The utility of NAPLAN for improving teaching and learning

Submitted by

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Statement of Original Authorship

This thesis contains no material that has been extracted in whole or in part from a thesis that I have submitted towards the award of any other degree or diploma in any other tertiary institution. No other person's work has been used without due acknowledgment in the main text of the thesis. All research procedures reported in the thesis received the approval of the Australian Catholic University's Human Research Ethics committee.

Signature: 

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Acknowledgements

The theoretical framework of this thesis looked at the socio-cultural nature of assessment. Drawing on Wenger (1998), it looked specifically at the social theory of learning and nature of knowledge as a shared enterprise in a community of practice, recognising the value of members working together in order to achieve a common goal. What has occurred to me as I have come to the end of this thesis is that subliminally this has long been a theoretical framework that has resonated with me and I have sought to actuate all my life, both professionally and personally. It seems fitting to mention this when acknowledging the community who have helped me along the way.

My community of practice starts with the leadership of two distinguished scholars who have guided, challenged, and supported my endeavours to complete this thesis.

To Professor Claire Wyatt-Smith, I thank you for your scholarly direction, commitment and constant energy. You have challenged my thinking, have had patience with my flaws and have advocated consistently the merits of the work. This thesis would not have eventuated and continued to completion without your persistence, passion and belief.

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And finally, my three beautiful children, Byron, Oliver and Grace – a constant source of inspiration! May your lights ignite the world, and remember "*You are braver than you believe, stronger than you seem, smarter than you think and loved more than you know"* (A.A.Milne).

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List of Abbreviations

AITSL	Australian Institute for Teaching and School Leadership
ACARA	Australian Curriculum, Assessment and Reporting Authority
ARC	Australian Research Council
C2C	Curriculum into the Classroom
CSO	Catholic Schools Office
DEETYA	Department of Education, Employment, Training and Youth Affairs
EC	Education Council
HoD	Head of Department
MCEETYA	Ministerial Council on Education, Employment, Training and Youth Affairs
NAPLAN	National Assessment Program – Literacy and Numeracy
NESA	New South Wales Education Standards Authority
NLNP	National Literacy and Numeracy Plan
NSW	New South Wales
PLC	Professional Learning Community
PLT	Professional Learning Teams
QCAA	Queensland Curriculum and Assessment Authority
TEMAG	Teacher Education Ministerial Advisory Group

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Abstract

Internationally, assessment and the use of diagnostic data are recognised as critical capabilities for teachers. This is not a recent development, with assessment recognized for some decades as playing a significant role in informing learning and learners (Broadfoot, 2007; Rowntree, 1987; Sadler, 1986) while also "[serving] as a communicative device between the world of education and that of the wider society" (Broadfoot & Black, 2004, p. 9). Assessment is identified as a key competency for teachers in Australia and is recognised through the Australian Professional Standards for Teachers which specifies the need for teachers at graduate level to demonstrate their capacity to interpret and use assessment data to "evaluate student learning and modify their teaching practice" (Australian Institute for Teaching and School Leadership [AITSL], 2016, p. 9).

The research question for the study is *What is the utility of the National Assessment Program Literacy and Numeracy (NAPLAN) for teachers and members of the school leadership team in informing teaching and improving learning?* The question will be explored using a theoretical framework that deliberately draws on the conceptualisation of assessment as a social practice (Broadfoot & Black, 2004; Elwood & Murphy, 2015), drawing also on Wenger's (1998) social theory of learning and nature of knowledge as a shared enterprise in a community of practice. The study will explore the notion of whether teachers are seen as legitimate participants, from the viewpoint that common power relationships (school leaders and teachers) exist as part of social structures within a community of practice (Lave & Wenger, 1991). The term legitimate, as it is considered in light of the sociocultural notion of legitimate peripheral participation, is understood to refer to a multidimensional but interconnected system that looks at how learning occurs as one engages in the social practices of a community (Lave & Wenger, 1991). This will be examined particularly in relation to the utility of NAPLAN data to inform teaching and student learning improvement.

The study will draw on school leaders'[1] and teachers' accounts of NAPLAN data as they use it for informing teaching and student learning improvement. Data analysed

[1] This acknowledges that by definition teachers are leaders but for the purposes of this study school leaders are defined as: teachers in leadership positions such as principals, deputy principals, heads of departments and curriculum co-ordinators.

in this study, specifically interview data, were collected in an ARC 2011-2014[2] grant. The analysis of the interview data is original, that is, these data have not been examined previously in the context of school leaders' and teachers' perspectives. The aim of this study is to provide an analysis of both school leaders' and teachers' accounts that looks to analogous and different perspectives of NAPLAN and the subsequent use of these data, through an examination of the differences and consistencies within each group and across both groups. The exploration of accounts will "reproduce and rearticulate cultural particulars grounded in given patterns of social organisation" (Silverman, 1993, p. 105), reflecting on school leaders' and teachers' accounts of access to and use of data.

The study is set against the 'Global Education Reform Movement' (Sahlberg, 2011), acknowledging experiences from the United States of America (USA) and United Kingdom (UK) of the dependency on large-scale standardised testing to inform education policy and system evaluation and decisions (Darling-Hammond & Adamson, 2014). Scholarly literature, relevant Australian policy documents and school leaders' and teachers' accounts are explored to understand whether initial goals of large-scale standardised literacy and numeracy testing have been sustained and alternatively, if they have changed over time. Of interest are the official purposes of NAPLAN testing, reported benefits or evidence of improvement that have come as a result, and how the testing program connects with the original policy intent. An examination of the research literature and reported NAPLAN data will be explored to identify what is currently known about opportunities for using NAPLAN data for improving learning and informing teaching and reported barriers to data use.

[2] Australian Research Council Discovery Scheme (Project ID DP110104319): Cumming, J. J & Wyatt-Smith, C. M., *'An Investigation of School and Teacher Use of NAPLAN for Student Learning Improvement'*.

Chapter 1: Introduction

In 1989 the Hobart Declaration established common and agreed national goals for schooling in Australia with the intention to "assist schools and school systems to develop specific objectives and strategies, particularly in the areas of curriculum and assessment" (Ministerial Council on Education, Employment, Training and Youth Affairs [MCEETYA], 1989, unpaginated). The Hobart Declaration initiated a focus on educational accountability and introduced an annual National Report on Schooling to ensure the monitoring of "schools' achievements and their progress towards meeting the agreed national goals" (MCEETYA, 1989, unpaginated). Mention of a national data set did not appear in official education wording until the National Literacy and Numeracy Plan (NLNP), *Literacy for All: The Challenge for Australian Schools* (Department of Employment, Education, Training and Youth Affairs [DEETYA], 1998). The focus of the National Plan was the goal that all Australian children should be literate and numerate. However, at that time, use of large-scale data from standardised testing for student improvement was in its infancy, with the document asserting that, "at present there is insufficient data at the national level to allow comparisons to be made on the performance of states and territories and school systems" (DEETYA, 1998, p. 24).

Since the introduction of the NLNP in 1998 there has been a discernible turn towards data and measurement to show "improvement" when comparing the NLNP to the 2008 Melbourne Declaration. In the Melbourne Declaration, a clear position regarding school accountability was evidenced, to be measured through the provision of student performance data with the claim that "Schools need reliable, rich data on the performance of their students because they have the primary accountability for improving student outcomes" (MCEETYA, 2008, p. 16). Building on previous state-based tests, the National Assessment Program – Literacy and Numeracy (NAPLAN) was initiated with a focus on driving improvement through the goal of producing evidence of performance and increased accountability for the community.

On 8 December 2008, the Australian Curriculum, Assessment and Reporting Authority (ACARA) was established under the *Australian Curriculum, Assessment and Reporting Authority Ac*t (Cth) (ACARA, 2018). ACARA's functions included the "development of national curriculum, administration of national assessments and

associated reporting on schooling in Australia" (ACARA, 2018), inclusive of the management and reporting of NAPLAN. It is worth noting here that NAPLAN was introduced prior to ACARA's development of the national curriculum that took a standards-based approach to assessment. NAPLAN represented the introduction of a national approach to standardised testing building on previous state-based testing of literacy and numeracy (as discussed in Chapter 2) and the *Statements of Learning* for English and mathematics which were later incorporated into the Australian Curriculum for English and mathematics in 2016 (ACARA, 2019). The relationship between standardised testing and standards-referenced framework of education continues to be an unresolved issue in the education policy landscape within Australia and internationally. The introduction of national testing in Australia was set against a larger international backdrop of the 'Global Education Reform Movement' which Sahlberg (2011) discussed as "the standardization of education" referring to the standards-based education policies in the 1990s, initiated in Anglo-Saxon countries before the focus of attention was shifted to educational outcomes, specifically student learning and school performance. Currently, standardised testing and reporting of data have become critical for informing governments, education policy and decision making.

Assessment and the use of data have been recognised as critical capabilities for teachers including in the most recent Teacher Education Ministerial Advisory Group, (2014) and other national reviews in Scotland and the United Kingdom (Scottish Parliamentary Corporate Body, 2019; The Department for Education, 2019). The Australian Professional Standards for Teachers have specified the need for teachers at graduate level to demonstrate their capacity to interpret student and assessment data and utilise this information to "evaluate student learning and modify their teaching practice" (AITSL, 2016, p. 9). To date, there is limited research information beyond small scale studies regarding how teachers use large-scale assessment data, both alone and in conjunction with classroom assessment evidence that they collect, to improve student learning and inform teaching practices (Comber, 2012; Cumming et al., 2019).

1.1 Research Problem

The study's focus is to explore the opportunities for and barriers to NAPLAN data use while also examining whether the initial goals of literacy and numeracy testing have been sustained and alternatively, if they have changed over time. The research

problem will be explored through the analysis of interview data taken from an ARC 2011-2014 grant, the interviews have the potential to generate key insights into the utility of NAPLAN in school leaders' and teachers' hands, and how the tests come to be stitched into the classroom practices of teachers in the learning periods before and after testing episodes. This study will also examine first-hand accounts of how policy is enacted in the classroom and wider school context, including the similarities and differences within and across school leadership teams and teachers regarding NAPLAN data including issues of access and use.

The assessment focus for the study is the examination of large-scale testing in Australia, namely the NAPLAN tests. The study acknowledges the richness and variety of types of assessment, inclusive of formative assessment as defined by Black and William (1998) as the activities undertaken by teachers, "that provide information to be used as feedback to modify teaching and learning activities" (p. 2). For the purposes of this study, attention will be directed specifically to NAPLAN testing and the utility of the data for teachers and members of the school leadership team to inform teaching and improve learning.

1.2 Research Question

The research question for the study is:

What is the utility of NAPLAN for teachers and members of the school leadership team in informing teaching and improving learning?

This will be explored by looking at how school leaders and teachers access and use national test data to improve learning for all students. "Utility" is defined by the Oxford Online Dictionary (2018) as a noun, "the state of being useful, profitable, or beneficial". In the context of this study, the term utility is used to focus on i) whether NAPLAN data are useful or beneficial for school leaders and teachers to inform their teaching and improve learning and ii) how school leaders and teachers access NAPLAN data and the value that is attached to data for informing 'next-step teaching'. Next-step teaching is defined as practitioners having clarity around the direction in which learning is headed, based on the engagement with data for individual students or whole class learning.

To set the context of the study, NAPLAN will be explored in terms of enacted policy, through scholarly literature, relevant national policy documents and school leaders' and teachers' accounts of whether the initial goals of literacy and numeracy testing have been sustained and alternatively, if they have changed over time. Of interest are the official purposes of NAPLAN testing, reported benefits, or evidence of improvement that have come as a result, and how the testing program connects with the original policy intent.

Through an examination of the research literature and reported NAPLAN data this study will explore what is currently known about opportunities taken up by school leaders and teachers for accessing and using NAPLAN data and identifies reported barriers to NAPLAN data use. The data collected and analysed in the study include school leader and teacher reflections on NAPLAN as it relates to their own experiences and how they access data as part of their role in the school community. The definition of *access to data* speaks directly to the ability for individuals to access their students' and their individual schools' NAPLAN data through platforms such as SunLANDA in Queensland and School Measurement, Assessment and Reporting (SMART[3]) data in New South Wales (NSW).

The findings from the school leaders' and teachers' accounts directly connect with the main research question regarding the utility of NAPLAN in informing teaching and improving learning. The study will present findings from the analysis of accounts of 68 school leaders and teachers, using their own language, before bringing the two together to examine perspectives both within each group and across them. The interview data corpus is 38 hours approximately, producing transcripts in excess of 900 pages of interview transcripts.

This research question is considered in the context of published research and relevant national education policy that address the original goals of Australian standardised census testing in the literacy domain. Interview accounts are further considered in light of the sociocultural notion of legitimate peripheral participation (Lave & Wenger, 1991), defined as a multidimensional but interconnected system that looks at how learning occurs as one engages in the social practices of a

[3] Acknowledging that New South Wales has now moved to a new platform 'Scout' for NAPLAN data dissemination however in the timeframe of the interviews (2011-2014) 'Smart data was the platform utilised'.

community. The study takes a focus on legitimate participation from the viewpoint of the common power relationships within and across groups of school leaders and teachers that are part of social structures within communities of practice.

The research question is ultimately concerned with exploring whether, and how, teachers integrate national test data with their ongoing classroom teaching and assessment to inform whole school literacy curriculum and instruction for all students. The questions bring to the surface situated perspectives evident in school leader and teacher accounts to examine whether there are consistencies or differences within and across the communities of practice, defined as "an activity system about which participants share understandings concerning what they are doing and what that means in their lives and for their communities" (Lave & Wenger, 1991, p. 98) and how their views and experiences are situated as part of their wider lived policy experience of NAPLAN.

1.3 Significance of the Study

As highlighted previously, NAPLAN was introduced in 2008, following the introduction of state-based tests introduced over the period of 1998-2000 in response to the agreed National Report on Schooling in the Hobart Declaration (MCEETYA, 1989). National goals and standards had been developed in Australia through two significant agreements between the federal and all state and territory Ministers for Education: the Hobart Declaration (MCEETYA, 1989) and the Adelaide Declaration (MCEETYA, 1999). To support achievement of these goals, Ministers endorsed the country's first NLNP in 1998.

The emphasis of the Declarations and the NLNP (DEETYA, 1998) was: early diagnosis and assessment of students; early intervention and ongoing monitoring; development of benchmarks; measurement of students' progress against these benchmarks; and national reporting. Of note was an acknowledgement of teachers' professional development as key to support the NLNP. The policy recognised literacy and numeracy as central to student learning in curriculum areas, with an early years' focus on oracy and learning to read and write, and in latter years, reading and writing to learn in the content areas, consistent with a significant corpus of research. Literacy and numeracy were understood as the means by which young people accessed the curriculum (DEETYA, 1998).

The promise of the NLNP was one of harnessing the power of assessment for diagnosing learning needs and informing learning improvement approaches. Teachers' assessment capabilities and their abilities or *know-how* in using classroom evidence and assessment data were therefore identified as central, and as such, areas for potential professional development (DEETYA, 1998).

