Senate Education and Employment References Committee
Questions on Notice – Friday 25 September 2015
Brisbane, QLD
Inquiry into students with disabilities

Question number	Hansard page number	Witness	Question asked by	Answered
1	15	Speech Pathology Australia	Senator Siewert	Yes
1	22	Mr Bates, QTU	Senator McKenzie	Yes
2	24	Mr Bates, QTU	Senator McKenzie	Yes
1	44	Gold Coast Dyslexia Support Group	Senator Siewert	Yes
2	44	Gold Coast Dyslexia Support Group	Senator Siewert	Yes
1	59	Mr Ward	Senator McKenzie	Yes
2	60	Mr Ward	Senator McKenzie	Yes

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1. HANSARD, PAGE 15

Prof. McLeod: We have also been able to analyse data from the longitudinal study of Indigenous children, which is another study that the Department of Social Services has put forth. I have copies of all these papers if you are interested in them.

Senator SIEWERT: Yes.

Prof. McLeod: This was published late last year. We titled the paper 'Celebrating young Indigenous Australian children's speech and language competence', because the L6 study enabled us to show just how competent many Indigenous kids in Australia were, speaking up to eight languages. But English could have been language 4 or 5, for example. We found that the same proportion of parents and teachers were concerned about that 20 to 25 per cent—with the Indigenous group compared to the longitudinal study of Australian children.

We are finding similar studies. We are actually very interested in seeing if we can run the same type of analysis that we have presented today on the NAPLAN data with the children in the longitudinal study of Indigenous children, because we have the capacity to do that, to find out. But my prediction is that it is probably going to be the same.

[...]

Senator SIEWERT: If you could send those studies, that would be great.

Prof. McLeod: Sure.

EVIDENCE FOR EFFECTIVENESS OF SPEECH PATHOLOGY SERVICES

> *Hansard 25 September, 2015, p. 9*
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> *"There are many randomised control trials that have been undertaken to show that speech therapy really does work for children. Studies that are being conducted in the US often have children receiving speech therapy services in early childhood and school two, three or four times a week"* (Baker & McLeod, 2011)

1. **Baker, E. & McLeod, S. (2011). Evidence-based practice for children with speech sound disorders: Part 1 narrative review. *Language, Speech, and Hearing Services in Schools, 14*, 102-139.**

"This article provides a comprehensive narrative review of intervention studies for children with speech sound disorders (SSD)… One hundred thirty-four intervention studies were identified. Intervention typically was conducted by an SLP [speech-language pathologist] in a one-to-one individual format for 30- to 60-min sessions 2 to 3 times per week. Total duration of intervention (from assessment to discharge) was reported for 10 studies and ranged from 3 to 46 months. Most studies were either Level IIb (quasi-experimental studies, 41.5%) or Level III (non-experimental case studies, 32.6%). Single-case experimental design (29.6%) was the most frequently used experimental research design. There were 7 distinct approaches to target selection and 46 distinct intervention approaches, with 23 described in more than 1 publication. Each approach was associated with varying quantities and levels of evidence, according to research design." (p. 102)

NATIONAL LEGISLATION AND POLICY ABOUT SPEECH, LANGUAGE, and COMMUNICATION DISABILITY

> *Hansard 25 September, 2015, p. 10*
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> *"In fact, in countries like the US and the UK, speech pathologists are routinely employed in schools. In fact, the No Child Left Behind Act and the Individuals with Disabilities Education Act in the US specify speech and language impairment—they name it. The report of the Department of Education in the US included a section titled 'Ensuring an adequate supply of high-quality, school-based speech-language pathologists'. The UK has had the Bercow report and the Better Communication Action Plan.*
>
> *There is so much work being done in these countries to identify children with communication needs, not just children who have communication on top of having a hearing impairment or on top of having an intellectual disability or on top of having cerebral palsy, but those children are very important and to some extent are being considered in Australian disability and education and health legislation and policy. But for a majority of children with communication difficulties and disabilities there is actually no other aspect to it, and these children are very invisible."* (McLeod, Press, & Phelan, 2010; McLeod, McAllister, McCormack & Harrison, 2014)

2. **McLeod, S., Press, F., & Phelan, C. (2010). The (in)visibility of children with communication impairment in Australian health, education, and disability legislation and policies. *Asia Pacific Journal of Speech, Language, and Hearing, 13*(1), 67-75.**

   Data: "An online Internet search was conducted of current health, education, and disability legislation and policies in each state and territory of Australia." (p. 70)

   Relevant findings:

   "Current Australian legislation and policy does not adequately address the needs of children with communication impairment, particularly those with communication impairment of unknown origin. Australian allied health, education, and disability service providers often are left to interpret ambiguous policies to make a case for service delivery to such children. In

addition, as Australian state and territory criteria for specialist services are becoming increasingly stringent, access for children with mild-moderate communication impairments is severely limited. Recently, the Council of Australian Governments agreed to a partnership between the Commonwealth, state, and territory governments to pursue substantial reform in the areas of education, skills and early childhood development. This partnership provides an opportunity to improve the educational, social, and health prospects of children with communication impairment as part of national "education revolution," and in turn bolster the nation's productivity, economy, and social and cultural capital." (p. 67)

3. **McLeod, S., McAllister, L., McCormack, J., & Harrison, L. J. (2014). Applying the World Report on Disability to children's communication.** *Disability and Rehabilitation, 36*(18), **1518-1528.**

" The World Report on Disability [World Health Organization and World Bank, 2010] is an important milestone in the recognition of people with disabilities; however, the Report acknowledges that people with communication difficulties may be underrepresented in estimates of disability. Consequently, this article applies the nine recommendations from the World Report on Disability to supporting children's communication skills. … Australia is similar to most Minority World countries since it places high regard on articulate and literate communication. … Recent years have seen improvements in the collection of and access to disability data about children's communication, including the involvement of children in research about the impact of communication difficulties on their lives. The prevalence of speech and language impairment in children is high and is associated with poorer educational and social outcomes at school-age. Significant unmet need for services was noted, and there were differences in health, education and disability policies regarding access to services. … Updated legislation, policies and practices are needed to more effectively support access to services to support children's communication across health, education and disability sectors." (p. 1518)

- Appendix: Australian studies of prevalence of speech and language impairment (p. 1528)

SOUND START STUDY

Hansard 25 September, 2015, p. 10

"Our team has received funding from the Australian Research Council Discovery grant and we are conducting what we call the Sound Start Study. We are looking at first-phase speech therapy for kids who just cannot access speech therapy in Sydney as four- to five-year-olds. These are children with speech sound difficulties with no known cause. Just last week I was in preschools assessing some of these four- to five-year-old children, who will very soon be ready to go to school, who have never seen a speech therapist. It is a randomised controlled trial, so I did not know whether these children had received our intervention or not. It was double-blind. We find out in November."

Hansard 25 September, 2015, p. 14

"Can I just let you know about the current study with the four-year-olds that I talked about, with the randomised controlled trial? It is called the Sound Start Study. It is funded by the ARC and also by the Department of Education in New South Wales—it has funded a small part of that project. We are actually trialling a computer program as first-phase speech therapy for children with speech difficulties in particular—with pronunciation difficulties. We find out the outcome of that in November.

We are looking for innovative ways. This computer program was developed in the UK and we have done some tweaking to make sure that it is right for the Australian audience. It is called the Phoneme Factory Sound Sorter. The Rural and Distance Education unit in New South Wales is particularly interested in this because perhaps, if it is successful, we might be able to give first-phase speech therapy to children via computer programs."

http://www.csu.edu.au/research/sound-start/overview

ACADEMIC OUTCOMES FOR SPEECH, LANGUAGE, and COMMUNICATION DISABILITY

> *Hansard 25 September, 2015, p. 11*
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> *"In that transition period into school, as the previous people who spoke to you said, there is so much support that we can give these children in the transition from being talkers to being readers and writers that can really make a big difference. Once they are in that system, we can do more to support their learning. But there are some children, if they actually get enough support in early childhood, who then go to school, as Gaenor said, on the front foot; they are ready to begin to learn to read." (McCormack, Harrison, McLeod, & McAllister, 2011; Harrison, McLeod, Berthelsen, & Walker, 2009; McLeod, Harrison & Wang, 2015)*

4. **McLeod, S., Harrison, L. J., & Wang, C. (2015). *NAPLAN outcomes for children identified with speech and language difficulties in early childhood*. Bathurst, Australia: Charles Sturt University. Commissioned research by Speech Pathology Australia.**

   Details of this report were outlined in the submission to the Senate Inquiry by Speech Pathology Australia.

   Relevant findings:

   - Children with communication impairment achieved significantly lower scores on every NAPLAN subtest (reading, writing, spelling, grammar, numeracy) at years 3, 5 and 7 compared with children with typical speech and language skills.

   - Children with communication impairment were more likely to be excluded from NAPLAN testing than children with typical speech and language skills.

   - The majority of children with communication impairment did not access speech pathology services (according to parent and teacher report).

   - There was no differential effect of child gender on the observed differences in NAPLAN outcomes for children with communication impairment versus typically developing children.

   - For all NAPLAN tests and for all test periods, typical children had higher scores than children with communication impairment, for all states/territories of Australia, apart from the Northern Territory (who did not have a large enough cohort for reliable comparisons to be made).

5. **McCormack, J., Harrison, L. J., McLeod, S. & McAllister, L. (2011). A nationally representative study of the association between communication impairment at 4-5 years and children's life activities at 7-9 years. *Journal of Speech, Language, and Hearing Research, 54*(5), 1328-1348.**

   Participants: Longitudinal study of 4,983 children from the Longitudinal Study of Australian Children (Kindergarten cohort)

   Relevant findings: "Children identified with communication impairment at age 4–5 years performed significantly poorer at age 7–9 years on all outcomes. Parents and teachers reported slower progression in reading, writing, and overall school achievement than peers. Children reported more bullying, poorer peer relationships, and less enjoyment of school than did their peers. Analyses of covariance tests confirmed significant associations between communication impairment and outcomes, over and above the effects of sex, age, Indigenous status, and socioeconomic status." (p. 1328)

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CRICOS Provider Numbers for Charles Sturt University are 00005F (NSW), 01947G (VIC) and 02960B (ACT). **ABN: 83 878 708 551**

6. **Harrison, L. J., McLeod, S., Berthelsen, D., & Walker, S. (2009). Literacy, numeracy and learning in school-aged children identified as having speech and language impairment in early childhood.** *International Journal of Speech-Language Pathology, 11*(5), 392-403.

Participants: Longitudinal study of 3,632 children from the Longitudinal Study of Australian Children (Kindergarten cohort)

Relevant findings: "…children who were identified as having speech and language impairment in their early childhood years did not perform as well at school, two years later, as their nonimpaired peers on all three outcomes: Language and Literacy, Mathematical Thinking, and Approaches to Learning. The effects of early speech and language status on literacy, numeracy, and approaches to learning outcomes were similar in magnitude to the effect of family socio-economic factors, after controlling for child characteristics. Additionally, early identification of speech and language impairment (at age 4–5) was found to be a better predictor of school outcomes than sustained identification (at aged 4–5 and 6–7 years). Parent-reports of speech and language impairment in early childhood are useful in foreshadowing later difficulties with school and providing early intervention and targeted support from speech-language pathologists and specialist teachers." (p. 392)

PREVALENCE OF DISABILITY TYPES IN AUSTRALIAN EDUCATION SYSTEMS

> *Hansard 25 September, 2015, p. 12*
> *"In the Longitudinal Study of Australian Children, we were able to look at what parents and teachers identified. Parents and teachers, respectively, had concern about 25 and 23 per cent of children." (McLeod & Harrison, 2009)*

7. **McLeod, S. & Harrison, L. J. (2009). Epidemiology of speech and language impairment in a nationally representative sample of 4- to 5-year-old children.** *Journal of Speech, Language, and Hearing Research, 52*(5), 1213-1229.

Participants: Cross-sectional study of 4,983 children from the Longitudinal Study of Australian Children (Kindergarten cohort)

Relevant findings:

"One quarter (25.2%) of parents indicated that they had concerns about how their child "talks and makes speech sounds" (11.8% responding "yes" and 13.4% responding "a little"), with a smaller proportion (9.5%) having concerns about how their child under stands what is said (4.4% responding "yes" and 5.1% responding "a little"). Difficulties were noted in many aspects of speech and language impairment: being understood by others (12.0%) and their family (6.0%), "putting words together" (5.8%), stuttering (5.6%), "finding words" (5.1%), comprehending family (2.7%) and comprehending others (2.3%), "being reluctant to speak" (2.2%), and having a voice that "sounded unusual" (2.2%). " (p. 1225)

"Teachers reported a similar level of concern about children's speech and language: 22.3% of children were considered to be less competent (15.6%) or much less competent (6.7%) than others in their expressive language ability, and 16.9% were considered to be less competent (12.9%) or much less competent (4.0%) than others in their receptive language ability." (p. 1225)

"After combining parent and teacher reports, a summary figure of 14.5% was generated for the proportion of children identified as having accessed SLP [speech-language pathology] services in the past year. Parents indicated that 2.2% of children needed but could not access SLP services." (p. 1226)

Hansard 25 September, 2015, p. 12

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> *"We have in our Australian Research Council discovery grant what we call the Sound Effects study. We then tested these children and found that 80 per cent of those that they were concerned about had difficulties. It rounds to 20 per cent of four- to five-year-olds coming into school"* (McLeod, Harrison, McAllister, & McCormack, 2013)

8. **McLeod, S., Harrison, L. J., McAllister, L. & McCormack. J. (2013). Speech sound disorders in a community study of preschool children.** *American Journal of Speech-Language Pathology, 22,* 503–522.

Participants: Study of 1,097 children from the Sound Effects Study. All were screened using parent/teacher report and comprehensive speech pathology assessment was undertaken for 143 children whose parents/teachers expressed concern.

Relevant findings: "The majority of the 143 children (86.7%) achieved a standard score below the normal range for the percentage of consonants correct (PCC) on the Diagnostic Evaluation of Articulation and Phonology (Dodd, Hua, Crosbie, Holm, & Ozanne, 2002)… Despite parent/teacher concern, only 41/109 children had contact with an SLP. These children were more likely to be unintelligible to strangers, to express distress about their speech, and to have a lower PCC [percentage of consonants correct] and a smaller consonant inventory compared to the children who had no contact with an SLP [speech-language pathologist].
Conclusion: A significant number of preschool-age children with speech sound disorders (SSD) have not had contact with an SLP. These children have mild-severe SSD and would benefit from SLP intervention. Integrated SLP services within early childhood communities would enable earlier identification of SSD and access to intervention to reduce potential educational and social impacts affiliated with SSD." (p. 503)

> *Hansard 25 September, 2015, pp. 12-13*
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> *"… I have been a part of another large-scale study in New South Wales with 14½ thousand children who were looked at twice—longitudinally—over two-year periods. Over that entire Catholic school district from kindergarten to year 12, 13 per cent of all children in that district were identified with a fairly rigorous four-step identification process. They had to have a speech therapy or some other professional report to back up the teacher's report. Across that whole school district was 13 per cent, and two years later it was 12.4 per cent. Behaviour difficulties were around eight per cent. Hearing was about one per cent. I can table that report for you if you are interested.*
>
> *It is a large percentage of children, and most of these children do not have anything else. That is the group of children. If they do not have hearing loss or an intellectual disability then it is very difficult for them to get services across Australia."*
>
> *(McLeod & McKinnon, 2007; McLeod & McKinnon, 2010)*

9. **McLeod, S., & McKinnon, D. H. (2007). The prevalence of communication disorders compared with other learning needs in 14,500 primary and secondary school students.** *International Journal of Language and Communication Disorders, 42*(S1), 37-59.

Participants: Longitudinal study of 14,514 students (wave 1) and 14,533 students (wave 2) attending every Catholic primary and secondary school in one Catholic Diocese in Sydney (NSW) over a 3-year period.

Relevant findings:

"In order of prevalence, the areas of learning need were:

- specific learning difficulty (17.93% in wave 1; 19.10% in wave 2),

- communication disorder (13.04%; 12.40%),
- English as a second or other language (9.16%; 5.80%),
- behavioural/ emotional difficulty (8.16%; 6.10%),
- early achiever/advanced learner (7.30%; 5.50%),
- physical/medical disability (1.52%; 1.40%),
- intellectual disability (1.38%; 1.20%),
- hearing impairment (0.96%; 0.80%), and
- visual impairment (0.16%; 0.30%)." (p. 37)

"…teachers indicated the majority of students with a communication disorder were perceived to need moderate (30.4%), high (17.6%) or very high (9.6%) levels of support. Yet, the students with communication disorders were unlikely to have an IEP in place (16.8%) and the majority of students (62.4%) who were identified as having a communication disorder received no involvement from outside agencies. That is, they were not seen by speech and language therapists, or professionals other than teachers." (p. 54)

- Prevalence of 9 additional learning needs (table 2, p. 44)

- Number of learning needs per child (table 3, p. 45)

- Prevalence of learning needs by grade (table 6, p. 48)

- Perceived level of support required by learning need (teacher-rated) (table 7, p. 50)

- Number of students with IEP by learning need (table 8, p. 51)

- 4-stage identification process (p. 42) and definition (p. 58)

EDUCATIONAL SUPPORT FOR CHILDREN WITH SPEECH, LANGUAGE, and COMMUNICATION DISABILITY

10. McLeod, S. & McKinnon, D. H. (2010). Required support for primary and secondary students with communication disorders and/or other learning needs. *Child Language Teaching and Therapy, 26*(2), 123-143.

Participants: Cross-sectional study of 14,533 students attending every Catholic primary and secondary school in one Catholic Diocese in Sydney (NSW) (see McLeod & McKinnon, 2007, above).

Relevant findings:

"Of the nine areas of additional learning need, presence of a communication disorder was the most important predictive factor of teachers' recommendation that primary or secondary students required a high level of support at school. Students were more likely to be identified with communication disorder if they were in grades 1, 2, 7, 8 or 10; that is, at the time of transition to different levels of schooling. Students with communication disorder + behavioural/ emotional disorder + intellectual disability were identified by teachers as requiring the highest level of support at school. Overall, students received limited additional support at school; however, those with communication disorder + intellectual disability received the highest level of learning support within the educational setting. In contrast, students who received the greatest curriculum adaptations were those with intellectual disability + physical/medical disability. Those with intellectual disability + communication disorder were most likely to have an individual education plan, and those with communication disorder + intellectual disability + physical/medical disability were most likely to receive long-term support from agencies outside of the school system. Socio-economic status (specifically, being in a middle-class school) was the most predictive demographic variable for higher levels of support for students with communication disorder, followed by being male." (p. 123)

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"In countries such as the USA, school students with communication disorders receive specialist speech and language therapy services in schools not in outside agencies; indeed, 56% of all certified SLTs in the USA are employed in the school education sector (Brown and Hasselkus, 2008)." (p. 141)

"To summarize, there is a misalignment between teachers' identification of students with high learning needs and the actual support that these students receive in school...This research highlights teachers' roles in identifying and assisting students who have additional learning needs, particularly those with communication disorders. There is need for collaboration among professionals to assist students, their teachers and families to provide the most appropriate support for children with additional learning needs. (p. 141)

MULTILINGUAL CHILDREN WITH SPEECH, LANGUAGE, and COMMUNICATION DISABILITY

Hansard 25 September, 2015, p. 14

"We had monolingual, English-speaking typical children; 'multilingual' as we called it, which includes bilingual, typically developing children—parents and teachers are not concerned; monolingual children with speech and language difficulties at four to five years old; and multilingual kids with speech and language difficulties. We followed them from four to five years to eight to nine years to see what happened, including teacher reports about their school outcomes and also their approach to learning and behaviour problems and so forth.

At four to five there were some differences between the monolingual and the multilingual children, particularly for English language receptive vocabulary. This does not surprise you! But by six to seven, the monolingual-multilingual divide was gone. The divide was totally about whether the parents were concerned at four to five about their speech language—were they typical versus whether they had speech-language problems. At six to seven and eight to nine there was no impact of their multilingualism. In fact, some of the studies are actually showing that multilingual kids in Australia are doing better." (McLeod, Harrison, Whiteford, & Walker, 2016)

11. **McLeod, S., Harrison, L. J., Whiteford, C., & Walker, S. (2016). Multilingualism and speech-language competence in early childhood: Impact on academic and social-emotional outcomes at school.** *Early Childhood Research Quarterly, 34*, 53-66.

Participants: Cross-sectional study of 4,983 children from the Longitudinal Study of Australian Children (Kindergarten cohort)

Relevant findings:

- Academic and social-emotional outcomes were examined for a population sample of 4983 children followed from 4–5 years to 8–9 years.
- Multilingualism was not found to contribute to poorer educational and social-emotional outcomes at school.
- The main predictor of academic difficulties at school was concern about 4- to 5-year-old children's speech and language (regardless of whether they spoke English-only or were multilingual).

"This large-scale longitudinal population study provided a rare opportunity to consider the interface between multilingualism and speech-language competence on children's academic and social-emotional outcomes and to determine whether differences between groups at 4–5 years persist, deepen, or disappear with time and schooling. Four distinct groups were identified from the Kindergarten cohort of the Longitudinal Study of Australian Children (LSAC) (1) English-only + typical speech and language (n = 2012); (2) multilingual + typical speech and language (n = 476); (3) English-only + speech and language concern (n = 643); and (4) multilingual + speech and language concern (n = 109)...At 4–5 years, multilingual children with speech and language concern did

equally well or better than English-only children (with or without speech and language concern) on school readiness tests but performed more poorly on measures of English vocabulary and behavior. At ages 6–7 and 8–9, the early gap between English-only and multilingual children had closed. Multilingualism was not found to contribute to differences in literacy and numeracy outcomes at school; instead, outcomes were more related to concerns about children's speech and language in early childhood. There were no group differences for socio-emotional outcomes. Early evidence for the combined risks of multilingualism plus speech and language concern was not upheld into the school years." (p. 53)

12. **Verdon, S., McLeod, S., & Winsler, A. (2014a). Language maintenance and loss in a population study of young Australian children.** *Early Childhood Research Quarterly, 29,* **168-181.**

13. **Verdon, S., McLeod, S., & Winsler, A. (2014b). Linguistic diversity among Australian children in the first five years of life.** *Speech, Language, and Hearing, 17*(4), **196-203.**

14. **Verdon, S., McLeod, S., & McDonald, S. (2014). A geographical analysis of speech-language pathology services to support multilingual children.** *International Journal of Speech-Language Pathology, 16*(3), **304-316.**

INDIGENOUS CHILDREN WITH SPEECH, LANGUAGE, and COMMUNICATION DISABILITY

> *Hansard 25 September, 2015, p. 15*
>
> *We titled the paper 'Celebrating young Indigenous Australian children's speech and language competence', because the LSIC study enabled us to show just how competent many Indigenous kids in Australia were, speaking up to eight languages. But English could have been language 4 or 5, for example. We found that the same proportion of parents and teachers were concerned about that 20 to 25 per cent—with the Indigenous group compared to the Longitudinal Study of Australian Children. (McLeod, Verdon & Bennetts Kneebone, 2014)*

15. **McLeod, S., Verdon, S., & Bennetts Kneebone, L. (2014). Celebrating Indigenous Australian children's speech and language competence.** *Early Childhood Research Quarterly, 29*(2), **118-131.**

Participants: Cross-sectional study of children from the Longitudinal Study of Indigenous Children. 692 3- to 5-year-old children in wave 1, and two years later, 570 5- to 7-year-old children were in wave 3 (77.0% of children in wave 1 were also in wave 3).

Relevant findings: "The children spoke between one and eight languages including: English (wave 1: 91.2%, wave 3: 99.6%), Indigenous languages (wave 1: 24.4%, wave 3: 26.8%), creoles (wave 1: 11.5%, wave 3: 13.7%), foreign languages (non-Indigenous languages other than English) (wave 1: 2.0%, wave 3: 5.1%), and sign languages (wave 1: 0.6%, wave 3: 0.4%). Children who spoke an Indigenous language were more likely to live in moderate to extreme isolation than their English-speaking counterparts. Parental concern about speech and language skills was similar to data for non-Indigenous children [see Table 4] with approximately one quarter of parents expressing concern (wave 1: yes=13.9%, a little=10.4%). Children's language environments were rich, with many family members and friends telling oral stories, reading books, and listening to the children read. Almost a third of families wanted to pass on their cultural language, and many indicated that they would like their child to learn an Indigenous language at school. Overall, Indigenous Australian children have rich cultural and linguistic traditions and their speech and language competence is promoted through family, community, and educational experiences." (p. 118)

"Parental concern about their children's speech and language skills were compared for children

within wave 1 of the Child cohorts of LSIC (n = 692) and LSAC (n = 4,983), the nationally representative study. Parents in both studies had a similar level of concern about speech and language skills (LSIC=24.3% versus LSAC=25.2%) (McLeod & Harrison, 2009). A similar number of LSIC parents of 3- to 5-year-olds (wave 1) had concern about speech and language skills to the LSAC parents of 4- to 5-year-olds (LSIC: 24.3% versus LSAC: 25.2%) (McLeod & Harrison, 2009). Similarly, "speech not clear to others" was the area of highest concern for the 4- to 5-year-old children in LSAC (LSIC: 13% versus LSAC: 12.0%) (see Table 4). The questions and timing of questions within the LSIC and LSAC samples regarding service access were worded differently, so comparisons are not easily made. However, when children in the LSIC sample were in wave 3 (5 to 7 years), parents reported that 63 (11.1% of all children) had received intervention for speech difficulties and 26 (4.6% of all children) had received intervention for difficulties understanding others. When children within the LSAC sample were in wave 1 (4 to 5 years), parents and teachers reported 14.5% of all children had accessed speech-language pathology services and an additional 2.2% needed but could not access services (McLeod & Harrison, 2009). The similarity between the LSAC and LSIC studies regarding the levels of concern (Table 4) was surprising, particularly considering the reported disparity between health and access for Indigenous Australians (Booth & Carroll, 2005)." (p. 128)

16. **McLeod, S. & Verdon, S. (2015). Longitudinal patterns of language use, diversity, support, and competence. In Department of Social Services (Ed.).** *Footprints in Time: Longitudinal Study of Indigenous Children* **Report from Wave 5 (pp. 66-70). Canberra, Australia: Commonwealth of Australia.**

17. **Verdon, S., & McLeod, S. (2015). Indigenous language learning and maintenance among young Australian Aboriginal and Torres Strait Islander children.** *International Journal of Early Childhood, 47*(1), 153-170.

ACCESS TO SERVICES

18. McAllister, L., McCormack, J., McLeod, S., & Harrison, L. J. (2011). Expectations and experiences of accessing and participating in services for childhood speech impairment. *International Journal of Speech-Language Pathology, 13*(3), 251-267.

19. McCormack, J., McAllister, L. McLeod, S. & Harrison, L. J., (2012). Knowing, having, doing: The battles of childhood speech impairment. *Child Language Teaching and Therapy, 28,* 141-157.

SOCIAL, EDUCATIONAL, OCCUPATIONAL IMPACT OF SPEECH, LANGUAGE, and COMMUNICATION DISABILITY ON OUTCOMES

20. McCormack, J., McLeod, S., McAllister, L. & Harrison, L. J. (2009). A systematic review of the association between childhood speech impairment and participation across the lifespan. *International Journal of Speech-Language Pathology, 11*(2), 155-170.

21. McCormack, J., McLeod, S., Harrison, L. J., & McAllister, L. (2010). The impact of speech impairment in early childhood: Investigating parents' and speech-language pathologists' perspectives using the ICF-CY. *Journal of Communication Disorders, 43*(5), 378-396.

CHILDREN'S AND FAMILY'S PERSPECTIVES

22. McLeod, S., Daniel, G., & Barr, J. (2013). "When he's around his brothers … he's not so quiet": The private and public worlds of school-aged children with speech sound disorder. *Journal of Communication Disorders, 46*(1), 70-83.

23. McCormack, J., McLeod, S., McAllister, L. & Harrison, L. J. (2010). My speech problem, your listening problem, and my frustration: The experience of living with childhood speech impairment. *Language, Speech, and Hearing Services in Schools, 41,* 379–392.

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SIBLINGS OF CHILDREN WITH SPEECH, LANGUAGE, and COMMUNICATION DISABILITY: IMPACT ON EDUCATION

24. Barr, J., McLeod, S., & Daniel, G. (2008). Siblings of children with speech impairment: Cavalry on the hill. *Language, Speech, and Hearing Services in Schools, 39*, 21-32.

    "The second theme related to the siblings' relationship in the context of outsiders, when the sibling of the child with speech impairment frequently undertook the roles of protector and interpreter. Exemplifying this, one mother described her daughter as the cavalry on the hill. " (p. 21)

    "Eric: *When [brother*] started school I couldn't scrape him off. I couldn't.*
    Interviewer: *So why? What happened?*
    Eric: *He would follow me around everywhere, everywhere, everywhere I tell you!*
    Interviewer: *So what happened after that?*
    Eric: *After a while he slowly and slowly made friends. I started off actually making him friends, like I got him, took him up to his class, found a kid inside his class that was outside the door and I asked him if he'd play with my little brother. So he'd get off my back and stop asking me.* Although Eric expressed resentment at not being able to "scrape him off," he also showed the way in which he handled the situation by finding other children for his brother to play with. Eric's parents also indicated other roles that Eric undertook during his brother's transition to school:
    Mother: *Yeah, I'm afraid Eric did take on a lot [at school]. If anything went [wrong] and got him [brother*] upset in class or something, they used to go and get Eric out of his class to try and sort it out.*" (p. 28).

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Longitudinal patterns of language use, diversity, support, and competence

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Background

Children's acquisition of speech and language is a major area of focus in childhood. Speech and language competence enables positive educational and social outcomes in childhood and occupational outcomes in adulthood (McCormack et al. 2009). Cultural beliefs, practices and identity are transmitted through language. Children's language and culture are inextricably linked with the development of their personal identity and sense of belonging. For example, the Early Years Learning Framework for Australia states:

> Children's use of their home languages underpins their sense of identity and their conceptual development. Children feel a sense of belonging when their language, interaction styles and ways of communicating are valued. They have the right to be continuing users of their home language as well as to develop competency in Standard Australian English. (Commonwealth of Australia 2009, p. 38)

The ability to speak multiple languages can facilitate relationships and communication within the family (e.g. with grandparents) and the community. In addition, the ability to speak more than one language has been linked to cognitive and social benefits (Adesope et al. 2010; Bialystok 2011; Gathercole et al. 2010; Nguyen & Astington 2014). Therefore it is important to provide opportunities for children to develop competencies in multiple languages. It is also important to celebrate Indigenous children's speech and language competence (McLeod, Verdon & Bennetts Kneebone 2014), and understand factors that promote children's use and maintenance of Indigenous languages (Verdon & McLeod 2014).

Australia has been identified as the continent where the most rapid decline in languages is occurring (Nettle & Romaine 2000). For example, the results of the recent National Indigenous Languages Survey indicate that of the 250 Indigenous languages originally spoken only 13 are still spoken across all generations and 100 languages are endangered (Marmion, Obata & Troy 2014). Intergenerational transmission of Indigenous Australian languages is important. For example, Article 13 of the United Nations (2008) Declaration on the Rights of Indigenous Peoples states:

> Indigenous peoples have the right to revitalise, use, develop and transmit to future generations their histories, languages, oral traditions, philosophies, writing systems and literatures, and to designate and retain their own names for communities, places and persons. (United Nations 2008)

The aim of this article is to describe longitudinal patterns of language use, diversity, support and competence by Indigenous children in *Footprints in Time* during the early years.

