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Indigenous Students' Increasing Risk of Grade Repetition in Early Schooling

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The current study considers grade repetition rates in the early years of school, Preparatory (Prep) to Year 3, in Queensland state schools, of which there is a significant gap in the Australian research literature. Data accessed from the Queensland Government's Department of Education and Training (DET), shows that particular groups of students are more at risk of being repeated in the preschool/Prep year. These groups include boys and until recently, non-Indigenous students. However, the most recent data collected in 2009 shows that Indigenous students are more at risk of being repeated in all early years of schooling. As grade repetition has been shown to have limited value, it remains a concern that this intervention practice continues to be offered to students, and in particular Indigenous students, who may already be educationally disadvantaged. While grade repetition rates are low in Queensland state schools, the possible negative academic, social and emotional consequences for students who are repeated warrants serious re-evaluation of this long-term, early intervention practice in Australian schools.

■ **Keywords:** Indigenous students, grade repetition, early intervention, early childhood education, Preparatory

Grade repetition has received little attention in Australia, unlike countries such as the United States (Cannon & Lipscomb, 2011; Poland, 2009). In her study on grade repetition in New South Wales schools in 1987, Kenny (1991) concluded that 'there was next to no research on the matter ... in Australia' (p. 1). While the lack of available statistics and discussion in the literature may lead one to conclude that the practice of repeating rarely exists in Australian schools, McGrath (2006) argues that it has been 'widely accepted in Australian schools' (p. 39). The paper contributes to the relatively unresearched area of grade repetition in Australian schools, and in particular, grade repetition of Indigenous Australian students.

The study provides evidence that grade retention as an intervention practice exists in Queensland state schools. Until recent years, non-Indigenous students were more likely to be repeated in the preschooling year than Indigenous students as well as boys. The study draws on Queensland Government's Department of Education and Training (DET) state-wide data set on grade repetition (Department of Education and Training, 2011a). The data set includes students aged 5 to 8 years, Indigenous and non-Indigenous students, boys and girls. It is the analysis of this secondary grade repetition data on Indigenous and non-Indigenous students that will be the main focus for attention in this paper. The study thus aims to:

1. show that grade repetition as an intervention practice exists in Queensland state schools; and that
2. particular groups of students are more often repeated in the early childhood years of school (Prep to Year 3).

The article first considers the current literature on grade repetition and the achievement of Indigenous students. This is followed by the methodology, findings, discussion and conclusion.

Review of Grade Repetition Literature

Although grade repetition has been a long accepted remedy for underachievement at, or unreadiness for, school, it has found limited long-term support in research (Hong & Raudenbush, 2005; Hong & Yu, 2006; Hughes, Chen, Thoemmes, & Kwok, 2010; Jimerson, 2001, 2004; Martin, 2009; Wu, West, & Hughes, 2008). In their study of the impact of kindergarten retention on children's cognitive

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growth in reading and mathematics, Hong and Raudenbush found:

> *The empirical evidence from this study refutes the arguments that adopting a Kindergarten retention policy boosts achievement on average, that such a policy improves the learning of children who would in any case be promoted, or that grade retention helps children experiencing difficulty in Kindergarten. (2005, p. 221)*

In particular, studies find that grade repetition has limited benefits, particularly in relation to later school achievement: 'We find no evidence that Kindergarten retention brings benefits to the retainees' cognitive development during the elementary years' (Hong & Yu, 2006, p. 1). The National Association of School Psychologists (NASP, 2011) argue: 'the majority of studies conducted over the past four decades on the effectiveness of grade retention fail to support its efficacy in remediating academic deficits (e.g., Jimerson, 2001)' (p. 1). Jimerson, who has researched extensively in the area of grade repetition, questions whether or not grade repetition should be considered 'educational malpractice', arguing that 'the confluence of results from educational research warrant serious consideration' of grade repetition practices (2004, p. 72). In reviewing published studies since 1980, Xia and Kirby (2009) similarly found limited support for long-term benefits of grade repetition in regard to later academic outcomes. Xia and Glennie (2005) argue: 'the majority of published studies and decades of research indicate that there is usually little to be gained, and much harm that may be done through retaining students in grade' (p. 1).

In the United States, particular groups of children are more often repeated at school, including boys (Hong & Raudenbush, 2005, McGrath, 2006, NASP, 2003) and minority group students (NASP, 2003). Studies in Australia (Anderson, 2008) and in the United States (Reynolds, 1992) show that boys are more often repeated because they are considered less 'mature' and thus less ready for school than girls. Not only are boys more likely to be repeated at school than girls (Anderson, 2008; Hong & Raudenbush, 2005; McGrath, 2006; NASP, 2003), but children from particular social groups are also more likely to be repeated at school and preschool because of their low achievement levels.