The significance of this study is that is presents for the first time both school leader and teacher accounts of the utility of NAPLAN data, examining both similarities and differences of school leader and teacher experiences contextualised against the policy backdrop. The study is a focus on school leader and teacher practice but considers, the intense assessment policy debate occurring with regard to the value of large-scale testing for improving student's literacy and numeracy. Amid growing public discussions relating to whether NAPLAN contributes to informing or driving improvements in student outcomes, the Education Council's (EC) meeting on the 22nd June 2018, opted to call for a review to address how NAPLAN data are presented. This new review will focus on the stated purpose of My School as, "a resource for parents, educators and the community to find information about each of Australia's schools" (ACARA, 2018a). Specifically, it will examine whether and how school, system, sector and jurisdiction performance data, "in the context of the initial (2009) principles and protocols for reporting on schooling" (Education Council, 2018, p. 3) are being used. This is explored further in Chapter 2.

Internationally, assessment and the use of data for diagnostic[4] purposes are recognised as critical capabilities for teachers. This is not a recent development, as Broadfoot (2007) and Rowntree's (1987) writing stated that assessment plays a key role in informing learning and learners while addressing "a societal need … in broader systems of relations and social structures in which they have meaning" (Elwood & Murphy, 2015, p. 183). In Australia this emphasis is clear with the Australian Professional Standards for Teachers specifying the need for teachers at graduate level to demonstrate their capacity to interpret student and assessment data and use this information to "evaluate student learning and modify their teaching practice" (AITSL, 2016, p. 9).

[4] This is taken to mean that data can be used to inform future planning and strategies. 'Diagnosing' using the data enables the exploration of gaps in student knowledge and skills to inform next-step teaching.

1.4 NAPLAN

While literacy and numeracy tests were undertaken in states and territories in response to the NLNP and Declarations as mentioned earlier, desire for greater consistency of evidence at a national level led to the introduction in 2008 of the national assessment program (Cumming, Kimber, & Wyatt-Smith, 2011). NAPLAN today is an annual national assessment of literacy and numeracy skills for all Australian students in Years 3, 5, 7 and 9.

Officially, NAPLAN's purpose was to "provide governments, education authorities, schools and the community with nationally comparable data about how young Australians are meeting educational outcomes in the key areas of literacy and numeracy" (ACARA, 2017, p. 3). Further, national key performance measures for schooling were developed (ACARA, 2017), including "NAPLAN participation, the proportion of students achieving at or above the national minimum standard for NAPLAN reading, writing and numeracy and the mean scale scores" (ACARA, 2017, p. 4).

The role of ACARA is to ensure that it meets its Charter (ACARA, 2018), which is to report NAPLAN data to the EC, state, territory and federal Ministers with portfolio responsibility for school education, early childhood and/or higher education, and key stakeholders. The EC was established in 2008 to have the dual role of establishing a national curriculum and to oversee the national assessment program, inclusive of NAPLAN. Key stakeholders are: governments, education authorities, schools, teachers, parents and carers, students and the wider community. Specifically, NAPLAN data are expected to:

- [enable] governments, education authorities and schools to determine whether young Australians are meeting important educational goals in literacy and numeracy. The data play an important role in focusing the efforts of the education community on assisting all young Australians to become successful learners.
- [provide] individual students with information about their progress in the literacy and numeracy aspects of the Australian Curriculum: English and Mathematics that is critical to their learning. This information can be used to see how their learning is developing and where to focus future instruction.

- [give] teachers information about their students' skills and understandings. This information from NAPLAN, together with teachers' own assessment programs and judgement, allows teachers to reflect on the construction and delivery of their learning programs and identify how to support the learning needs of students.

(ACARA, 2017, p. 4)

Schools receive detailed information from NAPLAN including student achievement on curriculum content, at test item level and on individual student performance. Education systems provide resources to schools about how to interpret and use NAPLAN data. Parents and carers at state level receive information on their child's performance overall and relative to others. Over the years since its inception, and more specifically from 2010-2016, there has been reported student progress for Queensland at primary level in numeracy and reading. High progress among more advantaged groups for NSW students in numeracy, and in Victoria, higher than expected progress for students at less-advantaged schools have also been reported (Goss, Sonnemann, & Emslie, 2018). However, one exception to any improvement in NAPLAN from the last eleven years is the demonstrated trend of increased numbers of students who fall below the national minimum standard or what Wyatt-Smith & Jackson (2016) refer to as "accelerating negative change" in the writing domain across Years 3, 5, 7 and 9.

Standardised testing in itself is not sufficient to improve student learning unless the data such tests yield are understood and used to create teaching practices that improve learning outcomes for all students, outlined as part of NAPLAN's original purpose (Cumming et al., 2011). As noted by Comber (2012), "analysis and interpretation of data is becoming new knowledge for educational professionals" (p. 125) and to date, there is only limited information regarding how Australian teachers utilise large-scale assessment data to use for informing next-step teaching. Of interest to this study is whether these data are used for improving students' outcomes.

1.5 Thesis Outline

This study therefore seeks to understand how school leaders and teachers engage with NAPLAN data and how they use it as part of their teaching, learning and assessment practices, and the conditions that enable such use.

Chapter 1 provides the overview of the study including the problem and aim of the study, its purpose and significance, and presents the research question and sub-question addendums.

Chapter 2 examines relevant literature and national policy documents to explore the original goals of Australian standardised census testing and the tensions that exist between the goal of measurement and the goal of improvement. Specific attention is given to what is currently known about how school leaders and teachers use NAPLAN data in their planning and teaching.

Chapter 3 outlines the theoretical framework and methodology for the study. A sociocultural view of learning is used to explore both school leaders' and teachers' situated perspectives relating to their experiences of NAPLAN in the context of their school environments and critically, whether data are used to inform next-step teaching.

Thematic analysis is used to examine the talk attention focusing on identifying, analysing and reporting patterns or "themes" within data; and the notion of membership as applied in "Membership Categorization Analysis" (MCA) (Freebody, 2003, p. 156) informs consideration of the educational order relating to social order and cultural practice of data use in school contexts.

Chapter 4 presents analysis from talk data gathered from 68 interviews from both school leaders and teachers, exploring two main themes identified from the analysis of the literature:

1. Access to Data: Open, Restricted and Expertise. This theme explores teacher accessibility to the NAPLAN data compared to school leaders. The theme also looks to the expertise of school leaders and teachers in examining the NAPLAN data.
2. NAPLAN as enacted in policy: Expectations, Impact and Perceptions. This theme examines the experiences of school leaders and teachers relating to NAPLAN in the context of expectations, impact and perceptions.

Chapter 5 presents findings from the analyses of school leaders and teacher accounts addressing the key research question. Recommendations are presented that consider the conclusions from data analysis, in the context of the literature and relevant policy documents. Directions for future research are presented.
An overview of the thesis is presented in Figure 1 below.

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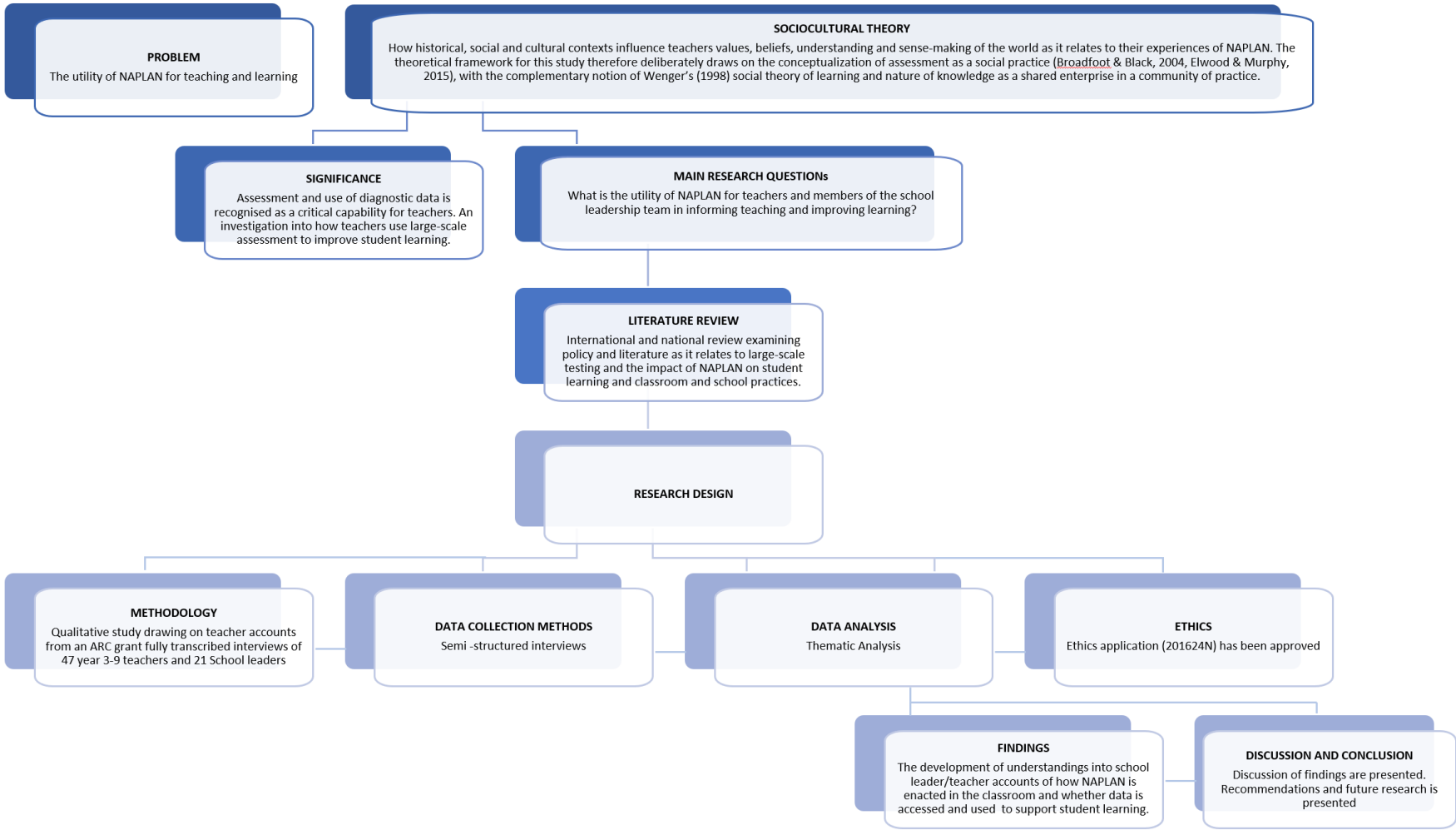


*Figure 1.1.*Thesis overview

Chapter 2: Literature Review

2.1 Chapter Overview

This chapter examines published research from a range of countries including the United Kingdom, United States and Australia regarding standardised testing and related national education policy. Of special interest is the exploration of whether current approaches to large-scale standardised test implementation in Australian schools reflect the original goals and more broadly, the policy intent of Australia's first national plan for literacy, *Literacy for all: The Challenge for Australian Schools* (DEETYA, 1998). The term implementation as used in this study, is to be understood to mean, accessing and using data from large scale testing in school leaders' and teachers' work in their schools as part of a professional learning community.

The chapter begins with analysis of the approach to large-scale standardised tests of literacy and numeracy introduced in 1995 in response to the call for a national report in the Hobart Declaration (MCEETYA, 1989) and the rising of accountability as measurement and the related pressure for transparency, stemming from the Melbourne Declaration (MCEETYA, 2008). Discussion then turns to the implementation of NAPLAN and takes up questions as to whether the initial goals of literacy and numeracy testing have been sustained and alternatively, if they have changed over time. Of special interest are the official purposes of NAPLAN testing, reported benefits or evidence of improvement that have come as a result, and how the testing program connects with the original policy intent.

An examination of the research literature and reported NAPLAN data will be explored to identify what is currently known about opportunities for using NAPLAN data and reported barriers to data use. Specific attention is given to what is currently known about how school leaders and teachers use NAPLAN data in their planning and teaching to improve student outcomes. The chapter also will explore whether there are tensions that exist between the goal of measurement and the goal of improvement.

The chapter takes a specific focus on the literacy domain. It will explore whether NAPLAN connects with the genesis of its policy intent, which are salient considerations given the reported longitudinal decline in writing performance (ACARA, 2018b) as mentioned in Chapter 1.

2.2 Large-scale Testing in an Era of Accountability

As discussed in Chapter 1 census testing for school students in literacy and numeracy was introduced from 1998 to 2000 in all Australian states and territories. These tests were introduced initially in response to the agreed National Report on Schooling in the Hobart Declaration (MCEETYA, 1989), after the endorsement of the first National Literacy and Numeracy Plan (NLNP) titled, *Literacy for all: The Challenge for Australian Schools* (DEETYA, 1998).

Some years earlier, the Hobart Declaration (MCEETYA, 1989) highlighted the need to monitor student literacy improvement and "enable all students to achieve high standards of learning" (MCEETYA, 1989, unpaginated). In the same year Ministers of Education agreed "to a plan to map appropriate knowledge and skills for English literacy" (MCEETYA, 1989, unpaginated). A specific focus was on the literacy skills of "listening, speaking, reading and writing" (MCEETYA, 1989, unpaginated). Following the Hobart Declaration, funding was prioritised for a National Literacy and Numeracy Strategy and Plan. The NLNP was released in 1998 with a stated goal reinforcing the Hobart Declaration namely "That every child leaving primary school should be numerate and be able to read, write and spell at an appropriate level", and a related sub goal, "That every child commencing school from 1998 will achieve a minimum acceptable literacy and numeracy standard within four years" (DEETYA, 1998, p. 9).

The NLNP involved all states and territories in development of "agreed benchmarks for Years 3, 5, 7 and 9 against which all children's achievement in these years can be measured" (DEETYA, 1998, p. 10). Following development of the benchmarks, the NLNP required "measurement of students' progress against these benchmarks using rigorous state-based assessment procedures, with all Year 3 students being assessed against the benchmarks from 1998 onwards, and against the Year 5 benchmark as soon as possible" (p. 10). Common to both the Adelaide Declaration (MCEETYA, 1999) and the NLNP was the stated commitment to learning and equity in schooling. The stated goals of the NLNP adopted a six-pronged approach as follows:

- assessment of all students by their teachers as early as possible in the first years of schooling:
- early intervention strategies for those students identified as having difficulties;
- the development of agreed benchmarks for Years 3, 5, 7 and 9 against

which all children's achievement in this year can be measured;

- the measurement of students' progress against these benchmarks, using rigorous state-based assessment procedures, with all Year 3 students being assessed against the benchmarks from 1998 onwards, and against the Year 5 benchmark as soon as possible;

- progress towards national reporting on student achievement against these benchmarks, with reporting commencing in 1999 within the framework of the annual National Report on Schooling in Australia: and

- professional development for teachers to support the key elements of the Plan (DEETYA, 1998, p. 10).