Method

The sample used in this report contained 1,031 children from both cohorts of *Footprints in Time* who were present at Waves 1, 2, 3, and 4 of data collection. Children were aged between 0 and 6 years at Wave 1 of data collection and data were collected each year. There were 534 males (51.8 per cent) and 497 females (48.2 per cent). Level of relative isolation for the children in this sample was reported as high/extreme for 71 children (6.9 per cent), moderate for 128 children (12.4 per cent), low for 515 children (50.0 per cent) and urban for 317 children (30.7 per cent). The Indigenous status of the children was reported as Aboriginal (89.5 per cent, n = 923), Torres Strait Islander (5.7 per cent, n = 59) or both Aboriginal and Torres Strait Islander (4.8 per cent, n = 49). Questions pertaining to the children's speech and language were extracted from the dataset and were analysed.

Languages spoken by the children over time

The children in the sample spoke between one and seven languages (see Table 39). At Wave 1, 84.7 per cent were learning to speak one language while 15.3 per cent were multilingual (i.e. spoke at least two languages). By Wave 3, more children were multilingual (24.3 per cent) and a similar number (24.4 per cent) were reported to speak multiple languages at Wave 4.

The type of language spoken by the children was reported at Waves 1, 3, and 4 (see Figure 10). At Wave 1, 94.4 per cent were learning to speak English and 18.0 per cent were learning to speak an Indigenous language. By Wave 3, the number of children speaking English had increased to 99.3 per cent and the number of children speaking an Indigenous language also increased to 20.1 per cent. By Wave 4, all of the
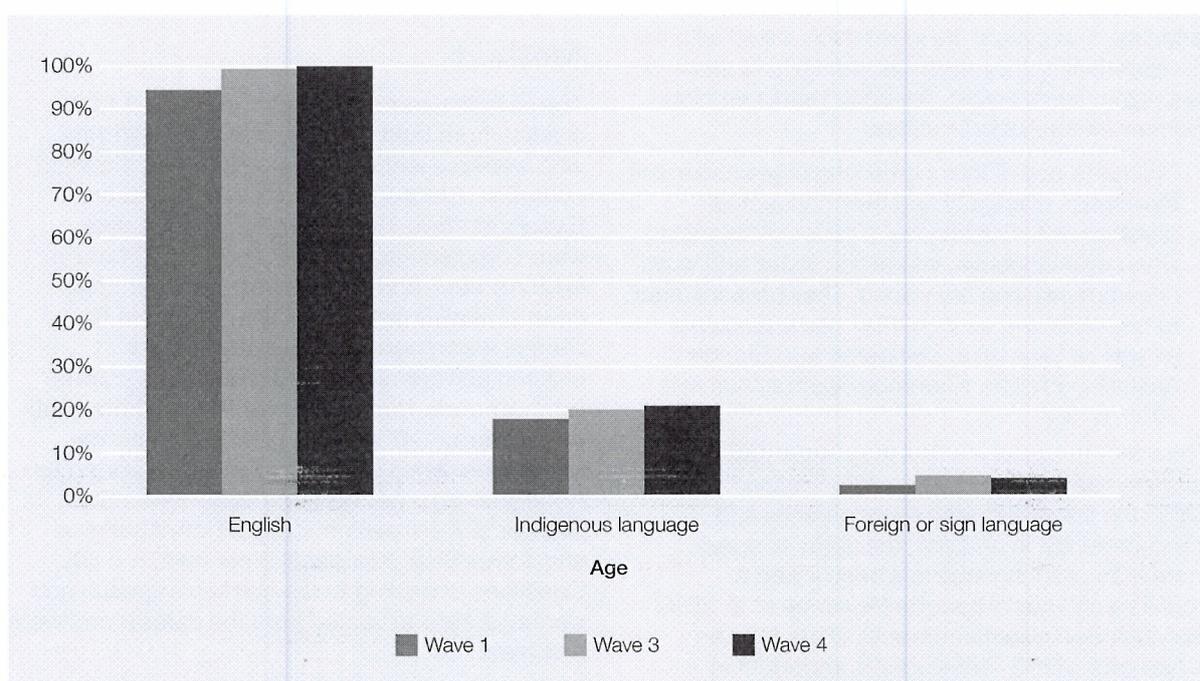
Table 39: Total number of languages spoken by the children across waves (n = 1,031), per cent

Wave	1	2	3	4	5	6	7
Wave 1	84.7	11.6	2.9	0.6	0.2	–	–
Wave 3	75.7	19.1	4.3	0.8	–	–	–
Wave 4	75.6	18.9	4.5	0.8	0.1	0.1	0.1

Notes: 'is learning to speak' was used for the younger cohort. This question was not asked at wave 2.
– Data not available or no observations.

Figure 10: Type of languages spoken by the children by wave (n = 1,031)

Notes: Children could speak more than one language type. This question was not asked at Wave 2

children (100 per cent) were reported to speak English and approximately one-fifth (21.0 per cent) spoke an Indigenous language. By Wave 4 the majority of the children were attending school, so the increase in children's use of English over time may be as a result of English being spoken at school, as well as on television, and within the children's social environments. A small number of children throughout the sample used a foreign or sign language.

Dominance in languages spoken by the children was reported at Waves 1, 3 and 4 (see Table 40). At Wave 1, primary carers of the older cohort (n = 423) were asked to report the language fluency of their children. There were 86.1 per cent of children who were dominant in English, 10.6 per cent who were dominant in an Indigenous language and 3.1 per cent who were equally fluent

in English and an Indigenous language. In Waves 3 and 4 primary carers of both cohorts (n = 1,031) were asked to report the fluency of the language(s) of their children. In Wave 3, 85.3 per cent of children were dominant in English, 7.5 per cent were dominant in an Indigenous language and 4.0 per cent were equally fluent in English and an Indigenous language. By Wave 4, 86.0 per cent of children were dominant in English, 7.9 per cent were dominant in an Indigenous language and 4.8 per cent were equally fluent in English and an Indigenous language.

At Wave 3, primary carers were asked about the kind of English spoken at home. Approximately half of the families (55.7 per cent) reported that their English did not contain any Indigenous words and would sound the same as that spoken by a non-Indigenous person. English that was 'sometimes

Table 40: Dominance in languages spoken by the children by wave, per cent

Wave	Dominant in English	Dominant in an Indigenous language	Equally fluent in English and an Indigenous language	Missing data
Wave 1 (n = 423)*	86.1	10.6	3.1	0.2
Wave 3 (n = 1,031)	85.3	7.5	4.0	3.3
Wave 4 (n = 1,031)	86.0	7.9	4.8	1.4

* This question was not asked for the younger cohort in this wave.

mixed with a few Aboriginal or Torres Strait Islander words' was used in 28.0 per cent of children's homes and English 'mixed with lots of Aboriginal or Torres Strait Islander words (which might be difficult for a non-Indigenous person to understand)' was used in 15.9 per cent of children's homes.

At Wave 3, primary carers were asked whether they would like their child to learn an Indigenous language at school. Learning an Indigenous language at school was valued by almost all of the primary carers in the study. Half (51.4 per cent) indicated that they would like an Indigenous language to be available as a second language at school, and 28.0 per cent indicated that they would like their child to learn an Indigenous language in a bilingual program, learning both English and an Indigenous language. Some (10.0 per cent) indicated that they would like the study child to learn an Indigenous language as a compulsory second language and very few (0.9 per cent) wanted an Indigenous language to be used as the main language at school, with English taught as a second language. Few primary carers (7.7 per cent) did not want their child to learn an Indigenous language at school.

Language environment and support

At Waves 2 and 3, the 1,031 children's language and literacy support was described. There was consistency in the percentage of children who were read a book in the last week (Wave 2 = 82.1 per cent, Wave 3 = 82.9 per cent)[38] and the percentage of children who were told an oral story in the last week (Wave 2 = 69.1 per cent, Wave 3 = 70.8 per cent). By Wave 3, many of the children were able to read themselves and 79.0 per cent were listened to as they read in the last month. The people who read, told stories and listened to the children read included parents,

siblings, grandparents, aunts, uncles, cousins, friends, teachers and others, demonstrating wide family and community support for language and literacy development.

Speech and language competence

Primary carers were asked two questions regarding whether they had worries about their children's communication (see Table 41). The first question considered whether primary carers had worries about how their children talked and made speech sounds. There were 13.5 per cent of parents who were concerned at Wave 1 (7.2 per cent 'yes'; 6.3 per cent 'a little'), 17.3 per cent at Wave 3 (8.0 per cent 'yes', 9.3 per cent 'a little') and 21.4 per cent at Wave 4 (11.6 per cent 'yes'; 9.8 per cent 'a little'). The increase in the percentages relates to children's language development as they grow older. In Wave 1, those in the younger cohort were just learning to talk (most were 0 to 2 years old). In later waves the children were talking, so speech and language concerns would be more apparent. The primary carers' main area of concern was that the children's speech was not clear to others (Wave 1 = 7.3 per cent, Wave 3 = 9.3 per cent, Wave 4 = 12.3 per cent). The second question considered whether primary carers had worries about how their children understood what they said. There were 4.4 per cent of primary carers who were concerned at Wave 1, 5.1 per cent at Wave 3 and 5.2 per cent at Wave 4.

Another study undertaken by the Australian government, the Longitudinal Study of Australian Children (n = 4,983) also asked about parental concern regarding their children's speech and language competence. These findings were similar to those reported by *Footprints in Time* families. That is, when children were 4 to 5 years old, 25.2 per cent had concerns about their children's

38 Don't know and refused responses have not been omitted in this analysis.

Table 41: Primary carers' concerns about their children's expressive and receptive speech and language competence over time, per cent

| Wave	Concerns about how your child talks and makes speech sounds				Concerns about how your child understands what you say			
	Yes	A little	No	Missing/ other	Yes	A little	No	Missing/ other
Wave 1 (n = 1,031)	7.2	6.3	81.3	5.2	1.7	2.7	95.1	0.5
Wave 3 (n = 1,031)	8.0	9.3	82.5	0.2	1.9	3.2	94.9	0.0
Wave 4 (n = 611)	11.6	9.8	78.6	0.0	2.0	3.3	94.6	0.0

Note: These questions were not asked of the older cohort in Wave 4.

speech (11.8 per cent 'concerned', 13.4 per cent 'a little concerned'), and 9.5 per cent had concerns about their children's understanding of language (4.4 per cent 'concerned', 5.1 per cent 'a little concerned') (McLeod & Harrison 2009).

In Waves 3 and 4 primary carers were asked whether they were receiving intervention (e.g. from a speech pathologist) for children's speech and language difficulties. In Wave 3, there were 6.7 per cent of the entire sample receiving intervention for expressive speech and language difficulties and 2.3 per cent who were receiving intervention for difficulties understanding language. In Wave 4, only those in the younger cohort who were identified as having a speech or language concern were asked about receiving intervention. There were 9.0 per cent who were receiving intervention for expressive speech and language difficulties and 1.8 per cent who were receiving intervention for difficulties understanding language. Primary carers were asked to indicate why the children were not receiving speech therapy and their responses were entered using free text. The reasons included that they were on a waiting list, could not afford to pay to visit a speech pathologist,[39] their teachers had not suggested that intervention was required, they thought that their child would grow out of their speech difficulties, and they were seeing other specialists. These reasons resonate with other Australian studies of children with speech and language difficulties (McAllister et al. 2011; Ruggero et al. 2012), indicating reasons that children did not attend speech pathology services included long waiting lists and because parents were waiting for teachers to recommend intervention before they made contact with a speech pathologist.

Summary

Indigenous Australian children in *Footprints in Time* included in the current article were culturally and linguistically diverse. Many were multilingual with some speaking up to seven languages. Most of the children spoke English (with all of the children speaking English by Wave 4). One-fifth of children spoke an Indigenous language, and the percentage slightly increased over the four waves of data. Indigenous Australian children have rich cultural and linguistic traditions and their speech and language competence is promoted through family and community experiences, including book reading and telling stories. Almost all primary carers wanted their children to learn an Indigenous language at school in some capacity. Primary carers were concerned about children's speech and language competence at similar rates as reported for all
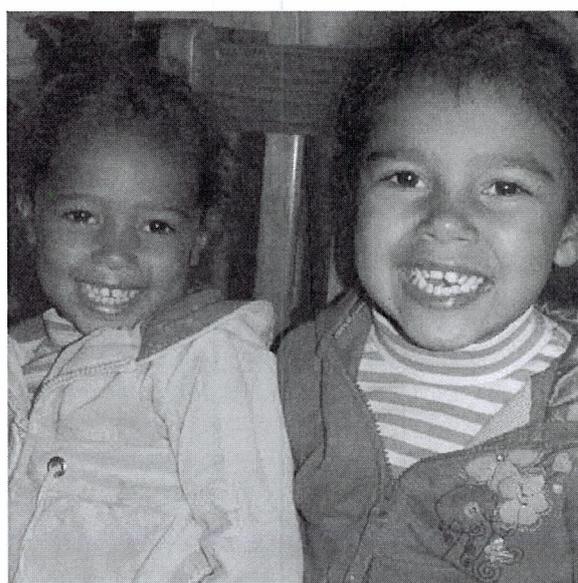
39 Free speech pathology services are available in community health settings, and in some states also in schools and preschools. There may be a waiting period, and a limitation on the number of sessions offered for free services.
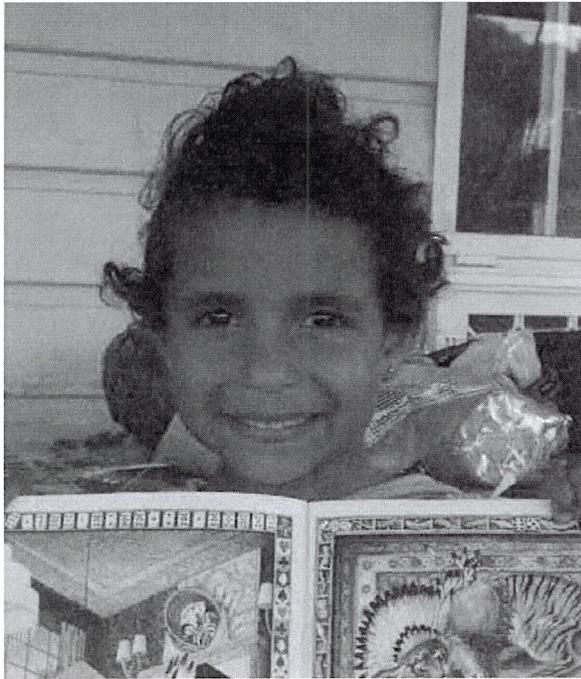
Australian children. While some children were receiving speech pathology services, others were unable to, or did not plan to access services. Encouraging Indigenous children's speech and language competence is an important endeavour for families, communities and society to support children to grow up strong.

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Celebrating young Indigenous Australian children's speech and language competence

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ABSTRACT

World-wide it is important to recognize Indigenous children's speech and language competence and their language learning environments. Indigenous Australian children participated in the child cohort of Footprints in Time: Longitudinal Study of Indigenous Children, a national study supported by Indigenous Australians and the Australian Government collected annually (in waves). There were 692 3–5-year-old children in wave 1, and two years later, 570 5–7-year-old children were in wave 3 (77.0% of children in wave 1 were also in wave 3). Data were obtained via parent interviews and direct assessment. The children spoke between one and eight languages including: English (wave 1: 91.2%, wave 3: 99.6%), Indigenous languages (wave 1: 24.4%, wave 3: 26.8%), creoles (wave 1: 11.5%, wave 3: 13.7%), foreign languages (non-Indigenous languages other than English) (wave 1: 2.0%, wave 3: 5.1%), and sign languages (wave 1: 0.6%, wave 3: 0.4%). Children who spoke an Indigenous language were more likely to live in moderate to extreme isolation than their English-speaking counterparts. Parental concern about speech and language skills was similar to data for non-Indigenous children with approximately one quarter of parents expressing concern (wave 1: yes = 13.9%, a little = 10.4%). Children's language environments were rich, with many family members and friends telling oral stories, reading books, and listening to the children read. Almost a third of families wanted to pass on their cultural language, and many indicated that they would like their child to learn an Indigenous language at school. Overall, Indigenous Australian children have rich cultural and linguistic traditions and their speech and language competence is promoted through family, community, and educational experiences.

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1. Introduction

The acquisition of speech and language is a key aspect of development for all children. The ability to communicate enables participation within the contexts children live. In addition to the development of oral communication skills, children also acquire written communication skills in many societies. While much is known about the speech and language acquisition and competence of monolingual English-speaking children (McLeod, 2013; Oller, Oller, & Badon, 2006), less is known about children who live in multilingual and multicultural environments (Grech & McLeod, 2012), and even less is known about Indigenous children's speech and language competence (Westby & Inglebret, 2012). Indigenous people who share their lands with English-speaking people include Native Americans in the US, the First Nations People of Canada, and Aboriginal and Torres Strait Islanders in Australia. There are reports that Indigenous children in English-speaking countries are not achieving similar language and literacy benchmarks on English tasks compared with their peers. For example, Lee, Grigg, and Donhaue (2007) document that in the US, American Indian/Alaska Native children have not demonstrated the same level of achievement compared with White, Black, and Hispanic students in grades 4 and 8 over a 15-year period. The Australian Research Alliance for Children and Youth (ARACY, 2013) published a Report Card: The Wellbeing of Young Australians that highlighted the discrepancy between the health and wellbeing of Indigenous and non-Indigenous Australian children. This included evidence that poor literacy and numeracy skills significantly disadvantage Indigenous children, particularly in regard to school completion and unemployment. These benchmarking reports primarily focus on English language and learning and do not enable reporting of the richness of Indigenous children's language learning experience and competence.

The United Nations Declaration on the Rights of Indigenous Peoples was adopted by the United Nations General Assembly in 2007. It contains 46 articles and the current paper draws on three of these:

Article 13: Indigenous peoples have the right to revitalize, use, develop and transmit to future generations their histories,

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languages, oral traditions, philosophies, writing systems and literatures...

Article 15: Indigenous peoples have the right to the dignity and diversity of their cultures, traditions, histories and aspirations which shall be appropriately reflected in education and public information...to combat prejudice and eliminate discrimination and to promote tolerance, understanding and good relations among indigenous peoples and all other segments of society.

Article 22: Particular attention shall be paid to the rights and special needs of...children and persons with disabilities in the implementation of this Declaration (United Nations, 2008, pp. 7, 9)

Consequently, this paper aims to promote understanding of Indigenous Australian children's speech and language competence and their families' and communities' aspirations and practices.

2. Languages of Indigenous Australians

Aboriginal and Torres Strait Islander people make up approximately 2.5% of the entire Australian population, of which 38% are children aged less than 15 years (Australian Bureau of Statistics [ABS], 2006). The rich cultural and linguistic traditions of Indigenous Australians have been widely documented and Indigenous Australian languages have been described as "storehouses of cultural knowledge and tradition" (Australian Institute of Aboriginal and Torres Strait Islander Studies [AIATSIS], 2005, p. 21). Approximately 250 Indigenous Australian languages have been described (AIATSIS, 2005; Victorian Aboriginal Corporation for Languages [VACL], 2010). However, currently, most of Australia's Indigenous languages are "no longer fully or fluently spoken" (AIATSIS, 2005, p. 7). While currently 145 Indigenous Australian languages are spoken to some degree, 110 are severely or critically endangered, and there are less than 20 Indigenous languages that are spoken across all generations (AIATSIS, 2005; McConvell, 2008; Obata & Lee, 2010). Indigenous Australians also speak *creoles* (e.g., Kriol). Creoles began as *pidgins* by merging English and Indigenous languages to enable communication on missions and outstations. Over the years, these pidgins have developed in complexity into languages in their own right, and are learned as first languages by some children. Today, many Indigenous communities are undertaking Indigenous language revitalization programs and some children are learning Indigenous languages that are not spoken by their parents (Obata & Lee, 2010; VACL, 2010) and additionally, new Indigenous languages are emerging from some communities (O'Shannessy, 2005).

The Australian census (ABS, 2006) recorded that 12% of the Indigenous population over the age of 5 years speak an Indigenous language at home, and 83% speak a form of English only, which may include Australian Aboriginal English (AAE). AAE differs from Standard Australian English in pronunciation, vocabulary (including the use of English words with other meanings), grammar, and sentence structure (Butcher, 2008; Eagleson, 1982; Kaldor & Malcolm, 1979, 1982, 1991; Sharpe, 1977; Williams, 2000). It is important to recognize that AAE is "a different dialect of English that is just as efficient a medium of communication [as Standard Australian English]" (Butcher, 2008, p. 625). To date, there has been limited research considering Indigenous Australian children's speech and language competence and the nature of their language environments.

3. Children's language environments

The acquisition of languages is dependent upon the interaction of a number of factors including level of exposure to languages, opportunity to use languages, and attitudes toward languages (Patterson & Pearson, 2004). Children's early models of language are largely received in their home environment (Weigel, Martin, & Bennett, 2006). Therefore, the level of language exposure that children receive from their home environment, in addition to the choices made by parents regarding multilingual acquisition, will shape their competency in the languages they speak. Parents may choose to raise their children monolingually; speaking either English or their Indigenous language, or they may choose to raise children to be multilingual, speaking either multiple Indigenous languages or a combination of Indigenous language(s) and English, or other languages including creoles, sign, or foreign languages. Parental choices for and against maintaining home languages or encouraging multilingualism are influenced by a number of factors. Parents may choose to maintain home languages to maintain cultural identity and community participation (Park & Sarkar, 2007) or because they have limited knowledge of other languages (Saravanan, 2001). Alternatively, parents may decide it is best for their child to cease using their home language and speak the dominant language of the community (in this case, English) if their home language has a comparatively low status (Dixon, Wu, & Daraghmeh, 2012) or if parents believe that use of the dominant language will increase future success in education and employment (Wong Fillmore, 1991). These choices, and therefore the patterns of language maintenance and loss, vary between language groups (Verdon, McLeod, & Winsler, 2013).

It has been well documented that support from parents and family members in the home environment through activities such as reading books and sharing stories has a positive impact upon children's language skills and their speech and language competence (Duursma, Augustyn, & Zuckerman, 2008). These skills include phonological awareness, alphabet and vocabulary knowledge, syntax, grammar, receptive and expressive language skills, understanding of story structure, and learning to read (Bus, Van Ijzendoorn, & Pellegrini, 1995; Ehri & Roberts, 2006; Vivas, 1996). Currently, little research has been conducted into the language environments of Australian Indigenous children and their impact upon language and literacy development.

There are a number of different circumstances under which Indigenous children may be or become multilingual. Multilingual language learning for Indigenous children may be understood by considering the dimensions of language learning proposed by Paradis, Genesee, and Crago (2011). Paradis et al. (2011) juxtaposed simultaneous versus sequential language acquisition within majority versus minority ethnolinguistic communities. Indigenous people are highly mobile (Taylor & Bell, 2004), with approximately 22% of families reporting to have moved house within a one-year period (Department of Families, Housing, Community Services and Indigenous Affairs [FaHCSIA], 2012a). However, typically children moved to locations with similar levels of relative isolation. This change in context will impact upon children's ability to learn, use, and maintain languages cultural languages which may be context-specific. Indigenous children who speak Indigenous languages as their mother tongue primarily live in remote communities where the Indigenous language is still the lingua franca. According to the Paradis et al. (2011) framework, these remote children's Indigenous language learning could be described as occurring within majority ethnolinguistic communities (because they are separate from the predominantly English-speaking areas of Australia). When these Indigenous children learn English, they are likely to learn English sequentially (after they have learned their Indigenous language) at school (where Indigenous language speakers are in a minority ethnolinguistic community since English is the lingua franca of Australian schools). In contrast, urban Indigenous children may learn an Indigenous language as a second or other language within English-speaking homes. In this instance, these

urban Indigenous children are likely to be sequential language learners who have established English as their primary language, and may learn Indigenous languages within Indigenous language revival programs through their community and school. These urban Indigenous children typically live in minority ethnolinguistic communities, where Standard Australian English is spoken as the lingua franca. The highly endangered Indigenous languages maintained or revived in Australia's urban and inner regional areas do not have the advantage of extensive resources that many foreign languages have. For example, while the multilingual children who learn Arabic or Cantonese at home and then English at school can be considered to be sequential learners in minority ethnolinguistic communities, these children may have the opportunity to visit a country or community where the target language is the lingua franca (e.g., Saudi Arabia or China). In contrast, an immersion experience is extremely difficult, if not impossible, to replicate for many Indigenous languages. Many Indigenous languages are endangered and have few living speakers, particularly in urban areas. To explain further, Australia is a large country, and Indigenous languages spoken in remote regions versus urban regions are as different from one another as English versus Arabic versus Cantonese, so visiting a remote Indigenous community does not provide a relevant language learning context for urban Indigenous children since their community languages are not the same.

Most of the previous research regarding Australian Indigenous children's speech and language focuses on differences between Standard Australian English and Aboriginal English, identification of children who have speech and language difficulties in both of these dialects (difference versus disorder), and beneficial support for promoting children's speech and language acquisition (Gould, 2008; Toohill, McLeod, & McCormack, 2012; Williams & Masterson, 2010). Additionally, numerous studies have documented the high prevalence and impact of ear diseases (e.g., middle ear infection) and hearing loss for Indigenous Australian children (Bauert, Brown, Collins, & Martin, 2001; Boswell, 1997; Gibson, Stuart, Wlodarczyk, Olson, & Hensley, 1996; Power & Hyde, 2002). For example, Bauert and colleagues (2001) reported that 79% of Indigenous children tested in the Northern Territory of Australia were found to have some level of hearing loss. Williams, Coates, Pascoe, Axford, and Nannup (2009) reported that middle ear disease was identified in 42.0% of Aboriginal school children aged 4–12 years in the city of Perth, and hearing loss in 19.1% of children. Difficulty hearing can impact children's speech and language skills (McLeod & Harrison, 2009; Shriberg, Flipsen, et al., 2000; Shriberg, Friel-Patti, et al., 2000b; Williams & Jacobs, 2009; Zumach, Gerrits, Chenault, & Anteunis, 2010). A large-scale study of Australian children's development in the first year of school has shown that Indigenous children are more likely than non-Indigenous children to be classified as developmentally vulnerable on the domains of (English) language and cognitive skills (Indigenous = 28.6%; non-Indigenous = 7.9%) and communication skills and general knowledge (Indigenous = 21.3%; non-Indigenous = 8.6%) (Centre for Community Child Health and Telethon Institute for Child Health Research, 2009). There is a need for research to describe the speech and language competence of Indigenous Australian children in all of the languages they speak (not only English) and the cultural and linguistic environment provided by their families and communities. The current study aims to meet this need.

4. Context of the current study

Footprints in Time: The Longitudinal Study of Indigenous Children (LSIC; FaHCSIA, 2012a, 2012b) is the first national longitudinal study to examine the lives of Indigenous Australian children. The aim of the study "is to provide high quality data that can be used to provide a better insight into how a child's early years affect their development. It is hoped that this information can be drawn upon to help close the gap in life circumstances between Indigenous and non-Indigenous Australians" (FaHCSIA, 2012b, p. 7). LSIC is supported by Indigenous Australians and has been initiated, funded, and managed by the Australian Government. Data have been collected about children, their families, communities, and services and to date, over 1750 Indigenous Australian children and their families have participated in LSIC.

In addition to LSIC, the Australian Government has funded the Longitudinal Study of Australian Children (LSAC). LSAC is a separate national study designed to be representative of all children within the Australian population based on characteristics from the 2001 Australian Bureau of Statistics Census data. Recruitment ensured proportional geographic representation of 5000 children aged 4–5 years in the Kindergarten cohort and 5000 infants in the Birth cohort in each of the eight states and territories of Australia. Comprehensive details on the design and sampling of LSAC are available from Soloff, Lawrence, Misson, and Johnstone (2006) and four waves of bi-annual data currently are available. In the discussion of the current paper, language data are compared for children in the Child cohort of the LSIC study and children in the Kindergarten cohort of LSAC.

5. Study aims

The present study sought to describe the speech and language competence of a large geographically diverse sample of Indigenous Australian children aged 3–7 years by drawing on two sources of information (parent report and direct assessment) across two waves of data collection (cross-sectionally and longitudinally). The aims of the present investigation were:

1 To describe the languages spoken by Indigenous Australian children as reported by parents.
2 To describe the speech and language competence of Indigenous Australian children as reported by parents and direct assessment.
3 To describe the language environment of Indigenous Australian children as reported by parents.
4 To identify the extent of parental concern about Indigenous Australian children's hearing, speech, and language skills.

Because this is the first large-scale study outlining Indigenous Australian children's language competence, both cross-sectional and longitudinal data are described. It was considered to be important to include cross-sectional information about all of the children who participated in wave 1 ($n = 692$) and wave 2 ($n = 570$) of the LSIC study to ensure the richness of children's experiences were documented. In addition, where appropriate, longitudinal comparisons are made for the 533 children who were present in both waves of data collection.

6. Method

6.1. Participant recruitment

Identification of Indigenous Australians within the LSIC was undertaken by two Australian Government departments: Medicare and Centrelink. A "non-representative purposive sampling design" was implemented across 11 sites with "approximately equal representation of urban, regional and remote areas" (FaHCSIA, 2009, p. 9) in six of the eight states and territories in Australia (i.e., excluding Tasmania and the Australian Capital Territory). The representation of Indigenous children aged 0–5 years within LSIC is consistent

with estimates from the Australian Bureau of Statistics for Australia (FaHCSIA, 2009). The recruitment strategy for wave 1 was to include approximately 150 Aboriginal and Torres Strait Islander children from each of eleven sites, aiming for a sample of 1750 children. The LSIC research administration officers invited Indigenous people to participate using a snowballing strategy to increase participation.

A total of 1687 children were recruited in wave 1 within two cohorts: the Baby cohort ($n = 960$) and Child cohort ($n = 727$). The largest tribal groups or clans represented within the sample were: Wiradjuri, Arrernte, Yorta Yorta, and Gamilaraay. At the time of writing, four waves of longitudinal data were available, with more waves of data collection scheduled. In waves 1 and 3, extensive information about the children's speech and language skills was collected; whereas less information about language was collected at wave 2. Therefore only data from waves 1 and 3 have been analyzed in the current study. The children included within the present study were from the Child cohort, and were between 3 and 5 years old in wave 1 ($n = 692$) and between 5 and 7 years old in wave 3 ($n = 570$). Children within the Child cohort who were outside of these age ranges were excluded. That is, there were 98 of the 727 children in wave 1 whose ages were not within the 3–5-year age range, and 21 of the 591 children in wave 3 whose ages were not within the 5–7-year age range, and they were not included in the current study. In each of the waves, the "parent who knows the Study Child best" (FaHCSIA, 2012b, p. 16) was interviewed to provide information about the study child. These people are described as parent 1 (P1). Additional details on the LSIC design and entire sampling characteristics are available from FaHCSIA (2012b).