School Achievement for Indigenous Students

School achievement has been a concern for Indigenous students (Australian Institute of Health and Welfare [AIHW], 2011) who, as a group, have long been considered disadvantaged in education (APN Educational Media, 2011; Banks, 2005; Department of Education Aboriginal and Torres Strait Islander Education Branch, Queensland, 1996). Information from the Queensland Government Department of Education and Training (DET) report, *Closing the Gap: Education Strategy*, highlights school achievement of Indigenous students drawn from the most recent National Assessment Program Literacy and Numeracy (NAPLAN) tests in 2010. NAPLAN commenced in Australian schools in 2008. The Australian Curriculum, Assessment and Reporting Authority (ACARA) is an independent statutory authority responsible for NAPLAN. All students in Years 3, 5, 7 and 9 are assessed using national tests in Reading, Writing, Language Conventions (Spelling, Grammar and Punctuation) and Numeracy on the same day each year). Test scores show a 'difference in mean scale scores between Indigenous and non-Indigenous students' in reading and numeracy (DET, 2009, p. 16) and in writing (DEET, 2011b, p. 6). The different mean scale scores available from the NAPLaN test scores show that the 'percentage of students estimated to be working at or above the national minimum standard is markedly lower for Indigenous students than non-Indigenous students in all jurisdictions' (ACARA, 2010, p. 63). Nationally, the most recent available data shows that between 20–30% of Indigenous students do not reach national minimum standards for reading and numeracy (AIHW, 2011). Only 67% of Indigenous students achieved the minimum reading standards compared with 93% of non-Indigenous students and in numeracy, only 74% of Indigenous students reached numeracy benchmarks compared with 95% of non-Indigenous students (AIHW, 2011). Reporting on the Australian Early Development Index, a teacher-completed checklist of Australian children's health and development, the Centre for Community Child Health and Telethon Institute for Child Health Research (2009) found that Indigenous children were more than twice as vulnerable as non-Indigenous children on health and development issues; 47% compared with 22% respectively.

In Queensland, the NAPLAN mean scores for Indigenous students are substantially lower than those for non-Indigenous students for all year levels tested (3, 5, 7, 9) and in all domains (Reading, Writing, Spelling, Grammar and Punctuation, and Numeracy). In Year 3 Reading, for example, the difference between the mean scores for Indigenous and non-Indigenous students was 64.5 points (ACARA, 2010). For Year 3 Grammar and Punctuation, the difference between the mean scores for Indigenous and non-Indigenous students was even higher at 78.7 points (ACARA, 2010). Despite the Department of Education and Training's efforts to reduce the difference between Indigenous and non-Indigenous educational outcomes with their *Closing the Gap: Education Strategy* initiative, the gap between Indigenous and non-Indigenous student outcomes as indicated from the most recent tests remains wide (DET, 2009). The gap between Indigenous and non-Indigenous mean scores for Year 3 reading, for example, has only closed by 1.9 points between 2008 and 2010 (ACARA, 2008, 2010). In other instances — for example, Year 3 Grammar and Punctuation as well as Spelling — the

gap between Indigenous and non-Indigenous students mean scores has further widened (ACARA, 2008, 2010).

Because Indigenous students have lower levels of achievement at school than non-Indigenous children (ACARA, 2008, 2010), they are more likely to be offered an intervention practice such as grade repetition when they commence school (DET, 2011a). In an effort to address these concerns, the Department of Education and Training (2009) has focused considerable effort on 'Indigenous participation in pre-schooling ... (to) thereby increase school readiness for Indigenous children as they enter primary schooling' (p. 9). The introduction of the full-time Prep year in 2007 was one of Queensland state education's main initiatives to better prepare all children for school, including Indigenous children. However, 'Indigenous students are less likely to participate in Pre-schooling than their non-Indigenous peers' (Dockett, Mason, & Perry, 2006, p. 1). This finding by Dockett et al. among Aboriginal children in New South Wales is similar to Taylor's (2004) findings in the Thamarrurr Region in the Northern Territory, Anderson's (2008) findings in a study in schools in North Queensland, and the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA; 2000) findings.

The Queensland Studies Authority (2007) argues that Indigenous children's prior-to-school experiences need to be taken into account and valued as a resource on which to build further learning at preschool and school. Indigenous students who enter schooling have a range of competencies that are valued at home, in their community and in the wider society, but are not valued at school (Dockett et al., 2006; Malin, 1990). When teachers place less value on the competencies that Indigenous students bring to school, such students may feel less valued, less supported, less likely to attend school regularly, less likely to succeed at school and more likely to repeat a year level at school. While teachers need to support both Indigenous students and their families by recognising students' prior-to-school experiences and strengths and incorporate them into the pre-school and school curriculum (Dockett et al., 2006), Mills (2008) suggests that teachers may unintentionally be placing more value on the competencies of the dominant groups.