The above stated goals of the NLNP were to improve literacy and numeracy achievement for all Australian school children through "assessment and identification of students at risk" and "intervention to meet their needs" (DEETYA, 1998, p. 11). The Government committed to provide funding for early intervention with primary students; and secondary students who were at risk of not "progress[ing] to secondary schooling without meeting minimum acceptable literacy standards" (DEETYA, 1998, p. 12).

To support the NLNP, the Federal Government committed $7 million over three years for system authorities to "implement strategic professional development initiatives to support best practice professional development" (DEETYA, 1998, pp. 26-27). This financial commitment publicly demonstrated a prioritisation of funding for both students at risk (of not meeting the minimum standard of state-based literacy and numeracy tests) and professional development, as a commitment to facilitate the goal for all Australian students to meet the national minimum standards of literacy and numeracy and to improve outcomes. Emphasis on literacy and numeracy continued through the more recent Melbourne Declaration (MCEETYA, 2008), reinforcing that "Evidence shows that mastering the basics of English literacy and numeracy is a foundation for lifelong learning, economic participation and effective citizenship" (MCEETYA, 2008, p. 13).

The following section investigates whether the original emphasis on the equity and opportunity for all students to meet the national minimum standards of literacy and numeracy, evident in the NLNP (DEETYA, 1998) and the Hobart, Adelaide and Melbourne Declarations (MCEETYA, 1989, MCEETYA, 1999, MCEETYA, 2008) has been sustained in school practice. Of specific interest is whether these emphases have remained stable, or whether literacy testing has become a site of discursive conflict

between goals of measurement as accountability, on the one hand, and on the other hand, diagnoses and improvement. This focus also permits consideration of both site and system validity as defined by Freebody and Wyatt-Smith, "exploring the idea that practical judgements made in specific communities of practice are the phenomena at the intersection of validity for (1) local sites and (2) administrative systems" (Freebody & Wyatt-Smith, 2004, p. 30). These researchers identified the challenge for "systems, administrators and teachers to validly assess important aspects of literacy learning by students in schools" (p. 30). At issue is the potential alignment and dissonance between how the local site prioritises evidence of learning progress compared to system-wide policy priorities at national and state levels.

2.3 Meeting Policy Intent

As noted previously, NAPLAN was introduced in Australian schools in 2008. Prior to 2008, literacy and numeracy state-based tests had been in place for Years 3, 5 and 7 in NSW, Western Australia and Queensland, with Victoria extending the suite of tests to Year 9 by 2007. The Federal Government committed to national whole cohort or census standardised testing as it moved towards evidence-based education policy. In 2008, ACARA was established to lead the development of a national curriculum across all subject areas and all the years of schooling (ACARA, 2018). ACARA was also charged with the responsibility for the National Assessment Program (NAP) which included NAPLAN testing of students in Year 3, 5, 7 and 9. This development heralding a new context for Australian schools with one body in charge of both testing and curriculum.

ACARA manages the National Assessment Program (NAP) – a suite of international and national sample tests [5] as well as NAPLAN tests, the latter being census or whole cohort tests. The NAP website states the dual benefits of the NAP are to "help drive improvements in student outcomes and provide increased accountability for the community" (ACARA, 2018c). These two purposes namely driving improvement and increasing accountability, present as a working alignment on the NAP website, with the intended beneficiaries to be students and the community. The purpose of NAP, according to the website, is "the measure through which governments, education authorities and schools can determine whether or not young Australians are meeting important

[5] These tests include "the three-yearly sample assessments in science literacy, civics and citizenship, and information and communication technology (ICT) literacy, and participation in international sample assessments" (ACARA, 2018c).

educational outcomes" (ACARA, 2018c). The NAP website provides information about how schools can access information about how their students perform and the opportunity to look to the strengths and weakness that need further attention post testing (ACARA, 2018c). A clear focus on the NAP website is "driv[ing] improvements in student outcomes" (ACARA, 2018c, para [4]).

Similarly, a decade earlier, the NLNP highlighted the need for "real improvement" (DEETYA, 1998, p. 5) in literacy and numeracy skills, with the term "real" referring to actual demonstrated or measured improvement. The Melbourne Declaration stated that "Australian school education needs to make significant improvement" (MCEETYA, 2008, p. 5), highlighting concerns relating to perceived underperformance.

Complementing the emphasis on improvement comes the contested concept of "accountability" as suggested earlier. The NLNP looked at "Improved accountability" (DEETYA, 1998, p. 5) stating "educational accountability should be undertaken co-operatively, not imposed from above, and in ways which collect information of real use to schools, teachers and parents as well as governments" (DEETYA, 1998, p. 5). By comparison, the Melbourne Declaration characterised accountability as needing to be "Strengthen[ed] and transparen[t]" as schools have "primary accountability for improving student outcomes" (MCEETYA, 2008, p. 16).

In some respects, the NLNP and the Melbourne Declaration align as they both adopt terms such as assessment, benchmarks, standards, measurement, achievement, improvement and accountability, and emphasise the need to address standards of achievement through assessing students against benchmarks. The benchmarks developed under the authority of the Benchmarking Taskforce and the Curriculum Corporation (Curriculum Corporation, 2000) represent minimum acceptable standards and are a means to measure improvement. However, there is a noticeable change in emphasis when observing the adjective that precedes the noun "accountability". The NLNP discussed a co-operative model of "educational" or "improved" accountability (DEETYA, 1998, p. 5) and the Melbourne Declaration connected "primary" accountability firmly with schools, situating the need to "strengthen" accountability in order to improve student outcomes (MCEETYA, 2008). The most significant new term however, that distinguishes each document was the inclusion of the word "data" in the Melbourne Declaration.

A main point of difference between the NLNP (1998) and the Melbourne Declaration (MCEETYA, 2008) is the process for "monitor[ing] improved outcomes" (DEETYA, 1998, p. 12). The NLNP (1998) did not specifically connect the outcome of state-based tests to accountability. The collection of data for improvement instead was to reflect the way students were accessing the curriculum, achieving outcomes and where they are going post schooling (DEETYA, 1998). There was also the acknowledgement that the system capacity to use data for comparative purposes in order to examine student improvement, was in its infancy — "at present there is insufficient data at the national level to allow comparisons to be made on the performance of states and territories and school systems" (p. 24). By 2008, the term data had become a greater focus and opportunities for availability of data were implemented; the Melbourne Declaration stated, "Schools need reliable, rich data on the performance of their students because they have the primary accountability for improving student outcomes" (MCEETYA, 2008, p. 16). The data available from NAPLAN testing in 2008 heralded a discernible move to heightened accountability for schools to improve student outcomes, through the availability and transparency of testing data.

The introduction of the term *transparency* in the Melbourne Declaration supported the turn to prioritising accountability beyond school and classroom. The Oxford dictionary defines transparent as "Easy to perceive or detect – (of an organisation or its activities) open to public scrutiny" (2018). The availability of NAPLAN resulted in parents and the wider community having greater access to the performance of their school and similar schools than ever before (MCEETYA, 2008). The data enabled a new valuing of *transparency* that claimed to allow scrutiny of NAPLAN results for comparative purposes and, by extension, scrutiny of schools and teachers. The Melbourne Declaration differentiated itself from the NLNP's (DEETYA, 1998) interpretation of using data as a co-operative arrangement, instead seeing data as "enabl[ing] governments to: analyse how well schools are performing" (MCEETYA, 2008, p. 17). For the first time also, a more global focus was highlighted with the statement that governments need data to enable them to use it for "national and international comparisons of approaches and performance" (MCEETYA, 2008, p. 17).

The terminology of the Melbourne Declaration appears on the NAPLAN website (ACARA, 2018c). As noted previously, the website states that two of the benefits of the NAP were its focus on driving improvement in student outcomes and providing increased accountability for the community (ACARA, 2018c). The emphasis on accountability as

measurement through transparency is evident, with NAPLAN data enabling this measurement. The statement on the website relating to the availability of data for identification of student strengths and weaknesses, presents a seemingly unproblematic pursuit for improvement through the use of data, to help both systems and the community.

The discussion to this point highlights a discernible shift in the strength of terms used from the NLNP to the Melbourne Declaration, these terms now evident on the NAPLAN website (ACARA, 2018c). Both the NLNP and the Melbourne Declaration align with the intended focus on improvement through the measurement of students' progress against benchmarks, however the shift occurs in the Melbourne Declaration to a "Strengthened accountability and transparency" (MCEETYA, 2008, p. 16) through the provision of performance data produced from the NAPLAN tests. The heightened focus on using data for accountability and transparency demonstrates the shift of the initial policy intention from the NLNP of improvement, to the Melbourne Declaration, where a greater emphasis has shifted to accountability and data, narrowly defined as improved outcomes. This shift of intention will be explored through the lens of the lived experiences of both teachers and principals.

The change in over ten years from an improvement focus in the NLNP (1998) to the "strengthened accountability" (MCEETYA, 2008, p. 16) focus in the Melbourne Declaration has potential implications for how schools (leadership teams and teachers), seek to align the validity of the "system" as it is applied at the "site" (Freebody & Wyatt-Smith, 2004). This turn to transparency through evidence of data has had the effect of communicating how 'data' is the means by which schools are held accountable for improvement. The following section explores how attempts at strengthening accountability and transparency have affected teachers and schools.

2.4 The Linking of Accountability with Data

The NAP website's emphasis of both improvement and accountability co-existing in balance was considered in a recent report from the Grattan Institute stating that while education systems can provide support to school leaders and teachers through evidence to target teaching, the risk of setting schools up for failure lies with "moving too quickly from an improvement focus to an accountability focus" (Goss, Hunter, Romanes, & Parsonage, 2015, p. 38).

Lingard (2010), Comber (2012) and Hardy's (2014) research has highlighted how the emphasis on accountability had the unintended consequence of turning NAPLAN into

a high-stakes test. The accountability premise connected to NAPLAN has resulted in a reported narrowing of the curriculum with an increased focus on the rehearsal of test taking, particularly prevalent in the school term leading up to NAPLAN (Comber, 2012). Wearmouth (2008) similarly discussed the English education system's experience of testing and accountability, and the resulting narrowing of the curriculum as an unintended consequence.

Reporting on the impact of high-stakes testing, Dulfer, Polesel and Rice (2012) found that teachers viewed the purpose of NAPLAN to be high-stakes due to their concerns of "what impact reported poor results could have on schools" (p. 9). They suggested that NAPLAN "may be having a detrimental effect in areas such as curriculum breadth, pedagogy, staff morale, schools' capacity to attract and retain students and student well-being" (Dulfer et al., 2012, p. 9).

Referring to the UK experience, Ball (2003) discussed how teachers viewed the pressure attached to an accountability agenda, designed to stimulate improved educational outcomes. The term "performativity" is used, which teachers regard as challenging their values and making them feel a sense of displacement. One teacher was reported to question, "What happened to my creativity? What happened to my professional integrity? What happened to the fun in teaching and learning? What happened?" (Ball, 2003, p. 216). It seems the UK's experience of performativity purpose, also discussed by Hardy (2014), seems to prevail over the function of education.

The pressure to demonstrate so called transparency of performance and schooling quality in the interest of maintaining public confidence (ACARA, 2016) has been found to have a negative impact on "high quality, high equity teaching and learning" (Klenowski & Wyatt Smith, 2012, p. 65). In England, Hall and Ozerk (2008) explored the effects of large-scale testing on teachers and schools, and highlighted growing problems associated with using published test results as an administrative tool for control that leads to parents judging the competence of schools for their children. Hall and Ozerk (2008) reported that what distinguishes assessment policy in England, compared with other countries and parts of the United Kingdom (UK), was the extent to which test results were used "as a tool a) to control what is taught; b) to police how well it is taught; and c) to encourage parents to use assessment information to select schools for their children" (p. 19). Ball (2006) also discussed the impact of high-stakes testing on English schooling, presenting the view that testing had

> affected the very souls of teachers, who feel they can no longer practise authentic pedagogies or authentic assessment practices aimed at learning across a wide curriculum but are framed by the evaluation message system as mere technicians, implementing a centralised and standardised and somewhat reductionist curriculum. (p. 137).

The segment above highlights the concern that, high-stakes testing has changed the education system to a type that is "centralised" and "standardised", impacting teachers by reducing their professionalism to one of "technicians" presenting a "reductionist curriculum". As Ball starkly stated, "this changes what it means to be a teacher" (Ball, 2006, p. 137).

Lingard (2010) suggested that accountability in the context of NAPLAN has been redefined with a greater emphasis "on outputs and outcomes, rather than inputs and processes" (p. 135). This heightened accountability focus is not unlike an auditing framework. Power (1997) had highlighted this notion arguing that the UK had experienced an audit explosion starting during the late 1980's and early 1990's, with "Increasing numbers of individuals and organizations f[inding] themselves subject to new or more intensive accounting and audit requirements" (Power, 1997, p. 4). The impact of the audit explosion is not limited to corporations, with settings such as schools increasingly coming under equal scrutiny. The presuppositions of audit practice in the context of education position a relationship of accountability in the hands of the agent (policy) and the requirement to give an account of actions to another party (schools). The "idea of audit shapes public conceptions of the problems for which there is a solution" (p.9) and through large-scale testing, this has subsequently had the effect of restructuring education in a broader accountability sense.

The audit culture is also reported by Comber (2012). She expressed concern that NAPLAN tests were part of "an international trend towards audit cultures" (p. 122) which result in teachers being denied their agency with respect to professional judgement, due to the pressure of testing. In her research, focus groups and interviews were conducted with educators "in a range of schools (in terms of size, student demographics and location) …interviewing 5 school leaders and 31 teachers" (p. 120). Comber reported an instance of a principal who instructed staff "that they must now teach to the test" (p. 127). She indicated that staff had misgivings about this instruction; however, the trust in the leadership team meant "they went along with teaching the NAPLAN" (p. 127-128). Her

research provides an insight into how NAPLAN became a focus for teaching, as a de facto curriculum, with separate content, knowledge and skills. In effect, the test was given priority time for teaching and thus other aspects of the curriculum were substituted by NAPLAN preparation. How NAPLAN linked to the curriculum was therefore not obvious; it was treated as a separate entity by the teachers.

Heightened accountability has seen a major change in NSW requirements for obtaining a Higher School Certificate (HSC), the state's final matriculation certificate for schooling. As part of their 2017-2020 Literacy and Numeracy Strategy (NSW Department of Education, 2016), from 2017, the NSW Department of Education indicated that to obtain the HSC, it was conditional to have a minimum standard for literacy and numeracy. This was subsequently articulated as the need to achieve at least a Band 8 in reading, writing and numeracy on NAPLAN in Year 9, to be automatically eligible for the HSC (New South Wales Education Standards Authority [NESA], 2017, paragraph 7). Students who did not achieve a Band 8 were to have further opportunities to pass an online literacy and numeracy test in subsequent years to meet this requirement. If the standard was still not achieved, at matriculation the student would only receive a Record of School Achievement and would have five years post Year 12 to obtain their HSC. The policy move to improve standards in literacy and numeracy achievement raised concerns that a heightened priority would be given to teaching to the test, rather than preparing students for transition to senior subject selection and post-matriculation pathways.

