wales

Warbrook is a country town in Australia. Half the economy of the town is concerned with rural pursuits and the other half is involved in education. The town contains a number of private schools in addition to its public schools, it is a centre of tertiary education.

Warbrook Aboriginal Community

Across Australia, Aboriginal people form about two percent of the population. Warbrook has a significant Aboriginal community of about 2000 people (approximately 9%).

The bulk of Aboriginal families in Warbrook live in housing owned by the Aboriginal community, in government housing or in privately rented accommodation. On a small reserve of land at the edge of Warbrook are between twenty-five and thirty Aboriginal households owned by the Aboriginal community. Djannara Aboriginal Pre-school is located in this area. Other families live 'in town'. Educational achievement is very low among the reserve people many of whom are semi-literate or illiterate[2]. Educational achievement among the 'town' people is higher although still well below many Non-Aboriginals in the town. As in many Aboriginal communities across Australia, unemployment is very high (DEET 1994).

Djannara Aboriginal Pre-School

Djannara Aboriginal Pre-School serves the Aboriginal community of Warbrook. It caters for over seventy children between the ages of three and five years. There are programs for three groups of children: the Three Year Old Group, the Four Year Old Group and the Transition Class. Parents of children presently attending are frequently past pupils of Djannara.

Djannara has a staff of fifteen, all of whom are of Aboriginal descent save one part time teacher. They consist of the Director, an administrative assistant, two teachers (one part time temporary), five part time childcare assistants, a part time nutrition educator, a cleaner, a bus assistant, bus driver and handyman. In addition, because Djannara

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[1]   All names have been changed so that the school, the town, the community and the children may not be identified.

[2]   Source, pre-school director.

involves its community in school life, there are many people who assist in various voluntary capacities.

The pre-school was established as a Save the Children Fund project in 1963 with a Non-Aboriginal director. It ceased to be funded by the Save the Children Fund charity in 1987 and is now funded by the federal government. In line with the expressed government policy of self-management, Djannara is governed by a committee of parents, citizens and staff who oversee its cperations and decide policy and procedures. Its Director is now Aboriginal.

In the late 1980s, Djannara school community became concerned that a significant number of children who had completed the pre-school program were not yet ready to proceed to primary school for reasons related to social, emotional, physical and intellectual development. In addition, the school community was concerned that in the early years of schooling, its children should have culturally appropriate education. Consolidation of self-esteem and self-confidence grounded in a clear sense of Aboriginality were considered crucial for later education in the mainstream of Non-Aboriginal society where children would be educated in a system not oriented towards their own social/cultural group and where they were likely to be subjected to racism and discrimination.

As a result of these concerns, the Director of Djannara, in conjunction with the school community, instituted the Transition Class in 1991 with the expressed aim of supporting later primary schooling for Aboriginal children. Since its inception the Transition Class has been a significant factor in the education of Aboriginal children in Warbrook. In addition, plans have been approved to expand Djannara into a school which offers childcare and education from infancy to t1e end of primary school. Planning for the Transition Class and its implementation occurred during the duration of the present study.

A Four Year Old's Week at Djannara
Pre-school children at Djannara in 1990 hac six sessions per week at the pre-school:

Monday: 12.30 pm - 3.30 pm.

Tuesday: 9.00 am - 12.30 pm and
              12.30 pm - 3.30 pm

Wednesday: 12.30 pm - 3.30 pm

Thursday: 9.00 am - 12.30 pm and

                  12.30 pm - 3.30 pm

All other slots were taken by the three year old group except for Friday afternoon which was set aside for staff development, staff meetings and preparation.

Staff members were rotated around three different roles in weekly cycles. The 'planner' planned all indoor activities around a fortnightly theme such as Autumn, families, or the local fair. The 'outdoor' person supervised and planned all outdoor activities. The 'floater' shuttled as needed between the indoor and outdoor activities.

A Typical Monday

On Mondays as the children arrive they wash their hands and go to the toilet before having lunch. In the meantime the planner sets up any materials and equipment necessary for the session which begins about one o'clock. It is the planner's duty to set up the environment for the children so that they can have the opportunity to be creative, experience solving problems successfully and learn by exploring their environment.

Craft activities, puzzles, playdough and cooking activities are set up as the children play outside. The children are then introduced to the fortnightly theme via specific language activities and a display of objects and materials concerning the theme. After this, children circulate around the room and outside in the adventure playground doing all the activities prepared for them. Outside activities involve freeplay, waterplay, the sandpit and team activities such as *Here We Go Round the Mulberry Bush* and *Who's Afraid of the Big Bad Wolf.*

At 2.30 pm it is Story Time. Stories are presented to the children in a variety of ways - a puppet story with a glove puppet or finger puppets; a big book story and stories using a felt board and cut-outs. This session is specifically designated as a literacy session.

After Story Time children take part in fingerplay, rhymes and raps often using numbers, shapes, fairytales and nursery rhymes to give them fine motor experience. Gross motor skills are then explored via action and movement songs with a guitar and exercise routines to music, like aerobics. Children are closely observed in these sessions for problems with gross and fine motor coordination.

At 3 pm the floater makes a nutritious afternoon snack for the children, usually consisting of carrot and celery straws dipped in yoghurt or a banana smoothie. The

children also have water or orange juice oɪ milk. The afternoon snack is considered an important time for children to experience new foods or foods they would not otherwise experience at home. Careful note is taken of any dietary problems the children might have such as allergies.

At 3.15 pm the children sit on the big mat and put on their socks and shoes. This is a calming and quiet time before the children go home on the bus.

Tuesdays
On Tuesdays the routine is similar except that the children are there for the whole day and between 12.30 pm and 1.30 pm the children sleep on small stretchers.

In addition, at 2.00 pm there is a drama session in which children take part in dramatising a favourite story such as the Seven Billy Goats, or the Three Billy Goats Gruff. Problem-solving activities occur during this time and children are required to determine how the session will be conducted.

Wednesday Afternoons
After the children have lunch on a Wednesday there is a cooking session where the children take part in making simple nutritious foods such as banana or apricot smoothies and fruit tarts. At this time only 8 children at a time can be cooking and the other children are circulating around the puzzles and games, playdough, playing snap with cards and other games outside (including team games).

Thursdays
Once again the children are at pre-school all day. They have a nap between 12.30 pm and 1.30 pm. The whole of the day is taken up with Aboriginal cultural activities. There are art and craft activities with an Aboriginal theme using traditional Aboriginal techniques. Later in the morning there is oral storytelling, reading traditional Aboriginal legends and making up Aboriginal stories into books.