Data Collection Method

An initial literature search was conducted using several key databases, including Australian Education Index (AEI), Education Resources Information Centre (ERIC), Australian Bureau of Statistics (ABS), MCEETYA, the DET, and Education Queensland. Key search terms included: grade retention, grade repetition, repeating, repeating a year level, school failure, school achievement, Indigenous achievement and Indigenous participation. Literature on grade repetition from Australia and overseas was identified through databases and through Internet searches. The identified literature included mainly quantitative and some qualitative studies mainly from the United States. A search of the more prominent data collection sites on Australian schooling, such as the ABS and MCEETYA confirmed there is no national systematic data collected on grade retention rates for any level of schooling.

The methodological approach examined an existing large-scale data set drawn from the Queensland Government's DET (2011a) 1997 to 2009 data on grade repetition in Queensland state schools. Since 1997, the DET has collected grade repetition numbers in Queensland state schools (DET, 2011a; DETA, 2007; Education Queensland, 2003). Data was collected in 2002, 2007, and more recently in 2011 through the Department of Education and Training, previously known in 2007 as the Department of Education, Training and the Arts, and in 2002 as Education Queensland when data was first collected. Data for the study was available as a secondary source. As the study focused on early intervention practices, data collection was limited to year levels preschool/Prep to Year 3, or students aged 5 to 8 years, the officially recognised early childhood education years in Queensland state schools (Queensland Studies Authority [QSA], 2007). While data analysis focused on grade repetition rates for students aged 5 and 6 years, (the preschool years, Preschool and Prep), data was also collected for students aged 5 to 8 years (approximately preschool/Prep to Year 3) in all Queensland state schools to uncover grade repetition trends in the early schooling. Descriptive statistics and graphical illustrations were used to highlight trends in grade repetition in Queensland state schools.

The aims of the study were:

1. to map the trends in grade repetition for Indigenous and non-Indigenous students; and
2. to understand which groups of students might be repeated in Prep/Pre-school and the early years of schooling (Prep to Year 3).

Data on repeated students at all year levels has been collected by DET according to students' ages. The equation of student age to year level, except for students aged 5 years who would be in preschool or Prep, can therefore only be approximated. Groups of repeated children within each year level included: all Indigenous students, Indigenous boys, Indigenous girls, all non-Indigenous students, non-Indigenous boys, non-Indigenous girls, all students, all boys and all girls. The numbers of repeated students in these categories were available for each region, of which there are currently seven, and on a statewide basis.

Data was collected from DET's in-house database, Corporate Data Warehouse, following a formal application to the Department of Education and Training and an Ethics Approval from James Cook University Australia. As the data was available in relatively inaccessible form (data was expressed as numbers of repeated students, not as

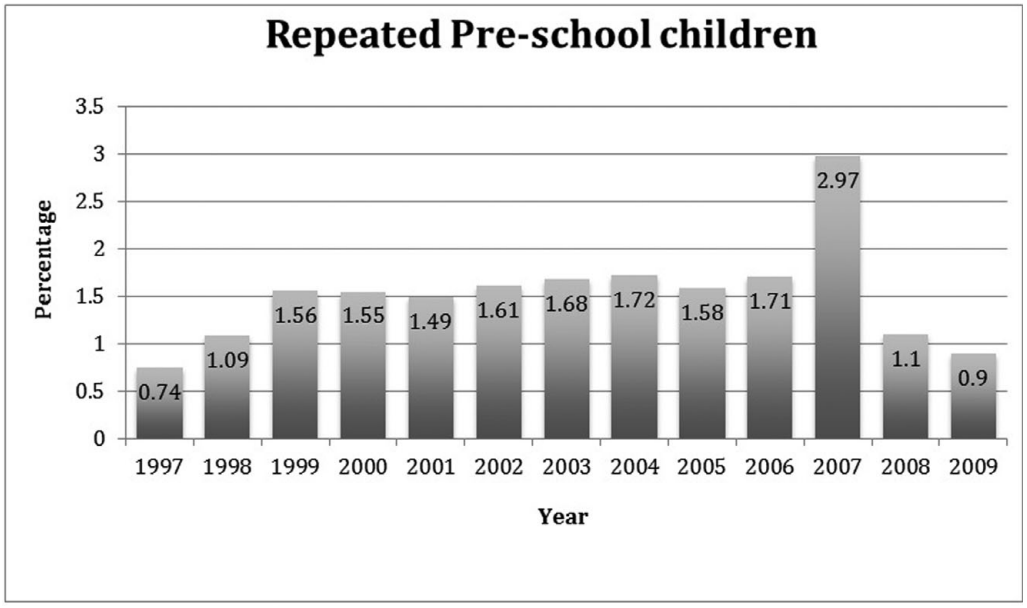

FIGURE 1

Percentage of students aged 5 years repeated in Queensland state schools 1997–2009 (DET, 2011).

percentages), total number of students for each category had to be accessed separately. Tables were then constructed with the numbers of repeated students in each category to calculate the percentages for each group, within each year level, for each year.

