An Evaluation of Assessment Instruments in the Measurement of the Spoken Communication Skills of Rural Aboriginal Children

by

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I have a great many people to thank for the eventual "coming together" of this project. In terms of those who were directly involved in this study, my greatest and most heartfelt thanks must go to those students, parents and Namu wellness community members who not only supported but actively participated in this project at many levels of discussion, data gathering, analysis and encouragement. The generosity and enthusiasm of the people who were motivated purely by the desire to give their kids a better go was inspiring. It was this inspiration which motivated the project initially and it was certainly this inspiration which encouraged me to persevere with the project.

I would also like to express my gratitude to those teachers and principals who willingly gave of their time to share their views and, at times, frustrations in an open and honest manner.

This project was also made possible thanks to various employers of the community health centre where I am currently employed. The centre manager offered the top level support and often lit the spark needed. The centre also deserves special mention for being there, helping to make the project possible.

Obviously, the centre also deserves positive mentions for their community and who certainly played an invaluable role in the success of this study.

Finally, I would like to express my sincere gratitude to Dr. Tony Liddington, my supervisor, who offered constant encouragement and direction for this project. I was also fortunate to benefit from the guidance of Dr. Robert Parks in the initial stages of this project for which I am also grateful.

A special mention must also go to my husband, Gary, who made balancing work and study possible.

Except where otherwise indicated, this sub-thesis is my own work
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This project was also made possible thanks to various employees of the community health centre where I am currently employed. The centre manager offered the top level support so often needed if projects such as this are to succeed. The Aboriginal health workers deserve special mention as people who are always prepared to do that bit extra to ensure positive outcomes for their community and who certainly played an invaluable role in the success of this study.

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CHAPTER ONE: AN OVERVIEW

1.1 INTRODUCTION

In such a culturally diverse country as Australia, speech pathologists are becoming increasingly required to provide communication assessments for people from cultural and linguistic backgrounds different from their own. This situation often occurs in Aboriginal Australia where Aboriginal children are most likely to receive communication assessments from a non Aboriginal speech pathologist. While speech pathologists recognise the need for assessment methodologies which are culturally and linguistically appropriate, little information is currently available regarding how current assessment practices may be failing Aboriginal children and what alternative approaches may be better suited to assessing the communication skills of Aboriginal children. It is important that these questions be answered if speech pathologists are to adequately address the communication development needs of Aboriginal children and more accurately diagnose communication delay or disorder versus communication difference.

This thesis attempts to address these issues in a number of ways. That is, by examining the reliability and validity of using standardised assessment tools developed in other cultural and linguistic contexts with school aged Aboriginal children and then comparing these results with other forms of non standardised speech pathology assessments. The information obtained will contribute, in some part, towards a better understanding of what aspects of speech pathology assessment methodologies and tools are more and less likely to elicit valid measures of communication abilities among school aged Aboriginal children.

This research was conducted in a country town located in Southern NSW. The township itself is small although a number of smaller towns and farming communities also use the town as their main shopping and entertainment centre. The small Aboriginal community living within the township identify as belonging to Ngunawal country although Wiradjuri is considered to be the language of the area.

As is the case in many rural areas, a prime concern of the local Community Health Centre, where I am currently employed, relates to the limited accessing of health services by the local
Aboriginal people. The story is a familiar one in the schools also with teachers and principals pondering the question of how to increase the Aboriginal children's chances of success at school considering the reportedly high absentism rates from school and the reported apparent reluctance of the parents to become involved in their children's schooling. These perceptions and frustrations have been expressed in many towns and cities across Australia.

Needless to say, the Aboriginal people also voice many frustrations and concerns regarding their community's health status and the poorer educational achievement of their children. During 1998, the full time Aboriginal Educational Worker position was disbanded due to reportedly too few Aboriginal children enrolled in full time schooling. The Southern Area Health Service currently employs two full time Aboriginal health workers located within this town, one in the area of mental health and the other with a general health focus. Both are required to cover a large regional area. Many non Aboriginal workers continue to feel poorly equipped to adequately address the needs of the local Aboriginal community.

This research arose from a need continually expressed by the local Aboriginal community for non Aboriginal professionals and systems to become better informed about how to meet the needs of the Aboriginal people. A large concern for the community was the difficulties their children continued to face in achieving well at school. Central to this issue was the perception that educational and health professionals continued to under evaluate their children's ability levels and label their children with having problems which the adults felt were often better answered by looking at the ways their children were being assessed and taught.

The type of speech pathology assessments typically conducted were, according to the Aboriginal community, failing to adequately address the needs of their children. This perception paralleled my own views. Research was required which not only evaluated the validity of utilising current speech pathology assessment tools with the Aboriginal children but which also offered a viable alternative. The community agreed that such research could be of benefit and offered their support for the project.
There is no doubt that the need for more accurate measures of language difference versus language delay or disorder by non Aboriginal speech pathologists will have direct benefits for the children being assessed. More accurate assessment measures for Aboriginal children also directly benefit the non Aboriginal speech pathologists conducting the assessments. A broader issue also exists, however, which involves the question of how this new information is to be used by the other non Aboriginal professionals whose work relies to varying degrees upon the information provided by speech pathology assessments. Speech pathology involvement in an intervention sense with children is typically dependent upon a diagnosis of communication disorder. The role for speech pathologists and other language specialists may need to be re-evaluated once speech pathologists feel better equipped to more accurately diagnose language difference as distinct from language disorder among AE speaking Aboriginal children. This question is beyond the scope of this study but its existence is central to the Aboriginal community’s larger concern of how to achieve better educational outcomes for future generations. It is also this broader question which has provided the impetus for the implementation of this study which is essentially the first stage in this process. That is, the first stage must answer the question of how can speech pathologists more accurately diagnose communication difficulties among AE speaking Aboriginal children.

1.2 ABORIGINAL ENGLISH

The Aboriginal English (AE) discussed in this study is called ‘Lingo’ by the local Aboriginal people and can best be described as a ‘light’ variety of AE containing various Wiradjuri words. That is, the variety of AE used is close to SAE in terms of syntactic and phonological features. The amount of Wiradjuri included in the Lingo or AE varies depending upon the communication context. Lingo containing Wiradjuri is mostly used when only Aboriginal people are present. At other times, a light variety of AE or SAE are used. The teenagers tend to use Lingo containing a large amount of Wiradjuri to discuss socially inappropriate topics in culturally mixed company often as a form of humour. A detailed discussion of the AE spoken in this area was beyond the scope of this study.

The following brief description of AE has been based upon information obtained from a number of sources including Christie and Harris (1985), Eades (1985, 1997), Harkins (1994) and Malcolm (1994).
Some of the features of AE which are relevant to this study include the following:

1. **Phonological Features.**
   - The SAE ‘h’ in word initial position is inconsistently produced in AE depending upon the specific phonetic environment.
   - ‘th’ is realised as ‘f’. ‘Th’ is realised as ‘d’ or ‘v’.

2. **Syntactic / Morphological Features.**
   - plural marking on nouns using the bound morpheme ‘s’ was variable (eg. ‘two cup’, ‘look at my rings’).
   - use of the verb ‘to be’ as a copula and as an auxiliary verb was variable (eg. ‘I’m not crazy’, ‘that making no sound’, ‘he’s drinking all that’, ‘you gonna…’, ‘this your texta’).
   - 3rd person singular ‘s’ may not be used.
   - Predominance of declarative sentence forms with intonation to signal questions (eg ‘I put this in the bin?’), interrogative forms are also used.
   - Tag ‘eh’

3. **Semantic Features.**
   - Wiradjuri words are spoken by the children in this study. Not all Wiradjuri words have SAE equivalents (eg gwanda equates with Shame but not the SAE shame)
   - Words seemingly borrowed from SAE have different meanings in AE (eg deadly)

4. **Pragmatic Features.**
   - Answering questions is at the discretion of the listener.
   - Eye gaze patterns are purposeful in that eye gaze directed away from the listener or speaker fulfils specific functions.
   - Information is shared among people in prescribed, culturally defined ways.
   - Listening does not involve an expectation of visual and postural orientation of the listener towards the speaker.
   - Formal greetings are used in mainly formal situations.

It is important to note that the Aboriginal community within this township strongly identify with the term ‘Lingo’ but their identification with the concept of Aboriginal English is less
strong. This is because the people view AE as a narrow term describing a deficit language system in which words are omitted and sounds left off words. This perception reportedly comes from the way AE has been described to them and was historically described in the literature from primarily a structuralist perspective. The Aboriginal people of this community see Lingo as encompassing the whole communication environment, embracing the concept that a non Aboriginal person can understand the general meaning and content of a conversation occurring between a group of Aboriginal people and yet feel like a foreigner, missing the subtle meanings and the interactions between people. This is the description of AE as used in this study.

1.3 THE ABORIGINAL CONCEPT OF ‘WELLBEING’

‘Wellbeing’ is a concept which is often used in this study and which is central to understanding the holistic framework used to describe an appropriate communication assessment situation. The Aboriginal concept of Wellbeing has no equivalent in non Aboriginal Australia and so can be a prime source of communication breakdown between Aboriginal people and health professionals. This is often seen as a lack of verbal expression and apparent ‘shyness’ by Aboriginal children during traditional speech pathology assessment situations. At times, a Shame response may ensue. At other times, the assessment conducted may provide inappropriate results. The traditional speech pathology assessment situation assumes that a child’s communication abilities and problems are able to be viewed as some separate entity which can be analysed and described in isolation from the child’s existence. The concept of Wellbeing suggests that this is not possible.

Many authors have attempted to describe Wellbeing in a way non Aboriginal people will understand. Common to all descriptions appears to be the emphasis upon the dynamic inter-relationship between the, ‘physical, emotional, social, cultural and spiritual wellbeing of the individual and of the whole community’ (Aboriginal Primary Health Care Project, 1994, p3). The inter-relationships between people are deemed to be extremely important in maintaining Wellbeing as is the need for all aspects of an individual’s socio-economic environment, physical environment, political environment and socio-cultural environment to be adequately met in the way that they interact (Anderson, 1988).
Speech pathology assessments often violate this concept of Wellbeing by, for example, removing the child from their natural environment, by not understanding the cultural and relationship factors associated with communication in AE, by establishing an unequal power relationship with the child and by working within rules and structures which are based upon non Aboriginal patterns of interacting and communicating and which may indicate a lack of respect for the child’s way of life and culture. Communication difficulties form a part of Wellbeing and they must be considered within a Wellbeing framework which encompasses all of the physical, social and spiritual factors if accurate assessments of an individual child’s communication abilities and difficulties are to be obtained.

1.4 THE ABORIGINAL CONCEPT OF ‘SHAME’

The Aboriginal concept of ‘Shame’ also features strongly in this study as its presence was highly influential during the formal speech pathology assessment situations. The Aboriginal concept of Shame does not equate with the non Aboriginal concept of ‘shame’ and this difference in meaning has the potential for misinterpretation problems especially in communication assessment situations.

The explication of Shame offered by Harkins (1990, 1994) is the one used in this study. Harkins’ detailed descriptions of Shame can be found in either of the two references mentioned above. Some of the features of Shame pertinent to this study include reluctance to speak, wanting to remove oneself from a particular situation, not knowing the rules for doing the right thing in a certain situation and the feeling of something bad. Harkins (1990) emphasises that Shame is not in itself a negative emotion signalling low self-esteem or negative self concept in the child displaying Shame. Rather, Harkins describes Shame as seeming to be, ‘more of a positive moral concept than a negative emotion’ (1990, p297). The presence of Shame in speech pathology assessment situations can be influential but it is important to consider the specific context in which the Shame is occurring in order to know how to best respond to individual instances of Shame. That is, there is no one way to respond to Shame in the assessment situation and Shame certainly should not be interpreted as being inherently ‘bad’.
1.5 SPEECH PATHOLOGY ASSESSMENT METHODOLOGIES

The use of formal assessment and standardised tests as part of a communication assessment battery is generally considered standard practice by speech pathologists. Many positive applications for standardised tests exist with the benefits being primarily associated with the ability of standardised tests to predict how an individual child’s ability levels compare with those of their age or grade matched peers (Semel, Wiig & Secord 1995; Renfrew 1988; Neilson, 1995). This information can be very useful in determining intervention programs or assisting in making decisions regarding educational placement when used in conjunction with other forms of assessment and observation.

While the use of standardised tests to support findings, to categorise abilities or to assist in studies of prevalence is widespread in the literature, any discussion regarding the usefulness of standardised tests tends to be primarily restricted to identifying their limitations and often questionable validity. The test manuals themselves do provide varying amounts of data designed to substantiate the reliability and validity of the various aspects of the test design, administration and interpretation. The reality exists, however, that literature examining the application of standardised tests tends to focus more upon their limitations.

Zubrick (1985) claims that, ‘the meaningless tasks and contextless nature of the assessments are well known’ and she describes the formal assessment settings as, ‘unnatural language situations’ with the, ‘language or response required of [the child] as lacking any pragmatic motivation’ (p139). Lund and Duncan (1988) state that, ‘formal tests by their very nature and purpose present language removed from ordinary intentionality’ (p3150). Data obtained in this type of communication situation are designed to provide predictive information regarding how well an individual child is able to communicate in every day, real-life situations where the communication required is determined by natural factors rather than contrived and mostly unnatural communication contexts. How well these tests actually achieve this goal is becoming increasingly debated in the literature.

Much of the literature addressing the usefulness of standardised tests focuses upon the concept that language usage differs depending upon the context of the communication exchange. This approach provides a broader framework for assessment which goes beyond merely
examine the structural aspects of a child’s language understanding and use at one particular point in time. Most standardised tests are based on a structuralist model of language, hence, they do not satisfy the need speech pathologists have to know more about how an individual child functions across a range of communication contexts and, ‘how communicative behaviour varies as a function of the interactors, topic and setting in which the interaction takes place (Mattes & Omark, 1984, p51). Lund and Duncan (1988) argue the need for assessment models which, ‘emphasise assessment in naturalistic contexts in order to find the patterns that emerge when a child is part of a communicative interaction’ (p315). Standardised tests do not provide this information. Instead they provide an indication of how well a child has acquired or developed the language components necessary to perform adequately in a variety of settings. Whether a child is able to successfully use these structural components in real-life contexts is beyond the scope of standardised assessment.

Zubrick (1985) also discusses the lack of language assessment instruments which address sociolinguistic competence as well as language competence and suggests that, ‘in a variety of settings, a variety of language abilities can be examined which cannot be discerned from test scores or profiles, or interpretations based on them’ (p139). These studies highlight the need for testers to be aware of exactly what it is that they are testing when using different forms of assessment as well as emphasising the limited capacity of standardised tests to describe or predict communicative competence within naturalistic settings.

Blum-Harasty and Rosenthal (1992) have also examined the role of testing in diagnosing communication delay or disorder and found that, ‘the use of a particular assessment procedure has implications for the eventual data collected’ to the extent that, ‘different procedures may lead to variation in both the nature and severity of communication impairments identified’ (p68). It is important for the tester to understand that the information obtained using any form of assessment relates to a particular theoretical perspective and this perspective is likely to be reflected in the assessment outcomes. This results in a strong element of bias being introduced into the testing situation.

The concept of bias in communication assessment has received a lot of attention in the literature. Many researchers have claimed that one way of overcoming bias in language
assessment is to use more forms of natural language sampling across a range of naturalistic communication settings thus reducing the effect of test design and content upon the data obtained (Mattes & Omark, 1984; Hall, 1995; Zubrick, 1985).

Campbell, Dollaghan, Needleman and Janosky (1997) have developed this idea in a different direction by claiming that tests of psycholinguistic processing are able to be devised which reduce the risk of bias by designing tasks which do not rely upon tapping into the child’s existing store of knowledge but which focus upon, ‘processing-oriented measures designed to minimise the impact of background’ (p523). While this type of assessment may account for problems of content validity, they do not account for problems associated with construct validity in that the formal question / answer test situation continues to be used and the stimulus material is even more decontextualised in order to negate the influence of existing world knowledge upon test performance. It is inevitable, therefore, that this type of assessment data continues to fail to offer information regarding functional communication abilities although certain aspects of test bias have been able to be reduced.

Wilcox and Anderson (1998) also attempted to construct a less biased articulation assessment tool for African-American Vernacular English (AAVE) speaking children by altering the content of the stimulus pictures to better elicit AAVE phonological patterns. Once again, however, this tool modification failed to consider the sociolinguistic factors associated with AAVE use by African-American children and focussed primarily upon increasing content validity. Mattes and Omark (1984) warn against the use of translated English tests for bilingual populations stating that, ‘the fact that a test has been shown to be valid in English does not necessarily mean that the test is valid when translated into other languages’ (p58). This same consideration has not been as frequently applied to translations involving dialects of English although the same concerns should apply.

Language sampling as a form of communication assessment is also not without bias. Once the naturalistic data has been obtained, which is a process which in itself is open to contamination by various factors, it must be analysed in some way. At present, the accurate analysis of the data obtained is dependent upon the skills of the tester in data analysis and the credibility of the framework chosen for analysis of the data. Hand (1998) discusses the
problems with discourse analysis due to the lack of sufficient data describing normal discourse. This problem is of course escalated when the data obtained relates to children from language or cultural backgrounds different from that of the person conducting the analysis. Mattes and Omark (1984) believe these obstacles can be overcome, however, through careful and systematic comparisons of the sample obtained with the language of other children from similar linguistic and cultural backgrounds. Most of the research considers that language sampling does have a valuable role to play in the functional assessment of communication abilities. This is deemed to be especially appropriate when bilingual or bidialectal children are being assessed.

Another problem identified in the literature is that of using single test results to diagnose communication abilities or disabilities. Coupled with the previously stated limitations of formal tests, is the lack of independent, longitudinal studies examining the reliability of formal tests to accurately label and diagnose various communication disorders. The lack of such information was raised as a complicating factor in the accurate assessment and diagnosis of specific language impairment by Conti-Ramsden, Crutchley and Botting (1997). Conti-Ramsden et al felt that, ‘we have yet to establish strong content validity for some of the psychometric measures being used and have yet to develop adequate measures for certain language domains (eg pragmatic abilities)’ (1997, p775). Thus, an over reliance upon one or even a combination of standardised tests whose validity has yet to be established would be considered an unwise practice with any population.

The inadvisable practice of utilising single or combined test scores as the sole measure of a child’s ability levels is very clearly demonstrated by the State and Territory Department of Education funding criteria for the various programs for students with disabilities. Australian State and Territory funding bodies require speech pathologists to make statements regarding the level of communicative competence for an individual child based purely upon the results of often only one standardised measure of performance. Such misuse of standardised tests is not supported anywhere in the literature and yet such practice is openly condoned by State and Territory educational bodies.
Despite the obvious inadequacy of using formal test measures alone to fully describe the communication abilities of an individual child and despite the inherent biases involved in administering such tests to certain individuals, nowhere in the literature could arguments specifically directed against this type of diagnosis for the purpose of funding allocation be found. Several authors have made general references towards the inappropriateness of such practices. Mattes and Omark (1984) have stated that, ‘it should never be assumed that data obtained from a single assessment instrument are accurate’ (p13). Rather Mattes and Omark (1984) believe that information from a wide variety of sources should be collated in order to obtain data which are truly representative of the child’s communication abilities. Those researchers advocating the use of language sampling to provide functional assessments of communicative abilities have offered similar arguments.

While the difficulties inherent in communication assessment are relevant for all communication assessment situations, the involvement of language and cultural differences adds an extremely important extra dimension of difficulty to the already complex assessment situation (Lowell, Gurimangu, Nyombi & Yingi, 1997; Eades, 1997; Bunce, 1990). When bilingual or bidialectal children are being assessed, the issue of language difference versus language delay or disorder becomes particularly relevant. That is, language differences can be wrongly interpreted as language difficulty and language difficulty may be misinterpreted as language difference (Wilcox & Anderson, 1998; Mattes & Omark, 1984; Hall, 1995; Bunce, 1990; Stokes & Duncan, 1989). When either of these situations occur, the individual child is done a grave misjustice.

A feature of the literature examining the assessment of bilingual and bidialectal children is the identified need for the assessment to fit within a functionalist framework taking into account sociolinguistic factors when conducting the structural language analysis. Such a blending of approaches is possible and, according to the literature, provides the best opportunity for an accurate analysis of language delay or disorder versus language difference. Information and research discussing how speech pathologists can best tailor this framework to meet the specific needs of AE speaking Aboriginal children is greatly lacking in the literature, however.
Much of the literature relating to communication with Aboriginal children, especially in the area of Aboriginal English, comes from the applied linguistics literature. Linguists such as Christie & Harris (1985), Eades (1985, 1997), Malcolm (1992, 1994) and Harkins (1990, 1994) have provided valuable information regarding the sociolinguistic and structural aspects of AE and how these apply to the ways Aboriginal children communicate and interact with others. Kearins (1985) also specifically discusses the need for non Aboriginal testers to adopt assessment practices which reflect the cultural learning and thinking styles of Aboriginal children in order to obtain more valid measures of attainment levels.

This information is certainly available to speech pathologists to apply when faced with the assessment of an Aboriginal child but nowhere in the literature has the reliability and validity of using various communication assessment tools and methodologies with this population been evaluated. Any literature which does discuss communication assessment with Aboriginal children is primarily focussed upon bilingual assessment situations and does not discuss the importance of AE in assessments of communicative competence.

Some overseas studies have highlighted the likelihood of Native American and African American children to perform less well on tests designed for Standard English speakers (Tomblin, Records, Buckwalter, Zhang, Smith & O’Brien, 1997; Mackey, Finn & Ingham, 1997; Valles, 1994; Lee-Wilkinson, 1994). It follows suit that AE speaking children are also likely to perform less well on tests designed for Standard English speaking children. Currently, speech pathologists have few ways of knowing how these differences may manifest and to what extent they are a threat to a particular assessment’s reliability.

This research attempts to fill part of this void by combining the established need for functional measures of communicative abilities with assessment tools and situations which are specifically tailored to meet the particular cultural and sociolinguistic needs of the AE speaking children being assessed. The main aim is to then be able to better describe those communication assessment situations which best differentiate between language difference and language delay or disorder among AE speaking Aboriginal children.
This study will compare the diagnostic categories assigned to five AE speaking Aboriginal children on the basis of information obtained using various communication assessment techniques conducted in a variety of settings. The assumption is that the diagnostic categories obtained will vary according to the assessment methodology used. It is anticipated that the various diagnoses will be sensitive to the dialect of English presented to and required from the child as well as to the sociolinguistic context of the communication assessment environment. Formal testing will be compared with Activity Based Assessment (ABA) and Natural Language Sampling (NLS). Assessments will be conducted in SAE speaking as well as AE speaking environments. Assessments will be conducted in one on one and small group settings located within and away from the school setting. The analysis of this data will provide information regarding the validity and usefulness of the various assessment methodologies used. This will provide some more substantial information regarding a possible model of best practice for speech pathologists when assessing AE speaking Aboriginal children.