During the day Aboriginal music is played and the children are taught songs about Aboriginal people. In the afternoon Aboriginal stories and legends are dramatised and performed by the children using Aboriginal music and singing. Children are also told about their history and culture. Sometimes visitors speak to them at this time.

Djannara's Children
Children attending the pre-school come from all parts of Warbrook. They are transported to Djannara by minibus for all sessions which they attend.

At the time of the commencement of this study (1990), Djannara's Pre-school children were aged between four years and one month and five years and one month. Family income was low and did not exceed $18, 000 per annum (approximately $13,500 US).

Research Issues of Concern

Mason (1990) points out that answers to the kinds of research questions listed above call for determining the nature of concepts about: the processes and strategies of reading; the functions and purposes of written language; the technical features and conventions of written language, and the efficacy of assessment tools. Consequently, this chapter describes the features of the study and examines the issues involved in its design and execution through discussion of:

1. the choice of a research paradigm
2. longitudinal study
3. case study
4. designing the tasks.
5. ethical issues

After summarising the discussion, methodological procedures are described in detail.

Paradigmatic Foundations of the Study

The research design for this study falls essentially into a constructivist paradigm as delineated by Schwandt (1994). Schwandt points out that major proponents of constructivism such as Guba and Lincoln (1989) see truth as being constructed by individuals, all inquiry as value-laden (Guba 1990) and as an individual construction of the participants and the inquirer who is also an integral part of the inquiry. Consequently, research, or the act of inquiry, develops from the issues with which the participants have become directly and intimately concerned. As outlined at the beginning of this chapter, the link between activities at Djannara and later success in primary school was a major issue to the participants at the school.

Constructivist research aims to make experience meaningful and/or interpret experience (Guba & Lincoln 1989). In this case, it was hoped that by examining the nature of the literacy competencies of the 1990 pre-school cohort of Djannara Aboriginal Pre-school over a period of eighteen months a picture of each child's early literacy development would be provided as well as a group picture of the cohort. It was expected that the later

1995 picture of the children's literacy development would do the same and enable relationships to be identified between early literacy behaviours and later literacy development.

The nature of the construction depends on the range and quality of the interactions between the researcher and the participants (Guba & Lincoln 1989). Consequently, in order to ensure that a comprehensive picture of the children's early literacy development emerged from the research, a range of literacy competencies was to be examined by methods which included tasks that gave overlapping information (see later discussion).

The constructions created in constructivist research are shared perceptions (Guba & Lincoln 1989). It was thus part of the research procedure to share different steps in the study with children, parents, teachers and significant others.

Whether a construction is valuable or not depends on how it stands up to the "paradigm out of which the constructor operates" (Guba & Lincoln 1989, p. 143). It was realised that the picture of emergent literacy which this study would create would have to be measured against the view of emergent literacy as defined in the literature review in Chapter 3.

Placing this research project within a constructivist paradigm:

1.   allowed social/contextual/cultural factors to become part of the inquiry process. This is especially important since the research concerns a minority group in Australian society (Lincoln 1990);

2.   enabled the emergent literacy of the children to be seen in the context of the schooling in which it was developing;

3.   made the use of a variety of methods of data collection and analysis desirable. The ensuing triangulation of data thus resulted from a range of data collection methods which cross-checked the information gathered (Guba & Lincoln 1989) and enabled internal comparisons and contrasts as well as external ones.

Research Design

As previously stated, Aboriginal communities in Australia are diverse in nature. One of the challenges of doing research among Aboriginal people has always been to decide

what may be valuable from research in one Aboriginal context for use in another Aboriginal context.

It is essentially for this reason that case study research was chosen as the design for conducting this study. The difficulties of generalisation, for example, and indeed its speciousness in a population of such cultural, linguistic and social diversity, made survey research in literacy a less attractive proposition than researching the particular in depth (see later discussion concerning the undesirability of making comparisons in case study research). Thus it appeared that a longitudinal case study involving descriptive/developmental research would provide the most appropriate procedures. The justification for this is now elaborated.

Descriptive/Developmental Research

It was planned to follow the same group of children over a long period of time (eighteen months and then again five and a half years later) with various data gathering sessions determining the individual and group trends in literacy development. This was necessary in order to answer Research Question One. The research design is thus basically a longitudinal study and can be designated a cohort study as well as a trend study (Cohen & Manion 1994). The trend study broadly predicts the nature of later development. Yet this study wanted to go further than most trend studies in that the final data gathering session attempts to confirm or deny trends identified some years earlier.

Cohort studies conducted over a period of time are common in educational research. Tracking changes in development over time is important for establishing causal relationships and cohort studies are considered to be appropriate ways of so doing (Menard 1991). It was felt that examining the nature of the literacy development of an Aboriginal pre-school group in a longitudinal study would enable causal relationships to be established between their emergent literacy skills and their literacy competence in middle primary school (see Research Question 2). Cohen and Manion (1994) also point out that one of the strengths of cohort studies is that they often use multiple methodologies, gathering data in a range of ways. Another strength is the fact that, because cohort research is usually conducted over a period of time, chance occurrences are less likely to be mistakenly identified as trends (Patton 1990).

Possible Weaknesses and Disadvantages
Cohen and Manion (1994) outline a number of the disadvantages and weaknesses of longitudinal research. Firstly, longitudinal research, by its very nature, is time-consuming. Sample mortality is also a problem. For example, in this study the

sample/cohort began as 28 children. By 1995 the cohort was reduced to 18. A 'control effect' may also be deemed a weakness in this type of research. Control effects sometimes occur when repeated interviewing or task completion affects behaviour and task performance during the data gathering session (Burns 1995; Patton 1990). Other events and conditions outside the control of the researcher such as lack of sleep, illness, family crisis or simply family events or school events may well affect data gathering. Finally, change is a continuous feature of most educational settings and therefore most educational research. Organisational problems concerning changes in pupils, staff, teaching methods, educational policies, buildings and plant and data gathering times are highly likely to arise (Burns 1995). For example, at one school, the 'quiet' room requested by the researcher for data collection with children was next to the auditorium in which most of the school was rehearsing for the Christmas concert.

Nevertheless, Cohen and Manion (1994), citing as an example a study entitled *Patterns of Reading Development in the First School* (one similar to this study), conclude that the advantages of longitudinal cohort studies in developmental research outweigh their disadvantages in educational inquiry. As this study's questions were undoubtedly in the area of developmental research, a longitudinal design appeared the most appropriate.

