

Assessing Equity and Emotional Wellbeing: A Critical Look at NAPLAN in Australian Schools

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Abstract: The National Assessment Program - Literacy and Numeracy (NAPLAN) is a pivotal educational reform in Australia that aims to assess students' literacy and numeracy skills. Since its introduction in 2008, NAPLAN has sparked significant debate regarding its effectiveness and equity. This paper critically examines the promises and pitfalls of NAPLAN, focusing on its impact on educational equity, the socio-emotional well-being of students, and school management practices. While NAPLAN is designed to address inequalities and improve educational outcomes, research suggests that it may inadvertently exacerbate disparities between schools, particularly affecting students from disadvantaged backgrounds. Furthermore, the high-stakes nature of the test can induce anxiety among students and educators, particularly in low-performing schools. This paper also includes a case study of Croydon Community School, an alternative secondary school in Melbourne, to illustrate the diverse impacts of NAPLAN on student performance, socio-educational advantage, and cultural diversity. In conclusion, while NAPLAN provides valuable data on student performance, it must be complemented by broader assessment practices and policies that prioritize diversity and inclusion to fully address its limitations.

Keywords: NAPLAN; Case Study.

1. The Promises and Pitfalls of the School Data Management System: NAPLAN

The National Assessment Program - Literacy and Numeracy (NAPLAN) in Australia, is a significant educational reform that has sparked widespread debate in public, political, and academic spheres. Introduced in 2008, NAPLAN aims to assess the literacy and numeracy skills of students in grades three, five, seven, and nine through standardized testing (Howell, 2017) [6]. The results of the NAPLAN standardized tests are considered one of the overall reference indicators for assessing important skills of twenty-first century students, with the test results deemed an effective reflection of students' literacy and numeracy performance skills (ACARA, 2011) [2]. However, controversies surrounding NAPLAN have persisted over the past decade. These controversies mainly focus on aspects of social justice, psychological impact. Therefore, in the following paragraphs, I will explore the controversies regarding NAPLAN from these perspectives.

NAPLAN promises to help address inequalities in school education and allocate funds more equitably to provide support to schools and students most in need of assistance and resources (ACARA, 2011) [2]. However, achieving these equity goals is challenging. The nature of large-scale standardized testing like NAPLAN inherently involves market-driven principles and comparative competition logic, which often exacerbates inequalities between schools (Ragusa & Bousfield, 2017) [9]. Research indicates that the reasons for students not participating in NAPLAN tests are highly correlated with poverty. For example, students who have previously come into contact with child protection agencies, students with a parental history of mental health issues, and Indigenous students (Wong et al., 2017) [14]. Therefore, ensuring that children in impoverished school communities receive attention in funding allocation and

increased support is highly challenging. NAPLAN's primary mechanism for identifying disadvantage is the Index of Community Socio-Educational Advantage (ICSEA) score, derived from measures of parental education and occupation, school location, and the proportion of Indigenous students. This score is intended to allow fair and meaningful comparisons among students and schools with similar backgrounds. However, reports have indicated that the scale of ICSEA is not sufficiently detailed to accurately capture disadvantage and diversity (Klenowski & Wyatt-Smith, 2012, p. 72) [7].

Another mechanism NAPLAN uses to identify diversity is the classification of students as Indigenous or from non-English speaking backgrounds. However, NAPLAN fails to recognize some students' multilingual abilities, and for Indigenous children, NAPLAN seems inapplicable both linguistically and culturally (Wigglesworth et al., 2011) [15]. Gannon's (2013) [5] research explains that NAPLAN and MySchool may have undermined discussions about Indigenous languages in schools and led to the cancellation of bilingual or multicultural education programs in Australia's Northern Territory. Additionally, Vass and Chalmers (2016) [13] point out that NAPLAN's excessive focus on literacy and numeracy tests has hindered the implementation of policies with decolonizing potential. For example, if school management bases their administration and decision-making on data provided by NAPLAN, focusing solely on the academic performance of students from English-speaking backgrounds while neglecting the learning needs of Indigenous students, relevant policies cannot be effectively implemented within school management.

