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Educational Outcomes for Aboriginal¹ School Students in Tasmania: Is the Achievement Gap Closing?

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Abstract

A quality education is a basic societal right. Yet for many Aboriginal students that right is not yet a reality. This paper focuses on the situation of Aboriginal/palawa school students in Tasmania and employs a quantitative methodology to examine the comparative educational achievements of Aboriginal school students. State level Grade 3, 5, 7 and 9 numeracy and reading test results from the National Assessment Program of Literacy and Numeracy (NAPLAN) 2008 - 2016 support the analysis. Results indicate that Aboriginal students remain more likely to be at or below minimum literacy and numeracy standards than their non-Aboriginal counterparts. It is also found that Aboriginal students' academic achievement declines as they move through the schooling system. Further, Aboriginal students are less likely to partake in NAPLAN due to higher absenteeism on test days. These results are discussed in the context of education policy and the broader national and international literature on factors influencing academic achievement for Aboriginal and Torres Strait Islander school students. Despite an increasing awareness and the development of strategic policies to address Aboriginal educational inequality, it is evident that little has changed between 2008 and 2016. It is strongly argued that Aboriginal students' underachievement is more likely tied to schooling and policy environments that do not adequately meet their needs, rather than the students themselves. As such, policies and interventions that create long term, embedded improvement of Aboriginal students' schooling experiences and the engagement of their families and communities are a prerequisite for improving Aboriginal student outcomes.

Keywords: Aboriginal, education, NAPLAN, policy, attendance

Introduction

Access to a good school education is a basic societal right. Educational achievement or lack of achievement have a foundational influence on a child's future life chances. Yet it is now well understood that educational outcomes are not distributed equally across social, cultural or

¹ The term "Aboriginal" is used in this paper, other than in the Literature Review and Figures (to reflect NAPLAN terminology), as the overwhelming majority of the Tasmanian Indigenous population are *palawa* Tasmanian Aboriginal people. A very small number of Torres Strait Islander children may be included in these results.

physical geographies. The long term embedded inequality of Aboriginal educational outcomes suggest that outcomes are also not distributed equally across racial geographies.

Educational outcomes for Tasmanian Aboriginal *palawa*² children are not equal to those of their non-Aboriginal peers, with the disparity magnified by demography. At 4.5% of the State's population in 2016, Aboriginal Tasmanians have a median age of just 24 years compared to 43 years for the non-Aboriginal population. This indicates that a high proportion of the Aboriginal population are of school age. Also, in a state where the highest proportion of the population live outside of the capital city (Australian Bureau of Statistics [ABS], 2011-12), the Aboriginal population is even more likely to be rural. Population concentrations still exist in regions where forebears settled: on the North West Coast, on Flinders and Cape Barren Islands, and in the Huon region of Southern Tasmania. Educational inequality is also linked to historical and ongoing socio-economic, cultural and political disadvantage. Randriamahefa (1979) reports that, in the 1970s, Tasmanian Government departments were reluctant to even acknowledge the Tasmanian Aboriginal population. This lack of recognition is now remediated and education policy makers have increasingly sought to redress the longstanding educational inequity.

In this paper, we investigate the progress Tasmanian schools have made in closing the educational outcome gap using data from the National Assessment Program of Literacy and Numeracy (NAPLAN) (2008-2016). In doing so, we answer two research questions:

1. *What is the pattern of Tasmanian Aboriginal children's relative achievement in NAPLAN numeracy and reading during the period 2008-2016?*
2. *What is the pattern of Tasmanian Aboriginal children's relative achievement in NAPLAN numeracy and reading over their schooling lives?*

The results of the analysis are then explored within the context of recent education policy initiatives and the broader literature on factors influencing Aboriginal school students' academic achievement.

Setting the Tasmanian Context

Tasmania, a large island and the most southern state in Australia, is well known for its natural beauty and world heritage areas. Tasmania is also notorious for its near genocide of the palawa peoples. As well documented (see Ryan, 1981; Reynolds, 2004; Walter & Daniels, 2008) in the early 1800s, British colonisation and the brutal and relentless dispossession of the Tasmanians that accompanied it, coincided with predation on palawa women by sealers working on islands off the coast of Eastern Tasmania. In the early 1830s, the survivors of these dual onslaughts were imprisoned on the Bass Strait Islands. There, despite promises of freedom, Christianising and lower order domestication were enforced in prison camp conditions. Disease, poor non-traditional food, damp, dirty and close quarter housing saw the people quickly wither and die. Truganini's death in 1876 was marked as the end of the palawa peoples.

The Aboriginal Tasmanians, of course, did not die out. A handful of descendants, primarily the progeny of Aboriginal women and sealers, survived and indeed thrived, strong in identity and culture. The renaissance of Aboriginal rights and identity in the 1970s saw the official

² *palawa* is the Aboriginal name for Tasmanian Aboriginal people

(re)recognition of the Tasmanian Aboriginal people. As of the 2016 Census, there were over 23,000 Identified Aboriginal people in Tasmania, comprising 4.6% of the State’s population. However, the impact of historical, social and cultural marginalisation and socio-economic disadvantage remain present. As per Table 1, in a State with a high proportion of low socio-economic status people within its population, Aboriginal markers of advantage fall well below non-Aboriginal markers.

The demographic distribution of Aboriginal people in Tasmania is also more rural. Tasmanian Aboriginal people are more likely to be residing outside the major population centres. For instance, the council areas of Huonville, Brighton and Flinders Island, which are considerably more rural than the major population centres, record significantly higher Aboriginal populations than the state average. In Huonville and Brighton, over 9% of the population are Aboriginal and in Flinders Island, more than 15% are Aboriginal. In contrast, Hobart City only has approximately 700 Aboriginal residents, comprising 1.4% of its total population.

Further, as shown, Aboriginal people have lower incomes, are more likely to live in crowded housing, less likely to own their own home and more than twice as likely to be unemployed.

Table 1: Socio-Economic, Demographic Details: Aboriginal/Non-Aboriginal Tasmania

	Aboriginal	Non-Aboriginal
Median Age of Persons	24	43
Median Personal Income (\$/weekly)	472	578
Households needing one/more additional bedrooms (%)	5.9	2.2
Unemployment rate (%) (2011)	12.3	6.1
Sole Parent Families (%)	37.4	27.8
Own Home Outright (%)	17.8	36.8
Home with Mortgage (%)	33.7	34.1
Renting (%)	45.0	26.2

Source: Derived from Census of Population and Housing 2016

Schooling educational inequality and its later impacts are also evident. While Tasmania has some of the lowest educational attainment rates in Australia, the attainment rate for the Aboriginal population is substantially lower again. As shown in Figure 1, Tasmanian Aboriginal people are less likely to have achieved Year 12, the final year of school in Tasmania, or to hold a post-school qualification. Although the rates of diploma and certificate level post-school attainment is similar, there is a very marked disparity in the proportion of Aboriginal and non-Aboriginal people who hold a bachelor degree or above.