6.2. Participants

Wave 1: Children. The participants from wave 1 of the Child cohort of LSIC who were included in the present study were 692 3–5-year-old children. The average age of the children was 51.0 months ($SD = 5.4$; range = 3.0–5.9). There were 354 (51.2%) boys and 338 (48.8%) girls. All of the children were identified by P1 as Indigenous Australians. Specifically, the majority were identified as Aboriginal ($n = 608$, 87.9%), with the remainder being identified as Torres Strait Islander ($n = 50$, 7.2%), or both ($n = 34$, 4.9%). Approximately half ($n = 375$, 54.2%) of the children were described by P1 as being identified with a tribe, language group, or clan. This finding corresponds with previous large-scale research undertaken in the National Aboriginal and Torres Strait Islander Social Survey, 2008, which reported that 49% of Aboriginal and Torres Strait Islander children identified with a tribe, language group or clan (Australian Bureau of Statistics, 2012). LSIC children may have slightly higher identification with a tribe, language group or clan as remote areas are more represented than in previous research (Australian Bureau of Statistics, 2012). Due to displacement and relocation of Australian and Indigenous children and adults in the past, many people are no longer living near their clan/tribe and some do not know their clan/tribe.

The children's socio-economic status was calculated using the Australian Bureau of Statistics Socio-Economic Index for Areas (SEIFA) Decile of Relative Socio-economic Advantage and Disadvantage (Australian Bureau of Statistics, 2008) that was derived from Census variables related to both advantage and disadvantage (e.g., income, educational attainment, employment). The majority of children lived in communities with postcodes that are ranked as being the lowest three deciles within Australia (decile 1: $n = 258$, 37.3%; decile 2: $n = 76$, 11.0%, decile 3: $n = 76$, 11.0%) with few living in communities with postcodes that are ranked as being in the highest three deciles (decile 8: $n = 22$, 3.2%; decile 9: $n = 19$, 2.7%, decile 10: $n = 2$, 0.3%). The total number of people in the children's households ranged from 2 to 22 people ($M = 5.1$, $SD = 2.3$). The children's level of remoteness was determined on a five-point scale, called the

Level of Relative Isolation (Zubrick et al., 2004) that is an extension of the 18-point ARIA+ (Accessibility/Remoteness Index of Australia) a measure "based on road distance measurements from over 12,000 populated localities to the nearest Service Centres in five categories based on population size" (Australian Population and Migration Research Centre, 2013). According to Zubrick et al. (2004), there are five levels of isolation: none (capital city, ARIA range 0–0.2), low (ARIA range 0.2–8), moderate (ARIA range 8–13), high (ARIA range 13–17), and extreme (ARIA range 17–18). The children's level of relative isolation was classified as: none ($n = 166$, 24.0%), low ($n = 360$, 52.0%), moderate ($n = 100$, 14.5%), high or extreme ($n = 66$, 9.5%) (the high and extreme categories were combined as individual data for the high and extreme categories is not typically released due to relatively small numbers).

The children in wave 1 were between 3 and 5 years of age, so most had not commenced formal schooling. The study children attended the following education settings: "playgroup or baby group" (typically informal care for infants) ($n = 218$, 31.5%), "childcare, day care, or family day care" ($n = 176$, 25.4%), and "preschool, kinder, or school" ($n = 365$, 52.7%). Specifically, the children who attended "preschool, kinder, or school" were further specified as: "year one in school" ($n = 15$, 2.2%), "pre-year one program in a school" ($n = 104$, 15.0%), "preschool program in a school" ($n = 102$, 14.7%), "preschool program in a non-school centre" ($n = 124$, 17.9%), "mobile preschool" (a traveling preschool program provided to children in remote communities) ($n = 6$, 0.9%), do not know/other/missing ($n = 14$, 2.0%). Overall, the health of most of the children was described by P1 as excellent ($n = 270$, 39.0%) or very good ($n = 227$, 32.8%); while the remaining children's health was described as good ($n = 169$, 24.4%), fair ($n = 20$, 2.9%), poor ($n = 1$, 0.1%), do not know ($n = 2$, 0.3%), other ($n = 3$, 0.4%). These findings differed from the nationally representative findings from LSAC on the same question, in which parents reported their child's overall health as: excellent (60.5%), very good (26.3%), good (10.1%), fair (2.8%), and poor (0.3%). Eleven (1.6%) of the children were described by P1 as having a disability. In wave 1, no further questions were asked about the specific type of disability or developmental delay.

Wave 1: Adult informants (P1). In wave 1, P1 was primarily female ($n = 673$, 97.3%) and ranged in age from 18 to 65 years ($M = 31.5$ years, $SD = 7.4$). The majority identified themselves as Aboriginal ($n = 519$, 75.0%), while the remainder identified themselves as Torres Strait Islander ($n = 56$, 8.1%), both ($n = 19$, 2.7%), or neither ($n = 98$, 14.1%). The study child's relationship to P1 was identified. The majority of the study children were P1's son ($n = 332$, 48.0%), daughter ($n = 311$, 44.9%), or grandchild ($n = 26$, 3.7%); however, others were their niece/nephew ($n = 16$, 2.4%), step child ($n = 3$, 0.4%), adoptive/foster child ($n = 2$, 0.4%), cousin ($n = 1$, 0.1%), or other ($n = 1$, 0.1%).

Wave 3: Children. The participants from wave 3 of the Child cohort of LSIC who were included in the present study were 570 5–7-year-old children. The majority of children in wave 3 were also within the wave 1 sample ($n = 533$, 77.0%). These children formed the subsample upon whom the longitudinal analyses were based (see below). Of the 570 children in wave 3, there were 159 children in wave 1 who did not participate in wave 3, and 37 new children in wave 3. A comparison between demographic data for the children in wave 1 who were missing in wave 3 and the children in both waves 1 and 3 is outlined in the description of the longitudinal subset below. The average age of the children in wave 3 was 73.3 months ($SD = 5.5$; range = 5.0–7.6). There were 291 (51.1%) boys and 279 (48.9%) girls. As in wave 1, the majority were identified as Aboriginal ($n = 507$, 88.9%), with the remainder being identified as Torres Strait Islander ($n = 36$, 6.3%), or both ($n = 27$, 4.7%). In wave 3, P1 was not asked to specify whether or not the children identified with a tribe, language group, or clan. The

children's socio-economic status was calculated using the SEIFA Decile of Relative Socio-economic Advantage and Disadvantage (Australian Bureau of Statistics, 2008). Similar to wave 1, the majority of children lived in areas of disadvantage; that is, they lived in communities with postcodes that are ranked as being the lowest three deciles within Australia (decile 1: $n = 241$, 42.3%; decile 2: $n = 64$, 11.2%, decile 3: $n = 56$, 9.8.0%) with few living in communities with postcodes that are ranked in the highest three deciles (decile 8: $n = 25$, 4.4%; decile 9: $n = 13$, 2.3%, decile 10: $n = 0$, 0.0%). The total number of people in the children's households ranged from 2 to 19 ($M = 5.2$, $SD = 2.1$). The children's level of relative isolation (Zubrick et al., 2004) was classified as: none ($n = 145$, 25.4%), low ($n = 292$, 51.2%), moderate ($n = 65$, 11.4%), or high/extreme ($n = 68$, 11.9%).

Typically in Australia, children attend their first year of formal schooling when 5–6 years of age. In wave 3, the study children attended school and were in the following grades: first year of formal schooling (e.g., kindergarten/prep/transition) ($n = 309$, 54.2%), year 1 ($n = 234$, 41.1%), year 2 ($n = 13$, 2.3%). The type of schooling or grade was not specified for 14 children.

Overall, the children's health was described by P1 as excellent ($n = 218$, 38.2%), very good ($n = 205$, 36.0%), good ($n = 131$, 23.0%), fair ($n = 13$, 2.3%), or poor ($n = 3$, 0.5%). Seventeen (3.0%) of the children were described by P1 as having a disability. Of these 17 children, more were identified by P1 as having a disability in speech ($n = 6$, 1.1%) and autism spectrum disorder (6, 1.1%) than any other area (i.e., physical, neurological, psychiatric, other). Twenty-five (4.4%) of the children were described by P1 as having a developmental delay. Of these 25 children, more were identified as having a developmental delay in speech ($n = 13$, 2.3%) than any other area (i.e., cognitive, behavioral, physical, and other).

Wave 3: Adult informants (P1). In each of the waves of data collection, the LSIC researchers aimed to interview the same informant (P1) for each child; 536 (94.0%) were the same in both wave 1 and 3. Similar to wave 1, in wave 3 P1 was primarily female ($n = 553$, 97.0%). The P1s ranged in age from 19 to 68 years ($M = 33.9$ years, $SD = 7.9$). The majority identified themselves as Aboriginal ($n = 428$, 75.1%), while the remainder identified themselves as Torres Strait Islander ($n = 41$, 7.2%), both ($n = 12$, 2.1%), neither ($n = 87$, 15.3%), or other ($n = 2$, 0.4%). The study child's relationship to P1 was identified again in wave 3. The majority of the study children were P1's son ($n = 265$, 46.5%), daughter ($n = 254$, 44.6%), or grandchild ($n = 28$, 5.0%); however, others were their niece/nephew ($n = 17$, 2.9%), step child ($n = 2$, 0.4%), adoptive/foster child ($n = 1$, 0.2%), cousin ($n = 1$, 0.2%), and other ($n = 2$, 0.4%).

Waves 1 and 3: Children in the longitudinal subset. There were 692 children in wave 1 and 570 children in wave 3. Of these, 533 children were present in both waves 1 and 3 and where appropriate, longitudinal analyses were undertaken on data from these children. There were 159 children who were in wave 1 and not wave 3. Demographic data were compared for the 533 children who were present in both waves 1 and 3 and the 159 children who were present in wave 1 but not wave 3. These analyses were undertaken for gender, SEIFA Advantage/Disadvantage, parental concerns about child's speech on the PEDS, and number of languages spoken to determine if there were significant differences between the two groups. No significant difference between the groups was found for gender (wave 1 and 3: male = 52.2%, female = 47.8%; wave 1 not 3: male = 47.8%, female = 52.2%) ($\chi^2(1) = .93$, $p = .34$), SEIFA advantage/disadvantage (wave 1 and 3 $M = 3.0$, $SD = 3.1$; wave 1 not 3 $M = 2.6$, $SD = 2.8$) ($t(690) = 1.33$, $p = .18$), or parental concerns about speech on the PEDS ($\chi^2(2) = 3.16$, $p = .21$). However, children present in wave 1 but not wave 3 used significantly more languages ($M = 1.43$, $SD = .87$), than children who were

present at both waves 1 and 3 ($M = 1.22$, $SD = .56$), $t(690) = -3.7$, $p < .000$.

6.3. Procedure

Parent report and direct assessment of the child were used to describe speech and language competence. The interviews and assessments were conducted predominantly by Aboriginal and Torres Strait Islander research administration officers who were employed by the Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA, now called Department of Social Services, DSS). While a small proportion of interviews were conducted by non-Indigenous interviewers in wave 1, subsequent waves have been conducted solely by Indigenous interviewers. Training was conducted for each wave of data collection at FaHCSIA/DSS offices in Canberra, Australia and subsequently further training was provided in the field. Interviewers were trained to initially ask questions verbatim as they were written, using the alternative text if available (some Aboriginal English alternatives were agreed upon after pilot studies) and a very small number of interviews were translated as they were conducted.

Parent report. A series of parent-report questions were developed and piloted in conjunction and consultation with linguists and Indigenous interviewers involved in the study to determine children's speech and language use, competence, and environments. Questions deemed appropriate were included in data collection. For example, the following question was asked to determine the languages spoken by P1, P2, and the study children: "Looking at the card, which language or languages does [P1, P2, study child] speak? Say the language and the number from the card." Then for each language, the parents were asked "How well does [P1, P2, study child] speak this language?" and were provided with the following options: "Main language. Speaks alright. Some words only. Other (please specify). Don't know." In addition, P1 was asked whether they, or another family member, had undertaken a range of activities with the study child in the last week, including reading books, cooking, and swimming. If so, they were asked whether the activity was undertaken in an Indigenous language. In wave 3, P1 was asked which aspects of Aboriginal and Torres Straight Island culture they would like to pass onto the study child and could select five options from the following list of 12: (1) knowing country, (2) family history, (3) singing, music, and dance, (4) painting or weaving, (5) traditions and ceremony, (6) speaking language, (7) bush tucker (food sourced from native Australian plants and animals), hunting, fishing, (8) family networks, (9) story-telling and yarning, (10) pride in identity, (11) showing respect, and (12) spiritual beliefs.

In waves 1 and 3, interviewers sought information about the children's hearing history and status. Parents were asked whether the study child had ever had a series of ear and hearing-related problems. Specifically they were asked "'I would like to ask about any health problems (study child) might have had. Has (study child) ever had any problems with ears or hearing" and answers were coded by interviewers into the following multiple response categories: (1) "runny ears (glue ear, tropical ear, chronic suppurative otitis media, ear infections, middle ear infection, fluid in ears, may have needed grommets)," (2) "perforated ear drum (hole in ear drum)," (3) "total deafness," (4) "deaf in one ear," (5) "hearing loss partially deaf," and (6) "other ear problem." Each category was described separately in the analysis (see Table 3).

In both waves of data collection, the P1s were asked a series of questions about their concerns about their children's speech and language. Two of these questions were adapted (with permission) from the Parent's Evaluation of Developmental Status (PEDS, Glascoe, 2000). Specifically the word "concerns" was replaced by the word "worries":

1. "Do you have any worries about how your child talks and makes speech sounds?"
2. "Do you have any worries about how your child understands what you say to him/her?"

The PEDS is reported to have good sensitivity, specificity, and concurrent validity (Coghlan, Kiing, & Wake, 2003; Glascoe, 1994, 1996). These questions on the PEDS have been used to identify Australian parents' concerns in other studies including the Longitudinal Study of Australian Children (McLeod & Harrison, 2009) and the Sound Effects Study (McLeod, Harrison, McAllister, & McCormack, 2013). McLeod et al. (2013) found that when parents indicated "yes" or "a little" in response to the question about "concerns about how your child talks and makes speech sounds" 86.7% of these children achieved a standard score below the normal range on the Diagnostic Evaluation of Articulation and Phonology (Dodd, Hua, Crosbie, Holm, & Ozanne, 2002). Within the LSIC study, the two PEDS questions listed above were used to screen for further details about the areas of speech and language difficulty. If some level of concern was indicated, parents were then asked to identify if the problem was in any one of a list of areas. In wave 3, parents were also asked to report their use of services to support their child's speech and language skills.

Direct assessment. In waves 1 and 3 of data collection, the children were assessed using the Renfrew Word Finding Vocabulary Test (Renfrew, 1995). The Renfrew Word Finding Vocabulary Test assesses expressive vocabulary using 50 pictures that are organized in order of difficulty. It was developed for use in the UK, and the fourth edition was created by running trials in England, Scotland, Ireland, Australia, and South Africa. The Australian Council for Educational Research (ACER, 2009) prepared a report on the use of the Renfrew Word Finding Vocabulary Test with children in wave 2 of the LSIC sample and found that there was a positive, moderate correlation ($r = .48$, $p < .001$) between scores on the Renfrew Word Finding Vocabulary Test and the Who Am I? test (De Lemos & Doig, 1999), a developmental test of school readiness.

During each wave of LSIC data collection, the Renfrew Word Finding Vocabulary Test primarily was administered by Aboriginal and Torres Strait Islander Research Administration Officers (RAOs). The children could name the word in English, or another language. The RAOs wrote the response of the child to each of the pictures, and these responses were scored by researchers at ACER. "[A]rticulation errors or minor corruptions or substitutions were scored as correct" (ACER, 2009, p. 2). For example, for the target word *violin* children was scored correctly if they said "fiddle" but were not correct if they said "guitar" (ACER, 2009). Each time the children named a picture accurately they achieved one point to create a total score out of 50.

The children's scores on the Renfrew Word Finding Vocabulary Test could not be compared with normative data for three reasons. First, since this test was developed in the UK, there are no normative data for Australian children, and second there are no normative data for naming test items in languages other than English. Additionally, there was a significant effect of level of isolation on children's performance according to the ACER (2009) who reported on 587 children in wave two of LSIC: ". . . children who lived in easily accessible areas scored significantly higher, on average, than children who lived in areas rated as low/moderate and high/extreme on the isolation" (p. 7).

6.4. Data analysis

Responses from P1 and direct assessment scores were analyzed using the IBM SPSS Statistics computer program version 20 (IBM, 2011). These data were analyzed using descriptive statistics to determine the frequency of responses for binomial variables (n and %) or for continuous variables (M and SD). Mean or proportion testing to identify relationships that existed between variables were undertaken using Chi square analyses, t tests, and Analysis of Variance (ANOVA).

7. Results

7.1. Languages spoken by the children

The languages spoken by the children were analyzed in four ways: (1) as a description of all children in wave 1, (2) as a description of all children in wave 3, (3) by comparing children's language use with level of relative isolation, and (4) as a longitudinal analysis of language use for children present in both waves 1 and 3.

Languages spoken at wave 1 (3–5 years old). In wave 1, the children were reported to speak between one and eight languages. While the majority of children spoke one language ($n = 557$, 80.5%), the total number of languages spoken by the remaining children was: two ($n = 99$, 14.3%), three ($n = 29$, 4.2%), four ($n = 3$, 0.4%), five ($n = 3$, 0.4%), or eight ($n = 1$, 0.1%). The majority of children in wave 1 were reported to speak English as their dominant language ($n = 566$, 81.8%); however, a number of children were reported by P1 to be equally fluent in English and an Indigenous language ($n = 25$, 3.6%), or were dominant in an Indigenous language ($n = 99$, 14.3%). Two (0.3%) answered that they did not know the dominant language of the study child.

In wave 1, almost all of the children ($n = 631$, 91.2%) spoke English, with 575 (83.1%) speaking English as their main language, 29 (4.2%) speaking English "alright", and 24 (3.5%) using some words only. Approximately one quarter ($n = 169$, 24.4%) of the children spoke at least one Indigenous language. The total number of Indigenous languages spoken by the study children in wave 1 was: one ($n = 90$, 13.0%), two ($n = 15$, 2.2%), three ($n = 1$, 0.1%), four ($n = 3$, 0.4%), or seven ($n = 1$, 0.1%). Djambarrpuyngu was spoken as the main language by 35 (5.1%) children, Arrernte was spoken as the main language by 5 (0.7%) children, and the following six Indigenous languages were spoken as the main language by one or two children: Anindilyakwa, Galpu, Gurindji, Kalaw Kawaw Ya/Kalaw Lagaw Ya, Luritja, and Murrinh Patha. Two children spoke "other Indigenous languages" as their main language. The following 15 Indigenous languages were spoken "alright" by three or fewer children: Adnymathanha, Arrernte, Dhalwangu, Dhangu, Galpu, Gumatj, Kalaw Kawaw Ya/Kalaw Lagaw Ya, Kukatha, Kunwinjku, Pitjantjatjara, Tiwi, Walmajarri, Wardaman, Warlpiri, and Wiradjuri. Additionally, children could speak "some words only" for 41 Indigenous languages. Some of the children in wave 1 spoke at least one creole. Seventy-five (10.8%) children spoke one creole and five (0.7%) spoke two creoles. Kriol was spoken as the main language by 37 (5.3%) of the study children and Torres Strait Creole was spoken as the main language by 27 (3.9%) children. Fourteen (2.0%) spoke a foreign language (a non-Indigenous language other than English) and four (0.6%) used sign language (one child used both a foreign language and sign language). None of the children who spoke a foreign language or sign language also spoke an Indigenous language.

Languages spoken at wave 3 (5–7 years old). In wave 3, cross-sectional analysis of P1 report revealed that the children were reported to speak up to four languages. While most of the study children spoke one language ($n = 391$, 68.6%), others spoke: two ($n = 139$, 24.4%), three ($n = 34$, 6.0%), four ($n = 6$, 1.1%). Almost all of the children spoke English ($n = 568$, 99.6%) with 464 (81.4%) speaking English or Aboriginal English as their main language, 54 (9.4%) speaking English "alright", 27 (4.7%) using some words only, and there were missing data for 25 (4.5%) children. Just over one quarter of the children spoke at least one Indigenous language ($n = 153$, 26.8%). The total number of Indigenous languages spoken by the

study children in wave 3 was: one ($n = 78$, 13.7%), two ($n = 17$, 3.0%), or three ($n = 1$, 0.2%). Djambarrpuyngu was spoken as the main language by 21 (3.7%) children, and the following Indigenous languages were spoken as the main language by one or two children: Arrernte, Anindilyakwa, Galpu, Kalaw Kawaw Ya/Kalaw Lagaw Ya, Luritja, Meriam Mir, and Warlpiri. The following Indigenous languages were spoken "alright" by five or fewer children: Arrernte, Bardi, Gangalidda, Gooniyandi, Kalaw Kawaw Ya/Kalaw Lagaw Ya, Meriam Mir, Ngarinyin, Ngarrindjeri, Nyikina, Walmajarri, Warlpiri, Warumungu, Wiradjuri, and Yawuru. Additionally, children could speak "some words only" for 35 Indigenous languages and/or language groups. Creoles were spoken by some of the study children in wave 3; some spoke one creole ($n = 76$, 13.3%), and others spoke two creoles ($n = 2$, 0.4%). Kriol was spoken as the main language by 27 (4.7%) of the study children in wave 3. Torres Strait Creole was spoken as the main language by 36 (6.3%) children. Twenty-nine (5.1%) children in wave 3 spoke a foreign language and two (0.4%) used sign language.

In wave 3, P1 was asked about the kind of English spoken at home. The majority of homes ($n = 293$, 51.4%) used only English words (and "would sound the same as non-Indigenous people"). Over a quarter ($n = 167$, 29.3%) used English words that were sometimes mixed with a few Aboriginal and Torres Strait Islander words (i.e., "would not be too hard for a non-Indigenous speaker to understand"). The remainder ($n = 109$, 19.1%) used English mixed with lots of Aboriginal and/or Torres Strait Islander words (i.e., "might be difficult for a non-Indigenous speaker to understand").

Longitudinal comparision between languages spoken by children at waves 1 and 3. There were 533 children present in both wave 1 and wave 3 (77.0% of the entire sample). The language use of these children was compared between waves. The total number of languages spoken by the children present in both waves at wave 1 was: one ($n = 446$, 83.7%), two ($n = 64$, 12.0%), three ($n = 19$, 3.6%), four ($n = 2$, 0.4%), or five ($n = 2$, 0.4%). The total number of languages spoken by the children present in both waves at wave 3 was: one ($n = 378$, 70.9%), two ($n = 116$, 21.8%), three ($n = 33$, 6.2%) or four ($n = 6$, 1.1%). Approximately one quarter ($n = 148$, 27.7%) of the children in the sample spoke an Indigenous language at either wave 1, wave 3, or both waves. Of these children who spoke an Indigenous language at some time point, 63.5% ($n = 94$) spoke an Indigenous language at both waves 1 and 3, 12.1% ($n = 18$) children spoke an Indigenous language at wave 1 only, and 24.3% ($n = 36$) spoke an Indigenous language at wave 3 only. There was a significant relationship between those who spoke an Indigenous language at wave 1 and those who spoke an Indigenous language at wave 3 ($\chi^2(1) = 272.560$, $p < .001$). Of the children who spoke an Indigenous language at wave 1, 83.9%, ($n = 94$) maintained speaking an Indigenous language at wave 3, however, the other 17% had ceased using their Indigenous language by wave 3.

7.2. The speech and language competence of Indigenous Australian children

At waves 1 and 3, study children's expressive vocabulary was tested using the Renfrew Word Finding Vocabulary Test (Renfrew, 1995). Children were asked to name pictures and could provide a response to items in English or another language if appropriate. In wave 1, the 692 children achieved an average score of 18.0 ($SD = 8.5$, range = 0–43) and in wave 3, the 570 children achieved an average score of 30.6 ($SD = 8.9$, range = 0–50). In wave 1, 27 children (3.8%) named between 1 and 10 pictures in a language other than English, with the majority of these ($n = 12$) naming only one word in a different language. In wave 3, 25 children (4.6%) named between 1 and 15 pictures in a language other than English, with the majority of these ($n = 8$) naming only one word in a different language. For the children who were present at both wave 1 and 3 ($n = 533$), scores on

the Renfrew Word Finding Vocabulary Test significantly increased from wave 1 ($M = 18.69$, $SD = 8.58$) to wave 3 ($M = 31.02$, $SD = 8.62$) using a paired-samples t test $t(397) = -31.65$, $p < .000$, as would be expected due to language growth during this period.

While it is not appropriate to compare each child's scores with the normative data provided by Renfrew (1995) for 540 children living in southern UK, it can be useful to indicate benchmark figures. Renfrew (1995) indicated the age equivalence for a score of 18 was 3.5–3.6 (males) and 3.4–3.5 (females) and the age equivalence for a score of 30 was 4.11–5.2 (males) and 5.2 (females). Thus, the mean scores achieved by the children in the LSIC sample were similar to the scores for 3-year olds and 5-year olds within the test manual. However, the preface in Renfrew (1995) indicates that subsequent studies undertaken in South Africa and Manchester (UK) have found that children achieved lower scores than the normative data provided in the manual.

7.3. Language-learning environment

The children's language-learning environment is described in seven ways: (1) the impact of the level of relative isolation, (2) the languages spoken by P1, (3) oral story telling, (4) reading, writing, and numeracy, (5) additional activities including those undertaken while using Indigenous languages, (6) parents' wishes regarding aspects of language and culture they wished to be passed onto their children, and (7) parents' wishes regarding language learning at school.

Languages spoken compared with level of relative isolation. The languages spoken by the children were compared with their level of relative isolation (Zubrick et al., 2004) (see Table 1). In both waves 1 and 3, children who spoke English were found across all levels of isolation (see Table 1). To examine whether those who spoke English were more likely to live in levels of isolation the ordinal Level of Relative Isolation (LORI) variable (1 = none, 2 = low, 3 = moderate, 4 = high/extreme) was treated as continuous, and a one-way ANOVA was undertaken comparing level of relative isolation with whether or not the child spoke English. Those who spoke English were less isolated ($M = 1.9$, $SD = 0.8$) than those who did not speak English ($M = 3.3$, $SD = 0.5$), $F(1, 690) = 140.41$, $p < 0.01$. On average, children who spoke English were likely to live in areas of low isolation whereas children who did not speak English were likely to live in areas of high/extreme isolation. The analysis was again undertaken to determine whether a relationship was present between speaking an Indigenous language and level of relative isolation. Those who did speak an Indigenous language were more isolated ($M = 2.9$, $SD = 0.9$) than those who did not speak an Indigenous language ($M = 1.8$, $SD = 0.7$), $F(1, 690) = 263.07$, $p < 0.01$. Thus, children who spoke an Indigenous language were likely to live in higher levels of isolation; whereas children who did not speak an Indigenous language were likely to live in areas of less isolation (none or low). Finally, the relationship between speaking a foreign or sign language and level of relative isolation was also examined. A one-way ANOVA showed that children who spoke a foreign or sign language were less isolated ($M = 1.4$, $SD = 0.4$) than those who did not speak a foreign or sign language ($M = 2.1$, $SD = 0.9$), $F(1, 690) = 17.42$, $p < 0.01$. In summary, children who spoke an Indigenous language were more likely to live in levels of moderate to high/extreme isolation. In contrast, children who spoke English or a foreign or sign language lived in areas that were not as isolated.

Expressive vocabulary and relative isolation. Whether Renfrew Word Finding Vocabulary varied as a function of relative isolation was examined using a one-way Analysis of Variance (ANOVA). In both waves 1 and 3, there was a statistically significant effect of level of isolation on performance (wave 1: $F(3, 688) = 16.11$, $p < .001$; wave 3: $F(3, 566) = 6.24$, $p < .001$). A post hoc Tukey's HSD revealed that at wave 1, scores from children in high/extreme levels

Table 1

The languages spoken by the study children at 3–5 years (wave 1: $n = 692$) and 5–7 years (wave 3: $n = 569$) compared with the Level of Relative Isolation (LORI).

Language	None				Low				Moderate				High/extreme				Total			
	Wave 1		Wave 3		Wave 1		Wave 3		Wave 1		Wave 3		Wave 1		Wave 3		Wave 1		Wave 3	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
English/Aboriginal English	166	100.0	145	100.0	356	98.9	290	99.7	62	62.0	65	100.0	47	71.2	68	100.0	631	91.2	568	99.8
An Indigenous language	11	6.6	4	2.8	37	10.3	35	12.0	43	43.0	35	53.9	19	28.8	22	32.4	110	15.9	96	16.9
A creole[a]	2	1.2	1	0.7	10	2.8	18	6.2	21	21.0	13	20.0	47	71.2	46	67.7	80	11.6	78	13.7
Foreign language	10	6.0	15	10.3	4	1.1	14	4.8	0	0.0	0	0.0	0	0.0	0	0.0	14	2.0	29	5.1
Sign language	3	1.8	1	0.7	1	0.3	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0	4	0.6	2	0.4
Total number of cases	166		145		360		291		100		65		66		68		692		569[b]	
Total	192		166		408		358		126		113		113		136		839		773	

[a] Creoles = Kriol/Torres Strait Creole/Gurindji Kriol.

[b] Missing data for one participant. The percentage column represents the percent of cases since some cases spoke more than one language.

of isolation ($M = 8.2$; $SD = 11.2$) were not significantly different from children living in moderate level of isolation ($M = 6.6$; $SD = 11.9$), and scores for children living in low levels of isolation ($M = 14.0$; $SD = 12.6$) were not significantly different from children living in area of no isolation ($M = 16.1$; $SD = 12.7$), but all other categories differed significantly. The major difference in scores on the Renfrew Word Finding Vocabulary Test occurred between the low and moderate levels of isolation. At wave 3, the scores of children living in moderate levels of isolation ($M = 21.6$; $SD = 14.3$) were significantly lower when compared with children living in areas of either low ($M = 28.8$; $SD = 13.4$) or no isolation ($M = 28.5$; $SD = 13.4$).

Languages spoken by parent 1 (P1). In wave 1, the majority of P1s spoke one language ($n = 522$, 75.4%), 107 (15.5%) spoke two languages, 43 (6.2%) spoke three languages, 15 (2.2%) spoke four languages, 1 (0.1%) spoke five languages, 1 (0.1%) spoke seven languages, and 3 (0.4%) spoke eight languages. P1s' dominant language was listed as English ($n = 538$, 77.7%), Indigenous languages ($n = 69$, 10.0%), equally fluent in English and an Indigenous language ($n = 84$, 12.1%), or other ($n = 1$, 0.1%). A total of 641 (92.6%) spoke English, 194 (28.0%) spoke an Indigenous language, and 16 (2.3%) spoke a foreign language. The most common Indigenous languages or Creoles used by P1 at wave 1 were Kriol ($n = 64$, 9.2%), Djambarrpuyngu ($n = 36$, 5.2%), Torres Strait Creole ($n = 36$, 5.2%), Kalaw Kawaw Ya/Kalaw Lagaw Ya ($n = 27$, 3.9%), and Arrernte ($n = 9$, 1.3%). As expected, there was a significant association between languages spoken by P1 and the languages spoken by their children ($\chi^2(1) = 500.98$, $p < .001$). If P1 spoke an Indigenous language at wave 1, then 83.0% ($n = 161$) of children also did; but 17.0% ($n = 33$) did not. If P1 did not speak an Indigenous language at wave 1, then 98.4% ($n = 490$) of children also did not. Interestingly there were 1.6% ($n = 8$) children in wave 1 who spoke an Indigenous language when P1 did not.