In summary, the methodology used to compute percentages of repeated students used the following process:

1. A subcategory of repeated students was extracted from the DET (2011a), the DETA (2007), and Education Queensland (2003).
2. The subcategory was limited to students aged 5 to 8 years, approximately preschool/Prep to Year 3, the officially recognised early childhood education years in Queensland state schools (QSA, 2007) as the study focused on the early intervention practices.
3. The sample included students in all Queensland state schools.
4. All available categories for repeated students were collected and included: all Indigenous students, Indigenous boys, Indigenous girls, all non-Indigenous students, non-Indigenous boys, non-Indigenous girls, all students, all boys and all girls.
5. Data was collected for all available categories (DET, 2011a, DETA, 2007; Education Queensland, 2003) for years 1997 to 2009.
6. After collection of raw numbers of repeated students for each category, total possible numbers of students for each category was collected to calculate percentages of repeated students and constructed as tables.
7. The tables with percentages of repeated students were used to construct the graph in Figure 1 and consider trends.

Further, three primary measures have been used for analysing the overrepresentation and proportional discrepancy between groups and include the composition index, the risk index and the relative risk ratio (Graham, 2011; Skiba, Poloni-Staudinger, Gallini, Simmons, & Feggins-Azziz, 2006). The composition index is the percentage of students within a category represented (e.g., repeated Indigenous students) and is calculated by dividing the number of repeated Indigenous students by the total number of all students repeated. The risk index is the percentage of students within a particular category and is calculated by dividing the number of students (e.g., repeated Indigenous students) by the total number of possible students in that category (e.g., Indigenous students). The relative risk ratio is used to compare the risk of being repeated between groups and is calculated by dividing the risk index of one group by another (e.g., the risk index for Indigenous students divided by risk index for non-Indigenous students).

The study is limited to the collection of data for groups that have been the focus for attention of the DET in recent years, such as girls and boys, Indigenous and non-Indigenous students in Queensland state schools. Other categories that may be particularly applicable to Indigenous students such as socioeconomic status (SES) or urban and rural were not available. The data is further limited to students who attend state schools in Queensland, and therefore does not include students who attend

TABLE 1

Total Numbers, Numbers Repeated and Percentage of Students Aged 5 Years Repeated in Queensland State Schools 1997–2009 (DET, 2011a).

Year	Total number	Number repeated	% repeated
1999	35,625	262	0.74
1998	36,920	401	1.09
1999	37,139	580	1.56
2000	37,487	581	1.55
2001	36,947	551	1.49
2002	36,607	591	1.61
2003	38,104	642	1.68
2004	38,389	661	1.72
2005	38,822	613	1.58
2006	38,905	665	1.71
2007	24,579	729	2.97
2008	37,759	410	1.1
2009	39,039	365	0.9

non-government schools in Queensland or schools in other Australian states.

Findings

Repeated Students Aged 5 Years

To readily view the trends in grade repetition, Figure 1 shows the percentage all students enrolled in Queensland state schools at age 5, who were repeated from 1997 to 2009. Table 1 shows the raw numbers used to calculate the percentages of repeated students (DET, 2011a). Students repeating a year level at age 5 would almost certainly have been repeating the preschooling year, Preschool or Prep. During this period, the percentage of children repeated in Queensland state preschools increased steadily from 0.74% in 1997 to 2.97% in 2007. However, in 2008 the percentage of repeated preschool students declined to 1.1%, and in 2009, the percentage of repeated preschool students dropped further to 0.9%.

Repeated Indigenous and Non-Indigenous Students Aged 5 Years

Tables 2 and 3 represent Indigenous and non-Indigenous students aged 5 years who were repeated in Queensland state schools from1997–2009. To determine grade repetition risk, composition indexes of repeated Indigenous and non-Indigenous students aged 5 years in Queensland state schools for each year from 1997 to 2009 were established. Consistent comparative parameters were used, with the only variable being Indigenous and non-Indigenous students. Table 2 shows the composition indexes of all repeated students, Indigenous students and non-Indigenous students aged 5 years in Queensland state schools from 1997 to 2009. Composition indexes for Indigenous students increased from 2007 to 2009. The composition index for Indigenous students almost doubled between 2006 and 2007, the year the full-time Prep year was introduced in Queensland. During the same period, the composition index decreased for non-Indigenous students.