However, on 22nd February 2018, the NSW Education Minister announced that following 12 months of consultation, award of the HSC would no longer be linked to results from Year 9 NAPLAN tests. The ministerial statement acknowledged that "the link of this standard to Year 9 NAPLAN tests placed unnecessary pressure on Year 9 students" and "inadvertently transformed NAPLAN into a high-stakes test" (NESA, 2018, paragraph 4).The Minister acknowledged, therefore, that linking NAPLAN to required standards of literacy and numeracy achievement created greater concern that it became a high-stakes test instead of its intended function as a "tool to assess educational progress" (NESA, paragraph 5, 2018).

The notion of high-stakes testing and accountability has been recognised by some researchers as a global education policy phenomenon impacting Australian teachers. Thompson (2013) identified that NAPLAN's impact on teachers may be very different from the policy intention. Drawing on survey data from Western Australian and South Australian teachers, he explored the effects of NAPLAN on the teachers in terms of student learning,

relationships with parents and their own pedagogical practices. He found that, for most teachers, the “effects were largely negative” (Thompson, 2013, p. 82). The teachers felt they experienced pressure to perform, and this in turn, impacted the “style of pedagogy teachers felt they had to adopt” (p. 82), often limiting exposure to a variety of learning opportunities.

Heffernan (2016) undertook three longitudinal case studies of Queensland state school principals and examined how system-generated data of school performance profiles influenced principals’ work and the way they “conceptualise their roles, as well as how policy influences their visions and governs their behaviours from a distance” (p. 381). Principals participating in the study commented on the “increasing requirements for principals to work with data in order to enact the system’s agenda for improvement” (p. 383). They spoke of the need to lead their staff with data, as a key driver for decision-making and improvement. The principals who were part of the project suggested that, while they valued such data as a tool for reflection, they felt there needed to be a shift in culture. They suggested that “we need to move away from [teachers and principals] feeling that data is a judgement and instead move them to realising it’s an opportunity for reflection” (p. 388).

The USA has increasingly relied on large-scale standardised testing to inform education policy and system evaluation and decisions. This reliance is reflective of the deeper tension between the goal of assessment for improvement and the goal of measurement for accountability purposes. According to Darling-Hammond and Adamson (2014), the US has become a nation where “students are tested far more frequently than in any other industrialized country, and test scores are used for more decisions about students, teachers, and schools” (Darling-Hammond & Adamson, 2014, p. 7). US standardised tests “are often used to determine whether students are promoted or graduated; whether teachers are tenured, continued, or fired; and whether schools are rewarded or sanctioned, even reconstituted or closed” (Darling-Hammond & Adamson, 2014, p. 7). This indicates that testing has moved beyond the goal of using diagnostic information for improvement, to an accountability system that “determines much of what happens in classrooms” (Darling-Hammond & Adamson 2014, p. 7).

Darling-Hammond (2004) acknowledged the importance of a testing system that provides relevant, valid and useful information about student performance and how schools are supporting learning, however she offered a cautionary note, writing that “indicators such as test scores are information for the accountability system; they are not

the system itself"(Darling- Hammond, 2004, p. 1081). Darling-Hammond stated that using such data as an accountability framework only works if it is interpreted and actions taken in response to "the information in educationally productive ways" (Darling-Hammond, 2004, p. 1081). She argued that if systems are serious about genuine accountability, there needs to be an acknowledgement of "higher standards and greater supports for student, teacher, and school learning" (Darling-Hammond, 2004, p. 1082) and the use of a "range of measures that encourage and reflect such learning…in ways that improve, rather than limit, educational opportunities for students" (Darling-Hammond, Whilhoit, & Pittenger, 2014, p. 6).

Klenowski and Wyatt-Smith (2012) looked to the need for "intelligent accountability" where "the teacher's role remains central" (Klenowski & Wyatt-Smith, 2012, p. 77). They called for an "international conversation about national investment in continuing professional capacity-building for teachers and school leaders" (p. 77). They further argued the need for a concerted focus on "providing support for the long-term professional development change necessary to effect actual pedagogical change and improved outcomes and a more equitable society" (p. 76).

The research and policy discussion to this point provides opportunity to consider how the observed shifting emphasis on accountability and data could have the effect of narrowing the curriculum, and an unintended focus of teaching to the test for some sections of the teaching profession. The experiences from both the US and the UK seem to align with issues reported in the Australian research literature as presented in the discussion to this point. Concerns attached to the role of standardised testing and the subsequent focus on results have become more integral to broader government processes than the relational effects on how teachers view their roles as educators (Ball, 2003). System accountability has heightened emphasis on testing and performativity which, in turn, has redefined the role of teachers and schools impacting teacher identity and teaching practices (Hardy, 2015). Referring to Australia, as Lingard, Thompson and Sellar (2016, p. 6) commented, "NAPLAN was established to improve teaching and learning outcomes, but one significant effect has been that much teaching is now aimed at improving NAPLAN scores".

This discussion regarding the tension between accountability and improvement is still ongoing in Australian and has been the subject of the first terms of reference in the most recent review into NAPLAN commissioned by the NSW, Queensland, Victoria and

Australian Capital Territory Education Ministers (NSW Department of Education, 2019). The first Term of Reference considers the need to:

> 1. determine what the objectives for standardised testing in Australia should be, given its evolution over time – this could be objectives that support:
>
>   - individual student learning, achievement and growth individual student learning achievement and growth
>   - school improvement
>   - system accountability and performance
>   - information for parents on school and student performance
>   - national, state and territory programs and policies.
>
> (NSW Department of Education, 2019, unpaginated)

This term of reference once again highlights the conflict at a policy level of the need to clarify the objectives for standardised testing in Australia. The final report will be delivered to the Education Council in June 2020.

2.5 Raising the Stakes: My School and the Media

The My School website was introduced in 2010 to provide "a resource for parents, educators and the community to receive important information about each of Australia's schools in a readily accessible format" (ACARA, 2018a). Officially, information on the website was intended to provide a level of transparency, and information for the community, about the performance of Australian schools and was part of the commitment to action in the Melbourne Declaration (MCEETYA, 2008). The provision of all school results on the platform My School fulfils the transparency commitment stated in the Melbourne Declaration that highlighted the need for "parents, families and the community should have access to information about the performance of their school compared to schools with similar characteristics" (MCEETYA, 2008, p. 17), while also supporting the notion of strengthened accountability for schools and their students (MCEETYA, 2008).

Hardy (2014) stated that the introduction of My School threatened "to reduce the educational nature and intent of schooling practices", allowing "the site's political and performative purposes [to] dominate over an educational function" (p. 4). This level of data from the My School website, Hardy argued, puts principals and teachers under an unprecedented level of scrutiny. Similarly, Dulfer et al., (2012) reported that publication of schools' NAPLAN results on the My School website allowed the tests to become high-

stakes. The reported concern was that the media and the community were encouraged to judge school performances and examine relative performances over school sites resulting in a greater scrutiny of schools and teachers.

Gorur (2016) has suggested that, when the My School website was launched, publishing NAPLAN data went too far and provoked a heightened mistrust for parents and their personal knowledge of their own school. She argued that this reduced the relationship to "a more formal, distant, numeric understanding" (p. 37). Further she suggested that NAPLAN and My School had become such focal points for politicians, educators and parents that NAPLAN and My School were changing the complex phenomena that was Australian schooling and "remaking Australian schooling in their image" (Gorur, 2016, p. 41).

The notion of remaking schooling is also evident in Hardy's (2014) study. Hardy asked teachers whether NAPLAN had resulted in any change in the education landscape, with one teacher highlighting the increased accountability once My School became public. The teacher reflected the government's need "to put things in place to lift our schools. So that feeds right back through to the principals, to the teachers (Hardy, 2014, p. 9).

The Education Council meeting of Australian, state and territory ministers of education in mid-2018, and the ensuing Communiqué (Education Council, 2018) identified the need for a review to examine how NAPLAN data are presented. This review, undertaken in 2018, was to focus on the current presentation of My School, exploring school, system, sector and jurisdiction performance data, in the context of the initial (2009) principles and protocols for reporting on schooling. The Education Council noted that there is a need for "provision of clear information about the progress of students against basic and essential literacy and numeracy benchmarks" (Education Council, 2018, p. 3). Amongst the recommendations in Louden's (2019) review, was that 'the number of NAPLAN displays on My School should be reduced" and 'that the focus on NAPLAN displays on My School should be student gain, not statistically similar school comparisons" (p.10). To mitigate the degree of misuse of data by the media, the review also recommended "That in order to reduce the risk of misuse of NAPLAN data, clear guidance be provided to schools, the public and students about the purposes and proper uses of NAPLAN and My School" (p.10). At the Education Council meeting, Ministers requested ACARA and jurisdictions develop options to respond to a number of recommendations, for subsequent decision by Education Council in September 2019.

Independent of this report, ACARA commissioned Brunton (ACARA, 2019a) to survey and engage with parents to gain an understanding of what is driving current perceptions of NAPLAN and NAPLAN Online. Regarding the My School website, the research found that of the parents surveyed (n = 1228) a third are in fact using the website, and of those parents using the site, the main reasons are "to see how their child's school is performing and to help make informed decisions about their child's education" (ACARA, 2019a, p. 43). The lack of availability of My School data to the general public until almost a year after NAPLAN takes place may explain why only a third of the parents surveyed actually engage with their school's data.

A recent report by Matters (2019) explored Queensland parental perceptions of NAPLAN and found that "parents were generally unaware of NAPLAN reports beyond the student report. Some were aware that summary statistics (which include the school average) can be found on the My School website, and that the media publish so-called 'league tables' based on values of the school averages" (p.25).

The media's engagement with NAPLAN has placed considerable pressure on schools and teachers shaping public discourses of education according to Mockler (2016). Building on Altheide's (1997) notion of the media's use of a *problem frame* described as the mechanism used to promote a sense of crisis and fear in formats of both entertainment and information, Mockler extends this to an Australian context suggesting that journalists are now using NAPLAN to 'problem frame' Australian education to the public. This problem framing seeks to create "fear of poor achievement, fear of self-protective teachers, schools and unfamiliar teaching strategies, and fear of the test themselves" (p. 196) for the Australian public about the national schooling system.

This finding resonates in a recent report reviewing school and system perceptions of NAPLAN in Queensland (Cumming et al., 2019). The report revealed that although teachers and principals recognised NAPLAN as an accountability measure, "the overall perceptions of participants were that media commentary created the high stakes nature of NAPLAN for school staff and students" (p. 111). One of the major findings from the report was "the misuse of NAPLAN data by the media, which has constructed NAPLAN as high-stakes" and the need for "the education system to take charge of the narrative about NAPLAN and NAPLAN results" (p.113).

Discussion to this point has shown how reporting of NAPLAN test results on My School and media use of NAPLAN for problem framing has situated NAPLAN as a high-stakes test that is given considerable public attention (Dulfer et al., 2012, Gorur, 2016). Cumming et al. (2019) reported that principals and teachers have called on education systems to take charge of the narrative around NAPLAN in order to dissipate the high stakes, competitive role of NAPLAN across school communities. The question for this study is the extent to which the high stakes nature of NAPLAN is apparent and affects school leader and teacher use of NAPLAN.

2.6 Writing a Significant Component of Literacy

As discussed in Chapter 1, NAPLAN writing results from Years 3 to Year 9 in 2016 have declined, in contrast to positive improvement changes or levelling out of student results in other NAPLAN domains. The writing results represented a pattern that Wyatt-Smith and Jackson (2016) have termed "accelerating negative change" (p. 1). The National Minimum Standard (NMS) was developed under the authority of a Benchmarking Taskforce beginning in 1998, with the final literacy and numeracy benchmarks for Years 3, 5 and 7 published in 2000 (Curriculum Corporation, 2000). Wyatt-Smith and Jackson (2016) identified that NAPLAN data for 2016 provided evidence of a growing percentage of students dropping below the NMS in the Writing domain. This starts from Year 3, with 1.8% of Australian students reported as below the NMS for Writing increasing over 13% to 15.2% by Year 9 (ACARA, 2016, p. 205). Essentially the published results showed that a considerable percentage of Australian students performed below the identified NMS by the time they were in Year 9. The results for 2018 demonstrate a similar decline, with the NAPLAN data reporting 3.9% of Australian students in Year 3 below the NMS and increasing to 18.6% below in Year 9 (ACARA, 2018b). These results may have consequential impact on young people's employment pathways, with concerns that low levels of rudimentary literacy skills could impact their workforce options in the future (Shomos & Forbes, 2014).

As discussed by O'Mara (2014), some teachers had engaged with triaging to get students above the NMS rather than "catering for the needs of individual students" (p. 15). Often this included abandoning entire teaching programs at the beginning of the school year to ensure there was enough time to teach to the test. O'Mara (2014) claimed that a "significant amount of time [was] spent teaching persuasive writing in the middle of a unit that does not align with persuasive writing as a text form" (p. 16). Given the

continuing decline in results, it appears that strategies such as these have not had a positive impact on the middle years writing trajectory across Years 5, 7 and 9.

Reductionist teaching practices or "robotic posturing of genre" (Exley, Woods & Dooley, 2013, p. 60) were highlighted by Exley and Mills (2015), who discussed how NAPLAN has contributed to a narrow definition of the persuasive genre, as "reproduce[ing] the prototypical staging features of persuasive texts sanctioned by ACARA" (p. 3). They suggested that "Genre should be considered as a working approximation of the text structure possible within a culture and not non-negotiable prescriptions or final statements" (Exley & Mills, 2015, p. 6). While acknowledging that not all students would equally move through all developmental stages of writing, the importance "of a highly skilled teacher with a substantive knowledge base about written language and phases of learning to control the written code, who is also well-practised in devising clear goals for directing the various learning activities, cannot be overestimated" (p.6).

A focus on *teaching to the test* with a primary goal of ensuring students met minimum benchmark standards seems also to have reduced the level of attention directed to the extension of higher achieving students. Ryan and Barton (2014) found that teachers explored "secondspace practices of NAPLAN," that is, teaching that "invest[s] in practices that will improve test scores" (p. 318). As part of this secondspace practice, teachers sought out an external writing program "steeped in a skills discourse… [making] the propositional assumption that a skills approach is the only way for students to become successful writers" (Ryan & Barton, 2014, p. 318). The teachers in the study reflected that this type of program

> may well improve the success of struggling writers on NAPLAN tests with its focus on skills; however, it is unlikely to extend the abilities of writers, especially more skilled writers, in using sophisticated textual strategies to engage a variety of audiences for a variety of purposes and contexts. (Ryan & Barton, 2014, p. 318)

One teacher stated, "What we have found … would be that our 'top group'— they don't move" (p. 318).

This statement of the "top group" not moving or declining is represented in reported NAPLAN Writing percentages for 2017 and 2018 (Table 2.1). Table 2.1 represents original analysis of the percentages of students in the top bands for writing for Years 3, 5, 7 and 9, drawing from the NAPLAN National Report for 2017 and 2018 (ACARA, 2018b). The

2017 ACARA National Report (ACARA, 2018b) showed that Year 3 has the highest percentages of students achieving the top band compared with all other Years (5, 7 and 9) across all states and territories. In Year 3, 14.5% of Australian students achieved the top band for Writing, however in Year 9, this reduced to 4.8%. The 2018 data reports a similar trend.