Case Study Research

Case studies involve research into a closely defined area (Burns 1995), or a finite and bounded system (Smith 1978). Stake (Denzin & Lincoln 1994, p. 236) makes the point that 'case study is not a methodological choice, but a choice of the object to be studied.' This research project certainly fits Stake's contention and is congruent with a constructivist research paradigm in that it is an investigation of the literacy development of a specific cohort of Djannara Aboriginal Pre-School - a defined or bounded phenomenon.

It is worth mentioning here that the contributions of five case studies in early language and literacy research undertaken by Ferreiro and Teberosky (1982), Heath (1983), Cochran-Smith (1984), Jaggar and Smith-Burke (1985), Taylor and Dorsey-Gaines (1988) and Wells (1986) have become seminal studies in the field. Most of these case studies are also longitudinal.

Stake (1994) identifies three categories of case study: *instrumental, intrinsic and collective*. Although the objective of this present case study had features of instrumental case studies (those undertaken to refine theory or an issue), it fitted best into Stake's second category: intrinsic case study (those aiming to clarify a particular case of

interest), since it sought to describe the literacy development of a particular population of children who attended a particular pre-school. In so doing, it was expected that the multiple processes of literacy development in this group of children would be revealed.

Burns (1995), on the other hand, categorises case studies somewhat differently from Stake. He lists the types as: *historical, observational, oral history, situational analysis, clinical* and *multi-case*. Only two of his categories have relevance for this study namely, historical and observational case studies. Historical case studies record the development of the entity studied over time using records, documents and interviews. Observational case studies focus on a research entity using a range of observation and interview techniques. In this study, the focus was to be the literacy development of a particular group. The qualitative researcher relates this focus to the whole, that is, literacy development would be seen in the context of the whole school, the whole classroom and the social background of the children concerned.

According to Burns (1995, p. 315) it is important that the group of people to be studied 'identify with each other, share expectations, and interact in a close way.' The most appropriate methodology for this study fits Burns' observational category of case study. To some extent, it also fitted the historical case study category as it sought a record of literacy development over time.

Stake (1994) makes the point that case studies *may* inform us through comparisons and contrasts with other cases. He maintains, however, that this claim can be both specious and misleading and that comparison can actually lower the chances of learning from case study because concentration on looking for defined and therefore narrow comparisons can obscure the wholistic picture and detract attention from other and possibly more important knowledge about the case (Stake 1994). He also maintains that the importance of the transfer of experiential knowledge from the researcher to the reader is far more important than comparisons and contrasts of a few defined attributes in the service of generalisation:

> *However moved to share ideas, however clever and elaborated their writings, case researchers, as others, pass along to readers some of their personal meanings of events and relationships - and fail to pass along others. They know that the reader too will add and subtract, invent and shape - reconstructing the knowledge in ways that leave it differently connected and more likely to be personally useful.* (Stake 1994, p. 240-1)

Although case studies typically have to tolerate ambiguity and plurality of results, it is still considered desirable to be concerned about the validity of the information obtained

(Stake 1994; Burns 1995). Thus whilst the results constructed by the researcher may be reconstructed in as many different ways as there are readers of the material, there is still the expectation that correspondence will occur in some form or another. Consequently, Maxwell (1992) talks about creating multiple perceptions, diverse views of the same object to strengthen and clarify the view of the particular object being researched. Thus triangulation, or the use of many ways of viewing the data is seen as important in case study literature (Flick 1992; Fielding & Fielding 1986) because it has become a way in which qualitative researchers construct internal validity.

> ....*qualitative researchers ultimately resort to their own estimation of the strength of the cited data or interpretation..........Triangulation puts the researcher in a frame of mind to regard his or her own material critically, to test it, to identify its weaknesses, to identify where to test further doing something different. The role of triangulation is to increase the researcher's confidence so that findings may be better imparted to the audience and lessen recourse to the assertion of privileged insight.* (Fielding & Fielding 1986, p. 25)

At the same time, Patton (1990) maintains that subjective views of the data are invaluable. Given the insights that the researcher has through intimate knowledge of it, through being forced to make informed decisions about what data are important from the vast amounts often collected in qualitative research puts the researcher in a unique position to make intuitively accurate judgements in data interpretation.

Carr and Kemmis (1986), writing about methods of case study in *Becoming Critical*, maintain that three kinds of meanings may be revealed by the researcher through case study: localised meanings developed purely for the particular context, speculative meanings - those meanings which may or may not come out of the research (hypothetical meanings) - and meanings constructed by the readers (consequential meanings). Usually, one or other of these kinds of meanings is emphasised by the researcher and the methodology chosen therefore reflects the emphasis. It was seen as appropriate in this case study that the emphasis centre around localised and consequential meanings.

Stake (1994) maintains that case study research is typified by data that are continuously re-interpreted in the light of further visitations and reflections on the object of the research. He also points out that case study research is essentially reflective although its methodology involves the researcher in spending extensive time on the site where the phenomenon occurs. It should be understood, however, that case study also frequently involves the use of quantitative as well as qualitative data (Cohen & Manion 1994).

In building a comprehensive picture of the object being researched, the researcher also needs to investigate factors unable to be observed on the site of the research. In this case, the nature of the research questions meant that information about the literacy background of the children's families should be obtained by interview and informal conversation.

Case studies may be rigorously and formally designed or they may be more naturalistic and they require extensive data collection in order to understand the case in its 'idiosyncratic complexity' (Burns 1995; Stake 1994). The nature of this study suggested the need to use rigorously defined methodological strategies such as the much validated Clay (1979a) Sand/Concepts about Print Test or the norm-referenced Neale Analysis of Reading Ability (1988) as well as use free-writing tasks and less structured observational reading tasks. As with most case studies, it was decided the best strategy was to use data collection by observation within a real life context but also to use more formal and specific task completion in order to triangulate and strengthen internal validation of data and so construct an in-depth view of a complex phenomenon (literacy development).

Evaluation of Case Study as Research Design

Case Studies carry with them some inherent problems. Criticism is often made of them on the basis that they are demonstrably prone to exhibit *subjective bias* (Burns 1995). Changing qualitative data into quantitative data through content analysis has sometimes been done to circumvent this criticism, but loss of the richness and contextuality of the data then occurs. Conducting experiments and designing questionnaires for quantitative research in the scientific paradigm also carries inherent biases for the researcher who has to decide in advance which variables and/or questionnaire items to use.

Another problem identified by critics of case study method is the lack of evidence for *scientific generalisation*. As noted earlier, Stake (1994) dismisses this as specious with a cogent argument against comparisons by attribute. Case studies present unique information. Whilst they may contribute towards generalisation (Campbell 1975; Cohen & Manion 1994), in themselves their conclusions are not generalisable. For this and other reasons case study has often been criticised as a research construct. Stake (1994), in support of the study of the particular, makes the point that seeing generalisation as the most important object of any research has been prevalent in research circles for many years and that the valued insights which can be provided by case study have frequently been ignored.