Table 3 shows the relative risk ratios calculated from the risk ratios of both Indigenous and non-Indigenous repeated students aged 5 years in Queensland state schools for years 1997 to 2009. A ratio of 1 means the same risk for both groups, a ratio of less than 1 means a lower

TABLE 2

Composition Indexes of All Repeated Students, Indigenous Students and Non-Indigenous Students Aged 5 Years in Queensland State Schools From 1997 to 2009

	Total repeated		Indigenous students		Non-Indigenous students	
Years repeated	*N*	Composition index %	*N*	Composition index %	*N*	Composition index %
1997	263	3.73	15	5.70	248	94.30
1998	401	5.69	14	3.49	387	96.51
1999	580	8.21	28	4.66	552	95.34
2000	581	8.24	21	3.61	560	96.39
2001	551	7.81	32	5.81	519	94.19
2002	591	8.37	20	3.22	571	96.78
2003	642	9.10	38	5.92	604	94.08
2004	661	9.38	35	5.30	626	94.70
2005	613	8.70	45	7.34	568	92.66
2006	665	9.43	32	4.81	633	95.19
2007	729	10.34	69	9.47	660	90.53
2008	410	5.82	51	12.44	359	87.56
2009	365	5.18	38	10.41	327	89.59
Total	7,052	100	438	6.18	6614	93.82

TABLE 3

Relative Risk Ratios Calculated From the Risk Ratios of Both Indigenous and Non-Indigenous Repeated Students Aged 5 Years in Queensland State Schools for Years 1997 to 2009

Years repeated	Indigenous risk index %	Non-Indigenous risk index %	Relative risk ratio %
1997	0.04	0.06	0.67
1998	0.04	0.09	0.44
1999	0.08	0.13	0.62
2000	0.06	0.13	0.46
2001	0.09	0.12	0.75
2002	0.06	0.14	0.43
2003	0.11	0.14	0.79
2004	0.10	0.14	0.71
2005	0.13	0.13	1.00
2006	0.09	0.14	0.64
2007	0.20	0.15	1.33
2008	0.14	0.08	1.75
2009	0.11	0.07	1.57
Total	1.61	1.38	1.16

risk for the disadvantaged group (in this case Indigenous students) and a ratio of higher than 1 means a greater risk for the disadvantaged group. Table 3 shows that until 2007, Indigenous students had a lower risk of being repeated than non-Indigenous students, but from 2007 onwards, Indigenous students have a higher risk of being repeated than non-Indigenous students.

Repeated Indigenous and Non-Indigenous Students Aged 5 to 8 Years

Tables 4 to 6 represent repeated Indigenous and non-Indigenous students aged 5 to 8 years in Queensland state schools in 2009. Table 4 shows that while Indigenous students represented 8.73% of the total statewide enrolment of students 5 to 8 years, they represented 12.8% of repeated students. While Indigenous students have a greater risk of being repeated than non-Indigenous students, both have a relatively low risk of being repeated.

Table 5 shows composition indexes of repeated Indigenous and non-Indigenous students aged 5 to 8 years in Queensland state schools in 2009. Indigenous representation in grade retention varied according to year level, as did non-Indigenous. A greater proportion of non-Indigenous students were repeated at age 5, more likely to be the Prep year, while a greater proportion of Indigenous students were repeated at age 6,7 and 8 years which are more likely to be the school years.

Table 6 shows the relative risk ratios calculated from the risk ratios of both Indigenous and non-Indigenous repeated students aged 5 to 8 years in Queensland state schools in 2009. Indigenous students are at greater risk of being repeated than non-Indigenous students, particularly after age 6 years.

TABLE 4

Composition Indexes of Repeated Indigenous and Non-Indigenous Students Aged 5 to 8 Years in Queensland State Schools in 2009

	Total enrolments 2009		Students repeated 2009		
Repeating demographics for students aged 5–8 years in 2009	*N*	% of total enrolment	*N*	State-wide risk index %	State-wide composition index %
Indigenous students	13,868	8.73	133	0.96	12.80
Non-Indigenous students	145,008	91.27	906	0.62	87.20
Total	158,876	100	1,039	0.65	100

TABLE 5

Composition Indexes of Repeated Indigenous and Non-Indigenous Students Aged 5 to 8 Years in Queensland State Schools in 2009

	Total repeated		Indigenous students		Non-Indigenous students	
Students aged 5–8 years in 2009	*N*	Composition index %	*N*	Composition index %	*N*	Composition index %
5 years	365	35.13	38	10.41	327	89.59
6 years	348	33.49	49	14.08	299	85.92
7 years	208	20.02	29	13.94	179	86.06
8 years	118	11.36	17	14.41	101	85.59
Total	1039	100	133	12.80	906	87.20

TABLE 6

Relative Risk Ratios Calculated From the Risk Ratios of Both Indigenous and Non-Indigenous Repeated Students Aged 5 to 8 Years in Queensland State Schools in 2009

Students aged 5–8 years in 2009	Indigenous risk index %	Non-Indigenous risk index %	Relative risk ratio %
5 years	0.27	0.23	1.17
6 years	0.35	0.21	1.67
7 years	0.21	0.12	1.75
8 years	0.12	0.07	1.71
Total	0.95	0.63	1.51

Repeated Indigenous and Non-Indigenous Girls and Boys Aged 5 Years

Tables 7 to 9 show Indigenous boys and girls, and non-Indigenous boys and girls aged 5 years repeated in Queensland state schools from 1997 to 2009. Table 7 shows that while non-Indigenous boys represented 49.08% of total enrolments, they represented 65.31% of students repeated. Indigenous girls on the other hand represented 3.64% of the total enrolment, of which 1.82% were repeated.