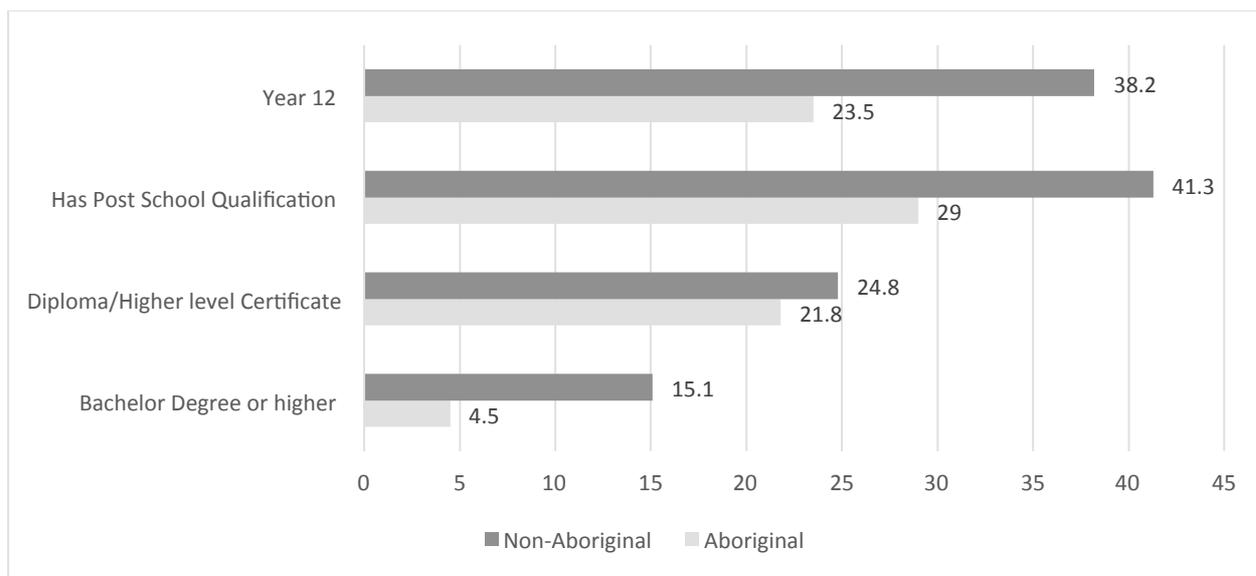


Figure 1: Educational Attainment Aboriginal and Non-Aboriginal Population, Tasmania
 Source: Derived from Census of Population and Housing 2011 (2016 data not yet available)

Literature Review

The research literature presents a complex and multifaceted picture of why educational outcomes for Indigenous children have traditionally been, and continue to be, so inequitable. The literature on Tasmanian Aboriginal school children, however, is virtually non-existent apart from Randriamahafa’s (1979) study, which found embedded Aboriginal education disparity. The research discussed in this section is therefore based on the national and international literature, which by contrast is voluminous. This literature is presented here in four separate thematic areas (see Peacock et al., in press), but in lived reality, all are intertwined.

Deficit based understandings

Scholars such as Gray (2008) argue that educational disadvantage for Indigenous children is normalised. Attempts at improving educational achievement levels have, therefore, tended to be embedded in deficit models which presume educational disparity is caused by inability and/or lack of effort on the part of children and their parents. Patrick and Moodie’s (2016) mapping of the shifting policy discourses around Aboriginal and Torres Strait Islander education show that these discourses are longstanding and pervasive. Colonial “protection” measures denied education but shifted in the 20th century to assimilation measures which used education to try to nullify Aboriginal and Torres Strait Islander culture and identity. In the 1970s and 1980s, a brief period of self-determination occurred whereby Aboriginal and Torres Strait Islander people were given (very limited) governance of their own educational affairs. Politically, self-determination ended with the abolishment of the Aboriginal and Torres Strait Islander Commission in 2005. Contemporaneously, the authors argue the dominant discourse is one of normalisation, defined as “a system of tests and examinations” that measure sets of skills and performances defined within the dominant Anglo upper middle class practices of living (Patrick & Moodie, 2016, p. 68).

Deficit approaches are not only socially negative, they also impact upon educational outcomes. Tarbetsky and colleagues (2016) found that Aboriginal and Torres Strait students’ implicit beliefs about themselves, absorbed from wider societal deficit discourses, were a stronger predictor of outcomes than their Indigenous status. Similarly, Bodkin Andrews et al. (2012) found that Aboriginal and Torres Strait student self concept, strongly linked to experiences of interpersonal

racism and dominant negative stereotypes of Aboriginal and Torres Strait Islander people, was the main factor affecting student disengagement.

School attendance

Students who feel connected to their school are more likely to have positive experiences (Mulford, 2009) and school attendance is one way in which connectedness is manifested. In 2015, the attendance rate for Aboriginal and Torres Strait Islander school students was 84% compared to 93% for non-Indigenous students (Department of Prime Minister and Cabinet, 2016). Attendance figures alone, however, can result in deficit models that portray educational inequality as predominantly about getting more Aboriginal and Torres Strait Islander children to school, and this discourse is a feature in some current educational policy (see Closing the Gap Statement, 2016). This is not to suggest that increased school attendance would not improve educational outcomes, but in isolation such discourses are simplistic. Rather, there is growing evidence that the focus should be less on students' physical presence and more on the students' relationship to school and learning (Steering Committee for the Review of Government Service Provision, 2016). As Biddle (2014) argues, current Aboriginal and Torres Strait Islander school attendance policy may be missing factors that are actually the cause for non-attendance. For example, housing instability, transport difficulties and financial constraints have all been associated with lower Aboriginal and Torres Strait Islander attendance rates (Grace & Trudgett, 2012; Hewitt & Walter, 2014).

Prout-Quickie and Biddle (2016) suggest that Indigenous students' non-attendance might say more about their relationship to the Western formal education system than their motivation. There is, they argue, a lack of robust empirical and theoretical framework to explain school non-attendance, which in turn impedes appropriate policy development. Their own study in the Kimberley area of Western Australia found that Indigenous students respond to a collaborative, visual and experiential curriculum; and that school environment, relevance of schooling content and housing stress and family crises were all more important predictors of non-attendance than income or financial considerations. The authors conclude, a focus on school culture, curriculum and health and well-being is therefore more likely to be effective than the sanctions focus of current policy.

Teacher/School engagement

The research literature also strongly indicates that positive school and teacher engagement with Aboriginal and Torres Strait Islander communities positively influence student outcomes. Studies of schools' utilisation of Indigenous perspectives within the school curriculum, for example, consistently find that simple activities that incorporate elders, parents and educators can be effective (Bond, 2010; Harrison & Greenfield, 2011). Mooney and colleague's study (2016) of Sydney schools affirmed that classroom cultural responsiveness and sensitivity may be an essential factor in allowing Indigenous students to properly engage with the curriculum. Similarly, Lewthwaite et al. (2015), in a Queensland study, found parents wanted their schools to have a greater understanding of Indigenous history and culture. The students argued for a more supportive and positive environment and for the school to create cultural bridges to promote learning. Elsewhere, Baxter and Myer's (2016) study of rising Aboriginal school attendance rates at a Victorian school found the key was the employment of an Aboriginal Education Worker. Their very presence encouraged Aboriginal enrolments, which in turn led to changes in school culture and the introduction of policies that actively celebrated Aboriginal culture and supported and engaged Aboriginal parents.

Teachers' cultural understanding is also implicated in how engaged Aboriginal parents are in their children's schooling. Trudgett and colleagues (2017), for example, find that how highly parents rate their child's teachers' understanding of the needs of Aboriginal and Torres Strait Islander

parents is directly related to active school engagement. Policy measures aimed at upskilling teachers and educational facilitators in regards to their cultural understanding and sensitivity have therefore being prominent in recent policy documents (SCRGSP, 2016). Further, Sarra (2011) argues that high quality relationships between students, teachers and the wider community are central to student and family engagement. Similarly, the work of Rahman (2010) and of Fogarty (2013) affirms that students need a culturally responsive school environment that fully enables them, the students, to build on their knowledge, skills and strengths when they enter the classroom. Prout-Quickie and Biddle (2016), however, stress that the negative experiences of many Aboriginal and Torres Strait Islander parents at school and current negative experiences of their own children, have made many distrustful of the educational system.