The debates surrounding NAPLAN in terms of emotional impact and sentiments mainly focus on how participants and stakeholders emotionally respond to it and how their work and practices are affected by this testing system. Sellar (2015) [11] mentions that in some schools where NAPLAN results are not very favorable, staff, students, and parents often suffer from greater pressure and anxiety. Since the test results are

publicly visible, schools fear it might affect their funding and reputation. Additionally, Cormack and Comber (2013) [4] pointed out that in remote schools, although teachers understand the importance of collecting data through NAPLAN testing, they believe that NAPLAN's assumptions do not apply well in the remote school environment. While schools with better NAPLAN scores do not report severe stress and anxiety among students and teachers, teachers still experience unnecessary burden from NAPLAN (Rogers et al., 2016) [10].

Additionally, NAPLAN has a certain impact on students' emotional wellbeing. Some students in public schools with lower NAPLAN scores report high anxiety because they are worried that the results would affect their future career development (Swain et al., 2018) [12]. Evidence of students' concerns about career development and future education also appears in Howell's (2017) [6] article, which found that seventh-grade students hold more negative attitudes towards NAPLAN compared to third and fifth graders because they are generally more concerned that the test results will directly affect their progress and future development in school and higher education. However, when school administrators do not place a high emphasis on NAPLAN test results or do not use them as primary reference data, the pressure and negative emotions experienced by students and teachers decrease (Muir et al., 2018) [8].

In conclusion, the promises and pitfalls of NAPLAN highlight the complex interplay between assessment, equity, and educational quality. While NAPLAN provides valuable insights into student learning and educational performance, its high-stakes nature, narrow focus, and potential to exacerbate inequalities need careful consideration. To fully realize its promise as a tool for improving educational outcomes, NAPLAN must be complemented by comprehensive assessment practices, tailored support for disadvantaged students, and broader reforms that prioritize diversity, equity, and inclusion. Only in this way can NAPLAN truly become a catalyst for positive change in the Australian educational landscape.

2. Case Study -- Croydon Community School

2.1. School Profile

Croydon Community School is a small secondary school with a long history of providing an alternative to the mainstream secondary education environment. Many young people who choose to enroll in this school have not experienced academic success or a sense of belonging in mainstream schools for various reasons (Croydon Community School, n.d.) [3]. The school aims to establish positive relationships between adults and young people, enabling the youth to thrive and reach their potential. To foster these relationships, the school's class sizes are designed to be smaller than those of many other schools, and students typically have fewer teachers than their peers in mainstream secondary schools. At Croydon Community School, it is common for the same group of students to be managed by the same guidance teachers and educational support staff throughout their secondary education (Croydon Community School, n.d.) [3].

Croydon Community School is a member of Big Picture Education Australia and adopts the Big Picture Education design to inspire students' interest in learning and holistic

development. At this school, guidance teachers and educational support staff help young people set personalized learning goals based on their passions or interests and encourage them to actively engage in the learning process (Croydon Community School, n.d.) [3]. This approach enhances their ability to apply knowledge and skills to real-life experiences and challenges. The staff strives to ensure that students' genuine voices are heard and encourages them to exercise as much choice as possible in their learning. The school's guidance teachers also ensure that the overall teaching and learning plans meet the Victorian F–10 curriculum standards and can report student progress according to achievement standards (Croydon Community School, n.d.) [3].

Croydon Community School also offers the Victorian Certificate of Applied Learning (VCAL) to Year eleven and twelve students, who can study VCAL at the Foundation, Intermediate and Senior levels. In 2019, Croydon Community School partnered with Box Hill Technical and Further Education (TAFE) to provide a Certificate II in Visual Arts for students. This course was established to meet the talents and positive attitudes towards the field of visual arts exhibited by students at Croydon Community School and is taught on the Croydon campus (Croydon Community School, n.d.) [3].