An important aspect of improving the assessment of Aboriginal children is to also examine the performance of SAE speaking Aboriginal children on traditional standardised speech pathology assessments. Although dialect variation could be assumed to not be influential in these situations, it is important to consider the possible role of Aboriginal learning and communication styles upon individual performances. Four SAE speaking Aboriginal children were also assessed as part of this study to investigate the influence of these factors. This data has been included to assist in determining the relative influences of dialect differences and learning or communication style differences upon speech pathology assessment results. In doing so, a possible model for best practice in the communication assessment of SAE as well as AE speaking Aboriginal children will be able to be presented.
CHAPTER TWO: METHODOLOGY

2.1 THE PARTICIPANTS

Nine Aboriginal children participated in this study. Five children, children A through to E, speak primarily Aboriginal English and have AE as their home dialect. Four children, children F through to I speak primarily Standard Australian English and have SAE as their home dialect.

Table 2.1 Participant Information

<table>
<thead>
<tr>
<th>Child</th>
<th>Age</th>
<th>Grade Level</th>
<th>Dialect</th>
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<tbody>
<tr>
<td>A - Female</td>
<td>6 years</td>
<td>One</td>
<td>AE</td>
</tr>
<tr>
<td>B - Female</td>
<td>7 years</td>
<td>Two</td>
<td>AE</td>
</tr>
<tr>
<td>C - Male</td>
<td>8 years</td>
<td>Two</td>
<td>AE</td>
</tr>
<tr>
<td>D - Male</td>
<td>9 years</td>
<td>Four</td>
<td>AE</td>
</tr>
<tr>
<td>E - Male</td>
<td>12 years</td>
<td>Seven</td>
<td>AE</td>
</tr>
<tr>
<td>F - Female</td>
<td>6 years</td>
<td>One</td>
<td>SAE</td>
</tr>
<tr>
<td>G - Female</td>
<td>7 years</td>
<td>Two</td>
<td>SAE</td>
</tr>
<tr>
<td>H - Male</td>
<td>9 years</td>
<td>Four</td>
<td>SAE</td>
</tr>
<tr>
<td>I - Female</td>
<td>11 years</td>
<td>Five</td>
<td>SAE</td>
</tr>
</tbody>
</table>

The children ranged in age from 6 years through to 12 years. All of the children except for child C have progressed through the school system at the usual rate. Child C has repeated a year level once and so is year two when his age level peers are in year three. In New South Wales, the child’s first year of formal, full time schooling is referred to as Kindergarten. A child in Grade One is in their second year of schooling, for example. The children’s ages have been given in years only in accordance with the requirements of the Southern Area Health Ethics Committee.

Only one of the children, child C has a known history of fluctuating hearing loss related to Chronic Otitis Media. Children A through to E receive regular hearing testing as they are considered to constitute a high risk group for developing middle ear disease due to their Aboriginality. Information regarding the presence of hearing loss is important to include in this study considering the documented influence of hearing loss upon communication.
development at a number of levels. The possible impact of fluctuating hearing loss was important to consider in the analysis of child C’s results.

The genetic make-up of the children is also an important factor to consider as familial traits may influence the assessment results obtained also. Familial factors were not a strong factor in this study with the genetic makeup of the nine children arising from five different mother / father combinations. At the time of assessment, the usual residences of the nine children were spread across four different households with all of the children residing with their primary care givers.

2.2 THE ASSESSMENT TOOLS AND METHODOLOGIES

This study included the use of three standardised tests, one formal measure of articulation skills not accompanied by normative data, natural language sampling and activity based assessment. A brief description of these assessment tools is as follows.

1. The Standardised Tests

The standardised tests were administered in accordance with the procedures recommended in their respective manuals.


The authors claim that the CELF-3 is, ‘designed to evaluate language skills and to differentiate normal from disordered language in the receptive and expressive domains’ with individuals aged 6 years 0 months through 21 years 11 months (1995, p89). The test is to be individually administered and administration time is placed at 30 - 45 minutes (Semel et al, 1995). My experience is that administration of this test is more usually completed within 60 minutes. Often children require administration of this test over a number of shorter sessions due to the language load and concentration required from the child. The authors emphasise that the CELF-3, ‘focuses on language form and content, not language use in conversation or communicative contexts’ (1995, p89). This is the test most often required by funding bodies to determine eligibility for the various State and Territory funded programs for students with disabilities and is widely used by speech pathologists as a prime indicator of language ability or difficulty.
The CELF-3 is an American test. The CELF-3 Technical Manual (Semel et al, 1995) states that standardisation of the test involved 2,450 children, adolescents and young adults from across the United States.

The test consists of six core subtests which vary according to the age of the child as well as two supplementary subtests. Specific directions for administering each stimulus item to the child and for scoring responses are provided and must be followed. The test is administered in a quiet, one on one setting, free from distractions, and the child is required to answer or respond to a range of stimulus questions or directions often but not always accompanied by visual material. For example, ‘Point to, the girl is wearing her new raincoat even though she doesn’t need it’ with the child choosing one picture from a choice of four.

b) The Renfrew Action Picture Test, 3rd edition (RAPT) (Renfrew, 1988)

Renfrew claims that the RAPT is a short and simple standardised test which, ‘stimulates children to give samples of spoken language that could be evaluated in terms of words used to convey information (ie nouns, verbs, prepositions), present, past and future tenses, irregular forms of plural and past tenses, simple and complex construction and passive voice’ (1988, p3). This test is to be administered individually. Once again, specific directions for administering each stimulus question to the child and for scoring responses are provided and must be followed.

The test consists of ten colour pictures. The child is presented with each picture one at a time and the child is asked a question designed to elicit a particular response. For example, ‘What has been done to the dog?’ with the child answering this question with reference to a picture of a dog which has been tied to a pole. The normative data provided is based upon a sample of 594 children living in limited parts of England, Scotland and Ireland. The RAPT is most often used by speech pathologists as a screening test only and not as a prime diagnostic tool.

c) The Sutherland Phonological Awareness Test (Neilson, 1995)

The SPAT is not a published test as such but it is a standardised assessment tool widely used by speech pathologists. While some information regarding the normative sample used is provided, information regarding the theoretical orientation of the test or the author’s purpose
in constructing the test are not available. The SPAT is normed on 353 children from Kindergarten to Third Class residing in various areas of Sydney, Australia.

The SPAT assesses a child’s phonological awareness skills at the syllabic and subsyllabic or onset-rime levels as well as at the phonemic level. At each of these linguistic levels, competency in one or more of the following areas is assessed:

- detection
- production
- blending
- segmenting
- manipulation.

Grapheme-phoneme correspondence is also assessed in non word reading and spelling tasks. The child is required to perform a range of phonological awareness tasks responding to questions such as, ‘Tell me the first sound in sun’, ‘Which one, bell or bat rhymes with cat?’ or ‘Say frog, now say it again without the r’.

2. Non-Standardised Assessments

a) The Aitken and Fisher Articulation Survey

This assessment tool is unpublished and details regarding authorship and year of design are unfortunately not provided with the assessment tool.

The Aitken and Fisher Articulation Survey consists of a set of 88 black and white line drawings designed to be familiar to Australian children. The set of pictures used in this study was coloured to provide added visual interest. The tester is required to show the child the pictures asking the child to name the pictures one at a time. The child’s responses are recorded upon a non-specified record form. The pictures are designed to elicit all of the SAE phonemes, including consonant blends, in a range of phonetic environments. No normative data is provided. Instead, testers are required to match individual child performances with those of the wider population through the use of general data regarding the developmental patterns of English phonemes.
b) Natural Language Sampling (NLS)

NLS was used as a way of obtaining information regarding how the children used language in more naturalistic contexts such as when conversing freely with each other and with adults and when playing social and educational games. The NLS was conducted at school, in the car and at the After School Group. The After School Group is a language and literacy group run by a speech pathologist and Aboriginal health workers after school once a week at the local community health centre.

The NLS described in this section was only obtained for the AE speaking Aboriginal children. Some probing of communication abilities during and following formal testing also occurred for the SAE speaking Aboriginal children in line with speech pathology assessment practices but detailed assessment using NLS was not required for this group.

Much of the NLS was obtained without the need for elicitation techniques. During the formal testing settings, however, the non-task related communication was largely elicited using appropriate questioning and commenting by the speech pathologist or by the Aboriginal adult when present. The NLS did require slightly less elicitation during assessment settings when an Aboriginal adult was present, with more natural conversation occurring, but overall the interactions remained largely elicited. NLS during the After School group, which was when most of the NLS data were obtained, mostly did not require the use of elicitation techniques and the communication appeared to follow AE conventions for communicating and conversing. The NLS obtained in this setting was deemed to be the most representative of the children’s natural communication styles and abilities. This decision was based upon informal observations of the children in their homes and consultation with family and community members regarding the representative nature of the samples obtained.

The communication recorded during the NLS was largely child directed which increased the validity of the information obtained. Most of the topics for discussion were raised by the children themselves. The topics were rarely offered by the adults. The presence of the AE communication styles and conventions indicated that the children were relaxed and comfortable communicating in the After School Group setting which also increased the likelihood that the samples obtained were representative of the children’s more natural communication.
The NLS information was recorded by making written records of the children’s utterances and / or by videotaping the communication exchanges. The written records were, when possible, made unobtrusively by a third person so as to reduce the effect of note-taking upon the communication produced by the child. Introducing note-taking into an otherwise natural communication situation can conceivably alter the naturalness of the situation and introduce a certain anxiety for the child who may feel as if they are being assessed. In the situation where the speech pathologist was alone with the child in the formal testing situation and some form of elicited communication not centred around the testing was attempted, the tester was required to make written records. This was not influential in effecting the quality and quantity of the children’s verbal output, however, as even without this written recording being introduced, the children were highly non verbal and appeared uncomfortable in this setting.

The After School Group was videotaped for four consecutive weeks with each videoed session lasting between forty five and sixty minutes. That is, a total minimum of three hours recorded NLS time was obtained. Only the five AE speaking Aboriginal children who participated in this study were videotaped. The video was switched on after the children entered the room and the children were aware they were being videoed. The children enjoyed the videoing and took turns looking through the camera. Due to the ongoing nature of the After School Group, samples of the NLS obtained with the video operating were able to be compared with previous and subsequent After School Group sessions to determine how representative the samples videoed were. These comparisons indicated that the NLS obtained using videoing were representative.

The data obtained were analysed using generic language analysis frameworks and through reference to AE related literature. The specific frameworks used included:

- **The Narrative Assessment Profile [NAP] (Bliss, McCabe, & Miranda, 1998)**
  The NAP provides a profile of discourse abilities. The NAP evaluates the following dimensions of narration: topic maintenance, event sequencing, explicitness referencing, conjunctive cohesion and fluency (Bliss et al, 1998).

- **The Bilingual Oral Language Development [BOLD] (Mattes & Omark, 1984)**
  The BOLD provides an inventory of the child’s performance in both their native language as well as English. Refer to Appendix A for an overview of the twenty communicative behaviours examined.
Language comprehension skills, the accuracy and relevance of the content and form of the language used and observations of the various linguistic and non-linguistic behaviours indicative of language difficulty were informally assessed. These analyses were conducted using a difference model with deviations from SAE being analysed in terms of AE using the other Aboriginal children and adults as comparisons in conjunction with documented information regarding the language characteristics of AE speaking Aboriginal children. Those analyses involving the range of language functions used and the behavioural characteristics of the children were based upon well researched theories regarding language development among bidialectal and bilingual children.

c) Activity Based Assessment (ABA)

The ABA was conducted during the After School group and was videoed. The goal of the ABA was to determine whether individual children were able to perform a number of communication and phonological awareness tasks within a more purposeful and culturally appropriate assessment context. A set of subskills was chosen and either new activities were created or existing activities were adapted which targeted one or more of these subskills. The subskills were chosen to both, where possible, reflect the aims of the formal tests and to reflect those skills required to enable children to function well in natural discourse situations. The activities, therefore, had to be sensitive to AE as well as SAE.

The main subskills and corresponding activities used included:

- **Phonological Awareness**
  1. Onset-rime level - Initial sound bingo, Rhyme generation in a memory game, Creating a rhyming word for a specified object beginning with a specified letter, Alliteration in a word generation game,
  2. Phoneme level - Initial sound bingo (blends), Medial sound bingo, Creating word strings using final sounds, CVC blending and CVC segmenting using computer games, Speech Tracking (ADD Program, Lindamood & Lindamood, 1975) to CVC stage.
• Oral Language

Many of these areas were also targeted during the NLS.

1. Interactive use of language, use of Speech Acts, Understanding of discourse, Vocabulary use and understanding, Understanding and use of sentence structures and morphology - The Directing Discourse Lesson Plans [Blank, &Marquis, 1987] Refer to Appendix B for an example of a lesson plan used. The lesson plans provided a guide for the complexity of language to be presented but the exact content and presentation of the question forms varied, at times, to better suit AE forms of communicating. Large scale alterations were not necessary, however.

2.3 THE ASSESSMENT FORMAT

The assessments for all nine children were completed within a five month period. The NLS, ABA and formal assessments for each child were occurring simultaneously so comparisons of skill levels were not likely to be effected by increased learning of a skill over time. That is, the ABA assessment of phonological awareness, for example, occurred within a short period of the SPAT having been administered.

1. AE Speaking Aboriginal Children

The AE speaking Aboriginal children participated in a minimum of six assessment sessions. These involved:

• Administration of the CELF-3, the Aitken and Fisher Articulation Survey and discussion of a story book containing Aboriginal themes by the non Aboriginal speech pathologist conducted in a small, quiet room at school. Parents were not present. One session.

• Administration of the RAPT, the SPAT and discussion of a story book chosen by the child with the speech pathologist and a familiar AE speaking Aboriginal adult present conducted in the library or a quiet room adjoining the classroom at the child’s school. Parents were not present. One session.

• NLS and ABA with a group of AE speaking Aboriginal children and one or more AE speaking Aboriginal adult and the non Aboriginal speech pathologist conducted at the local community health centre. Parents were not present. A minimum of four sessions.
The children’s parents were visited by the speech pathologist and community members to discuss their children’s progress and the outcomes of the assessments. This assessment format was chosen because it was felt to most closely parallel the types of assessments commonly conducted by speech pathologists.

2. SAE Speaking Aboriginal Children

These children participated in a single assessment session which involved the administration of the CELF-3, discussion about a story book and either formal or informal articulation assessment. Formal articulation assessment involved the administration of the Aitken and Fisher Articulation Survey. Further, in depth, informal assessment using NLS and ABA in order to determine more appropriate forms of assessment was not warranted with this group as formal assessment combined with some informal assessment or probing of skills yielded sufficient valid information upon which to base a diagnosis. It is anticipated that NLS and ABA would also provide valid information regarding communication skill levels for this group. The further analysis of this was beyond the scope of this study.

3. Teacher Interviews

Following the completion of the formal assessment for each child, that child’s main class teacher then completed a questionnaire presented in an interview format with the speech pathologist. Refer to Appendix C for a description of the questionnaire and rating scale. The teacher was asked to rate the child’s abilities using the rating scale detailed in Appendix C in the articulation section in the following areas:

- Oral Communication - Articulation, Vocabulary Knowledge, Listening / Attention, Sentence Structures / Grammar, Conversation / Story Telling Skills, Following Instructions / Directions.
- Literacy Development - Phonemic Awareness Skills, Reading Ability, Written Language Ability, Spelling Ability.

The teacher was also asked questions regarding language or dialect usage by the child. No teacher chose to not participate in the interviews. It was important to conduct the teacher interviews as speech pathologists routinely discuss a child’s progress in school as it relates to communication and educational achievement with teachers as part of the assessment process. This information constitutes an important part of the diagnostic process.
CHAPTER THREE: AN EVALUATION OF ASSESSMENT METHODOLOGIES AND TOOLS

3.1 THE ROLE OF STANDARDISED TESTING WITH ABORIGINAL CHILDREN

Standardised testing was able to provide an accurate diagnosis of communication delay, disorder or difference for the Standard Australian English (SAE) speaking Aboriginal children in terms of semantics, syntax, morphology and phonology. Formal testing, however, did not, in most cases, provide valid measurements of pragmatic or listening and attending skills for the SAE speaking Aboriginal children. The role of standardised testing did have some worthwhile applications in the diagnosis of communication difficulties, therefore, with this group although the extent of its suitability was limited.

Standardised testing did not provide a valid measurement of the communication abilities of the AE speaking Aboriginal children in that it significantly under rated their true skill levels. Many factors contributed to the inadequacy of the formal tests with this group including the language usage in the tests, the testing situation and the design of the tests themselves. Standardised testing, therefore, did not have any worthwhile application in the assessment of language delay, disorder or difference with the AE speaking Aboriginal children.

Teacher perceptions regarding individual children’s communication skill levels also mostly failed to provide a valid measurement of the communication abilities of the AE speaking Aboriginal. That is, the teacher ratings of the children’s communication and phonological awareness abilities mostly correlated highly with the formal testing results and hence under rated the children’s true abilities. The teacher comments also mostly indicated that a deficit rather than a difference view of AE existed.

3.1.1 Assessment Results for the Standard Australian English Speaking Aboriginal Children

Those Aboriginal children for whom Standard Australian English (SAE) was their home dialect performed in line with the normative data provided for the CELF-3. Some of these children were in the process of learning and experimenting with Aboriginal English vocabulary at the time of testing but they were essentially SAE speakers. The CELF-3
indicated that the receptive and expressive language abilities for all four of the SAE speaking children tested were at levels expected for children of their age, as compared with the American normative sample.

Table 3.1  SAE Speaking Aboriginal Children's Results for the CELF-3

<table>
<thead>
<tr>
<th></th>
<th>Child F</th>
<th>Child G</th>
<th>Child H</th>
<th>Child I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sentence Structure</td>
<td>13</td>
<td>6</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Concept &amp; Directions</td>
<td>12</td>
<td>10</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Word Classes</td>
<td>12</td>
<td>11</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>Semantic Relationships</td>
<td>NA</td>
<td>NA</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>RECEPTIVE LANGUAGE SCORE</td>
<td>114</td>
<td>94</td>
<td>88</td>
<td>104</td>
</tr>
<tr>
<td>Word Structure</td>
<td>12</td>
<td>7</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Formulated Sentences</td>
<td>11</td>
<td>10</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Recalling sentences</td>
<td>13</td>
<td>5</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Sentence Assembly</td>
<td>NA</td>
<td>NA</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>EXPRESSIVE LANGUAGE SCORE</td>
<td>112</td>
<td>84</td>
<td>86</td>
<td>106</td>
</tr>
<tr>
<td>TOTAL LANGUAGE SCORE</td>
<td>113</td>
<td>88</td>
<td>86</td>
<td>105</td>
</tr>
</tbody>
</table>

Table 3.1 provides a summary of the results achieved by the SAE speaking Aboriginal children for the CELF-3. Only Standard Scores are included in this table although other statistical information such as Confidence Intervals and Percentile Ranks were considered in the analysis of the results. A standard score range of 7 – 13 inclusive is deemed to be within normal limits with a standard deviation of + or - 3. Standard scores of five and six are within one standard deviation below the mean, for example. ‘NA’ refers to those subtests which are not administered to children of that particular child’s age.

Child G did achieve slightly below average results for two subtests which focussed upon her use of grammatical structures and vocabulary knowledge at sentence level. One of these subtests also included a short term memory component. Subsequent informal assessment with this child indicated that those difficulty areas identified using the CELF-3 did not appear as difficulties in her natural communication. These lower results could be attributable to a variety of influencing factors including the use of American English language forms and the suitability of the test design or the stimulus items for Aboriginal children, regardless of home language background.
The SAE speaking Aboriginal children exhibited a range of behaviours during testing which have been described as characteristic of Aboriginal learning and communication styles. For example, variable eye contact and a postural orientation while listening and responding directed away from the tester. Certainly, many similar behaviours were evident among the AE speaking Aboriginal children. The home dialect did not seem as influential, in this case, as the cultural identity of the child. Child I who her parents reported as, at surface level, strongly rejecting her Aboriginal heritage, showed listening and communication styles more similar to those associated with non Aboriginal people. Some behaviours remained similar, however, but these her parents attributed to general personality traits.

This example raises a very important distinction to be made regarding generalisations about cultural or language groups. That is, all that cultural or language generalisations can really offer is a norm related to expectations for behaviour. The implementation of these norms or expectations for behaviour are determined by the individual. Difficulties arise when people from other cultural or language groups utilise this general information to make predictions about future individual or group behaviours or to interpret inconsistencies in behaviour among individuals or groups as deviations from a set cultural or language norm, thus saying something significant about their membership of that group. Such generalisations about expectations for behaviour among Aboriginal Australians really only offer a framework for non indigenous Australians to use to assist them with their interactions with Aboriginal people at any single point in time. It must be remembered that individual and situational variation are an important consideration in the application of any kind of generalisation framework.

Several behaviours were displayed consistently by the SAE speaking children. These included:

- Being visually and posturally oriented away from the tester while accurately answering the stimulus questions. This included eye gaze being mostly directed away from the speaker, during testing, and a whole body orientation which varied from being directed towards the test booklet to being directed towards some other external stimuli or item of interest for the child.

- Being able to pay simultaneous attention to the test question and other external stimuli with usually no reduction in the accuracy of the required response to the test item.
included examining a class photo on the wall while indicating which two words from a group of four were semantically related or repeating complex sentences while hanging upside down off the chair.

- Variation in eye gaze patterns depending upon the communication situation. That is, eye gaze was more directed towards the speaker during general chatting before the testing and directed away from the speaker during the testing.
- A reduction in spontaneous speech commenting about the test items or asking questions once the formal testing began. Child F continuously voiced her displeasure at having to do the tasks but the others remained quiet until the formal testing was completed.

The purposeful eye gaze and reduced emphasis or reliance upon whole body or posturally focussed listening styles have been well documented in the literature as a feature of Aboriginal listening styles. Harkin’s (1990, 1994) definition of Shame also fits well with some of the behaviours noted in the sample group. For example, the children showed clear signs of reduced verbal expression and a desire to not be a part of the testing situation.