Pedagogical approaches

Fogarty and colleagues (2015) argue that many schools with significant Indigenous student populations remain too rooted in Western pedagogical frameworks. The result is, frequently, a silencing of Indigenous voices, especially in the decision making process. Guenther et al. (2015), instead, argue that building engagement requires a systems approach that improves Indigenous capacity to deliver a more culturally responsive education. The need for adaptive and Indigenous focussed school environments is also implicated. Canadian researchers, McIntosh and colleagues (2014), argue that school environments need to do the adapting rather than trying to force Indigenous students to fit. When the school environment was adapted to reflect Indigenous cultural mores, they found that the rates of behavioural disciplinary actions, such as suspensions, declined markedly. Native American scholars Suina and Smolkin (1995) and Brayboy and Castagno (2009) also point to evidence showing that community and culture-based education best meets Indigenous children's needs. The literature also shows that benefits accrue when schools change their level of culturally responsive pedagogy. In Aotearoa, New Zealand, Hynds and colleagues (2016) found that completing a cultural sensitivity program led to improved culturally responsive pedagogy for teachers, which in turn led to better Māori student engagement, including higher retention rates to senior high school.

Education policy in Tasmania

The following policy overview is restricted to the years of NAPLAN test result availability, 2008 to 2016. In 2009, the Council of Australian Governments (COAG) allocated additional Tasmanian education funding through the Stronger Smarter National Partnerships 2009-2012 (SSNP). The impetus for the SSNP was the work of noted Aboriginal scholar, Chris Sarra and his Stronger Smarter Institute, but while inclusive of Aboriginal students the policy's primary focus was schools and students from low socio-economic areas. The SSNP encompassed the following partnership agreements: the National Partnership for Low Socio-Economic Status School Communities, the National Partnership for Literacy and Numeracy and the National Partnership for Improving Teacher Quality. The SSNP agreement between COAG and the Tasmanian government addressed issues such as absenteeism, literacy and numeracy gaps, increased professional learning for teachers, and community engagement (Department of Education Tasmania Progress Report, 2011).

Around the same time, the *Aboriginal and Torres Strait Islander Education Action Plan 2010-2014* (ATSIEAP) was released. One plan initiative was that every Aboriginal and Torres Strait Islander student should have personalised learning plan developed each year. These addressed literacy and numeracy and general academic achievement but also encompassed other criteria, such as how the school can support the student culturally. Additionally, within each state and territory, "focus schools" were selected based on Aboriginal and Torres Strait Islander student enrolments and the proportion of students falling below NAPLAN national minimum standards in reading, writing or numeracy (Education Council, 2014). In Tasmania, 72 Government schools and 10

Catholic schools were identified as focus schools. In 2012, the SSNP and the ATSIEAP were supplemented by an additional \$1.9 million in funding to extend Literacy and Numeracy program for Aboriginal students (Smarter Schools National Partnership: Tasmania, 2011). In Tasmania, the additional Commonwealth funding was used to complement an existing literacy and numeracy initiative, *Raising the Bar Closing the Gap* (RTBCTG), through a new, specific Aboriginal component, the *maana* Initiative (2012-2013). Five regional and remote schools with high Aboriginal enrolments were selected. The *maana* Initiative provided funding to employ an Aboriginal Education Worker (AEW) part-time, an additional full-time teacher, and an assistant principal (.5 Full-Time Equivalent [FTE]). Another key measure included professional learning for teachers to develop and deliver culturally relevant curriculum. The main aim was to rapidly increase literacy and numeracy achievement amongst Tasmanian Aboriginal students enrolled in participating schools. The evaluation of the *maana* Initiative was noted as including measures such as NAPLAN results, PAT Testing and attendance rate improvements. However, the National Evaluation Report (2014) does not include any State level details (*Raising the Bar Closing the Gap maana*, 2014). There are no direct data on these results included in the report, but as this principal noted, the program had raised the profile of Aboriginality within the schools:

The maana project has enabled the school to lift the profile of Aborigines in our school. Through the program, these children decided they wanted everyone to know they were Aboriginal, and are proud to be so. (Principal p.6)

The current relevant policy is the *Tasmanian Aboriginal Education Framework (2016-2017)*, which is linked on the Tasmanian Education Department's website to the broader policies: *Tasmania's Closing the Gap Strategy* (n.d.); and the *National Aboriginal and Torres Strait Islander Education Strategy (2015)*. The *Tasmanian Aboriginal Education Framework (2016-2017)* is a short document which includes progress measures inclusive of: "*The proportion of Aboriginal people involved in learning programs and curriculum resource provision is increased*" and "*The proportion of Departmental staff who have engaged in Aboriginal education professional learning programs in cultural responsive programs is increased.*" The document, however, does not give any targets on current measures or set targets for the level of increase expected over the 2016-2017 period. This policy also guides the work of the Aboriginal Education Services (AES) branch of the Tasmanian Education Department. The role of the AES, which manages programs, is stated as:

supporting Aboriginal Students, the provision of Tasmanian Aboriginal culturally relevant and inclusive curriculum materials and resources, and support for schools and pre-school services to be more culturally sensitive and inclusive learning environments. (Aboriginal Education, Department of Education Tasmania, n.d.)

This review of recent education policy nationally, and especially within Tasmania, indicates that the Aboriginal educational outcomes literature are reflected, at least to some extent, in policy aims and initiatives. The particular focus and extra funding provided by the SSNP agreement (2009-2012), the ATSIEAP (2010-2014) and the *maana* Initiative (2012-2013) might reasonably be expected to lead to improved Tasmanian Aboriginal NAPLAN results, at least over the years these programs were in operation.

Method

Being implemented in 2008, The *National Assessment Program for Literacy and Numeracy* (NAPLAN) tests children's literacy and numeracy by collecting data on reading, numeracy and language conventions (spelling, persuasive writing, and grammar and punctuation skills). NAPLAN is managed by an independent statutory authority, the Australian Curriculum Assessment and Reporting Authority (ACARA) and represents the first national assessment in the

Australian schooling system. NAPLAN tests are annually applied to all Australian school students who are enrolled in Grade 3 (8 years of age), Grade 5 (10 years of age), Grade 7 (13 years of age) and Grade 9 (15 years of age). With nine years of data (2008-2016) now available, the results can be deemed indicative of overall patterns of the educational equality status for Indigenous children. This project compares NAPLAN results data from Aboriginal children in Tasmania who attended school on the day of testing with data from non-Indigenous children in Tasmania who attended school on the day of testing. The Australian Curriculum, Assessment and Reporting Authority (ACARA) have established protocols for schools if students are absent from school on the day/s of testing, with absent students able to sit catch-up tests. As part of a school's enrolment process, caregivers are asked to identify whether the child is of Aboriginal or Torres Strait Islander descent.

For this project, only data from the reading and numeracy testing is used. Reading and numeracy are the base education skills, and competency in these areas is the most essential requirement for schooling and later tertiary educational achievement. Language convention results from spelling, grammar and punctuation testing are also likely to correlate to the reading results Patrick and Moodie (2016). In using these data, we are only too aware of the middle class, non-Indigenous cultural foundations of NAPLAN testing, as per Patrick and Moodie's (2016) critique. The NAPLAN data are, however, the only currently available data on Tasmanian Aboriginal children's educational achievements which are publicly available and consequently used to assess the impact of "Close the Gap" policy. The analyses of these data is from an Indigenous perspective (see Walter and Andersen, 2013), it also frames the data as a vehicle for evidence based challenges to the dominant, especially deficit, based discourses of Aboriginal educational achievements.

Results

The first section of the results is ordered according to NAPLAN testing grades; results are categorised as being at, below or above minimum standard. Here, we begin with results for the youngest cohort, students in Grade 3, before also reporting results for Grades 5, 7 and 9. Reading and numeracy results are outlined for each year, comparing the proportion of Aboriginal and non-Aboriginal students whose test results put them in the group deemed below minimum standard. Student proportions at minimum standard are included because test results are an indicator of reading and numeracy competency. Those at minimum standard are at a higher risk of lower educational achievement overall. In the second section, we compare results across the Grade levels.

