Lynne Middleton's Submission to the Inquiry into Hearing Health in Australia on 16th December 2009

The Implications of hearing impairment for individuals and the community

Compromised hearing during the first few years of life can lead to speech and language impairments in many individuals. In English many of our grammatical markers are at the end of a word and this poses significant challenges for individuals with hearing impairment.

The implications of an intermittent hearing loss may not be seen until a child begins his/her school years and they find themselves struggling with following directions in the classroom and hearing sounds in words. This is often termed an auditory processing difficulty. The American Speech and Hearing Association states:

"*(Central) auditory processing disorder* [(C)APD] refers to difficulties in the processing of auditory information in the central nervous system (CNS) as demonstrated by poor performance in one or more of the following skills: sound localization and lateralization; auditory discrimination; auditory pattern recognition; temporal aspects of audition, including temporal integration, temporal discrimination (e.g., temporal gap detection), temporal ordering, and temporal masking; auditory performance in competing acoustic signals (including dichotic listening); and auditory performance with degraded acoustic signals.

Non-modality-specific cognitive processing and language problems may manifest themselves in auditory tasks (i.e., as listening problems); however, diagnosis of (C)APD requires demonstration of a deficit in the neural processing of auditory stimuli that is *not due* to higher order language, cognitive, or related factors. This working group concluded after a comprehensive review of the literature that any definition of (C)APD that would require complete modality-specificity as a diagnostic criterion is neurophysiologically untenable; however, one should expect the sensory processing perceptual deficit in (C)APD to be more pronounced, in at least some individuals, when processing acoustic information. (C)APD is best viewed as a deficit in neural processing of auditory stimuli that may coexist with, but is not the result of, dysfunction in other modalities. (C)APD can also lead to or be associated with difficulties in learning (e.g., spelling, reading), speech, language, attention, social, and related functions. Because of the complexity and heterogeneity of (C)APD, combined with the heterogeneity of learning and related disorders, it is to be expected that a simple, one-to-one correspondence between deficits in fundamental, discrete auditory processes and language, learning, and related sequelae may be difficult to demonstrate across large groups of diverse subjects. This underscores the need for comprehensive assessment and diagnostic procedures that fully explore the nature of the presenting difficulties of each individual suspected of having (C)APD.

ASHA'S (C) APD Position Statement

It is the position of the American Speech-Language-Hearing Association (ASHA) that the quality and quantity of scientific evidence is sufficient to support the existence of (central) auditory processing disorder [(C)APD] as a diagnostic entity, to guide diagnosis and assessment of the disorder, and to inform the development of more customized, deficit-focused treatment and management plans. (C)APD is an auditory deficit; therefore, it continues to be the position of ASHA that the audiologist is the professional who diagnoses (C)APD. Consistent with the ASHA Scope of Practice in Speech-Language Pathology, speech-language pathologists (and other professionals) collaborate with the audiologist in the overall screening and assessment process, differential diagnosis, and development and implementation of intervention plans where there is evidence of speech-language and/or cognitive-communicative disorders. Specifically, speech-language pathologists are uniquely

qualified to delineate the cognitive-communicative and/or language factors that may be associated with (C)APD. Full understanding of the ramifications of (C)APD for the individual requires a multidisciplinary assessment to determine the functional impact of the disorder and to guide treatment and management of the condition and associated deficits. Finally, it is the position of ASHA that the knowledge base required for understanding, diagnosing, and treating/managing individuals with (C)APD is extensive and may require additional training and education beyond that obtained in a typical professional preparation program".

There are significant problems with regard to the diagnosis of Auditory Processing and very few Australian Audiologists provide a diagnostic assessment which would meet ASHA's standards. In addition there are very few audiology practices which provide the multi-disciplinary approach which ASHA recommend.

Sadly, the treatment of Auditory Processing has become a very commercial enterprise and many parents are coerced into buying expensive treatment packages without being given information on their options.

Figure 1 below illustrates the results of a randomized control trial conducted by Gillam et. al 2008. It demonstrates that intensive daily therapy is the most effective model of service delivery, not the particular program provided.

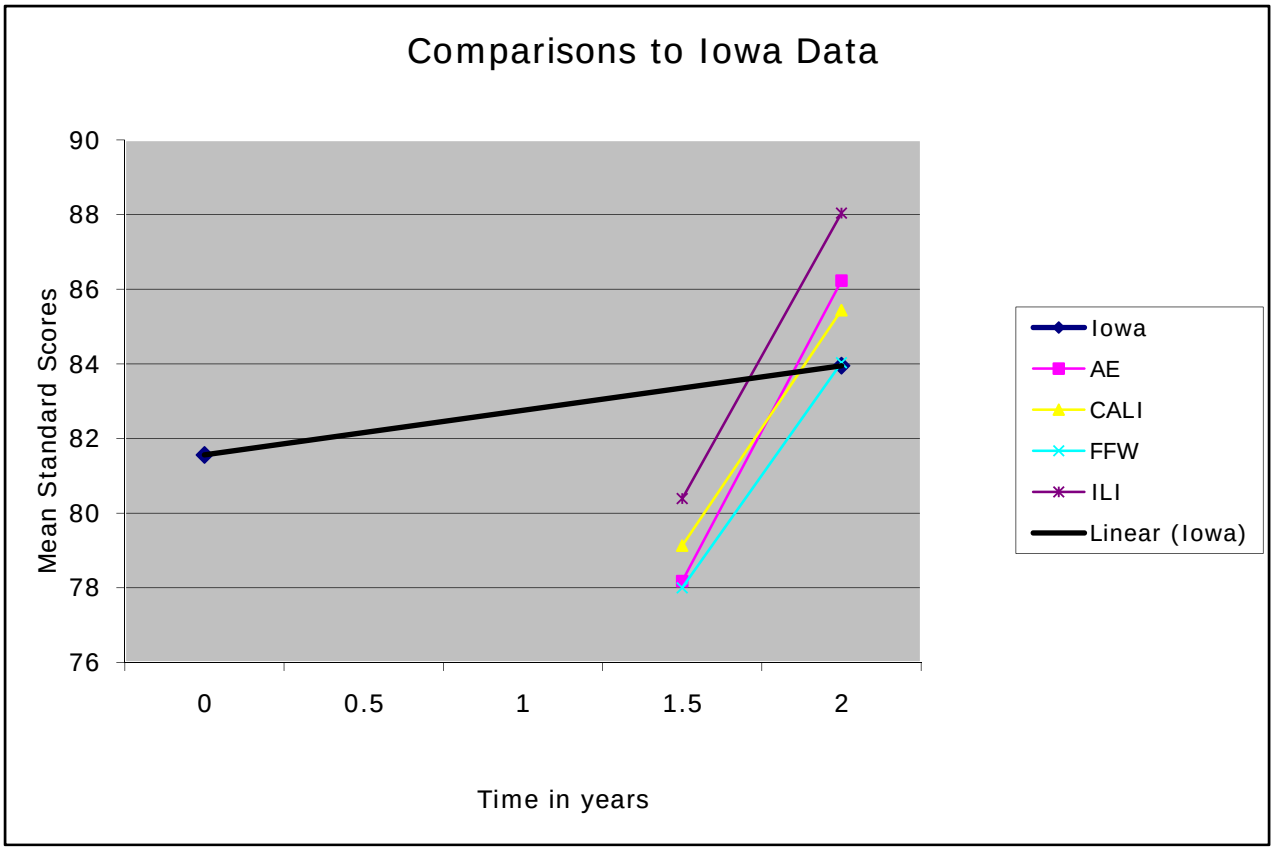

Figure 1. Iowa subjects received group therapy two times a week for a period of 2 years. The following conditions received daily therapy for 1 hour and 40 minutes for a period of 6 weeks. AE Subjects received academic computer programs. CALI received Earobics, FFW received Fast for Word, ILI received traditional language/speech pathology intervention.