Oral story telling. The richness of children's language learning environment across both waves is shown in Table 2. In both waves, P1 was asked whether or not family members and friends had told an oral story ("not from a book") to the study child in the last week. In wave 1, the majority of children ($n = 498$, 72.0%) had been told an oral story by at least one person in the last week and of these, 47 (9.8%) were told a story in an Indigenous language. Similarly, in wave 3, the majority of children ($n = 401$, 70.4%) had been told an oral story by at least one family member in the last week and of these, 34 (8.5%) were told a story in an Indigenous language. Across both waves, the children were told oral stories by their mothers, fathers, siblings, grandparents, aunts, uncles, cousins, friends, teachers/carers, and others (see Table 2). The continuation of oral story telling across the early years was considered in a longitudinal analysis for the 533 children who were present both in waves 1 and 3. There was a significant relationship between the two waves ($\chi^2(1) = 14.2$, $p = .00$), with 74.9% of children who were told oral

stories at wave 1 also being told oral stories at wave 3. There were 25.1% of children were no longer told oral stories at wave 3; however, this may have been because of the increase in using books during story telling when the children were 5–7 years old (wave 3).

Reading, writing, and numeracy. In wave 1, over a third of the children had more than 30 children's books in their homes ($n = 270$, 39.0%), while others had none ($n = 51$, 7.4%), 1–5 books ($n = 102$, 14.7%), 6–10 books ($n = 91$, 13.2%), 11–20 books ($n = 90$, 13.0%), or 21–30 books ($n = 79$, 11.4%). P1 indicated whether or not family members or others had read a book to the study child in the last week. In wave 1, the majority of children ($n = 547$, 79.0%) had been read to by at least one family member in the last week and of these, 24 (4.4%) were read a story in an Indigenous language. In wave 3, P1 indicated whether or not someone had read a book to the study child during the last week. The majority of children ($n = 460$, 80.7%) had been read to by at least one family member in the last week and of these, 26 (5.7%) were read a story in an Indigenous language. Across both waves, the children were read books by their mothers, fathers, siblings, grandparents, aunts, uncles, cousins, friends, teachers/carers, and others (see Table 2). The continuation of reading to children across the early years was considered in a longitudinal analysis for the 533 children who were present both in waves 1 and 3. There was a significant relationship between the two waves ($\chi^2(1) = 35.8$, $p = .00$), with 86.5% of children who were read to at wave 1 also being read to at wave 3. Overall, it appears that there was rich engagement with literacy between the children and members of their families and communities.

In wave 3, since the children were 5–7 years old, additional questions were asked about the children's reading. The majority of study children had someone listen to them read during the past month ($n = 476$, 83.5%) and of these, 21 (4.4%) read a story in an Indigenous language. The people who listened to the children read are listed in Table 2. Most of the study children in wave 3 were reported to be interested in reading ($n = 477$, 83.7%). When they were 5–7 years old, many were reported to be able to read simple words ($n = 423$, 74.2%), some were reported to be able to read complex words ($n = 192$, 33.7%), and simple sentences ($n = 272$, 47.7%) (the language was not specified). In addition, most of the study children were interested in copying letters and words ($n = 494$, 86.7%) and were able to write their own name ($n = 489$, 85.8%) according to parent report. Many of the children could also write simple words ($n = 396$, 69.5%) and simple sentences ($n = 219$, 38.4%). The children's mathematics and numeracy skills were also described. Most of the study children were reported by P1 to be able to sort things by shape and color ($n = 468$, 82.1%), count the number of things ($n = 480$, 84.2%), count to 20 ($n = 443$, 77.7%), recognize numbers ($n = 442$, 77.5%), and add ($n = 350$, 61.4%). The language(s) used by the children for writing and mathematics were not recorded.

Table 2

Number of people who told an oral story, read a book, or listened to the study child read at 3–5 years (wave 1: $n = 692$) and 5–7 years (wave 3: $n = 570$).

Person	Told an oral story to the study child (past week)				Read a book to the study child (past week)				Listened to study child read (past month)[a]	
	Wave 1		Wave 3		Wave 1		Wave 3		Wave 3	
	n	%	n	%	n	%	n	%	n	%
Overall	498	72.0%	401	70.4%	547	79.0%	460	80.7%	476	83.5%
Mother/step mother	376	54.3%	257	45.1%	445	64.3%	341	59.8%	411	72.1%
Father/step father	164	23.7%	119	20.9%	147	21.2%	112	19.6%	155	27.2%
Sister	79	11.4%	41	7.2%	123	17.8%	71	12.5%	83	14.6%
Brother	66	9.5%	27	4.7%	74	10.7%	23	4.0%	46	8.1%
Grandmother	109	15.8%	66	11.6%	67	9.7%	45	7.9%	67	11.8%
Grandfather	40	5.4%	27	4.7%	20	2.9%	10	1.8%	18	3.2%
Aunt	52	7.5%	33	5.8%	53	7.7%	24	4.2%	36	6.3%
Uncle	19	2.7%	10	1.8%	7	1.0%	6	1.1%	12	2.1%
Cousin	41	5.9%	6	1.1%	39	5.6%	5	0.9%	15	2.6%
Friend	11	1.6%	4	0.7%	13	1.9%	3	0.5%	9	1.6%
Teacher/carer[b]	–	–	21	3.7%	–	–	41	7.2%	24	4.2%
Other	5	0.7%	3	0.5%	13	1.9%	3	0.5%	2	0.4%

[a] This question was only asked in wave 3.
[b] This option was only supplied in wave 3.

Similar to the finding above, overall, it appears that there was support for these young Indigenous children to engage with reading, writing, and numeracy.

Additional activities including those undertaken in Indigenous languages. The children undertook a wide range of indoor and outdoor activities with P1 and other family members during the week prior to data collection. These activities were undertaken in an Indigenous language by some of the children. Specifically, the majority of children played indoors with toys or games in the past week ($n = 646$, 93.4%) and of these, 38 (5.9%) children undertook this activity in an Indigenous language. Many children ($n = 630$, 91.0%) played music, sang songs, danced, or undertook other musical activities and of these, 49 (7.8%) undertook this activity in an Indigenous language. Many children drew pictures, art, or craft activities with family members ($n = 567$, 81.9%) and of these, 31 (5.5%) undertook this activity in an Indigenous language. Just under half of the children played computer, Xbox, or PlayStation games ($n = 334$, 48.3%) and of these, 14 (4.2%) undertook this activity in an Indigenous language. Many children played outdoors ($n = 657$, 94.9%) and of these, 41 (6.2%) undertook this activity in an Indigenous language. Three quarters of the children went to a playground ($n = 518$, 74.9%) and 27 (5.2%) used an Indigenous language. Many children ($n = 619$, 89.5%) went shopping in the past week and of these, 33 (5.3%) used an Indigenous language while shopping. Many children ($n = 543$, 78.5%) were involved in housework or cooking, and of these, 27 (5.0%) used an Indigenous language. Half of the children went swimming in the past week ($n = 348$, 50.3%) and of these, 35 (10.1%) used an Indigenous language during this activity.

Parents' wishes regarding passing on language and culture. In wave 3, P1 was asked which aspects of Aboriginal and Torres Strait Island culture they would like to pass onto the study child at this age and could select up to five options from a list. Almost one third of the sample wanted to pass on "speaking language" ($n = 174$, 30.5%) and "story-telling and yarning" ($n = 171$, 30.0%). Other aspects of culture they would like to pass on were: family history ($n = 345$, 60.5%), showing respect ($n = 332$, 58.2%), pride in identity ($n = 315$, 55.3%), knowing country ($n = 286$, 50.2%), bush tucker (sourcing food from the Australian landscape), hunting, and fishing ($n = 225$, 39.5%), singing, music, and dance ($n = 202$, 37.2%), traditions and ceremony ($n = 202$, 35.4%), family networks ($n = 187$, 32.8%), spiritual beliefs ($n = 116$, 20.4%), painting or weaving ($n = 90$, 15.8%), and other aspects ($n = 11$, 1.9%).

Parents' wishes regarding language learning at school. In wave 3, because the children were at school, a question was asked about whether P1 would like their study child to learn an Indigenous language at school. Many ($n = 263$, 46.1%) indicated that they would like an Indigenous language to be available as a second language at school. Almost a third ($n = 174$, 30.5%) indicated that they would like their child to learn an Indigenous language in a bilingual program learning both English and an Indigenous language. A few ($n = 8$, 1.4%) wanted an Indigenous language to be used as the main language at school, with English taught as a second language. Others ($n = 65$, 11.4%) indicated that they would like for the study child to learn an Indigenous language as a compulsory second language, and some ($n = 51$, 8.9%) did not want their child to learn an Indigenous language at school.

7.5. Concerns about hearing, speech, and language skills

The children's hearing history and status was explored in waves 1 and 3 (see Table 3). In wave 1, 143 (20.7%) of children were reported to have "runny ears" (otitis media) and a further 9 (1.3%) had a perforated ear drum. By wave 3, fewer children ($n = 65$, 11.4%) were reported to have runny ears (otitis media) and 6 (1.1%) had had a perforated ear drum. Few were reported to have hearing loss (see Table 3). The incidence of otitis media was found to significantly decrease among children who were present during both waves 1 and 3 ($\chi^2(1) = 15.1$, $p = .34$), with 78.9% of children who were reported to have "runny ears" at wave 1 no longer reported to have this problem by wave 3.

In both waves 1 and 3, the P1s were asked whether they had concerns about the study children's expressive and receptive speech and language skills (see Table 4). In wave 1, 24.3% had some level of concern about how their child "talked and made speech sounds" (yes: $n = 96$, 13.9%, a little: $n = 72$, 10.4%). Specifically, they were concerned that their child's speech was "not clear to others" ($n = 90$, 13.0%), and "not clear to the family" ($n = 59$, 8.5%). They were also concerned that some children had "difficulty putting words together" ($n = 42$, 6.1%), "stutters, stammers or lisps" ($n = 34$, 4.9%) or had "other speech difficulties" ($n = 28$, 4.0%) (see Table 4). By wave 3, fewer parents had concerns about how their child "talked and made speech sounds" (yes: $n = 51$, 8.9%, a little: $n = 55$, 9.6%) and the major specific areas of concern remained the same.

P1s also were asked to report on concerns regarding their children's receptive language skills. In wave 1, 10.0% had some level of concern about how their child's ability to "understand what you say" (yes: $n = 24$, 3.5%, a little: $n = 45$, 6.5%). Specifically, they were concerned that their child was unable to "understand what you say" ($n = 28$, 4.0%), and "understand what others say" ($n = 24$, 3.5%) (see Table 4). By wave 3, fewer parents reported concerns

Table 3

P1 Report of the study children's hearing history and status at 3–5 years (wave 1: $n = 692$) and 5–7 years (wave 3: $n = 570$).

	Yes				No				Don't know/other			
	Wave 1		Wave 3		Wave 1		Wave 3		Wave 1		Wave 3	
	n	%	n	%	n	%	n	%	n	%	n	%
Runny ears (otitis media)	143	20.7%	65	11.4%	541	78.2%	505	88.6%	8	1.1%	0	0.0%
Perforated ear drum	9	1.3%	6	1.1%	675	97.5%	564	98.9%	8	1.1%	0	0.0%
Total deafness	1	0.1%	0	0.0%	683	98.7%	570	100%	8	1.1%	0	0.0%
Deaf in one ear	1	0.1%	0	0.0%	683	98.7%	570	100%	8	1.1%	0	0.0%
Hearing loss/partially deaf	13	1.9%	8	1.4%	671	97.0%	562	98.6%	8	1.1%	0	0.0%
Other ear problem	16	2.3%	10	1.8%	668	96.5%	560	98.2%	8	1.1%	0	0.0%

about their child's ability to "understand what you say" (yes: $n = 19$, 3.3%, a little: $n = 24$, 4.4%) and the major specific areas of concern remained the same. A significant relationship was found between P1s who expressed concern about their children's understanding at wave 1, and those who continued to hold these concerns at wave 3 ($\chi^2(1) = 53.6, p = .00$) indicating that there were some children who continued to have receptive language difficulties at ages 5–7 years.

In wave 3, if the P1s had identified that they had concerns, they were asked whether the study children were receiving intervention for difficulties with speech and comprehension. In response to the question "Is (study child) receiving any treatment for (his/her) speech difficulties?" the P1s responded: yes ($n = 63$, 59.4%), no ($n = 41$, 38.7%), don't know ($n = 2$, 1.9%). Similarly, in response to the question "Is (study child) receiving any treatment for (his/her) understanding difficulties?" the P1s responded: yes ($n = 26$, 59.1%), no ($n = 17$, 38.6%), don't know ($n = 1$, 2.3%).

8. Discussion

8.1. Languages spoken by Indigenous Australian children

Indigenous Australian children are able to speak many languages, including English, Indigenous languages, creoles, foreign languages, and sign languages. Most of the children aged between 3 and 7 years within the Child cohort of LSIC spoke English (including Aboriginal English; wave 1: 91.2%, wave 3: 99.6%), which was anticipated, since by wave 3, the children attended school where English is the medium of instruction. Many of the children also spoke Indigenous languages (wave 1: 24.4%, wave 3: 26.8%) and creoles (wave 1: 11.5%, wave 3: 13.7%). In the current study, the greater the children's geographic isolation, the more likely they were to speak creoles or Indigenous languages. Indigenous languages spoken as children's main language were: Anindilyakwa, Arrernte,

Table 4

P1's Concerns about the Longitudinal Study of Indigenous Children's (LSIC) expressive and receptive speech and language skills at 3–5 years (wave 1: $n = 692$) compared with concerns expressed by parents of 4–5-year-old children using weighted population data from the Longitudinal Study of Australian Children (LSAC, wave 1, $N = 253,202$) (McLeod & Harrison, 2009).

Domain	Concerns	Study	Yes		A little		No		Don't know/refused/ other/missing data	
			n	%	n	%	n	%	n	%
	Worries about study child's speech	**LSIC**	**96**	**13.9%**	**72**	**10.4%**	**502**	**72.5%**	**22**	**3.2%**
		LSAC	**29,829**	**11.8%**	**33,927**	**13.4%**	**189,269**	**74.8%**	**177**	**0.1%**
	Speech not clear to family	LSIC	59	8.5%	–	–	619[a]	89.5%	14	2.0%
		LSAC	15,078	6.0%	–	–	234,337	92.5%	3787	1.5%
	Speech not clear to others	LSIC	90	13.0%	–	–	588[a]	85.0%	14	2.0%
		LSAC	30,449	12.0%	–	–	218,966	86.5%	3787	1.5%
	Stutters, stammers, or lisps	LSIC	34	4.9%	–	–	644[a]	93.1%	14	2.0%
		LSAC	14,183	5.6%	–	–	235,233	92.9%	3787	1.5%
Expressive speech and language (Production)	Voice sounds unusual	LSIC	11	1.6%	–	–	667[a]	96.4%	14	2.0%
		LSAC	5689	2.2%	–	–	243,727	96.3%	3787	1.5%
	Reluctant to speak	LSIC	17	2.5%	–	–	661[a]	95.5%	14	2.0%
		LSAC	5468	2.2%	–	–	243,947	96.3%	3787	1.5%
	Difficulty finding words	LSIC	25	3.6%	–	–	653[a]	94.4%	14	2.0%
		LSAC	13,005	5.1%	–	–	236,411	93.4%	3787	1.5%
	Difficulty putting words together	LSIC	42	6.1%	–	–	636[a]	91.9%	14	2.0%
		LSAC	14,800	5.8%	–	–	234,615	92.7%	3787	1.5%
	Difficulty learning more than one language[c]	LSIC	5	0.7%	–	–	673[a]	97.3%	14	2.0%
	Any other speech difficulties[c]	LSIC	28	4.0%	–	–	650[a]	93.9%	14	2.0%
	Worries about the study child understanding what you say	**LSIC**	**24**	**3.5%**	**45**	**6.5%**	**618**	**89.3%**	**5**	**0.7%**
		LSAC	**11,159**	**4.4%**	**13,002**	**5.1%**	**228,891**	**90.4%**	**149**	**0.1%**
	Understanding–what you say	LSIC	28	4.0%	–	–	648[b]	93.6%	16	2.3%
Receptive language (Understanding)		LSAC	6836	2.7%	–	–	242,580	95.8%	3787	1.5%
	Understanding–what others say	LSIC	24	3.5%	–	–	652[b]	94.2%	16	2.3%
		LSAC	5943	2.3%	–	–	243,473	96.2%	3787	1.5%
	Understanding – hearing[c]	LSIC	10	1.4%	–	–	666[b]	96.2%	16	2.3%
	Understanding – learning more than one language[c]	LSIC	0	0.0%	–	–	676[b]	97.7%	16	2.3%
	Understanding – other[c]	LSIC	12	1.7%	–	–	664[b]	96.0%	16	2.3%

[a] These numbers include those who answered "No" to the overarching question "Do you have worries about your study child's speech?" (wave 1: $n = 524$) and "No" to the specific question.

[b] These numbers include those who answered "No" to the overarching question "Do you have worries about the study child understanding what you say?" (wave 1: $n = 623$) and "No" to the specific question.

[c] These questions were not asked in the LSAC study.

Djambarrpuyngu, Galpu, Gurindji, Kalaw Kawaw Ya/Kalaw Lagaw Ya, Luritja, Meriam Mir, Murrinh Patha, and Warlpiri. Additional Indigenous languages were spoken "alright" or as "some words only."

The language use of the children in the current LSIC sample was compared with nationally representative data of 4983 4–5-year-old Australian children from the K cohort of LSAC. More children in wave 1 of the Child cohort of LSIC aged 3–5 years spoke languages other than English (27.0%) than children in wave 1 of the K cohort of LSAC aged 4–5 years (12.2%) (McLeod, 2011). The main languages spoken by children in LSAC were Arabic, Cantonese, Vietnamese, Greek, and Mandarin (McLeod, 2011). As outlined above, the main other languages spoken by the children in LSIC were Indigenous languages; few children in the LSIC sample spoke foreign or sign languages (wave 1: 2.5%, wave 3: 5.4%); however, these were not specified further.

8.2. Language learning environments of Indigenous Australian children

Parental desires and language ideologies play an important role in shaping the choices made by families about which languages a child will acquire and the amount of exposure children will have to each of their languages (King, Fogle, & Logan-Terry, 2008). Indigenous families and communities within the LSIC study provided rich language-learning opportunities in English as well as in other languages. Storytelling and book reading was a strong feature of the environments of most of the study children aged 3–7 years. More than seventy percent of the children in both waves had been told an oral story in the past week (wave 1: 72.0%, wave 3: 70.4%), and even more had been read a story from a book in the past week (wave 1: 79.0%, wave 3: 80.2%). In the past month, 83.5% of children in wave 3 had read to others. These figures are higher than are typically reported for Indigenous families in other parts of the world (e.g., Loeb & Redbird, 2008). Within the current study, there was a strong family and community focus on storytelling and book reading. In both waves of data collection, these activities were supported by family members, friends, and others (see Table 2). In addition, there were many other opportunities provided by families and communities for interaction, play, and learning including: music, art and craft, playing on computers, visiting playgrounds, going swimming, shopping, and cooking; situations that are that are typical for most Australian children. Some children ($\leq$10%) undertook these activities in Indigenous languages. There were more children who used an Indigenous language during oral story telling or swimming than any for other activity. The finding that swimming was an activity where Indigenous languages were spoken was not surprising since swimming is a highly social activity in Australia with families spending hours together at the swimming pool, river, or lake.

The lower numbers of children being read to and reading books in Indigenous languages may be related to the lack of available published children's literature in local Indigenous languages. In the US, Northwest Native American Reading Curriculum is supported by Elders and respected members of the community to read stories that are written and illustrated by members of the community and incorporate relevant cultural knowledge and values (Costantino & Hurtado, 2005). Almost a third of families in the current study wanted to pass on their cultural language, and many indicated that they would like their child to learn an Indigenous language at school. Language policy in Australia has made steps toward meeting the desires of families to support Indigenous languages in educational settings. The recently developed Australian policy, Indigenous Languages – A National Approach (Department of Environment, Water, Heritage, and the Arts, 2009), recognizes the importance of Indigenous language bilingual programs in schools.

The aim of this policy is to support literacy and language development both in home languages and English, to transmit Indigenous language and culture, and support long-term academic achievement and success of Indigenous children (Australian Curriculum, Assessment, and Reporting Authority, 2011). The maintenance of home languages (whether oral or literate) is associated with personal and national identity and enables children to attain communicative skills, cognitive advantages, and intercultural benefits (Kirsch, 2012).

8.3. Parental concern about hearing, speech, and language skills

Parental concern about their children's speech and language skills were compared for children within wave 1 of the Child cohorts of LSIC ($n=692$) and LSAC ($n=4983$), the nationally representative study. Parents in both studies had a similar level of concern about speech and language skills (LSIC = 24.3% versus LSAC = 25.2%) (McLeod & Harrison, 2009). A similar number of LSIC parents of 3–5-year olds (wave 1) had concern about speech and language skills to the LSAC parents of 4–5-year-olds (LSIC: 24.3% versus LSAC: 25.2%) (McLeod & Harrison, 2009). Similarly, "speech not clear to others" was the area of highest concern for the 4–5-year-old children in LSAC (LSIC: 13% versus LSAC: 12.0%) (see Table 4). The questions and timing of questions within the LSIC and LSAC samples regarding service access were worded differently, so comparisons are not easily made. However, when children in the LSIC sample were in wave 3 (5–7 years), parents reported that 63 (11.1% of all children) had received intervention for speech difficulties and 26 (4.6% of all children) had received intervention for difficulties understanding others. When children within the LSAC sample were in wave 1 (4–5 years), parents and teachers reported 14.5% of all children had accessed speech-language pathology services and an additional 2.2% needed but could not access services (McLeod & Harrison, 2009). The similarity between the LSAC and LSIC studies regarding the levels of concern (Table 4) was surprising, particularly considering the reported disparity between health and access for Indigenous Australians (Booth & Carroll, 2005). Rates of middle ear disease in Indigenous children have been found to decrease with age (cf. Williams et al., 2009). The current study supported this finding with the incidence of otitis media significantly decreasing among children, with 78.9% of children no longer reported to have this problem by wave 3. For all children, whether Indigenous or non-Indigenous, there was a greater level of concern compared with accessing services, a complex problem associated with availability and perception of need for services (McAllister, McCormack, McLeod, & Harrison, 2011; Ruggero, McCabe, Ballard, & Munro, 2012). The current data do not allow consideration of whether even greater disparity in accessing services exists for Indigenous children. Throughout the world, there are many cautions about the need for culturally appropriate and safe practices for supporting Indigenous children's language and literacy acquisition (Ball & Lewis, 2011; Williams, 2012). For example, Loeb and Redbird (2008, p. 5) recommend "...a more culturally sensitive implementation of services" by emphasizing cooperative, multisensory, and holistic learning. The current data indicate that while many children are maintaining their Indigenous language and have family and community support for language learning activities (e.g., telling stories, reading books) there are some children who do not. For example, 17% had ceased using their Indigenous language by wave 3 and 25.1% were not longer told oral stories by wave 3. Consequently, there is a need for children across Australia to be able to access appropriate health and educational services that acknowledge and support their language strengths and diversity and also support family and community language initiatives.

8.4. Limitations and directions for further research

This paper presents findings from a large sample of Indigenous Australian children; however, as acknowledged in the method, the sample was not a nationally representative sample, instead it was gained through purposive sampling across 11 sites. While 77.0% of children from the wave 1 sample was present in wave 3, the adaptive sampling techniques used by the research administration officers meant that children were added to wave 3. Within this paper, when reporting cross-sectional data, the entire cohort of children within the specified age ranges was used. When reporting longitudinal comparison data, only children who were present in both waves 1 and 3 were compared (representing 77% of the entire sample).

As with many epidemiological studies, the data presented in the current paper primarily are based on parent report. Parent report provides important insights into children's lives; however, it may be possible that some parental responses may be influenced by the social desirability of reporting positive outcomes. Additionally, there was attrition between wave 1 and 3. While there was no significant difference between those present only in wave 1 versus those present in waves 1 and 3 for the variables of gender, socio-economic status (SEIFA Advantage/Disadvantage) or parental concerns about speech on the PEDS, there was a significant difference between the number of languages spoken. Children present in wave 1 but not wave 3 used significantly more languages than children who were present at both waves 1 and 3 and this may have influenced the results. In order to supplement the information about the children, the LSIC researchers also have asked children's teachers about the study children, so further analysis of teacher report would be valuable in the future.

Direct assessment of Indigenous children's language use is difficult due to the absence of relevant measures and approaches (Gould, 2008; Pearce & Williams, 2013). In the current paper, one direct measure of children's language skill was reported. The Renfrew Word Finding Vocabulary Test (Renfrew, 1995) was used to describe children's expressive vocabulary. It is acknowledged that an expressive vocabulary test is not sufficient to describe children's overall language ability. There were additional limitations of using this assessment tool since it was developed in the UK, and normative data cannot be applied. Consequently, a non-standarized approach was taken to administration; for example, the research administration officers allowed children to name items in English or another language. Using assessments on an unintended population may result in lower scores, and in the case of the Renfrew Word Finding Vocabulary Test it may have been the case that vocabulary items tested may not have been within the life experiences of children in more remote areas in the study. While these data show that children's receptive vocabulary increased between waves 1 and 3, they were not able to be compared to data from other Australian children.

The current paper provides an important beginning step for understanding the speech and language of Indigenous Australian children by considering the speech and language competency of children in the Child cohort of LSIC. Future papers could compare these data with the younger children in the Babies cohort. Across both cohorts, children's addition, maintenance, and loss of languages could be examined in greater depth to provide insights into the longevity of Australia's rich heritage of Indigenous languages.

9. Conclusion

The current study demonstrates that Indigenous Australian children frequently speak more than one, and up to eight different languages. While the most common language spoken is English, approximately a quarter of children speak Indigenous languages and more than ten per cent speak creoles. Most Indigenous Australian children are supported by their families and communities to have rich language and literacy environments. Children in remote regions are more likely to speak and experience Indigenous languages and cultures; whereas, children in urban environments may require additional resources to support Indigenous language learning. It is important that those within children's communities (including teachers) are equipped with knowledge and resources to support the development of Indigenous children's language competence and that collaborative partnerships are sustained to enable families to play an active role in their aspiration to pass on Indigenous language and culture to their children. Celebrating Indigenous Australian children's speech and language competence and the resources of their families and communities is one step toward the recommendation within Article 13 of the United Nations Convention on the Rights of Indigenous Peoples "...to revitalize, use, develop and transmit to future generations their histories, languages, oral traditions, philosophies, writing systems and literatures..." (United Nations, 2008, p. 7).

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ORIGINAL ARTICLE

Indigenous Language Learning and Maintenance Among Young Australian Aboriginal and Torres Strait Islander Children

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Abstract Internationally, cultural renewal and language revitalisation are occurring among Indigenous people whose lands were colonised by foreign nations. In Australia, the Aboriginal and Torres Strait Islander people are striving for the re-voicing of their mother tongue and the re-practicing of their mother culture to achieve cultural renewal in the wake of over 250 years of colonisation (Williams in Recover, re-voice, re-practise. Sydney, NSW AECG Incorporated, 2013).While 120 Indigenous languages are still spoken in Australia today, little has been documented regarding the extent to which languages are learned and maintained by young Aboriginal and Torres Strait Islander children. The current paper offers a unique insight by drawing upon a large-scale dataset, Footprints in Time: the Longitudinal Study of Indigenous Children (LSIC), to describe patterns of language use and maintenance among young Aboriginal and Torres Strait Islander children. Of the 580 children followed longitudinally from the first wave of the baby cohort of LSIC (aged 0–1 years) until wave 4 (aged 3–5 years), approximately one in five (19.3 %) were reported to speak an Indigenous language. Children in the study were learning up to six languages simultaneously, including English (both Standard Australian English and Aboriginal Australian English), Indigenous languages, creoles, foreign languages (other than English) and sign languages. Social and environmental factors such as primary caregivers' use of an Indigenous language and level of relative isolation were found to be associated with higher rates of Indigenous language maintenance. These findings have important implications for identifying ways of supporting Aboriginal and Torres Strait Islander children to learn and maintain Indigenous languages during early childhood, especially for children who may not

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have the opportunity to learn an Indigenous language in the home environment and for children living in urban areas.

Résumé Sur le plan international, un renouveau culturel et une revitalisation de la langue sont en cours chez les populations autochtones dont les terres ont été colonisées par des pays étrangers. En Australie, les peuples autochtones et du détroit de Torres se battent pour faire réentendre leur langue maternelle et pratiquer à nouveau leur culture maternelle pour réussir un renouveau culturel après plus de 250 ans de colonisation (Williams, 2013). Alors que 120 langues aborigènes australiennes sont encore parlées en Australie aujourd'hui, on a peu documenté jusqu'à quel point les langues sont apprises et maintenues chez les jeunes enfants autochtones et des îles du détroit de Torres. Le présent article offre un aperçu unique en s'appuyant sur un vaste ensemble de données, Footprints in Time: the Longitudinal Study of Indigenous Children (LSIC) (Étude longitudinale des enfants autochtones), pour décrire les modes d'utilisation et de maintien de la langue chez les jeunes enfants autochtones et du détroit de Torres. Parmi les 580 enfants de la première vague de la cohorte de bébés de LSIC (âgés de 0 à 1 an) suivis longitudinalement jusqu'à la vague 4 (âgés de 3 à 5 ans), environ un sur cinq (19,3 %) a été signalé parler une langue autochtone. Les enfants de l'étude apprenaient jusqu'à six langues simultanément, y compris l'anglais (à la fois l'anglais standard australien et l'anglais aborigène australien), des langues autochtones, créoles, étrangères (autres que l'anglais), et la langue des signes. Des facteurs sociaux et environnementaux, comme l'utilisation d'une langue autochtone par la principale personne donnant des soins et le niveau d'isolement relatif, se sont avérés associés à des taux plus élevés de maintien de la langue autochtone. Ces résultats ont des implications importantes pour identifier des moyens de soutenir les enfants autochtones du détroit de Torres dans l'apprentissage et le maintien des langues autochtones pendant la petite enfance, en particulier les enfants qui n'auraient pas la possibilité d'apprendre une langue autochtone dans l'environnement de la maison et les enfants vivant en milieu urbain.

Resumen A nivel internacional, un período de renovación cultural y una revitalización de lenguajes está ocurriendo entre indígenas cuyas tierras fueron colonizadas por naciones extranjeras. En Australia, los aborígenes y los isleños del Estrecho de Torres están luchando para la re-sonoridad de su lengua materna y la re-práctica de su cultura para lograr alcanzar la renovación cultural en la estela de más de 250 años de colonización (Williams, 2013). Mientras 120 lenguas indígenas de Australia todavía se hablan en el país hoy en día, poco se ha documentado en cuanto a la medida en que estos idiomas se aprenden y se mantienen por los niños aborígenes e isleños del Estrecho de Torres jóvenes. El presente documento ofrece un acercamiento único, basándose en un conjunto de datos a gran escala, "Huellas en el tiempo: el Estudio Longitudinal de Niños y niñas Indígenas" (LSIC), para indagar y describir los patrones de uso de la lengua y el mantenimiento de ésta

entre los niños aborígenes e isleños del Estrecho de Torres. De los 580 niños seguidos de forma longitudinal desde la primera ola de niños incluídos en LSIC (edades de 0 a 1 año) hasta la cuarta ola (niños de 3 a 5 años), aproximadamente uno de cinco (19.3 %) se identificaron como aquellos que hablaban un lenguaje indígena. Los niños del estudio se encontraban aprendiendo hasta seis lenguas de manera simultánea, incluyendo el inglés (tanto el inglés Australiano estándar, como el inglés Australiano aborigen), Lenguajes indígenas, lenguas criollas y lenguajes extranjeros (además del Inglés) y lenguaje de señas. Factores sociales y medioambientales tales como el uso de lenguajes indígenas por parte de los primeros cuidadores y el nivel relativo de aislamiento, fueron identificados como variables asociadas a altas tasas de mantenimiento de lenguas indígenas. Estos hallazgos tienen implicancias importantes para la identificación de formas de apoyo a los niños y niñas aborígenes y a los isleños del Estrecho, de aprender y mantener las lenguas indígenas en la primera infancia, especialmente para los niños y niñas que no tienen la oportunidad de aprender el idioma indígena en el ambiente del hogar y para niños y niñas que viven en zonas urbanas.