Furthermore, since most of the students at this school struggle to adapt to mainstream secondary education, they require more social, emotional, and educational support, with their needs evolving over time as they grow and learn. The Re-engagement program at Croydon Community School serves young people who have disengaged from mainstream education for various reasons. The school works in a trauma-informed manner to help these young people develop their personal and social skills (Croydon Community School, n.d.) [3].

2.2. The Social Composition of Croydon Community School

2.2.1. Socio-educational Advantage

The Croydon Community School's Index of Community Socio-Educational Advantage (ICSEA) value is 979 and is in the 37th percentile. The average ICSEA value for Australia is 1000, indicating that the school's ICSEA value is below the national average. Approximately 71% of students at this school are from the Bottom and Lower middle quartiles of socio-educational advantage, while only about 29% of students are from the Top and Upper middle quartiles of socio-educational advantage (Figure 1).

Distribution of Socio-Educational Advantage (SEA)

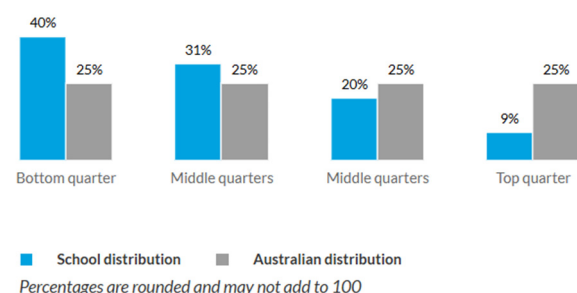


Figure 1. Distribution of Socio-Educational Advantage (SEA) at Croydon Community School in comparison to Australia, 2023
Note. From School profile (Croydon Community School, Croydon, VIC), by ACARA, 2024

2.2.2. Student Enrolments

Australian Curriculum, Assessment and Reporting Authority (ACARA) provided enrollment data for Croydon Community School students from 2018 to 2023. During these five years, the school's overall enrollment increased from 133 students in 2018 (Figure 2) to 154 students in 2023 (Figure 3). Among them, the total number of male students increased from 85 in 2018 (Figure 2) to 95 in 2023 (Figure 3). The total number of female students increased from 48 in 2018 (Figure 2) to 59 in 2023 (Figure 3). Although the proportion of female students increased from 36% in 2018 (Figure 2) to 38% in 2023 (Figure 3) as the overall number grew, the proportion of male students still accounted for more than half of the total enrollment.

Students

Total enrolments: 133

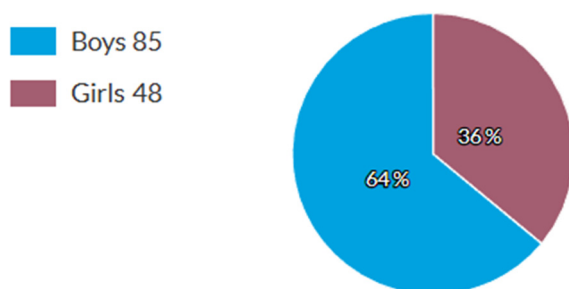


Figure 2. Student Full-time equivalent enrolments at Croydon Community School in 2018

Note. From School profile (Croydon Community School, Croydon, VIC), by ACARA, 2024

Students

Total enrolments: 154

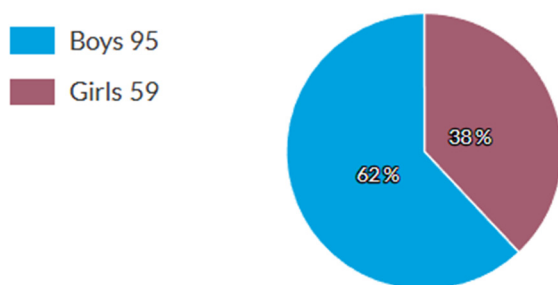


Figure 3. Student Full-time equivalent enrolments at Croydon Community School in 2023

Note. From School profile (Croydon Community School, Croydon, VIC), by ACARA, 2024

2.2.3. Cultural Diversity

At Croydon Community School, the proportion of Indigenous Australian students' enrolment increased from 6% in 2018 (Figure 4) to 11% in 2021 (Figure 5). However, in 2023, the proportion of Indigenous student enrolment returned to 6% (Figure 6). Surprisingly, the enrolment of students from non-English speaking backgrounds reached a breakthrough of 2% of total enrolment for the first time in

2023 (Figure 6). This is compared to 0% in 2018 for students from non-English speaking backgrounds (Figure 4) and 1% in 2021 (Figure 5). The efforts made by Croydon Community School towards cultural diversity evidently paid off in 2023. The reason for selecting data from these three years for comparison and discussion is because the data for 2018, 2021, and 2023 shows more variability in terms of cultural diversity.