The presence of these behaviours during formal testing indicated that while the results obtained were in line with the normative data provided for the tests, these children were not behaving in line with the norms for behaviour which would have been expected from the normative sample group. In most testing situations, these behaviours would have been viewed as counterproductive to obtaining accurate results, since it is not how non Indigenous Australian children without listening or attending difficulties would have behaved during the testing. These behaviours, therefore, would have been interpreted from a deficit viewpoint, subsequently defined as problems and usually been actively discouraged by the tester. These children may have scored within normal limits in terms of their communication abilities but they would most likely have been assessed as having listening and attending difficulties. The teachers of all four of these children did in fact report concerns about listening and attending in class. It had been suggested to child H’s parents that Attention Deficit Disorder with Hyperactivity (ADHD) may be influencing his behaviour. Such a suggestion was not supported by child H’s parents. The teacher ratings in terms of listening all support that listening differences attributable to cultural differences are in danger of being misdiagnosed as problems.
A tester faced with the behaviours displayed by the SAE speaking Aboriginal children would possibly tell the child to reorient their body and eye gaze towards the tester saying that will help them to listen. The tester would also require the child to sit on the chair without fiddling or looking towards or talking about extraneous stimuli offering the same rational based upon helping listening for their requests. Obviously, this would then create a conflict situation between the tester and the child with the child resenting or not understanding such requests. A child is less likely to perform well when they are feeling negatively towards the tester and/or the situation. A child who is being forced to behave in a way which contradicts their usual patterns of behaviour is also less likely to perform well.

These formal tests, therefore, did provide valid assessments of the communication abilities of the SAE speaking Aboriginal children as long as their differences in listening and attending were not treated as deficits and restricted in any way. These formal tests failed to target the responding and communication styles of the SAE speaking Aboriginal children. It could also be argued that the SAE speaking Aboriginal children were indicating that the formal testing format with its decontextualised, question / answer means of assessment was not their most preferred style of communicating or responding. When a child is indicating that they are uncomfortable with one aspect of a testing situation, the overall reliability of the results obtained must also be questioned. While for these four children the results obtained were within normal limits and, as such, were not problematic, it is important to not dismiss the possibility that the failure of the test situation to reflect Aboriginal listening and communication styles could have negatively influenced the results obtained, even though dialect differences were not an issue.

The behavioural responses displayed during formal testing also show that the SAE speaking Aboriginal children display behaviours commonly displayed by Aboriginal people in general. This is not a surprising result but it is also important to not assume that all non Aboriginal people understand that just because a child speaks SAE this does not mean that they do not ‘think’ in an Aboriginal way.

The SAE speaking Aboriginal children may have obtained valid test results but their behaviours during formal testing indicated that this was still not an optimum situation for
determining communicative competency. Ideally, a testing situation which was conducive to their listening and attending styles and which did not restrict their spontaneous verbal expression would have been more appropriate.

Overall, the teacher perceptions relating to the communication and literacy skill levels of the SAE speaking children correlated highly with the children’s performances on the formal tests. That is, teachers rated all but one of the children as having average communication skill development. The one child who was rated by his teacher as having lower than average oral language skills is experiencing some difficulties with literacy. The child’s teacher made ongoing references to the child’s reduced oral language abilities being all related to his reading problems, despite attempts to shift the teacher’s focus. The teacher did not seem to be making a distinction between literacy and oral language as independent skills. This point has been well illustrated by Shopen and Liddicoat (1998) who describe teachers’ definitions of literacy as being shaped by, ‘a broad view of literacy’ (p36) which promotes talk as a, ‘form of literacy’ (p45). This view of literacy may help explain this particular teacher’s focus upon oral language skills in terms of the child’s abilities in written language. The other teachers who participated in the interviews did not openly present this view but that may have been because the other children were doing well with literacy development and so their oral language development was rated as developing well also. It was especially important to consider the impact upon oral language ratings of this view of literacy when the teacher perceptions for the AE speaking Aboriginal children, all of whom have reading, writing and spelling difficulties, were analysed.

All of the teachers identified one or more of the behaviours which appeared during testing as being present to some degree in the classroom. These behaviours were all presented as being problematic and as potential barriers to the child’s learning in the classroom. Deficit rather than difference language was used. Teachers commented upon distractibility or concentration and listening problems, a lack of self confidence and obvious discomfort or shyness with oral narrative or story telling tasks especially in front of a group. Teachers were very focussed upon eye contact with Aboriginal children to the extent that when the children displayed purposeful eye contact rather than total avoidance, the teachers found this conflicting and contradictory to what they had previously been told. This unfortunately tended to lead the
teachers to be sceptical about any differences. This relates to the way this information is typically presented to non Aboriginal people and the way that generalisations about behaviour patterns rather than expectations for behaviour are provided.

It was important to note also that when teachers had identified the presence of one of the above behaviour patterns in a particular child, that this then had the potential to influence how the teacher viewed their oral language ability in related areas. For example, the quiet or shyness ‘problem’ equated with low scores in expressive communication areas including articulation and vocabulary use. The discomfort speaking in small or large groups ‘problem’ equated with a low score in the conversation and story telling areas. The inattentiveness and distractibility ‘problems’ equated with lower scores in the following directions and instructions areas. The teachers were transposing their knowledge of the correlation between these types of behaviour patterns and oral language difficulties among non Aboriginal children and making inaccurate assumptions regarding the SAE speaking Aboriginal children’s level of functioning.

Once the correlation between the presence of these behaviours and adequate performances by the children on the formal tests was identified for the teachers, they were able to accept the difference argument but voiced uncertainty regarding how they could accommodate such differences in the classrooms. Many of these differences contravene classroom rules and are distracting for children who do not display them.

All of the teachers identified the SAE speaking children as speaking Standard English and said that their evaluations about the children’s level of functioning were based upon Standard English. These perceptions were based upon the concept that the children spoke like their non Aboriginal peers rather than upon an understanding that they were not speaking AE.

This study has identified that formal, standardised testing can have a role to play in assessing the syntax, morphology, semantic and phonology skills of SAE speaking Aboriginal children. The culturally inappropriate listening and attending requirements of formal testing, however, did have the potential to negatively influence the results obtained in the above areas. Listening and attending skills demonstrated during the formal testing also could potentially be
judged as inadequate resulting in a confusion between communication difference and communication deficit. It was especially important, therefore, with this sample group, that formal tests were not used in isolation and that the tester had some appreciation of Aboriginal patterns of behaviour so these could be accounted for in the overall diagnosis regarding language functioning.

The outcomes for the individual SAE speaking Aboriginal children may also have been different had the tester not placed a lot of importance upon general dialogue and establishing a purpose for the testing before commencing as well as working from a difference rather than a deficit model in relation to the behaviours evident during testing. Speech pathologists using this form of assessment with SAE speaking Aboriginal children also need to consider the role Shame may play in the assessment situation and whether placing an Aboriginal child in this situation in order to obtain a standardised result is warranted. That is, unless a formal test score is required for funding submissions, the use of standardised testing may remain best avoided. Formal testing did yield seemingly valid results for these four SAE speaking Aboriginal children in many language areas but they did appear insensitive to many aspects of Aboriginal learning and communication styles.

3.1.2 Results for the Aboriginal English Speaking Aboriginal Children

A variety of standardised tests were administered to this sample group. Some tests were less effective than others in accurately assessing the skill levels of the children but all underestimated the actual abilities of the children to some degree. The results obtained in this study indicated that the use of formal, standardised tests with AE speaking Aboriginal children is not likely to yield valid results. Given the inability of these tests to provide valid measures of language and phonological awareness abilities, their value as assessment tools for this population is doubtful.

The three standardised tests which were administered included the CELF-3, the SPAT and the RAPT. The CELF-3 was administered with only the tester and the child present. The SPAT and the RAPT were administered with the help of a familiar AE speaking Aboriginal adult. These three assessments targeted a range of oral language and phonological awareness areas. The Aitken and Fisher Articulation Survey, which is a formal but not standardised assessment
tool, was administered with only the tester and the child being present. That is, the Aitken and Fisher Articulation Survey is administered in a formal assessment setting following formal assessment guidelines but no normative data are supplied.

Table 3.2: AE Speaking Aboriginal Children’s Results for the CELF-3

<table>
<thead>
<tr>
<th></th>
<th>Child A</th>
<th>Child B</th>
<th>Child C</th>
<th>Child D</th>
<th>Child E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sentence Structure</td>
<td>10</td>
<td>5</td>
<td>3</td>
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<td>NA</td>
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<tr>
<td>Concept &amp; Directions</td>
<td>5</td>
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<td>4</td>
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<td></td>
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<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Recalling sentences</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Sentence Assembly</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>6</td>
<td>Not Completed</td>
</tr>
<tr>
<td>EXPRESSIVE LANGUAGE</td>
<td>65</td>
<td>53</td>
<td>50</td>
<td>61</td>
<td>Not Available</td>
</tr>
<tr>
<td>SCORE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL LANGUAGE SCORE</td>
<td>72</td>
<td>59</td>
<td>50</td>
<td>59</td>
<td>Not Available</td>
</tr>
<tr>
<td>Age Equivalent</td>
<td>3;3 years</td>
<td>3;9 years</td>
<td>3;4 years</td>
<td>4;1 years</td>
<td></td>
</tr>
</tbody>
</table>

Table 3.2 provides a summary of the results achieved by the AE speaking Aboriginal children for the CELF-3. Only Standard Scores are included in this table although other statistical information such as Confidence Intervals and Percentile Ranks were considered in the analysis of the results. A standard score range of 7 – 13 inclusive is deemed to be within normal limits with a standard deviation of + or - 3. Standard scores of three and sixty one are within two standard deviations below the mean, for example. ‘NA’ refers to those subtests which are not administered to children of that particular child’s age.

The CELF-3 indicated that all five AE speaking Aboriginal children presented with severe language disorders. Child A presented with an expressive language disorder while children B, C and D presented with both expressive and receptive language disorders. Child E could not complete the entire test due to the test’s literacy requirements but his Standard Scores on at least three of the subtests indicated severe difficulties. Of these five, NLS and ABA later found only three children to have some degree of oral language difficulty. Of these three,
their communication difficulties were found to be either not as severe or of a different form than was indicated by the CELF-3. The CELF-3 provided the least accurate description of the children’s language abilities with often the discrepancy between this formal test result and informal assessment results being the equivalent of two standard deviations, from a severe disorder to age appropriate skills. This assessment tool was clearly unable to accurately describe the communication abilities of these five AE speaking Aboriginal children.

The lower results obtained by the AE speaking children on the CELF-3 can possibly be attributed to one or more of a number of factors. The CELF-3 was unsuitable as a language assessment tool for the AE speaking Aboriginal children because it failed to address issues pertinent to communication in AE. For Example, one reason for the lower results on the CELF-3 related to the use of and requirement for Standard American English language forms. Standard Australian English speaking children also encounter this clash of dialects when attempting this test but it would appear not to the same degree. It would be a logical assumption, however, that this clash would be more influential in effecting individual children’s scores for whom AE was their main and home dialect as AE would appear to be further removed form Standard American English than is SAE. While all of the children appeared to be able to communicate in SAE, their confidence and competence in producing SAE language forms varied greatly.

This clash of dialects was evidenced most strongly in those expressive subtests which evaluated morphology and syntax usage. One child failed to put an ‘s’ on a singular noun form to signal plural during an initial trial item. This construction can feature in AE plural forms. This child copied the model successfully. Later in the test, this child was required to create plural forms. He paused before correctly forming regular plurals according to SAE rules. He then over applied this rule to the irregular plural forms. In general conversation and activity based assessment tasks, he often forms these irregular plural forms according to SAE rules. Another child appeared to produce an increasing amount of AE language forms as the complexity of the SAE language forms required from her increased.

The CELF-3 also failed to elicit spoken communication in line with AE rules for communicating. For example, questioning and answering conventions were violated. The
way information is obtained by using the CELF-3 is through a barrage of direct questioning related to contextless topics or visual stimuli such as pointing to squares, circles and triangles in set sequences. Most of the tasks have no inherent purpose for the child such as the repetition of verbally presented sentences. All questions must be answered and nil responses are scored as incorrect. All of these communication conventions contravene the AE rules for obtaining and passing on information. Attempting to obtain spoken communication in such inappropriate ways it could be assumed would render the use of the CELF-3 as highly inappropriate with AE speaking Aboriginal children. The results from this study certainly support this assumption in that the use of the CELF-3 with the AE speaking children yielded an over abundance of false positive results with all five children being diagnosed to varying degrees with language difficulties they did not possess.

Table 3.3 AE Speaking Aboriginal Children’s Results for the RAPT

<table>
<thead>
<tr>
<th>Information Score</th>
<th>Child A</th>
<th>Child B</th>
<th>Child C</th>
<th>Child D</th>
<th>Child E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>31.5</td>
<td>33.5</td>
<td>29.5</td>
<td>31</td>
<td>NA</td>
</tr>
<tr>
<td>Age Equivalent</td>
<td>5;6-5;11</td>
<td>6;0-6;5</td>
<td>4;6-4;11</td>
<td>5;6-5;11</td>
<td>NA</td>
</tr>
<tr>
<td>Grammar Score</td>
<td>19</td>
<td>24</td>
<td>15</td>
<td>15</td>
<td>NA</td>
</tr>
<tr>
<td>Age Equivalent</td>
<td>4;0-4;5</td>
<td>5;6-5;11</td>
<td>3;6-3;11</td>
<td>3;6-3;11</td>
<td>NA</td>
</tr>
</tbody>
</table>

Table 3.3 provides a summary of the results achieved by the AE speaking Aboriginal children for the RAPT.

The RAPT appeared to provide a more accurate picture of the children’s use of language in some aspects but it also continued to underestimate the children’s expressive vocabulary and syntax skills. The RAPT was administered with the assistance of a familiar Aboriginal adult which is interesting to note given the variable increase in accuracy of the test results. Overall, the RAPT continues to contravene AE rules for communicating in much the same way as the CELF-3, especially in relation to the direct questioning used and the need for responses to be given to every question. It would not be surprising, therefore, if the RAPT results also failed to provide valid information regarding the expressive skills of the AE speaking Aboriginal children. This study confirmed this to be the case. The RAPT did provide some context for the children’s responses in that the questions were related to various
coloured pictures representing daily life situations. This probably increased the relevance for the AE speaking children only marginally, however, and the communication situation remained based upon a question/answer type style of information exchange which is not as common among speakers of AE. Once again, of course, the RAPT assesses children’s use of Standard English syntax and semantic forms, this time referring to British English. Needless to say, the scoring system is biased against the use of AE as many of the syntactic forms which attract scoring are related to the child’s use of morphology and verb forms.

The familiar Aboriginal adult being present positively influenced the children’s conversational communication skills especially in relation to pragmatics which could also have increased their confidence to attempt the question/answer tasks in the RAPT. The lower test results did continue, however, even given this increased willingness to engage in general conversation. This did provide a valuable opportunity for the tester to validate the obtained test results by comparing these with the increased language produced naturally during the session. It would appear, however, that the content and design of the test itself continued to fail to adequately describe the oral language abilities of this sample group.

Table 3.4 on the following page provides a summary of the results achieved for the AE speaking Aboriginal children for the SPAT. The teacher rating scale was based upon the normal distribution curve with a range of 7 – 13 being within normal limits and a standard deviation of 3 either side of this range. Refer to Appendix C for further details regarding the rating system used. The teacher ratings presented in all of the tables included in this thesis follow this same scale.

The SPAT also failed to adequately and accurately describe the phonological processing abilities of the five AE speaking Aboriginal children. Child A’s skills in this area are so low, however, that the SPAT result was only slightly below her true ability level. Some of the questioning techniques used in the SPAT are less direct and enable a more natural flow of information giving from the child with the question/answer situation being less apparent. This possibly helped the participation rate of the children with less nil responses being given. All of the children continued to appear quiet and often disengaged during the testing, however, even though direct questioning was more easily avoided by the tester. This
possibly reflected another element of information exchange evident in the administration requirements of the SPAT which contravened the rules for communicating in AE.

**Table 3.4 AE Speaking Aboriginal Children’s Results for the SPAT**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Linguistic Level</th>
<th>Cognitive Level</th>
<th>Child A</th>
<th>Child B</th>
<th>Child C</th>
<th>Child D</th>
<th>Child E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syllable Counting</td>
<td>Syllable</td>
<td>Segmenting</td>
<td>P</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Rhyme Detection</td>
<td>O-R (Rime)</td>
<td>Detection</td>
<td>F</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>Rhyme Production</td>
<td>O-R (Rime)</td>
<td>Production</td>
<td>F</td>
<td>F</td>
<td>P</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>Onset Identification</td>
<td>O-R (Rime)</td>
<td>Identification</td>
<td>F</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Final Phoneme Identification</td>
<td>Phoneme</td>
<td>Identification</td>
<td>P</td>
<td>E</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Segmentation (CVC)</td>
<td>Phoneme</td>
<td>Segmenting</td>
<td>E</td>
<td>F</td>
<td>P</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blending (VC, CV, CVC)</td>
<td>Phoneme</td>
<td>Blending</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Deletion of Initial Phoneme</td>
<td>O-R (Onset + Rime)</td>
<td>Manipulation</td>
<td>E</td>
<td>P</td>
<td>F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Segmentation (CCVC, CVCC)</td>
<td>Phoneme</td>
<td>Segmenting</td>
<td>F</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CC Blends: Delete First Phoneme</td>
<td>Phoneme</td>
<td>Manipulation</td>
<td>P</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CC Blends: Delete Second Phoneme</td>
<td>Phoneme</td>
<td>Manipulation</td>
<td>F</td>
<td>F</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non Word Reading</td>
<td></td>
<td></td>
<td>1/7</td>
<td>0/7</td>
<td>4/7</td>
<td>1/7</td>
<td></td>
</tr>
<tr>
<td>Non Word Spelling</td>
<td></td>
<td></td>
<td>0/7</td>
<td>1/7</td>
<td>3/7</td>
<td>0/7</td>
<td></td>
</tr>
<tr>
<td>Teacher Rating</td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>Not Given</td>
<td>3</td>
</tr>
</tbody>
</table>

**P = Pass level**  
**E = Emerging Skill level**  
**F = Fail level**

For eleven of the thirteen sections of the SPAT, the tester is required to give the child a demonstration item and then give the child one practice item. Child B, in particular, exhibited what the Aboriginal adult identified as Shame when faced with the correction of her practice responses by the tester. The Aboriginal adult commented to the child about her Shame and the girl said she would like him to leave. The Aboriginal adult said the child was less Shamed having her work corrected with only me present because of my role as a formal ‘teacher’. Certainly, the child exhibited less of the Shame response once the Aboriginal adult
had left. The Aboriginal adult said the issue was not gender based but role and relationship based. This is another important factor to be considered as many formal tests utilise this type of practice item approach. The inability of the SPAT to accurately describe the phonological awareness skills of the AE speaking Aboriginal children was probably mostly related to the method of administration of the items as well as the fact that the items were, once again, administered in SAE.

Table 3.5: AE Speaking Aboriginal Children’s Results for the Aitken and Fisher Articulation Survey

<table>
<thead>
<tr>
<th>Diagnostic Categories</th>
<th>Child A</th>
<th>Child B</th>
<th>Child C</th>
<th>Child D</th>
<th>Child E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Appropriate</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Delay - Mild</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Moderate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Severe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phonological Disorder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbal Dyspraxia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dyspraxic Features</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-SAE dialect Patterns</td>
<td>b/v, f/θ</td>
<td>f/θ</td>
<td>Øh, f/θ</td>
<td>f/θ</td>
<td>f/θ</td>
</tr>
<tr>
<td>Teacher Rating</td>
<td>3 ➔ 2</td>
<td>5</td>
<td>5</td>
<td>9</td>
<td>5</td>
</tr>
</tbody>
</table>

The diagnoses recorded above take into account the influence of dialect differences upon the evaluation of assessment results. That is, non standard, age appropriate phonological realisations were assessed as being within normal limits.

Table 3.5 provides a summary of the results achieved by the AE speaking Aboriginal children for the Aitken and Fisher Articulation Survey.

In terms of articulation assessment, the Aitken and Fisher Articulation Survey gave an accurate measure of the children’s articulation abilities. The articulation assessment used was not standardised and, therefore, it merely described the individual child’s use of the
Standard Australian English phonemes in all word positions at single word level. It is then the responsibility of the tester to compare the results with standard norms for articulation development and natural language use. At this point, the tester is able to apply any knowledge regarding dialect differences or familial trends to determine the child’s particular level of development. No children in this sample presented with phonological disorders or neuromotor disorders, however, so the true sensitivity of the formal articulation test was not extensively tested in this study.

For this study, the use of a formal but not standardised test provided a valid measure of the children’s articulation abilities. It is important, however, to consider the children’s behaviours which accompanied the testing and balance this with the ease with which articulation information is able to be obtained using other means when considering the usefulness of formal articulation tests for AE speaking Aboriginal children. That is, the children mostly gave the single word responses required from them when asked to name a single picture on the test but certain vocabulary biases remained evident and no Wiradjuri words were elicited continuing the focus upon the SAE dialect. The children also participated the best with this test, which probably reflected the reduced amount of spoken information required from them, but their general discomfort with the withdrawl, one on one testing situation continued to be apparent. Considering all of these factors, it would appear that using an alternate form of articulation assessment which did not contain these features would be advisable.

Several behaviours were displayed consistently by the AE speaking Aboriginal children during formal testing. These included many of those displayed by the SAE speaking Aboriginal children. Some differences were evident also. For example:

- Being visually and posturally oriented away from the tester. This included eye gaze being mostly directed away from the speaker, during testing, and a whole body orientation which varied from being directed towards the test booklet to being directed towards nothing in particular. For the AE speaking children, however, the accuracy of their subsequent responses was markedly reduced. This says more about the suitability of the language used and the appropriateness of the assessment situation than it does about the impact of visual and body orientation upon responding in question / answer type situations.
for AE speaking children. This distinction was demonstrated well during the activity based assessment tasks in that the AE speaking children were able to demonstrate this preferred listening style while accurately performing tasks.

- Some variation in eye gaze patterns occurred depending upon the communication situation. That is, eye gaze was more directed towards the speaker during general chatting before the testing, when it occurred, and directed away from the speaker during the testing. The amount of general chatting was very limited with this sample group. Child C would not respond to any general questions until it had been rephrased into a yes/no question. Open ended questions were generally not answered by any of the children.

- A reduction in spontaneous speech commenting about the test items or asking questions once the formal testing began was evident. Child D continuously voiced his displeasure at having to do the tasks but the others remained quiet until the formal testing was completed.