Introduction

Around the world, the Indigenous populations of many colonised countries are experiencing a period of cultural renewal and language revitalisation. The continuation and revitalisation of mother-tongue languages are of great importance to Indigenous people as they are a vehicle through which people come to know, understand, and interpret the world and identify themselves as part of a culture and a society (Marmion et al. 2014; McCarty 2003; United Nations 2008). Prior to the European settlement of Australia in 1788, there were over 600 Aboriginal and Torres Strait Islander groups speaking an estimated 250 languages and 600 dialects (Australian Institute of Aboriginal and Torres Strait Islander Studies, AIATSIS 2005; Walsh 1993). Currently around 120 Indigenous Australian languages are still spoken (Marmion et al. 2014). Of these languages, around 13 are considered "strong" (Marmion et al. 2014, p. xii), being passed down to new generations in their full form, while around 100 Indigenous languages are considered to be severely or critically endangered according to the language endangerment scale (Marmion et al. 2014; Alliance for Linguistic Diversity 2015), making Australia the continent where the most rapid decline in languages is occurring (Nettle and Romaine 2000). In order to support and revitalise Indigenous languages, it is necessary to investigate the languages spoken by young Aboriginal and Torres Strait Islander children and the factors that support the maintenance of these languages across early childhood.

In addition to traditional Indigenous languages, the Aboriginal and Torres Strait Islander people also began to speak English as a result of contact with European settlers and government policies which ordered the removal of Australia's original inhabitants from traditional lands on to missions and reserves (Australian Law Reform Commission 1986). The type of English commonly spoken by the Aboriginal and Torres Strait Islander people was linguistically influenced by Indigenous languages and over time developed into a form of English with unique

phonological, morphological and syntactic features that is now recognised as its own dialect: Aboriginal Australian English (Arthur 1996; Butcher 2008). Contact with European settlers and the co-habitation of Aboriginal and Torres Strait Islander people who were speakers of mutually unintelligible languages from different language groups in the same missions and reserves also led to the creation of pidgins (a form of speech containing elements from different speakers' languages, Walsh 1993) which over time developed in creoles (an English-based language containing elements of both speakers' languages, Walsh 1993) to enable communication between Aboriginal and Torres Strait Islander people from different language groups and with European settlers and authorities.

Multilingual Language Acquisition

The development and maintenance of home languages, in addition to learning the dominant language of a society, promotes a strong sense of self and cultural identity (Puig 2010) which, in turn, has many individual, cognitive and social benefits (Adesope et al. 2010). The acquisition of multiple languages occurs in two main ways: simultaneously or sequentially. Simultaneous language acquisition occurs when a child is exposed to multiple languages from early childhood (Paradis et al. 2011). Sequential language learning occurs when additional languages are learned after the establishment of a first language (Tabors 1997). Both patterns of language acquisition are present among Aboriginal and Torres Strait Islander children. The type of multilingualism varies depending on children's environment. For example, an Aboriginal or Torres Strait Islander child living in an urban area may be a simultaneous multilingual child, learning an Indigenous language in the home environment with additional exposure to English in the home and in the broader social context. On the other hand, sequential multilingualism may occur for an Aboriginal or Torres Strait Islander child living in a remote community who exclusively speaks an Indigenous language at home and in their community with exposure to English occurring when entering formal schooling. Another important phenomenon that occurs among multilingual children is subtractive multilingualism. This phenomenon occurs when the home language is lost as a result of a language shift towards the dominant language of an educational environment or social context (Roberts 1995). Subtractive multilingualism may occur among Aboriginal and Torres Strait Islander Australian children if they cease (or reduce) speaking Indigenous languages when their exposure to and use of English increases.

Language Maintenance in Young Children

Intergenerational language exchange is a field of interest in countries the world over, with many researchers seeking to identify factors that can facilitate or inhibit this process (Marshall 1994). Internationally, a number of social and environmental factors that have been found to be related to home language maintenance among multilingual children living in contexts where the home language is not the dominant language of the community. One of the strongest predictors of language maintenance is rich exposure to, and support of, languages in the home environment (De Houwer

2007; Lyon 1996; Verdon et al. 2014). Among Indigenous populations, maintenance of an Indigenous language has also been found to be more common among people living in remote communities with limited mobility between places of residence, while communities closest to urban areas showed the lowest levels of language maintenance (Burnaby and Beaujot 1986). In addition to language learning in the home environment, some Aboriginal and Torres Strait Islander groups are working towards the re-voicing of their languages and the re-practising of their culture at the community level (Williams 2013). Language revitalisation programs are being developed and implemented in Aboriginal and Torres Strait Islander communities across Australia to support the continuation of Indigenous language use among communities and families (Marmion et al. 2014). At least 30 of the Indigenous Australian languages listed as severely or critically endangered are currently seeing an increase in use as a result of such programs (Marmion et al. 2014).

McLeod et al. (2014) documented the language use of 692 young Aboriginal and Torres Strait Islander Australian children, demonstrating that, while English (Standard Australian English or Aboriginal Australian English) was the most commonly spoken language, many children spoke Indigenous languages and creoles. The current study aims to contribute to what is known in this field by describing patterns of language maintenance that are occurring among the young Aboriginal and Torres Strait Islander Australian children and by identifying personal and environmental factors associated with language use and maintenance. In doing so, it is hoped that these data will contribute to the current literature informing initiatives to facilitate the revitalisation and maintenance of Indigenous Australian languages.

Context of the Current Study

Footprints in Time: The Longitudinal Study of Indigenous Children (LSIC) is supported by Australian Aboriginal and Torres Strait Islander people and has been initiated, funded, and managed by the Australian Government to provide quantitative and qualitative data which offer insight into Aboriginal and Torres Strait Islander children's early years and their development over time (Department of Families Housing Community Services and Indigenous Affairs, FaHCSIA 2012). Ultimately, LSIC aims to "improve the understanding of, and policy response to the diverse circumstances faced by Aboriginal and Torres Strait Islander children, their families and communities" (FaHCSIA 2013, p. 2) by engaging with Aboriginal and Torres Strait Islander families to find out "what Aboriginal and Torres Strait Islander children need to have the best start in life and grow up strong" (FaHCSIA 2013, p. 2).

LSIC, commenced in 2008 and is ongoing with annual waves of data collection. To date, over 1,750 children and their families have been involved over six waves of data collection. The sample was not designed to be representative of the Australian Aboriginal and Torres Strait Islander population. Rather, 11 data collection sites were chosen to cover a range of socioeconomic and community environments where Aboriginal and Torres Strait Islander children live. These sites were chosen to ensure approximately equal representation of urban, regional and remote areas and to approximately represent the concentration of Aboriginal and Torres Strait

Islander people around Australia. Approval to participate in the study was gained from community elders before recruitment and subsequent data collection began (FaHCSIA 2013). A non-representative purposive sampling design was implemented from which eligible families were approached and consent was voluntarily obtained from participants. Full information about the interviews and questionnaire content is available from FaHCSIA (2012). Waves of data were collected annually to ensure regular contact with families in order to maximise retention rates. To date, data have been released for waves 1–4. As wave 2 did not collect information regarding languages for children who had participated in wave 1, the current study focuses on data collected at waves 1, 3 and 4.

Aims

This paper aims to describe the cultural and linguistic diversity of Aboriginal and Torres Strait Islander children by answering the following research questions:

1. What is the linguistic diversity of Aboriginal and Torres Strait Islander children in the baby (B) cohort of LSIC?
2. What patterns of language maintenance are occurring among Aboriginal and Torres Strait Islander children in LSIC across early childhood?
3. What personal and environmental factors (including sex, use of an Indigenous language by a primary caregiver, level of relative isolation, primary caregiver's concerns about speech, and ear and hearing problems) influence the maintenance of languages among Aboriginal and Torres Strait Islander children in LSIC?

Methods

Participants

Participants selected for inclusion in the current study were 580 children (and their primary caregivers) in the B cohort of LSIC who were aged between 0 and 2 years at the time of wave 1 of data collection, who were present in waves 1, 3 and 4 of data collection, and had the same primary caregiver who provided information at all three waves. Children who were missing from waves 1, 3 or 4 or who left the LSIC study were excluded so that data could be examined longitudinally. At wave 1, children in the sample were aged between 3 and 24 months. Children in the sample had a mean age of 14.9 months. At wave 3, children were aged between 24 and 51 months with a mean age of 36.9 months, and at wave 4, children were aged between 33 and 63 months with a mean age of 48.6 months at the time of the interview. There were 301 (51.9 %) males and 279 (48.1 %) females in the sample. Children's Indigenous status was listed as Aboriginal ($n = 519$, 89.5 %), Torres Strait Islander ($n = 32$, 5.5 %) or both ($n = 29$, 5.0 %). At each wave, children's level of remoteness was calculated using a classification system of geographical

isolation known as level of relative isolation (Zubrick et al. 2004). At wave 1, children's level of relative isolation was identified as high/extreme ($n = 38$, 6.6 %), moderate ($n = 72$, 12.4 %), low ($n = 287$, 49.5 %) or none ($n = 183$, 31.6 %). The total number of people living in the children's households ranged from 2 to 15 with an average of 4.9 people per household.

Information about the children was collected from their primary caregiver, who was identified as the person who knew the study child best. In some cases, children's primary caregiver changed between waves. In order to ensure consistency in the interpretation of longitudinal findings only children whose primary caregiver was the same person at all three time points considered in the current paper were included in this study. In 97.4 % of cases, the study child was the son or daughter of their primary caregiver. In the remaining 2.6 % of cases, the study child's relationship their primary caregiver was listed as grandson or granddaughter, adopted, niece or extended family. In 99.0 % ($n = 574$) of cases, the primary caregiver was female. The age of primary caregivers ranged from 16 to 58 years. The Indigenous status of primary caregivers was reported as Aboriginal ($n = 420$, 72.4 %), Torres Strait Islander ($n = 27$, 4.7 %), both ($n = 21$, 3.6 %), or neither ($n = 112$, 19.3 %).

Procedure

In each wave of LSIC, data collection was undertaken using face-to-face computer assisted personal interviews (CAPI). Interviews were conducted by Aboriginal and Torres Strait Islander fieldwork officers with the primary caregiver. Data were collected on a broad range of topics concerning the child, the primary caregiver, their family, community and educational environments. Questions answered by primary caregivers that pertained to the research questions of this study were extracted from the dataset and used to establish the findings presented in this paper.

Data Analysis

Data analyses were undertaken using the Statistical Package for Social Sciences (SPSS) Version 20 (IBM 2011). Analysis of the entire sample of 580 children described the languages spoken by the children and their primary caregivers at each wave. Chi-square analyses were conducted to identify relationships between primary caregivers' and children's language use and children's language mainte- nance over time. Additionally, analyses were undertaken on a subsample of children who were reported to speak an Indigenous language at wave 1 ($n = 93$) to examine variables that were potentially related to language maintenance. Chi-square analyses were used to determine whether relationships existed between Indigenous language maintenance and personal and environmental factors including: sex, primary caregiver's use of Indigenous language and primary caregiver's concerns about speech, ear and hearing problems. ANOVAs were used to determine whether a relationship existed between children's level of relative isolation and their maintenance of an Indigenous language. The data collected regarding languages named individual Aboriginal and Torres Strait Islander languages. However, in the

reporting of language data, all Aboriginal and Torres Strait Islander languages are grouped together and referred to as 'Indigenous languages' to protect the confidentiality of the participants from smaller language groups. It is acknowledged that the grouping of languages does not allow for consideration of patterns of use and maintenance occurring within individual languages.

Results

The Linguistic Diversity of Aboriginal and Torres Strait Islander Children Aged Between 0 and 5 years

At wave 1, when 0–2 years of age, children in the sample were learning to speak between one and five languages (see Table 1). Approximately one in six children ($n = 93$, 16.0 %) were learning to speak an Indigenous language, 96.2 % ($n = 558$) spoke English (Standard Australian English or Aboriginal Australian English), and 2.8 % ($n = 16$) spoke a foreign or sign language. At wave 3, when the children were 2–4 years of age, children in the sample spoke between one and four languages (see Table 1). Nearly one in five children ($n = 112$, 19.3 %) spoke an Indigenous language, 99.0 % ($n = 574$) spoke English (Standard Australian English or Aboriginal Australian English), and 4.0 % ($n = 23$) spoke a foreign or sign language. By wave 4, when the children were 3–5 years of age, a number of children in the sample continued speaking multiple languages. In total, children could speak between one and six languages (see Table 1). Again around one-fifth of children ($n = 112$, 19.3 %) spoke an Indigenous language, 100.0 % ($n = 580$) spoke English (Standard Australian English or Aboriginal Australian English) and 2.8 % ($n = 16$) spoke a foreign or sign language.

Dominant Language

Many children in the study spoke more than one language. Information provided by the primary caregiver about how well their child spoke each language was used to

Table 1 Number of languages spoken by primary caregivers and children

Number of languages spoken	Primary caregivers ($n = 580$)	Children ($n = 580$)		
	Wave 1 (%)	Wave 1 (%)	Wave 3 (%)	Wave 4 (%)
One	78.3	84.8	77.4	78.4
Two	15.3	11.9	17.6	17.6
Three	4.8	2.2	4.0	3.1
Four	1.0	0.9	0.9	0.7
Five	0.2	0.2	–	–
Six	0.2	–	–	0.2
Eight	0.2	–	–	–

create derived variables to identify the dominant language of the children. At wave 4, the majority (87.9 %, $n = 510$) of the children in the study were dominant in English (Standard Australian English or Aboriginal Australian English), 5.5 % ($n = 32$) were dominant in an Indigenous language and 4.7 % ($n = 27$) of children were equally dominant in English and an Indigenous language.

Language Exposure in the Home Environment

Main Language Spoken at Home

All primary caregivers except one (99.8 %) reported that English (Standard Australian English or Aboriginal Australian English) was one of the main languages spoken in the home. For 76.9 % ($n = 446$) of the children in the study, the only language spoken in the home was reported to be English (Standard Australian English or Aboriginal Australian English). In addition to English, 7.6 % ($n = 44$) of children spoke an Indigenous language as a main language in the home, 2.6 % ($n = 15$) spoke a creole and an Indigenous language as the main languages in the home, 0.9 % ($n = 5$) spoke three Indigenous languages in the home, 0.5 % ($n = 3$) families spoke two Indigenous languages and a creole in the home, 0.3 % ($n = 2$) families spoke two Indigenous languages in the home and 0.3 % ($n = 2$) spoke Indigenous languages and a foreign language in the home. The family who did not speak English in the home reported speaking two Indigenous languages and a creole in the home.

Type of English Spoken at Home

At wave 3, the primary caregiver was asked about the main type of English spoken in the home. Approximately half of the families ($n = 327$, 56.4 %) used Standard Australian English in the home; that is, they reported that their English did not contain any words from an Indigenous language and would sound the same as a person who was not Aboriginal or Torres Strait Islander person. Families speaking Aboriginal Australian English at home were described as using light Aboriginal English that was "sometimes mixed with a few Aboriginal or Torres Strait Islander words" ($n = 161$, 27.8 %) or heavy Aboriginal English "mixed with lots of Aboriginal or Torres Strait Islander words" that might be difficult for a person who was not Aboriginal or Torres Strait Islander to understand ($n = 89$, 15.3 %).[1]

Languages Spoken by Primary Caregivers

At wave 1, the number of languages spoken by the primary caregiver ranged between one and eight (see Table 1). One-fifth of primary caregivers spoke an Indigenous language ($n = 119$, 20.5 %), 96.9 % ($n = 562$) spoke English, and 3.3 % ($n = 19$) spoke a foreign language. The dominant language of primary caregivers was identified as English (Standard Australian English or Aboriginal

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[1] Terminology used in LSIC database.

Australian English, 86.2 %, $n = 500$), an Indigenous language (5.0 %, $n = 29$), and 8.8 % ($n = 51$) were equally fluent in both English (Standard Australian English or Aboriginal Australian English) and an Indigenous language. A Chi-square analysis revealed that there was a significant association between primary caregivers speaking an Indigenous language and their children speaking an Indigenous language at wave 4 (aged 3–5 years), [$\chi^2(1) = 220.6$, $p < 0.01$]. When primary caregivers spoke an Indigenous language, 67.2 % of children also spoke an Indigenous language; compared with 6.9 % who spoke an Indigenous language when their primary caregivers did not.

Longitudinal Analyses of Children's Languages

Patterns of language maintenance across early childhood among children who spoke an Indigenous language were examined. Of those who were identified as learning to speak an Indigenous language at wave 1 ($n = 93$), 76.3 % ($n = 71$) maintained speaking an Indigenous language until wave three and the same number were also speaking an Indigenous language at wave 4 (see Fig. 1). It is important to note that the specific Indigenous language spoken by the child was not identified and therefore it is possible that the Indigenous language spoken may have changed across the waves.

Personal and Environmental Factors Associated with Language Maintenance among Aboriginal and Torres Strait Islander Children

The impact of personal and environmental factors upon language maintenance among Aboriginal and Torres Strait Islander children was analysed. Factors considered were sex, whether the primary caregiver spoke an Indigenous language, and level of relative isolation, concerns about speech and ear and hearing problems.
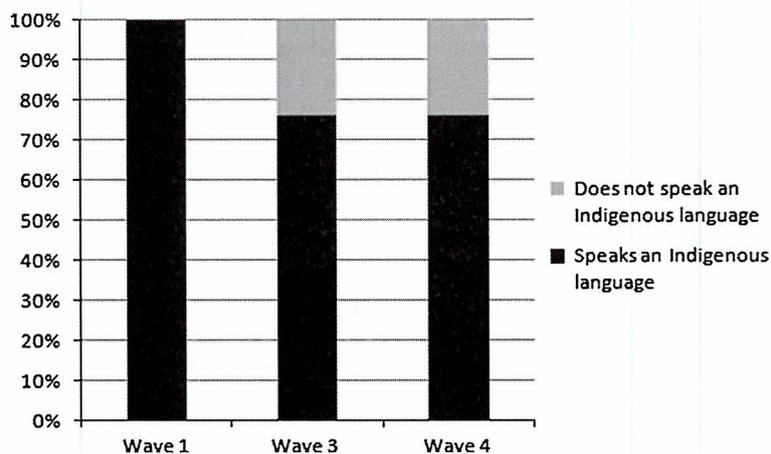
Fig. 1 Language maintenance of children who spoke an Indigenous language at wave 1 ($n = 93$)

Sex

Of the children who were learning to speak an Indigenous language at wave 1, 62.4 % ($n = 58$) were male, and 37.6 % ($n = 35$) were female. Of these, 77.6 % of males maintained speaking an Indigenous language until wave 4, while 74.3 % of females maintained speaking an Indigenous language until wave 4. The relationship between sex and language maintenance was not found to be significant for this group [$\chi^2(1) = 0.13$, $p = 0.72$].

Use of an Indigenous Language by Primary Caregivers

As expected, there was a significant relationship between primary caregivers speaking an Indigenous language and the maintenance of an Indigenous language by children from wave 1 to wave 4 [$\chi^2(1) = 16.15$, $p < 0.01$), with 84.4 % of children whose primary caregiver spoke an Indigenous language maintaining the language as compared with 37.5 % of children maintaining an Indigenous language when their primary caregiver did not speak an Indigenous language.

Level of Relative Isolation

To examine the relationship between level of relative isolation at wave 1 and maintenance of an Indigenous language during early childhood, the ordinal level of relative isolation variable (1 = none, 2 = low, 3 = moderate, 4 = high/extreme) was treated as continuous, and a one-way ANOVA was run against whether or not children maintained speaking an Indigenous language. A statistically significant relationship was found between level of relative isolation at wave 1 and maintenance of an Indigenous language from wave 1 to wave 4. Children who maintained speaking an Indigenous language were more isolated ($M = 3.0$, $SD = 0.9$) than those who did not maintain speaking an Indigenous language ($M = 2.2$, $SD = 0.9$), [$F(1,91) = 14.18$, $p < 0.01$].

Primary Caregiver's Concerns About Speech

Analyses were undertaken to determine whether primary caregiver concern about children's speech was an influential factor in the maintenance of an Indigenous language. Among children who were learning to speak an Indigenous language at wave 1, concerns about speech were expressed for 15.1 % ($n = 14$) of children by wave 4. A Chi-square analysis showed no significant relationship between concerns about speech and Indigenous language maintenance [$\chi^2(1) = 1.33$, $p = 0.25$] with 64.3 % of children whose primary caregivers identified speech concerns maintaining an Indigenous language as opposed to 78.5 % of children for whom no speech concerns were reported.

Table 2 Personal and environmental factors bivariately related to language maintenance

Factor	Wave 1 to wave 4	
	Maintained (%)	Not maintained (%)
Gender		
Male	77.6	22.4
Female	74.3	25.7
Primary caregiver spoke Indigenous language	84.4*	15.6*
Primary caregiver did not speak Indigenous language	37.5*	62.5*
Concerns about speech	64.3	35.8
No concerns about speech	78.5	21.5
Ear and hearing problems	81.8	18.2
No ear and hearing problems	75.6	24.4

* $p < 0.01$

Ear and Hearing Problems

The relationship between ear and hearing problems and maintenance of an Indigenous language was also investigated. At wave 4, primary caregivers reported ear and hearing problems including otitis media, perforated ear drums, hearing loss and other ear problems for 11.8 % ($n = 11$) of children who were learning to speak an Indigenous language from wave 1. A Chi-square analysis showed no significant relationship between ear and hearing problems and Indigenous language maintenance from wave 1 to wave 4 [$\chi^2(1) = 0.21, p = 0.65$] with 81.8 % of children with ear or hearing problems maintaining speaking an Indigenous language as opposed to 75.6 % of children for whom no problems were reported (see Table 2).

Discussion

The findings of this study make an important contribution to the limited information that is currently known about Aboriginal and Torres Strait Islander children's use and maintenance of Indigenous languages throughout early childhood. A number of Aboriginal and Torres Strait Islander children in this large-scale study were found to be multilingual with around one in five speaking more than one language by wave 4. Aboriginal and Torres Strait Islander children's use of English (Standard Australian English or Aboriginal Australian English) was high across all waves of data collection and continued to increase until reaching 100 % at wave 4. There may be a number of reasons for the high use of English by Aboriginal and Torres Strait Islander children in the study. These include the fact that English is the language of instruction in Australian schools, television and social media are predominantly in English, and the exposure and need to communicate with the broader English-dominant community (especially if children are living in urban areas). However, it is important to note that while all children were reported to speak English by wave 4, this does not mean that it was the child's first language. The dominant language

of the child identified at wave 4 revealed that in fact 5.5 % of children spoke an Indigenous language as their dominant language (meaning that English was their second or additional language) and some were balanced bilinguals, being equally fluent in both English and an Indigenous language. The type of English spoken at home also varied among families with around half reporting that they spoke Standard Australian English in their home while the other half of families in the study reporting that they spoke varying degrees of Aboriginal Australian English.

Intergenerational Exchange of Indigenous Languages

The findings of the current study are in keeping with previous international literature regarding the intergenerational exchange of languages that show exposure to languages in the home environment, especially from parents or primary caregivers, is one of the most important contributors to children's ability to speak their home language (De Houwer 2007; Lyon 1996). In the current study, 67.2 % of children learned to speak an Indigenous language when their primary caregiver spoke an Indigenous language as opposed to just 6.9 % who learned to speak an Indigenous language when their primary caregiver did not, demonstrating the important role of intergenerational language exchange.

Language Maintenance Among Aboriginal and Torres Strait Islander Children

Over three-quarters of children in this study who learned Indigenous languages from birth maintained speaking an Indigenous language across early childhood. Various reasons for children ceasing to maintain a language have been reported previously in the literature. For example, language loss may occur if children's exposure to an Indigenous language in the home ceases, perhaps if the person who was teaching them is no longer living in the home, or if the child chooses not to speak an Indigenous language any more (Wong Fillmore 1991).

One major cause of home language loss or language shift to the dominant language of a society is exposure to, and use of, languages in educational environments. For example, children may be supported to speak their Indigenous language in an early childhood education or care environment and then experience language loss when they move to an English-based educational centre, which does not support bilingual development (Hornberger and King 1996). Aboriginal and Torres Strait Islander children who speak Indigenous languages are at risk of language loss due to the lack of bilingual programs supporting first language acquisition of Indigenous languages and a lack of explicit teaching of English as a second language for children who are not exposed to English in the home environment (Simpson et al. 2009).

Personal and Environmental Factors Associated with Language Maintenance in Aboriginal and Torres Strait Islander Children

Use of an Indigenous language by primary carers and children's level of relative isolation were both found to be significantly related to language maintenance, while

sex and primary caregiver concerns about speech, and ear and hearing problems were not. Input of Indigenous languages from primary caregivers may differ depending on the community in which children live. In urban areas, primary caregivers may choose to speak an Indigenous language with their children to preserve their language and culture or to enable children to participate in cultural or community activities. In more remote areas, primary caregivers may speak to children in Indigenous languages for different reasons. For example, in some remote communities in Australia, an Indigenous language would be the main language used at home and in the community, while English may be spoken as an additional language or not at all. The relationship between location and Indigenous language use has been established by previous studies in both Australia (McLeod et al. 2014) and Canada (Burnaby and Beaujot 1986) and was further confirmed in the current study which found that children living in more isolated areas were more likely to maintain speaking an Indigenous language. The link between mother-tongue language maintenance and location and primary caregiver use is in keeping with previous international findings that the language spoken in the home is the most likely to be transmitted between generations and be adopted as the primary language of the next generation (Norris 2004).

The Influence of Speech and Hearing Problems on Language Maintenance

While there were only a small number of children in the sample who were reported to have speech or hearings concerns, given the important role of speech and hearing competence upon language learning, the relationship between these issues and language maintenance was considered. The cautionary findings of the current study suggest that primary caregiver concerns about speech did not appear to impact upon in the maintenance of Indigenous languages among Aboriginal and Torres Strait Islander children. Previous research has found that when parents suspect speech and language difficulties they may avoid multiple language input as it is sometimes thought to exacerbate or be the cause of their difficulties (Baker 2011; King and Fogle 2006). However, current literature on the influence of bilingualism upon speech and language development has found no reason to cease input in multiple languages if children are experiencing speech and language difficulties (Hambly et al. 2013; Paradis et al. 2011). Secondly, there was no correlation between language maintenance and the presence of ear or hearing problems in the current study. Aboriginal and Torres Strait Islander children are five times more likely to experience severe otitis media than Australian children not of Aboriginal or Torres Strait Islander descent (Gunasekera et al. 2007). A review of otitis media in Aboriginal and Torres Strait Islander children found that prevalence ranged between 1 and 67 % in different communities throughout Australia with up to 67 % of Aboriginal and Torres Strait Islander children experiencing conductive hearing loss at school age (Morris 1998). Previous studies of multilingual children with hearing loss have found that Australian parents of children from non-English-speaking backgrounds were more likely to cease input of the home language or multiple languages because of their children's hearing loss (Crowe et al. 2014). These findings are in contrast to the current study which suggests that ear and hearing

problems do not appear to negatively impact upon the maintenance of Indigenous languages across early childhood.

Limitations and Future Research

While the current study makes an important contribution to understanding patterns of multilingualism and language maintenance occurring among Aboriginal and Torres Strait Islander children, conclusions from these findings should be drawn with caution. Firstly, due to the sampling framework used in the recruitment of participants to the LSIC cohorts and the grouping of all Aboriginal and Torres Strait Islander languages under the term 'Indigenous languages', the findings may not reflect the patterns of multilingualism and language maintenance occurring within all Aboriginal and Torres Strait Islander groups or all Indigenous languages. Additionally, the sample sizes of children with speech concerns, and ear and hearing problems were small so caution must be used when drawing conclusions from these data.

The impact of entering an education setting where English is the primary language of instruction upon children's Indigenous language maintenance was unable to be examined in the current study as most children had not yet commenced formal schooling. Further longitudinal research using these LSIC data as children progress through primary school and into adolescence would be of great value in order to examine whether language loss occurs and to aid in planning for language support services to facilitate Indigenous language maintenance.

Implications and Conclusion

In summary, the current study found that Aboriginal and Torres Strait Islander children are highly multilingual and, among those who spoke an Indigenous language, around three quarters maintained an Indigenous language across early childhood. Intergenerational exchange of languages was found to be key with children whose primary caregivers spoke an Indigenous language being significantly more likely to speak an Indigenous language. Children from more isolated areas were found to have significantly higher levels of Indigenous language use and maintenance. Factors such as sex, speech concerns, and ear and hearing problems were not found to significantly impact upon Indigenous language maintenance.

The findings of the current study are in keeping with previous international studies regarding Indigenous language learning which highlight the important role of language exposure in the home environment and the influence of location upon language learning (Burnaby and Beaujot 1986; Norris 2004). When exposure to language in the home is not possible, it is important to consider alternative opportunities for Aboriginal and Torres Strait Islander children to learn Indigenous languages.

Internationally, alternative opportunities for mother-tongue language learning are being explored. For example in Canada, the decline in Indigenous language learning as a first language through intergenerational exchange is being offset by the acquisition of these languages by Indigenous children as a second language in language revitalisation programs run by educational and community settings (Norris

2004). Language revitalisation has also been facilitated among Indigenous populations in South America by providing exposure to and support for Indigenous language development in education settings (Hornberger and King 1996). Similarly, language and culture nests are being established in parts of Australia and guidelines for schools wishing to teach Aboriginal languages and cultures are being established (Williams 2013, 2014). Norris (2004) suggests that language learning in both the home environment and in broader community contexts (including education) are necessary to facilitate effective intergenerational transmission of mother-tongue languages. Educators and early childhood professionals play an important role in facilitating, encouraging, and welcoming home language use and maintenance in children's contexts outside of the home environment. Such opportunities for language exposure and use are essential to protect and facilitate the use of more than 100 Indigenous Australian languages which are currently classified as severely or critically endangered (Marmion et al. 2014) and to ensure the continuation of Aboriginal and Torres Strait Islander languages and culture in future generations.

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Senate Education and Employment References Committee
Questions on Notice to QTU– Friday 25 September 2015
Brisbane, QLD
Inquiry into students with disabilities

1. HANSARD, PAGE 22

Senator McKenzie: Thank you. You made mention of the whole Gonski agreement. I thought we might get the facts on the table. I appreciate you going to that. The federal government at the time—the Labor government—removed $794.3 million of federal funding to the Queensland education system; is that correct?

Mr Bates: I could not answer specifically. I can try to find that out but—

Senator McKENZIE: How much money did they remove as a result of Queensland at the time deciding not to sign up to Gonski?

Mr Bates: I am not aware of the figure.

Senator McKENZIE: You are not aware?

Mr Bates: No.

Senator McKENZIE: And you represent the state education department? I am sure your union actually funded a significant Gonski campaign—

Mr Bates: Yes, we did.

Senator McKENZIE: We had a previous conversation about it at another inquiry.

Mr Bates: Yes.

Senator McKENZIE: You are that passionate about it and federal funding into state schools in this state but you have no idea when a different colour of government removes nearly $800 million of federal funding?