Table 2.1

Percentages of Students Achieving the Top Band for Writing (ACARA, 2018b)

State	2017 Year 3 Band 6+	2018 Year 3 Band 6+	2017 Year 5 Band 8+	2018 Year 5 Band 8+	2017 Year 7 Band 9+	2018 Year 7 Band 9+	2017 Year 9 Band 10	2018 Year 9 Band 10
NSW	16.7	15.1	4.1	3.9	4.9	4.2	5.7	4.2
VIC	17.6	15.4	4.1	2.9	5.1	2.8	5.2	2.7
QLD	11.1	10.7	2.7	2.2	3.6	2.2	3.4	1.8
WA	13.7	11.2	2.8	2.8	3.9	3.2	5.0	3.9
SA	6.9	5.8	1.8	1.7	3.7	3.0	3.1	2.5
TAS	12.2	8.9	3.4	1.3	4.3	1.8	4.0	1.7
ACT	14.4	12.6	3.9	2.9	5.8	3.5	7.0	4.4
NT	5.3	4.7	2.0	2.1	2.6	3.1	4.0	2.6
AUS	14.5	12.9	3.4	3.0	4.4	3.2	4.8	3.1

These results present a concerning picture of the writing standards of Australian students as measured by NAPLAN and raise the point, mentioned earlier, that this may have implications for students' future work prospects and study (Graham, Rouse & Harris, 2018), an issue also raised by Wyatt-Smith and Jackson (2016). The recent Productivity Commissions' National Education Evidence Base Inquiry Report (Productivity Commission, 2016) discussed this widening gap of policy, programs and education practices that had occurred. The report will be discussed further in the section below.

2.7 Productivity Commission's National Education Evidence Base Inquiry Report

The National Education Evidence Base Inquiry Report (Productivity Commission, 2016) raised many salient points in relation to literacy and numeracy and use of data. Firstly, the Commission's concern was that, given the financial investment in education, national and international assessments have shown there had been little improvement in students' standards of achievement, and in some cases, standards of achievement had

declined. The Commission also pointed out that there were “gaps in existing data collections,” with implications for, “the evaluation of policies, programs and teaching practices in Australian schools” (p. 2).

The Commission acknowledged that Australia had sought to bring about improved standards “through increased investment in education and by implementing reforms focused on monitoring, performance benchmarking and reporting against national standards” (p. 2). These investments, however, had not seen commensurate improvement. It noted that “increased resourcing and an accountability focus, alone, are insufficient to achieve gains in education outcomes” (p. 2), rather “[an] evidence-based approach to education policy and teaching practices is what drives a better allocation of resources and improved outcomes” (p. 2).

Further, two of the 2016 Productivity Commissions’ principles for furthering an “Education Evidence Base” were to:

- drive improved student achievement through four interconnected processes — monitoring of performance, evaluation of what works best, dissemination of evidence and application of that evidence by educators and policy makers
- generate benefits in excess of the costs incurred in collecting and processing data and in creating, sharing and using evidence (p. 5).

These principles suggested a need to connect processes and system and site validity as discussed by Freebody and Wyatt-Smith (2004), noted earlier. Central to the framework of what an effective national education evidence base looks like was the partnership between “top-down, monitoring and performance benchmarking of the education system”, complementing “bottom-up, evaluation of what works best in education policies, programs and teaching practices” (Productivity Commission, 2016, p. 6). The Commission also highlighted that the overarching policy objective of a national education evidence base would have the benefits of shared evidence to make informed decisions and would translate into greater cost-effectiveness.

Using these principles, consideration for how data such as NAPLAN could be utilised in the context of driving student achievement will be considered in the following section.

2.8 Post NAPLAN – The Utility of Test Data

The reporting of NAPLAN data as intended from the Melbourne Declaration (MCEETYA, 2008), mentioned earlier, was to provide schools with "rich data on the performance of their students because they have the primary accountability for improving student outcomes" (MCEETYA, 2008, p. 16). However, there are limitations to this claim. For example, Wu (2016) questioned the value of data provided to schools from NAPLAN tests, suggesting that the government has an "over-emphasis on using student assessment data to make inferences about individual students, teachers and schools, rather than to assist with teaching and learning" (p. 27). She made the point that NAPLAN tests had many limitations when measuring individual students and policy makers should be cautious when "evaluating teachers and schools" (p. 27).

Wu (2016) suggested that a better use of data would be to look at the distributional characteristics such as differences between girls and boys, and rural regions versus urban regions, rather than drilling down to individual and class levels due to the "large margins of measurement error" (p. 27). Her overarching concern was that teacher performance measures should not be linked to student test results, teacher appraisal or pay, however she did not disregard the utility and usability of the available NAPLAN data.

Other researchers have presented divergent views about the utility of performance data for improving student outcomes. As Timperley (2009) suggested, "The interpretation and use of assessment data for guiding and directing teaching requires a mind shift towards professional learning from data and a new set of skills" (p. 22).

The 2008 NAPLAN National Report stated that NAPLAN is a diagnostic tool to be used for diagnostic purposes. The report highlighted that teachers can use the data "to gauge the achievement of the most able students, as well as focus on students who have yet to reach the national minimum standard and who may need further support" (ACARA, 2008, p. 2). NESA has also commented publicly on the opportunities NAPLAN data provide to support learning. Their reversal of tying NAPLAN results to achieving an HSC, mentioned earlier, was to prevent NAPLAN tests from becoming high-stakes and to "ensure NAPLAN remains focused on its diagnostic purpose" (NESA, 2017).

If teachers and students are to benefit from NAPLAN data, some researchers assert that they need to have access and ownership of test data in order to understand how to use it. A substantial literature review by Lobascher (2011) drew on research primarily from the US and the UK and concluded that if literacy education in schooling is to benefit from

NAPLAN, “teachers must be involved with the process of designing, implementing and evaluating the tests, as well as supporting the distribution and application of test data” (Lobascher, 2011, p. 18). He asserted that for teachers to be productive in this process, it is critical that they engage in “professional development in designing and evaluating assessment” (p. 18).

The Senate Education, Employment and Workplace Relations References Committees Inquiry into the Effectiveness of the National Assessment Program – Literacy and Numeracy (2013) examined the diagnostic potential of NAPLAN for teachers. One of the submissions from the Whitlam Institute discussed a 2012 project and related report, *The experience of education: The impacts of high stakes testing on school students and their families – An educator's perspective*. The project used a survey with one of the questions asking whether the tests were a diagnostic tool for teachers. Fifty-eight percent of teachers believed that “NAPLAN was not a diagnostic tool, while two thirds of principals believed it was” (Senate Committee, 2013, Submission 2.24, 2.25, unpaginated). The report indicated that one of the reasons for the differing perceptions of the use of data could be the differing view of how it is used. Teachers tended to focus on individual students whereas principals were looking at the overall performance of the school. This point regarding teachers' and principals' use of data is highly relevant to this research and is explored later in this chapter and in the school-based empirical study presented in Chapter 4.

The Committee noted, “Teachers and student teachers do not receive sufficient training or support to enable them to properly use or analyse data obtained by NAPLAN testing” (Senate Committee 2013: Submission 2.28, unpaginated). They also noted that ACARA had recommended in their 2013 report, *Teaching and Learning – maximising our investment in Australian school*s, the need for greater support for teachers in the use of evaluative data. All Australian states use differing software analytical platforms for disseminating NAPLAN results, and from the report it was “clear that more work could be done to support teachers in becoming skilled at interpreting and using NAPLAN data” (Senate Committee 2013: Submission 2.28, unpaginated). The Australian Education Union in their submission also acknowledged the “capacity for improvement in the training and skills of teachers in the application of NAPLAN data” (Senate Committee 2013: 2.29, unpaginated).

Both the Adelaide Declaration (MCEETYA, 1999) and NLNP (DEETYA, 1998) publicly declared a commitment to “learning and equity of opportunity through ongoing

monitoring, improvement of student learning and teachers' professional development" (Wyatt-Smith & Jackson, 2016, p. 235). The NLNP (1998) clearly prioritised professional development as being interrelated and important "to support the key elements of the Plan" (p. 10), however, by 2008, the Melbourne Declaration had moved away from the policy priority of supporting teachers through professional development (MCEETYA, 2008).

Timperley (2009) outlined the need for emphasis on teachers' professional development as "many teachers' previous training and approaches to teaching practice did not require them to interpret and use these kinds of data, because assessment information was about labelling and categorising students, and not for guiding and directing teaching practice" (p. 22). ACARA has reported that the need for professional development opportunities in interpreting and using data for pedagogical improvement is critical if teachers are to feel confident within themselves and less reliant on others to inform their understanding, notwithstanding the fact that interpreting student data is a key professional capability outlined in Standard 5.4 of the Professional Standards for Teachers (AITSL, 2016).

A most recent review commissioned by the EC into NAPLAN and My School, found that from the sample schools that contributed to the review, all "demonstrated a deep understanding of their students' achievement data and actively used it for school improvement purposes" however it was noted that "NAPLAN was rarely used to inform day-to-day teaching practice" (Louden, 2019, p.89). The following section explores research examining how teachers engage with data as part of their pedagogy to support student learning.

2.9 Teacher Identity and their Role as Assessors in a Community

The concept of wider socio-cultural influences on the identity of teachers was explored by Wyatt-Smith and Looney (2016). Drawing on Sadler (1989), these authors characterised the teaching profession as having "guild" knowledge that governments attempt to make public through the introduction of national standards for teachers. According to Mockler (2011), the heightened focus on data as a transparent means for measurable accountability has changed the teaching profession and has involved a re-branding for teachers questioning their identity and what the teaching profession now looks like in an era that is judged on external standardised measurements such as NAPLAN.

How teachers see themselves as participants in a community of practice is connected to their identity as a practitioner. Wenger (1998) suggested that ignoring issues associated with identity in a community serves only those whose identity is already established. A community of practice needs those who have a "claim to ownership of meaning" (p. 269-270) to abandon this claim to knowledge to include those who don't have this knowledge. Inclusion as part of analysing and sharing data for all members of a school community is a critical learning experience that is imperative for the development of all participants to ensure that all members have opportunities for meaningful membership and open acquisition of knowledge.

An Australian case study by Hardy and Lewis (2016) revealed conflicting notions of the value of data based on teachers' perspectives of the data stories they needed to create to present to the deputy principal and principal as part of a whole school focus on data. Hardy and Lewis (2016) found that teachers felt particularly anxious about collating their data, with some teachers feeling it was a "necessary means to validate one's worth as a teacher" (p. 6), but ultimately viewing it as a helpful exercise. Some teachers expressed confusion as to whether the presentation of data stories was to look at what students need to improve or "a way of evaluating your teaching" (p. 7).

Data, when viewed as a reflective sharing and knowledge building exercise, have the potential to be a positive experience. However, if positioned in the context of accountability narrowly understood as measurement for comparative purposes, values can shift to data for validating personal worth or a measure of success or failure as a teacher (Hardy & Lewis, 2016). How schools facilitate data dissemination and analysis from tests such as NAPLAN as a community can be critical in shaping teachers' identity as participants in a community or alternatively, feeling the need to "validate one's worth as a teacher" (Hardy & Lewis, 2016, p. 6).

2.10 Using Data as Part of Classroom Practice

Matters (2009) suggested that the concept of using "assessment information to improve student achievement" (p. 209) and education systems was not an exclusive 21st century phenomenon. She claimed that improving student achievement by using feedback to support student learning along with the "enhancement of teachers' pedagogical repertoires" (p. 209) was not new, with feedback widely accepted to be a routine, valuable element within an assessment paradigm.

When the assessment instrument in question was a standardised test, Matters (2009) suggested that student responses could be viewed in two ways namely, "what was learnt and how well it was learnt but also about what was not learnt and hints as to why this might be so" (p. 209). She argued that if standardised test results were approached methodologically in this way, there was an opportunity to investigate the things that students have problems with and look closer at the source of difficulty (Matters, 2009). As discussed earlier (Lobascher, 2011; Senate Committee, 2013; Submission 2.28, unpaginated), teachers might not always have been professionally prepared to infer meaning from data on this level. The need for professional development in data literacy is explored in Chapter 5.

In 2004 the Catholic Education Office of Melbourne trialled a range of reading comprehension assessment instruments in 20 Catholic primary schools to look at the benefits and constraints of the tests. Data from these instruments were analysed and explored to develop a Progression of Reading Development in their respective schools (Griffin, 2009). The project aim was to broaden teacher understanding of testing, analysis and intervention strategies using "evidence-based problem analysis focusing on teacher activities and student achievement" (p. 192), thereby linking assessment data directly to teaching. The facilitation for this dissemination was through Professional Learning Teams (PLTs). Griffin asserted that the role of PLTs was critical in linking data to teachers' personal pedagogy. As teachers worked through the cycle of testing, their understanding of data, proposing their plan and how resources were allocated, whilst having colleagues critically examine the interpretations and strategies, was imperative for the success of the project (Griffin, 2009, p. 192-193).

According to Griffin (2009), a critical learning from the project was the need to develop a line of expertise for the PLT. People with expertise helped to keep participants focused, aligned and supported. The researchers' theoretical support via the professional development days helped fill the gap between data analysis, research and intervention. This theoretical support, coupled with peer support in the PLT, allowed teachers greater confidence to connect data analysis and intervention strategies that supported student learning.

In the USA, Boudett, City and Munane (2006) acknowledged the difficulties of connecting data with organising instructional improvement and created a process that includes eight distinct steps. These steps helped teachers and school leaders build confidence and an organisation platform. The Data Wise Improvement Process that was

initiated supported skills for understanding and interpreting data as one strategy in its process. It encouraged triangulation of data, that is, use of multiple sources beyond standardised testing to provide a deeper understanding of student performance. The strategies provided a framework for schools to engage and manage the multiple data sources available at their disposal.

A literature review by Datnow and Hubbard (2016) explored teachers' beliefs about data and how these beliefs are shaped within their professional communities. The review looked to countries such as the USA, Australia, Canada, the Netherlands, Spain, South Africa and New Zealand and found that globally, teachers now have access to a wide range of data that could be used as part of their planning and pedagogical practices. The review found that "a climate of trust" (p. 23) was critical when working with teachers and school data. These writers found that when "these individuals frame data use as part of a cycle of inquiry and careful reflection (rather than simply being about accountability)" (p. 23), there was evidence of building deeper knowledge and capacity connected to instruction. However, the review also found that, despite efforts to build teacher capability, the training offered to teachers was "often limited to information on how to access a data management system" (p. 23) rather than training that could offer teachers "more fine-grained information about student achievement that will allow teachers to address students' individual needs" (p. 23).