Burns (1995) also maintains that case studies can be generalised to theoretical propositions just as can experimental research. Essentially, case studies intend to assist the reader to analyse an investigation in the light of his/her own experience. Thus generalisation becomes irrelevant. As Burns (1995, p. 326) points out:

> *Case studies are founded on cir cumstantial uniqueness and not on the obscurities of mass representation.*

As stated previously, case studies produce an enormous amount of information and are very time-consuming. Critics have said that such *large amounts of data* are not able to be analysed efficiently. Burns (1995) maintains that in order to avoid such criticism the initial case study proposition must be very carefully planned so that the study is focused in a manageable way. He also suggests that data should be analysed as soon as they are collected.

Reliability is often questioned in case study research. Observers and data collectors must be properly trained and should be aware of the dangers of observer bias. Baseline data must be available for internal comparisons to be made (such as those made in this study between children at a particular time and comparisons of the same children at different times) and procedures must be explicit.

Triangulation, as discussed earlier, and discussion of the ways in which studies are carried out, are the chief validation methods of case study research. Burns (1995), agreeing with Stake (1994) also says:

> *A major validation may be that the case contributes to the reader's vicarious experience, each reader relating it to their (sic) own context and method and inferring (sic) the quality of contribution it can make for their particular context.* (Burns 1995, p. 328)

Construct validity is dependent on establishing a set of measures that are operational at a number of levels. Using a range of sources of information and establishing a chain of evidence assists a case study to maintain internal construct validity. Thus it was seen as important that this study use a number of different techniques administered in a number of different ways to tap into literacy information. Standardised tests such as The Sand/Concepts about Print Test and the Neale Analysis of Reading Ability are linked to more open and individual forms of literacy assessment. In the period of Data Gathering Sessions 1 to 5, July 1990 to December 1991, a chain of evidence helped to build a picture of the developing emergent literacy competencies of the Djannara Pre-school cohort. During all sessions, a few minutes were taken to re-establish rapport with the children and instructions were phrased in a number of different ways after consultations

with the pre-school director about the language to be used in giving those instructions. In these ways the importance of construct validity was recognised and attempts were made to establish it within a strong internal framework of overlapping techniques and chains of causation.

External validity in this study is not of particular importance since it does not aim to generalise for theoretical purposes. Problems of external validity can arise over the choice of whether a case is *typical* or atypical. In this study, the case is identified as atypical since most Aboriginal children are unable to go to an Aboriginal pre-school. Burns (1995) points out that many researchers believe that the study of the atypical can throw light on the study of the general highlighting variables and events which may be overlooked in majority studies.

Another problem of external validity concerns the researcher.

> *Investigators affect the groups, cultures and settings they study*
> *just by studying them.*
> (LeCompte & Preissle 1993, p. 350)

The behaviour or the mere presence of the researcher along with the tasks the participants are required to do by the researcher in this study may affect external validity, especially if this is not recognised in the study. For example, the researcher noted a number of times when the children's behaviour appeared to be affected by the requirements of the tasks, or anticipation of reward or simply by the change in normal daily routine. Of course, this may affect the internal validity of a study. However, care was taken in the present study to establish a presence within the school and among the children prior to data collection (see below for details).

Research Sequence

The 1990/1 research sequence was formulated over a period of six months of observation and discussion at Djannara Aboriginal Pre-school. The researcher was present observing for two of the four pre-school sessions per week from January to June 1990. During this period discussions, workshops and social interactions occurred with the staff and parents of the pre-school.

The first part of the research was conducted over a period of eighteen months. It included five periods of data gathering. The first data gathering session fell in the middle of the children's pre-school year (1990), by which stage they could be assumed to be accustomed to the routine happenings of each of their four sessions per week at the

pre-school. The second data gathering happened towards the end of that year. Further data gathering sessions were completed at the beginning, middle and end of their Kindergarten year (1991). The purpose of data analysis completed at this time was to gain a picture of the children's early literacy competence and to identify trends for later examination and comparison. A last data gathering session was held towards the end of 1995, by which time the children were in the middle primary grades at a number of different primary schools and were assumed to be able to display evidence of further and more mature literacy development. The picture created of children's literacy development in middle primary years was analysed in the light of the analysis of pre-school and Kindergarten literacy skills.

Data Collection

Cohen and Manion (1994, p. 107) point out that "at the heart of every case study lies a method of observation." *Non-participant observation* may be said to form an integral part of this study along with formal testing procedures more commonly associated with gathering quantitative data. *Participant observation* involves taking on a role in the group activity to be studied in order to take advantage of any opportunities for collecting data. In relation to this definition (Cohen & Manion 1994), this case study did not use participant observation techniques.

In *non-participant observation* the observer is not a part of the group. Cohen and Manion (1994) actually use the example of a pre-school case study in which the observer, being an adult, is of necessity separate from the participants who are four year old children. During non-participant observation in this project, various types of behaviours were measured formally or informally at certain times. The children were asked to complete certain designated tasks. Some of these tasks were very specific in nature. For example, children were asked to identify letters and/or sounds of the alphabet in the Letter Identification Task or asked to identify words and logos in the Environmental Print Task. Other tasks were much more general in nature. For example, children were asked to write a letter to Santa Claus or to their grandparents and to 'read' a story. They were then closely observed and their responses analysed according to designated criteria.

It should be understood that, whilst it was not possible for her to be a participant observer as defined by Cohen and Manion (1994), the researcher had spent many hours at the pre-school in the six months previous to the commencement of the research and was familiar to the children. The researcher had known the staff of the pre-school and some of the parents for many years. A number of the children's teachers in the various

schools were also known to the researcher. Thus, as a non-participant observer, the researcher, having conducted workshops on the research and consulted with parents and teachers, felt able to be an *informed* observer with an understanding of classroom events in general and in particular, educational situations involving the children in the study (Patton 1990).

In both the research conducted at the various primary schools and at Djannara Pre-School the children were extracted from class and taken to a separate room where they worked on the tasks with the researcher. Interruptions from both staff and children were common and noise from the activities going on outside with the rest of the children was sometimes a source of distraction for both children and the researcher. These interruptions are a normal part of everyday activities in both the primary schools and the pre-school.