- Some uncharacteristic non verbal behaviours also occurred. For example, children B and C smiled constantly during the testing especially when tasks appeared to be too difficult. This can often reflect a socialisation influence where children learn that smiling is less likely to elicit a negative response in situations of uncertainty. Child D resorted to constant thumb sucking. Child C had a very worried look on his face throughout the testing. Most of the children were overly apologetic at some time during the testing and looked to the tester for reassurance following their responses.

- The children mostly spoke more softly than usual and verbal responses were often mumbled and sounded quite indistinct. Some of the children’s speech was also characterised by inconsistent sound substitutions and difficulties articulating multisyllabic words. These misarticulations did not feature as strongly, if at all, in other communication settings.

The presence of these behaviours was consistent with those features described by Harkins (1990) as Shame. That is, the children were unusually quiet and disengaged from the tester whom they knew well and spoke with regularly in school and community settings. The children appeared hesitant and unsure and indicated their desire to be somewhere else. Formal testing and communicating in the way required of formal testing situations is not indicative of their natural communication settings. In this sense it is likely that the AE speaking Aboriginal children felt, ‘I don’t know what things are good to do here’ and, ‘people
can think (and say?) something bad about me because of this' (Harkins, 1990, p302). It is likely that past experiences with these type of situations have resulted in people such as teachers and speech pathologists or psychologists saying 'bad' things about them to others in front of them. The Shame response is, therefore, a highly influential factor in formal communication assessment situations and a response which, if not handled correctly, has the potential to negatively influence the test outcomes.

Once again, many of the behaviours displayed by the AE speaking Aboriginal children during formal testing could potentially be misinterpreted as a failing of the child themselves rather than as a construct of the assessment situation itself. The lack of quick responses to test questions, the purposeful eye gaze and the reduced amount of spontaneous information offered by the children could all be misinterpreted as communication difficulties. In this case, the test design combined with the formal assessment situation setting to make the administration of standardised tests to AE speaking Aboriginal children a futile activity.

The AE speaking children seemed to be more wary of breaking codes of behaviour than were the SAE speaking Aboriginal children. That is, the AE speaking children tried to remain still and employed strategies which adhered to classroom norms for behaviour. The SAE speaking children, however, appeared more natural in their behaviour except that the amount of spontaneous communication during testing was markedly reduced. For the AE speaking children, however, communication was reduced throughout the whole assessment situation whether we were engaged in formal testing or not. This may be a reflection of how differences in dialect usage impact upon the general behaviour and thought processes of children faced with the confusion of communication and cultural difference. Kearins (1985) discusses how Aboriginal mothers often warn their children about the communication differences their children will face in school telling them things such as that they must use formal greetings and answer every time the teacher asks them anything. The AE speaking Aboriginal children in this study were perhaps trying to implement this teaching from home but the unnatural testing situation and the communication differences were possibly too influential.
The behaviours of the children during the formal testing situations did vary depending upon whether a familiar Aboriginal adult was present. In most cases, however, the children’s behaviours during testing did not alter significantly. The children’s behaviours were only different during the general chatter which occurred before and after the formal testing. This will be discussed in more detail later.

The teacher perceptions regarding the communication and phonological awareness abilities of the children closely equated with the formal test results. Only one teacher rated one child’s abilities in accordance with the child’s true abilities. This teacher’s assessment was not supported by others who knew this child. It would appear from these results that the way the AE speaking children tend to communicate in the classroom reflects the way these children performed during formal testing. These perceptions could also reflect the earlier presented view teachers appear to have regarding talk and literacy (Shopen & Liddicoat, 1998). That is, all of the five AE speaking children present with literacy difficulties and all five were rated as having significant oral communication problems by the teachers. This is a topic worth exploring but which is beyond the scope of this study.

It was interesting that some inconsistencies were evident in the teacher reports which actually supported the activity based results. The teachers who provided these inconsistencies did not view them in this way, however. For example, child C, who the CELF-3 found to have a severe language disorder and who has been diagnosed as having a moderate intellectual disability using formal testing, was given an average grading for both ‘Listening / Attention’ skills and ‘Following Instructions / Directions’. The teacher supported these ratings with comments such as, ‘He doesn’t drift off in class’, ‘He doesn’t misinterpret what’s said when following instructions’ and ‘He’s successfully had the job of class messenger’. These comments are not consistent with a child whose receptive language skills have a percentile ranking of one as indicated by the CELF-3.

Some of the more common comments provided by the teachers included:

- Reduced spontaneous volunteering of information in class or small groups, very quiet in class, doesn’t like speaking, is reticent to speak, mumbles and speaks softly.
- Doesn’t ask questions or seek clarification if having difficulty.
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- Poor understanding and use of basic concepts and vocabulary, would benefit from an intensive oral language course.
- Leaves words out of sentences and has poor grammar.
- Not happy to give news or an oral report, only gives limited information when required to do so.
- Irregular school attendance and little home backup especially in relation to the completion of homework are seen as major factors in the poor school achievement for these children.

Many of these behaviours which the teachers offered as justification for assigning low ratings are the same as those reported in the linguistic literature as indicators of mismatches in communication styles and forms between SAE and AE. Once again, syntactic, semantic and pragmatic differences which contribute to behaviours such as reduced verbal communication and irregular school attendance are viewed as communication deficits rather than communication differences.

All of the children were rated as being below average in the reading, writing and spelling areas. For child D, who one teacher rated as having average communication skills for a child of his age, this same teacher placed his spelling skills as only mildly delayed with this child confidently working on year three spelling words in year four. This child also attends extra classes to assist with his literacy development. The perception of other teachers in the school was that this child had significant difficulties in all literacy areas. These inconsistent reportings could reflect different attitude biases towards AE and its role in formal schooling.

Child D’s teacher was also the only one to mention the concept of dialect differences as they relate to syntax and morphology. This teacher rated child D’s ‘Sentence Structures / Grammar’ as low average commenting that he just has the normal ones like, ‘I done it’. The teacher did not talk about dialect differences but where other teachers had commented upon the use of such sentence structures and then assigned a below average rating, hence making a deficit value judgement, this teacher commented about this language use and assigned an average rating, hence making more of a difference rating and acknowledging the widespread usage of such forms.
All of the teachers said that these children spoke SAE and that their judgements regarding the oral language abilities of the children were in relation to SAE usage. One teacher voiced her uncertainty about having made such an assumption and then voiced the frustration relating to how could she possibly assess the child’s communication skill levels using any other measure when she is an SAE speaker herself. This same teacher was the only one to comment upon her lack of understanding of AE. All of the other teachers responded very confidently that they believed the children to be communicating using SAE. This poor understanding of Australian English dialects among teachers remains a large area of concern. Teachers are unlikely to be in a position to understand communication difference versus communication deficit as it relates to AE and SAE as long as they remain uninformed about AE and its speakers.

Formal, standardised testing did not provide a valid assessment of oral language and phonological awareness abilities for the AE speaking Aboriginal children. Combined with this outcome was the problem inherent in relying upon teacher perceptions regarding individual skill levels. Related to this, were the difficulties inherent in utilising information regarding individual level of functioning based upon observations made in the classroom environment as communication abilities shown in this environment tended to mirror those seen during formal testing.

The SAE speaking Aboriginal children who participated in this study tended to perform in accordance with the normative data provided by formal testing. The AE speaking Aboriginal children tended to perform below their true ability levels when assessed using standardised tests. Both groups exhibited behaviours which could be viewed as problematic in testing situations and which had the potential to negatively influence the test outcomes but which have been well documented as being present within Aboriginal learning and communication styles. For both groups, teacher perceptions tended to reflect individual children’s abilities as indicated by the formal tests.
3.2 THE ROLE OF ABORIGINAL ADULTS IN THE ASSESSMENT OF AE SPEAKING ABORIGINAL CHILDREN

The Aboriginal adult’s role in the assessment of AE speaking Aboriginal children is to assist the Speech Pathologist in making an accurate diagnosis of the child’s communication abilities. The Aboriginal adult contributes to the assessment process in many ways with the outcomes of their involvement being an increased quality and quantity of language produced by the children as well as important positive behavioural changes occurring. It is important for the Wellbeing of the Aboriginal child to have a known Aboriginal adult involved in the assessment sessions whether these be formal, standardised testing or the more appropriate activity based assessments.

The presence of the Aboriginal adult in the assessment situations significantly improved the validity of the results obtained. Both the quantity and quality of language produced by the AE speaking children increased when an AE speaking Aboriginal adult was involved in the formal and informal assessment situations. This improvement was due to a number of factors all of which appeared to be directly related to the fact that this person was an AE speaking Aboriginal adult. The presence of the Aboriginal adult did not totally counteract the negative influence of the formal testing situation upon the individual children’s results in that the formal tests continued to underrate the abilities of the AE speaking children to some degree. The impact upon the informal test results was highly significant, however, with the presence or not of the Aboriginal adult being the main factor in influencing whether the AE speaking child presented as language impaired or not. Furthermore, given that the formal testing situations were highly effective in eliciting Shame responses from the AE speaking Aboriginal children, the inclusion of an Aboriginal adult in the assessment sessions proved invaluable in both interpreting and pre-empting these responses and responding appropriately.

During the formal testing situations before testing began, the AE speaking Aboriginal adult was able to engage the AE speaking children in conversation. The children were all highly communicative and responsive. This contrasted sharply with how the children presented when the non Aboriginal tester alone was conducting the assessments. The non Aboriginal tester was unable to elicit such extensive conversation when assessing the children on her own, despite being well known to the children and having conversed often with the children in
group and individual situations away from the school. It does not appear likely that the degree of familiarity of the children with the adult was a significant factor in influencing the children’s verbal responsiveness. The main distinguishing feature of the two situations was the presence or not of the AE speaking Aboriginal adult. The individual children’s understanding of and responsiveness to the semantic features of the Aboriginal English used varied considerably but the high degree of responsiveness remained consistent across all of the children. What appeared to be important was the Aboriginal adult’s ability to tap into the discourse style of the children and utilise effectively the social rules of communicating which are characteristic of Aboriginal English. The adult’s knowledge and credible usage of these rules combined with the use of the syntactic, semantic and phonological features of Aboriginal English were successful in engaging the children in meaningful dialogue.

The non Aboriginal tester was familiar with many of the communication styles of AE speaking Aboriginal children such as questioning forms and listening behaviours. The use of a discourse style which was more characteristic of Aboriginal English by a non Aboriginal adult was beneficial in increasing the effectiveness of the verbal interactions between a non Aboriginal adult and the AE speaking Aboriginal children when communicating within more culturally appropriate speaking and learning situations. Although the awareness and use of these strategies are of benefit for non Aboriginal people when conversing with Aboriginal people, the use of these strategies alone was not sufficient to offset the effect of an inappropriate communication setting in which SAE was used. An Aboriginal person communicating with an Aboriginal child in the same inappropriate setting, however, was able increase the effectiveness of the interaction. The sociolinguistic factors possibly reducing the verbal responsiveness of the children were not applicable in their interactions with the Aboriginal adult and the Shame response of which a feature is ‘I want not to say anything ...’ (Harkins, 1990, p302) also was not elicited as strongly.

It was important for the non Aboriginal adult to use more Aboriginal English forms of communicating such as the use of declarative with intonation to signal questions rather than interrogative sentences. The use of these Aboriginal English forms combined with SAE were only really successful, however, when used during the more culturally appropriate informal assessment situations located away from the school. The increase in communication with the
non Aboriginal adult was evident as soon as the group of children had walked outside the school gates and got into the car to be driven to the After School Group, located at the local community health centre. This was possibly related to sociolinguistic factors associated with rules the Aboriginal children have for talking in school versus talking outside of school. The AE speaking Aboriginal adult was able, however, to engage the children in dialogue in individual withdrawal settings located within the school. Possibly this situation then indicated to the children that talking in this case was okay or maybe the fact that the adult who was encouraging the conversation spoke Aboriginal English and was Aboriginal himself, reduced the Shame response and allowed freer communication to occur. It is only through the inclusion of AE speaking Aboriginal adults in these withdrawal assessment situations in schools that valid assessments of communication abilities are able to be conducted. Non Aboriginal adults attempting to Aboriginalise their assessments by using appropriate communication strategies is not in itself sufficient to obtain valid assessment results in these inappropriate settings.

The children’s range of communicative functions increased markedly when the Aboriginal adult was present. When placed within formal testing situations with only a known non Aboriginal tester present, the children’s range of communicative functions prior to and following the administration of the tests consisted mainly of variable answering of questions with some commenting. This occurred despite the tester’s attempts to use culturally appropriate communication styles and expectations for responses in combination with Standard Australian English. When placed within a similar testing situation with an Aboriginal adult also present, the children’s range of communicative functions increased to include such behaviours as initiating interactions, taking turns during conversations, requesting information and clarification and an increased expression of needs and feelings. The children also offered more examples of narrative discourse when the Aboriginal adult was present. All of this information was integral to the more accurate assessment of the child’s level of communicative functioning. This information would not have been available had an Aboriginal adult not participated in the sessions.

The range of functions increased even further when the children were placed within a group setting away from the school with other AE speaking children and Aboriginal adults plus the
A number of factors were interacting in this situation but the role of the AE speaking Aboriginal adult remained very significant. The children responded positively to the Aboriginal adult’s use of Aboriginal English and the children openly discussed and referred to their culture and language both through their drawings and writing and general comments during conversation and work activities. The presence of the non Aboriginal adult did not restrict this open communication in the group setting located at the community health centre.

The syntactic and morphological structures used by the children in general conversation and picture description tasks were more varied and more complex when the Aboriginal adult participated in the informal assessment situations. Once again, these differences were further pronounced during the informal assessment sessions within the group than during the withdrawl session at the schools. The children’s utterances were less complex, shorter and less explicit in the withdrawl sessions at school than they were in the group. In both cases, however, the children produced a higher quality and quantity of language than they did during the withdrawl sessions with only the non Aboriginal tester present.

The increased quantity and quality of communication offered by the children before testing began may have been influential in the slight elevations in test results achieved by the children on the formal tests which were subsequently administered. The conversations with the Aboriginal adult before testing began appeared to help relax the children but unfortunately this state did not extend or continue to the testing situation itself. That is, once testing began, the inappropriateness of the situation was the most influential factor in determining the test outcomes. It would appear evident, however, from comparisons with previous test results, that the outcomes may have been even lower, and hence important qualitative information may have been lost, had the Aboriginal adult not provided this ‘ice breaking’ role. Furthermore, although the test outcomes remained invalid, the Aboriginal adult’s interactions with the children were able to provide the information required to then provide some justification for validating or invalidating the test responses.

The importance of including an AE speaking adult in the assessment situation extended beyond increasing the quality and quantity of the verbal output from the children being
assessed. The Aboriginal adult was also instrumental in assisting the tester to identify situations of Shame and to suggest ways of coping with these responses. The formal test situation is highly likely to induce a Shame reaction among Aboriginal children as was evidenced by the children’s responses during formal testing both when the Aboriginal adult was and was not present. The decontextualised, question / answer, one on one nature of the formal tests continued to evoke a Shame response among the Aboriginal children whether the Aboriginal adult was present or not. The Aboriginal adult was, however, able to provide a more culturally appropriate communication context which abided by AE rules for communicating during the formal testing situation before and after testing. This communication context was not able to be replicated during the administration of the formal testing due to the constraints and requirements of the individual tests. The constraints and requirements of the formal tests do not reflect the way information is shared and disseminated among AE speakers.

While Shame itself should not generally be regarded as a negative emotion, the accompanying feelings of discomfort and uncertainty manifested in not wanting to communicate or to be in the situation (Harkins, 1990) can obviously impede any attempts to conduct communication assessments. Testers also should consider themselves to have an ethical obligation not to knowingly place children within Shame inducing situations.

In most cases, the presence of the Aboriginal adult appeared to help reduce the Shame response during the formal assessment sessions which was evidenced by the amount of natural conversation which took place and the more relaxed state of the children, at least while tests were not being conducted, as well as fewer ‘requests’ to leave the situation. Equally as importantly, the Aboriginal adult was able to identify and validate the Shame response for the child when it occurred. This heightened level of understanding towards the child from one of the adults involved in the assessment situation seemed beneficial in encouraging the child to continue participating to the best of their ability. The Aboriginal adult was also able to model and explain what it was that was expected from the child in this unknown situation hence reducing the ‘I don’t know what things are good to do here’ aspect of the Shame response (Harkins, 1990, p302).
In one instance, the Aboriginal adult left the assessment situation because he said the girl was feeling Shame due to her failure on a number of test demonstration items. The Aboriginal adult identified this for the girl and she said she would like him to leave. In this case, it could be argued that having the Aboriginal adult present caused more of a problem for the girl but, on the contrary, it was the content and design of the test itself, such as the inclusion of demonstration items as models, which caused the Shame response. The fact that an adult involved in the testing situation was sensitive to how the child was feeling and was able to respond appropriately appeared to assist the child with her Shame. The Aboriginal adult later explained that the child felt more able to continue failing in the presence of the non-Aboriginal tester because of the western 'teacher' / 'learner' role the child perceived as existing between them. This same role did not exist between herself and the Aboriginal adult so she was less comfortable failing in his presence. This example also highlights the importance of the ethnography of learning and communication and the subtle interactions which occur between culture, environment and communication to create the Aboriginal sense of Wellbeing.

Another child demonstrated Shame when the Aboriginal adult used a number of lexical forms characteristic of Aboriginal English within what the girl thought was hearing distance of her classmates. This girl was really enjoying the verbal exchanges with the AE speaking adult and she was being highly communicative. While the Aboriginal adult and the girl were talking about some pictures in a book, she said to the AE speaking adult, 'No they’re dog, not mirrigan, you’re making all them people look at you'. The girl latter repeated her comments, 'Look some people looking at you'. The Aboriginal adult continued joking with the girl and using Aboriginal English, knowing the difference in response required for this situation compared with the situation previously described. It is not a simple task for non-Aboriginal people to accurately interpret and respond accordingly to situations of Shame as the concept is not a part of Western cultures. For this reason, the inclusion of Aboriginal adults in assessment situations is very important.

The role of the Aboriginal adult in the assessment of communicative abilities was to provide the Speech Pathologist with a perspective of the children that was unavailable to non-Aboriginal adults. The children were more communicative with the Aboriginal adult present,
they displayed a greater range of language skills and the Aboriginal adult was able to tap into the sociolinguistic rules for communicating under which the children were operating. All of this greatly increased the Speech Pathologist’s capacity to make an accurate diagnosis of the individual children’s communication abilities.

3.3 THE ROLE OF NATURAL LANGUAGE SAMPLING AND ACTIVITY BASED ASSESSMENT WITH AE SPEAKING ABORIGINAL CHILDREN

Both Natural language sampling (NLS) and activity based assessment (ABA) have crucial roles to play in the accurate diagnosis of communication delay, disorder or difference with SAE speaking Aboriginal children. NLS combined with ABA were able to accurately reflect the true communication skill levels of the AE speaking children assessed in this study.

Specific categorisation or rating of the children’s skill levels in terms of severity was more difficult to ascertain due to the lack of appropriate comparative data. It is possible to work around this using NLS and ABA so accurate information regarding level of functioning are able to be obtained. The classification of children’s communication abilities based upon normative data is, in functional terms, really only of benefit anyway for funding bodies to substantiate the allocation or withholding of funds for individual children who require special assistance to participate in formal schooling. Both the NLS and the ABA were able to accurately determine the strengths and weaknesses of the children in terms of their communication abilities in both Standard Australian English and Aboriginal English. This is the important information required when establishing intervention programs.

It is also important to note that the NLS and ABA still only provided valid results when they were conducted in appropriate settings. The results of this study strongly supported the assumption, therefore, that valid assessment results regarding the communication abilities of AE speaking Aboriginal children can be obtained by using both NLS and ABA together in culturally appropriate settings.
ARTICULATION

Table 3.5: AE Speaking Aboriginal Children’s Results for the Aitken and Fisher Articulation Survey

<table>
<thead>
<tr>
<th>Diagnostic Categories</th>
<th>Child A</th>
<th>Child B</th>
<th>Child C</th>
<th>Child D</th>
<th>Child E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Appropriate</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Delay - Mild</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delay - Moderate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delay - Severe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phonological Disorder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbal Dyspraxia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dyspraxic Features</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-SAE dialect Patterns</td>
<td>b/v, f/0</td>
<td>f/0</td>
<td>Øh, f/0</td>
<td>f/0</td>
<td>f/0</td>
</tr>
<tr>
<td>Teacher Rating</td>
<td>3 → 2</td>
<td>5</td>
<td>5</td>
<td>9</td>
<td>5</td>
</tr>
</tbody>
</table>

The diagnoses recorded above take into account the influence of dialect differences upon the evaluation of assessment results. That is, non standard, age appropriate phonological realisations were assessed as being within normal limits.

Table 3.5 shows that the formal articulation assessment was effective in accurately describing the articulation skills of three of the five children in that the articulation skills described in this context mirrored those observed in more naturalistic settings. The formal articulation test also provided two less accurate diagnoses with an increased amount of speech containing dyspraxic features being elicited. The dyspraxic features elicited included inconsistent sound substitutions, difficulty producing multisyllabic words and reduced speech intelligibility in general. The formal articulation test was sensitive in describing dialect differences as long as the relevant dialect information was considered in the speech pathologist’s interpretation.
The diagnoses recorded below take into account the influence of dialect differences upon the evaluation of assessment results. That is, non standard, age appropriate phonological realisations are assessed as being within normal limits.

Table 3.6 shows that NLS was effective in accurately describing the articulation abilities for all five of the AE speaking Aboriginal children. The NLS allowed for the production of Wiradjuri words also which provided the opportunity to examine the children’s use of AE phonology in further phonetic contexts. For example, it provided an opportunity to describe how the children pronounced /gwinda/ and /b\gin/ which contain phoneme combinations not found or rarely found in SAE.