Wyatt-Smith, Alexander, Fishburn and McMahon (2016) conducted The Standards Project in 2013-2015 to investigate Initial Teacher Education (ITE) programmes in Queensland. One of the focus areas was to analyse how the ITE programmes addressed aspects of the Australian Professional Standards for Teachers for assessment (Standard 5.4), specifically, how beginning teachers are prepared to source and use evidence for improving learning and informing teaching. They found that, "Overall, the evidence across the various reports analysed showed that Initial Teacher Education providers were not well placed to provide a range of data types for analysis in academic programmes" (p. 261). They pointed to the need for beginning teachers to have awareness of and exposure to data in order to build their own knowledge base about assessment data and its pedagogical use. The authors suggested that limited exposure to data during ITE might compromise teachers' ability to use data once in the field.

In an earlier report for the Queensland College of Teachers, Renshaw, Baroutsis, van Kraayenoord, Goos and Dole (2013) investigated the practices associated with the Australian Professional Standards for Teachers for assessment (AITSL, 2016). A key

finding was the need for teachers to "plan learning opportunities for their students that are informed by interpretation of assessment data" (p. 16). They found that schools had considerable data and much of it was "not interpreted and left as raw data rather than being interpreted and used to good effect in schools" (p. 11). This highlights the notion that data are available to teachers, however, opportunities for utilising data to support student learning are not always explored, warranting the need for further investigation into why this may be the case.

2.11 Teachers' Data Literacy as it Relates to Large-Scale Data Analysis

Data literacy for teaching, as defined by Mandinach, Friedman and Gummer (2015),

> is the ability to transform information into actionable instructional knowledge and practices by collecting, analysing, and interpreting all types of data (assessment, school climate, behavioural, snapshot, longitudinal, moment-to-moment, etc.) to help determine instructional steps. It combines an understanding of data with standards, disciplinary knowledge and practices, curricular knowledge, pedagogical content knowledge, and an understanding of how children learn
>
> (p. 3).

This definition points to the need to clarify expectations of school leaders and teachers with respect to data interpretation and also makes clear what we need to aspire to achieve.

In an Australian investigation into teacher engagement with data and confidence in interpreting and understanding data, Pierce and Chick (2011a) examined how to support teacher data literacy. Pierce and Chick conducted a pilot study with forty-nine secondary school mathematics teachers from sixteen schools. The pilot study's purpose was to investigate whether data in schools were accessed, interpreted and utilised. Pierce and Chick concluded, that,

> Engagement with quantitative system data and adoption of its use as a basis for decision-making and planning is unlikely to occur unless teachers both perceive the use of statistics to be valuable and are confident that they have necessary skills to use them (Pierce & Chick, 2011a, p. 435).

Pierce and Chick focused primarily on mathematics teachers who were perceived as more likely to embrace the type of statistical data that was available through NAPLAN

and the Achievement Improvement Monitor (AIM) (Victorian literacy and numeracy test for Year 3, 5, 7 and 9 students prior to NAPLAN). Their study tested the extent of teachers' and principals' data use and how well the teachers engaged with data. The pilot study identified "principals' and teachers' negative perceptions (barriers) and positive perceptions (enablers) of both engaging with quantitative data and adopting data-driven decision-making" (Pierce & Chick, 2011a, p. 435). The study concluded that while teachers valued data that the assessments produced, the

> majority of teachers perceived that lack of access, lack of time, and lack of guidance for interpreting reports were issues that affected their use of NAPLAN reports. Just over half of the teachers indicated that they did not get access to the data and a similar number felt that it is not in a form that allows them to do the analysis they required. (Pierce & Chick, 2011a, p. 436)

Dual related barriers to the utility of data were the teachers' ability to access data and the way in which data were presented. Part of the issue with analysing data was that the technical presentation was often at odds with teachers' exposure to data or their data literacy. Cook (2005) stated, over a decade ago, that data reports given to schools "have negligible symbolic or technical function at the classroom level because the reports, while comprehensive, do not 'speak' directly to classroom practitioners or even school administrators" (Cook, 2005, p. 3).

From 1999 to 2003, in Western Australia, prior to NAPLAN, two significant programs were introduced to help principals and teachers utilise data from the Western Australian Literacy and Numeracy Assessment (WALNA). The first program, which was specifically for principals, was called *The Data Club.* The purpose was to "support school leaders in making performance judgments based on their school's WALNA data" (Cook, 2005, p. 4). The second program began as the *Teachers' Data Club* which evolved to become, *Assessment for Improvement*. The aim was to increase teachers' confidence in making judgments about data and "to build teachers' ability to blend their classroom monitoring with WALNA results to judge student achievement and plan for future teaching and learning" (p. 4).

According to Cook (2005), the *Data Club* demystified standardised test data, providing an entry point for principals and teachers. An evaluation in 2002 showed that 73% of teachers found that standardised test information would help schools in providing improved literacy teaching (compared to 58% in 1999). In 1999, 63% of teachers had indicated that data provided from WALNA was not useful with only 37% of teachers

identifying it as useful. By 2002, this had changed with 62% of teachers agreeing that the "test results provided… valuable diagnostic information about my students" (Cook, 2005, p 5-6). As Pierce, Chick and Gordon (2013) noted, in the coming years teachers will need to engage with student data, value it, and will need to have the data literacy to interpret and use it effectively.

A recent study from Johnston (2017) engaged seven independent schools in NSW to analyse NAPLAN data for primary students in Years 3 and 5. The study involved a representative from the seven schools seeking support from a university for "ways in which they could enhance their NAPLAN literacy results through detailed analysis of the data" (p. 20). The university, using the NSW School Measurement, Assessment and Reporting Toolkit (SMART), analysed and reported data for the schools, whilst also providing a portfolio of "suggested teaching activities that directly related to areas that the data indicated would need teaching focus" (p. 20). This information was supplemented with a school visit by the researchers.

While the study addressed the limitations of data, such as the difficulty of whole-school planning with small schools, effectiveness of the project was compromised by a number of schools who failed to apply their research data to student learning. Teachers were often at odds as to the value of data and opportunities for professional development that were provided to the teachers were not always embraced. Johnson (2017) acknowledged in her conclusion that, if teachers engaged with data, they can present an "opportunity to see a snapshot of students' learning in the nation-wide context [that] can facilitate critically reflective observations about student progress" (p. 28).

The preceding discussion lends support to focusing on providing teachers with opportunities for professional development through exposure to data and purposeful use of it for whole classes and individual students. By building teachers' data literacy, research reviewed to this point shows that this may assist in supporting the utilisation of large-scale testing results in realising efforts for improvement in the classroom.

2.12 Support for NAPLAN Data Use

Regulatory authorities such as ACARA, the Queensland Curriculum and Assessment Authority (QCAA) and NESA support the use of NAPLAN data and the possibilities for use in teacher pedagogical practice.

ACARA has produced interviews of principals, school executives and classroom teachers via their You Tube channel that looked at how teachers and leaders use data to inform their teaching and whole school practice (ACARA, 2016a). Both QCAA (2016) and NESA have provided training materials on their websites to support teachers in their understanding of NAPLAN results as well as strategies for the classroom post NAPLAN. The following screenshots demonstrate the layers of data availability for teachers, principals and parents. Formats and training opportunities differ by state and territory.

Teachers and Principals

For teachers in Queensland, the QCAA provides a manual for the platform SunLANDA that provides extensive instructions on how to use NAPLAN data inclusive, but not limited to, loading data into SunLANDA, reading the data, viewing student results – by strand (or item), viewing student results - by test book, creating custom books, using the data, interpreting graphs and creating custom classes. SunLANDA offers many opportunities to organise the data in classes, responses to items and the data is available as raw and scaled scores (See Figure 2.1 and 2.2 below). The data can also look at comparisons among schools, state and national data. As outlined in Figure 2.2 the platform allows “teachers and administrators to identify patterns in student responses, including common misunderstandings” (QCAA, 2011, p. 15).

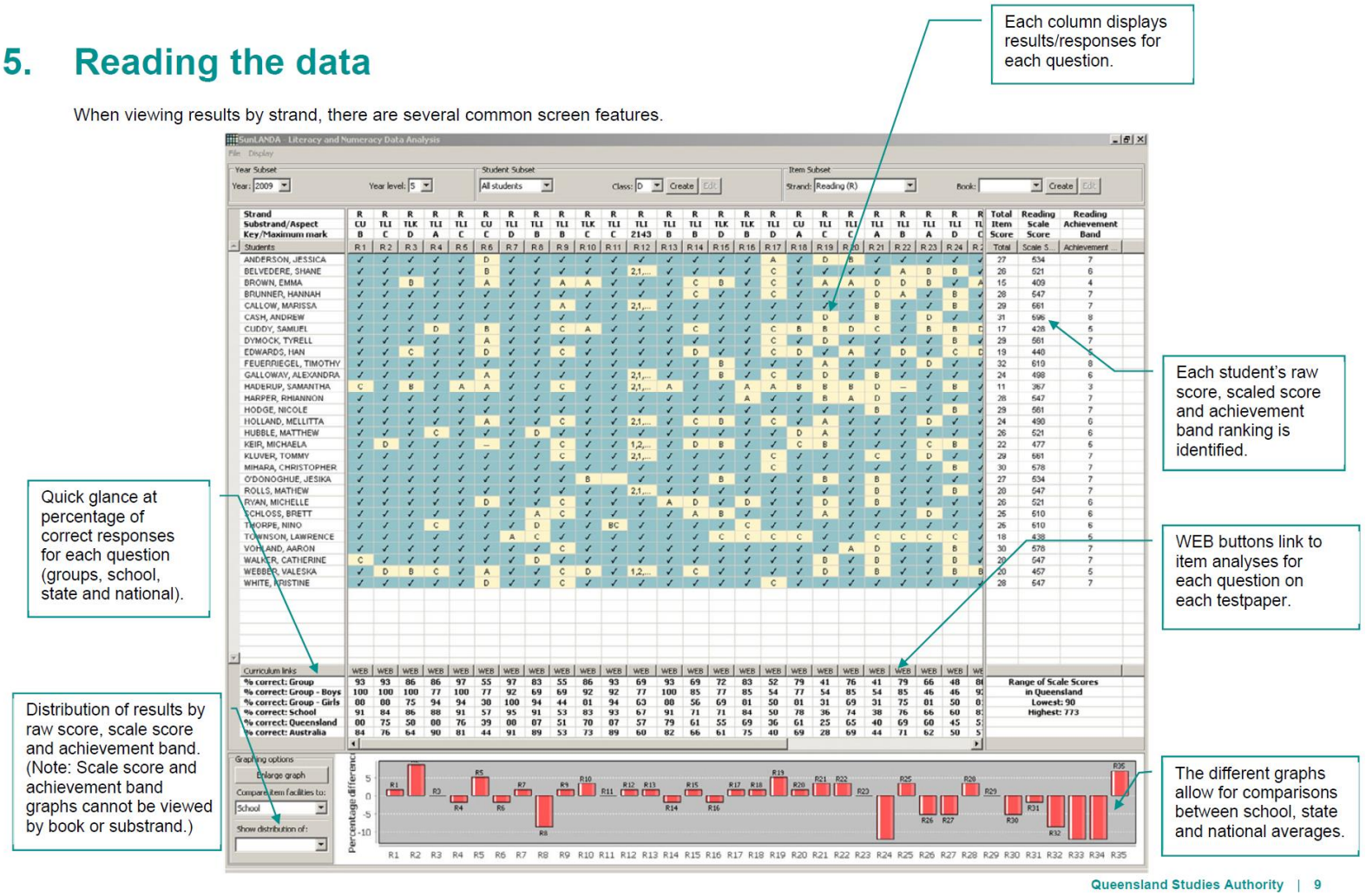
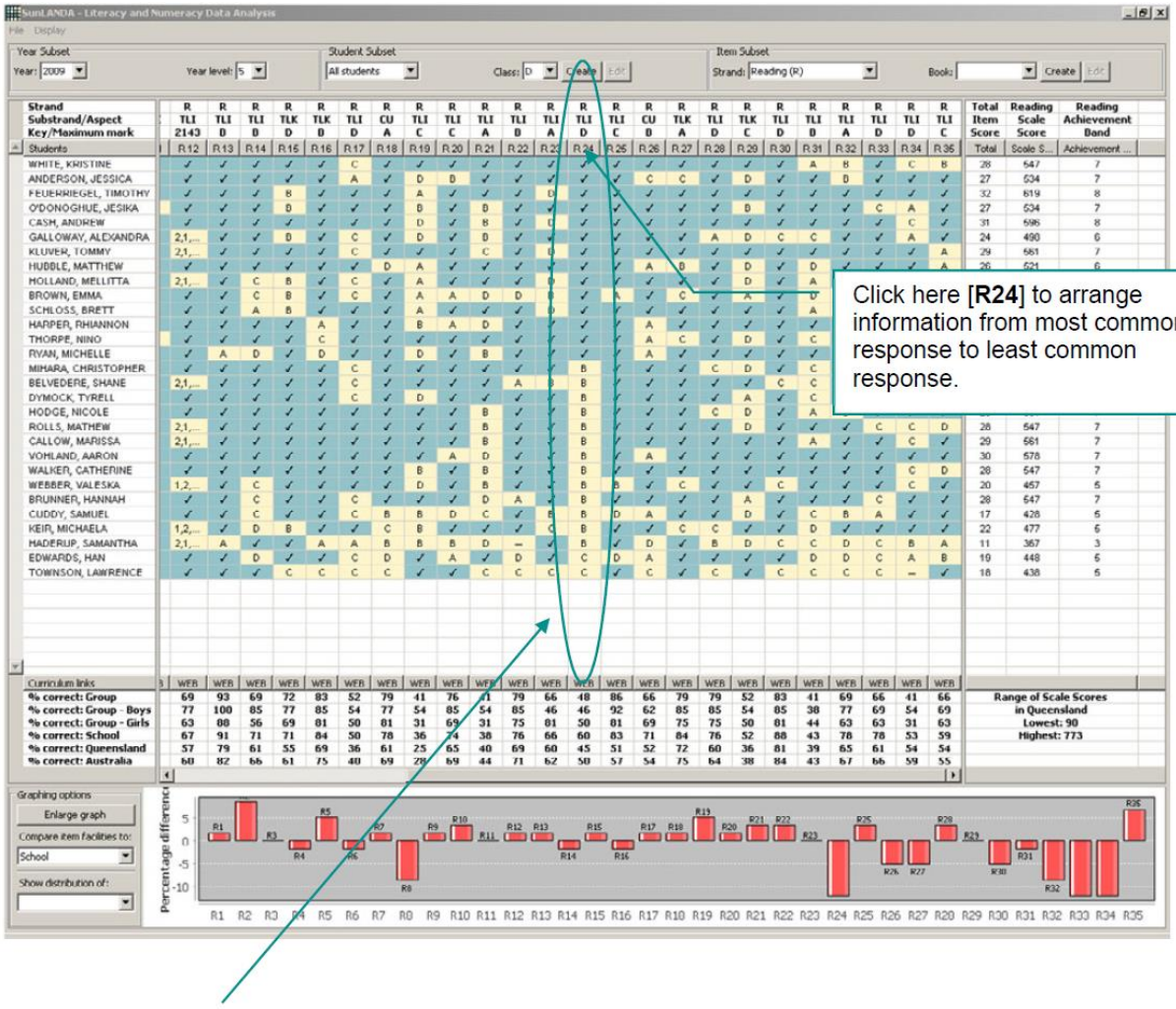


Figure 2.1. SunLANDA – reading the data (NAPLAN) (QCAA, 2011)

9. Using the data — most common response

It is possible to order information for each question according to the accuracy and frequency of student responses for each question.