Grade Three results

The results for Grade 3 numeracy and reading are detailed in Figures 2 and 3 below. Figure 2 shows a small increase in the proportion of Aboriginal students rated in the below minimum standard group for numeracy between 2008 and 2016. The proportion rated at minimum standard only also increased in this period. Figure 3, portraying the results for Grade 3 reading, show the same pattern. The 2016 below minimum standard proportion for Aboriginal students is slightly below that for 2008, but this result seems more a part of the general fluctuation rather than an indicator of improved outcomes. The proportions of Aboriginal students rated at minimum standard reflect a similar pattern of results. In 2016, nearly one quarter (24.1%) of Aboriginal Grade 3 students were below or at minimum standard for numeracy and 27% were below or at minimum standard for reading. In comparison, 14% and 15% of non-Aboriginal students were below or at minimum standard. Despite varying results by year, the much higher ratios of Aboriginal students in these two lowest categories remains consistent over the nine-year testing period.

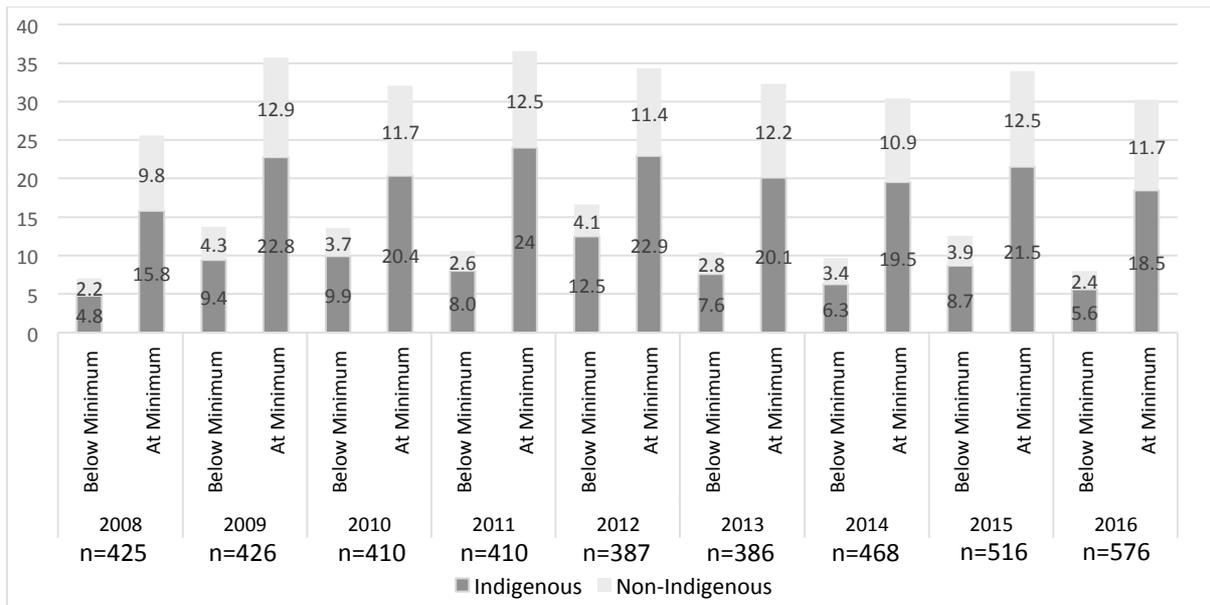


Figure 2: Grade 3 Numeracy by Aboriginal Status, Result Group and NAPLAN Year (n = Aboriginal sample size)

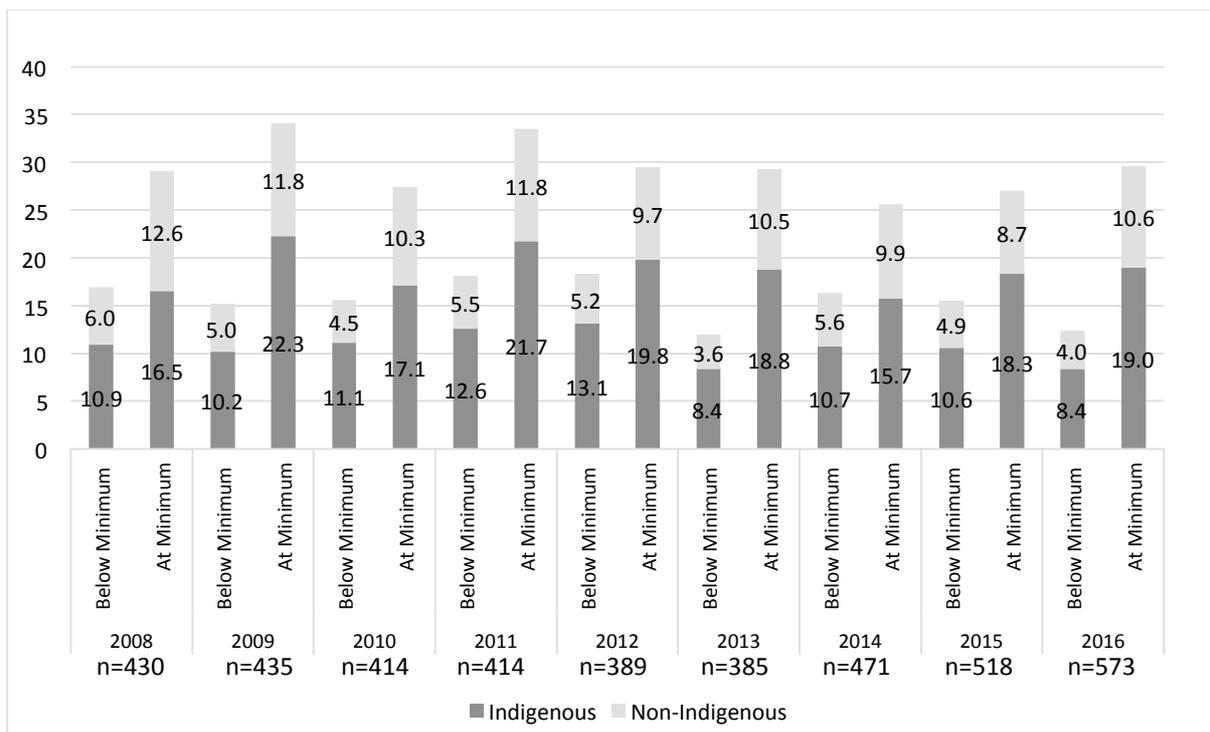


Figure 3: Grade 3 Reading by Aboriginal Status, Result Group and NAPLAN Year (n = Aboriginal sample size)

Grade Five results

In Grade 5, the students are aged 10 to 11 years and in their penultimate year of primary schooling. The NAPLAN numeracy test results displayed in Figure 4 show that the proportion of Aboriginal students in the below minimum standard group is lower in 2015 and 2016 than reported in 2008. The proportion at minimum standard for reading has also reduced slightly. These results may indicate that the numeracy gap is starting to close, but this assumption should be treated with caution given the higher proportion of Aboriginal students not meeting

minimum numeracy standards in 2012-2014. The results for Grade 5 reading, detailed in Figure 5, indicate no change or a slight increase in the proportion of Aboriginal children not meeting minimum standard over the period. In most years, including the most recent, Aboriginal students are more than twice as likely as their non-Aboriginal peers to not meet minimum reading standards. Aboriginal students are also overrepresented in the minimum standard group for both numeracy and reading. Further, the results indicate that around 35% of the Aboriginal Grade 5 students are below or at minimum standard for numeracy and reading, double the rate (18%) of their non-Aboriginal classmates.