Interestingly, even though therapy ceased after the six week period for the intensive group, the rapid ability gains continued for at least a six month period. Certainly data like this should be considered when determining how services should be delivered.

Recommendations

1. That the Australian community becomes more aware of the indicators of an auditory processing disorder and be provided with the multi-disciplinary approach recommended by ASHA.

2. That Education Faculties in Australian Universities collaborate to include the recognition and management of children presenting with speech and language and/or auditory processing difficulties in all undergraduate education courses.

3. That Health Departments be cognizant of the importance of intensive therapy and support the implementation of this through increased speech pathology positions and resources and provide the opportunity for children to receive both individual therapy and collaborative group intervention delivered by the speech pathologist and teacher in the classroom setting.

4. That the Federal Government makes changes to the Medicare Rebate for private speech pathology to enable children to access the number of sessions required to effect real improvements in their communicative competence. Presently the rebate is 5, but extensive experience by the author in the implementation of the Enhanced Primary Care Plan has revealed that children require many more than 5 sessions for them to demonstrate real gains in their communicative competence. In addition, parents require more than 5 sessions to be trained in the strategies they need to employ on a daily basis to continue to re-inforce their child's communicative goals.

The adequacy of access to hearing services, including assessment and support services and hearing technologies.

It is the author's experience that there is still quite a waiting period before young children can be assessed by an audiologist. Once a problem has been detected there is a further delay before a child in the public system can access a hearing clinic and then up to six months before grommets can be inserted in the tympanic membranes of children suffering from otitis media. . This lengthy wait can significantly compromise a child's speech and language acquisition during a critical developmental period.

Several of my clients have reported that they were given little information with regard to the management of a child with grommets. I am aware of several instances where children with grommets went swimming with without taking the precautions of earplugs and ended up with severe ear infections.

While many speech pathologists refer children to audiologists, we do not see as many audiologists referring children to speech pathologists. One possible explanation for this, at least in Western Australia, is that audiologists and speech pathologists train at different universities and have few, if any, common core units.

Most audiologists I have spoken with were under the impression that a child's speech and language would improve once the hearing impairment was remediated. This is certainly not the experience of the author, nor is this view supported by the research. An audiology assessment should be considered to be a component of a client's communication assessment. Ideally, all individuals with hearing loss should also have a speech and language assessment to determine their communicative competence.

Many G.P's are unaware of the implications of chronic hearing loss to speech and language acquisition. A significant number of clients report that their G.P had prescribed anti-biotics for 12 months or more when their child suffered from chronic otitis media. This had a devastating effect on the communication skills of these clients who required regular therapy for a significant period before they obtained communication skills commensurate with their peers.

The Commonwealth and State Health Departments promote G.P's as the first point of contact for a parent if they are concerned about their child's speech and language skills. However, G.P's do not cover speech and language acquisition as part of their undergraduate medical training and many of them have next to no idea of how a child with a significant communication problem presents. Over the past 30 years I have had countless parents tell me that they kept asking their G.P. about their child's speech but had been given advice such as "he is too young for speech therapy" or "he will grow out of it once he starts school". Such inappropriate advice is likely to have lifelong health consequences for the child in question. G.P's are aware that their advice is one of their greatest health promotion tools but very few of them seek information with regard to speech and language acquisition before giving advice to their patients on how they should manage their child's communication difficulties.

The Canadian Early Years project documented the critical brain period for speech and language acquisition is from birth to four years of age. From birth to 1 year many children are seen by their Child Health Nurse who screens for early speech and hearing development. However, Child Health Nurses see very few children from the age of 1 to at least 3 ½ when children commence semi-formal education with the Education Department. The first signs of a speech and language impairment are usually seen between 8 months to 2 years of age. Many of these children exhibiting communication impairment are not identified during this period as there is so much misinformation in the community about what children should be doing and when. Einstein is often quoted as someone who did not talk until he was 4 but then spoke in full sentences. Einstein, however, was on the Autism spectrum. The communication difficulties of these unidentified children continue to compound until someone suggests they see a speech pathologist for an assessment. If they are referred to a Government Speech Pathologist, they may wait up to 12 months or more experiencing daily communication failure before their difficulties are even assessed.

The Hanen Centre has documented findings on children who attend long term child care. These children are at risk for speech and language impairments. Child care workers do not cover the early recognition of communication impairment in their training, nor do they cover speech and language stimulation techniques. As more and more families have two working parents, the quality of speech and language stimulation children receive at Day Care will significantly impact upon a child's school readiness with regard to communication and socialization.

The Private Speech Pathologists' Association of WA have produced a directory with communication guidelines of what children should be able to do at any particular pre-school age in an attempt to encourage earlier referrals so early intervention can occur. The guidelines are for children from birth to 5 years. Teresa Anderson completed her PhD thesis while working in the South West Health Region of Sydney. Her results gave guidelines on which children were most at risk from birth to 12 months. These are: Babies born before 34 weeks gestation, premature babies with a low birth weight <2500 grams, infants with Apgar scores of <5 at 1 minute and 5 minutes, infants who have suffered respiratory distress, an infants from low stimulating environments e.g. mothers who have suffered significant PND. In addition, Teresa Anderson's work found that the effects of speech pathology intervention with children below 12 months of age was significant.

Access to the five Medicare funded sessions requires a referral from a G.P. Many G.P's are not aware of the eligibility requirements of an EPC referral. About a month ago I was rung by a mother of a child who was three years old and not talking. Clearly this child required an assessment of his communication skills. This mother had been told by her child health nurse to go to her G.P. to obtain an EPC referral before attending a speech pathology assessment. The G.P. told this mother her child could not be referred under the EPC plan as the family did not have a health care card. The mother was charged $50.00 for the visit for the G.P. to deny her access to a service to which she was entitled. The child still has not had his communication assessment.

An audit conducted by the Murdoch Child Health Research institute in 2008 indicated that under the Enhanced Primary Care plan, approximately $165 million was given to G.P.s to complete the plan and $65 million was given to Allied Health professionals to assess the patients and carry out the necessary treatments. Clearly this figure indicates that not all of those referred took advantage of the five sessions.

To enable clients to access Allied Health professionals and take advantage of the health benefits Allied Health professionals can offer, it is the author's view that Allied Health professionals registered with Medicare should be allocated the funding currently given to G.Ps directly with the requirement that they inform the G.P. of the client's condition and their recommendations. The current requirement of informing the G.P. when the client has been discharged is also appropriate. Allied Health Professionals are bound by the same code of ethics the Medical Profession are bound by so it is as unlikely for Allied Health Professionals to engage in fraudulent behavior as it is for the Medical Profession.