Mr Bates: It was some time ago, Senator. I do not have the—

Senator McKENZIE: That is incredible. Anyway, I look forward to your answer on notice. I would like to know what your union did at the time to advocate for the return of that funding.

2. HANSARD, PAGE 24

Senator McKENZIE: We have teachers and principals out there that have no idea the disability standards exist. We heard that the other day.

Mr Bates: That has been an area of significant professional development—

Senator McKENZIE: Again, more nods from the room.

Mr Bates: It is an area of significant professional development in Queensland. Teachers and principals have been through training and professional development around the Disability Discrimination Act and the standards.

Senator McKENZIE: Who runs that training?

Mr Bates: It has been developed by the department and run by the department. It is the employer.

Senator McKENZIE: How long has that been going?

Mr Bates: I would have to take it on notice to share, but it is several years.

Senator McKENZIE: Right.

QUEENSLAND
TEACHERS' UNION
OF EMPLOYEES

EST 1889

20 October 2015

Senate Education and Employment References Committee
PO Box 6100
Parliament House
Canberra ACT 2600

Dear Ms Agostino

Re: Senate Education and Employment References Committee - Questions on Notice to QTU - Friday 25 September 2015, Brisbane, QLD - Inquiry into students with disabilities

I write in response to your email of 15 October, 2015 in relation to the Questions on Notice taken during our evidence to the hearings of this Committee.

Please find below our response to the two questions on notice identified in your email.

Question 1 – Hansard, page 22

The gist of the Question on Notice from Senator McKenzie was a claim that the Rudd Labor government had stripped $794.3 million from Queensland's education system and a desire to know what the QTU had done about that situation.

In submissions and answers to questions on notice to Senator McKenzie in the Senate Select Committee inquiry into schools funding in 2014, an amount of $794 million was discussed as a one-third share of the Gonski model to which Queensland schools should have been entitled under the "Better Schools" Gonski model.

The conditions of the "Better Schools" model of Gonski funding made it clear that the provision of financial support for school funding reform by the federal government was conditional upon:

- becoming a signatory to the National Education Reform Agreement, including the National Plan for School Improvement and needs-based funding;
- stopping education funding cuts and freezes, including maintaining current school spending and committing to three per cent growth on an ongoing basis; and
- providing their 35 per cent share of the additional funding required to move the schools in their State or Territory up towards the Schooling Resource Standard (SRS).

The then Rudd Labor government proposed to decline to provide Queensland with funds because the Newman LNP government had not signed up to the Gonski school funding arrangements on offer under the Australian Education Act 2013.

In late 2013 the "Students First" model of the then Abbott government delivered $794 million dollars to Queensland schools across 2014-2017, distributed as the Great Results Guarantee program in this state. The conditions attached to the "Better Schools" model (outlined above) did not apply.

As history shows, the then Newman LNP government failed to negotiate an agreement with the Rudd government and that state government made no commitments to provide funds to schools to address educational disadvantage in the terms of the Gonski recommendations in either of the two funding models.

The 2014 Abbott government budget delivered significant cuts to education as identified by the Newman government's media release (Appendix 1), related media (Appendix 2) and in briefings provided to the Education Minister and published under Right to Information arrangements (Appendix 3). On estimates provided by the Queensland Department of Education and Training and published at the time, these cuts represented $1.65 billion lost to state schools over 2015-2025 and $2.36 billion lost to Catholic and independent schools for a total cut of more than $4 billion.

On the issue of the Queensland Teachers' Union's actions in response, a second element of the question, the alleged action by the Rudd government to decline to deliver funds to Queensland was a proposal only, as the election brought about a change of government. The funds delivered by the Abbott government are still being distributed to schools, initially as "Great Results Guarantee" and in 2016 "Investing for Success". The only proposed actual changes to education funding in Queensland have occurred under the Newman LNP government ($60 million per year through the loss of 519 additional teachers across the state) and the reported losses proposed by the Abbott government in its first budget and confirmed in the subsequent 2015/16 budget.

The Queensland Teachers' Union has actively engaged with the Australian Education Union in the "I give a Gonski" campaign since 2012 and more generally in support of funding reform for public education for more than a decade. The QTU continues to be involved in this campaign to achieve support from all parties for the Gonski recommendations for needs-based, sector-blind funding.

The Liberal-National Coalition won the 2013 federal election. As is a matter of the public record, the Abbott government reneged on its promise to match Labor's undertakings on funding the full six years of Gonski if elected in the now infamous "unity ticket" claim. The Queensland Teachers' Union will also campaign against the proposed education cuts of the Abbott government, on the basis that they will be carried forward by the Turnbull government, in the upcoming federal election and campaign for the full introduction of the Gonski model of school funding. The AEU has written to Prime Minister Turnbull and Minister Birmingham raising this issue and calling on the Turnbull government to keep the promise made to the Australian people in the last federal election. There is still time for the new federal government to keep faith with the people of Australia and honour the commitments they believe were made at the last election.

Negotiations with the new Palaszczuk government on the implementation of the architecture of the Gonski school funding reforms have resulted in the announcement of the "Investing for Success" initiative. The new program distributes the "Students First" Gonski money from the federal government to schools on the basis of the Gonski areas of disadvantage. The issue of a financial contribution by the state to the Gonski reforms is not yet settled and will be an ongoing focus of dialogue between the QTU and the Palaszczuk government.

Question 2 – Hansard, page 24

I am advised by the Queensland Department of Education and Training that:

- the Department has provided professional development on the Disability Discrimination Act (DDA) and the Disability Standards for Education (DSE) since 2007.

- The Disability Discrimination Act and Disability Standards for Education were covered in the first module of the "**Contemporary Practices: Students with Disability**" online course. This facilitated course was delivered from 2007 to 2012. The Disability Discrimination Act and Disability Standards for Education were part of Module 1 of "**On the Same Page**" state-wide professional development workshops for school and curriculum leaders, delivered at 14 locations across Queensland during 2008. This PD followed the release of the P-12 Curriculum Framework for Queensland State Schools.

- As part of the More Support for Students with Disability National Partnership, all jurisdictions contributed to the development of the Disability Standards for Education eLearning lessons by Canberra University. Six courses are now available, tailored for Educational Leaders, Senior Secondary, Junior Secondary, Primary, Early Childhood and Education Assistants (teacher aides). The first Disability Standards for Education course in Queensland was Educational Leaders – Lessons 1-3 (compliance) which went live in June 2013. Lessons 1-3 of most other courses were released gradually during 2013 and 2014. Lessons 4-8 for other courses commenced release in 2014 and the full suite of all courses, with all lessons, was available from May 2015.

Thank you for the opportunity to provide a considered response to these issues. Please do not hesitate to contact QTU President, Kevin Bates, or QTU Research Officer, Kim Roy, if you require further information or clarification on these issues.

Yours sincerely

Graham Moloney
General Secretary

Encl

Media release

JOINT STATEMENT

Premier

The Honourable Campbell Newman

Minister for Education, Training and Employment

The Honourable John-Paul Langbroek

Queensland Government

Federal education funding welcomed

Premier Campbell Newman today welcomed the Federal Government's announcement that Queensland schools would receive $794 million in additional funding over the next four years.

"I am delighted Prime Minister Tony Abbott and Minister Christopher Pyne have honoured their election commitment to match Labor's education funding dollar for dollar," he said.

"The Abbott Government had already committed to reducing bureaucracy and red tape and giving states the freedom to distribute funds as they see fit.

"They had also recognised the Queensland Government's significant extra contribution over the next four years through our $537 million Great Teachers = Great Results program.

"This extra Federal funding will help us achieve better student outcomes by boosting teacher quality, increasing school autonomy and improving school discipline.

"The Abbott Government's commitment delivers funding certainty for Queensland schools not just for next year, but for the next four years, and is great news for students, parents and teachers."

Education, Training and Employment Minister John-Paul Langbroek said Queensland schools would receive $794 million more than they would under the former Labor Government.

"Queensland schools were going to get nothing under Bill Shorten," said Mr Langbroek.

"Labor used heavy handed tactics to try and force Queensland to sign up to a program that meant more red tape instead of getting the results we needed.

"The Abbott Government knows Queensland runs our schools and we know what our schools need.

"This funding, combined with the Newman Government's education policies like our $300million school maintenance program, will ensure our schools are safe and vibrant community hubs – not ignored and left in states of disrepair like they were under 20 years of failed Labor governments.

"The Newman Government has a relentless focus on achieving better outcomes for Queensland students.

"We are committed to revitalising front line services for families and this federal and state funding demonstrates some of the ways we are delivering on our election promises."

[ENDS] 3 December 2013

Media contact: Premier's Office – 3719 7000, Minister's Office – Danita Goodwin 0439 886 652

NEWS ⦿

Education funding: Queensland schools set to lose billions in federal revenue, State Government says

By Matt Wordsworth - exclusive

Updated Mon 20 Oct 2014, 9:07pm

Queensland schools are set to take a $4 billion hit to their revenues over the next decade due to cuts announced in the federal budget in May, according to the state's education department.

MAP: Brisbane 4000 ⦿

Education Queensland's analysis, obtained by the ABC in a Right to Information request, revealed Education Minister John-Paul Langbroek was advised that over the 10 years from 2014, state schools would be $1.66 billion worse off.

Non-government schools fared worse, with cuts totalling $2.284 billion.

The revenue reduction formed part of $80 billion in savings announced by the Federal Government in the areas of health and education.

Mr Langbroek said the cuts fell in the years beyond 2017 - in the next four-year funding agreement – and he hoped to negotiate a better deal.

"When it comes to the end of this funding arrangement, which we'll negotiate over the next 18 months or so, we'll make sure that we put up our hands for the share that Queensland schools and families deserve," he said.

The Education Queensland analysis also noted the axing of 10 Children and Family Centres (CFCs) in Indigenous communities around Queensland, such Doomadgee and Mornington Island, saving the Federal Government $10 million a year.

"Withdrawing support for CFCs ... has the potential to represent to the Aboriginal and Torres Strait Islander community another example of funding removed from a successful program at a critical stage," the department's briefing note said.

Opposition treasury spokesman Curtis Pitt said Premier Campbell Newman had to do more to fight the budget cuts.

"We've seen nothing but an LNP protection racket," Mr Pitt said.

In May, Mr Newman railed against the cuts and called for a special Council of Australian Governments meeting, and reform of federal-state relations.

Five months later, Mr Newman said he had lobbied hard on education and health funding.

"Sadly, the Prime Minister has not come to the party," Mr Newman said on Monday.

"Queensland is more concerned about with what happens in about three years' time.

"Other states have probably been hit a bit harder in the short term.

"But certainly we need to see, as part of the federation reform, long-term appropriate funding in health and education."

Topics: federal---state-issues, budget, schools, brisbane-4000, bundaberg-4670, cairns-4870, gladstone-4680, maroochydore-4558, mackay-4740, mount-isa-4825, rockhampton-4700, southport-4215, toowoomba-4350, townsville-4810

First posted Mon 20 Oct 2014, 7:22pm

	Difference in federal funding for state schools	Difference in federal funding for independent and Catholic schools
2015 -16	0	$24 million
2016 -17	$1 million	$18 million
2017 -18	$-32 million	$-25 million
2018 -19	$-67 million	$-89 million
2019 -20	$-101 million	$-136 million
2020 -21	$-165 million	$-230 million
2021 -22	$-222 million	$-317 million
2022 -23	$-285 million	$-411 million
2023 -24	$-356 million	$-516 million

	Difference in federal funding for state schools	Difference in federal funding for independent and Catholic schools
2024 -25	$-436 million	$-634 million

Source: Education Queensland

Briefing Note
The Honourable John-Paul Langbroek MP
Minister for Education, Training and Employment

| **Action required: For Noting** |
| **Action required by: N/A** |
| **Urgent –** Information on the Federal Budget 2014–15 |

SUBJECT: FEDERAL BUDGET 2014–15 "Delivering Balanced and Credible Budget Repair"

Summary of key objectives

- An overview of the Federal Budget 2014–15, key initiatives and savings in relation to the early childhood, schooling, training, higher education, and skills and employment portfolio areas.

Key issues

General Budget Overview

1. The key economic features of the Budget include:

    - tax receipts revised up by $1.8 billion since the 2013–14 Budget;

    - 2014–15 underlying cash deficit of $29.8 billion, estimated to reduce to a $17.1 billion deficit in 2015–16, $10.6 billion deficit in 2016–17 and $2.8 billion deficit in 2017–18;

    - Real Gross Domestic Product (GDP) forecast to grow at 2.75% in 2013–14 compared with growth of 2.6% in 2012–13;

    - Consumer Price Index (CPI) forecast to grow from 2.4% in 2012–13 to 3.25% in 2013–14, then falling to 2.25% in 2014–15 and 2.5% in 2015–16;

    - unemployment to rise from 5.6% in 2012–13 to 6% in 2013–14, then to 6.25% in 2014–15 and 2015–16; and

    - return to surplus from 2018–19 and assumption of future tax relief.

2. Headline savings items include:

    - $80 billion reduction in health and education spending over the next decade compared with previous spending arrangements, driven by changes in school funding indexation rates and removing funding guarantees for public hospitals;

    - temporary Budget Repair Levy raising $3.1 billion over the forward estimates by increasing taxation on those earning over $180,000;

    - changes to the funding of the Official Development Assistance programme, to be maintained at nominal 2013–14 levels of $5 billion in 2014–15 and 2015–16 and growing in line with CPI from 2016–17;

    - increase in the age for receiving the Age Pension to 70 by 2035 — from 2017 pensions including the Age Pension and Disability Support Pension will be indexed to inflation rather than wages; and

- reduction in the income threshold for repayment of Higher Education Loan Programme (HELP) debts commencing in 2016–17 and adjustment to indexation of HELP debts from 1 June 2016 — estimated to achieve savings of $3.2 billion over four years from 2014–15.

3. Headline expenditures include:

   - establishment of a Medical Research Future Fund from 1 January 2015, growing to $20 billion by 2020; and

   - an additional $11.6 billion to transport infrastructure spending through the Infrastructure Growth Package ($5 billion on Asset Recycling Initiative, $3.7 billion on Infrastructure Investment Programme and $2.9 million on Western Sydney Infrastructure Plan).

Key Impacts on Portfolio Areas

4. Detailed impacts for early childhood, school education, training, higher education and employment are provided at **Attachments 1–3**.

5. The Budget also announced rationalisation of 150 Indigenous programs/services, leading to savings nationally of $534.4 million over five years. While this is likely to affect program delivery in Queensland, the minimal detail provided to date means this impact is yet to be fully analysed.

Early Childhood

6. Funding under the National Partnership for Universal Access to Early Childhood Education (NP UAECE) is due to cease at the end of 2014. Inclusion in Federal Budget Paper 3 of funding amounts for 2014–15 only represents funding already allocated under the NP UAECE. Future arrangements are dependent on the outcome of the current Review of the NP UAECE.

7. Given there is no identification of funding, either specifically or 'not for publication' in 2016–17 or 2017–18, the 'not for publication' line for 2015–16 may signal the potential exit of the Australian Government from funding kindergarten with a short-term offer of an unspecified amount of additional funding to continue support of kindergarten services until 2015–16.

8. There is no funding allocated in the Budget to continue operation of 10 Children and Family Centres (CFCs) following expiry of the National Partnership for Indigenous Early Childhood Development in June 2014. This represents a reduction in Australian Government funding to Queensland of approximately $9.97 million per annum.

9. Withdrawing from support for CFCs is counter to the strong position the Australian Government has taken in relation to Aboriginal and Torres Strait Islander policy and program delivery at the Council of Australian Governments. It also has the potential to represent to the Aboriginal and Torres Strait Islander community another example of funding removed from a successful program at a critical stage of operation.

10. Notably, funding under the National Partnership Agreement on the National Quality Agenda for Early Childhood Education and Care (NP NQA) has been extended into the 2014–15 financial year (at $19.1 million nationally), but is noted as 'not for publication' in the out years. It is anticipated that further funding will be determined following the 2014 Review of the NP NQA.

11. The Budget also includes reinstatement of occasional care funding ($12.6 million nationally), consistent with Assistant Minister Ley's 3 March 2014 letter to the Minister seeking Queensland's participation in this program (Ref: 14/82222).

School Education

12. Students First funding commitments for the period 2014–15 to 2016–17 are unchanged. Aggregate Australian Government school funding is projected to increase by 17.3% in real terms from 2014–15 to 2017–18, comprising 24.8% real growth in state school funding and 13.1% real growth in non-state school funding.

13. Australian Government recurrent funding allocations for Queensland state schools are $1.12 billion in 2014–15, $1.3 billion in 2015–16 and $1.493 billion in 2016–17.

14. From 1 July 2017, Students First funding will be indexed by CPI, with an allowance for changes in enrolments, to maintain real Australian Government school funding. The 2017–18 allocation for Queensland state schools is $1.626 billion.

15. The Budget foreshadows a reduction of growth in school funding over the next decade (compared with previous arrangements), starting in the 2018 school year and driven by changes to indexation rates. This has significant future implications for the Queensland Government budget.

16. With regard to recurrent funding distribution between states and sectors from 2018 onward, the Budget proposes that the Australian Government will provide equal per student base funding and even proportion of existing loadings to address disadvantage. Final State allocations for the 2018 school year are subject to formal negotiations between the Australian Government and the states and territories and the non-government sector.

17. Other key items of note for the Department of Education, Training and Employment (DETE) with respect to school education include:

- extension of the Remote School Attendance Strategy (an additional $18.1 million nationally over two calendar years from 1 April 2014) to a further 30 remote Indigenous communities. The seven additional Queensland schools are Cherbourg State School, Kowanyama State School, Lockhart State School, Normanton State School, Northern Peninsula Area State College, Pormpuraaw State School and Woorabinda State School;

- cessation of funding to non-government organisations for the Youth Connections, School Business Community Partnership Brokers and National Career Development activities at the end of the 2014 calendar year. The loss of Youth Connections will have implications for support available to young people at-risk of disengaging or who have disengaged from education and may increase demand for the Queensland Government's Youth Support Coordinator Initiative;

- early cessation of the National Partnership Agreement for Preventive Health on 30 June 2014. DETE had been expecting to receive approximately $0.5 million per annum in 2014–15 to support all Queensland schools to implement Smart Choices, the Healthy Food and Drink Supply Strategy for Queensland Schools;

- $245 million nationally over five years for continuation of the National School Chaplaincy Program until December 2018;

- $70 million nationally for the Australian Government's Independent Public Schools initiative, with $12.88 million available to Queensland for four years to 2016–17 as anticipated; and

- cessation of Online Diagnostic Tools ($38.4 million nationally over five years from 2013–14) which is not in line with the Australian Government's commitment to work with jurisdictions to deliver the National Assessment Program – Literacy and Numeracy and National Assessment Program online and may have considerable implications for the delivery of this commitment.

Skills and Training

18. The National Partnership for Training Places for Single and Teenage Parents (NP TPSTP) guarantees a training place for single and teenage parents who will transition to the NewStart allowance as a result of their youngest child reaching a particular age. Funding provides support services and contributes towards the cost of course fees for participants training to gain or upgrade skills.

19. The Budget indicates cessation of this agreement on 31 December 2014 (originally due for completion December 2015). This represents a loss of $5.7 million for Queensland.

20. While disappointing, it is noted that the NP TPSTP requires special arrangements to be in place for this cohort, inconsistent with Queensland VET reforms. From 1 July 2014, all Government VET investment will be through fully contestable arrangements, with subsidised training available for delivery of priority qualifications outlined in the 2014–15 Annual VET Investment Plan (subject to Ministerial approval). Training outcomes for single and teen parents could be supported through the Certificate 3 Guarantee or other programs in the VET Investment Plan.

21. The National Partnership on the Commonwealth/State and Territory Joint Group Training Program shows no funding for Queensland (or other states/territories) in 2014–15. The Commonwealth has indicated that the amount of funding for the programme for 2014–15 will be confirmed once the review currently underway (due for completion at the end of May 2014) has been finalised.

22. A drop of $0.6 million for Queensland ($27.0 million nationally) in SPP funds, compared with last year's projection for 2014–15 has yet to be explained by the Commonwealth. The Department will continue to pursue this issue with the Commonwealth, including at a national meeting of Senior Skills Officials being held on 27 May 2014.

23. Ten skills and training programmes will cease, creating a saving of $1.0 billion over five years. However, a new four-year $476 million Industry Skills Fund and a new five-year $439 million Trade Support Loans Programme for apprentices have been introduced.

24. Overall, the changes are unlikely to have a major impact on the Queensland Government's 10,000 additional apprentices target as there do not appear to be any changes to the incentives that encourage employers to commence and retain apprentices. The Department will continue to work with the federal Department of Industry on the proposed changes to mitigate any impact as much as possible.

Higher Education

25. The Budget foreshadows deregulation of fees for university students, enabling universities to set their own tuition fees. Full fee deregulation will start from 1 January 2016.

26. It is unclear at this stage what impact this may have on Queensland's participation rate in higher education.

Background

27. The Federal Treasurer, the Honourable Joe Hockey MP, delivered the Federal Budget 2014–15 on 13 May 2014.

28. The theme of the 2014–15 Budget is "Delivering Balanced and Credible Budget Repair".

Right to information

29. I am of the view that the contents or attachments contained in this brief **are not suitable** for publication.

Recommendation

That the Minister **note** the information in the brief on the impact of the Federal Budget 2014–15 on the early childhood, schooling, skills and training, higher education and employment portfolio areas.

NOTED

FIONA CRAWFORD
Chief of Staff
Office of the Hon John-Paul Langbroek MP
Minister for Education, Training and
Employment

12 / 6 / 14

☐ Copy to Assistant Minister

APPROVED/NOT APPROVED
ENDORSED/NOTED

JOHN-PAUL LANGBROEK MP
Minister for Education, Training and
Employment

15 / 6 / 14
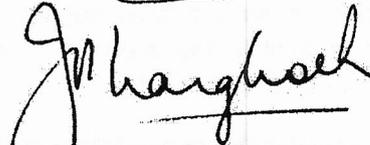
Minister's comments

Endorsed by:	Endorsed by:	Endorsed by:
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Date: 20/05/2014	Date: 26/05/2014	Date: 27/05/2014

Endorsed by:	Endorsed by:
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Gabrielle Sinclair	Dr. Jim Watterston
Early Childhood Education and Care	
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Date: 27/05/2014	Date: 30 / 5 / 14

Early Childhood and Schooling

Early childhood education and care

<u>**New Initiatives**</u>

Paid Parental Leave

- New Paid Parental Leave (PPL) Scheme with income cap of up to $100,000 commencing from 1 July 2015.

- This Scheme has not been costed individually and is only listed as part of the 'contingency reserve'. Similarly, the planned 1.5% tax levy on big business to fund the PPL scheme has not been individually costed.

Neighbourhood Model Occasional Care (Limited Hours Care) – reinstatement

- Reinstatement of former national funding program for occasional care services across Australia, which aligns to a 2013 federal election commitment, totalling $12.6 million.

Long Day Care Professional Development Support

- $200 million nationally from the former Australian Government's Early Years Quality Fund (EYQF) funding redirected to the Long Day Care Professional Development Program.

- A further $30 million nationally will be redirected from the EYQF to support professional development of long day care educators working with vulnerable and disadvantaged children in 2014–15.

Online language learning for preschools

- $9.8 million nationally for Early Learning Languages Australia to trial online foreign language learning for children in preschool programmes in 2015.

Ministerial Advisory Council on Early Childhood

- A new Ministerial Advisory Council on Early Childhood and Early Learning will provide recommendations on proposed legislation or policies affecting the child care sector.

Savings and cessations

Children and Family Centres

- No further funding under the National Partnership Agreement for Indigenous Early Childhood Development (NP IECD) for Children and Family Centres (CFCs) beyond 30 June 2014 (existing arrangement ceases).

- This represents a reduction in Australian Government funding to Queensland of approximately $9.97 million per annum.

- The NP IECD will continue to provide $25.9 million in 2014–15 to support the Indigenous teenage sexual and reproductive health element of the NP.

Reduction in Child Care System Supports

- Redirection of $39.3 million over five years from the following programmes to the Support for the Child Care System Program:

    o $14.7 million over four years from 2014–15 through a reduction in activities and other efficiencies from Child Care Early Learning Projects;
    o $12.0 million over two years from 2016–17 by streamlining programme delivery of the Inclusion and Professional Support Programme;
    o $3.7 million over three years from 2015–16 by suspending funding for professional development of staff in Budget Based Funded child care services;
    o $3.6 million over two years from 2014–15 by terminating the Child Care Accessibility Fund;
    o $3.1 million over four years from 2014–15 through a reduction in funding for the Stronger Quality Element of the Child Care Services Support Programme;
    o $1.2 million over two years from 2013–14 through efficiencies in the National Career Development Programme; and
    o $1.0 million in 2014–15 by restricting access to the Recognition of Prior Learning Programme to non-long day care child care staff in that year.

- New $250,000 cap on Operational Support payments per financial year per Family Day Care (FDC) service, bringing new FDC services in line with community support program eligibility criteria for other service types (e.g. long day care).

Child Care Benefit (CCB)

- Indexation of child care benefit income thresholds to be 'maintained' for three years from 2014–15. This measure means family income levels will remain frozen for a further three years, rather than this being adjusted with CPI increases. CCB payments will still be indexed, but families' eligibility for these payments will continue to move outside income threshold limits over time.

Family Tax Benefit B cap reduction

- Reduction in the income threshold for Family Tax Benefit B (which impacts single parents and families with one income) from $150,000 to $100,000.

TRIM: 14/157074

Continuing

Universal Access to Kindergarten

- Unspecified amount allocated in contingency reserve only under the National Partnership Agreement for Universal Access to Early Childhood Education (NP UAECE) for 2014–15 and 2015–16 — subject to the NP Review and negotiations with the States.

- The amount listed in Budget Paper 2 for 2014–15 represents the amount already allocated under the NP UAECE, which expires 31 December 2014.

National Quality Framework

- Maintenance of funding for 2014–15 ($19.1 million). Additional unspecified funding in the contingency reserve for 2015–16 onwards following the NP Review and subject to negotiations with the States.

Child Care Rebate

- No obvious change to the child care rebate (i.e. indexation continues to be frozen at 2011 levels).

TRIM: 14/157074

School Education

New Initiatives

Indexation of school funding from 2018

- Aggregate Australian Government school funding is projected to increase by 17.3% in real terms from 2014–15 to 2017–18, comprising 24.8% real growth in state school funding and 13.1% real growth in non-state school funding.

- From 1 July 2017, Students First funding will be indexed by CPI, with an allowance for changes in enrolments, to maintain real Australian Government school funding. The 2017–18 allocation for Queensland state schools is $1.626 billion.

- Anticipated reduction of growth in school funding over the next decade (compared with previous arrangements), starting in the 2018 school year and driven by changes to indexation rates.

- From 2018, the Commonwealth will *'provide equal per student base funding, as well as an even proportion of existing loadings to address disadvantage, noting that final State allocations for the 2018 school year are subject to formal negotiations between the Commonwealth and the States and Territories and the non-government sector'*.

Australian Research Alliance for Children and Youth

- $1.0 million per annum from 2014–15 to the Australian Research Alliance for Children and Youth for operational support and to undertake research and develop resources in the area of parental engagement.

Improving the take-up of foreign languages

- $1.8 million over two years from 201415 to the Australian Curriculum, Assessment and Reporting Authority to develop Foundation Year to Year 10 curricula for foreign languages to revive the teaching of languages in Australian schools.

Enhancing Online Safety for Children

- $10 million over four years nationally to improve protection of children online, provided in three parts: $7.5 million to provide online safety programmes for schools; $0.1 million to support Australian-based research and information campaigns on online safety; and $2.4 million to establish and operate the Office of the Children's e-Safety Commissioner.

Remote Indigenous Students Attending Non-government Boarding Schools

- $6.8 million nationally in 2014–15 to specific non-government schools for the additional costs associated with boarding and educating Indigenous students from remote communities.

- The assistance will be provided to non-government schools with more than 50 Indigenous boarding students from remote or very remote areas, or where 50 per cent or more of their boarding students are Indigenous students from remote or very remote areas.

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Sporting Schools Initiative

- $100.3 million over three years from 2014–15 to the Australian Sports Commission (ASC) to encourage school students to participate in physical activity before, during and after school.

- The ASC will provide grants and resources to schools and sports groups to administer sporting programmes in up to 5,760 sites across Australia, with approximately 860,000 children participating each year.

Remote School Attendance Strategy – additional funding

- Additional $18.1 million over two calendar years from 1 April 2014 to extend the Remote School Attendance Strategy to a further 30 remote Indigenous communities across the Northern Territory, Western Australia, South Australia, Queensland and New South Wales.

- The Strategy commenced in the second school term of 2014 and will conclude at the end of the 2015 school year.

- The seven additional Queensland schools (negotiated with the Australian Government in April 2014) are: Cherbourg State School, Kowanyama State School, Lockhart State School, Normanton State School, Northern Peninsula Area State College, Pormpuraaw State School and Woorabinda State School.

Remote Community Advancement Network

- New Remote Community Advancement Network established in the Department of the Prime Minister and Cabinet, headed by a National Director. The Network focus will include demonstrable improvements in school attendance, employment and community safety.

Savings and cessations

Australian Curriculum, Assessment and Reporting Authority (ACARA)

- Funding reduction of $2.6 million per annum from 2017–18 through efficiencies in the operation of ACARA.

Australian Baccalaureate

- Development of the Australian Baccalaureate is discontinued to achieve savings of $9.6 million over four years.

Australian Institute for Teaching and School Leadership (AITSL)

- Savings of $19.9 million over five years from 2013–14 through efficiencies in the operations of AITSL. This includes savings of $9.5 million over five years from 2013–14 from funding allocated to AITSL by the former Government for its National Plan for School Improvement.

Education Grant Programmes

- Savings of $59.7 million over five years from 2013–14 by reducing uncommitted funding for various grant programmes across the Education portfolio.

Improving Educational Outcomes

- Savings of $29.8 million nationally over four years from 2013–14 by not proceeding with funding for the *Improving Educational Outcomes* measure published in the *Pre-Election Economic and Fiscal Outlook 2013*.

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Migration Programme

- Savings of $305.2 million (including a reduction in revenue of $112.9 million) over five years by modifying the size and composition of the 2014–15 Migration Programme. For education nationally, this will be $6.8 million in 2014–15; $13 million in 2015–16; $20 million in in 2016–17; and $28 million in 2017–18.

Online Diagnostic Tools

- Cessation of the Online Diagnostic Tools Programme to achieve savings of $38.4 million over five years from 2013–14.

Teach for Australia

- Teach for Australia program reduced to achieve savings of $0.4 million over three years from 2015–16.

National Partnership on Youth Attainment and Transitions (NP YAT)

- NP YAT expired at the end of 2013, but Youth Connections, School Business Community Partnership Brokers and National Career Development activities were continued in the 2014 calendar year. Funding for these programmes will cease at the end of 2014.

National Partnership Agreement for Preventive Health

- Through the National Partnership Agreement for Preventive Health, DETE currently receives funding to support all Queensland schools to implement Smart Choices, the Healthy Food and Drink Supply Strategy for Queensland Schools.

- DETE were receiving approximately $0.5 million annually over four years from Queensland Health who manage the NP, with the NP due to continue to 30 June 2015.

Continuing

National School Chaplaincy Programme

- $245.3 million nationally over five years (including $1.5 million in 2018-19) to continue the *National School Chaplaincy Programme* until December 2018.