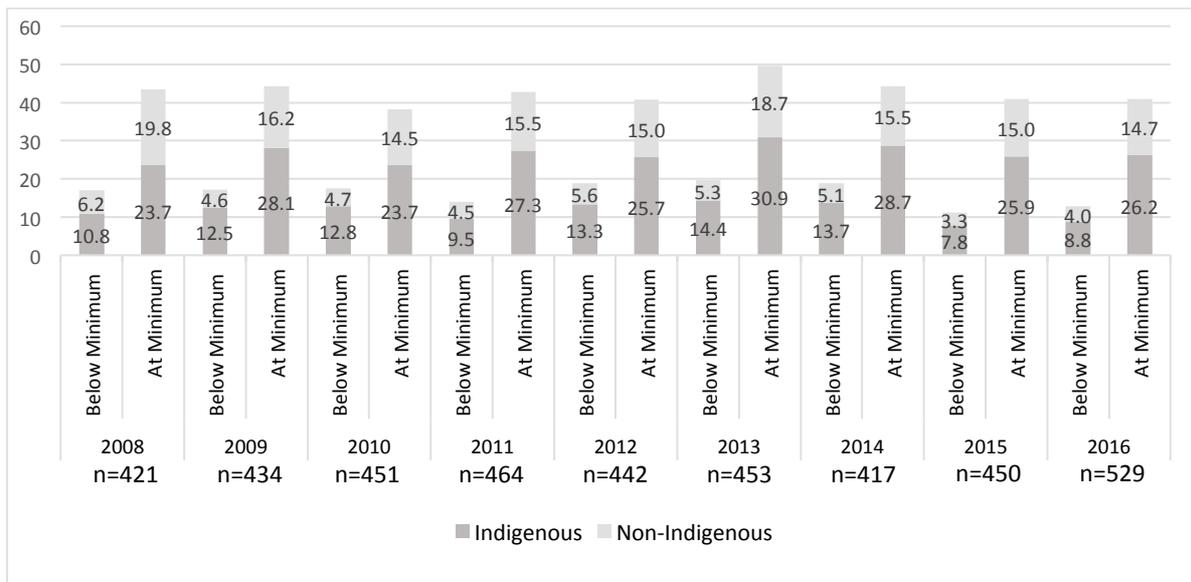


Figure 4: Grade 5 Numeracy by Aboriginal Status, Result Group and NAPLAN Year (n = Aboriginal sample size)

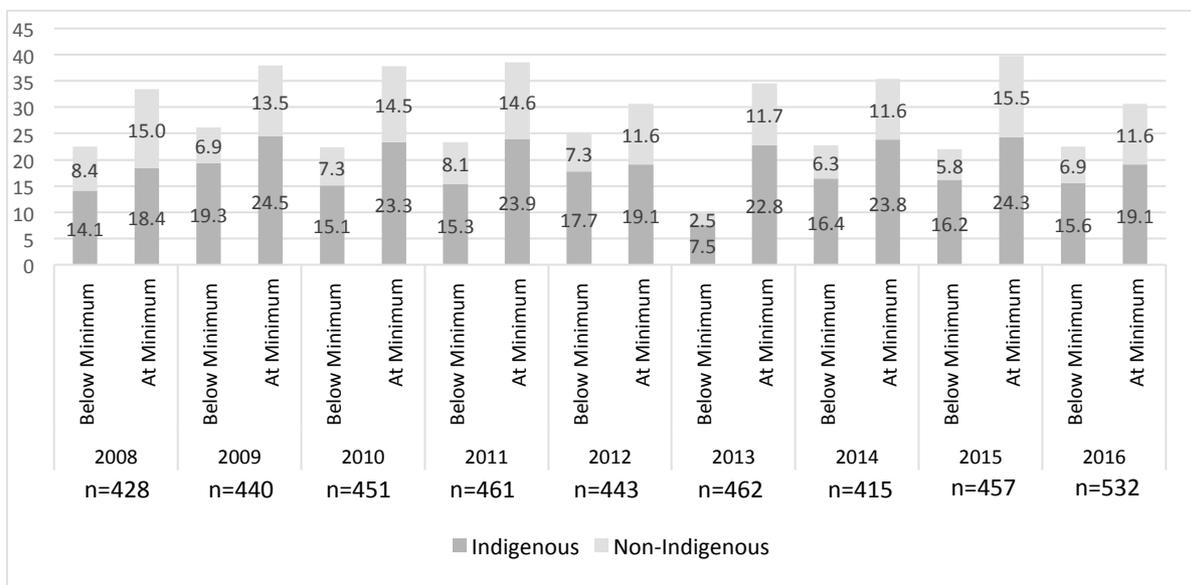


Figure 5: Grade 5 Reading by Aboriginal Status, Result Group and NAPLAN Year (n = Aboriginal Sample size)

Grade Seven results

The NAPLAN results for literacy and numeracy for Tasmanian Grade 7 school students are displayed in Figures 6 and 7 below. In Grade 7, the students are in their first year of secondary schooling. As in the earlier data, there is no observable decrease in the proportion of Aboriginal students whose NAPLAN scores place them in the below minimum standard for numeracy or reading over the nine year testing period. In each case, the 2016 proportion is slightly higher than that recorded in 2008, although there is considerable variation over time. But in 2016, for numeracy and reading, Aboriginal Grade 7 students are ranked in the “below minimum standard” group at triple the proportion of their non-Aboriginal peers.

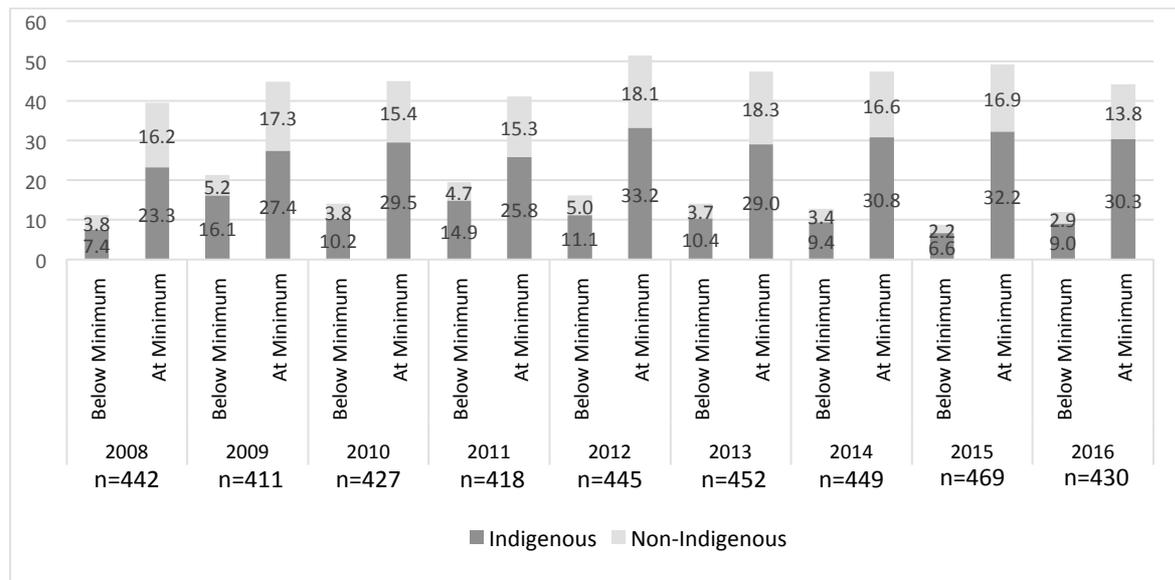


Figure 6: Grade 7 Numeracy by Aboriginal Status, Result Group and NAPLAN Year (n = Aboriginal sample size)