This demonstration will use the Reading strand data for all students in class 5D.

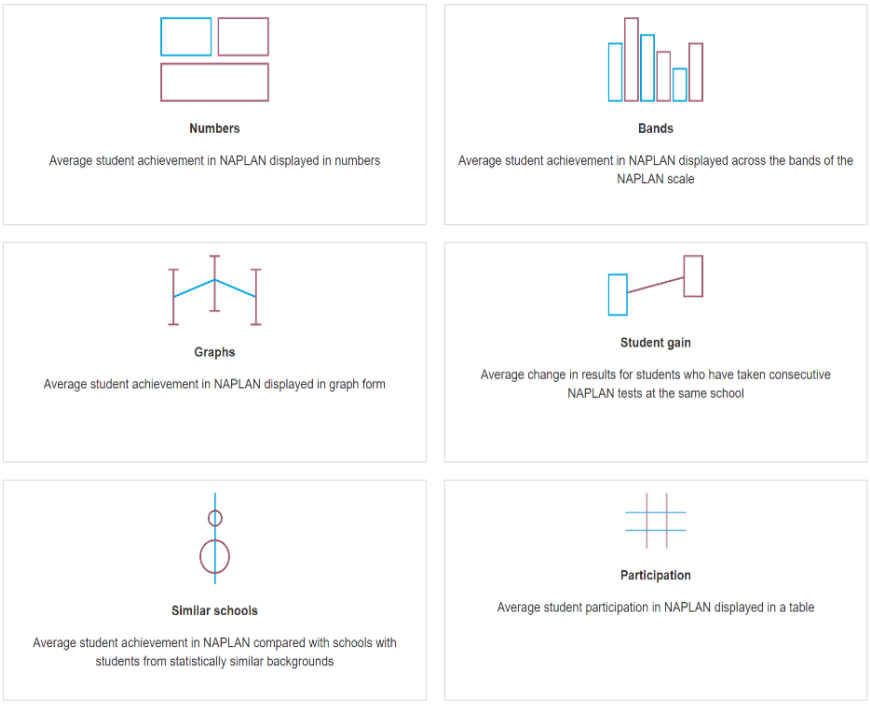


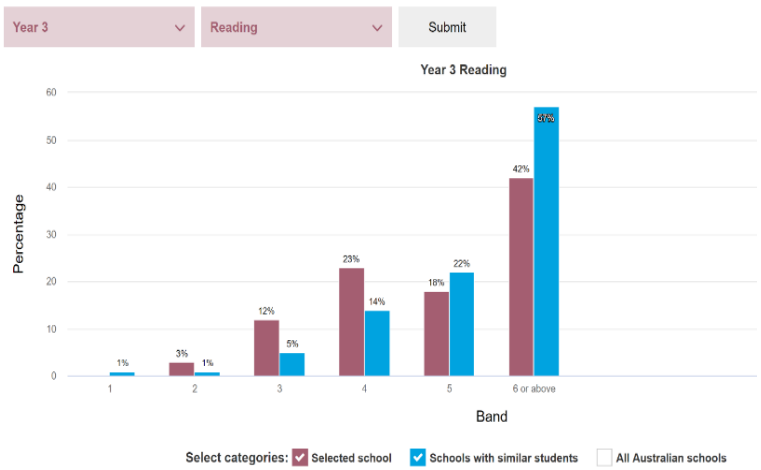
In Question 24, most students answered correctly. The next most frequent (incorrect) response — with 13 responses — was B, followed by two students responding C. This feature of SunLANDA allows teachers and administrators to identify patterns in student responses, including common misunderstandings. For example, where many responses are incorrect, it may assist in diagnosing problems in student approaches to multiple-choice questions (e.g. eliminating distracters).

Figure 2.2. SunLANDA – Using the data (QCAA, 2011)

Parents and the Community

Nationally, parents and the wider community can access summary school data through the platform My School. As discussed in section 3.2.1, My School contains various pieces of information about all schools nationally. As shown below (Figure 2.3) My School provides up to six visual representations of NAPLAN data with options to seek further clarification about how to read the data (ACARA, 2018a).





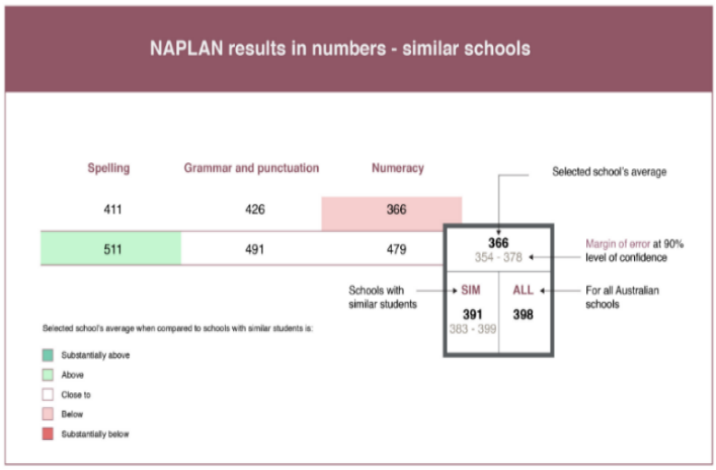


Figure 2.3. My School Data – Parents and the community: NAPLAN Data options, band and information how to read 'NAPLAN results in numbers – similar schools' (ACARA, 2018a).

Student Reports

As shown in Figure 2.4 below, students in Queensland receive a report that contains a brief explanation of NAPLAN and how to read the report, the skills that are being assessed are highlighted and the students results for each domain is indicated via a black dot, and a black arrow indicates the national average.

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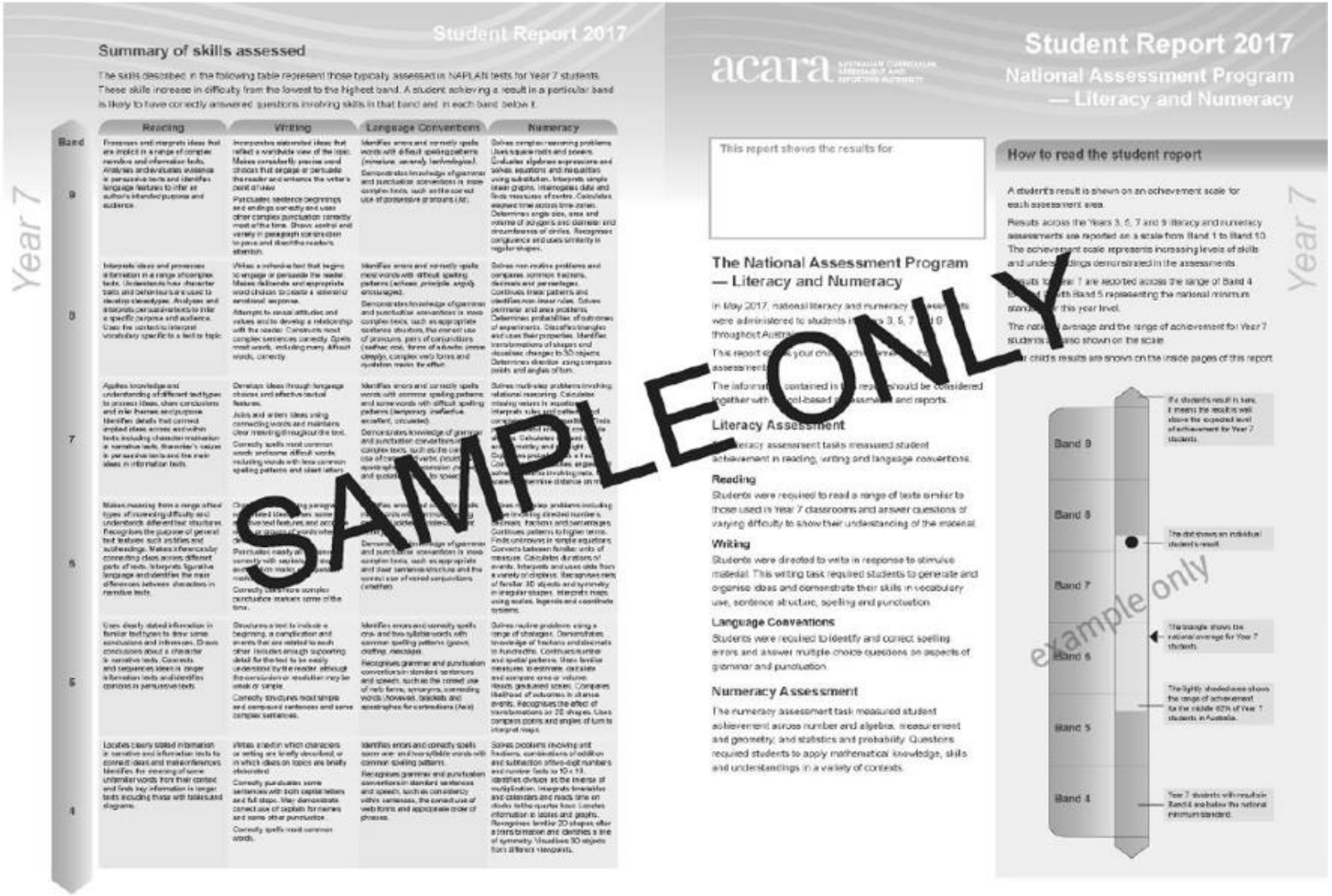

Figure 2.4.1 Sample of Queensland student NAPLAN reports- outside cover (QCAA, 2016

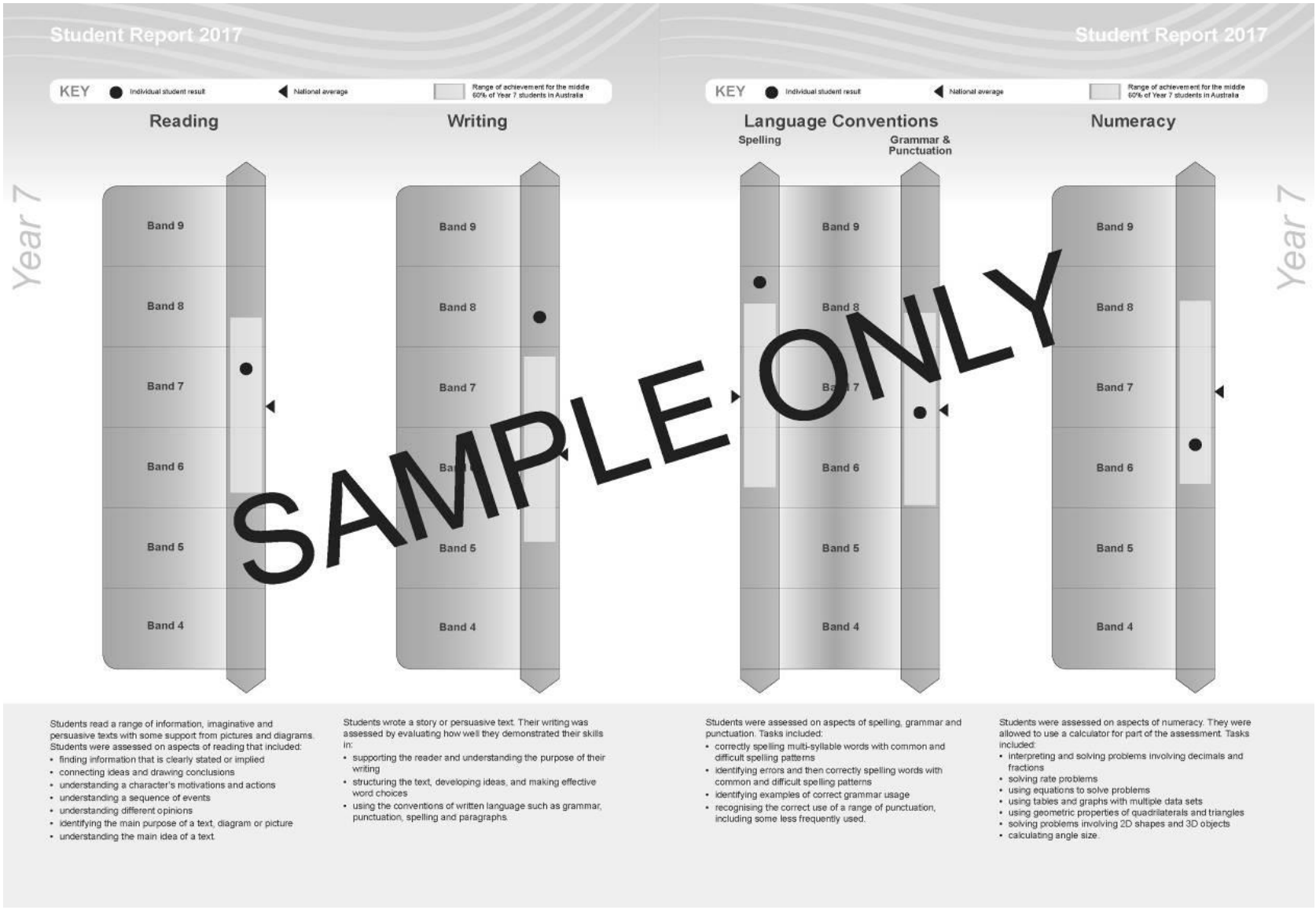

Figure 2.4.2 Sample of Queensland student NAPLAN reports – inside cover (QCAA, 2016)

The SunLANDA manual demonstrates that there are opportunities to engage with data for teachers and principals. The complexity of the system and the time it takes to create 'customised classes' is acknowledged, particularly in a secondary setting where teachers may have multiple classes in Year 7 and 9. The need to have a confident grasp of how to use data as part of a teaching and learning cycle, therefore becomes an essential capability (AITSL, 2016). The ability to use data to interpret or infer meaning from data and use it to inform pedagogical practice is part of the Professional Standards for Teachers and is a teaching requirement. As Renshaw et al. (2013) identified, considerable data are available to teachers, however they also claimed that future investment in professional development opportunities for teachers to have confidence in utilising these resources for student improvement is needed.

2.13 Divergent Perspectives on Data Use

As mentioned earlier, Dulfer et al. (2012) conducted a survey in Australia to "investigate the impact of high-stakes testing on school students and their families" (p. 10). The findings from the survey found divergent perspectives about NAPLAN data from teachers and principals.

> More principals believed that NAPLAN was a diagnostic tool for teachers, with two thirds agreeing that this was one of the purposes of NAPLAN. Teachers, however, had a different understanding, with fifty-eight per cent believing that NAPLAN was not a diagnostic tool (p. 8).