Table 3.6: Articulation skills as indicated by Activity Based Assessment

<table>
<thead>
<tr>
<th>Diagnostic Categories</th>
<th>Child A</th>
<th>Child B</th>
<th>Child C</th>
<th>Child D</th>
<th>Child E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Appropriate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delay - Mild</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>- Moderate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Severe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phonological Disorder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbal Dyspraxia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dyspraxic Features</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-SAE dialect patterns</td>
<td>b/v, f/0</td>
<td>f/0</td>
<td>f/0</td>
<td>f/0</td>
<td>f/0</td>
</tr>
</tbody>
</table>

The use of NLS and ABA were effective in providing information which described the phonology of the AE speaking children. Information was able to be obtained regarding their use of phonemes across a range of phonetic contexts at single word, phrase and conversation levels. These situations also provided information regarding self correction which was not displayed during formal testing. Assessing for stimulability for specific phonemes was also more successful in these situations due to the overall increased willingness and openness to communicate. Perhaps most importantly, these situations provided information regarding dialect specific phonology usage.
Two children, children B and C, displayed several instances of inconsistent sound substitutions, difficulties with multisyllabic word articulation and a general reduction in conversational speech intelligibility during the formal testing situations (refer table 3.5). Articulation patterns such as these have been associated with difficulties processing speech especially as it relates to the phonological awareness skills required for literacy development. Both of these children presented with no articulation difficulties during the NLS and ABA situations (refer table 3.6). Only one of these children, child C, presented with phonological awareness difficulties. The NLS and ABA were able to provide the accurate data regarding true articulation abilities for these children which the formal tests failed to do.

A further child, child A, presented with a mild articulation delay which was evident during both the formal testing situations and the NLS and ABA. This child’s teacher also reported markedly reduced speech intelligibility in class which was not evident during formal testing or during NLS and AB. Child A also presents with significant phonological awareness difficulties.

If the formal test results alone had been examined, children B and C could have been assessed as having mildly disordered articulation patterns accompanied by a mild articulation delay, if dialect differences had not been considered. The recognition of dialect difference is widely accepted among the Speech Pathology profession within Australia and dialect differences are not likely to be diagnosed as deficits. However, little developmental data exists regarding the phonological patterns of Australian English and judgement of difference or delay remains at the discretion of the individual therapist. Further discussions with the teachers indicated that the teachers considered the dialect patterns to need correction even if they acknowledged that ‘many people speak like that, including the rest of their family’. The assessor would also have been concerned about the children’s phonological awareness development following these formal test results.

Child A would also probably have been further assessed in the classroom to investigate the observations from the teacher regarding low speech intelligibility. In this setting, child A’s reduced speech intelligibility was more related to a general reluctance to communicate mostly in response to the teacher’s communication style of expecting audible verbal responses from
all children when they are asked questions or spoken to and emphasising the importance of class news time and procedural recounts. Obviously, these communication or discourse styles are not indicative of AE styles of communicating so the child’s skills in this classroom setting were unlikely to reflect her true abilities. Without NLS and ABA conducted within culturally appropriate communication settings, child A’s articulation abilities would have been inaccurately diagnosed as mildly disordered as well as mildly delayed.

It is important to note that only one teacher assigned one of the five children an average articulation rating (Refer table 3.5). All of the other three children whose articulation skills were essentially age appropriate with dialect patterns evident, were assigned below average articulation ratings. The teacher comments which accompanied the ratings cited reasons such as, ‘they mumble, they don’t talk clearly’. These inaccurate judgements appeared to be influenced by both the reluctance of the children to speak in class as well as the influence of the culturally inappropriate classroom setting upon the quality and the quantity of the speech produced, possibly as a result of the Shame response being elicited. It is highly likely, however, that the influence of dialect differences in the use of phonological patterns by the children also strongly influenced the negative ratings assigned by the teachers.

It is possible that the less culturally appropriate formal testing situation assisted in eliciting the dyspraxic like articulation patterns which were characterised by inconsistent sound substitutions, difficulty producing multisyllabic words and reduced conversational speech intelligibility. The communication style which existed in child A’s classroom reflects that also used during formal testing. That is, a question / answer format is used where a lack of response is scored as a failed attempt and the question style reflects the Western style use of interrogative sentences and ‘wh’ questions which have been observed to be less successful in eliciting information from Aboriginal people (Eades, 1985; Christie & Harris, 1985). In this case, maybe a lack of comfort with the communication style used also effected the quality and consistency of the speech produced.

The children also produced more inconsistent sound substitutions in their task related talk during the formal language testing. In this case, the individual withdrawal setting was possibly influential in itself in eliciting the increased number of dyspraxic like features in that
it did appear to elicit a Shame response among the children, one characteristic of which relates to a reduced verbal output from the children (Harkins, 1990, 1994). It may be that the accompanying emotional reaction may have had a significant effect upon the quality of the verbal output as well.

The ABA and NLS were effective in accurately assessing the phonological abilities of the children provided the NLS was conducted in culturally appropriate settings utilising Aboriginal English discourse styles.

<table>
<thead>
<tr>
<th>ABA</th>
<th>NLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification</td>
<td>Identification</td>
</tr>
<tr>
<td>Production PPA</td>
<td>Production PPA</td>
</tr>
<tr>
<td>Meaning PPA</td>
<td>Meaning PPA</td>
</tr>
<tr>
<td>Identification Initial Sounds</td>
<td>Identification Initial Sounds</td>
</tr>
<tr>
<td>Production</td>
<td>Production</td>
</tr>
<tr>
<td>Recognition</td>
<td>Recognition</td>
</tr>
<tr>
<td>Oral Reading</td>
<td>Oral Reading</td>
</tr>
<tr>
<td>Oral Writing</td>
<td>Oral Writing</td>
</tr>
<tr>
<td>Phonemic Awareness</td>
<td>Phonemic Awareness</td>
</tr>
<tr>
<td>Phonological Awareness</td>
<td>Phonological Awareness</td>
</tr>
<tr>
<td>Phonemic Awareness</td>
<td>Phonemic Awareness</td>
</tr>
<tr>
<td>Phonological Awareness</td>
<td>Phonological Awareness</td>
</tr>
</tbody>
</table>

Table 3.4 shows how well the AL speaking children performed in the various, phonetic and phonological levels across a range of identification, production, identification, reasoning and manipulation tasks. Table 3.4 also shows how effectively the children were able to apply these phonological awareness skills to real word reading and spelling tasks which also provided some indication of the children's understanding of sound/symbol relationships. It is important to note that for all children, their phonological awareness development as indicated by the DPA was uneven with some earlier developing skills not assessed as being present while later developing and more cognitively demanding skills were assessed as being present. Table 3.4 demonstrates that while many children displayed a sound awareness of
B) PHONOLOGICAL AWARENESS

Table 3.4 AE Speaking Aboriginal Children’s Results for the SPAT

<table>
<thead>
<tr>
<th>Activity</th>
<th>Linguistic Level</th>
<th>Cognitive Level</th>
<th>Child A</th>
<th>Child B</th>
<th>Child C</th>
<th>Child D</th>
<th>Child E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syllable Counting</td>
<td>Syllable</td>
<td>Segmenting</td>
<td>P</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Rhyme Detection</td>
<td>O-R (Rime)</td>
<td>Detection</td>
<td>F</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>Rhyme Production</td>
<td>O-R (Rime)</td>
<td>Production</td>
<td>F</td>
<td>F</td>
<td>P</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>Onset Identification</td>
<td>O-R (Rime)</td>
<td>Identification</td>
<td>F</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Final Phoneme Identification</td>
<td>Phoneme</td>
<td>Identification</td>
<td>P</td>
<td>E</td>
<td>P</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>Segmentation (CVC)</td>
<td>Phoneme</td>
<td>Segmenting</td>
<td>E</td>
<td>F</td>
<td>P</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blending (VC, CV, CVC)</td>
<td>Phoneme</td>
<td>Blending</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>Deletion of Initial Phoneme</td>
<td>O-R (Onset + Rime)</td>
<td>Manipulation</td>
<td>E</td>
<td>P</td>
<td>F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Segmentation (CCVC, CVCC)</td>
<td>Phoneme</td>
<td>Segmenting</td>
<td>F</td>
<td></td>
<td>P</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CC Blends: Delete First Phoneme</td>
<td>Phoneme</td>
<td>Manipulation</td>
<td>P</td>
<td></td>
<td>P</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CC Blends: Delete Second Phoneme</td>
<td>Phoneme</td>
<td>Manipulation</td>
<td>F</td>
<td></td>
<td>F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non Word Reading</td>
<td></td>
<td></td>
<td>1/7</td>
<td>0/7</td>
<td>4/7</td>
<td>1/7</td>
<td></td>
</tr>
<tr>
<td>Non Word Spelling</td>
<td></td>
<td></td>
<td>0/7</td>
<td>1/7</td>
<td>3/7</td>
<td>0/7</td>
<td></td>
</tr>
<tr>
<td>Teacher Rating</td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>Not Given</td>
<td>3</td>
</tr>
</tbody>
</table>

P = Pass level  E = Emerging Skill level  F = Fail level

Table 3.4 shows how well the AE speaking children performed at the syllable, onset-rime and phonemic levels across a range of identification, production, blending, segmenting and manipulation tasks. Table 3.4 also shows how effectively the children were able to apply these phonological awareness skills to non word reading and spelling tasks which also provides some indication of the children’s understanding of sound / symbol relationships. It is important to note that for all children, their phonological awareness development as indicated by the SPAT was uneven with some earlier developing skills not assessed as being present while later developing and more cognitively demanding skills were assessed as being present. Table 3.4 also shows that while many children displayed a number of phonological
awareness skills, their ability to successfully complete the non word spelling and reading tasks was low.

**Table 3.7 Phonological Awareness Skills as Indicated by Activity Based Assessment**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Linguistic Level</th>
<th>Cognitive Level</th>
<th>Child A</th>
<th>Child B</th>
<th>Child C</th>
<th>Child D</th>
<th>Child E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Sound bingo (single phonemes)</td>
<td>O-R (Onset)</td>
<td>Identification, Sound / Symbol</td>
<td>E</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>Initial Sound Bingo (Blends)</td>
<td>O-R (Onset) + Phoneme (Id on board)</td>
<td>Identification, Segmenting, Sound / Symbol</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Rhyme Generation</td>
<td>O-R (Rime)</td>
<td>Production</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Creating a rhyming word for a specified object beginning with a specified letter</td>
<td>O-R (Onset + Rime)</td>
<td>Sound / Symbol, Manipulation</td>
<td>F</td>
<td>P</td>
<td>E/P</td>
<td>E</td>
<td>P</td>
</tr>
<tr>
<td>medial Sound Bingo</td>
<td>Phoneme</td>
<td>Identification, Sound / Symbol</td>
<td>P</td>
<td>P</td>
<td>E</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>Creating Word Strings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Final Sound Identification</td>
<td>Phoneme</td>
<td>Identification, Production</td>
<td>F</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>b) Alliteration</td>
<td>O-R (Onset)</td>
<td>Production</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>CVC Blending</td>
<td>Phoneme</td>
<td>Blending</td>
<td>E</td>
<td>P</td>
<td>E</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>CVC Segmenting</td>
<td>Phoneme</td>
<td>Production</td>
<td>F</td>
<td>P</td>
<td>E</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Speech Tracking (ADD) to CVC Stage</td>
<td>Phoneme</td>
<td>Manipulation</td>
<td>F</td>
<td>E</td>
<td>E</td>
<td>P</td>
<td>P</td>
</tr>
</tbody>
</table>

P = Pass level  E = Emerging Skill level  F = Fail level

Table 3.7 shows how well the AE speaking children performed at the onset-rime and phonemic levels across a range of identification, production, blending, segmenting and manipulation tasks. Table 3.7 shows that the children’s development of phonological
awareness skills was not as uneven as was demonstrated by the SPAT. The ABA included the application of sound / symbol understanding as well as reading and writing tasks. Table 3.7 does not record the children’s skills in the application of sound / symbol understanding in reading and writing tasks, although their performances in these areas are discussed in this section.

The ABA was able to provide accurate information regarding the phonological awareness abilities of the AE speaking Aboriginal children. The results obtained using ABA were able to provide specific information regarding how well the children could perform a number of phonological awareness tasks both at the onset-rime and phoneme linguistic levels across a range of identification, segmenting, blending, deletion and manipulation tasks. The ABA provided detailed information regarding the specific areas of strength for each of the children along with the gaps in their learning and was successful in identifying areas of breakdown possibly inhibiting their literacy development. All five of these children receive special assistance for literacy development from the school. The ABA also did not elicit Shame responses among any of the children unlike the formal test of phonological awareness used, the SPAT. This lack of the Shame response increased the validity of the information obtained using ABA.

The ABA provided information regarding how each of the children were able to perform phonological awareness tasks within settings appropriate for their learning and communication styles. This is why the validity and, in most cases, the accuracy of their responses were increased. Once again, the teacher ratings tended to parallel those results obtained on the formal test which implies that the assessment methodologies used by the teachers paralleled the conditions the children encountered during formal testing. Considering that the teachers primarily tended to rely upon informal assessments of work completed and observations of classroom performance, this is a worrying indication of the cultural suitability of classroom settings and teaching methodologies for the AE speaking Aboriginal children.

The children’s abilities to perform phonological awareness tasks during ABA were not reflected in the teacher’s comments. All of the teachers equated phonological awareness
development directly with literacy related skills and so had a narrow view of phonological awareness as specifically relating to how well children identify sounds in words and to how well they segment and blend letters. Child C’s teacher said that in his fourth year of school, child C was only able to identify initial sounds in words. ABA showed that child C had many more skills than this. Child E’s teacher said that child E was essentially a non reader after seven years of regular, formal schooling. ABA showed that, not only did child E have more skills than were being evidenced at school, but that he had the ability to quickly learn and develop these skills using an ABA approach which explicitly taught these skills and related them to decoding and encoding. All of the children received comments which reflected either a perceived lack of skill or a frustration from the teacher that an individual child had the potential to do better but that they were under-performing.

It is also important to note that the formal test used, the SPAT, includes a teaching component with each task to be completed and so the results obtained by the children on the SPAT were those they obtained following some teaching of the skill initially. This initial teaching of the skill was usually not sufficient to negate the cultural inappropriateness of the assessment setting. Also, the initial teaching sections incurred a significant Shame response in one of the children and the other children failed to benefit from this teaching possibly for similar reasons.

In a number of cases, children who failed items on the SPAT were able to successfully perform the same functions during ABA. For other children, the consistency and confidence with which they completed tasks increased during the ABA (refer table 3.7). When using ABA as an assessment tool, it is important to ensure that the tester is measuring exactly what they claim to be measuring by negating the influence of possible environmental cues or prompts which could falsely elevate a child’s performance. Taking this into account, the children continued to perform these tasks better during the ABA. For example, children B and C were unable to preform a Rime level generation task during the SPAT but performed this task competently during the ABA. Similarly, children B and C failed the segmentation task at phoneme level on the SPAT but were able to perform this task, for child B, at a pass level and, for child C, at an emerging level during the ABA. All of the children performed tasks more consistently in term of percentages correct during the ABA.
The three children with considerable phonological difficulties, as indicated by the ABA, tended to have their skills more significantly underestimated by the SPAT than the one child who has some phoneme level difficulties with manipulation tasks and the other child who appears to have grade appropriate phonological awareness skills. The skills of all five of the children were underestimated by the SPAT and the teacher ratings, however, to some degree. This inaccuracy in the judgement of skill level was able to be detected and more accurate measures obtained using ABA.

Little developmental data exists regarding the development of phonological awareness skills in children, let alone AE speaking Aboriginal children, which makes the task of assigning developmental diagnoses using ABA information difficult. In terms of therapeutic information, however, ABA provides all of the information required to implement intervention programs for the children experiencing difficulties with certain skills. Given that competency in all of the assessed areas is important for literacy development, it is valid to provide instruction in any area which is lacking.

It was also important, however, when analysing these children’s phonological awareness skills that a sound theoretical framework was used to examine the data. Once again, the problem existed of assigning culturally inappropriate information to the AE speaking Aboriginal children but a well constructed model could at least provide a starting point from which to begin the analysis. Leitão (1999) described the placement of phonological awareness development within a speech processing model (Stackhouse & Wells, 1997) which offers a sound theoretical framework for justification of a hierarchy of acquisition of phonological awareness skills. This approach has provided a psycholinguistic framework for analysis of the children’s phonological awareness skills who participated in this study and the placement of their skills within a hierarchy of development.

Fletcher and Leitão (1998) describe phonological awareness as progressing developmentally from:

1. awareness of words within the sound string, through
2. awareness of the phonological characteristics of words, eg. long versus short words,
3. syllabic awareness,
4. intra-syllabic awareness (onset-rime), to
5. phonemic awareness. (p201)

The ABA used in this study focussed upon the last two developmental areas in order to provide a similar focus to the SPAT. Further assessment of the phonological awareness skills of these children should include the preceding three areas as well.

Child A has significant difficulties with Onset - Rime skills at all cognitive levels and requires instruction at the lower Syllable awareness level while also providing intervention at the Onset - Rime levels. Child B has well developed Onset - Rime skills and her Phoneme level skills are well developed at all but the most cognitively demanding levels of manipulation. Her skills are essentially grade appropriate. Child B does not demonstrate confidence in applying these well developed skills in decoding and especially in encoding tasks. Child C has well developed Onset - Rime skills and needs work to develop his phoneme level skills beyond the identification and analysis levels. Child D has well developed Onset - Rime skills and his Phoneme level skills are also well developed with some cognitively demanding levels of manipulation requiring further attention. Child E has well developed Onset - Rime and Phoneme level skills and yet is practically a non reader. Child E does not confidently apply the skills he has to decoding and encoding situations and has variable left to right orientation for word attack. The interesting issue for all of these children is that none of them demonstrate this level of skill in the classroom. This was reflected by the teacher’s low ratings in the area of phonological awareness.

Considering the importance of all phonological awareness skills in literacy development, it remained most important to identify gaps in development for the five children which the ABA successfully achieved. It was also important, however, to have a developmental hierarchy within which to place the children in order to later teach new skills in a suitable progression. This was also achieved through applying the developmental levels as suggested by Fletcher and Leitão (1998) to the analysis of the ABA data obtained, as has been outlined above. This information was also important in developing the assessment activities used in the ABA.
ABA offered something to the assessment process which the formal test was unable to do. That is, ABA provided a valid method of obtaining information regarding the phonological awareness skill development of the AE speaking Aboriginal children who participated in this study. These data were then able to be analysed based upon the knowledge of the tester and the application of a sound theoretical framework which offered a developmental hierarchy of phonological awareness skills. Regardless of the difficulties inherent in applying culturally generic frameworks to data analysis for a particular cultural group, ABA provided a much more valid method of data collection than did the formal tests and, for this reason, ABA provided a more valid assessment of the phonological awareness skills of the five children involved in this study.
C) ORAL LANGUAGE

The most salient differences between AE speaking Aboriginal children and non Aboriginal children lie in the areas of oral language. Differences exist in all areas of language use. That is, in the syntax, morphology, semantic and pragmatic areas. It follows suit, therefore, that the assessment of language delay, disorder or difference for AE speaking Aboriginal children must be able to measure these aspects of language as demonstrated by AE speaking Aboriginal children. It has already been argued that formal, standardised tests failed to achieve this with the AE speaking Aboriginal children. The use of NLS and ABA were able to accurately measure the specific language characteristics present in Aboriginal English. NLS and ABA also did not elicit the Shame response which was apparent during formal testing, hence increasing the validity of the results.

Perhaps more so with language competency than with phonology and phonological awareness skills, the assessment of oral language functioning using NLS needs to occur longitudinally over a period of time. This is, of course a reflection of the dynamic and individualistic nature of language and language development, but it is also a reflection of the lack of developmental data which exists regarding the development of Aboriginal English among Aboriginal children. Once again, while NLS and ABA were effective in the more accurate collection of data, the difficulty remained regarding the analysis of these data using primarily culturally generic or even culturally biased theoretical frameworks. This study showed that, while these possible biases needed to be considered and accounted for when possible, NLS and ABA conducted in ways which did just this were effective in providing accurate data regarding language competency.

The oral language information was analysed in terms of discourse skills, by assessing language comprehension, by establishing the range of language functions used, by analysing the content and form of the language used in terms of accuracy and relevance and by observing for linguistic and non linguistic behaviours indicative of language difficulty displayed by the individual children. These analyses were conducted using a difference model with deviations from SAE being analysed in terms of AE using the other Aboriginal children and adults as comparisons in conjunction with documented information regarding the language characteristics of AE speaking Aboriginal children. Those analyses involving the
range of language functions used and the behavioural characteristics of the children were based upon well researched theories regarding language development among bidialectal and bilingual children.

**Discourse Analysis**

Table 3.8 provides a summary indicating how well the children performed within the six dimensions of oral narrative as defined by the NAP during NLS situations. Some of the narratives were elicited while others occurred spontaneously. All of the narratives were narratives of personal narration. This form of discourse was chosen for assessment as it is, 'more relevant and similar to the forms of unstructured or unsupported narrative discourse that is required for both academic and social functions' (Bliss, L et al 1998). Malcolm (1994) also found the analysis of first person oral narratives an effective way of obtaining information regarding Aboriginal children's discourse skills.

**Table 3.8 Discourse Analysis using the Narrative Assessment Profile (NAP)**

<table>
<thead>
<tr>
<th>Dimension of Narrative</th>
<th>Child A</th>
<th>Child B</th>
<th>Child C</th>
<th>Child D</th>
<th>Child E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic Maintenance</td>
<td>Approp</td>
<td>Approp</td>
<td>Approp</td>
<td>Approp</td>
<td>Approp</td>
</tr>
<tr>
<td>Event Sequencing</td>
<td>Approp</td>
<td>Approp</td>
<td>Approp</td>
<td>Approp</td>
<td>Approp</td>
</tr>
<tr>
<td>Explicitness</td>
<td>Approp</td>
<td>Approp</td>
<td>In-Approp</td>
<td>Approp</td>
<td>Approp</td>
</tr>
<tr>
<td>Referencing</td>
<td>Approp</td>
<td>Approp</td>
<td>#Approp</td>
<td>Approp</td>
<td>Approp</td>
</tr>
<tr>
<td>Conjunctive Cohesion</td>
<td>Approp</td>
<td>Approp</td>
<td>*Approp</td>
<td>Approp</td>
<td>Approp</td>
</tr>
<tr>
<td>Fluency</td>
<td>Approp</td>
<td>Approp</td>
<td>In-Approp</td>
<td>Approp</td>
<td>Approp</td>
</tr>
<tr>
<td>Teacher Rating</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Approp = appropriate usage but limited range of conjunctions and cohesive devices.

#Approp = child C used specified pronouns but at times he confused the agreement.

Four of the five children exhibited appropriate oral narrative skills in the genre of personal narration. This genre was easy to elicit and was produced spontaneously in many cases. Child C presented with significant expressive difficulties which reduced his ability to produce explicit discourse containing all of the relevant information including the sufficient embellishment of the information provided. Child C also presented with significant word
finding difficulties and a reduced ability to plan, monitor and repair his utterances which reduced the fluency of his utterances. These difficulties could not be attributed to bidialectal influences due to the presence of various other factors which were also indicative of language disorder.