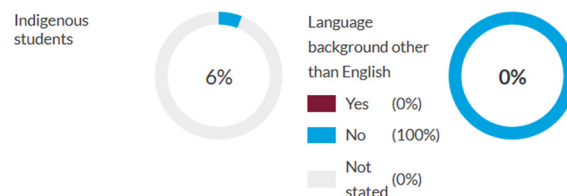


Figure 4. The proportion of Indigenous student enrolments and students from non-English speaking backgrounds enrolments at Croydon Community School in 2018

Note. From School profile (Croydon Community School, Croydon, VIC), by ACARA, 2024

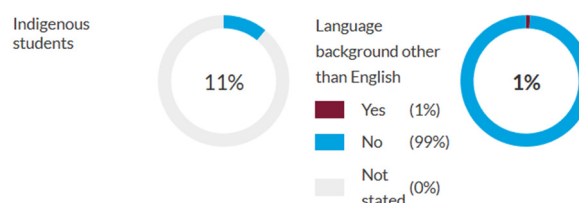


Figure 5. The proportion of Indigenous student enrolments and students from non-English speaking backgrounds enrolments at Croydon Community School in 2021

Note. From School profile (Croydon Community School, Croydon, VIC), by ACARA, 2024

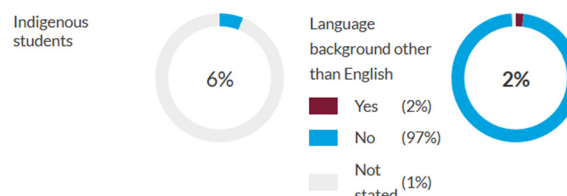


Figure 6. The proportion of Indigenous student enrolments and students from non-English speaking backgrounds enrolments at Croydon Community School in 2023

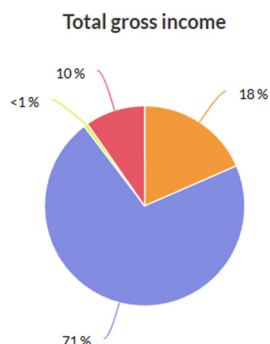
Note. From School profile (Croydon Community School, Croydon, VIC), by ACARA, 2024

2.3. School Finances

ACARA did not present the financial data for Croydon Community School in 2023, so I will discuss the most recent financial data available for the school, which is for the year 2022. In 2022, Croydon Community School had a total net recurrent income of \$6,173,561 AUD, averaging \$52,765 AUD per student (Figure 7, table). The total net recurrent income and total gross income of the school are essentially the same, indicating that during the 2022 period, the school may not have incurred any recurrent expenditures, and all financial expenditures were treated as capital expenditures, as shown in Figure 8. The financial data in Figure 8 illustrates that the Australian government and State/territory government are the primary sources of capital expenditure for the school, and these two projects are also the main sources

of financial funding for the school (Figure 7).

Net recurrent income	\$ Total	\$ per student
Australian government recurrent funding	1,138,383	9,730
State / territory government recurrent funding	4,398,583	37,595
Fees, charges and parent contributions	38,371	328
Other private sources	598,224	5,113
Total gross income	6,173,561	52,765
Less deductions	0	0
Total net recurrent income	6,173,561	52,765



(excluding income from government capital grants)

Figure 7. The Net recurrent income of Croydon Community School Finances in 2022
Note. From Finances (Croydon Community School, Croydon, VIC), by ACARA, 2024

Among them, State/territory government funding accounts

for the largest proportion of investment in Croydon Community School, reaching 71% of the school's total income (Figure 7, pie chart).