Hertzman (2003) found the greatest early years predictors of adult health were literacy and social skills, both of which require a good oral language foundation. Children with communication problems are more likely to have compromised academic outcomes, poorer employment prospects, a greater likelihood of entering the justice system, (Bryan, 2004) and are at a significantly greater risk of developing severe mental health problems (Beitchman et al 1990).

Recommendations

1. Increase the number of audiology positions within the public health sector.

2. Provide a speech and language assessment for all individuals with a significant hearing impairment.

3. Provide the community with information on what speech and language skills their child should be using and when. This information could take the form of a television campaign and advice on the world wide web and would be aimed at those parents who do not visit doctors or their Child Health Nurse often so would not have the opportunity to access this information by other means.

4. Monitor the quality of speech and language stimulation in Child Care Centres and provide staff with ongoing training in language stimulation techniques and the recognition of children at risk. This training would be carried out by speech pathologists.

5. Provide an opportunity for children between 8 months and 5 years to access timely communication assessments by a speech pathologist followed by a period of intervention if indicated.

6. Provide G.P's with guidelines of what children should be able to comprehend and say at any particular age and encourage them to refer children at risk as soon as possible.

7. That Medicare EPC funding is channeled into the provision of services rather than the completion of paperwork.

The adequacy of current hearing health and research programs, including education and awareness programs

To date a great deal of money has been spent on the medical aspects of hearing loss. However, perhaps the management of otitis media with the insertion of grommets has been a little over zealous in the past. We have excellent technology with regard to microscopic examinations and surgical procedures of the middle and inner ear and we even have otoscopes which photograph images of the middle ear so that G.P's can send these images to ENT's and reduce the time taken to write referrals.

The inability to communicate is a far greater disability than hearing loss alone. However, the extent to which a chronic hearing loss contributes to a communication impairment is not fully understood. The author has observed symptoms in a child's speech which suggest a hearing history such as inconsistent use of certain grammatical endings, phonological errors, impairments in phonological awareness (the ability to hear sounds in words) and a difficulty in carrying out complex instructions, all of which impact quite significantly on a child academically and socially. The author has also observed that the duration of the hearing loss and the age a child was at the time they suffered this hearing loss all contribute to the impact this hearing loss has on a child's communication skills.

Children with auditory processing difficulties struggle with the ambient noise of most classrooms. There are Australian Standards (AS/NZS 2101:2000) with regard to design sound levels and reverberation times for building interiors. The Acoustical Society of America has produced a publication entitled "Classroom Acoustics- a resource for creating learning environments with desirable listening conditions". It is the author's understanding that there is no legislation in place to ensure Australian schools abide by these acoustic standards. School architects like open plan rooms with lots of windows and wooden floors which are fine for children with allergies but the acoustic environment of these structures makes a day at school very uncomfortable for a child with (C)APD. We also have FM systems for children with temporal processing difficulties but many teachers are reluctant to use these in the classroom setting. In Western Australia these need to be provided by parents and most families find them a very expensive option.

For children with chronic ear conditions, the BBC program has proven to be very effective. It has been the author's experience that it depends upon the teacher just how religiously this is carried out. In one pre-school where there had been a significant incidence of otitis media, the introduction of the BBC program on a daily basis and regular tympanometry with reports sent home following assessments and reviews, ensured that all the children in that class had normal hearing in at least one ear for an entire school year.

Recommendations

1. That the Federal Government introduces legislation which requires all classrooms to comply with the acoustic standards and that all new schools are designed with the acoustic environment of learning areas as a primary consideration.

2. That the Federal Government require Universities with Education Faculties include course information on the symptomatology of auditory processing disorder (APD), strategies to reduce ambient noise and sound reverberation in the classroom, the BBC program, and the referral pathways for children with APD.

3. Specific issues affecting Indigenous communities

The issues of home languages and the language of the curriculum has been discussed at length for quite some time. However, what may not be known is that many Indigenous languages are not complete languages. At the time when children were being removed from their parents to be raised in "white institutions" indigenous people were punished for speaking in their own language. As a result, much of the vocabulary was lost and indigenous people found themselves unable to carry out a full conversation in their language without having to use English words to connect their ideas. It is likely that the" economical English" we see used by many of our indigenous people which is characterized by the omission of auxiliaries, prepositions and articles and an overuse of indefinite pronouns is one of the consequences of the fact that we have so many incomplete indigenous languages. The school curriculum however, requires correct grammatical use and good referencing of English and many indigenous children find themselves in a position where they struggle to express themselves

both orally and literally. An inability to be able to tell a story with good macrostructure (a beginning, middle and end) is what we require if we are able to defend ourselves if unjustly accused of doing something wrong. It is also the skill required if any form of higher order language is used. This type of language is required if one is to rent a property, explain a health issue, negotiate over the telephone etc. In Indigenous cultures, the preferred way of communicating with someone is to go and see them face to face so the development of oral narrative skills is not seen the same way as the non-Indigenous population.

Many services are now provided over the 'phone and negotiating these services requires good receptive and expressive language skills. Frequently, when we ring a Government Department such as Planning and Infrastructure to renew our licence, we are asked to listen to the options stated and press the key pad according to our preferred option. Such a protocol is almost impossible for individuals with auditory comprehension or auditory memory difficulties. When they reach the representative who deals with their particular issue, the person must use their narrative skills to state the nature of their query or problem and negotiate a solution. It is the author's experience that many indigenous children really struggle with oral and written narratives so dealing with bureaucracies is a difficult thing for them. It is not surprising that we have a significant number from our indigenous communities in our justice system. Some of them are there because they were simply unable to relate the succession of events to defend themselves.

I have been privileged to be able to participate in a number of early intervention programs with children from our indigenous communities.

The first program I was involved with was an **early intervention kindergarten program**. This was conducted in several locations with children from predominantly white non-Indigenous backgrounds and children from indigenous communities.

Prior to the commencement of the program, all children were assessed using the MELS Assessment and they were re-assessed using this assessment at the end of the program. Parents signed written permission slips agreeing to the participation of their children in the program and they were informed in a written format of the assessment outcomes and the results of regular hearing assessments.

For the first three terms, the focus was on oral language development using the Blank Model of questioning along with scaffolding and simplification strategies and in the final term the GRASP Auditory Skills program was administered. The Blank Model is a series of questions of various levels aimed to develop semantic (meaning) narrative (story telling) and problem solving skills. It is a discourse model so it looks at the level of difficulty of the question as well as the verbal response a child gives to that question. By the time a child enters kindergarten, they should have mastered Blank Level 2 and by the time they start Year 1 they should be able to competently answer all levels of questions. A mastery of all levels indicates adequate oral language development which can support literacy acquisition.