Table 8 shows the composition indexes of repeated Indigenous and non-Indigenous students, boys and girls aged 5 years in Queensland state schools from 1997 to 2009. Composition indexes in almost all cases were greater for boys than girls in both Indigenous and non-Indigenous categories.

Table 9 shows the relative risk ratios calculated from the risk ratios of both Indigenous boys and girls and non-Indigenous boys and girls aged 5 years repeated in Queensland state schools for years 1997 to 2009. In both Indigenous and non-Indigenous students, boys show a greater risk of being repeated. Generally, the risk of

TABLE 7

Composition Indexes of Repeated Indigenous and Non-Indigenous Students, Boys and Girls Aged 5 Years in Queensland State Schools From 1997 to 2009

Repeating demographics for atudents aged 5 Years 1997–2009	Total enrolments		Students repeated		Statewide composition index %
	N	% of total enrolment	*N*	Statewide riskindex %	
Indigenous boys	18,182	3.87	310	1.70	4.40
Indigenous girls	17,121	3.64	128	0.75	1.82
Non-Indigenous boys	230,834	49.08	4,606	2.00	65.31
Non-Indigenous girls	210,165	43.08	2,008	0.96	28.47
Total	476,302	100	7,052	1.48	100

TABLE 8

Composition Indexes of Repeated Indigenous and Non-Indigenous Students, Boys and Girls, Aged 5 years in Queensland State Schools From 1997 to 2009

	Total repeated		Indigenous students aged 5				Non-Indigenous students aged 5			
			Boys		Girls		Boys		Girls	
Years repeated	*N*	Composition index %	*N*	Composition index %	*N*	Composition index %	*N*	Composition index %	*N*	Composition index %
1997	263	3.73	7	2.66	8	3.04	153	58.18	95	36.12
1998	401	5.69	11	2.74	3	0.75	263	65.59	124	30.92
1999	580	8.21	23	3.97	5	0.86	385	66.38	167	28.79
2000	581	8.24	14	2.41	7	1.20	376	64.72	184	31.67
2001	551	7.81	22	3.99	10	1.82	365	66.24	154	27.95
2002	591	8.37	12	2.03	8	1.35	400	67.68	171	28.94
2003	642	9.10	29	4.52	9	1.40	440	68.54	164	25.54
2004	661	9.38	28	4.23	7	1.06	433	65.51	193	29.20
2005	613	8.70	38	6.20	7	1.14	403	65.74	165	26.92
2006	665	9.43	21	3.16	11	1.65	438	65.87	195	29.32
2007	729	10.34	41	5.62	28	3.84	458	62.83	202	27.71
2008	410	5.82	32	7.81	19	4.63	251	61.22	108	26.34
2009	365	5.18	32	8.77	6	1.64	241	66.03	86	23.56
Total	7,052	100	310	4.40	128	1.82	4606	65.31	2008	28.47

TABLE 9

Relative Risk Ratios Calculated From the Risk Ratios of Both Indigenous Boys and Girls and Non-Indigenous Boys and Girls, Aged 5 Years Repeated in Queensland State Schools for Years 1997 to 2009

Years repeated	Indigenous students aged 5 Risk index %		Relative risk ratio %	Non-Indigenous students aged 5 Risk index %		Relative risk ratio %
	Boys	Girls		Boys	Girls	
1997	0.04	0.05	0.8	0.07	0.04	1.7
1998	0.06	0.02	3.0	0.11	0.06	1.8
1999	0.14	0.03	4.6	0.17	0.08	2.1
2000	0.08	0.04	2.0	0.16	0.09	1.8
2001	0.12	0.06	2.0	0.16	0.07	2.3
2002	0.07	0.05	1.4	0.17	0.08	2.1
2003	0.16	0.05	3.2	0.19	0.08	2.4
2004	0.15	0.04	3.7	0.19	0.09	2.1
2005	0.21	0.04	5.2	0.17	0.08	2.1
2006	0.12	0.06	2.0	0.19	0.09	2.1
2007	0.23	0.16	1.3	0.20	0.10	2.0
2008	0.18	0.11	1.6	0.11	0.05	2.2
2009	0.18	0.04	4.5	0.10	0.04	2.5
Total	1.74	0.75	2.3	1.99	0.95	2.1

Indigenous boys being repeated was, on average, much higher than Indigenous girls. In 2009, for instance, Indigenous boys were more than four times as likely to be repeated as non-Indigenous girls. On average, non-Indigenous boys were twice as likely to be repeated as non-Indigenous girls.