Capital expenditure	\$ Total	\$ Accumulated ¹
Australian government capital expenditure	1,777,243	3,963,909
State / territory government capital expenditure	4,459,845	15,502,057
New school loans	0	0
Income allocated to current capital projects	0	0
Other	0	0
Total capital expenditure	6,237,088	19,465,966

Figure 8. The Capital expenditure of Croydon Community School Finances in 2022

Note. From Finances (Croydon Community School, Croydon, VIC), by ACARA, 2024

2.4. Attendance and Performance

Due to the COVID-19 pandemic causing variations in health recommendations and school arrangements across the country, school attendance data for 2020 was not published, as well as extensive COVID-related disruptions during the third term of 2021 in multiple jurisdictions, resulting in the non-publication of school attendance data for that period as well (Figure 9). In addition, Croydon Community School had five or fewer Indigenous students during the period of 2015-2019, therefore, student attendance data was not recorded in order to protect the privacy of the students (Figure 10). However, looking at the overall student attendance rate data, the differences between each year are not significant.

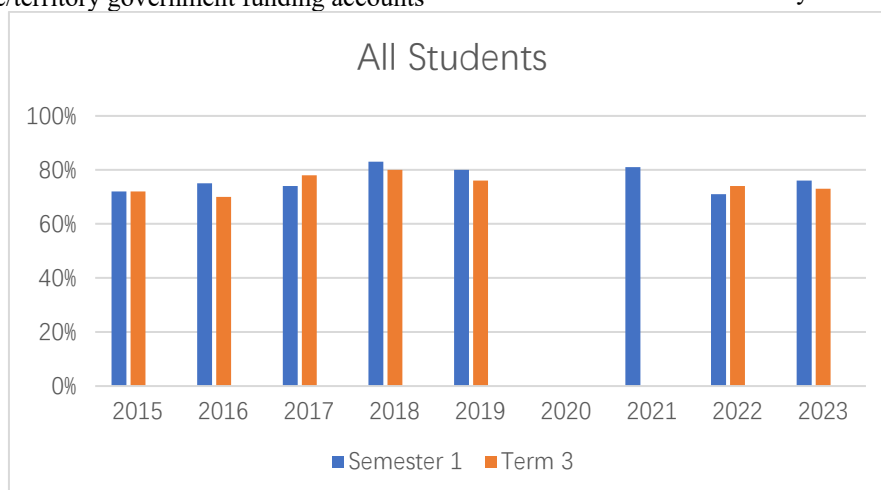


Figure 9. The all-student attendance rates of Croydon Community School, Year 1 to 10, 2015-2023

Note. All student attendance data are not reported in both semester 1 and term 3 in 2020 and also not reported in term 3 in 2021, Data sourced from ACARA (2024)

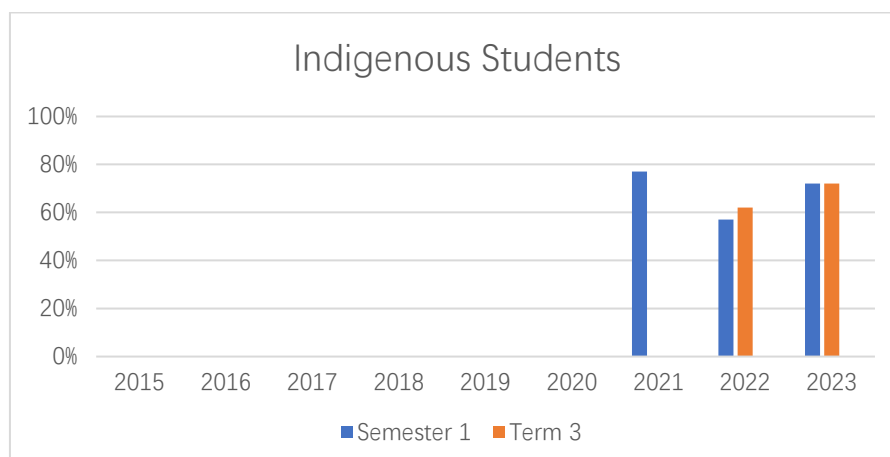


Figure 10. The indigenous students attendance rates of Croydon Community School, Year 1 to 10, 2015-2023