The results of this program using the MELS are illustrated below:

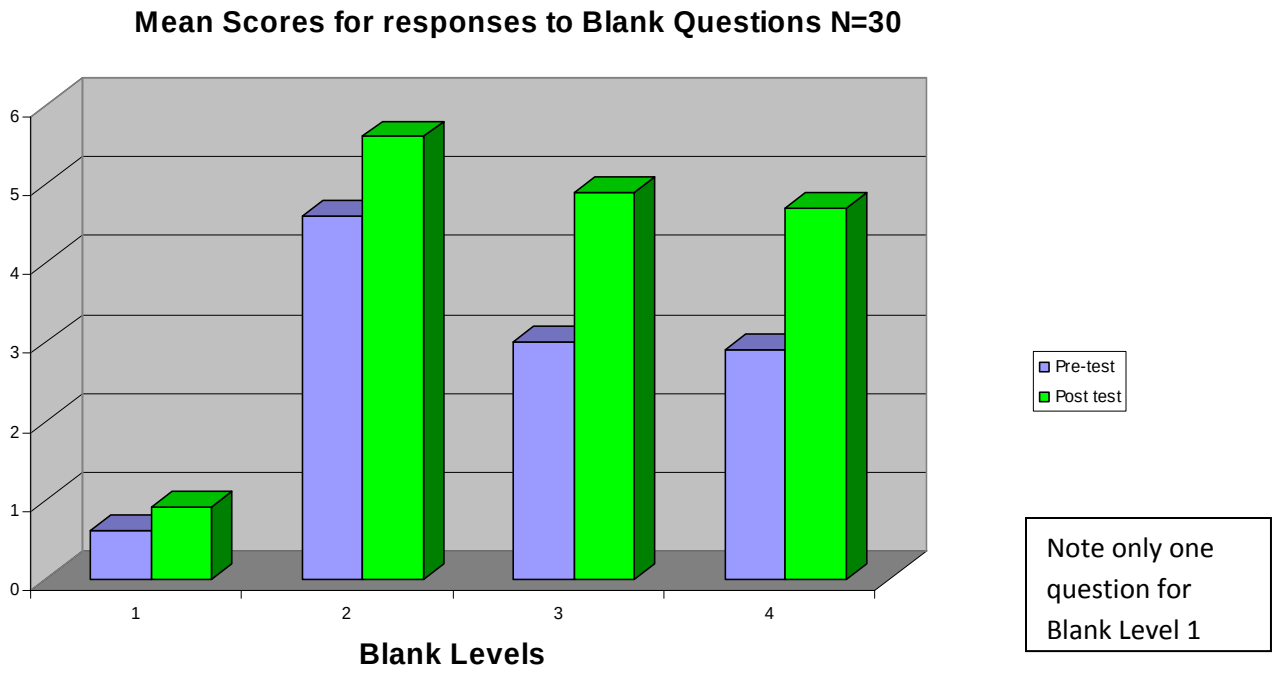

Figure 2. shows the pre- and post-testing results from the MELS© for 30 kindergarten non-indigenous children on the Blank Model of Discourse (Questions and Answers). Considerable gains were made by children in their responses to all the Blank Levels of questions. Most notable gains were made in Blank Levels 3 and 4.

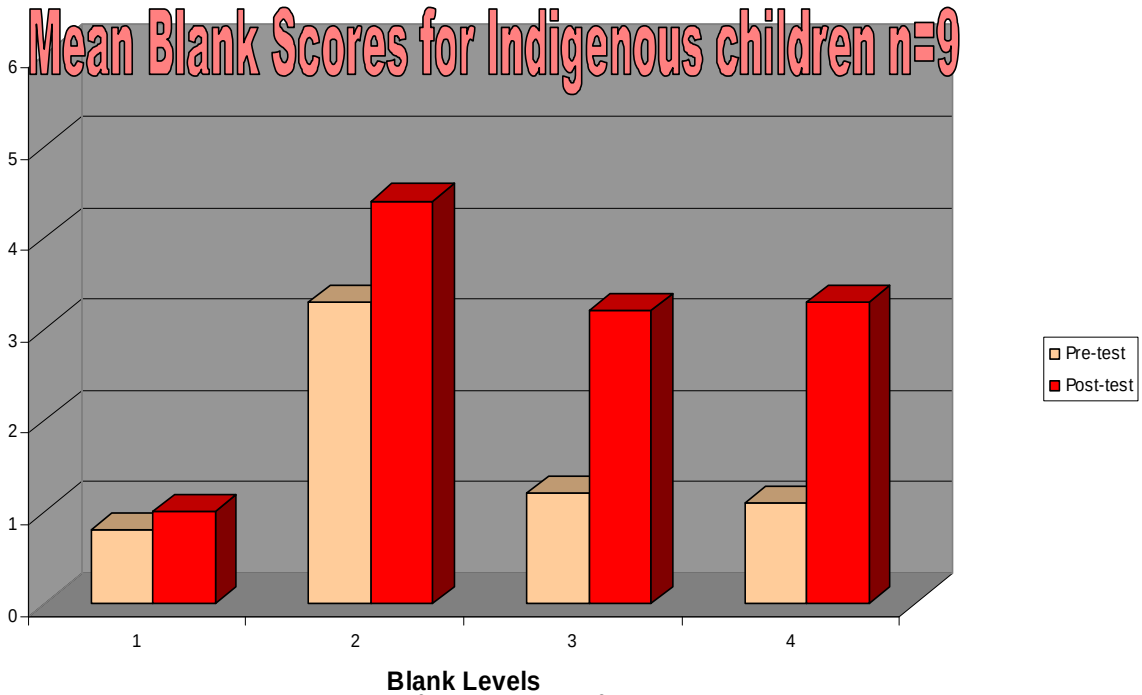

Figure 3. shows the pre- and post-testing results from the MELS© for 9 indigenous kindergarten children on the Blank questions. The pre-test scores indicate that indigenous children come to kindergarten with oral language skills which are considerably behind that of their non-indigenous peers.

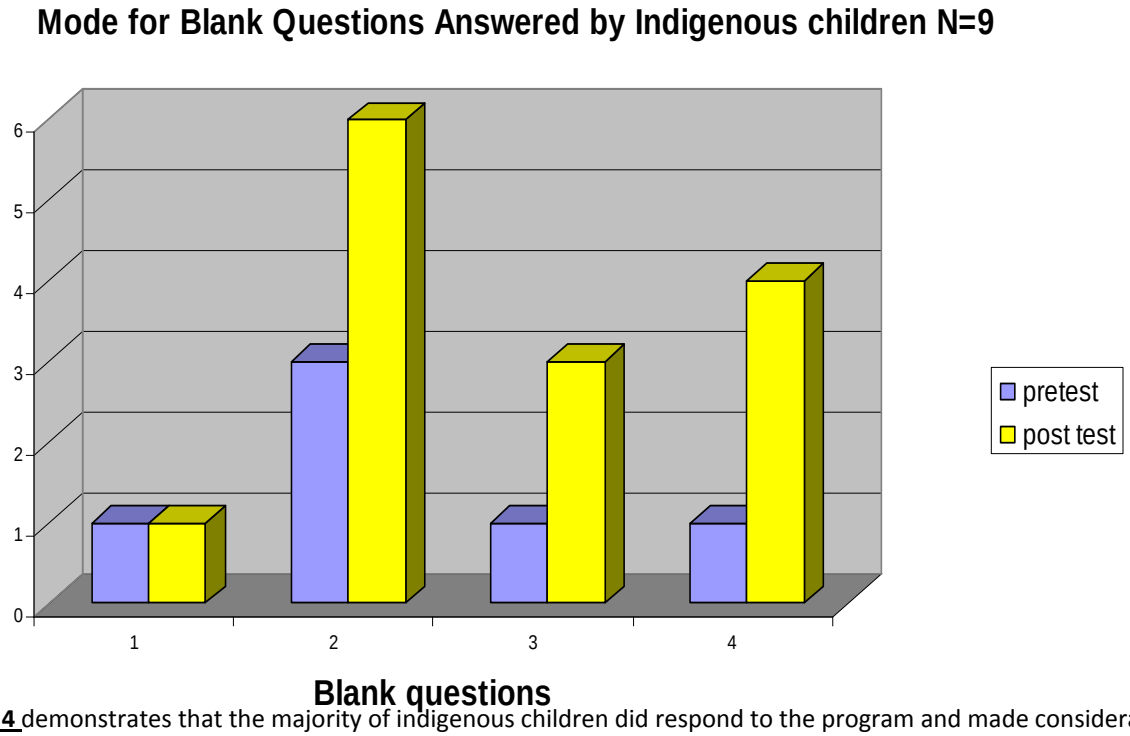

Figure 4 demonstrates that the majority of indigenous children did respond to the program and made considerable gains across the Blank 2-4 question levels.