1990/1 Tasks

In the five data collection sessions in 1990/1 (July 1990, November 1990, February 1991, July 1991, November 1991), children were asked to complete a total of seven tasks:
The Environmental Print Task
The Letter Identification Task
The Picture Sequencing Task
The Reading Task
The Retelling Task
The Sand/Concepts about Print/Concepts about Print Test
The Writing Task

Based on the research of Ehri (1992), Clay (1991a), Pflaum (1986), Goodman and Altwerger (1981), Ferreiro and Teberosky (1982) and Goodman (1990), the tasks used for the 1990/91 part of this study were aimed at determining the nature of the children's emergent literacy development (see Research Question One) since the children had, as yet, no formal school experience. It should be noted also that the characteristics of emergent literacy were derived from the common characteristics of studies which were conducted in different countries such as Argentina, New Zealand, the United States and in different languages (see discussion in Chapter 3).

In their Argentinian study, Ferreiro and Teberosky (1982) demonstrated that children from age four onwards could learn to tell the difference between drawing and writing, pictures and print, letters and numerals, letters and punctuation, letters and words, print

and cursive writing. Clay (1975) showed that New Zealand children could do similar things. In addition, many researchers have demonstrated the connections between being read to, story knowledge and later literacy development (Chafe 1982; Chomsky 1979; Mason 1992; Purcell-Gates 1986; Sulzby 1985; Tannen 1982b).

Each of the seven tasks will now be outlined/described.

The Environmental Print Task

The Environmental Print Task was designed to determine the extent and nature of print awareness for groups of young children.

Twelve items, with which children were familiar, were selected to present to the children. Items were selected from the local environment and from supermarket shelves. The pre-school director was consulted concerning which items the children would be most familiar with.

Items selected were: A tube of **Colgate** toothpaste in a box

A **McDonald's** drink carton

A tin of **Milo** chocolate drink powder)

A box of **Weet-Bix** (cereal)

A tin of **Quik** (chocolate drink powder)

A carton of **Milk**

A bottle of **Coca-Cola**

A box of **Coco Pops** (cereal)

A box of **Corn Flakes** (cereal)

A jar of **Vegemite** (a salty-tasting spread made from yeast extract, commonly used in Australia)

A box of **Rice Bubbles** (cereal)

A **Mars Bar** (a chocolate bar)

The task was administered in three phases. In the Phase 1 children were presented with each of the 12 objects in turn (listed above) and asked to read the name printed on the object. The next day, the children were presented with photocopies of the labels (separated from the objects) and asked to read the name again (Phase Two). These first two phases examined (1) logographic reading knowledge and (2) logographic knowledge omitting the support provided by the object itself and providing the opportunity to use grapho-phonic knowledge (see Appendix 4.1). In Phase 3 the names of the objects (the same throughout) were changed into a simple standard type. Thus

Phase 3 was basically a simple reading-related task which would normally involve grapho-phonic knowledge or word recognition (see Appendix 4.2).

Precise procedures used in administering this test are to be found in Appendix 4.3.

The Letter Identification Task

Clay (1966, 1969, 1970, 1979c, 1979d, 1991a, 1991b, 1993), Treiman, Tincoff, Rodriguez, Simou-Mouzaki and Francis (1997), Treiman, Tincoff and Richmond-Welty (1996), Treiman, Weatherston and Berch (1994), Treiman (1996), Treiman (1994), Byrne and Fielding-Barnsley (1995), Byrne et al. (1996a) and others stress the importance of letter/sound knowledge in learning to read and in later reading competence. Thus a task exploring such knowledge was considered important in any survey of children's emergent literacy skills. Each child was tested to explore knowledge of both upper and lower case letters and/or their accompanying sounds. Clay (1991a) provided a sheet of large-print letters randomly placed on the page and instructed the researcher to ensure that children read across the lines for randomness (see Appendix 4.4). This was the instrument and the procedure used.

A scoring sheet is also provided with the letter names/sounds on it and codes and guidelines for scoring standards (Clay 1991a) (see Appendix 4.5).

The Picture Sequencing Task

The Picture Sequencing Task in this study was designed to determine whether the child could infer meaning from pictures on the printed page and use a sequence of pictures to create meaning. The task also determined the child's knowledge of directionality.

Ruddell and Ruddell (1994) point out that young children can use picture clues to enunciate meaning and can understand stories read to them orally. Studies by Applebee (1978) and McNeil (1987) reveal that at a very early age, a sense of story sequence is developing along with an idea of plot.

A series of four pictures across two pages was presented to the child (see Appendix 4.6). The child was read the title of the story and asked to tell it from the pictures. Responses were recorded on tape and the tape transcribed for analysis.

Four pictures were selected and included:
1. A mouse standing in front of a mouse hole with its hands on its stomach to indicate hunger.
2. The mouse has located a large hunk of cheese and stands beside it smiling.

3. The mouse has eaten most of the cheese and become fat. It stands beside a now small piece of cheese.

4. The mouse is pictured trying to enter the mouse hole. It is stuck in the hole because it is now too fat to fit into it.

Four categories of data were recorded on a spreadsheet:

1. Observes directionality
2. Infers meaning from pictures
3. Has an idea of story sequence
4. Gets the point of the story

The procedures followed in administering this task can be found in Appendix 4.7.

The Reading Task

The purpose of this task was to provide opportunities to observe emergent reading behaviour in a group of pre-school children.

Each child chose one unknown storybook from two which were presented. A story chosen by the child was read three times to that child over a period of two weeks for familiarisation purposes, just as would normally happen at school or at home with a favoured story. The child was then asked to read the story and reading behaviour was then observed. The child's reading was recorded on tape and then transcribed.

The information gathered in this task demonstrated the child's level of book/print awareness - whether the child had knowledge of book/print conventions such as left to right progression, whether he/she knew where the beginning of a book was, which way to hold the book, how to turn pages efficiently and how to infer meaning from pictures. Other possible information outcomes of this task were recognition that meaning comes from print, recognition of letters and words, use of self-correction and ability to take risks and use prediction, ability to decode words using phonics or chunking.

The procedures followed in administering this task can be found in Appendix 4.18. The following indicators derived from the *Reading Developmental Continuum* (Rees & Shortland-Jones 1994) were used to analyse the emergent reading development of the children:

1. Turns the book the right way up with the front facing.
2. Turns the pages appropriately.
3. Uses pictures to infer meaning on a printed page.
4. Realises that print carries a message.