Discussion

With fewer children requiring an intervention such as grade repetition to address their low levels of readiness for school, the introduction of a full-time Prep year may have been successful in preparing children for school, as can be seen in Figure 1. The introduction of the Prep year may have contributed to better preparing children for school by reducing the number of repeated preschool students by almost half from 1.71% in 2006, the year before Prep was introduced to 0.9% in 2009. However, because the downward trend in grade repetition has only been apparent for 3 years since the introduction of the Prep year, the trend may need to continue before any possible relationship can be established. The reduction of early grade repetition rates may also be a result of the recent introduction of the Australian Early Development Index (AEDI), a population measure designed to assess how well communities provide for their children's readiness for school (CCCHTICHR, 2009). Most importantly, the AEDI offers a tool from which communities, governments and policymakers can develop appropriate services, resources and support to improve child development outcomes (CCCH, 2007, CCCHTICHR, 2009).

Until the introduction of the full-time Prep year in 2007, non-Indigenous students aged 5 years were more at risk of being repeated than Indigenous students aged 5 years. Since 2007, the trend has changed, with Indigenous students aged 5 years now being slightly more at risk of being repeated in the Prep year than non-Indigenous students aged 5 years. The most recent data collected in 2009 shows that Indigenous students were more at risk of being repeated than non-Indigenous students in other early childhood years (students aged 6–8 years) as well. Thus Indigenous students may still be less prepared for school than non-Indigenous children, as indicated by the relative risk ratios for students aged 5 to 8 years. Indigenous children's lower levels of achievement in early schooling may be partly explained by the practice of some Indigenous students to commence school in Year 1, the age when children are legally required to commence school, rather than Prep, which is offered but children are not legally required to attend (Anderson, 2008). Thus because preschooling in Queensland is not compulsory (QSA, 2007), an estimated 2% of all children do not attend Prep (Chilcott, 2011). As one North Queensland study found, the numbers of Indigenous students not attending a preschool program were so high at some primary schools, that special 'transition' classes were devised to cater for the large numbers of Indigenous children who had not attended Pre-school (Anderson, 2008).

As Year 1 programs in Queensland schools are more often based on the assumption that children have completed a pre-Year 1 program such as Prep (Anderson, 2008), children who have not completed Prep may

limit their achievement in Year 1 and subsequent years.

One interesting trend concerning Indigenous and non-Indigenous grade repetition for students aged 5 years can be seen in Tables 2 to 9. Before the introduction of the full-time Prep year in Queensland state schools in 2007, non-Indigenous students were more likely grade repeaters than Indigenous children (DETA, 2007, 2011a). Of these non-Indigenous students, boys were twice at risk of being repeated as girls. Of the four groups, Indigenous and non-Indigenous, boys and girls, non-Indigenous boys were the most at risk of being repeated and Indigenous girls the least at risk of being repeated. Given that Indigenous children, as a group, are often seen as being disadvantaged in education (ACARA, 2010; MCEETYA, 2000), it is interesting that a practice that is considered by researchers in the United States to provide few educational advantages (Hong & Raudenbush, 2005) is generally employed for non-Indigenous children, generally more advantaged in education (MCEETYA, 2000). One study conducted in Queensland from 2000 to 2007 found that many teachers, as well as middle-class, non-Indigenous parents, believed that a 'second' year of preschool was beneficial and would ensure that their children were 'really ready' for school, particularly if they were younger-for-their-year-level boys and thus endorsed this practice (Anderson, 2008). Further research in this area might indicate why both Indigenous and non-Indigenous boys aged 5 years are more at risk of being repeated in Prep than Indigenous and non-Indigenous girls aged 5 years.

Addressing Indigenous Students' Underachievement at School

Data available from the ABS (2004) indicates that in 2001, 45.9% of Indigenous students participated in preschool education compared with 56.9% of non-Indigenous students. Data gathered between 2004 and 2005, indicates that the number of Indigenous students enrolled in Australian pre-schools (children aged 3—5) decreased slightly (the percentage of decrease was not offered), while non-Indigenous enrolments have increased by 4% (ABS, 2007). Although such participation rates indicate the number of students enrolled in school or preschool, they do not indicate how many students actually attend school or preschool regularly. As suggested previously, one factor working against Indigenous students' participation in preschool education in Queensland may be Prep's non-compulsory position. Studies in Australia (Thorpe et al., 2004) and overseas (Mustard, 2006; Schweinhart et al., 2005) show that preschool participation has a positive impact on school achievement (Schweinhart et al., 2005) and, as recent data has shown (DET, 2011a), may reduce interventions such as grade retention or delayed school entry, which some studies suggest have little value (Jimerson, 2001, 2004; Shepard, 2004).

In a study of transition to school for Australian Aboriginal children, Dockett et al. (2006) looked at how the participation rates of Aboriginal children and their families might be better supported. Although the study was conducted with students who commenced formal schooling, similar principles are likely to apply to those commencing preschool. Dockett et al. found that there was a need to make the presence of Indigenous students in the school more visible through displays that reflected their culture. Also, the presence of Indigenous teachers, teacher-aides and general staff was considered to encourage the participation of children and their families in their children's schooling. Dockett et al. found that such strategies were 'crucial to helping make young Aboriginal children feel as if they belong in the school environment' (2006, p. 142). These strategies are similarly suggested by DET (2009) as a means to closing the gap between Indigenous and non-Indigenous educational outcomes in Queensland state schools.