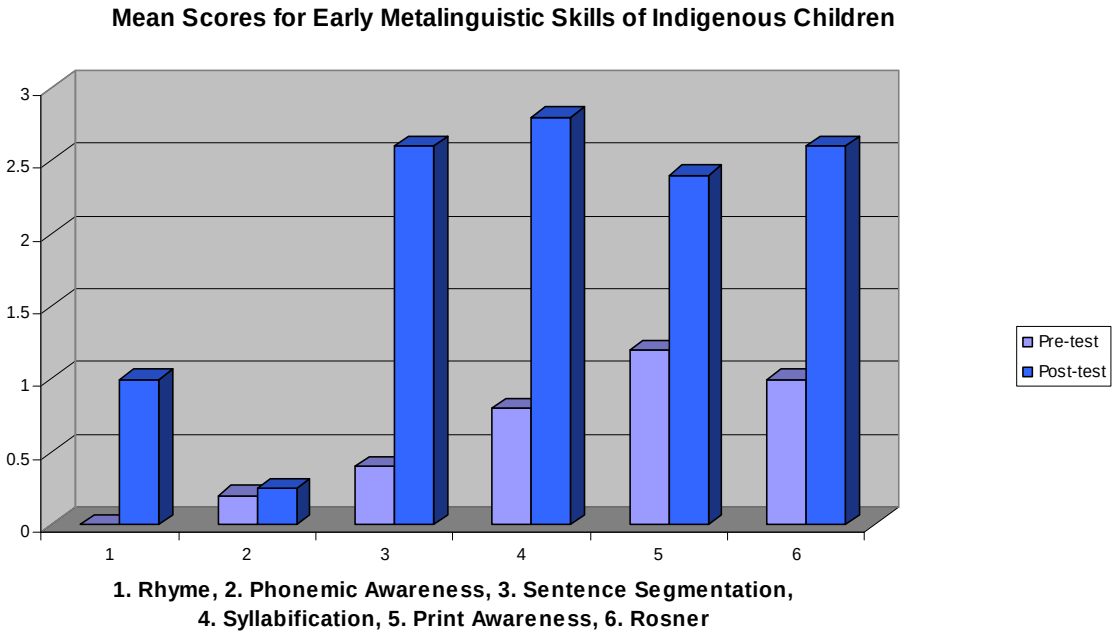

Figure 5 illustrates the pre and post results on a number of pre-literacy measures of the implementation of the GRASP program with 9 indigenous children.

These results indicate that collaborative intervention between the classroom teacher and the speech pathologist in the kindergarten year is an effective means of ensuring children attain the oral language skills essential for literacy acquisition.

The second program I participated in was a program for 14 **school aged children in an Indigenous Community school.** The children attending the school had been receiving ear screening services for some time but the Principal recognized that the children were not improving as there was not follow up. As a result of discussions initiated by the school principal, a program was set up whereby the children were regularly reviewed and a partnership was formed with the school, the local Division of General Practice and Earsciences.

The children were referred to speech pathology by a doctor working with the Perth Division of General Practice conducting ear screening through the Ear Bus Program after discussion with the school staff. The original proposal was estimated to cost $10,000.00 which the author considered was the absolute bare minimum cost of providing this pilot program. Funding came from Earsciences and the Division of General Practice - $2000.00 for the initial assessment and training phase, and the treatment phase was funded through EPC Plan rebates $3159.00 (which are currently being processed) the Community School $1500.00 to date, and the remainder, including the post-testing evaluation, the resources and therapy materials provided the Private Practice run by the author.

The children participating in the program ranged in age from 5 to 10 years of age. Two of the children were diagnosed with CAS (Childhood Articulatory Dyspraxia) which is an oro-motor speech disorder. Three of the 14 children left the school mid way through the program and two children left to visit relatives prior to the evaluation testing so that their results could not be included in the post-testing results. Pre-testing took place during February 2009 and Post-testing during November 2009.

Figure 6 shows the Receptive Language (Comprehension) results from the children. All but two of the children had comprehension skills below 5 years of age. This indicates that they came to school with receptive language skills which were not sufficiently developed to understand the language of the classroom or comprehend a text. Teachers are trained to deliver a curriculum which assumes adequate receptive and expressive language prior to formal learning. The fact that 11 of these children are above 7 years suggests that the curriculum has done little to develop their receptive language skills. We know that if instructions given to a child are of too high a level, he/she will not be in an optimal position to learn language. All children who received speech pathology intervention improved to some degree so the type of language activities a speech pathologist provides does have an impact on children's receptive language abilities. Most children had gains of 12 months in their receptive language ages.

Figure 7 shows the Expressive Language results from the children. Most children improved at least 12 months in their expressive language abilities and some children improved as much as 2 ½ years. Child H gained confidence in speaking and reduced his reliance on pointing and gestures as he began to realize people understood him. In three cases, the 17 treatment sessions were able to lift the children's oral language abilities to 6 years so they had reached the level required by the Education curriculum.