5. Links reading to personal experience.

6. Tells the story from memory whilst turning pages.

7. Knows that writing and pictures are different.

8. Recognises own name or part of it in print.

9. Is beginning to recognise some letters of the alphabet.

10. Points to text while reading.

11. Expresses enjoyment by joining in orally and reponding emotively when reading familiar stories.

12. Knows that print goes from left to right.

13. Repeats parts of the text from memory.

14. Is beginning to show awareness of literary language eg "once upon a time".

15. Uses prior knowledge of context and personal experience to make meaning.

16. Asks for assistance.

17. Shows some knowledge of letter-sound relationships.

18. Points to specific known words as they are read.

19. Uses initial letter sounds to predict words in text.

20. May read word-by-word when reading an unfamiliar text

21. Reading is fluent.

22. Some loss of meaning through overuse of grapho-phonics.

23. Makes meaningful substitutions.

24. Subvocalises when reading difficult text silently.

25. Is beginning to use self-correction as a strategy.

26. Uses knowledge of sentence structure and punctuation to help make meaning.

27. Has a bank of sight words recognised in many contexts.

28. Relies heavily on grapho-phonics for word identification.

The Retelling Task

In this task, a story chosen by the child from a selection offered by the researcher was read. After the researcher had read the story a number of times, the child was asked to retell it in his/her own words. This task provided an opportunity to look at a range of developing skills such as complexity of sentence structure, story continuity, comprehension, relationship of events and characters, recall of detail, conjunction usages such as temporal conjunctions, inference, elaboration of character, use of dialogue, signalling openings and closures, and cohesion. The connections between literacy development and oral language development are also clearly demonstrated in this task in the sense that children's awareness and knowledge of story and books is employed in an oral retelling.

The retelling was recorded on tape and the tape transcribed for analysis.

Indicators used in tabulating the data for this task were:

1. Commented on characters
2. Commented on main events/points
3. Recalled story details
4. Indicated some awareness of sequence or chronology
5. Commented on the plot or on causes and effects
6. Commented on the setting
7. Signalled openings and closures
8. Understood the underlying idea or point of the story
9. Expression in sentences
10. Used conjunctions/complex sentences
11. Mispronunciations
12. Indications of dialectal difference evident
13. Used dialogue or repetition found in the story

Procedures followed in administering this task are to be found in Appendix 4.8.

The Sand/Concepts about Print/Concepts about Print Test

The Sand/Concepts about Print Test or Concepts About Print Test, developed by Clay (1991a) demonstrates the nature and extent of book/print awareness. Clay devised a test using a typical children's story book format in order to find out how much children knew about important early skills with books and print.

The Sand/Concepts about Print/Concepts about Print Test assesses such items as whether a child knows the front or back of a book or if meaning comes from the print rather than the picture. It also tests whether a child knows what a word is, what a letter (upper or lower case) is, and goes on to awareness of the spaces between words and the uses of punctuation such as direct speech marks, full stops and question marks. For a full list of the concepts tested by the Sand/Concepts about Print Test as well as the procedures followed see Appendix 4.9.

The test records changes over time in children's literacy development and is a good indicator of a set of behaviours which are closely connected to and support reading development (Clay 1991a).

The Sand/Concepts about Print/Concepts about Print Test can be conducted using either of two story book formats, the *Sand/Concepts about Print* book or

the *Stones* book. In this case, the *Sand/Concepts about Print* book was used to conduct the test.

The Sand/Concepts about Print/Concepts about Print Test explores some of the same reading knowledge as the Reading Task. The Reading Task, however, requires skills which demonstrate a range of integrated literacy skills (e.g. the use of grapho-phonic, syntactic and semantic interaction skills in concert). The Sand/Concepts about Print Test does not require this and could not explore all of the skills which the Reading Task gives children the opportunity to use.

The Writing Task

The Writing Task had two aspects. Firstly it simply requested children to write their names. Secondly, it requested children to write a letter to Santa Claus or to the Easter Bunny or to Nanny and Poppy (grandparents). Thus in the second part of the writing task, children were asked to communicate specific information to another stipulated person in writing. They were therefore oriented towards writing as communication in a way not present in the requirements of the first part of the task.

From the information gleaned from this task, an overview statement was developed in relation to both writing tasks for each child. Later analysis concerned the relationship of each child's performance in relation to the group as a whole.

Focused Interviews

Information concerning the literacy background of each child was compiled through a focused interview with Djannara's Director and through informal group interviews with parents of the children.

Burns (1995) identified three kinds of interviews which were considered for the purposes of this study: the structured interview, the unstructured interview and the semi - structured interview or non-directive interview. Structured interviews obtain information in a highly organised fashion using pre-determined word sequences in questions and keeping the interviewer to a strict regimen of questions unable to be changed or modified. Such interviews did not fit the requirements of this study because, by their nature, they did not allow an informal exploration of the subjects under discussion.

Unstructured interviews by their definition were also unsuitable since the information needed was more focused than unstructured interviews generally search out (Burns 1995). Burns' (1995) semi-structured interviews were defined as being suitable for survey research, group interviews and in-depth interviews. Certainly this last category

was the most suitable for obtaining the necessary information, but it was Cohen and Manion's (1994) focused interview which was chosen as the kind of interview most likely to yield the information needed for this study. This kind of interview is designed to focus on the interviewee's subjective responses to a particular situation which has been analysed by the interviewer before the interview. The information obtained from these interviews allows the researcher to confirm or deny conclusions which have been made about a given situation.

In the case of this study, the researcher conducted a focused interview with the Director of Djannara Pre-School in order to (1) confirm or disconfirm existing beliefs which the researcher already held about the children's literacy backgrounds and (2) augment these beliefs. A focused interview was also conducted with the parents as a group and with individual parents. As Cohen and Manion (1994) point out, focused interviews require careful planning at the same time providing flexibility to the interviewer for more in depth exploration of the interview subject.

The interview with Djannara's Director was a crucial one in that she was probably the only person in the community who had intimate knowledge of the family contexts of all the children and the ability to use that information to provide a professional perspective on their literacy experience. Because information about each child was sought from the Director, the interview was conducted over a series of weeks using broad pre-determined guidelines for directing the discussion. This had unexpected spin-offs in the sense that initial information provided was revisited a number of times and the inevitable comparisons and contrasts considerably enriched the original data obtained.

Interviews with all 22 parents were completed in a more informal manner between July and November 1990, usually over some kind of social interaction to do with the school. These interviews, however, sought the same kind of information as the interview with the pre-school Director and were meant to confirm or deny or augment the information she provided. At least one parent from each family in the study attended the group interview which was conducted in informal discussion mode. Guidelines followed for these interviews may be found in Appendix 4.10.