Note. Indigenous student attendance data are not reported in both semester 1 and term 3 from 2015 to 2020 and also not obtained in term 3 in 2021. Data sourced from ACARA (2024)

2.5. NAPLAN Performance

2.5.1. Student Results

From the NAPLAN data from 2014 to 2022, the results of Year 7 and Year 9 students at this school in reading, writing, spelling, grammar, and numeracy are generally lower compared to students with similar background and all students at the same school level in Australia. However, I found that the school's students still excelled in some areas. For example, the 2018 NAPLAN data shows that the school's Year 7 students achieved significantly higher results in spelling compared to their peers with a similar background (Figure 11, table 1), and their scores in reading and grammar were very close to those of their peers with a similar background (Figure 11, table 1).

Furthermore, in the 2021 data, the Year 9 students' scores in reading, grammar, and numeracy were also very close to those of their peers who have a similar background (Figure 11, table 2).

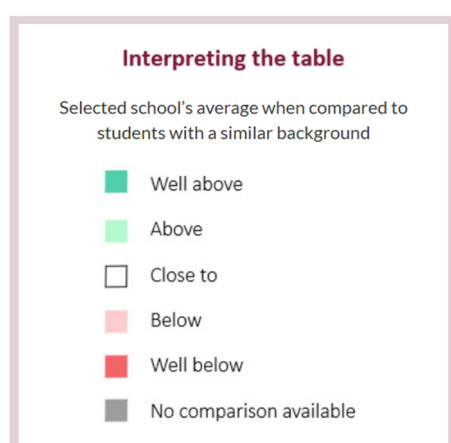
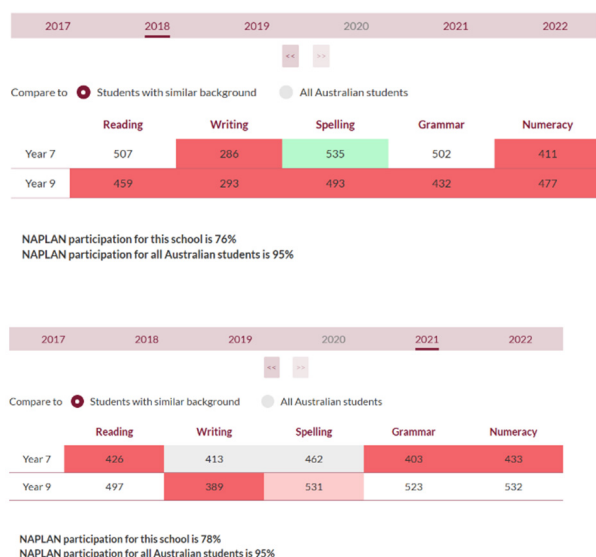


Figure 11. The comparison of Croydon Community School's Year 7 and Year 9 students' results with those of students with a similar background in 2018 and 2021

Note. From NAPLAN (Croydon Community School, Croydon, VIC), by ACARA, 2024

Additionally, the school's NAPLAN test requires at least 11 participants and an 80% participation rate for the comparison to be valid. However, in the 2021 data, the participation rates of the school's Year 7 students in writing and spelling did not

meet this requirement, so they were marked with grey shading (Figure 11, table 2).

2.5.2. Student Progress

In Figures 12 and 13, the blue lines depict significant improvements in both reading and numeracy scores among students in grades 7 to 9 at Croydon Community School from 2017 to 2019, with improvements in reading scores being particularly notable. Regarding numeracy scores, although they are higher compared to other students with similar NAPLAN starting scores and backgrounds as those at Croydon Community School, the difference between them is not substantial. Here, the same starting scores mentioned refer to all Australian students who achieved identical scores in reading and numeracy domains in NAPLAN assessments from 2017 to 2019. The similarity in students' backgrounds is determined by parental occupation and education, Indigenous status, and geographic location. Additionally, it has been established that students' backgrounds influence NAPLAN scores (ACARA, 2024) [1].