- All Australian schools will be invited to apply for base grants of $20,000 per annum (and up to a further $4,000 per annum for schools in remote areas) to help engage school chaplains, with priority going to schools with higher levels of disadvantage.

National Partnership on the Independent Public Schools (IPS) initiative

- $70 million nationally to support around 1500 government schools to become IPS by 2017. Queensland will receive $1.8 million in 2013–14, and $3.7 million for 2014–15, 2015–16 and 2016–17.

National Partnership on MoneySmart Teaching

- Queensland will receive $0.2 million per annum through until 2016–17 to support delivery of professional learning to teachers in primary and secondary schools and the development of teacher support materials, to improve financial literacy in schools.

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National Partnership on more support for students with disabilities

- Queensland will receive $12.1 million in 2014–15, with no further funding noted after this period.

National Partnership on trade training centres in schools

- Queensland will receive $22.4 million in 2014–15 and $11.1 million in 2015–16.

Quality Teacher Programme

- $4.9 million over two years from 2013–14 to AITSL for the continuation of the *Australian Government Quality Teacher Programme* (AGQTP). The AGQTP provides funding to non-government education authorities in each state and territory to improve the quality of education through projects and activities that offer teachers and school leaders opportunities to develop their skills.

Primary Connections and Science by Doing

- $5.0 million nationally over four years to maintain the science education programmes, *Primary Connections: Linking science with literacy* and *Science by Doing*.

- The *Primary Connections: Linking science with literacy* initiative aims to enhance primary school teachers' confidence and competence in teaching science. The *Science by Doing* initiative aims to improve science learning and provides support to school-based science teaching teams.

Headspace Programme

- Additional $14.9 million over four years to establish ten new headspace sites and conduct a two year evaluation of the headspace Programme.

- The headspace Programme provides youth-friendly community-based services for young people aged 12 to 25 years who have, or are at risk of, mental illness.

Schools Security Programme

- $18.0 million nationally over three years from 2014–15 to establish the Schools Security Programme to protect schools and pre-schools facing a unique risk of attack, harassment or violence from racial or religious intolerance.

- Funding of $10 million will be redirected from the previous government's Secure Schools Programme to support this measure.

- Queensland will receive $0.5 million annually for 2014–15, 2015–16 and 2016–17.

TRIM: 14/157074

Employment, Skills and Training

New Initiatives

SKILLS AND TRAINING: Industry Skills Fund

- Additional $476 million nationally over four years to establish the Industry Skills Fund (ISF) from 1 January 2015 to deliver 121,500 training places and 74,300 services (including mentoring and foundation skills) that support the training needs of small to medium enterprises. Effectively replaces National Workforce Development Fund (see cessation section below).

- Industries targeted will include: health and biomedical products; mining, oil and gas equipment technology and services; and advanced manufacturing, including defence and aerospace.

SKILLS AND TRAINING: Trade Support loans

- Additional $439 million over five years from 2013–14 to establish the Trade Support Loans Programme, providing apprentices with financial assistance of up to $20,000 over a four year apprenticeship (available to apprentices undertaking a Certificate III or IV qualification that leads to an occupation on the National Skills Needs List).

- Loan repayment arrangements consistent with those for university students under the Higher Education Loan Programme (HELP) once apprentices earn more than $53,345 (in 2014–15).

- Includes $5.8 million for Australian Apprenticeship Centres to administer the loan payments in 2014–15 and $8.5 million over four years (including $3.2 million in capital funding) for the Australian Taxation Office to administer loan repayments.

EMPLOYMENT: Restart – boosting the wage subsidy for mature job seekers

- Additional $304.1 million over four years from 2014–15 to boost the wage subsidy for mature age job seekers.

- From 1 July 2014, a payment of up to $10,000 will be available to employers who hire a mature age job seeker (including those on the Disability Support Pension) aged 50 years or over.

- Payments will commence after the worker has been employed for at least six months and be paid in instalments.

EMPLOYMENT: Work for the Dole Programme

- $14.9 million over two years to expand the Work for the Dole Programme and pilot Jobs Brokers in 18 of 21 Priority Employment Areas.

- Work for the Dole will be mandatory for all job seekers aged between 18 and 30 years old who are in the Work Experience Phase or the Compulsory Activity Phase of Job Services Australia (JSA), unless working part-time. Job seekers will be referred to individual Work for the Dole placements through their JSA provider.

SKILLS, TRAINING AND EMPLOYMENT: Indigenous training and employment

- The Australian Government will respond to the Forrest Review of Indigenous training and employment later in 2014.

EMPLOYMENT: Relocation Assistance to Take up a Job Programme

- From 1 July 2014, job seekers who have been unemployed for 12 months and meet other eligibility requirements will be given up to $6000 if they move to a regional area to take up a job, and up to $3000 if they relocate to a metropolitan area from a regional area to take up a job. An additional $3000 may also be made available for families with dependent children.

EMPLOYMENT: Job Commitment Bonus

- From 1 July 2014, job seekers aged 18 to 30 who have been receiving Newstart Allowance or Youth Allowance (other) for 12 months or more will be eligible for a $2500 payment if they get a job and remain completely off welfare for a continuous period of 12 months.

- A further $4000 will be available if they remain in a job and completely off welfare for a continuous period of 24 months. First payments are expected from July 2015

Savings and cessations

SKILLS AND TRAINING: Australian Apprenticeships Incentives Programme – Tools for your Trade

- Savings of $914.6 million over four years by ceasing *Tools For Your Trade* payments from 1 July 2014. Financial assistance to help apprentices will be provided through the *Trade Support Loans Programme*.

SKILLS AND TRAINING: Skills and Training Programs

- Savings of $1.0 billion over five years from 2013–14 by ceasing the following ten skills and training programmes from 1 January 2015:

  - *National Partnership Agreement on Training Places for Single Parents*;
  - *Accelerated Australian Apprenticeships Programme*;
  - *Australian Apprenticeships Mentoring Programme*;
  - *National Workforce Development Fund* (replaced by new, four-year, $476.0 million Industry Skills Fund (as per above));
  - *Workplace English Language and Literacy Programme*;
  - *Alternative Pathways Programme*;
  - *Apprenticeship to Business Owner Programme*;
  - *Productive Ageing through Community Education*;
  - *Australian Apprenticeships Access Programme*; and
  - *Step Into Skills Programme* (including additional savings of $0.8 million in 2013-14 by not commencing the programme as scheduled).

EMPLOYMENT: Stronger compliance arrangements for job seekers who refuse or persistently fail to meet requirements

- Savings of $20.9 million over four years (2014–15 to 2017–18) by applying a stronger deterrent to job seekers who refuse work without a good reason or persistently do not comply with activity requirements.

- From 15 September 2014, all job seekers who refuse work without a good reason will lose their payment for eight weeks and no longer be permitted to waive their penalty through participation in additional activities or due to financial hardship.

EMPLOYMENT: Strong Participation Incentives for Job Seekers under 30

- Savings of $1.2 billion over four years by changing access to income support for people under 30 years of age, to encourage young people with full work capacity to be earning, learning or participating in Work for the Dole.

- From 1 January 2015, all new claimants of Newstart Allowance and Youth Allowance (Other) who are under 30 years of age must demonstrate appropriate participation in employment services support for six months before receiving payments. After six months, claimants will be required to participate in 25 hours per week Work for the Dole to receive income support, and following this may continue to access employment services for a further six month period, including access to a wage subsidy in lieu of income support.

- Payment recipients who have a partial capacity to work, are the principal carer of a child, are part-time apprentices, are in education or are job seekers in Disability Employment Services or JSA Streams 3 and 4 will be exempt.

Continuing

SKILLS AND TRAINING: National Skills and Workforce Development Specific Purpose Payment

- In 2014–15, the Commonwealth will provide funding of $1.824 billion nationally to support state skills and workforce development related services (a loss of $27 million compared with the 2013–14 budget projection for 2014–15).

- Payments to Queensland for skills and workforce development related agreements include:

  - $289.5 million — National Skills and Workforce Development SPP (a loss of $0.6 million compared with the 2013–14 budget projection for 2014–15);
  - $77.0 million — Building Australia's Future Workforce – National Partnership Agreement on Skills Reform (no change compared with the 2013–14 budget projection for 2014–15); and
  - $2.4 million — National Partnership on TAFE Fee Waivers for Childcare Qualifications (an increase of $1.0 million compared with the 2013–14 budget projection for 2014–15 — based on projected uptake of the program).

- The National Partnership on Training Places for Single and Teenage Parents, originally due for completion at the end of 2015, is a savings measure. Early cessation of this agreement represents a loss of $5.7 million for Queensland compared with the 2013–14 budget projection for 2014–15.

- The National Partnership on the Commonwealth/State and Territory Joint Group Training programme shows no funding for Queensland (or other States and Territories) in 2014–15. The Commonwealth has indicated that the amount of funding for the programme for 2014–15 will be confirmed once the review currently underway (due for completion at the end of May 2014) has been finalised.

Higher Education and Research

New Initiatives

Fee Deregulation

- Universities will be able to set their own tuition fees for the courses they offer (student demand) and individuals will choose whether it's worth borrowing for each course through the uncapped HELP loans scheme to fund such study.

- For students already studying, existing arrangements will remain until the end of 2020. This includes those who have commenced a course, or deferred commencement, on or before 13 May 2014.

- Universities will be required to spend 20% of additional revenue on Commonwealth Scholarships which support access for disadvantaged students.

- Expected to achieve savings of $1.1 billion over three years.

Higher Education Loan Programme and Commonwealth Subsidies

- Support for alternative pathways to higher education by providing direct financial support to all students, including:

    o access to subsidies to be extended to higher education courses at the diploma, advanced diploma, associate degree and bachelor degree levels, as long as the provider is registered with Tertiary Education Quality Standards Agency (TEQSA) and the course is accredited.

    o loan fees for FEEHELP and VET FEEHELP to be removed, with equal access to loans for all students.

International Education and Research Engagement

- Sustainable development of Australia's international education and research engagement, including through a national strategy for international education — annual budget increasing from $38.98 million in 2013–14 to $66.74 million in 2017–18.

Savings and cessations

HELP

- Rebalancing of Commonwealth's contribution towards course fees for new students, with a reduction of 20% on average, with effect from 1 January 2016 — expected to save $3.2 billion over the forward estimates.

- Graduates will begin to repay their HELP debt only once they start earning over $50,638 per annum from 1 July 2016.

- The interest rate applied to HELP loans will be changed from an interest rate equivalent to the inflation rate to an interest rate that broadly reflects the cost of Government borrowings, with a maximum rate of 6 per cent.

14/157075

Consolidated indexation of programs

- As part of a Government wide decision to streamline and simplify indexation for programmes, CPI will be applied to all grants and student contribution amounts under the Higher Education Support Act 2003 (saving $202.8 million over three years from 1 January 2016).

Reward Funding

- Universities will no longer receive Reward Funding payments for achievement of enrolment targets. Competitive pressures and the Higher Education Participation Program (saving $121.1 million over five years) will provide incentives for universities to enrol students, including from disadvantaged backgrounds.

Streamlining TEQSA

- Reduction in funding for TEQSA, commencing on a staged basis from 1 July 2014 and saving $31.1 million over four years.

- TEQSA will focus on core quality assurance activities of registration and accreditation.

Australian Research Council (ARC)

- One off efficiency dividend applied to the ARC, saving $74.9 million over three years, consistent with the approach adopted to generate savings for Australian Government departments and statutory agencies.

14/157075

Briefing Note

The Honourable John-Paul Langbroek MP
Minister for Education, Training and Employment

| **Action required: For Noting** |
| **Action required by: N/A** |
| **Routine –** Information on Federal Budget 2013–14 |

SUBJECT: FEDERAL BUDGET 2013–14 "STRONGER ECONOMY, SMARTER NATION, FAIRER SOCIETY"

Summary of key objectives

- This brief provides an overview of the Federal Budget 2013–14, key initiatives and savings in relation to the early childhood, schooling, training, higher education and employment portfolio areas.

Key issues

General Budget Overview

1. The key economic features of the Budget include:

   - Since the 2012–13 Budget, tax receipts revised down by $17B;

   - 2013–14 underlying cash deficit of $18 billion, estimated to reduce to a $10.9 billion deficit in 2014–15, a balanced budget in 2015–16 and surplus of $6.6 billion in 2016–17;

   - Real Gross Domestic Product forecast to grow at 2.75% in 2013–14, compared with 3% in 2012–13;

   - Consumer Price Index to reduce from 2.5% in 2012–13 to 2.25% in 2013–14 before increasing to 2.5% in the out-years; and

   - Unemployment rate to rise slightly from 5.5% in 2012–13 to 5.75% in 2013–14 before falling to 5% in the out-years.

2. Headline savings items include:

   - $11.5 billion saving over four years from the introduction of a 0.5% increase in the Medicare levy;

   - $2.37 billion saving over four years from Higher Education funding, through an efficiency dividend on higher education grants, amendments to the Student Start-up Scholarships and capping of tax deductions for work-related educations expenses saving; and

   - $2.4 billion over four year saving from changes to Family payments including the cessation of the Baby Bonus.

3. Headline expenditures include:

   - $19.3 billion over seven years for disability care (partially funded by a 0.5% increase in the Medicare levy);

   - $9.8 billion over six years for school reforms (more detail provided at **Attachment 1**);

   - $1.3 billion for 'A Plan for Australian Jobs, 150 Future Fellowships, additional Commonwealth supported university places and to establish an Alternative Pathways Program for 4,000 completing apprentices (more detail provided in **Attachment 3**);

- $950 billion on health services including cancer prevention and research, the General Practice Rural Incentive Program and new listings for to the Pharmaceutical Benefits Scheme;

- $4.1 billion to improve access to dental services including $2.7 billion for a Child Dental Benefits Scheme, *Growing up Smiling;* and

- $715 million for Brisbane Cross River Rail, $718 million towards the Gateway North Upgrade and $4.1 billion over ten years from 2012–13 to upgrade the Bruce Highway.

Impact on Portfolio Areas

4. Key outcomes for Early Childhood and Schooling, Employment, Skills and Training and Higher Education are at **Attachments 1–3.**

Background

5. The Federal Treasurer, the Honourable Wayne Swan MP, delivered the Federal Budget 2013–14 on 14 May 2012.

6. The theme for the 2013–14 Budget is "Stronger economy, smarter nation, fairer society"

Right to Information

7. I am of the view that the contents or attachments contained in this brief **are not suitable** for publication.

Recommendation

That the Minister **note** the information in the brief on the impact of the Federal Budget 2013–14 on the early childhood, education, training, higher education and employment portfolio areas.

NOTED

FIONA CRAWFORD
Chief of Staff
Office of the Hon John-Paul Langbroek MP
Minister for Education, Training and
Employment

28 / 5 / 13 .

☐ Copy to Assistant Minister

APPROVED/NOT APPROVED
ENDORSED/NOTED

JOHN-PAUL LANGBROEK MP
**Minister for Education, Training and
Employment**

3 / 5 / 13

Minister's comments

Action Officer	Endorsed by:	Endorsed by:	Endorsed by:
Justin Murphy	ADG	Deputy Director-General	Director-General
Executive Director	Gabrielle Sinclair	Annette Whitehead	Dr Jim Watterston
Tertiary Education and	Strategic Policy and	Policy and Programs	
Training	Portfolio Relations		
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	Date: 15/05/2013	Date: 16/05/2013	Date: 21 /5 /13

Early Childhood and Schooling

Early Childhood Education and Care

Focus on extending funding for early childhood education and early childhood education and care workforce issues.

Early Childhood Education

- $660.1 million for a new 18 month National Partnership Agreement on Early Childhood Education (NP ECE) to ensure service delivery continues to 31 December 2014 - note that Budget at a Glance refers to former offer of $1.1 billion over three years for a new NP ECE; and

- NP on the National Quality Agenda for Early Childhood Education and Care and NP on Indigenous Early Childhood Development (Children and Family Centres) funding expires in 2013-14; forward estimates beyond 2013-14 are not published.

Child Care

- $12.9 million over three years to trial flexible child care arrangements;

- Extension of the pause on indexation of the annual cap on the Child Care Rebate (CCR) for a further three years, providing a saving of $105.8 million; and

- $71.1 million for 2012-13 for the Support for the Child Care System program, comprising: $29.0 million for Jobs, Education and Training Child Care Fee Assistance; $22.1 million for the Community Support Program - Family Day Care; and $20 million for Inclusion Support Subsidy.

Early Childhood Workforce

- $314.2 million over five years to boost the quality of early childhood education and support workplace reform, including:

  - up to $300 million over two years to establish an Early Years Quality Fund to support eligible long day care centres to attract and retain qualified professionals;

  - $8.2 million over three years for DEEWR to administer the fund and establish the Early Years Quality Fund Advisory Board; and

  - $6.2 million over four years to establish a Pay Equity Unit in the Fair Work Commission, with an initial focus on the early childhood education and care sector.

School Education

As expected there have been significant adjustments to accommodate national school funding National Plan for School Improvement reforms.

School funding reform

- Additional $9.8 billion over six years to implement the new needs-based school funding model (assumes all states and sectors sign the new National Education Reform Agreement prior to the expiry of the Commonwealth's current offer by 30 June 2012).

- $71.8 million over six years to implement National Plan for School Improvement arrangements (includes $25.7 million for Australian Curriculum Assessment and Reporting Authority national curriculum and assessment; $14.9 million for Australian Institute of Teaching and Learning teacher and principal resources; $7.5 million for Education Services Australia teacher resources; and $21 million for an information campaign on the new arrangements);

- Cessation of the NP on Rewards for Great Teachers from 31 December 2013, with up to $665 million over four years redirected to national education reform funding;

Ref: 13/162633

- Cessation of the NP on Smarter Schools — Low Socio-economic status school communities from 31 December 2013, with up to $258.5 million over four years redirected to national education reform funding;

- The Reward for School Improvement National Partnership will not proceed, with up to $203.2 million over four years redirected to national education reform funding;

- The next phase of the Empowering Local Schools program will not proceed, with $412 million over three years redirected to national education reform funding;

- There will be no further literacy and numeracy NP funding, with $567.1 million over three years redirected to national education reform funding; and

- States that do not sign the NERA will continue to receive funding consistent through the National Schools Specific Purpose Payment (SPP), as well as payments under the Rewards for Great Teachers and Low SES Status School Communities National Partnerships until those agreements expire.

Other Education Measures

- Additional $100 million for 12 months (across 2013-14 and 2014-15) for an extension to the NP on More Support for Students with a Disability;

- Additional $14.4 million over four years to support the nationally consistent data collection for students with disability;

- $772.4 million over five years to continue existing capital grants to non-state schools, particularly for disadvantaged school communities, major school expansions and establishment of new schools – further clarification is required as this provision is sourced from an existing forward estimates provision; and

- $9.2 million over six years to continue assistance funding for non-state schools following cessation of existing funding under the *Schools Assistance Act 2008* from 31 December 2013.

Indigenous Education

- Budget Paper No. 2 flags $800 million over six years to extend funding for a range of existing Indigenous programs, but this appears to relate to changes in funding arrangements, rather than additional funding - further clarification will be sought from the Australian Government;

- Additional $24.5 million over two years to continue the Cape York Welfare Reform measures in Coen, Mossman Gorge, Aurukun and Hope Vale to December 2015 (includes new measures to improve school enrolment and attendance and support disengaged youth);

- Additional $14.3 million for National Alliance of Remote Indigenous Schools Teach Remote Stage 2; and

- Additional $21.9 million over five years for Indigenous education scholarships delivered through the Australian Indigenous Education Foundation and Indigenous Youth Leadership Program.

Ref: 13/162633

Employment, Skills and Training

New initiatives

Potential implications for Queensland relate to the likely increase in demand for skilling and training and hence increased demand for existing State services and programs.

Enhanced Newstart Allowance for Jobseekers

- Around $300 million over four years to support jobseekers in the transition to work. This includes lifting the Income Free Area under Newstart Allowance to $100 a fortnight, and indexing from 1 July 2015. Recipients will be able to keep up to an extra $494 of their income from part-time work over a year.

New pathways to apprenticeships – Alternative Pathways Program

- $68.8 million over four years, to deliver more flexible pathways for 4,000 Australians completing a trade or technical qualification in high demand industries facing skills shortages

- Up to $50.6 million will be provided, under a competitive grants process, to peak industry bodies and large employers to develop and trial innovative approaches to training for approximately 4,000 apprentices over four years. An additional $2,000 per apprentice will be available for employers to encourage their participation in the program.

- The program will allow individual industries and larger employers to develop training programs tailored to their needs that utilise more flexible combinations of on and off the job training than is currently available through traditional apprenticeships.

- A reference group consisting of representatives from the Commonwealth and state and territory governments, training providers and peak industry bodies will be established to support the development of the program.

Skills Connect Fund

- $45.0 million will be provided in 2013-14 to establish the Skills Connect Fund, which will streamline government assistance and provide greater flexibility for Australian businesses in accessing workforce development funding.

- The Fund will streamline access to the five workforce development programs available under Australian Government Skills Connect. The five programs are the National Workforce Development Fund, the Workforce English Language and the Literacy Program, the Investing in Experience (Skills Recognition and Training) initiative, the Accelerated Australian Apprenticeships initiative and the Australian Apprenticeships Mentoring Program.

- Employers will be able to apply for funding on a co-contribution basis to increase the skill level of their workforce, based on the negotiated needs of employers and employees.

- Funding for this measure will be provided by a redirection of funding from within the Vocational Education and Training National Support program.

Ref: 13/162649

Child Care - more flexible arrangements

- $12.9 million over three years to trial flexible child care arrangements aimed at improving access to child care, particularly for families who require care outside standard operating hours.

- This includes $6.4 million over three years for Child Care Flexibility Trials and a Child Care Flexibility Fund which, working in partnership with parents, employers and unions, will support child care providers to deliver more flexible child care outside the traditional operating hours.

Savings and cessations

Saving measures and discontinuation of programs have the potential to encourage greater workforce participation and increase the load on existing Queensland training and employment programs.

Australian Skills Centres of Excellence — redirection

- $18 million over three years is being redirected towards the establishment of the Apprenticeships – Alternative Pathways Program.

- Australian Skills Centres of Excellence were to be established from 1 July 2013 to support innovative production processes and teaching and learning methods in the Vocational Education and Training (VET) sector.

Job Services Australia – changed payment arrangements for volunteer jobseekers

- Savings of $49.3 million over four years by changing the payment arrangements for volunteer jobseekers. Volunteer jobseekers are those who do not have a participation requirement as a result of an income support payment.

Department of Human Services — efficiencies

- net savings of $62.4 million over five years by the Department of Human Services (DHS) introducing a range of process improvements and targeted communication strategies including amongst a range of measures is to reduce the frequency of Personal Contact Interviews for job seekers with a low risk of non-compliance.

Continuing

Priority Employment Area Initiative

- $15.7 million will be provided to continue to engage local employment coordinators in 20 vulnerable labour markets to drive local solutions to unemployment and to conduct approximately 10 Jobs and Skills Expos across the Priority Employment Areas.

Jobs, Education and Training Child Care Fee Assistance (JETCCFA) Program

- $27.2 million over five years to enable continuation of bridging and foundation courses as approved courses (eg. Year 12 and university enable courses) for broader program

- Program helps eligible income support recipients by paying most of the difference between child care costs and the amount of Child Care Benefit received. In 2011-12, JETCCFA assisted 36,570 parents.

Improving incentives to study and work for single parents

- Eligible single parents will be able to access the Pensioner Education Supplement (PES) to assist with the costs of study while they gain an initial qualification to assist them to re-enter the labour market. This is estimated to cost $39.7 million over five years.

Ref: 13/162649

- Additionally, $2.2 million over four years will be provided to enable eligible single parents to enter the labour market and retain eligibility for the Pensioner Concession Card (PCC) for a period of 12 weeks if they:
  - no longer qualify for Parenting Payment Single because their youngest child has turned eight; and
  - do not qualify for another social security benefit, pension or allowance due to earnings from employment.

Queensland Working Women's Service

- $0.8 million over three years to allow the centre to continue to deliver workplace relations advisory services to disadvantages and vulnerable workers. Funded internally by DEEWR budget.

Connecting People with Jobs program

- Extended to provide an additional $3.5 million over two years to provide support to job seekers who choose to relocate to secure employment or an apprenticeship ($4,500 for those without dependents and $6,500 for those with dependents).

Disability Employment Services — Moderate Intellectual Disability Loading — continuation and retargeting

- $5.5 million over four years to continue the Moderate Intellectual Disability Loading component of the Disability Employment Services — Employment Support Service program.

- Disability loading fees are available to providers who help job seekers with moderate intellectual disability. Under the revised program, to take effect from 1 July 2013, the loading will increase from 70% to 88% for job placement fees and for 13 and 26 week outcome fees. The loading will only be available to providers who achieve successful outcomes.

Australian Skills Quality Authority (ASQA) – cost recovery arrangements

- $15 million will be redirected from the National Training System Commonwealth Own Purpose Expenditure (NTS COPE) budget to offset a projected shortfall in cost recovery revenue from 2012-2013 and 2013-14, enabling ASQA to gradually transition to full cost recovery.

Youth Attainment and Transitions – extension

- An additional $127.7 million in 2013-14 and 2014-15 will extend programs currently funded through the Youth Attainment and Transitions National Partnership to December 2014. The Youth Connections, School Business Community Partnership Brokers programs and initiatives under the National Career Development (NCD) Strategy (including the *myfuture career* website) will be extended under this proposal.

- The extension of these programs will allow support to continue pending a broader review of services for young people that will be considered in the 2014-15 Budget.

Ref: 13/162649

National Skills and Workforce Development Specific Purpose Payments (SPP)

In 2013-14, the Commonwealth will provide funding of $1.8B to support state skills and workforce development related services. Total payments to Queensland for skills and workforce development SPP (including payments anticipated under skills related National Partnership Agreements) will grow steadily from $1.717 billion in 2012-13 to 2.006 billion in 2016-17.

In 2013-14, Queensland will receive:

- $281.8 million – National Skills and Workforce Development SPP (a loss of $3.5 million compared with 2012-13 budget projection for 2013-14);

- $48.7 million – Building Australia's Future Workforce – National Partnership on Skills Reform (also known as National Partnership Agreement on Skills Reform) (no change compared with 2012-13 budget projection for 2013-14);

- $5.7 million – Building Australia's Future Workforce – National Partnership Agreement on training places for single and teenage parents (no change compared with 2012-13 budget projection for 2013-14);

- $2.5 million – National Partnership on TAFE fee waivers for childcare qualifications (an increase of $0.1 million compared with 2012-13 budget projection for 2013-14);

- $2.8 million – National Partnership on youth attainment and transitions (maximising engagement, attainment and successful transitions component) (no change compared with 2012-13 budget projection for 2013-14); and

- $10.3 million - National Partnership on youth attainment and transitions (Year 12 attainment and transitions component) (an increase of $0.3 million compared with 2012-13 budget projection for 2013-14).

Higher Education

University grants payments efficiency dividend

- Dividend of 2% in 2014 and 1.25% in 2015 on grants paid to universities under the *Higher Education Support Act 2003* (saving $902.7 million over four years). Grants will continue to be indexed.

Removal of Discounts for Up-Front Payment of HECS-HELP loans

- Will remove the discounts applying to up-front and voluntary payments from 1 January 2014 ($276.7 million savings over four years), specifically:
  - the 10% discount for students electing to pay their student contribution up-front; and
  - the 5% bonus on voluntary payments to the Australian Taxation Office of $500 or more.

Additional places for priority post-graduate and sub-degree courses

- $96.7 million over five years will provide an additional 1,650 Commonwealth supported places in postgraduate and sub-bachelor courses each year from 2014 to 2017. Funding includes the cost of income support and loans under the Higher Education Loan Program.

Conversion of Student Start-up Scholarships to income contingent loans

- Will convert the current grants paid in two instalments of $1,025 per year to income contingent loans for full-time higher education students in receipt of Youth Allowance, Austudy or ABSTUDY (saving $1.2 billion over five years to 2016-17).

Asia Bound Study Grants

- Will provide $58.1 million over four years from 2013-14 to encourage and support students to study in Asia and undertake Asian language courses.

Industry Innovation Precincts

- Will provide $238.4 million over five years to establish five Industry Innovation Precincts across Australia with applications open to industry-led partnerships involving universities and other research organisations.

Future Fellowships

- The Federal Government is also providing $135 million for 150 four year *Future Fellowships* and $186 million for national collaborative research to ensure that Australia's research capacity continues to grow.

Ref: 13/162680

Commonwealth Funding and Projections

Sources: Commonwealth School Funding Model (Better Schools) Supplied 2 July 2013
:Commonwealth Budget 2014-15

Notes:

* All $ values expressed as millions
* Better Schools funding beyond 2019 has been projected using a combination of 4.7% funding indexation and enrolment growth only. There has been no attempt to account for additional factors such as transition rates and the requirement to reach a given percentage of the SRS rate.
* Shaded cells have been directly taken from or derived from the Better Schools Funding Model (old arrangements) and Budget Paper 3 (new arrangements)
* The Better Schools funding model is based on calendar years. AG funding (Better Schools) financial year figures have been calculated by averaging the two component calendar years.
* For the pruposes of these projections non-state schools have been treated the same as state schools, with the exception of the enrolment growth figures.