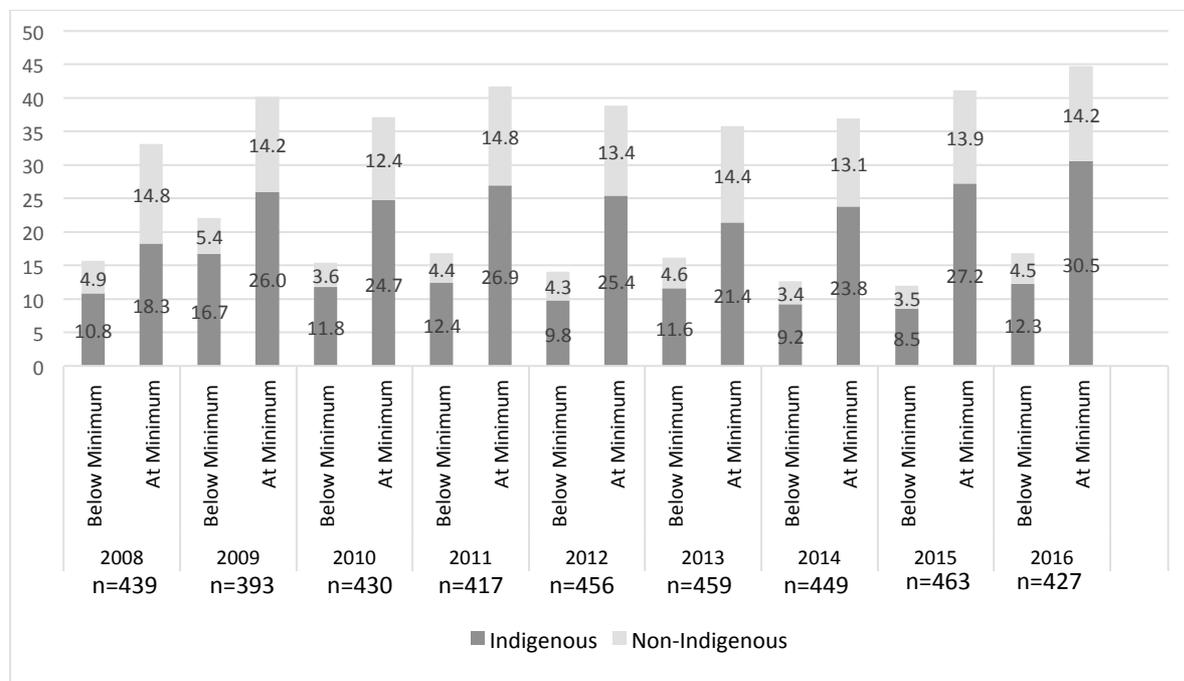


Figure 7: Grade 7 Reading by Aboriginal Status, Result Group and NAPLAN Year (n = Aboriginal sample size)

The proportion of Grade 7 Aboriginal students at minimum standard has also increased between 2008 and 2016 for both numeracy and reading. In 2016, 40% of Aboriginal students tested on numeracy and 43% tested on reading are either at minimum or below minimum standard. Non-Aboriginal figures are less than half this rate (17% and 19%).

Grade 9 results

Although this is now changing, most Tasmanian high schools only offer Years 7 to 10 with students moving to a secondary college for Years 11 and 12. Grade 9 students are therefore in the upper end of their secondary schooling in the current Tasmanian system and aged around 15 years. Grade 9 NAPLAN results from 2008 to 2016 for numeracy and reading are displayed in Figures 8 and 9. Analysing just 2015 and 2016 results, there is a decrease in the proportion of Grade 9 Aboriginal students in the below minimum standard category for numeracy. With the caution of the variation over the nine years of results, these figures suggest that Grade 9 Aboriginal numeracy has improved. Rates of Aboriginal students in the below minimum standard group, however, are still at last twice that of non-Aboriginal students in every NAPLAN year. For Grade 9 reading, the proportion of Aboriginal students in the below minimum standard group in 2016 are higher than in 2008; signifying, at best, no closing of the gap. Again, the proportion of Aboriginal students in the below minimum standard group is more than twice that of the non-Aboriginal students.

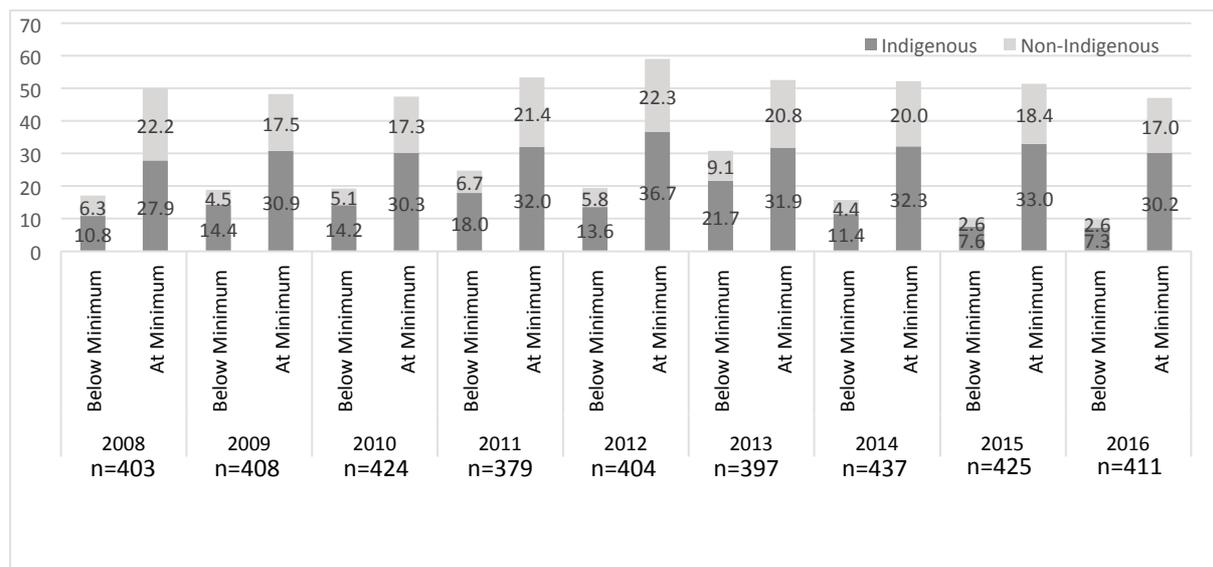


Figure 8: Grade 9 Numeracy by Aboriginal Status, Result Group and NAPLAN Year (n = Aboriginal sample size)

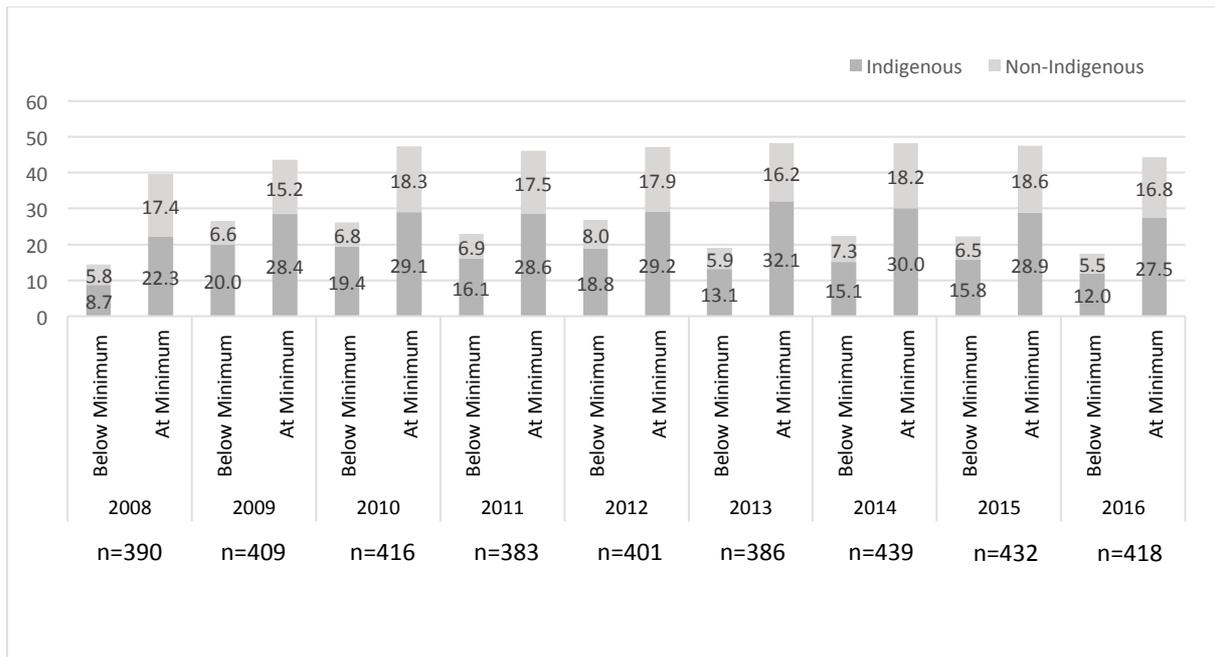


Figure 9: Grade 9 Reading by Aboriginal Status, Result Group and NAPLAN Year
(n = Aboriginal Sample size)