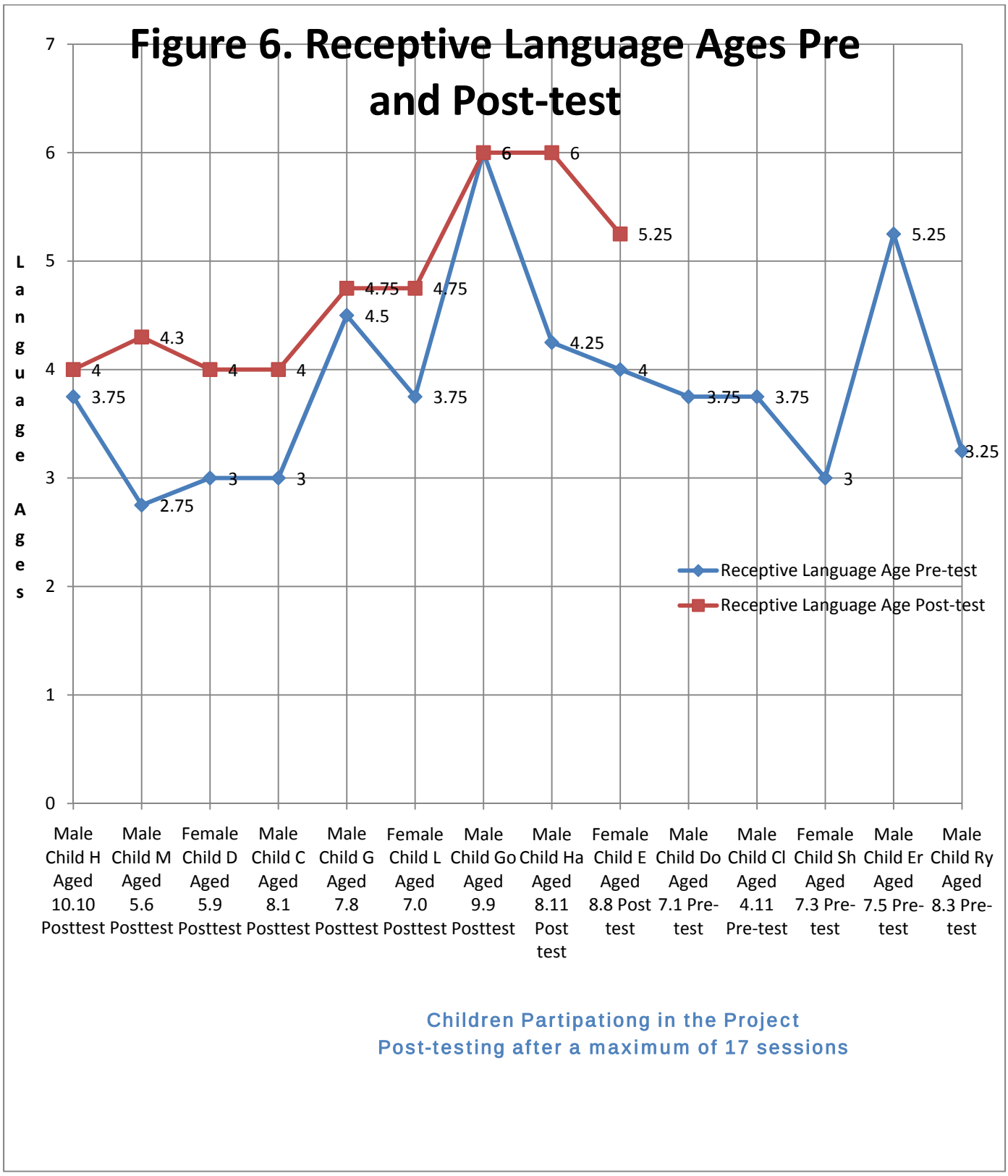
Figure 6. Receptive Language Ages Pre and Post-test
Language Ages
0
1
2
3
4
5
6
7
4
4.3
4
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4.75
4.75
6
6
5.25
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2.75
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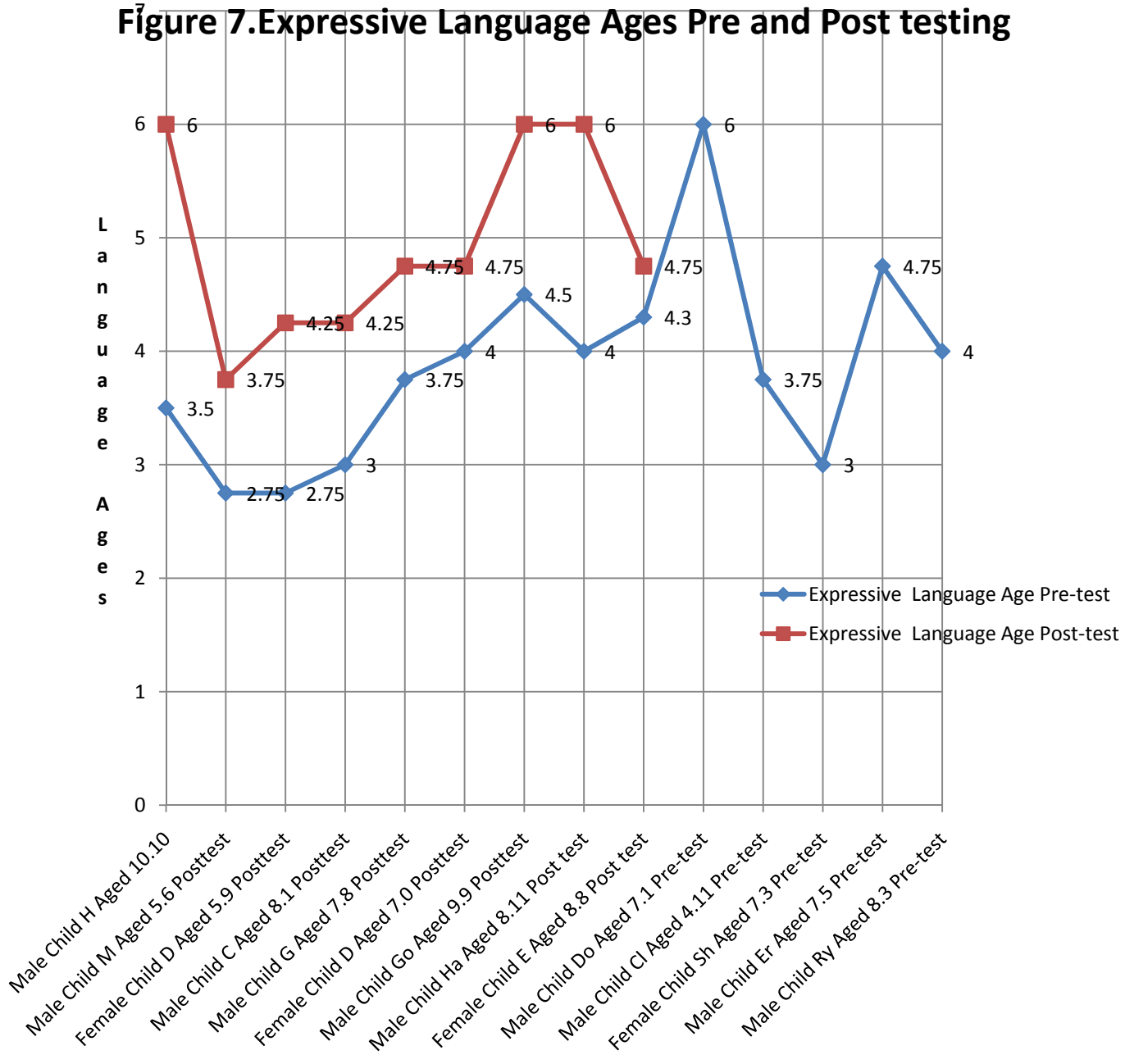
3
4.5
3.75
6
4.25
4
3.75
3.75
3
5.25
3.25
Receptive Language Age Pre-test
Receptive Language Age Post-test
Male Child H Aged 10.10 Posttest
Male Child M Aged 5.6 Posttest
Female Child D Aged 5.9 Posttest
Male Child C Aged 8.1 Posttest
Male Child G Aged 7.8 Posttest
Female Child L Aged 7.0 Posttest
Male Child Go Aged 9.9 Posttest
Male Child Ha Aged 8.11 Post test
Female Child E Aged 8.8 Post test
Male Child Do Aged 7.1 Pre-test
Male Child Cl Aged 4.11 Pre-test
Female Child Sh Aged 7.3 Pre-test
Male Child Er Aged 7.5 Pre-test
Male Child Ry Aged 8.3 Pre-test
Children Partipationg in the Project
Post-testing after a maximum of 17 sessions



Children Particupating in the Pilot Study who received a maximum of 17 treatment sessions