All of the teacher ratings except for one, once again, failed to accurately describe the oral language skills of the children. In this case, the teacher ratings which assigned inappropriately low scores, all based their judgements upon discourse situations in which AE speaking Aboriginal children are likely to perform less well. That is, these three teachers all spoke of the children’s abilities to give news in front of the class or to give oral reports. While the first type of discourse could constitute a personal narrative such as the genre assessed during the NLS, the setting for the communication is not favoured among Aboriginal children. That is, the requirement to stand up in front of the class, which is in itself likely to induce Shame, on a given day which introduces an artificial element to the communication, and talk about something for the sake of satisfying a class requirement is far removed from the naturalistic setting usually associated with the genre of personal narrative.

The genre associated with oral reports is usually even more decontextualised and lacking in personal relevance. Plus, the concept of monologues as a means of exchanging verbal information is likely to appear quite artificial to Aboriginal children. Hence, it is not surprising that the teacher ratings reflect the poor suitability of these discourse settings. The main problem with these ratings lies in the fact that these three teachers did not identify that they were judging the children’s abilities in situations in which they were likely to perform the least well. This is where the NLS was invaluable, in that it was able to provide the most optimum communication settings possible in which to judge the individual children’s skills.

The one teacher who abstained from assigning a rating did so because the child was non communicative in the school setting and she did not feel she could rate his skills in this area. This, at least, indicated some understanding of the influence of the setting upon communication and the possibility that a lack of communication does not necessarily equate with a deficit in communicating. The one teacher who assigned an age appropriate rating for discourse skills, appeared to make her judgements based more upon the use of the genre of
personal narration within naturalistic settings. That is, the teacher talked about the child’s ability to relay and talk about events which had happened at home or in the playground. News time was not mentioned nor were oral monologue presentations. It would appear that this teacher judged this child’s skills in more appropriate settings, hence arriving at a more appropriate judgement of communication competency.

One area in which all of the AE speaking Aboriginal children scored well was in the dimension of Referencing. Referencing is referred to as the adequate identification of individuals, features and events (Halliday & Hassan, 1976). Bliss, McCabe & Miranda (1998) state that inappropriate referencing occurs, ‘when pronouns are used without prior identification, when nouns are repeated where pronouns would be expected, or when erroneous pronouns are used’ (p350). Referencing is often difficult for language disordered children to achieve well and has been documented as varying significantly according to socioeconomic background (Bliss, McCabe & Miranda, 1998). Even the child with significant expressive language difficulties, however, was able to adequately identify the elements of the story using appropriate lexical selection including specified pronouns.

It was evident that all of the children used topicalisation frequently as a referencing device. The use of topicalisation has been documented as featuring in Aboriginal English. For example, child D said, ‘X she’s picking at it’ with X and she referring to the same person. Child A said, ‘All the bowl put it in the middle’. Child C used specified pronouns as well as topicalisation to provide appropriate referents. The cultural salience of topicalisation within AE probably assisted child C to develop referencing skills at a higher level than his non Aboriginal language disordered peers. This is one instance of how a generic theoretical framework such as the NAP can be applied to a linguistically specific group using a difference model and give an appropriate diagnosis of delay, difference or disorder within a NLS setting.

In terms of the formal assessment of discourse skills, no specific tests were administered as the type of narrative recount often administered has regularly received various criticisms as being strongly culturally biased. That is, the subject matter is not highly culturally relevant and the language presented to and required from the child is SAE. Malcolm (1994) has also provided support for variations in discourse structure between Aboriginal and non Aboriginal children. Hence, a need to further validate these beliefs would not have been as useful as
testing the usefulness of some alternatives. Rather, attempts were made to firstly elicit personal narratives during the formal testing sessions and to also ask the children to create a story from picture cues.

The quality of the personal narratives elicited during the formal assessment sessions varied but the quality and willingness to participate were generally not as high as for the ones elicited during the NLS sessions. Hence, the setting as well as the type of discourse being assessed was important in obtaining accurate results. This reflected the information provided by the teacher ratings regarding how the children performed personal narratives during the inappropriate news time setting. For example, child C produced the following three narratives. The narratives were elicited using various informal assessment techniques.

**Setting 1 : Formal assessment setting with only speech pathologist present**

'oh yeah..X um.when we play bingo make ridgenal animals in a square and we look at it.so nice.and try to make bridgenal circle circle and I look at it.and make black yellow red black.and I talk on it one animal and X and dad draw a person.. and Y pick up a stick and hurt the dog this..in computer'.

This sample of discourse shows varying degrees of difficulty in all six areas of discourse described by the NAP. Based upon this analysis, child C did present with severe difficulties producing personal narratives. The topic of the discourse is unclear. Rather a series of seemingly related happenings are presented in sequence with the connecting idea of computer games presented at the end of the narrative. Even when the listener is presented with the topic of computer games, several references such as, 'hitting the dog with a stick' remain unclear. Child C does appear to attempt to present events chronologically although due to the semantic ambiguity of the narrative, this is difficult to determine. Insufficient information is presented for the listener to make sense of this narrative and the activities described by child C, such as making red, yellow and black, are not well introduced. Child C does use referencing well in some cases through the use of 'it' to refer to previously introduced objects such as the square and the circle. Later in the narrative, child C’s use of referencing is much poorer. Child C uses 'it' in an unspecified manner while 'the dog' is introduced without
being specified previously. Child C uses the conjunction ‘and’ effectively mainly to link events which indicates a limited use of cohesive devices. Child C does also use a beginning to initiate the narrative which serves more of a pragmatic cohesive function. The fluency of this narrative is largely appropriate with one instance of word repetition (ie circle circle).

This sample reflected the reduced comfort of the children in this setting which was reflected, in this instance, in the poorer quality of the sample produced. The length of this sample was uncharacteristic of the amount of non task related talk produced by child C in this setting and it may well have been an attempt by child C to fulfil the perceived requirements for talking, turning talking into talking for the sake of talking. Child C did not appear to monitor his language production effectively nor the tester’s understanding of it, except for at the end when he clarified that he was talking about playing on the computer. This lack of repair / revision strategies in this setting was also evident in his use of phonology. In the group setting, child C applied these strategies more capably although the need for them was reduced.

Setting 2: Formal assessment setting with an Aboriginal adult present

‘I went to my friend’s house and my friend told his mum go yabbying .. the big yabby snapped my line. And I made another one’.

The length of this sample is rather short and the story could have been embellished further although adequate meaning was conveyed. It did, however, indicate that child C was able structure a short personal narrative more appropriately. A single topic of narration was maintained and the events were presented in a chronological order. The meaning of this narrative is easily understood. The phrasing of, ‘my friend told his mum go yabbying’ could indicate some confused meaning when viewed from a SAE perspective. Harkins (1994), however, describes the use of ‘tell’ in preference to ‘ask’ among AE speakers in Alice Springs when wanting to ‘ask someone to do something’ (p172). Child C’s phrasing, in this instance therefore, possibly reflects AE conventions of communicating and so can be deemed an appropriate form of sentence construction and word choice. Child C’s referencing is appropriate and his use of cohesive devices is appropriate. Child C could have introduced the cause / effect relationship between a yabby snapping his line and him making another line
using a different conjunction. This narrative is fluent with no false starts interfering with the coherence of the message.

This sample reflected the increased comfort child C was possibly feeling having the Aboriginal adult present in that the quality was better but it continued to elicit less naturalistic language than the group NLS setting did.

Setting 3: Group NLS

‘Um santa we have to make santa a reindeer. And um the um reindeer there and you have you have to colour it. And then um you have to get all these things. And stick the stick it on. And after that when you finished you have to make a card. And then. And after that the um the card you have to put santa face on it’.

This sample also indicated that C has the ability to structure a personal narrative well in a number of areas while some aspects remain difficult. Child C’s topic maintenance, sequencing of events, referencing and use of cohesive devices are all appropriate (refer table 3.8). Child C does have difficulty with lexical selection which reduces the explicitness of this narrative. The dysfluency evidenced by the word and phrase repetitions also reduces the discourse coherence of this narrative. It is important to note that child C exhibits more of the discourse features characteristic of Aboriginal children’s first person narratives as reported by Malcolm (1994) in this narrative than in any of the others. For example, in this narrative, child C appears to follow the, ‘fundamental alternation between moving and stopping activities which provides the basic structure for each of the narratives observed’ (Malcolm, 1994, p157). Child C also uses the commonly occurring conjunctive expressions, according to Malcolm (1994), of ‘and then’ and ‘and after’. Child C does not use these AE discourse features in the other two samples. This supports the argument that NLS conducted in culturally appropriate settings provides a more suitable context for the elicitation of AE and, hence, natural language use. These examples also highlight how more subtle features of AE such as discourse markers need to be considered in an analysis of spoken communication.
The sample length in this example is more similar to that of the first example which indicates that child C’s poor construction in the first example was unlikely to be related to the longer length of the sample. The degree of dysfluency increased significantly in this sample due to the increased length of the sample and the increased language formulation requirements. NLS was the most effective setting for eliciting information regarding the true nature of child C’s personal narrative abilities. NLS, in this case, showed how it was able to not only differentiate between the presence or absence of difficulty but it was also able to describe the pattern of deficit while also more clearly showing the AE language patterns.

The task requiring the children to create a story around an Aboriginal theme picture book was unsuccessful in eliciting valuable information regarding discourse skills. It is important to note that often assessors try to ‘Aboriginalise’ their assessments by using Aboriginal pictures in their assessment tools. The use of such pictures in an inappropriate setting was not effective in gaining the information required. This type of task is also unlikely to elicit the type of first person narrative sample favoured by Malcolm (1994).

This type of task is also more likely to elicit a series of possibly unrelated picture descriptions rather than to encourage opportunities for children to structure a type of spoken discourse. It was interesting, however, that a number of the AE and SAE speaking Aboriginal children tended to relate situations in pictures used during the formal testing to themselves either by referring to a situation of their own which related to the picture or commenting upon their response to the situation. For example, child C responded to stimulus item two in the RAPT, which is, ‘What is the mother going to do?’ relating to a picture of a mother beginning to put on her child’s boots, with, ‘When its raining, you put your boots on’. Child C also said, ‘I would give them back’ after responding to stimulus item ten which has a picture of a lady whose apples are falling out of a hole in her shopping bag and a boy picking up the apples unbeknown to the lady. These examples may reflect attempts by the child to place these pictured situations within a real-life context in order to relate to them better. These examples may also indicate a preference by the children for the discourse genre of personal narrative, hence, supporting the use of this genre as a preferred style of narrative when assessing narrative skills of AE speaking Aboriginal children.
Oral language Comprehension

The NLS and the ABA proved to be highly effective ways of accurately assessing the comprehension abilities of the AE speaking Aboriginal children. The NLS and the ABA were able to mirror the comprehension abilities required of the children in everyday as well as formal learning communication situations without the added influence of a culturally inappropriate setting.

NLS and ABA were able to accurately identify the comprehension strengths and weaknesses of the children in the group, which is important diagnostic information for intervention, but it was unable to place the individual children firmly within a specific diagnostic category regarding degree of impairment. Once again, however, formal tests were also unable to accurately do this for the AE speaking Aboriginal children and the value of such information, when credibly obtained, is really only of relevance in political terms. The results obtained using NLS and ABA were able to discredit the information obtained using standardised tests and to also provide direct, rather than extrapolated, information regarding level of functioning within real-life communication settings.

Comprehension skills were assessed using ABA based around the Blank, Rose and Berlin (1978) model of structuring oral discourse which proposes four levels of questioning involved in effective discourse (refer Appendix D). Comprehension skills were also assessed during the ABA phonological awareness tasks in relation to the varying cognitive and language demands of the tasks. Comprehension assessment also involved assessing how accurately the individual children were able to respond to natural requests during the NLS and the ABA and the speed with which information was processed.

The assessment of comprehension skills within a group context must consider and negate the influence of environmental cues upon the individual children's responses. It is easier for children in a group situation, to rely more heavily upon contextual rather than linguistic cues in interpreting spoken information. It was possible, however, to account for these factors while still effectively utilising ABA and NLS within a group setting to obtain accurate information regarding comprehension abilities. It was also important to analyse comprehension abilities within a group setting considering that much of the children's formal
learning occurs within this context. It was also important to conduct comprehension assessments within a culturally appropriate context of learning and information sharing. The group setting better reflected the way in which information appears to be typically discussed and disseminated among Aboriginal people.

All five of the children who were assessed as having severe receptive language disorders using formal assessment, presented as being able to understand a range of discourse based questions and task related, as well as non task related, directions and requests during the ABA and NLS. The information obtained was, at the least, able to rule out the possibility of severe language disorder for all of the children and, in most cases, the comprehension skills of the children did not appear to be impaired. Child C did present with some delays in responding to spoken information but this appeared to have been more related to his expressive language disorder and the time he required to formulate a spoken response. None of the other children presented with delayed response times which could have indicated an auditory processing deficit. All of the children participated in and derived meaning from the humour and regular banter which occurred during the NLS either among themselves or with the Aboriginal adults.

According to the structured discourse assessment task used, all five of the children demonstrated an ability to understand a range of simple and complex questions and sentence types appropriate for children in the 5 - 8 years age range. That is, all of the children were moving into understanding information in the Reordering Perception and Reasoning About Perception conceptual levels of discourse. Children D and E were competent with all of the question forms which was appropriate given their ages. Child B also showed she was able to understand enough of these question types to indicate no difficulties in this area, given her age. Children A and C are continuing to develop an understanding of the question types in the upper two levels. This is appropriate for child A given her age. Child C needs to develop his ability to respond appropriately to all of these question types more consistently but at least this assessment showed that child C does not have significant difficulties in this area. These results were all significantly higher than was indicated by the CELF-3.

A range of sentences containing subordination and relative clauses were understood by the children. Various concepts which are essential prerequisites for instructional language such
as those involving time, spatial relationships, colour, shape and directionality were understood by nearly all of the children. Only child A demonstrated difficulties with directionality. Child A has also been assessed as having midline crossing and motor planning problems as well as mixed dominance by an Occupational Therapist. Child A’s difficulties understanding the labels which apply to these areas such as ‘left’ and ‘right’ are consistent with difficulties in these areas.

Aboriginal children appear to be adept at listening equally well to competing stimuli or to tuning in to a spoken message while attending to other visual or auditory stimuli. Most children with comprehension difficulties would not be able to successfully achieve this but four of the five children were able to do this skilfully. The ability to demonstrate this type of listening skill is indicative of a lack of significant comprehension difficulties. The only child who appeared to have some difficulties listening to a spoken message when attending to other external stimuli was the youngest child, child A. What may be evident, in this case, however, is some insight into the possible developmental nature of this listening skill rather than a comprehension deficit. That is, a child of her age may still be in the process of acquiring mastery of this skill. Certainly, child A did not show any other signs of significant comprehension deficit. Monitoring the progress of these skills over time in NLS settings should provide the information required to then make an appropriate diagnosis.

Teachers were asked to rate these children’s abilities in two areas which relate to comprehension, Listening / Attention and Following Instructions / Directions. Three out of the five teachers assigned average ratings for Following Instructions / Directions. Of these three, two of the children were also assigned average ratings for Listening / Attention. The remaining two children received below average ratings for both areas. These results more closely paralleled the true abilities of the children than any other communication area rated by the teachers. Following class and work directions possibly violate fewer cultural differences for the Aboriginal children than the expectations teachers have for the spoken language areas. A large amount of classroom instruction is non specific or indirect, de-contextualised and containing quite complex sentence forms especially conjunctions indicating that competence in these areas in the classroom setting is highly unlikely to indicate significant comprehension difficulties. It is important, however, to identify the possible influence of contextual cues as
an aid to understanding in the classroom setting. Teachers seemed to be aware of this, however, and gave examples of children demonstrating adequate comprehension skills where the influence of contextual cues was minimal. For example, child C was described as being able to competently fulfil the role of class messenger when it was his turn. Most children with comprehension deficits have difficulties with this multi-faceted task, either in understanding and internalising the message initially or in being able to accurately recall and then reproduce the message once they had arrived at their destination, assuming they could remember where they were to go.

The problems for these AE speaking Aboriginal children being confronted with inappropriate questioning and instruction giving techniques remained a problem for them in individual communication situations, however, and influenced how the teachers judged the children's comprehension skill levels. For example, child C who was assigned average ratings for both of the above comprehension related areas, was judged as being so delayed in the receptive language area that in the playground one day he was deemed to not be able to understand the instruction, 'Child C do up your shoelaces'. This information was relayed to me by the two teachers who witnessed this apparent misunderstanding and felt it confirmed their beliefs regarding his significantly delayed development. Yet, one of these same teachers had assigned him average scores for the two comprehension related tasks. During the group NLS, child C responded appropriately to an indirect comment regarding shoelaces as referring to him needing to do up his undone shoelaces. The difference in these two instances was the form of the direction, the first one being linguistically less demanding but culturally less appropriate, the second one being linguistically more demanding but culturally more likely to elicit a response.

The five children did not demonstrate difficulties understanding the task related talk during the ABA. All of the children, except for child A, were able to demonstrate an understanding of the phonological awareness task instructions related to manipulation level skills. These tasks were beyond the phonological awareness skill level of child A which was more likely to be why she was unable to perform these tasks. An example of this type of instruction was, while showing the child a letter, 'This letter name is (pause) and the sound it makes is (pause) ok now go stand on the left side of the X. You have to think of the word which starts with
your letter and rhymes with the X’. The speech tracking section of the Auditory Discrimination in Depth program by Lindamood and Lindamood (1975) was also used as a phoneme level activity to assess phonological awareness skills. The short term memory load and the ability to use inner language skills in this task is very high and causes a lot of problems for children with auditory processing difficulties. Once again, this task was too difficult for child A but the others all processed the information provided in a competent and efficient manner.

**Range of Language Functions**

The range of language functions displayed by the children during ABA and NLS were analysed using the ‘Bilingual Oral Language Development (BOLD)’ developed by Mattes and Omark (1984). The BOLD covers twenty communicative behaviours and is designed so that records can be made of the child’s performance in both the native language and English. Behaviours are recorded as present or absent. The twenty communicative behaviours covered are as follows:

1. Comments on own actions
2. Comments on other’s actions
3. Describes experiences accurately
4. Describes events sequentially
5. Attends to the speaker
6. Follows directions
7. Initiates interactions
8. Takes turns during conversation
9. Maintains topic
10. Answers questions
11. Requests attention
12. Requests action
13. Requests clarification
14. Requests information
15. Expresses needs
16. Expresses feelings
17. Describes plans
18. Supports views
19. Describes solutions

20. Expresses imagination (Mattes & Omarck, 1984, p80)

This format was chosen as it was designed for use with bilingual children and appeared to identify a range of seemingly universal communication behaviours associated with successful communication exchanges. This format is not restricted to bilingualism but it can also easily be applied to the assessment of dialect. It does this in purely a descriptive manner without assigning value ratings or any other such judgements which may introduce a cultural bias. In this way, a category such as ‘Answers Questions’ can be interpreted from an AE perspective thus assigning more validity to the assessments made.

All five of the children demonstrated an ability to use all of the language functions within the group NLS settings except for items number 17, 18 and 20. These were not observed in the NLS settings but this does not, of course, mean these functions were absent. Most of the functions described in the BOLD were reported as being absent in the classroom settings which primarily reflected the differences in the cultural appropriateness of the settings. It has already been discussed how the formal test situations were also ineffective in eliciting valid samples of the children’s usual language use.

All of these communicative behaviours needed to be judged from an AE context in order to arrive at an accurate assessment of skill level which is where NLS conducted within a group of other AE speaking adults and children was invaluable. For example, the communicative behaviour number five, ‘Attends to the Speaker’, was at a high risk of being inaccurately judged as deficit during formal testing, as it was in the classroom setting by the teachers, due to the listening skills displayed by Aboriginal children which are different from those mostly displayed by non Aboriginal children. A tester who was thinking in terms of AE in these other situations should not make this mistake but the common perception of listening abilities shown by Aboriginal children among non Aboriginal professionals does, in reality, remain strongly limited to eye gaze patterns rather than considering the listening and attending skills in their wider context.
The difficulty in assessing the functions of language displayed by Aboriginal children was twofold, therefore. Firstly, the children tended to produce a reduced range of language functions in inappropriate settings for a variety of reasons which either gave the appearance of a lack of skill or made the assessment impossible to conduct. Secondly, the children’s responses were consistently judged from a non Aboriginal perspective, by the teachers, which provided inaccurate information regarding communication ability. The risk of this happening in formal speech pathology assessments is also high due to the assessment of Aboriginal children by non Aboriginal speech pathologists. NLS conducted with other AE speaking people present was important in avoiding these situations from occurring. That is, NLS was firstly more successful in encouraging naturalistic communication to occur. NLS also provided appropriate communicators to be available as a comparison and information source when judging the adequacy of specific communication exchanges. Finally, NLS ensured that the information presented to the children was also done in a culturally appropriate manner in recognition of the two way nature of communication and the influence of the input upon the nature and quality of the response.

**Form and Content of Language**

Analysis of the information regarding the form and content of the language used by the children was based upon research regarding the language characteristic of AE and SAE. It was not possible to describe the data developmentally in terms of assessment protocols such as LARSP (Crystal et al, 1975) for example, as these protocols are linguistically biased against AE syntactic and morphological forms. Developmental data relating to AE are also not available in the literature. All five of the children demonstrated a greater range of lexical variety and an increase in the range of sentence types and grammatical structures used during NLS and ABA than both during and as was indicated by the formal tests. For some children, an increase in the syntactic and morphological accuracy of the language also occurred during NLS and ABA. All of the children produced language more freely with AE predominating as the language of choice.

The teacher ratings for three of the children on the ‘Sentence Structures / Grammar’ category were closely aligned with the results obtained on the CELF-3. The teacher of child E abstained from assigning a rating as she said this was hard to rate as child E did not speak a
lot. This was positive from the point of view of not judging a lack of or reduction in communication as a deficit. The teacher of child D assigned an average rating in this area which was the one result which reflected the child’s true abilities. Child D is also proficient in using SAE and the teacher’s rating may reflect the use of SAE by child D in the school setting. Child D’s teacher did make the comment that he uses the ‘common ones’ like, ‘I done it’. While this teacher was not saying that the use of such structures was a deficit in language usage, it still did feel as if a negative value judgement was being placed upon its usage and that resignation towards its use by groups of people ‘like him’ was mainly the reason for not penalising him in her rating of his speech.