The proportion of Aboriginal students at minimum standard group for Grade 9 has also increased, 2008 to 2016. For numeracy, more than a third (37.5%) of the Grade 9 Aboriginal students are below or just meeting minimum standards in 2016, compared to 19% of the non-Aboriginal students. In reading, around 40% of Aboriginal students, compared to 22% of non-Aboriginal Grade 9 students, are below or just meeting minimum standards.

Patterns over the Grade years

This section examines the patterns of Aboriginal student results by grade. Results for 2008 and 2016 are used in the analysis to balance the effect of looking at just one year. As shown in Figure 10, the proportion of Aboriginal students in either the “below minimum” or “at minimum” group for numeracy is much higher in Grade 9 than it is in Grade 3. While there is variation in totals for Grade 5 and Grade 7 with Grade 9, the trendline for both the 2008 and the 2016 data is up. While 24% of Aboriginal Grade 3 children are below or at minimum numeracy standard, this proportion was 37% for Grade 9 Aboriginal children in 2016. The pattern for reading results, as displayed in Figure 11, is similar, but the rise in the proportion below or at minimum standard for Grade 3 to Grade 9 is much more obvious in the 2016 results. These data are not reporting on the same children, but the results still indicate a decline in academic achievement as the students move through the schooling system.

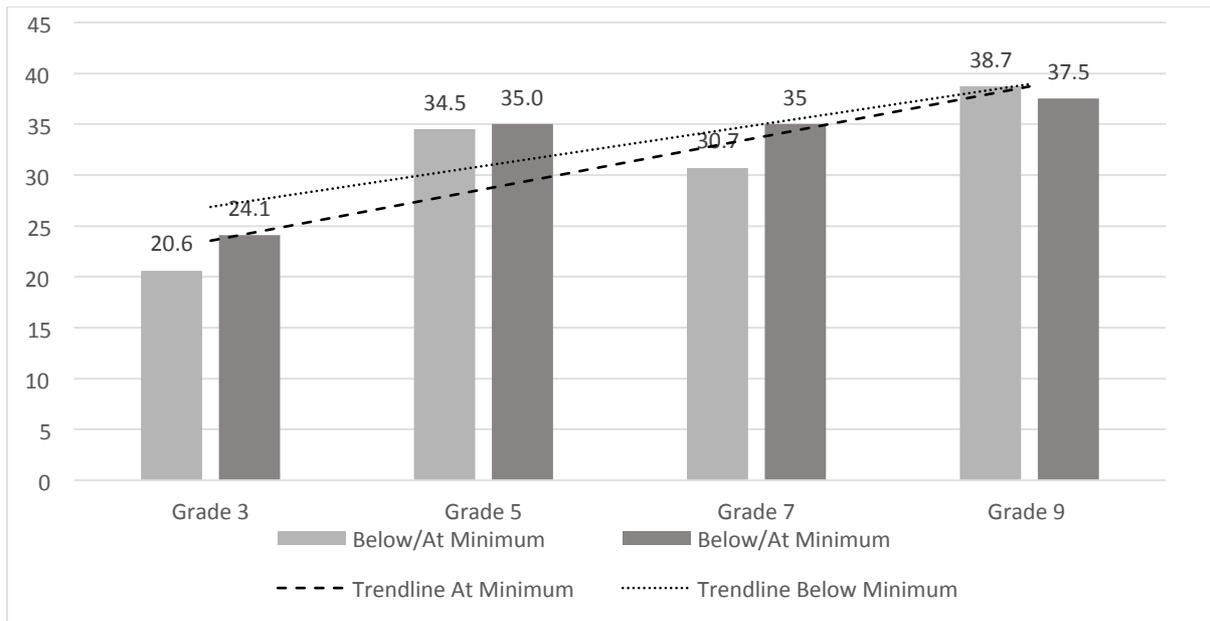


Figure 10: Aboriginal Students Below Minimum and At Minimum Standard for Numeracy by Grade: 2008 and 2016

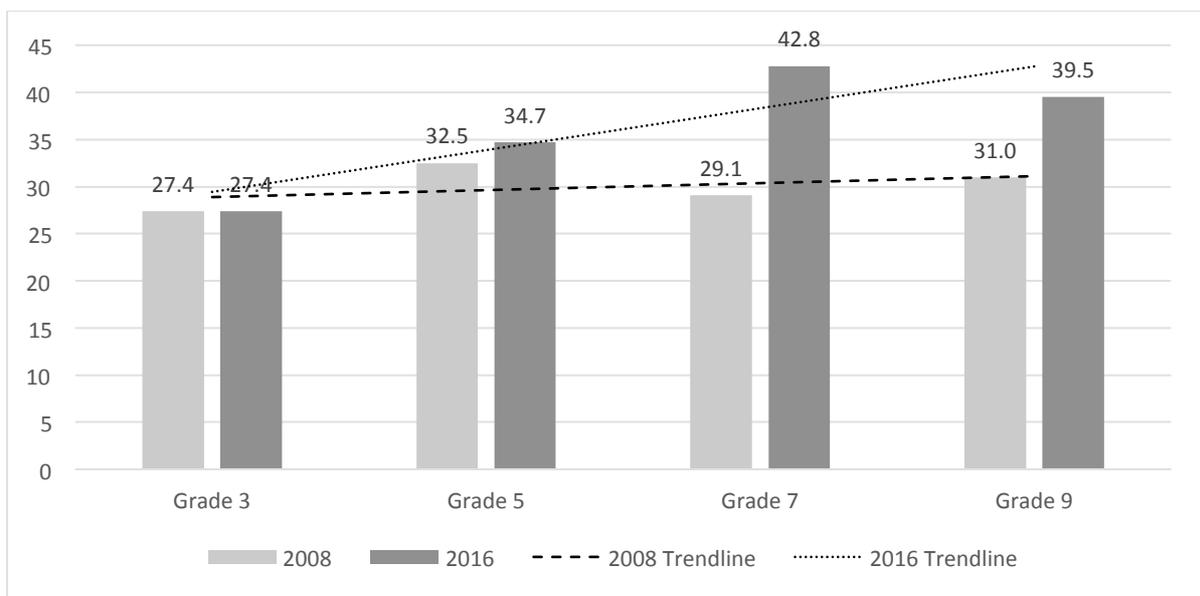


Figure 11: Aboriginal Students Below Minimum and At Minimum Standard for Reading by Grade: 2008 and 2016

Attendance rates for NAPLAN testing

NAPLAN results also report the proportion of Aboriginal and non-Aboriginal students who were absent from school of the day of testing. As shown in Tables 2 and 3, the proportion of Aboriginal students who were absent is both large and disproportionate to the proportion of absent non-Aboriginal students. In line with results reported in Figures 10 and 11, the level of Aboriginal students absent on test days rises as students' progress through grade years. For example, as shown in Table 2, the percentage of Year 3 Aboriginal students and non-Aboriginal students who were absent from school on the day that the NAPLAN assessment appears to be fairly similar. Although rates of absences overall rise between 2010 and 2016, the similarity of the Aboriginal and non-Aboriginal figures remain.