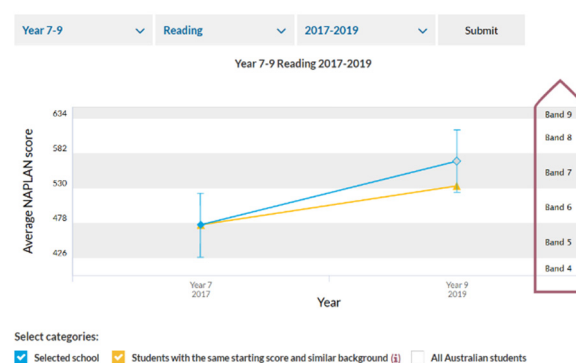


Figure 12. The reading score progress of Croydon Community School in Year 7-9 between 2017 and 2019.

Note. From NAPLAN (Croydon Community School, Croydon, VIC), by ACARA, 2024

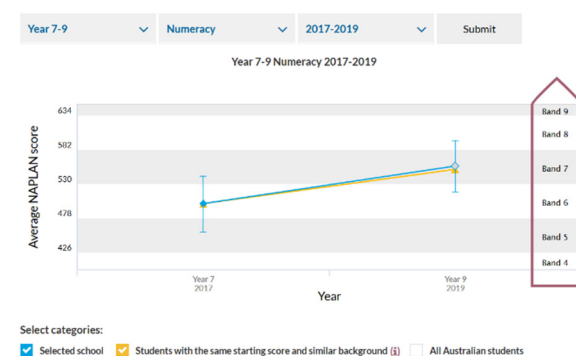


Figure 13. The numeracy score progress of Croydon Community School in Year 7-9 between 2017 and 2019

Note. From NAPLAN (Croydon Community School, Croydon, VIC), by ACARA, 2024

2.6. Reflections and Conclusion

After analyzing the data provided by NAPLAN and MySchool, I believe some data indeed align with the actual situation at Croydon Community School, but there are also some puzzling aspects. For example, when analyzing data on socio-educational advantage, I can see that Croydon Community School is relatively disadvantaged in this regard. Croydon Community School is a small secondary school that specializes in accommodating students with special needs and

backgrounds, and it is located in a suburb 30 kilometers east of Melbourne's city center. Hence, both the school background and geographic location do somewhat align with the data on the MySchool website. However, this data does not fully reflect the true situation at Croydon Community School and can only serve as an auxiliary tool for understanding. For instance, I do not know the underlying reasons behind the data formation, how the school's geographic location influences the values, how the proportion of Indigenous students impacts the data, and why it has an impact.

Additionally, I found that many data points for Croydon Community School are missing significantly. When I attempted to review the school's performance on student progress in NAPLAN, I could only find data from 2017 to 2019. Although the MySchool website provides explanations for data gaps due to the COVID-19 pandemic, data for the school prior to 2017 is still not available. Moreover, the school cannot measure data for Indigenous students due to their low numbers due to privacy reasons, which has hindered my data analysis. I believe that addressing these data gaps is something the school principal needs to consider when determining the school's future direction.

Furthermore, I think the principal of Croydon Community School can make decisions to change the current situation based on the data. For instance, according to the data on cultural diversity, the school has too few Indigenous students and students from non-English speaking backgrounds. The principal could choose to enroll more students from diverse cultural backgrounds, including Indigenous students. Secondly, given that the school's 7th and 9th graders lag behind their peers from similar backgrounds in multiple tests, the principal could hold meetings with teachers to discuss improving the teaching content and provide more academic and emotional support to the students who seem to be struggling. Lastly, if I have the opportunity to further understand the situation at Croydon Community School in the future, I would like to learn more from the principal about the specific implementation of the Big Picture program, how it helps students, and whether it can positively impact the school's future data.

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