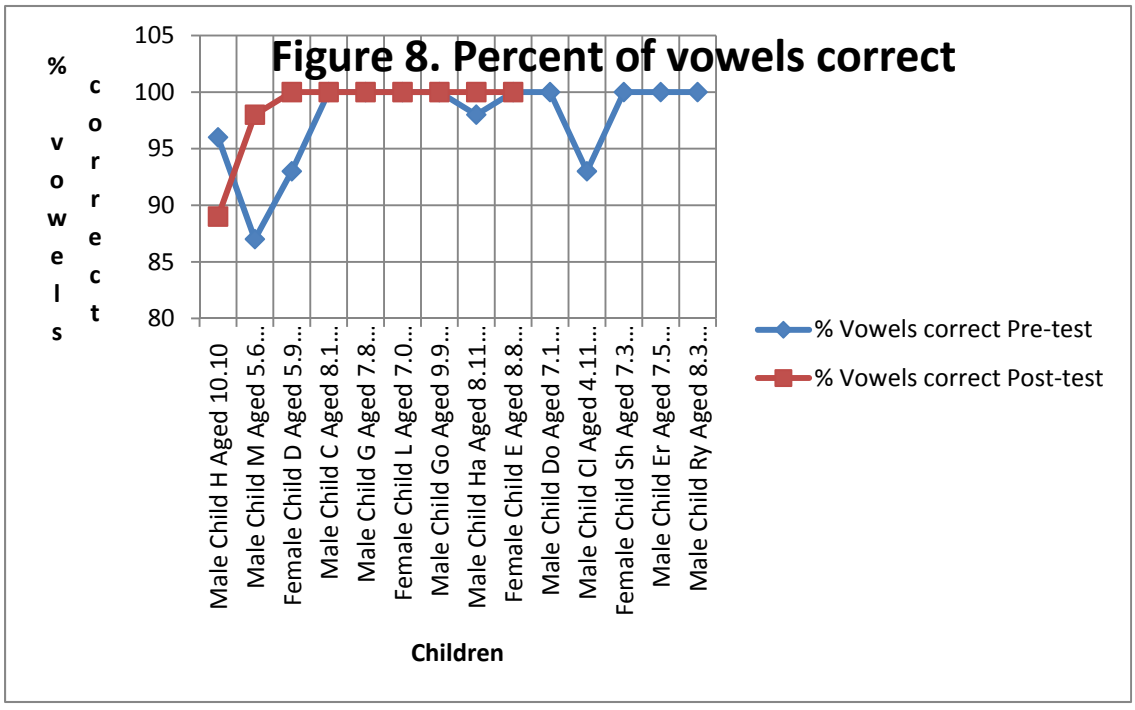
These charts illustrate that these indigenous children have significant language delays. All of these children had hearing issues which was the reason for the original referral but the author believes that the contributing factors to these severe language delays are not hearing issues alone.

One example of the impact of comprehension difficulties can have on these children came during my visit to the school towards the end of term 4. One child, Female L, was asked by her teacher (teacher D) to go to ask teacher T for the " tap". Child L went to the teacher T and asked for the" tapping sticks". Teacher T did not know what child L was talking about so sent her back to class without the tap. It was over lunch that the teachers sorted this out and teacher D received her tap. Child L did not have the satisfaction of being able to complete her errand as she simply did not perceive the instruction accurately.

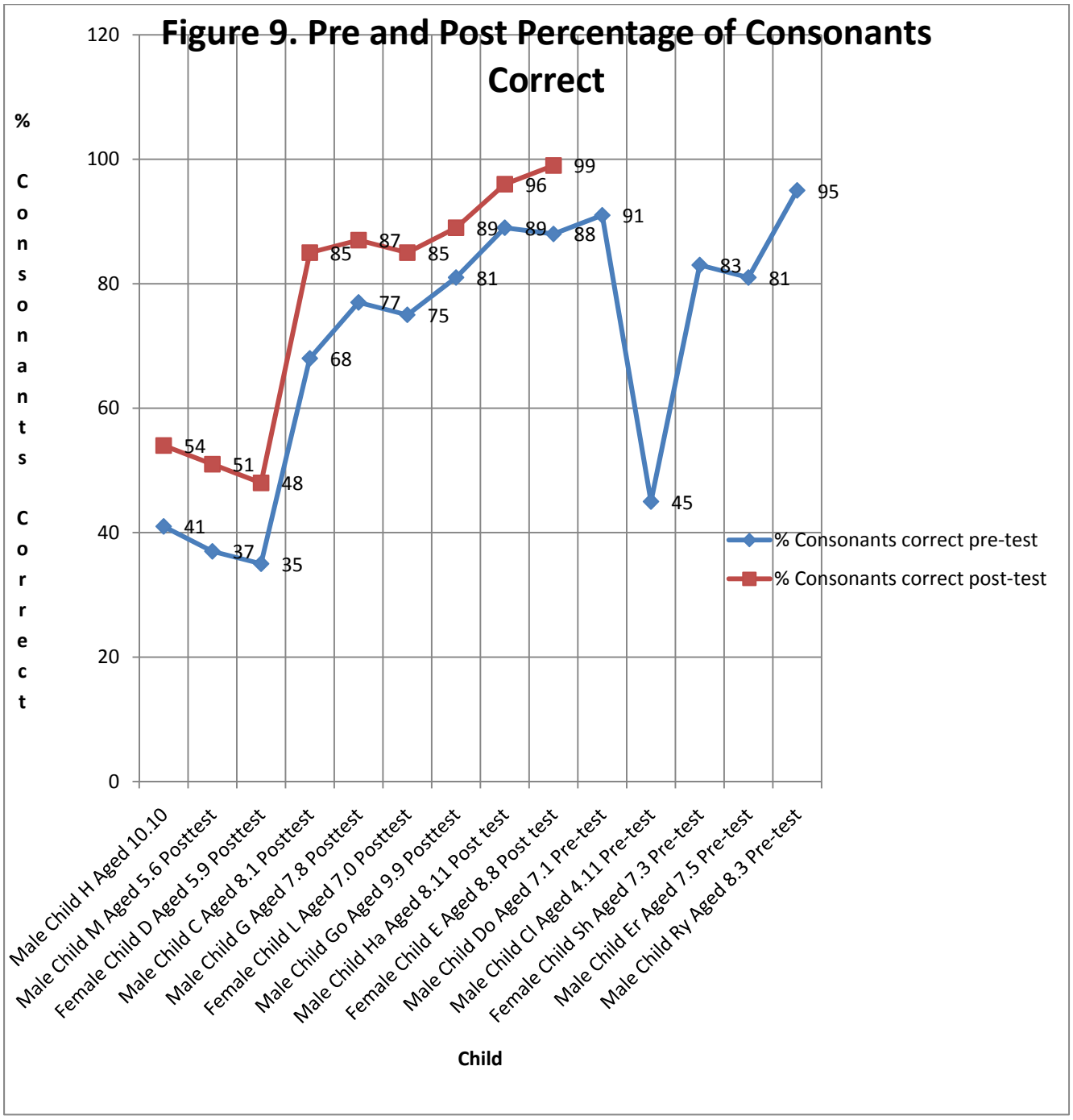
One particularly rewarding moment occurred on the last day of the program. Child Ha spoke with the principal and asked him if he liked vegetables. We had done a considerable amount of work on classification tasks and this was an example of him using his knowledge effectively and confidently. Prior to the program it is likely he would have simply asked "Do you like that?"