Table 2: Proportion of Year 3 Students Absent by Aboriginal Status and Year: Literacy and Numeracy*

Aboriginal Status	Year	Reading	Numeracy
Aboriginal	2010	3.0	4.0
Non-Aboriginal	2010	2.4	2.8
Aboriginal	2016	4.5	4.2
Non-Aboriginal	2016	2.7	2.9

* 2010 is used as the base year because NAPLAN absenteeism data were recorded differently in 2008 and 2009

Table 3: Proportion of Year 9 Students Absent by Aboriginal Status by Year: Literacy and Numeracy*

Aboriginal Status	Year	Reading	Numeracy
Aboriginal	2010	14.5	12.9
Non-Aboriginal	2010	6.7	7.3
Aboriginal	2016	15.1	16.5
Non-Aboriginal	2016	7.4	7.7

* 2010 is used as the base year because NAPLAN absenteeism data were recorded differently in 2008 and 2009

By comparison, in Year 9, the rates of Aboriginal students absent is around twice that of non-Aboriginal students. The proportion of Aboriginal students absent has also risen sharply from Year 3. As shown in Table 3, in 2010, 3% of Year 3 Aboriginal students were absent on the NAPLAN reading testing day compared to over 14% of Year 9 Aboriginal students. The rates of Year 9 students being absent also appears to be rising over time. In 2010, around 13% of Aboriginal students in Year 9 were absent from school on the day the NAPLAN numeracy testing was undertaken compared to 16.5% in 2016. Reflected in student numbers, the 2016 figures equate to around one in seven Grade 9 Aboriginal students being absent on the NAPLAN reading test day and one in six Grade 9 Aboriginal students being absent on the NAPLAN numeracy test day.

Discussion and Analysis

The analyses presented in this paper sought to answer two questions:

1. *What is the pattern of Tasmanian Aboriginal students' relative achievement in NAPLAN numeracy and reading tests during the period 2008-2016?*
2. *What is the pattern of Tasmanian Aboriginal students' relative achievement in NAPLAN numeracy and reading tests over their schooling lives?*

The answer to the first question is that the proportion of Aboriginal students whose test results placed them in either the below or at minimum group did not reduce between the years of 2008 and 2016. The proportion of Aboriginal children with reading and numeracy test results in these groups also remained at much higher levels than their non-Aboriginal student contemporaries. In 2016, by Grade 9, close to 40% of Tasmanian Aboriginal students were either below or at

minimum standard in numeracy and literacy. If the 15% of students who were absent on testing day were included, it is likely that these results would be even more dire.

These results occurred during and despite a policy imperative and additional funding to improve the educational outcomes for Tasmanian Aboriginal students during the years 2009-2014. Looking more closely at the results, only in Grade 5 and Grade 9 numeracy is there any indication of an improvement, with the 2015 and 2016 proportion of Aboriginal students below minimum standard being lower than that recorded in 2008. In other results, the proportion of Aboriginal students below minimum or at minimum standard were either static at best, or had worsened over the period 2008-2016. We do not have the data to specifically evaluate the effectiveness of the various policies implemented on the ground in schools across the State during these years. However, based on the results reported here, these policies have clearly not achieved their stated aims or objectives.

How can this lack of improvement be explained? Plausible explanations include that the policies themselves were ineffective or were not implemented effectively. Both explanations may be contributors to the lack of improvement in Tasmanian Aboriginal students NAPLAN test results. The research literature is generally supportive of the overarching policy direction. Improving teacher cultural competence, focussing resources on schools in lower socio-economic areas (and consequently with higher numbers of Aboriginal students) and delivering culturally relevant curriculum for Aboriginal and non-Aboriginal students, as per the Tasmanian Department of Education policy statements, all resonate with recommendations from the Australian and international literature. However, the relative short term nature of the particular programs, and the varied application to only some schools, also reflects the recent complaints of the united voice of Aboriginal and Torres Strait leaders, organisations, scholars and activists in the *Redfern Statement* (National Congress, 2016) that Australian Indigenous policy and programs are in a state of constant change and constrained by short term planning.

It may also be that policies implemented to date have some efficacy but are too limited. For example, the current policy framework does not seem to address ensuring that deficit models are not present in school environments. As per Bodkin-Andrews (2012) and Tarbetsky et al. (2016), it is not enough for teachers and schools to not ascribe to deficit understandings—these are already embedded in students' lives through media and public discourse. Rather, they must be proactive in supporting Aboriginal students with developing positive learning self-concepts. Both authors conclude that when teachers cue their students to have more positive belief systems, their academic results improve.

Similarly, literature on effective teacher/school engagement and culturally appropriate pedagogical approaches point to the criticality of privileging Aboriginal conceptualisations of what these are and how they can be best realised (Suina & Smolkin, 1995; Brayboy, 2009; McIntosh et al., 2014; Hynds et al., 2016). *The Redfern Statement* (National Congress, 2016) directly targets the lack of genuine Aboriginal and Torres Strait Islander engagement in the development of Indigenous policy, stating as one of its four key points that: “... policies continue to be made for and to, rather than with, Aboriginal and Torres Strait Islander people.” Tasmanian Education Department policy materials offer little indication of Aboriginal leadership or of direct Aboriginal policy development engagement. We are unable to make comment on the level of Aboriginal engagement but can point, through our own local knowledge, to the relative absence of Aboriginal staff in policy related positions, even within the Department's own Aboriginal Education section. Yet it is clear from the longstanding nature of Indigenous educational inequality that policies devised and initiated by non-Aboriginal educationalists, even with Aboriginal “input”, are unlikely to be effective. Further, failed policy initiatives can be worse than doing nothing, leaving schools, Aboriginal students and families dissatisfied, cynical and less likely to risk further engagement.

The answer to the second question is that Tasmanian Aboriginal children's relative achievement in numeracy and reading deteriorates over their schooling lives. There is an increase in the overall proportion of Aboriginal children whose NAPLAN numeracy and reading results reside in the bottom two groups and a widening of the educational achievement gap between Aboriginal and non-Aboriginal children as they progress through their school years. In short, students fall further behind their non-Indigenous counterparts over time. While socio-economic disadvantage may cause Aboriginal children to begin their schooling less prepared than their non-Indigenous classmates, moving through their schooling exacerbates rather than remediates this gap. This result strongly suggests that the explanation for the phenomenon lies predominantly within the school and schooling environment. As such, policies that target improving Aboriginal students' positive experience at school, as per Mulford (2009), and the students' relationship with the school (Biddle, 2014; Guenther et al., 2015; Prout-Quickie & Biddle, 2016) are required—urgently.

Together, these two results—that there has been (1) no improvement in Aboriginal children's scores over the period of 2008 to 2016, and (2) a decline in academic achievement as Aboriginal students move through the schooling system—strongly indicate that current delivery of education is not working for Aboriginal students overall. There is something very wrong with how education is being conceived and delivered within schools, within the Education Department and within policy frameworks and their implementation. While there is good intent, there is a disconnect between this intent and the actual impact. Aboriginal governance and Aboriginal leadership is required at all levels to begin the complete reframing and renegotiation of education in Tasmania.

Conclusion

The relative poverty of Tasmanian Aboriginal families means that Aboriginal students are much more likely than non-Aboriginal students to attend public primary and high schools (Australian Bureau of Statistics [ABS], 2002-2016). Therefore, state and national education policy matters when addressing the embedded educational inequity facing Tasmanian Aboriginal school students.

As shown in this research, despite the rollout of policy initiatives to close the educational achievement gap, the relative achievement by those students, as measured in NAPLAN results, has not improved. Continuing the status quo is not a policy option. The relative youth of the Tasmanian Aboriginal population means that without significant and comprehensive policy and strategy change, unequal school education outcomes will limit the life chances of increasingly large cohorts of Aboriginal students.

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