Commonwealth (Better Schools) funding indexation rate (2014 onwards)	4.7%
Commonwealth 2014-15 Budget funding indexation rate (2018 onwards)	2.5%

AG Funding (Better Schools - Proposed) Financial Years

		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	TOTAL
Gov	Primary & Secondary	1,128	1,300	1,493	1,713	1,968	2,207	2,402	2,594	2,800	3,023	3,264	23,891
Cath	Primary & Secondary	1,141	1,253	1,361	1,477	1,602	1,751	1,911	2,068	2,235	2,417	2,613	19,828
Ind	Primary & Secondary	754	825	896	971	1,052	1,146	1,250	1,352	1,461	1,578	1,705	12,989
Non-Gov	Primary & Secondary	1,895	2,077	2,257	2,448	2,654	2,897	3,161	3,420	3,696	3,995	4,318	32,817
Total	Primary & Secondary	3,023	3,377	3,749	4,161	4,622	5,104	5,562	6,014	6,496	7,018	7,583	56,708

AG Funding (Better Schools - Agreed) Financial Years

		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	TOTAL
Gov	Primary & Secondary	1,128	1,300	1,493	1,658	1,794	1,956	2,129	2,299	2,482	2,680	2,894	21,814
GRG	67.219	128.235	238.285	360.653	465	616							

AG Funding (2014-15 Budget, BP3)

		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	TOTAL
Gov	Primary & Secondary	1,128	1,300	1,493	1,626	1,727	1,855	1,964	2,077	2,197	2,324	2,458	20,150
Non-Gov	Primary & Secondary	1,927	2,101	2,274	2,423	2,565	2,761	2,931	3,103	3,286	3,479	3,684	30,534
Total	Primary & Secondary	3,055	3,401	3,767	4,049	4,291	4,617	4,895	5,181	5,483	5,803	6,142	50,683

Difference - Budget vs Proposed Funding

		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	TOTAL
Gov	Primary & Secondary	0	0	1	-87	-241	-351	-437	-517	-603	-700	-806	-3,741
Non-Gov	Primary & Secondary	33	24	18	-25	-89	-136	-230	-317	-411	-516	-634	-2,284
Total	Primary & Secondary	33	24	18	-112	-330	-488	-667	-833	-1,014	-1,216	-1,441	-6,025

Difference Budget vs Agreed Funding

		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	TOTAL
Gov	Primary & Secondary	0	0	1	-32	-67	-101	-165	-222	-285	-356	-436	-1,664

Enrolment Projections

Source: Commonwealth School Funding Model (Better Schools) Supplied 2 July 2013

			2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
QLD	Gov	Primary	342,963	331,003	344,703	358,404	371,631	384,851	395,745	405,390	415,686	426,244	437,071	448,173
QLD	Gov	Secondary	171,160	193,108	193,204	195,017	199,742	207,583	226,085	237,407	248,012	259,098	270,680	282,779
QLD	Cath	Primary	88,338	84,456	87,904	91,405	94,798	98,201	100,986	103,444	106,073	108,767	111,530	114,363
QLD	Cath	Secondary	59,286	69,460	71,275	73,092	75,313	77,841	84,526	88,710	92,634	96,728	101,004	105,468
QLD	Ind	Primary	60,242	55,085	57,087	59,385	61,614	63,897	65,740	67,329	69,042	70,796	72,594	74,438
QLD	Ind	Secondary	56,318	66,488	68,229	69,806	71,408	73,335	78,208	81,992	85,247	88,631	92,150	95,808
QLD	Gov	Primary	4.01%	-3.49%	4.14%	3.97%	3.69%	3.56%	2.83%	2.44%	2.54%	2.54%	2.54%	2.54%
QLD	Gov	Secondary	-0.81%	12.82%	0.05%	0.94%	2.42%	3.93%	8.91%	5.01%	4.47%	4.47%	4.47%	4.47%
QLD	Cath	Primary	4.13%	-4.39%	4.08%	3.98%	3.71%	3.59%	2.84%	2.43%	2.54%	2.54%	2.54%	2.54%
QLD	Cath	Secondary	2.73%	17.16%	2.61%	2.55%	3.04%	3.36%	8.59%	4.95%	4.42%	4.42%	4.42%	4.42%
QLD	Ind	Primary	3.14%	-8.56%	3.63%	4.03%	3.75%	3.71%	2.88%	2.42%	2.54%	2.54%	2.54%	2.54%
QLD	Ind	Secondary	2.10%	18.06%	2.62%	2.31%	2.29%	2.70%	6.64%	4.84%	3.97%	3.97%	3.97%	3.97%
QLD	Gov	Combined Growth		1.94%	2.63%	2.88%	3.24%	3.69%	4.96%	3.37%	3.25%	3.26%	3.27%	3.28%
QLD	Cath	Combined Growth		4.26%	3.42%	3.34%	3.41%	3.49%	5.38%	3.58%	3.41%	3.42%	3.42%	3.43%
QLD	Ind	Combined Growth		4.30%	3.08%	3.09%	2.97%	3.16%	4.89%	3.73%	3.33%	3.33%	3.33%	3.34%
QLD	Non-Gov	Combined Growth		4.28%	3.27%	3.23%	3.22%	3.35%	5.17%	3.65%	3.37%	3.38%	3.39%	3.39%

AG Funding: Qld Non-Gov Schools

— New spending arrangement
-- Old spending arrangement

AG Funding: Qld Gov Schools

-- Students First Funding - Proposed   — New spending arrangement
-- Students First Funding - Agreed to

AG Funding: All Qld Schools

-- Old spending arrangement   — New spending arrangement

Better Schools Model Derived Figures - QLD State Schools

Calender Years		2014	2015	2016	2017	2018	2019
Aust Current	State Schools	969	1,038	1,114	1,199	1,296	1,407
Aust Proposed	State Schools	1,046	1,210	1,390	1,595	1,830	2,105
Difference			77	172	276	396	534	698

Financial Years			2014-15	2015-16	2016-17	2017-18	2018-19
Aust Current	State Schools		1,004	1,076	1,157	1,248	1,352
Aust Proposed	State Schools		1,128	1,300	1,493	1,713	1,968
Difference			125	224	336	465	616

Figures Supplied by the Commonwealth Government - QLD State Schools

Calender Years		2014	2015	2016	2017 *	2018	2019
Aust Current	State Schools	915	1,027	1,091	617		
Aust Proposed	State Schools	1,046	1,210	1,390	797		
Difference		131	183	299	180		

Financial Years			2014-15	2015-16	2016-17	2017-18	2018-19
Aust Current	State Schools		1,000	1,062	1,132		
Aust Proposed	State Schools		1,128	1,300	1,493		
Difference			128	238	361		

* 2017 funding for half year

New Federal school funding arrangements – Précis

21 May 2014

Financial Sustainability and Investment Unit, Finance Branch, DETE

NATIONAL OVERVIEW – CONTEXT

2014-15 to 2016-17 – a period of substantial recurrent funding increases

- The Australian Government Budget 2014-15 confirmed that federal recurrent funding for schooling for the period 2014-15 to 2016-17 is essentially unchanged from the December 2013 announcements.

- The 2014-15 to 2016-17 arrangements are based on an Australian Government recurrent funding model which comprises 4.7% annual indexation plus an allowance for annual enrolment growth plus an additionality component toward the achievement of a Schooling Resource Standard (SRS), as described in the *Australian Education Act 2013*.

- Australian Government recurrent funding for schooling nationally is projected to increase by 17.3% in real terms from 2014-15 to 2017-18, comprising 24.8% real growth in government school funding and 13.1% real growth in non-government school funding.[1]

- At the national level, from 2013-14 to 2017-18, the Australian Government funding contribution to the government schooling sector will increase by 53.4% (including enrolment growth, indexation and additionality).[2]

2017-18 onward – a lower rate of annual funding increases

- From 2017-18 there will be a lower rate of growth in Australian Government funding for schooling. This comprises CPI inflation (projected at 2.5% per annum in the out-years) plus enrolment growth, rather than 4.7% funding indexation plus enrolment growth plus additionality for 2018 and 2019 as per the former funding arrangements.

- The Australian Government 2014-15 Budget Overview (page 7) shows projections of the new funding arrangements compared to potential funding arrangements under the former government. This indicates a decrease in school funding of approximately $30 billion nationally over the period 2014-15 to 2024-25 compared to the former Australian Government arrangements for funding for schooling.[3]

- It should be noted that the Queensland Government did not sign up to the schooling funding arrangements proffered by the former Australian Government.

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[1] Budget Paper 1, page 6-20.

[2] Tony Cook, Dept of Education submission to the Senate Select Inquiry on School Funding, 16 May 2014.

[3] Also refer The Australian 14 May 2014: '$30bn curtain on Gonski's grand vision' and other media sources.

1

This report is not government policy

- The funding arrangements detailed in the Australian Government 2014-15 Budget are consistent with retaining the existing federal school funding model but no additionality increases for 2018 and 2019 and lower annual indexation from 2018. Queensland does not have access to the national funding model to be able confirm the precise projected impacts in the out-years.

- According to the Australian Government Department of Education's 16 May 2014 submission to the Senate Select Committee on School Funding: 'From 2018 on the model as it is in the act in terms of the loadings and the student price continues to be used'.[4] Based on this statement, actual funding levels in the out-years could differ from projections due to changing enrolment projections, changing student need profile, changing shares of government and non-government sector enrolments, and/or changing share of primary vs secondary students (due to different base per-student amounts for primary and secondary).

FEDERAL SCHOOL FUNDING PROJECTIONS FOR QUEENSLAND

- The Queensland Department of Education, Training and Employment has sought to reproduce the methodology contained in the Australian Government 2014-15 Budget Overview to create projections for Queensland schools under the new federal school funding arrangements using available data and known assumptions.[5]

- This shows that over the period 2014-15 to 2024-25, there will be approximately $6.0 billion less funding available to Queensland schools under the new arrangements than would have been available under the prior offer.

AG Funding: All Qld Schools
(Old spending arrangement — New spending arrangement)

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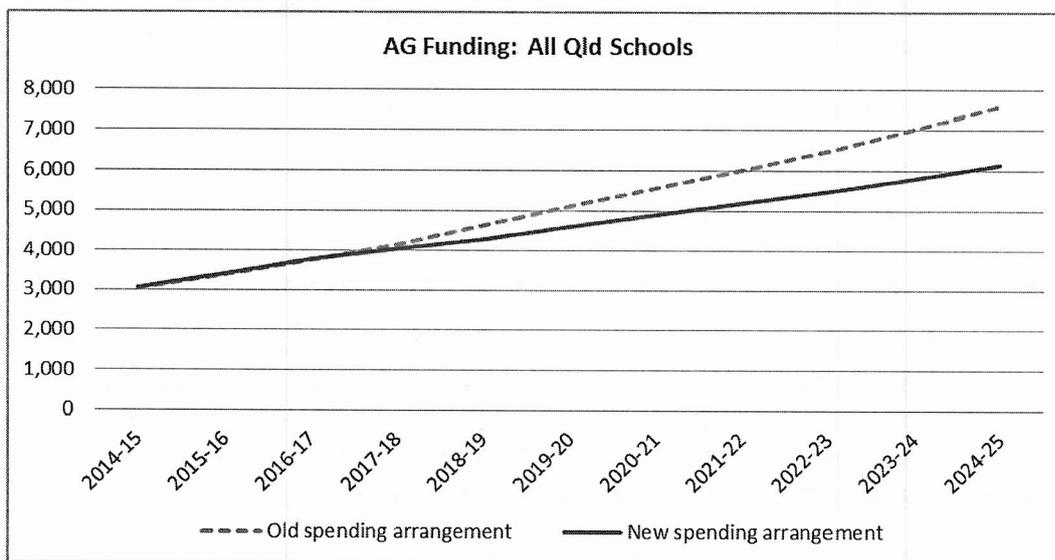
[4] Final allocations for 2018 onward are subject to formal negotiations between the Australian Government and the states and territories and non-government sectors (refer Federal 2014-15 Budget Paper 3, page 37).

[5] Beyond 2019 the *Better Schools* former funding arrangement has been projected using 4.7% per annum funding indexation (as per the *Australian Education Act 2013* indexation rate) plus projected enrolment growth.

2

This report is not government policy

QUEENSLAND PROJECTIONS BY SECTOR

- Over the period 2014-15 to 2024-25, under the new arrangements compared to the prior offer, approximately $3.7 billion less federal funding will be available for Queensland's government schooling sector and $2.3 billion less for Queensland's non-government schooling sector.
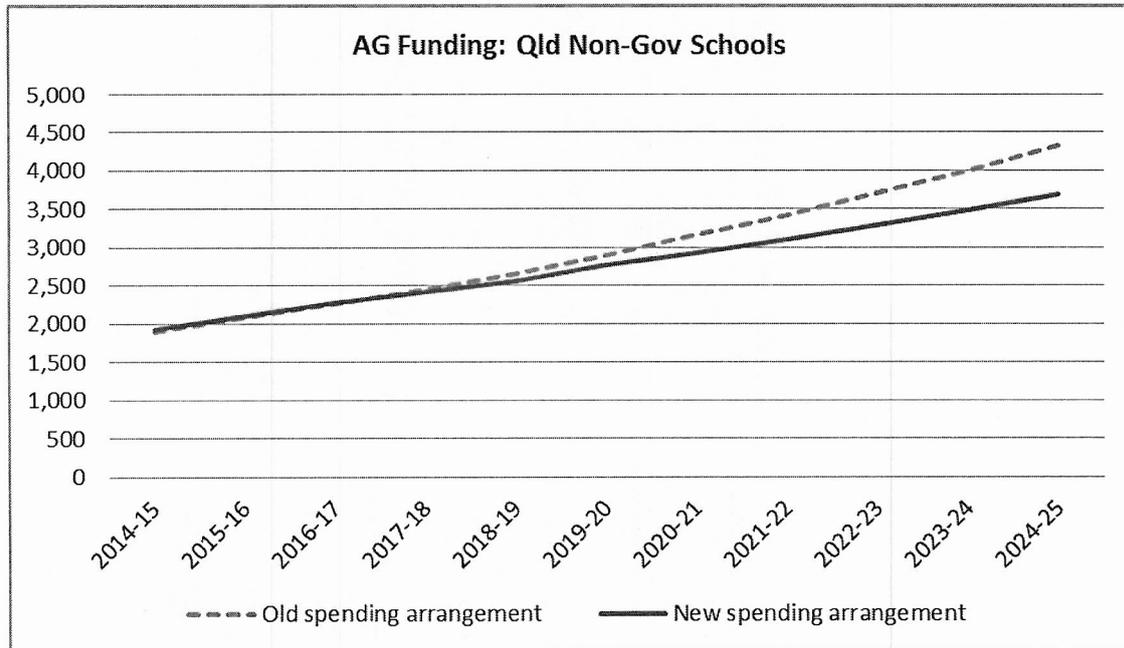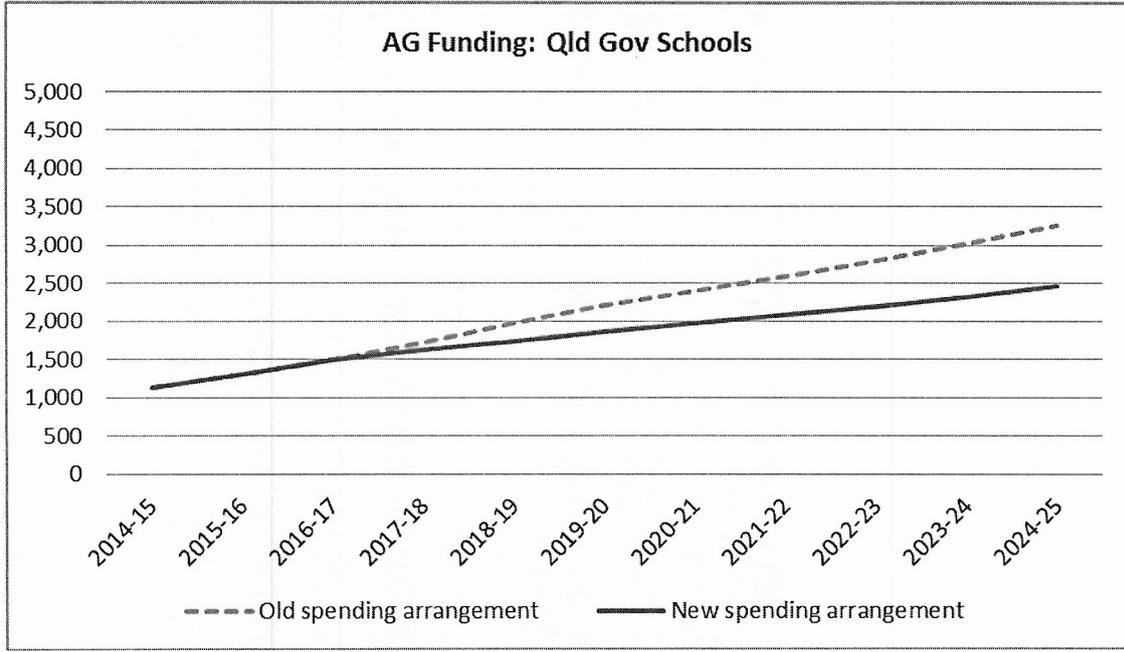
AG Funding: Qld Gov Schools

- - - Old spending arrangement   —— New spending arrangement

AG Funding: Qld Non-Gov Schools

- - - Old spending arrangement   —— New spending arrangement

This report is not government policy

Commonwealth Funding and Projections

Sources: Commonwealth School Funding Model (Better Schools) Supplied 2 July 2013
:Commonwealth Budget 2014-15
:AGSRC indexation assumptions

Notes:

* All $ values expressed as millions
* Better Schools funding beyond 2020 has been projected using a combination of 4.7% funding and enrolment growth only. There has been no attempt to account for additional factors such as transition rates and the requirement to reach a given percentage of the SRS rate.

Proposed Commonwealth funding indexation rate (2014 onwards)	4.7%
2014-15 Commonwealth Budget funding indexation rate (2018 onwards)	2.5%
AGSRC indexation assumption (2015-16 onwards)	3.0%
or	4.0%
or	5.0%

Aust. Gov. Funding (Better Schools) Calender Years

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL
Gov	Primary & Secondary	1,046	1,210	1,390	1,595	1,830	2,105	2,308	2,495	2,693	2,907	3,139	3,390	26,109
Cath	Primary & Secondary	1,081	1,200	1,305	1,417	1,537	1,667	1,835	1,987	2,148	2,322	2,511	2,715	21,726
Ind	Primary & Secondary	718	790	859	932	1,010	1,094	1,199	1,300	1,404	1,517	1,639	1,771	14,234
Non-Gov	Primary & Secondary	1,799	1,990	2,164	2,349	2,547	2,761	3,034	3,287	3,553	3,840	4,150	4,486	35,960
Total	Primary & Secondary	2,845	3,200	3,554	3,944	4,377	4,866	5,342	5,782	6,246	6,747	7,289	7,876	62,068

Aust. Gov. Funding (Better Schools) Financial Years

		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	TOTAL
Gov	Primary & Secondary	1,128	1,300	1,493	1,713	1,968	2,207	2,402	2,594	2,800	3,023	3,264	23,891
Cath	Primary & Secondary	1,141	1,253	1,361	1,477	1,602	1,751	1,911	2,068	2,235	2,417	2,613	19,828
Ind	Primary & Secondary	754	825	896	971	1,052	1,146	1,250	1,352	1,461	1,578	1,705	12,989
Non-Gov	Primary & Secondary	1,895	2,077	2,257	2,448	2,654	2,897	3,161	3,420	3,696	3,995	4,318	32,817
Total	Primary & Secondary	3,023	3,377	3,749	4,161	4,622	5,104	5,562	6,014	6,496	7,018	7,583	56,708

AG Funding (2014-15 Budget, BP3)

		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	TOTAL
Gov	Primary & Secondary	1,128	1,300	1,493	1,626	1,727	1,855	1,964	2,077	2,197	2,324	2,458	20,150
Non-Gov	Primary & Secondary	1,927	2,101	2,274	2,423	2,565	2,761	2,931	3,103	3,286	3,479	3,684	30,534
Total	Primary & Secondary	3,055	3,401	3,767	4,049	4,291	4,617	4,895	5,181	5,483	5,803	6,142	50,683

Difference

		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	TOTAL
Gov	Primary & Secondary	0	0	-1	87	241	351	437	517	603	700	806	3,741
Non-Gov	Primary & Secondary	-33	-24	-18	25	89	136	230	317	411	516	634	2,284
Total	Primary & Secondary	-33	-24	-18	112	330	488	667	833	1,014	1,216	1,441	6,025

Note: a negative figure indicates more funding allocated in the 2014-15 budget than in the Better Schools model.

	Half of 2014 Total	Half of 2025 Total	Total	Total Difference
Difference Calender Year vs Financial Year	1,423	3,938	5,360	5,360

Previous status quo (AGSRC continuation)

		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	TOTAL
Gov	Primary & Secondary	1,128	1,192	1,262	1,340	1,430	1,544	1,642	1,745	1,854	1,970	2,094	17,202
Non-Gov	Primary & Secondary	1,927	2,048	2,175	2,311	2,457	2,658	2,835	3,015	3,208	3,412	3,631	29,677

			3,055	3,239	3,437	3,651	3,887	4,202	4,477	4,760	5,062	5,383	5,725	46,878
assumption) 3%	Total	Primary & Secondary												
Previous status quo	Gov	Primary & Secondary	1,128	1,203	1,286	1,379	1,485	1,618	1,737	1,863	1,998	2,144	2,300	18,139
(AGSRC continuation	Non-Gov	Primary & Secondary	1,927	2,067	2,217	2,376	2,551	2,785	2,998	3,219	3,456	3,712	3,986	31,294
assumption) 4%	Total	Primary & Secondary	3,055	3,270	3,502	3,755	4,036	4,403	4,735	5,082	5,455	5,855	6,286	49,433
Previous status quo	Gov	Primary & Secondary	1,128	1,214	1,310	1,418	1,541	1,694	1,836	1,988	2,152	2,330	2,523	19,134
(AGSRC continuation	Non-Gov	Primary & Secondary	1,927	2,086	2,258	2,444	2,648	2,917	3,169	3,434	3,722	4,034	4,373	33,011
assumption) 5%	Total	Primary & Secondary	3,055	3,300	3,568	3,861	4,188	4,611	5,005	5,422	5,874	6,364	6,896	52,145

AG Funding: All Qld Schools

Old spending arrangement
New spending arrangement
AGSRC continuation 3%
AGSRC continuation 4%
AGSRC continuation 5%

AG Funding: Qld Non-Gov Schools

Old spending arrangement
New spending arrangement
AGSRC continuation

AG Funding: Qld Gov Schools

Old spending arrangement
New spending arrangement
AGSRC continuation

Enrolment Projections

Source: Commonwealth School Funding Model (Better Schools) Supplied 2 July 2013

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
QLD	Gov	Primary	342,963	331,003	344,703	358,404	371,631	384,851	395,745	405,390	415,686	426,244	437,071	448,173
QLD	Gov	Secondary	171,160	193,108	193,204	195,017	199,742	207,583	226,085	237,407	248,012	259,098	270,680	282,779
QLD	Cath	Primary	88,338	84,456	87,904	91,405	94,798	98,201	100,986	103,444	106,073	108,767	111,530	114,363
QLD	Cath	Secondary	59,286	69,460	71,275	73,092	75,313	77,841	84,526	88,710	92,634	96,728	101,004	105,468
QLD	Ind	Primary	60,242	55,085	57,087	59,385	61,614	63,897	65,740	67,329	69,042	70,796	72,594	74,438
QLD	Ind	Secondary	56,318	66,488	68,229	69,806	71,408	73,335	78,208	81,992	85,247	88,631	92,150	95,808
QLD	Gov	Primary	4.01%	-3.49%	4.14%	3.97%	3.69%	3.56%	2.83%	2.44%	2.54%	2.54%	2.54%	2.54%
QLD	Gov	Secondary	-0.81%	12.82%	0.05%	0.94%	2.42%	3.93%	8.91%	5.01%	4.47%	4.47%	4.47%	4.47%
QLD	Cath	Primary	4.13%	-4.39%	4.08%	3.98%	3.71%	3.59%	2.84%	2.43%	2.54%	2.54%	2.54%	2.54%
QLD	Cath	Secondary	2.73%	17.16%	2.61%	2.55%	3.04%	3.36%	8.59%	4.95%	4.42%	4.42%	4.42%	4.42%
QLD	Ind	Primary	3.14%	-8.56%	3.63%	4.03%	3.75%	3.71%	2.88%	2.42%	2.54%	2.54%	2.54%	2.54%
QLD	Ind	Secondary	2.10%	18.06%	2.62%	2.31%	2.29%	2.70%	6.64%	4.84%	3.97%	3.97%	3.97%	3.97%
QLD	Gov	Combined Growth		1.94%	2.63%	2.88%	3.24%	3.69%	4.96%	3.37%	3.25%	3.26%	3.27%	3.28%
QLD	Cath	Combined Growth		4.26%	3.42%	3.34%	3.41%	3.49%	5.38%	3.58%	3.41%	3.42%	3.42%	3.43%
QLD	Ind	Combined Growth		4.30%	3.08%	3.09%	2.97%	3.16%	4.89%	3.73%	3.33%	3.33%	3.33%	3.34%
QLD	Non-Gov	Combined Growth		4.28%	3.27%	3.23%	3.22%	3.35%	5.17%	3.65%	3.37%	3.38%	3.39%	3.39%

Additional Information

During federal school funding reform negotiations it was proposed that states that did not sign up to the National Education Reform Agreement would have their funding indexed at 3% as opposed to the 4.7% of the signatories. The following scenario is based on this premise in the event that the Commonwealth Government point out that as a non-signatory state Queensland was never going to receive 4.7% funding indexation. This only applies to State schools as the Independant and Catholic sectors were always considered as participants.

Proposed funding indexation rate for non-signatory states: **3.00%**

AG Funding (Better Schools, non-signatory) Calender Yrs		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL
Gov	Primary & Secondary	1,046	1,210	1,390	1,595	1,830	2,105	2,273	2,417	2,569	2,729	2,900	3,083	25,147

AG Funding (Better Schools, non-signatory) Financial Yrs		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	TOTAL
Gov	Primary & Secondary	1,128	1,300	1,493	1,713	1,968	2,189	2,345	2,493	2,649	2,815	2,992	23,083

AG Funding (2014-15 Budget, BP3)		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	TOTAL
Gov	Primary & Secondary	1,128	1,300	1,493	1,626	1,727	1,855	1,964	2,077	2,197	2,324	2,458	20,150

Difference		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	TOTAL
Gov	Primary & Secondary	0	0	-1	87	241	333	381	416	452	491	533	2,933

Difference Calender Year vs Financial Year	Half of 2014 Total	Half of 2025 Total	Total	Total Difference
Gov	Primary & Secondary	523	1,541	2,064	2,064

Note: a negative figure indicates more funding allocated in the 2014-15 budget than in the Better Schools model.

AG Funding: Qld Gov Schools (non-signatory)

Legend: Old spending arrangement; New spending arrangement
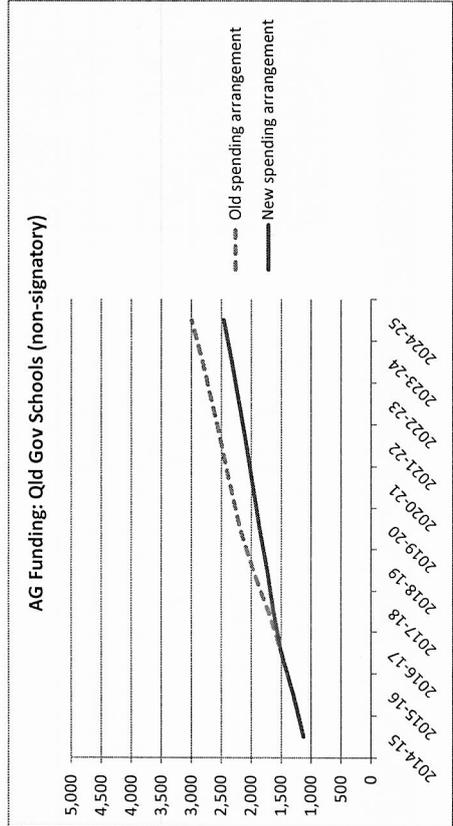
	2014-15	2015-16	2016-17	2017-18	2018-19	
July 2013 Gonski Model	1,128	1,300	1,493	1,713	1,968	
Gonski change per year		15%	15%	15%	15%	
2014-15 AG Budget	1,128	1,300	1,493	1,626	1,772	
Budget change per year		15%	15%	9%	9%	
Difference	0	0	0	87	196	283

Senate Education and Employment References Committee
Questions on Notice to the Gold Coast Dyslexia Support Group – Friday 25 September 2015
Brisbane, QLD
Inquiry into students with disabilities

1. HANSARD, PAGE 44

Senator SIEWERT: All of what you said is really useful evidence, but can we go back to the issue around unverified disability. You have obviously been lobbying to change that?

Ms Woodley: Yes.

Senator SIEWERT: What has been the response from governments? I suspect that you have been doing it for a long time. What has been the response on that?

Ms Woodley: Funding.

Mrs Ross: Unfortunately, the leader of our group is overseas at Disneyland at the moment.

Mrs Shultz: She is the one who has been fundamental in the lobbying.

Mrs Ross: She has been doing so much work in relation to all of this. So it would be a Tanya question.

Ms Woodley: She said that she is happy to supply that later.

I have met with both former state and federal education ministers and both gave a similar response, that it is consider it too costly to include dyslexia in the verified disability list due to the high incidence of dyslexia.
The inclusion of dyslexia in the National Collection of Consistent Data (NCCD) would potentially lead schools into providing desperately needed support with the provision of differentiated instruction and supplementary adjustments if it is implemented as intended. I have reservations that the NCCD will be sufficient for two reasons:
1. Unallocated funding is distributed at the discretion of school leaders under the model of school autonomy. Currently most schools are using their literacy funding on whole language and balanced literacy programs that are ineffective for most children and not supported by an evidence base. Secondly, learning support is often allocated to improving the lower to middle bands of NAPLAN. The 'tail' with the lowest performing students are encouraged to be withdrawn by parents so there is no negative impact on the school's NAPLAN data (and image) on OneSchool. If you look at the statistics, up to 10-11% of students are withdrawn by parents in some schools. These are usually unidentified and unsupported students with dyslexia. At the moment, these children are receiving inappropriate instruction and no intervention so they are the 'tail' that slips through the cracks.
2. As you have heard at the Senate Inquiry, there is a real stigma attached to dyslexia. Both schools and education authorities are using the unverified status of dyslexia as a 'get-out-of-gaol' free card. They can legitimately claim a lack of resources and unjustifiable hardship as reasons for not providing support and the current legislation allows this to happen.

2. HANSARD, PAGE 44

Senator SIEWERT: We call that taking it on notice. If you could do that, that would be really helpful work to look at. In your submission, you talk about the fact that this thing plays out into the NDIS. Have you had discussions with the state government about it playing out there?

Mrs Ross: I know that Tanya has met with Queensland state government members, but I am not sure what has come of that.

Senator SIEWERT: It would be appreciated if you could take that on notice. NDIS can get around the issue of diagnosis, so I am wondering whether this is a Queensland thing, and I do not mean that in a negative way.

Mrs Ross: No. Every state is different—

Senator SIEWERT: Or whether it is because of the way the NDIS process is going to roll out here, or whether there has already been some confirmation that is in fact what is going to happen.

Mrs Butler-Lind: I do not think anything has happened yet, but I know that Tanya is definitely pushing for it.

Senator SIEWERT: If you could take that on notice, because it is obviously a significant issue if it is playing out into the NDIS.

I have attended forums in Queensland where the inclusion of dyslexia in the NDIS was discussed. Again we encountered roadblocks very early in the discussion. The issue of the high prevalence was alarming to both education authorities and other lobby groups - they feel they already have inadequate funding and do not want current funding to be further split and allocated to with children with dyslexia.

In conclusion, despite a significant and growing awareness for dyslexia, we have made no progress with consideration of the inclusion of dyslexia for either verification or the NDIS.

Senate Education and Employment References Committee
Questions on Notice for Mr Michael Ward– Friday 25 September 2015
Brisbane, QLD
Inquiry into students with disabilities

1. HANSARD, PAGE 59

Senator McKENZIE: Have you used, and are you aware of, the Outside the Square resource?

Mr Ward: Is that the dyslexia?

Senator McKENZIE: Yes.

Mr Ward: Some of my staff would have accessed that, yes.

Senator McKENZIE: On notice, if you could ask them how they find it, I would appreciate getting some feedback on that particular initiative.

On p. 59 Senator McKenzie asked me a question on notice – namely, how my staff found the Dyslexia resource 'Outside the Square'. My reply is – that it was made available to some of my staff by parents who were familiar with this resource.

2. HANSARD, PAGE 60

Senator McKENZIE: What are the needs that the Queensland government—

Mr Ward: Around literacy and numeracy performance. It has been given to us with a clear mandate around improving that, particularly in the early years in primary schools. We do have a fair bit of discretion around how we can deploy that money, but we have been given that brief with it.

Senator McKENZIE: So rural and regional students do not factor in? Indigeneity does not factor in?

Mr Ward: They may. I would have to look it up.

Senator McKENZIE: I would appreciate having some understanding of that, because I assumed that Queensland would have had a needs-based funding model to distribute that money.

On p. 60 Senator McKenzie was interested in further information regarding the needs loading factors used in allocating the coalition federal government education funding. The only information I have been able to find regarding this is:

"The funding will include base components calculated using student enrolments and loading components to provide additional resources based on student and school characteristics and student achievements in English and mathematics."

Exact formulas are not accessible to school personnel.