1995 Tasks

The final data gathering session was conducted in November/December 1995 in order to see whether emergent literacy data gathered (through completion of the 1990/91 tasks) in the children's Pre-school and Kindergarten years were good predictors of their literacy development in later primary school.

This data collection period was, of necessity, somewhat different from the previous sessions, which were conducted when the children were in pre-school and kindergarten and aimed at examining the nature of *emergent* literacy development. At that stage, all of the children were assumed to be pre-literate and this assumption is certainly borne out by the data. By the end of Year 4 in primary school it could be assumed that the children had had considerable experience with literacy at school and that evidence of the development of much more mature literacy skills could be demonstrated (Clay 1991). The final data collection was designed on the basis of this assumption.

The children were required to complete five tasks:

The Neale Analysis of Reading Ability (revised edition, 1988)

The Free-Writing Task

Comprehension One

Comprehension Two

The Title Recognition Test

As with the tasks in the 1990/1 data collection sessions, a considerable amount of overlapping was included in order to cross-check skills and to give children opportunity to display their skills in a number of different ways. Tasks examining the same skills but presented in different ways also gave children more chances to demonstrate their knowledge.

The Neale Analysis and the two comprehension exercises investigated comprehension, fluency, rate of reading, self-correction, prediction and decoding knowledge in reading as well as use of syntactical and semantic cues. The writing exercise looked at syntax, including sentence structure, grammar and paragraphing, vocabulary, punctuation knowledge and other writing conventions. The Title Recognition Test is an indicator of children's literacy knowledge and was included as a general check on the reading and writing tasks.

Although the children were essentially pre-literate in the 1990/1 data gathering sessions and the tasks were so oriented, some 1995 tasks explored similar skills (see later discussion). In the 1990/1 sessions, comprehension was explored in the Retelling and Picture Sequencing tasks. Writing conventions such as punctuation and letter/sound formation and identification and word identification were present in the earlier and later sessions. Children's understandings about the purposes of reading and writing were also explored in earlier and later sessions.

The research background to the data collection instruments is now outlined.

The Neale Analysis of Reading Ability

The Neale Analysis is an examination of reading ability which may be used for a number of purposes. It may be used to assist with planning learning experiences for individual children, to determine the strengths and weaknesses of a child's reading and so improve instructional processes, provide normative data concerning a child's reading development, provide direction on the nature of a child's reading interests and test for a transfer of learning skills from other areas of educational endeavour such as general classroom instruction or special tutoring (Neale 1988).

No reading test is culture-free and there is no existing reading test which is deemed culturally appropriate for the children in this study. Since 1958 the Neale Analysis has been a commonly used test of reading ability for Australian schoolchildren normed as it is to Australian conditions. In 1988 the test was revised and updated by its creator. It is this revised Neale Analysis which has been used in the final data gathering for the children of the 1990 cohort of Djannara Pre-school. As the objective was to see how the subjects' emergent literacy skills related to the achievement of later literacy competence as seen by the school and the mainstream culture, then this instrument was deemed appropriate despite the subjects' cultural background.

Briefly, the analysis uses carefully graded sets of prose readings and accompanying illustrations. Two sets of readings are provided. Children read the readings aloud and later answer comprehension questions. An initial practice session is incorporated. On the basis of their reading rate, accuracy and comprehension, children's reading development is then assessed. There are supplementary diagnostic tests which also assess a range of reading abilities in detail and which can determine the progress of non-readers.

Until the Neale Analysis was developed, tests of reading tended to concentrate on graded word lists and sentences out of context or single passages which "covered too wide an age range for discriminative measures in accuracy and comprehension" (Neale 1988, p. 1). Neale initially used research in child development, social psychology and perceptual psychology to develop her analysis of reading ability as well as the research in reading of Schonell, Dolch, Dearborn and others. The 1988 revised edition of the test makes use of the huge body of research in literacy which has occurred since 1958 and is based on the work of Clay (1979c), Goodman (1968), Goodman and Burke (1972), Mitchell (1982) and many other eminent researchers in the field.

A large body of research now exists which has used the Neale Analysis as the basis of testing procedures for reading (see Neale 1988). The enduring popularity of the analysis in both research and classroom teaching must be seen as a function of its efficiency and accuracy for researchers. The clearly understandable terms in which the results of the analysis are couched for classroom teachers and other professionals in education also attest to its usefulness. The researcher chose to use this analysis for both the previous reasons described which satisfied the need for the analysis of the children's reading to be clearly understood by both researchers and classroom teachers.

The Neale Analysis materials consist of a manual, a reader and a set of forms for recording the information collected. The child is presented with a book which is similar in format to many collections of children's stories. The book contains a series of standardised graded reading passages which are complete stories in themselves "having a central theme, action and resolution" (Neale 1988, p. 6). Each story has accompanying pictures such as are normally found in children's books. There are two sets of these graded passages "forming a continuous reading scale for children aged from six up to twelve years" (Neale 1988, p. 6).

For each of the passages, there are a number of comprehension questions which are asked immediately after the passage has been read aloud by the child. The comprehension questions examine the child's recall of the main idea of the story, memory of the sequence of events and inferential understandings. The questions are designed so that answers reveal the child's use of a range of contextual cues.

A new element in the revised edition of the Neale Analysis is the provision of an initial practice session to 'key' the child into the procedures for conducting the analysis. Both of the practice passages can provide further diagnostic knowledge for teachers and researchers.

The Neale Analysis examines accuracy of reading and does so by recording the child's errors or miscues. The errors are used for normative purposes "to obtain an objective measure of the accuracy with which the child recognises words" (Neale 1988, p. 7). Reversals, omissions, substitutions, mispronunciations and additions are recorded for later use in analysing semantic, syntactic and grapho-phonic strengths and weaknesses in the child's reading.

During the reading of the passages the examiner is able, in a limited way, to correct the child's errors (whilst recording them at the same time) in order to maintain the flow of reading help retain meaning and to boost confidence (Neale 1988).

The manual provides standardised scores, percentile ranks, stanines and reading ages for rate of reading, accuracy and comprehension.

Procedures for administering and analysing a Neale Analysis are to be found in Appendix 4.11.

The Free-Writing Task

The children were asked to write about anything they wanted to (see Appendix 4.12). If suggestions were needed, the researcher suggested they might write a letter to Santa Claus or to a relative such as a grandparent. Alternatively the researcher suggested they might write about their favourite television show or the thing they enjoyed doing the most. Here, suggestions were made about sporting/club activities since it was determined from enquiries in the school and the Aboriginal community that these were likely to be favoured options. Basically, though, their choices were open. Some children used the researcher's suggestions, others chose their own.