The relationship between students' positive outcomes at school and parental involvement has been long documented (Toomey, 1989). While the perception has existed in schools that Indigenous parents have little interest in their children's schooling, Dockett et al. (2006) noted that the Aboriginal families in their study understood the need for family involvement in schooling and that this involvement was linked to positive educational outcomes for their children. Schools that appeared to have more success with involving Indigenous families in preparing children for schooling were those that offered less structured and more relaxed activities where the parents could interact freely with others such as 'open days' (Dockett et al., 2006). 'Open days' included such activities as opening the classroom to families as well as the children on the first day of each term so that everyone had the opportunity to become familiar with the school environment (Dockett et al., 2006).

The importance of cultural studies in the curriculum to motivate, increase attendance and improve self-identity of Indigenous children of all levels of schooling has been noted in other studies (Kale, 1995). Incorporating children's cultural backgrounds and different orientations to learning into school practices has long been recognised as necessary for both early and long-term participation in schooling (DET, 2009; QSA, 2007; Department of Education Aboriginal and Torres Strait Islander Education Branch, Queensland, 1996; The State of Queensland, Department of Premier and Cabinet, 2002).

Studies have also shown that preschool literacy experiences of Indigenous children may not always match those offered at school and may not be valued in the same way as those of the dominant cultural groups (Kale, 1995; MCEETYA, 2000; Mills, 2008). Kale (1995) found in her study of literacy and oracy practices of Torres Strait Islander families that although literacy practices were present, they were different. Although some teachers may

perceive Aboriginal and Torres Strait Islander students as having deficits in literacy experiences, studies have shown that their communication skills can be quite strong (Kale, 1995; Malin, 1990). Teachers' perceptions of Indigenous students' low literacy levels may also stem from Indigenous children's use of their own dialects or kriols rather than Standard Australian English. Dockett et al. (2006) argue that many teachers may believe that students are using 'bad English' instead of their own dialect or kriol. One study found that there is a strong emphasis in some schools to incorporate Indigenous languages, culture, history and civics programs into their curricula, particularly at schools where a significant number of Indigenous children attend (Anderson, 2008). The *National Statement of Principles and Standards for More Culturally Inclusive Schooling in the 21st Century* argues that a curriculum should be provided for young Indigenous students that avoids discrimination, allows children to have the same learning opportunities as non-Indigenous students within their own cultural beliefs and practices, and enables them to value and understand their own Indigenous cultures and knowledge (MCEETYA, 2000). Mills (2008) similarly argues that to properly recognise diversity, views must be 'more closely aligned with a recognitive view of social justice' (p. 261).

Although education departments may offer the view that Indigenous children's prior-to-school experiences need to be taken into account and valued as a resource on which to build further learning (QSA, 2007), Dockett et al. (2006) noted that the Aboriginal parents believed that their children had a range of competencies that were valued in their culture and in life generally, but not at school. Malin (1990) reports similar findings in a study she conducted of young Aboriginal students in Victoria. Although the students in her study appeared to be socially competent, engaging with and supporting others in the classroom, the teacher appeared to place less value on such competencies, valuing instead the capacity for students to work quietly and independently (Malin, 1990). Dockett et al. (2006) argue that schools need to support Indigenous students and their families by recognising students' strengths and prior learning experiences and incorporating these into their learning at school. When these factors are taken into account, Indigenous student achievement at school is likely to increase and their subsequent risk of being repeated at school is likely to decrease.

Conclusion

Although preschool grade repetition rates have been reduced since the introduction of the Prep year in 2007, the practice of preschool retention in Queensland state schools still represents a concern. The basis of this concern has been detailed in school and preschool retention literature drawn mainly from the United States, which provides empirical evidence for the ineffectiveness and possible harm to students who are repeated (Hong & Raudenbush, 2005; Jimerson, 2001, 2004; Shepard, 2004). Because much research shows limited support for grade repetition and warns against this practice, it is of concern that it is not only offered to all students, but also to Indigenous students who, according to the most recent data collected in 2009, appear to be at greater risk of being repeated in all early childhood year levels (ages 5 to 8) than non-Indigenous students. Of greater concern is that grade repetition, deemed by research to be ineffective and possibly harmful, is offered to Indigenous students who have already been identified as being disadvantaged in education (Centre for Community Child Health and Telethon Institute for Child Health Research, 2009; MCEETYA, 2000). As the study has shown, high quality, full-time preschooling such as Queensland's Prep year, along with the Australian Early Development Index, may have significantly reduced interventions such as grade repetition in Queensland state schools. As well as with high quality preschool, alternatives to grade repetition might include Dockett et al. suggestions from their research to increase Indigenous students' engagement, participation and outcomes in education.

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