The author believes that the children participating in this project were given a minimal amount of therapy. Sessions were held once weekly for a period of 20 minutes and there was minimal practice between sessions until term 4 when some of the children were given some therapy sessions by educational assistants between therapy sessions. Were the children given the type of intensive therapy as described by Gilllam et al. (2008) we may have seen them approximating the language ages of their non-indigenous peers. All of the children participating in the study were willing to come to therapy and demonstrated a keen interest in learning.

Some of the children were also given therapy for their speech sounds. The results showing pre and post-testing for speech intelligibility is listed below:



A comment needs to be made about the first child H aged 10.10. This boy has Childhood Articulatory Dyspraxia which is characterized by a significant amount of speech variability in sounds which have not been completely mastered. A significant improvement would be expected if a child had been given intensive speech therapy which was outside the scope of this pilot study. However, on the final day H managed to say the "k" sound in conversation. Because "k" is a marked sound changes in his production of some other sounds such as "t" and "p" were also becoming evident.



One of the really satisfying experiences during this project was when Female Child E was finally able to say her own name clearly. Child E was seen in a group with Male Child Ry and Male Child H. Over the time I saw these three children they came to expect more of each other in terms of sentence length, vocabulary and speech accuracy. One of the aims of the program was that these children would begin to lift their expectations of their own speech and language abilities and this appeared to be happening.

It should be acknowledged that without the support of the Principal and staff at the school which was financial, motivational and practical in terms of the provision of a room in which to work and ensuring access to the children at the designated times, the continuity of the program would not have been possible.

The third project I have participated in has been an **Indigenous Community Playgroup** funded by the Department for Community Development. An Occupational Therapist and I were funded for three sessions to provide activities for the children and to talk to the mothers about strategies to promote speech and language in their children. I welcomed the opportunity to meet with these mothers and talk with them about why communication skills were so vital for their children and what to expect from their children at particular ages. However, the opportunity for this kind of a talk did not present itself.

The children I observed appeared to have significantly delayed language development and not a great deal of talking was happening between parents and children. On the third session I had a story session on the mat. We had a story about Australian animals at Christmas, as Christmas was our theme for the day. The children found it difficult to attend to the entire story and I was surprised to find some of the older children had difficulty naming some of the common Australian animals. This could possibly mean that these children may have considerably delayed vocabularies which can impact on their reading comprehension abilities.

One school aged boy was brought along by his mother as his teacher had expressed concern that his speech was barely intelligible. This boy did have significantly delayed speech and language abilities and at the age of 6 was unable to say sounds which should have been acquired by three years. This child had been discharged from the local community health centre speech pathology caseload as his mother had not attended the parent information session which is conducted prior to the children being assessed. I was able to demonstrate some strategies to encourage sounds and left a home program for his mother to conduct with him. However, parents require ongoing follow-up and support if they are going to be able to successfully carry out a home phonology program and as the speech pathology funding for this project was a total of $300.00 for three sessions of an hour and a half plus preparation, transport and liaison. The author would not be able to provide an ongoing service at that rate. Providing this service was done at a loss to the author's private practice but she was aware of that and felt that these mothers deserved an opportunity to have some speech and language services for their children. In total, the hours put into the project were 14. Had the author stayed at her office and provided services to private clients for these 14 hours she would have had the potential of earning $1400.00 or more.

On the final day I attended, one of the mothers was talking with me as we watched the children play on the playground. She mentioned to me that her son who was almost three was not talking. I was able to give her some strategies to help him. If I had been able to continue my involvement, I would have been able to demonstrate these strategies and encourage her to use them herself. I would have been able to monitor her

son's progress and feed this back to her and we would have been able to determine communication goals for him collaboratively so that they could be employed between weekly sessions. Thus, I would have been able to offer this mother the opportunity of accessing a service that my non Indigenous clientele is able to access in my private practice. This mother was a single mother in her early 20's but several of the other mothers were as young as 18 with several children so the author is cognizant that the approach with regard to advice with these younger mothers is quite different to the standard approach taken with older, non Indigenous parents.

The other positive thing that came out of my conversation with this mother was that I was able to re-inforce this mother's decision to breastfeed her youngest child. She stated she had done so because she was lazy but I was able to tell her that it was the very best thing she could be doing for her child's health and for her own. Breastfeeding can reduce the incidence and severity of otitis media and is something which really needs to be promoted to the Indigenous urban population.

One of the things that struck me about this playgroup was that it appeared to have a very different agenda to what the author felt was the purpose of a playgroup. The author understood that Playgroups were for parents and children to learn through play together and for children to learn to socialize with peers.

At this Playgroup however, there were almost more adults than children. Of note, was the number of health professionals and other professionals using the playgroup as a point of contact for the community. On one occasion we had someone to talk to the parents about housing issues, the school principal talking about enrolments to his school, the local community health nurse and the Occupational Therapist and myself. We also had Health Department staff taking pictures constantly to promote the playgroup. With so many different things happening, it was not surprising that the valuable one on one time between parents and children was a difficult thing to promote.

It would be wonderful to gain the trust of these mothers by attending the Playgroup regularly and talking with them. It may then be possible to run a program such as the Hanen Program "It Takes Two to Talk" which successfully teachers parents to be language facilitators. The aim of conducting such a program would be to try to ensure these pre-school children commence school with the language levels of their peers and are able to acquire literacy skills without the fear of failure. The Hanen ITTT Program is a wonderful program which has been successfully conducted in Canada for many years. Considerable adaption is required in the Australian setting and even further adaptions will need to be made to tailor this program for the Indigenous population. Conducting such a program, however, would mean that the present structure of the Playgroup would need to change. The primary focus for several weeks would need to be the promotion of the children's communication skills and all other visitors and agendas would need to wait.

Recommendations

1. That the federal and state governments provide funding for speech pathologists to provide intensive speech pathology programs with Indigenous school-aged children who have significant speech and language difficulties.

2. That the level of funding paid for speech pathology services in schools be at least equivalent to the level of salaries paid to relief teachers. Recognition also needs to be made of preparation time and other services provided such as liaison and travel.

3. That speech pathologists working with Indigenous children be encouraged and funded to evaluate their efficacy and present their findings to other individuals working with these communities.

4. That all children from Indigenous backgrounds be screened for receptive and expressive language abilities especially those who have ongoing hearing issues. 2,700 have been seen by the Ear Bus Program but to my knowledge, the only children who have been assessed for their communication abilities are the children from this pilot program.

5. That teachers and speech pathologists work collaboratively in the pre-school setting to maximize the opportunities to develop expressive and receptive language abilities. The goal would be to ensure these children started formal education with expressive and receptive language which was able to support the demands of the curriculum.

6. That Indigenous Playgroups be encouraged and realistic funding become available to enable parents to be supported in providing the best possible environment for their children to acquire speech and language abilities.

7. That adaptations of the Hanen "It Takes Two to Talk" Program be trialed with Indigenous children and their parents.

8. That Indigenous mothers be encouraged to breastfeed their children for at least 6 months and preferably up to 2 years as a means of preventing the prevalence of otitis media.

The ability to communicate is not a privilege, it is a basic human right. Without adequate communication skills the cycle of poverty and disadvantage continues.

Thank you,

Lynne Middleton

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