The teachers of children A, B and C all made comments which reflected a deficit viewpoint of AE and which failed to consider the effect of non Aboriginal communication and learning styles upon the communication quality and quantity of AE speaking Aboriginal children. All of the low ratings were accompanied by comments like:

‘(the difficulties are) Related to poor vocab and concept knowledge’
‘Sentences are simple, basic, not grammatical’
‘Words are used in the wrong places, doesn’t use complete sentences, uses wrong tenses’
‘(the child is) more inclined to leave out words, has poor grammar’.

The only child to demonstrate language usage in this way, to some degree, during NLS and ABA was child C. The references to poor grammar and omitting words is very likely to have its basis in differences between AE and SAE. Children A, B and C are the youngest children and so are in the earlier stages of establishing competency in SAE and developing the sociolinguistic rules related to its and AE’s use. The regular correction of AE language forms by teachers is maybe still occurring and certainly was likely to have been occurring in their recent past when the children’s formal schooling began. Aboriginal people employed to work in the schools the children attend have certainly talked about the regular correction of AE forms by teachers when used by the children in class.

Children A and B demonstrated varying degrees of competency in SAE during the formal testing. Both children appeared to use AE more when presented with increasingly difficult language production tasks such as the later stages of the ‘Formulated Sentences’ subtest of the
CELF-3. A similar situation could be occurring in classrooms where, when placed under pressure or within a culturally uncomfortable situation such as offering morning news or having to dictate a story for the teacher to write, that these children produce more AE. It is then in these situations that teachers tend, and are encouraged by their curriculum standards frameworks, to judge degree of language competency. Unless dialect differences are considered, teachers will then judge the children’s communication skills as deficient.

Child C did present with language processing difficulties which has possibly hampered his ability to develop SAE to a competent level. The teacher’s judgement of child C as having below average skills was more justified, therefore, but child C’s difficulties were not as severe during ABA and NLS as the teacher or the formal test indicated. During the formal test setting, child C often produced sentences which were incomplete, semantically ambiguous and ungrammatical in terms of AE. For example, ‘Gave a dinner’, ‘Why you weigh’, ‘If the bus come’ or ‘They might eggs’. It was possible that this was the type of language child C’s teacher was hearing in class.

Child C also tended to overuse the one sentence frame when describing pictures in a picture book in the formal assessment setting, with no commenting or personal narration added. For example, ‘the fox trying to make a friend to the kookaburra, the fox trying make a friend to the platypus, the fox make a friend to the other fox, the fox make a bird or something’. In this example, it is important to note the gradual reduction in syntactic complexity and semantic clarity. Although child C did introduce coordination it was not at a sophisticated level. This was probably indicative of child C’s reduced comfort level with the communication situation as well as reflecting the expressive language difficulties the NLS indicated.

The distinction between child C’s use of AE and having communication difficulties was much clearer during the NLS. During formal testing, child C appeared to use AE inconsistently well, as the above examples indicate. In the formal testing, child C appeared to be conscious of the need for language use different from his usual dialect but he did not always have the language knowledge to successfully offer what was required. This resulted in less naturalistic language use and greater confusion with his AE. For example, child C was given a
demonstration item which required the use of regular plural. Child C gave the singular form, in terms of SAE, and was corrected for the purposes of the test. Later, when required to use regular plurals, child C paused before responding seemingly thinking about the practice item and responded by adding the ‘s’ as the test required. When having to construct irregular plurals in the next item, child C continued this ‘new rule’ and added ‘s’ to ‘children’ and all plural and some singular nouns for the remainder of the test. During the NLS sessions, child C generally formed regular and irregular plurals according to SAE rules, with word specific exceptions. Another example of this dialect confusion possibly occurred when child C said, ‘Shes look like’ which could have reflected a confusion with knowing SAE speakers put a ‘s’ on but not really knowing where. This language monitoring and manipulation by child C was indicative of a good level of metalinguistic awareness which is less consistent with significant language impairment. During NLS the inconsistencies in his use of AE were reduced and child C’s main difficulties appeared primarily related to word finding and language planning problems.

Child D was able to produce a variety of complex sentence forms during NLS and ABA that were not consistent with the CELF-3’s diagnosis of severe receptive and expressive language disorder and his inability to correctly produce or imitate sentences containing subordinate and relative clauses during the testing. For example, ‘If X was here, she’d be telling everyone off eh’, ‘I said, Y can you sit down so I can look through’, ‘It doesn’t matter, Judy said we could make our own one’ and ‘This is the skinny one that I need’.

The dialect differences required during formal testing certainly disadvantaged the AE speaking children. What was important was that they did not respond to this by producing language in their own dialect as well as they could but rather they produced a quality of language much lower than the NLS and ABA showed they were capable of using. This was possibly indicative of the general inappropriateness of the assessment situation and the impact of this upon their overall willingness and ability to communicate.

This was a similar pattern for all of the children. Child B, who was also diagnosed as having a severe receptive and expressive language disorder by the CELF-3, was able during NLS to competently produce a number of syntactic and morphological structures the formal testing
had indicated were difficult for her. Some of these included, use of future and past tenses, use of subordination and the use of prepositional phrases.

The NLS and ABA saw an increase in the amount of AE use by the AE speaking Aboriginal children. The most predominate features present were those related to the pragmatic and syntactic aspects of AE. The amount of vocabulary originating from the Wiradjuri language used by the children varied depending upon the situation and whether an Aboriginal adult was present and conversing with them. When child E was present, he also encouraged more use of the Wiradjuri words with the younger children especially in reference to socially taboo subjects. The Wiradjuri words were only used during the spontaneous chatter which occurred during child directed and organised games or during afternoon tea. It did not occur during the ABA. The Wiradjuri words were interspersed within AE syntactic forms and intonation patterns creating what the locals called ‘Lingo’. The restricted use of Lingo during the group settings may have been related to sociolinguistic factors governing Lingo use and the association the ABA had with SAE and school work even though it was conducted within a less SAE or school work related setting.

The teachers interviewed for this study placed a lot of emphasis upon the supposed poor vocabulary development of the AE speaking children. Teachers generally found the concept of Lingo difficult to conceptualise and could not see that such vocabulary differences could be sufficient to influence the perceived poor vocabulary development as shown by the children in the classroom. Especially difficult for the teachers to understand, were those vocabulary differences which were of the same form as a SAE word but which varied in their meaning or interpretation. Some examples included the way Aboriginal people refer to the ground, earth and sky or to cooking utensils or personal hygiene practices. Teachers especially saw differences such as this as deficits and interpreted use of words in settings different from a SAE context as indicative of poor vocabulary knowledge. Shame continued to cause confusion but non Aboriginal teachers now know that it is somehow different from the non Aboriginal shame. The reduced lexical selection demonstrated by the AE speaking children in the formal assessment situations probably reflected the negative feedback they have received from SAE speaking teachers telling them their word selection is wrong thus reducing their willingness to experiment. NLS conducted within a group setting with Aboriginal
people was the only way to obtain information regarding an individual child’s use of the semantic features of lingo.

**Linguistic and Non Linguistic Behaviours Typically Associated with Language Difficulty.**

A number of both linguistic and non linguistic behaviours existed during NLS and ABA which were able to provide further useful information regarding levels of communication abilities. Many of these behaviours were more easily observed during the NLS and ABA conducted in the group setting with the other Aboriginal people, although some examples of these behaviours were also evident in the other assessment situations. Examples of the metalinguistic skill levels of the children were one of these linguistic behaviours which appeared in all assessment contexts.

All five of the children interacted equally well with each other, interacting naturally with each other, with each able to initiate interactions with all the others and with each having interactions initiated with them by all of the others. No child received less attention from any one than any other and no one talked about or indicated an awareness of perceived difficulties any other child may be having. No child really stood out as communicating differently from any one else.

This situation differed greatly from the situation child C has found himself in in school. Child C’s teacher identified him as fitting better with the children in the Support Class which caters for children with moderate to severe intellectual disabilities. Children A,B and E also were identified as not communicating with their peers often in class. If these behaviours were considered to be indicative of their normal level of functioning, then the assumption of language difficulty could be considered as having further support. The NLS was invaluable in determining that those behaviours identified in the classroom were more a function of social factors than language competence.

The degree of metalinguistic skills shown by the children offered valuable insights into their general language abilities. Metalinguistic development at a variety of levels is typically difficult for language disordered children to achieve. The presence of metalinguistic skill
development can often help differentiate language difference issues from language deficit issues. All of the children, including child C demonstrated a degree of metalinguistic skill level which strongly negated the possibility of severe language impairment.

Child A demonstrated an understanding that the Wiradjuri and English words of ‘mirrigan’ and ‘dog’ meant the same thing but that they also have different uses. Her understanding extended to the apparent understanding of the sociolinguistic rules governing their usage. That is, she urged the Aboriginal adult with whom she was conversing in an annexe off her classroom, to not use ‘mirrigan’ but to use ‘dog’ instead because he was making all of the children in the class look at him.

Child D exhibited many examples of metalinguistic skills during the NLS. Child D instigated a humorous exchange with an Aboriginal adult which indicated an understanding of the AE conventions of greeting and how it was funny to respond in a SAE way when greeted by the Aboriginal adult. Child B also joined in with this exchange. The Aboriginal man walked past child D saying, ‘How ya goin D’. Child D enunciated clearly with an obvious change of ‘accent’, ’Not bad, How’s yourself’. Child B then laughed saying, ‘Na’ as if to say ‘only joking’. The Aboriginal adult then answered him with, ‘Ah pretty good there brother’ which made Child B join in laughingly with a response also. Child D also demonstrated an ability to sing verbatim various songs including those of the Spice Girls and Dolly Parton.

Child C demonstrated the use of repair / revision strategies which can also be difficult for language impaired children and indicates a good understanding of the awareness of others in communication exchanges as well as the ability to analyse where a breakdown occurred. Child C did not have many strategies other than isolating the misunderstood word and repeating it but at least this ability was able to assist in ruling out the presence of a severe language disorder and identify the specific strengths he did have so those which were lacking could be developed further. Child C did not demonstrate any instances of using repair / revision strategies during formal testing but many more instances occurred when they were needed. Once again, the failure to include NLS results in the communication assessment, would have given a worse impression regarding child C’s skills than he deserved.
CHAPTER FOUR: DEVELOPING AN EFFECTIVE ASSESSMENT FRAMEWORK

4.1 MODELS OF BEST PRACTICE POSSIBLE NOW

This research has shown that the use of standardised and formal communication assessment tools with AE speaking Aboriginal children is unlikely to provide valid assessment results. The use of these assessment tools was also shown to disadvantage SAE speaking Aboriginal children to a certain extent. This research did provide support for an alternative approach to assessing the communication skills of Aboriginal children which was able to provide valid results regarding the communication abilities of these children. This alternative approach which involved the use of Activity Based Assessment (ABA) and Natural Language Sampling (NLS) within culturally appropriate communication contexts, is readily accessible to speech pathologists and should be able to be incorporated into current assessment practices.

The most important consideration in implementing a model of best practice as it applies to the communication assessment of Aboriginal children, lies in the reorientation of thinking from deficit to difference. The use of inappropriate assessments in inappropriate settings using inappropriate language and communication styles does not consider and value cultural difference. Changing an assessor's perception of Aboriginal communication differences from a deficit perception to a difference model can significantly improve an Aboriginal child's chances of success in communication skill assessments. As was indicated by this research, many teachers' perceptions of Aboriginal communication differences remain based upon deficit models and the types of communication assessments often conducted by non Aboriginal speech pathologists contribute towards perpetuating these perceptions. If Aboriginal children are to be afforded the same rights to fair and reasonable evaluations of performance enjoyed by their non Aboriginal peers, then this practice needs to cease and the more appropriate ABA and NLS used in its place.
Figure 4.1: A Communication Assessment Model For AE and/or SAE Speaking Aboriginal Children

Aboriginal Child

Home dialect - Standard Australian English

Assessment battery includes standardised tests as well as informal assessment

Observe for Aboriginal learning/communication styles and account for in overall diagnosis

High possibility of valid communication assessment result

Home dialect - Aboriginal English. SAE may also be spoken

Assessment battery excludes standardised tests and includes ABA and NLS

Conducted with Aboriginal English speaking adult(s) with whom child often communicates

Conducted away from formal SAE learning environment (ie school)

Standardised assessment for funding purposes

High possibility of invalid result. Increased likelihood of child appearing to meet funding criteria

Ethical considerations in the submission of such an application

Figure 4.1 shows the possible direction speech pathologists may take in order to achieve a higher likelihood of obtaining valid assessment results describing the oral communication abilities of AE and/or SAE speaking Aboriginal children. The important first step is to determine the home dialect of the Aboriginal child being assessed. In the case of SAE speaking Aboriginal children, it is then a case of applying a regular speech pathology assessment battery making very sure that Aboriginal patterns of learning and interacting are considered both when administering the assessments and when analysing the data. Informal
assessment involving the child and familiar Aboriginal people has a very important role to play in providing opportunities for the speech pathologist to obtain this type of information.

In the case of AE speaking Aboriginal children, regular speech pathology assessment batteries containing standardised testing is not suitable. Rather a combination of NLS and ABA conducted with other Aboriginal people away from formal SAE learning environments is more likely to provide valid information regarding the level of communicative abilities for individual children. When standardised testing is required for funding purposes, ethical considerations in presenting information obtained in this inappropriate way becomes the speech pathologist’s prime concern.

Figure 4.1 is based upon the results of the research undertaken in this study and indicates the different paths needing to be followed depending upon the dialect background of the child to be assessed. As indicated by the Figure 4.1, SAE speaking Aboriginal children are unlikely to be disadvantaged through the use of standardised testing as long as informal assessment and culturally appropriate analysis of coexisting behaviours occurs. The AE speaking Aboriginal children are likely to be disadvantaged by the use of the standardised assessment approach and the most valid results are most likely to be gained through the use of ABA and NLS.

Figure 4.1 also illustrates the likely outcome of using standardised assessment with AE speaking Aboriginal children for the purposes of evaluating suitability for consideration for school based funding for children with special needs. Such assessments are likely to produce false positive results with children being inappropriately identified as meeting the funding criteria. All five of the AE speaking children who participated in this study, for example, met the criteria of 'Severe Language Disorder' as determined by the NSW Department of Education assessment criteria. The ABA and NLS indicated that these results were inaccurate.

Many SAE speaking Aboriginal children are also unlikely to be disadvantaged by the use of ABA and NLS conducted away from their school environment. It is also important to note, however, that SAE speaking children may not relate to AE speaking Aboriginal adults or
children in a positive manner depending upon their identification with such speakers. This may be the case even if these children display Aboriginal learning or communication styles. The important factor to be considered is how the child consciously identifies. One SAE speaking child in this study did present in this way, hence, assessment with bidialectal Aboriginal adults would have been inappropriate for her. The use of AE with an SAE speaking Aboriginal child is just as discriminatory as using SAE with AE speaking Aboriginal children.

It is important to note that the SAE speaking Aboriginal children showed signs of Aboriginal learning and communication styles which had the potential to negatively influence the overall assessment outcomes even though these children performed in line with the normative data for the tests administered to them. This was especially evident in the children’s listening and attending styles and their apparent discomfort with the one on one question / answer type situation. As has been discussed previously, these characteristics have the potential to be judged from a deficit perspective as a difficulty area for the children rather than acknowledging the different skills the children are displaying. The teachers certainly viewed these different behaviours as problem behaviours. Aboriginal learning and communication styles must be considered in the analysis of behaviours exhibited during testing by all Aboriginal children, therefore, in order for the assessor to accurately form a complete picture of an individual child’s communication abilities. Speech pathologists currently have access to the wide range of information available to enable them to do this successfully.

It is clear that language use and the cultural relevance of stimulus items are not the only factors responsible for the invalidity of the results obtained for Aboriginal children using formal testing. This is significant as several attempts have been made recently to Aboriginalise current speech pathology testing materials and tools by introducing more culturally relevant stimulus items within existing or slightly revamped formal testing formats. Unless the total communication context of Aboriginal English is considered, these attempts will continue to produce invalid results as they fail to tap into the pragmatic, discourse and sociolinguistic factors governing communication among Aboriginal English speakers. For example, no matter how many pictures of Aboriginal people or themes are used or no matter how many AE words or sentence structures are offered to the child, as long as the assessment
format remains question / answer in one on one speaking situations conducted within traditionally SAE speaking environments, the children will most likely continue to not perform to the best of their abilities in AE or SAE. It makes much more sense to abandon these attempts to remodel the content of current formal tests to be more Aboriginal friendly and to use the more adaptable and AE appropriate assessment methods of NLS and ABA instead.

The approach of attempting to Aboriginalise existing formal, standardised tests also carries with it the danger of regarding Aboriginal people as some homogenous group who will all relate to the same Aboriginal themes or ideas. Of course, this is not the case, even among AE speaking Aboriginal people from the one area. This raises another benefit of NLS and ABA in that both of these forms of assessment are able to consider individual and group identity and dialect differences as they take their lead from the children and adults themselves who form part of an individual child’s community. That is, the topics of discussion are individual and community specific, the activities can specifically reflect the discourse and language features of the AE spoken and the AE spoken will be only that which is relevant to the particular children and adults involved.

A number of features characteristic to ABA and NLS can be identified which contributed to the effective assessment of the AE speaking Aboriginal children. All of these factors are able to be incorporated into current Speech Pathology assessment practices. These features included:

- The communication was centred around real life situations and activities.
- The activities used in the assessment had both a worthwhile goal or purpose and a motivating end point which the children were aware of and worked towards.
- The communication was based upon and directed by AE rules for communicating. The communication was natural and the style familiar even when AE syntax and semantic forms were not being used by the children.
- The communication environment encouraged the implementation of AE without discouraging the use of SAE and both dialect forms were used by the children according to the specific communication situations.
• The communication assessment situation involved AE speaking peers and familiar AE speaking adults.

That is, the non Aboriginal speech pathologist needed to obtain information using mainly declarative sentences with question intonation as was modelled by the Aboriginal adults and children. Information was also best gained through group discussion rather than direct questioning aimed at one child. Other children interjecting and contributing to one child’s information giving was not discouraged. Children were allowed to model from and teach each other with the adults providing more of a guiding role when required. The non Aboriginal speech pathologist followed the lead of the Aboriginal adults and children regarding the use of SAE and AE linguistic forms. SAE predominated with the non Aboriginal speech pathologist using AE discourse conventions in combination with SAE linguistic forms except when engaging in the specific learning of AE vocabulary from the children and adults.

Various features of inadequate assessment situations were also evident from the results obtained in this study. In general, inappropriate testing environments meant that the AE rules for communicating were violated resulting in a lack of speech output from the children and elicitation of the Shame response from the children, at various times. Some of the features of the inappropriate testing environments included:

• Use of SAE language forms and conventions by the tester during the formal testing. For example, the structure of the question forms as primarily interrogative sentences.

• The requirement that the children used only SAE language forms and conventions during formal testing. For example, tests require that children respond to every question in order to avoid being assigned a ‘wrong’ rating. This practice contravenes the AE convention of being able to choose which questions are answered and which are not. If children employ their AE rule, then they are likely to be assigned more wrong ratings than they deserve.

• The cultural irrelevance of the stimulus materials and topics needing to be understood and identified with by the children. For example, stimulus items such as, ‘The girl who lives upstairs in my apartment building is in my class’ in the Recalling Sentences subtest of the CELF-3 have little relevance to the way the Aboriginal children participating in this study live.
• Use of AE by one of the AE speaking Aboriginal testers during formal testing when the testing continued to be conducted within traditionally SAE speaking environments.

• The technique of correcting practice items as a way of teaching the requirements of the test during formal testing.

• The use of normative data which was based upon Standard English speakers of various countries including Australia, USA and the UK.

This list highlights how the linguistic content as well as the nature of the testing situation itself were instrumental in inhibiting the AE speaking children from demonstrating their true communicative abilities. It cannot even be argued that SAE standardised tests may serve a useful purpose in assessing an AE speaking child’s competency in SAE as the test design and the testing situation themselves are just as responsible as the language unsuitability for the inappropriateness of formal testing with the AE speaking Aboriginal population. This was clearly demonstrated by the understandable inability of those AE speaking children who were competent in SAE to not be able to compensate for the inappropriateness of the testing situation itself and score in line with the normative data for the SAE speaking population. The SAE speaking Aboriginal children were obviously better able to adapt to the less than optimum formal testing situation due to their proficiency in all aspects of the language of instruction. The AE speaking children were disadvantaged during formal testing in both areas, the linguistic content as well as the cultural suitability of the testing environment itself.

It was possible using ABA and NLS to provide the children with cognitively and linguistically demanding tasks within naturalistic settings. It would appear that in our need to obtain standardised assessment results which enable the tester to place a child within a developmental category or group with a relatively high degree of confidence, that we have become somewhat removed from the real purpose of communication testing which must be to determine how well a child is able to use communication to function adequately in life. Rather, we have become committed to obtaining information regarding how well a child performs on a number of less than naturalistic tasks within decontextualised settings and used that information to extrapolate how well that child may then perform in real life situations. Given that the child being assessed matches well those assessed in the normative sample, we can feel reasonably confident that the results of such tests do correlate highly with real life
functioning. It is evident, however, that our over reliance upon such assessments does discriminate against those who do not match well the normative sample group. It would seem much more worthwhile to rely more heavily upon information which is not extrapolated but which instead tells us directly how well a child is communicating in real life. Such information is able to be better obtained using NLS and ABA.

It is important that children acquire language processing abilities which are context unembedded in order to achieve tasks such as critical evaluation, forming hypotheses, predicting results and justifying opinions or judgements. Tests such as the CELF-3 certainly do assess the language processing skills required to perform these tasks. It is important, however, not to confuse the term context with naturalistic language use. It is possible to obtain information regarding a child’s ability to use language in a less context embedded situation within a naturalistic communication environment. That is, the use of ABA and NLS do not restrict the tester’s ability to assess the child’s skills in these less context embedded areas. Rather, ABA and NLS provide naturalistic settings within which to explore a child’s ability to move towards more context unembedded language use. For example, the discourse activities based upon the work of Blank, Rose and Berlin (1978) provide opportunities to explore a child’s abilities to move from context embedded, high linguistic demand tasks such as, ‘Why should we use that?’ with the objects being present, to less context embedded, high linguistic demand tasks such as predicting a change in position or structure, ‘What will happen if....?’.

It is not necessary to use formal tests to obtain the above type of extrapolated information when ABA and NLS are able to offer the same type of information in more real life contexts.