As in the previous task (the Neale Analysis), the researcher established a rapport with the children by asking them about their interests.

Analysis

The children's writing tasks were analysed using the indicators for writing development developed by the Education Department of Western Australia in their *First Steps* program (Raison & Rivalland 1994). The analysis uses the *Writing Developmental Continuum* from *First Steps* to locate students on the developmental path to writing proficiency.

The writing developmental continuum is characterised by a number of phases which students are perceived to move through at varying rates and in different ways (Raison & Rivalland 1994). Children move from roleplay writing through experimental writing, early writing, conventional writing and proficient writing to advanced writing (Phase 6 of the Developmental Continuum). Each phase is delineated by characteristically developing writing skills (See Appendix 3.1).

These indicators were developed using recent research in writing development discussed in Chapter 2 - the literature review (Bean & Bouffler 1986; Britton, Burgess, Martin, McLeod & Rosen 1985; Cambourne 1988; Christie & Rothery 1989; Faigley, Cherry, Holliffe & Skinner 1985; Frederickson & Dominic 1982; Johnston 1988; Kress 1982; Kroll & Wells 1983; Nystrand 1982; Temple et al. 1982, 1993; Wilkinson,

Barnsley, Hanna & Swan 1980) and others discussed earlier for the 1990/1 Writing Task).

Use of these indicators to analyse the chi dren's writing ensures that the analysis is intelligible to both teachers and researchers. *First Steps* is used in all states of Australia as a basis for literacy programs and, despite its recent introduction, is now well-known in the teaching profession. In addition, the developmental continuum is based solidly on research into the writing process and satisfies the criteria for academic rigour in terms of a basis for analysis of children's writing. The indicators for writing development are reproduced in Appendix 3.1.

Comprehensions One and Two

The comprehension tasks completed by the children in the last data gathering session were designed by Byrne, Fielding-Barnsley, Ashley and Larsen (1996) to determine what information the children obtained from their reading of the passages and tap into any inferential skills the children could demonstrate. The first passage, set in a futuristic context, also contained nonsense words in order to provide information about the reader's decoding skills.

Two passages were read by the children on separate occasions (see Appendix 4.13). Each passage was accompanied by a set of questions which were administered as soon as the child finished reading (see Appendix 4.14).

These two comprehension tasks were included because extensive data using these two comprehensions and based on the same grade of the same school system of the city were available for comparison purposes. Thus comparison data was obtained from Byrne, Fielding-Barnsley, Ashley and Larsen (1996a).

Data gleaned from the Comprehension Tasks could also be used for confirmation purposes with the Neale Analysis.

The Title Recognition Test

The Title Recognition Test is based on a test devised by Cunningham and Stanovich (1990). Their research drew significant correlations between children's reading experience and their recognition levels of the titles of well-known children's books. The test used by the researcher and further developed by Byrne and Fielding-Barnsley (1995) for their ongoing research has been adapted from Cunningham and Stanovich's work in consultation with local teacher-librarians.

The Title Recognition Test consists of a list of titles, 24 of which are actual titles of children's books and 16 of which are invented titles or foils. Children are asked to tick the titles they are familiar with and warned not to guess because some of the titles are foils (see Appendix 4.15).

Procedures followed in administering this test are to be found in Appendix 4.16.

Calculating the Score

The items are so arranged that if the child ticks all of the titles and no foils, the score is 100. Applying the formula quoted below results in a score which indicates the degree of print experience. These results are compared with data arising from the other tasks.

Formula: <u>number of titles ticked</u> _ <u>number of foils ticked</u> X 100
  total number of titles   total number of foils

Range   -100 to +100

Ethical Issues

Punch (1994, p. 89) points out concisely that ethical considerations in research are chiefly concerned with 'issues of harm, consent, deception, privacy and confidentiality of data.'

Harm

Participants should not suffer harm or embarrassment as a result of research. There are no issues of physical harm involved in this study. It is conceivable that parents may be embarrassed in relation to the reading and writing performance of their children, especially in the later part of the study. Special care was taken so that only those designated by parents received information about children's literacy development.

Consent

Crowl (1993) maintains that informed consent for research involving children should be gained from the head of the institution responsible for those children. In the past, research concerning Aboriginal people has been done without the proper ethically correct consent procedures and without due regard to cultural considerations. I considered that, because the children were Aboriginal children and from a particular culturally designated group in Australian society, in order to uphold ethical principles which concerned concealment, deception and harm, further consent needed to be obtained.

Written consent to do the research was initially obtained from the Department of School Education who also stipulated that Principals and teachers should be amenable to the research being conducted in relation to their schools and classrooms (see Appendix 4.17).

In addition to this, consent was obtained from the Director of Djannara Pre-School and the children's parents. It was not considered culturally appropriate by the researcher or the pre-school director to ask for written consent. Accordingly, at a parent meeting conducted by the pre-school director, the research was outlined and the issues canvassed verbally. At each data gathering session the community was briefly canvassed for its continuing consent to the research.

The University of New England's Ethics Committee examined the proposal and gave its approval for the design of the study.

It should be remembered that this research project came out of parental and Aboriginal community concern about their children's literacy development and education. At parental request, children's teachers were advised about the project and informed that information about children's literacy development would be forthcoming.

Children and teachers were informed of the voluntary nature of their cooperation and the fact that they were at liberty to refuse participation should they so desire.

Deception
There was no attempt to conceal motives or intentions from the participants, their parents and teachers, at any time during this study. Children were informed that I was trying to find out about their reading and writing so their teachers could help them later. They were then asked if they would be willing to help. No coercion was used although occasional small rewards were offered as thanks from the researcher after longer data gathering sessions.

Privacy and Confidentiality
In the early stages of this study, teachers, parents and schools were guaranteed confidentiality. An individual child's information was made available only to that individual's parents and teacher when requested since if the information were not available a major purpose of the study (contributing towards improving children's literacy skills) would become redundant.

In any publication of the study and in the unpublished report, the children, their parents, the school and the town were not identified.

Conclusion

The research questions which concern this study came out of the necessity for more research into Aboriginal literacy. They concern the nature of developing literacy in a particular cohort of Aboriginal schoolchildren over a period of five and a half years. Paradigmatic issues have been discussed and a justification presented for choosing a constructivist paradigm in which to conduct the study. Longitudinal research and case study have been described, evaluated and justified in terms of selecting research design. Methods of collecting data such as non-participant observation, have been described and placed in the context of research literature. Specific techniques for gathering the data were described and their basis in the literature on literacy research enunciated. Consequently, the following chapter analyses the data gathered as directed by the research questions and by the analytical tools described.