4.2 FUTURE CONSIDERATIONS

The main reason why ABA and NLS were successful in providing more accurate information regarding levels of communicative functioning for the AE speaking Aboriginal children was that they both encapsulate the Aboriginal concept of Wellbeing. This is a scientifically relevant term which provides a practical holistic framework within which to place all of the linguistic, cultural, social, spiritual and emotional information we know are important to Aboriginal people. If speech pathologists begin to think holistically in terms of fostering
Wellbeing, then they will find themselves addressing better all of the linguistic, cultural and social factors identified by researchers as being important in working successfully with AE speaking Aboriginal children. Addressing all of these factors then leads naturally towards the use of ABA and NLS as more effective ways of assessing the communication skills of AE speaking Aboriginal children. The question speech pathologists should be asking themselves is, ‘Am I contributing towards this child’s sense of Wellbeing by conducting my assessment in this way?’ Answering this question in the affirmative will ensure the most valid results possible are obtained.

Thinking about Wellbeing leads the non Aboriginal speech pathologist to consider such factors as the need for setting up assessment environments which are unlikely to evoke Shame responses. In doing this, many of the discourse and sociolinguistic rules pertaining to AE are considered. The speech pathologist focussing upon fostering a state of Wellbeing is less likely to take the fragmented view which isolates cultural and linguistic differences as somehow separate parts of Aboriginal people which have to be incorporated into Western assessment practices. This is the approach which has led to speech pathologists attempting to include as many bits of Aboriginal culture and language as possible into existing assessment practices. This practice has either resulted in abandoning such attempts as too difficult due to cultural overload or continued failure to address all of the important aspects of AE speaking children which need to be addressed. Through understanding this holistic concept of Wellbeing, speech pathologists will be less likely to offer a fragmented approach which fails to recognise the need for the whole to be complete if all parts are to work efficiently. That is, simply involving an AE speaking Aboriginal adult in a formal assessment situation conducted at a school or health clinic is addressing cultural appropriateness in a piecemeal manner rather than understanding the holistic concept of Wellbeing.

The focus upon the Wellbeing approach will require a possibly large reorientation in thinking among non Aboriginal speech pathologists with a concomitant shift in funding and human resourcing also required. This research does support the need for more AE speaking Aboriginal people to be employed to assist non Aboriginal speech pathologists with the implementation of more appropriate communication assessments based upon ABA and NLS. It is important for non Aboriginal speech pathologists to embrace such concepts as Wellbeing
so that the assessment of communicative function involves much more than simply analysing linguistic features.

A main determinant in the usefulness of ABA and NLS as effective communication assessment tools with AE speaking Aboriginal children, lies in the amount of credible information available to non Aboriginal speech pathologists regarding communication skills and development patterns among AE speaking Aboriginal children. While information regarding Aboriginal English as a communication system is becoming increasingly more available to non Aboriginal people, the developmental features of AE remain less known. The lack of this developmental information makes the placement of individual children along a developmental hierarchy for the purposes of accurate diagnosis of communication delay, difference or disorder very difficult.

With the type of descriptive information currently available regarding the nature of AE, speech pathologists are able to confidently make assumptions regarding presence or absence of significant communication difficulties. The identification of degree of communication ability or impairment especially in the area of milder delays is currently more difficult to ascertain. For example, the AE speaking child A presented with difficulties listening in the style demonstrated by other AE speaking Aboriginal children. This may have indicated a difficulty in acquiring this skill or it may have indicated that children of her age are yet to develop competency in this skill. Without credible developmental information, this type of analysis is not possible without lengthy longitudinal monitoring of the development of a particular skill within individual children who are suspected as having difficulties.

The use of ABA and NLS as reliable assessment tools also requires the implementation of skills which are based upon observational rather than scientific methods of information gathering. While speech pathology as a profession relies upon the collection of information from a variety of sources in the assessment of skill levels, it rarely occurs that formal, standardised assessment is not used as the main indicator of communication ability. Speech pathologists will always supplement formal test results with informal, observational and interview based assessment but the formal test results continue to feature highly in the analysis of results. The use of ABA and NLS as assessment tools does require the
implementation of a different set of skills from those required for administering standardised tests. This is another reason why including Aboriginal people in the assessment situation is beneficial. That is, the scientific world of Aboriginal people has often been identified as being strongly centred around observation while the Western scientific world is focussed upon structured experimentation. It would be beneficial to further research how Aboriginal people use observation to gather information to determine if non Aboriginal people can learn from those for whom observational assessments are more a part of life.

A further consideration involving the use of NLS centres around the method of analysis applied to the data once it has been appropriately obtained. Assessment or analysis frameworks based upon AE do not exist for speech pathologists to use in their assessment of the data. Rather, the speech pathologist currently is required to apply their knowledge of AE, as obtained through observation, wider reading and discussions with others, to achieve a systematic and valid analysis of the data. This approach, while more valid than using SAE normative data or culturally biased assessment frameworks, remains fraught with difficulties. Some of these difficulties include the reliability of the data used for analysis considering the small sample sizes often used in the research when describing the features of AE speakers and the fact that Aboriginal Australians are not an homogenous group of people who think, feel and communicate in identical ways. Speech pathologists tend to then rely upon more generic frameworks of language analysis which identify areas of communication skill required by children while providing scope for this skill to manifest in different forms and styles according to the particular language and cultural identity of the child. The success of this type of analysis also relies considerably upon the skill and commitment level of the speech pathologist in firstly obtaining and then applying this information. Furthermore, a speech pathologist can unwittingly use a seemingly suitable assessment framework which is in fact culturally biased due to the limited dissemination of knowledge regarding the communication characteristics of AE speaking Aboriginal children throughout the speech pathology profession. More work in this area needs to occur, therefore, so the analysis of the data obtained using NLS and ABA is able to occur in a less ad hoc and more systematic and reliable manner.
This research also argues for the need for speech pathologists to advocate strongly for changes to the criteria used to identify students eligible for integration assistance funding. The current NSW criteria requires that a child receives a score of severe language disorder using the CELF-3 in order to qualify for the students with disabilities program. All five of the AE speaking Aboriginal children were labelled as having severe language disorder by the CELF-3. This criteria discriminates, therefore, against the AE speaking Aboriginal children by describing their communication differences as communication disorders. This inaccurate labelling has the potential to follow the individual child throughout their school life and into adulthood with the resulting detrimental social and educational impact which such an inappropriate label brings.

One of the AE speaking Aboriginal children, child A, does currently receive Integration funding to resource additional adult help in the classroom due to the results she achieved on the CELF-3. The school were keen to submit an application for funding based upon this test result because of the additional funding such a result attracted despite being informed that the test result could not be deemed valid. This test result also reflected the way the child was perceived as performing in class by the class teacher. The parents were offered the choice of proceeding or not with the application. The parents chose to proceed despite this then inaccurately labelling their child as having a problem. The school then had a tangible reason for the child’s apparent limited success in school and the test result perpetuated the notion that problems with the child were a main limiting factor inhibiting her school achievements. The parents were not offered a real choice as they knew that if they refused to support the application, citing the inappropriateness of using the test result, that their child would not then receive any additional help and that the label of language disorder would probably remain anyway. Speech pathologists have a very important role in ensuring that this type of misinformed decision making does not go unnoticed.

The argument citing the benefits of being able to access additional support for children in classrooms who are under-performing by using these inappropriate criteria also should not be used to justify incorrectly labelling children's language differences as difficulties. Even if more assistance is obtained through these means, the child is unlikely to show significant changes in performance as long as more of the same style of teaching which the child has
received thus far continues. No amount of extra assistance will help a child learn who is having their language differences viewed and treated as language difficulties.

The communication assessment model for AE and / or SAE speaking Aboriginal children, Figure 4.1, is an attempt to bring together all of the information presented in this study and combine it into an easily read format which speech pathologists may follow before assessing individual Aboriginal children. This study has shown that the choice of assessment tool and theoretical framework a speech pathologist uses with an Aboriginal child can mean the difference between that child being diagnosed as having a severe language disorder or being diagnosed as having age appropriate communication skills. When the information regarding AE which is reported in the literature is considered, it makes sense that the administration of formal, standardised tests are unlikely to accurately reflect the communication skills of the AE speaking children involved. The results from this study support this viewpoint. The same literature provides strong justification for why NLS and ABA are more likely to provide the type of accurate information speech pathologists require in order to make a valid and accurate diagnosis regarding communication skill levels. This study supports that NLS and ABA are able to offer more accurate assessments of communication abilities. Of course, I cannot claim that the small sample used in this study is representative of AE and SAE speaking Aboriginal children across Australia but the results obtained do support the value in the speech pathology profession continuing to question how it can best meet the assessment and intervention needs of Aboriginal children.
CHAPTER FIVE: CONCLUSION

This study has shown the initial assumption regarding the unsuitability of standardised testing with AE speaking Aboriginal children to have some merit. The AE speaking Aboriginal children who participated in this study were disadvantaged by the use of formal tests and formal testing environments. For the SAE speaking Aboriginal children, the formal tests themselves did not unduly disadvantage them although the testing situations themselves had the potential to clash with their Aboriginal styles of listening and attending. This study also showed that other assessment methodologies currently used by speech pathologists, namely Natural Language Sampling and Activity Based Assessment, are able to provide more accurate assessments of communicative functioning and phonological awareness skill levels.

A main factor to emerge from this study involves the importance of considering AE from more than a purely descriptive viewpoint. The AE spoken by the children in this study closely approximated SAE in terms of syntax, morphology and phonology. The children, however, performed less well on the formal tests than did their SAE speaking Aboriginal peers even though, in terms of linguistic features, their language was not very dissimilar. The main differences lay in the pragmatic features and sociolinguistic functions of AE. These factors combined with the syntactic, morphological and phonological incompatibilities of the formal tests rendered them inappropriate for use with the AE speaking Aboriginal children.

A further important consideration to emerge from this study is the question of how to deal with the notion that standardised speech pathology assessments may be significantly under-rating the true communication abilities of AE speaking Aboriginal children. This question raises a number of issues regarding current State and Territory policies governing the allocation of additional resources for children experiencing significant difficulties in school. The use of inappropriate methods of obtaining assessment information could not be considered ethical practice and yet, based upon the results of this study, that is what speech pathologists are currently being asked to do.

Speech pathologists should have no direct role to play in the communication development of AE speaking children once an assessment of communicative functioning has revealed no
communication delay or disorder. Communication differences may be impacting upon the child’s perceived ability to communicate in the classroom setting but unless a communication deficit has been identified, speech pathologists should not be intervening in the traditional manner. It is important that speech pathologists do not become involved in working with children such as this because despite what has been said or formally conveyed to those involved with the child, the mere fact that the speech pathologist has become involved sends a message of deficit and problem to all associated with and including the child. Such messages are important to stop, for as this research has shown, many teachers have already developed unwarranted perceptions of deficit associated with these children and involving a speech pathologist in the child’s education only serves to perpetuate such notions. Speech pathologists need to send a clear message to all concerned that children being effected by language differences do not have communication disorders or delays.

Speech pathologists do, however, have a very important role to play in ensuring the message of language difference versus language difficulty continues to be presented to other professionals working with AE speaking Aboriginal children. Speech pathologists are equipped to analyse the communication skills of AE speaking Aboriginal children and diagnose the type of communication breakdown which may be occurring for an individual child. As communication specialists, speech pathologists are also able, preferably in conjunction with other language specialists, to support educational and health professionals to work effectively with communication difference but individual intervention should not occur beyond the initial diagnosis of communication difference.

The limited size of this study and the heterogenous nature of the AE speaking populations across Australia means that interpretation of these results on a large scale would be very unwise. The results do indicate, however, that further investigation of the appropriateness of current speech pathology assessment tools and methodologies with AE speaking Aboriginal children is warranted. At the very least, the results obtained from this study may help encourage speech pathologists to try the use of NLS and ABA in culturally appropriate contexts more widely to validate results obtained using other means before a diagnosis of communication delay or disorder is made.
BIBLIOGRAPHY


### Sample Communication Skills Inventory for Bilingual Children

**Bilingual Oral Language Development**

Child's Name:  
Birthdate:  
Child's First Language:  
Child's Second Language:

<table>
<thead>
<tr>
<th>Communication Behaviour</th>
<th>First Language</th>
<th>Second Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Comments on own actions</td>
<td>1.</td>
<td>1.</td>
</tr>
<tr>
<td>2. Comments on others' actions</td>
<td>2.</td>
<td>2.</td>
</tr>
<tr>
<td>3. Describes experiences accurately</td>
<td>3.</td>
<td>3.</td>
</tr>
<tr>
<td>4. Describes events sequentially</td>
<td>4.</td>
<td>4.</td>
</tr>
<tr>
<td>5. Attends to the speaker</td>
<td>5.</td>
<td>5.</td>
</tr>
<tr>
<td>7. Initiates interactions</td>
<td>7.</td>
<td>7.</td>
</tr>
<tr>
<td>8. Takes turn during conversation</td>
<td>8.</td>
<td>8.</td>
</tr>
<tr>
<td>10. Answers questions</td>
<td>10.</td>
<td>10.</td>
</tr>
<tr>
<td>11. Requests attention</td>
<td>11.</td>
<td>11.</td>
</tr>
<tr>
<td>15. Expresses needs</td>
<td>15.</td>
<td>15.</td>
</tr>
<tr>
<td>17. Describes plans</td>
<td>17.</td>
<td>17.</td>
</tr>
</tbody>
</table>

DIRECTING DISCOURSE LESSON PLAN

FROSTING CUPCAKES

Materials
Pictures of plain items, picture of a frosted cupcake, boxed frosting mix, necessary ingredients, bowls, measuring spoons, mixing fork or spoon, food colouring, cupcakes, knife or small spatula for spreading frosting

A. Focusing on the Cake’s Frosting

1. Today, we’re going to talk about decorating something. Decorating means that you take something that’s sort of plain and fix it up so it looks pretty. For example, you might have a plain box and you want to use it to hold a present. What could you put on it that would decorate the box?

2. And there’s something that a lot of people decorate each year at Christmas. They take trees that are just plain and put some things on them. What sort of things do they put on Christmas trees?

3. When the tree is all fixed up we can say it is ……….(Use the child’s word).

4. There are other things we can decorate. Look at these pictures and find something that has been decorated.

5. You’re right. This cake is decorated. But it’s not decorated with bows like a box or bells or stars like a Christmas tree. Instead, it’s decorated with …………….

B. Making Frosting

1. I thought we could make some frosting today. I have some in that box on the shelf. Please, go get it.

2. How can you tell there might be frosting in this box?

3. If we open the box do you think the stuff inside will look like this picture or not? [If the child says “No,” ask “Why?”]

4. Let’s open the box and see if you are right.

5. It is different. In what way is the stuff inside the box different from this picture?

6. We can do some things to make the contents of the box look like the picture, but we have to follow a set of directions. Can you find a set of directions on the box?
7. I'm going to read these directions to you. Try to remember them because I'm going to ask you to tell me what they are.

   [Read directions.]

   OK, what are the directions telling us to do?

8. Let's do the first thing the directions said which is to ...........

9. Go ahead and do that.

10. The next thing is to add three tablespoons of butter. Let's see you do that.

11. [After the child has added two tablespoons of butter:]

    How many tablespoons have you put in so far?

12. How many do you still have to put in?

13. Now we have to add some tablespoons of water, but the directions call for fewer tablespoons of water than butter. Does that mean we are going to have more than three tablespoons of water or fewer than that?

14. Right. In fact, it says just one tablespoon. Add it in.

15. There's one more thing. To get this frosting smooth like it looks in the pictures, what do we have to do?

16. Go ahead and do it.

C. Changing the Colour of the Frosting

1. The colour of the frosting we've ended up with is the same as the colour of the frosting on the box. But it doesn't have to stay this way. We can change the colour. Do you have any idea how we could do that? (If the child mentions food colouring, accept the response. If the child has used an alternative such as chocolate, say, "That's a good idea. But I don't have chocolate. All I have is this," and show the food colouring.)

2. If we make some of the frosting into every one of these colours, how many parts do we have to divide the frosting into?

3. OK, let's do that. How many bowls are you going to need?

4. Go get them.

5. Now divide the frosting the way you said you would.

6. Let's add three drops of colouring into each one of these bowls.

7. Again, you have to mix it up. You mixed something before. What was it?
8. OK, now mix these.

D. Putting Frosting on Some Cupcakes

1. The frosting you saw in the picture was on a ..........

2. I don’t have a cake like that here. I mean I don’t have a big cake. I do have what could be considered some small cakes - some very small cakes. Except they’re usually not called “small cakes”. Do you know what I’m talking about? [Bring out the cupcakes.]

3. Here they are. As I said, they’re not called “small cakes”, although they could be. Instead they are called “cupcakes.” Why do you think they are called “cupcakes?”

4. How many cupcakes are there here?

5. OK, there are eight cupcakes. If we divide them into four groups, so there is the same number of cupcakes for each type of frosting, how many will be in each group?

6. Go ahead and do it.

7. Were you right?

8. Go ahead and frost the cupcakes.

9. At the start we said there was a word for describing when something is fixed up. Do you remember what that word is?

10. [If time permits, ask the child to review the lesson sequence.]

TEACHER INFORMATION

CHILD'S NAME: Child's DOB:

CHILD'S YEAR LEVEL:

Your participation in the completion of this questionnaire is purely voluntary. All identifying information will be destroyed once analysis has been completed and no identifying information will appear in the presentation of the data.

Q1) ORAL COMMUNICATION ABILITIES

Compared with other children of __________'s age, how would you rate his/her skills in the following areas:

a) ARTICULATION

<table>
<thead>
<tr>
<th>Severe difficulties</th>
<th>Moderate difficulties</th>
<th>Mild difficulties</th>
<th>Average range</th>
<th>Above average</th>
<th>Gifted range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5</td>
<td>6 7 8</td>
<td>9 10 11 12 13</td>
<td>14 15 16 17 18 19</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Specific reasons for a low rating:

b) VOCABULARY KNOWLEDGE

Specific reasons for a low rating:

c) LISTENING/ATTENTION

Specific reasons for a low rating:

d) SENTENCE STRUCTURES/GRAMMAR

Specific reasons for a low rating:

e) CONVERSATION/STORY TELLING SKILLS

Specific reasons for a low rating:
f) FOLLOWING INSTRUCTIONS / DIRECTIONS

Specific reasons for a low rating:

Q2) LITERACY DEVELOPMENT

Compared with other children of ________'s age, how would you rate his / her skills in the following areas:

a) PHONEMIC AWARENESS SKILLS

Specific reasons for a low rating:

b) READING ABILITY

Specific reasons for a low rating:

c) WRITTEN LANGUAGE ABILITY

Specific reasons for a low rating:

d) SPELLING ABILITY

Specific reasons for a low rating:

Q3) Are your assessments based upon ________’s abilities in the understanding and use of:

- Standard English
- Aboriginal Language(s)
- Social English Dialect
- Aboriginal English
- Any Other ________
Q4) Are your comparisons based upon how well _________’s peers understand and use:

- Standard English
- Aboriginal Language(s)
- Social English Dialect
- Aboriginal English
- Any Other ________

Q5) Which language(s) or dialects does _________ speak in class?

- Standard English
- Aboriginal Language(s)
- Social English Dialect
- Aboriginal English
- Any Other ________

Q6) Any other comments regarding _________’s communication skill levels or your perceptions about them?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

GROUP II: SELECTIVE ANALYSIS OF PERCEPTIONS

Thankyou very much for your participation in this project. If you would like to discuss any aspects of this project further, please do hesitate to contact me at _______. Community Health Centre, phone: _________________.

 Regards,

Judy Gould
Speech Pathologist
LEVELS OF QUESTIONING ACCORDING TO BLANK, ROSE AND BERLIN (1978)

GROUP I:  MATHING PERCEPTIONS

A.  Scanning the matching object (Find one like this)
B.  Identifying an object by sound (Show me what you heard)
C.  Identifying an object by touch (Show me what you touched)
D.  Naming an object (What did you hear?)
E.  Naming an object touched (What did you touch?)
F.  Naming an object seen (What is this?)
G.  Imitating a simple sentence (Say this ....)
H.  Remembering pictures/objects (What did you see?)
I.  Remembering incidental information (What did you see?)

GROUP II:  SELECTIVE ANALYSIS OF PERCEPTIONS

A.  Scanning for an object defined by its function (Find one that can .....)
B.  Describing a scene (What is happening?)
C.  Recalling items named in a statement (What thing ...?)
D.  Recalling information from a statement (Who? What? Where?)
E.  Completing a sentence (Finish this ...)
F.  Concepts:  Naming characteristics and functions of objects (Tell me its ...)
G.  Concepts:  Attending to two characteristics (Find the one that is ... and ...)
H.  Concepts:  Identifying differences (How are these different?)
GROUP III: REORDERING PERCEPTIONS

A. Scanning for an object by integrating verbal; with visual information (Find one to use with this)

B. Describing events subsequent to a scene (What will happen next?)

C. Assuming the role of another person (What could … say?)

D. Following a set of directions (Do this …, then this …)

E. Arranging pictures in a sequence (Make these into …)

F. Formulating a set of direction (Tell me how …)

G. Formulating a generalisation about a set of events (What happened to all of these?)

H. Formulating a statement to unify a sequence of pictures (Tell this story)

I. Concepts: Identifying similarities (How are these the same?)

J. Concepts: Selecting an object by exclusion (What else …?)

K. Concepts: Selecting a set of objects by exclusion (Find the things that are not …)

L. Concepts: Naming an example by excluding a specific object (Naming something that can … but is not a …)

M. Concepts: Citing an example by excluding a class of objects (Naming something that is not a …)

N. Concepts: Defining words (What is a …?)

O. Unusual imitations (Say this …)
GROUP IV: REASONING ABOUT PERCEPTION

A. Predicting: Changes in position (Where will ..?)
B. Prediction: Changes in structure (What will happen if ...?)
C. Justifying a prediction (Why will ...?)
D. Justifying a decision: Essential characteristics (Why wouldn’t it?)
E. Justifying a decision: Non-essential characteristics (Why would it?)
F. Identifying the causes of an event (What made it happen?)
G. Formulating a solution (What could you do?)
H. Formulating a solution from another’s perspective (What could he/she do?)
I. Selecting a means to a goal (What could we use?)
J. Explaining the means to a goal (Why should we use that?)
K. Explaining the construction of objects (Why is ... made of that?)
L. Explaining an inference drawn from an observation (How can we tell?)
M. Explaining the logic of compound words (Why is this called ...?)
N. Explaining the obstacles to an action (Why can’t we ...?)