They suggested that perceptions regarding the benefits of using NAPLAN data when reporting to parents differed between teachers and principals.

Several other researchers have addressed the issue of data literacy or use of data and teacher interactions. Hardy (2014) found that "some teachers expressed reliance upon the principal and other members of the leadership team to 'translate' NAPLAN data, and the confidence placed in the principals to assist with this work" (p. 15). Renshaw et.al. (2013) also identified found a difference between principals' and teachers' use of data. In some schools they found that

> access to data was related to the position of the individual within the education system. Often only specific key people (e.g., the principal, deputy principal, heads of department or head of curriculum) had access to the data and 'released' it to the teachers (p. 11).

Renshaw et al. (2013) suggested that classroom teachers were not given the same access and option to engage with and understand data as the key people in the school (e.g., the principal, deputy principal, heads of department or head of curriculum). Limiting opportunities for teachers to expand their knowledge and understanding of how to use data may have implications for student improvement in their classrooms.

The value of the "establishment and maintenance of professional learning of staff…for sustained school reform" was discussed by Pendergast (2017) as critical, particularly for middle school teachers. Innovative leadership "within broader professional learning communities" provided opportunities for "establishing the conditions for ongoing sustained reform" (p. 342), she also stated that teachers equally need to be committed to the role of learner in professional learning communities to "translate into changes in values and beliefs about teaching and learning and into changed pedagogic practices" (p. 343).

In order for quality assessment practice in education and the advancement of student learning to be enacted, Cumming, Maxwell and Wyatt-Smith (2016) found that the professional knowledge of teachers benefits from "opportunities to engage with professional learning communities in shared leadership with school principals, senior management, and colleagues" (p. 223) a point raised by Timperley (2009). Cumming, et al. (2016) assert that learning communities need to be built in schools, with school principals playing a critical role in "establishing a quality assessment for learning culture" (p. 234). Learning culture is taken to mean, "forward looking rather than backward looking: that is, it places an emphasis on how assessment data inform future learning" (p. 232). The success of a learning culture was also dependent on teacher collegiality, the authors stating that conditions for a successful learning culture were dependent on a shared understanding that "assessment is for learning; that is, all assessments contribute to understanding student progress in learning and assisting further learning" (p. 232).

2.14 Summary

2019 marks the 12th anniversary of the establishment of national standardised census testing known as NAPLAN. As discussed in this chapter, several writers have highlighted the impact of NAPLAN on policy and practice and identified issues concerning the implication of this move on system and local contexts. Thompson, Sellar and Lingard (2016) for example, have claimed that as a system, Australia is at the point that it is difficult to argue that we "should produce less data about education, or that inefficient educational practices ought to be preferred in a given case" (p. 219). The discussion of data such as NAPLAN has become a "dominant technical value in education debates" (Thompson et al., 2016, p. 219) and has become a part of the education landscape for all members of the school community.

This chapter has examined published research and relevant policy documents exploring whether current approaches to large-scale standardised test implementation in schools reflect the original goals and more broadly, the policy intent of the Hobart, Adelaide and Melbourne Declarations (MCEETYA, 1989, 1999, 2008) and the NLNP (DEETYA, 1998). It has also looked at what is known about opportunities for using NAPLAN data and reported barriers to data use, specifically looking at what is currently known about how school leaders and teachers use NAPLAN data in their planning, teaching and opportunities for intervention.

The discussion of policy documents highlighted a shift in emphasis from the NLNP released in 1998 through to the Melbourne Declaration (MCEETYA, 2008) and today's (2018) current NAPLAN website. A discernible shift in emphasis associated with the term "improvement" played out when comparing the "real improvement" (DEETYA, 1998, p. 5) identified in the NLNP to the Melbourne Declaration's requirement for "significant improvement" (MCEETYA, 2008, p. 5). The NAP website has picked up on the notion of significant improvement and declares the benefit of the NAP as "Driving Improvements" (ACARA, 2018c). This shift in language was also the case with the term *accountability* as the Melbourne Declaration sought to attach "primary accountability for improving student outcomes" (MCEETYA, 2008, p. 16) with schools. The most significant new term, however, was the use of the word *transparency* and the more prominent use of the word *data* in the Melbourne Declaration, demonstrating a strengthened emphasis on accountability through data and more specifically, transparency through public reporting of data through My School and the NAP website.

This potent mix of priorities demonstrated by the shifting emphasis on accountability directly connected to performance measurement. As discussed, this has coalesced with the transparency of data achieved through the advancement of technological reporting capabilities and has created a crucible of change in education. The shift in emphasis of accountability as *measurement through transparency* warrants further investigation to explore moves to how both school leaders and teachers have experienced this sense of heightened accountability and whether they have noticed a policy shift from *real* improvement to the need to *drive* improvement.

The analysis of the literature also showed that NAPLAN had in some cases resulted in a narrowing of the curriculum, as reflected in international literature, as schools resorted to pedagogical practices that ensured students were well prepared for the tests, with teachers, in some cases, devoting considerable time in "teaching the NAPLAN" (Comber, 2012, p. 128). This experience connects with the observation that the introduction of NAPLAN had indeed placed a greater emphasis on outputs rather than outcomes (Lingard, 2010; Lingard, et al., 2016) and has distorted the intention of the NLNP as emphasis has shifted to the policy notion of *driving* improvement. How much preparation is invested into preparing students for NAPLAN warrants further investigation and indeed, whether the preparation for NAPLAN testing impacts the cycle of teaching and learning.

An attempt to action *transparency* of NAPLAN data through the My School website has generated debate in the published literature concerning whether NAPLAN has in fact become a high-stakes test, so much so, that the current Education Council commissioned an investigation into how My School currently presents school, system, sector and jurisdiction performance data (Education Council, 2018), Finding 2 from the Louden report found that schools used system or sector data rather than My School, "School sector and system data analytics platforms are widely used in understanding student progress and achievement, but schools do not use My School data displays for this purpose" (2019, p. 88) The further narrative of parental discourses associated with the use of My School for school choice was highlighted in Brunton's (ACARA, 2019a) research highlighting the debate regarding the purpose of My School. School leader and teacher views of My School and the level of judgement that ensues from the community based on a school's results are worthy of exploration.

The literature review has revealed varying perspectives about how NAPLAN data are useful for teachers or parents. Wu (2016) suggested the need for caution when

making inferences from data about individual students, teachers and schools due to the potential for large margins of student error. However, Matters (2009) highlighted that standardised testing data at the item level can provide opportunity to investigate areas where students were having problems by looking more closely for the source of difficulty. The significant issues that emerged from the analysis relating to use of data post NAPLAN were not whether NAPLAN data were valuable or not, but instead the two bigger issues of: the need for professional development so that teachers can actively infer meaning from reported results, especially for next-step teaching and to identify how learning could be improved; and, teachers' access and use of data.

The literature also shed light on the beneficial conditions that are needed in order to utilise data such as NAPLAN for teachers and members of the school leadership team in informing teaching and improving learning. One of the necessary conditions is for teachers to have professional development in data use as part of teaching practice. Attention needs to be directed to improving teachers' *data literacy*, that is the use of "data with standards, disciplinary knowledge and practice, curricular knowledge, pedagogical content knowledge, and an understanding of how children learn" (Mandinach, 2015, p. 3). The type of professional development needs to be conducted in a "climate of trust" (Datnow & Hubbard, 2016, p. 23) and the training needs to address how to use data effectively as part of classroom practice not a focus purely on accessing data management systems (Datnow & Hubbard, 2016). Cook (2005) demonstrated how projects such as the Data Club provided opportunities for principals and teachers to help demystify standardised test data and engage with the data as part of next-step teaching.

The school culture and its community of practice were also critical for successful engagement of teachers with data. Including all participants as part of analysing and sharing is a critical learning experience that is imperative for the development of all members to ensure that everyone has opportunities for meaningful membership and open acquisition of knowledge (Wenger, 1998). The literature revealed that in order for teachers to engage with professional learning communities, innovative leadership and the establishment of an assessment culture was critical to the success of a community of practice (Pendergast, 2017, Cumming et al., 2016, Timperley, 2009). The success of a learning culture was also dependent on teacher collegiality, conditions for a successful learning culture were dependent on a shared understanding that "assessment is for learning; that is, all assessments contribute to understanding student progress in learning and assisting further learning" (Cumming et al., 2016, p. 232).

Barriers to engagement with NAPLAN data such as the limited value that teachers attach to the data, their confidence in analysing data and time and guidance were identified by Pierce and Chick (2011a). Pierce and Chick also highlighted that "just over half of the teachers indicated that they did not get access to the data" (p. 436), with data access often related to the position of the individual within the education system. Renshaw et al. (2013) also found that, "Often only specific key people (e.g., principal, deputy principal, head of departments or head of curriculum) had access to the data and 'released' it to the teachers" (p. 11), evidence of key leadership personnel engaging with data came out of the Senate Committee submission that suggested principals place greater value on NAPLAN data diagnostic opportunities, compared to teachers (Senate Committee, 2013, Submission 2.24, 2.25, unpaginated). The research question will explore the reported transparency of NAPLAN data for both school leaders and teachers and whether the data are accessed and then used for next-step teaching to improve student outcomes.

Whether school leaders and teachers have received professional development about how to interpret and use NAPLAN data, or indeed whether teachers have access to class NAPLAN results, warrants further investigation in the context of the school leaders' and teachers' reported experiences as part of this study. Exploration into school leaders' and teachers' transcripts with a view to understanding whether data provided to schools are utilised to "interpret student assessment data to evaluate student learning and modify teaching practice" (AITSL, 2016, p. 9) and how much time is spent preparing students for NAPLAN will be examined through the interview accounts. Further, the breadth of data literacy and the confidence teachers have in using data, specifically NAPLAN data, need further investigation.

While some literature (Johnston, 2017) reported projects that investigate NAPLAN data use in schools, the review also points to the lack of sustained research relating to how principals and teachers come together as a school community to infer meaning from NAPLAN data and how the data are used in ways intended to inform teaching and learning. Divergent perspectives about NAPLAN data use from both school leaders and teachers also need exploration.

The literature examined in this chapter provides an opportunity to examine the intent of policy and how policy is enacted in practice. While the policy intent of NAPLAN focused on the need for student improvement in literacy and numeracy, the means by which this was framed, through the introduction of terms such as *transparency* and *data,* have

emphasised greater accountability for schools and teachers. Emerging from the literature is the tension between the positive intent of policy to drive improvement with how accountability through measurement and transparency currently impacts teachers and their practices. It could be argued that advances in technology have expedited transparency for the community. When the NLNP was published, collection of data was in its infancy, with the NLNP acknowledging at the time that there was insufficient data to be able to make comparisons between state, territories and school systems, however by 2010 technology had advanced and data from NAPLAN became transparent and available to the public through the platform of My School.

As mentioned previously, research that looks to how NAPLAN data are accessed and used in classrooms for diagnostic capabilities to inform teaching and improve learning does not feature predominantly in the literature. This gap in the research of how principals and teachers' access, interpret or infer meaning from and use reported NAPLAN results warrants greater exploration. This study will examine whether the policy expectation of NAPLAN to drive improvement is the experience of teachers within their schools' professional learning communities and if so, what is the impact on their practice. Findings from the literature review will inform the analysis of the school leaders' and teachers' talk to answer the primary research question *What is the utility of NAPLAN for teachers and members of the school leadership team in informing teaching and improving learning?*

This will be investigated by examining school leaders' and teachers' accounts of the utility of NAPLAN and whether the initial goals of literacy and numeracy testing have been sustained or alternatively, if these goals have changed in the course of local implementation. The study's focus is on exploring the contestation surrounding the original intent of the goals of measurement and accountability, on the one hand, and on the other hand, the opportunity for all students to meet the national minimum standards of literacy and numeracy and whether NAPLAN data are accessed and used to inform teaching and improve student learning outcomes.

Chapter 3: Research Methodology and Design

3.1 Introduction

As mentioned earlier, the data for this study are drawn from an ARC Discovery Project that sought to investigate school and teacher use of NAPLAN data for student learning improvement and, under what conditions this occurred. Findings from the ARC relating to NAPLAN and students at risk were published (Cumming, Wyatt-Smith & Colbert, 2016). As a distinction, this study pays close attention to the accounts of school leaders and classroom teachers in NSW and Queensland schools as participants in a community of practice, drawing specifically on membership group views. It makes available for the first-time school leaders' and teachers' insider accounts of NAPLAN testing in the context of their schools, drawing on their talk about their expectations, the impact and their perceptions of it and investigates school leaders and teachers access to NAPLAN data. In addition, it also examines the expertise of school leaders and teachers in using NAPLAN data to include in next-step teaching.

This chapter presents the theoretical framework of the study and provides details of the research methodology, research design, participant selection, data collection, data analysis, and ethical considerations.

3.2 Theoretical Framework

The study adopts a sociocultural view of learning that explores how teachers' historical, social and cultural contexts influence their values, beliefs, understanding and sense-making of the world and their work. This will be explored as it relates to their experiences of NAPLAN and their identity as part of their lived experiences of NAPLAN (Murphy & Hall, 2008). It draws on a conceptualisation of assessment as a social practice (Broadfoot & Black, 2004) which "mediates human relations with the world and with others" and understands that assessment addresses "a societal need … in broader systems of relations and social structures in which they have meaning" (Elwood & Murphy, 2015, p. 183). The examination of how NAPLAN impacts school leaders and teachers in this study is aligned with Elwood and Murphy's view of the purpose of assessment as well as the effect of "primary accountability" (MCEETYA, 2008, p. 16), relating to how the participants view NAPLAN and their subsequent engagement with and use of data for next-step teaching.

As described by Wenger (1998), the social theory of learning identifies four premises that frame the general principles for understanding and enablement of learning and the nature of knowledge. According to Wenger (1998), the four premises are:

i) We are social beings. Far from being trivially true, this fact is a central aspect of learning.

ii) Knowledge is a matter of competence with respect to valued enterprises – such as singing in tune, discovering scientific facts, fixing machines, writing poetry, being convivial, growing up as a boy or a girl, and so forth.

iii) Knowing is a matter of participating in the pursuit of such enterprises, that is, of active engagement in the world.

iv) Meaning – our ability to experience the world and our engagement with it as meaningful – is ultimately what learning is to produce (p. 4).

The theoretical framework for this study therefore deliberately draws on the conceptualization of assessment as a social practice (Broadfoot & Black, 2004; Elwood & Murphy, 2015), with the complementary notion of Wenger's (1998) social theory of learning and nature of knowledge as a shared enterprise in a community of practice. The construction of this theoretical framework serves the study's focus for exploring school leaders' and teachers' legitimate participation in their school communities of practice and affords the opportunity for examining NAPLAN as a social practice in these communities.

The analysis of school leaders' and teachers' accounts explores both groups' experience of learning as it involves situated perspectives, acknowledging that learning is "an integral part of generative social practice in the lived-in world" (Lave & Wenger, 1991, p. 35). The study examines the consistencies and differences within each group of participants and between these two groups. School leader and teacher accounts will be analysed as they relate to the notion of "legitimate peripheral participation", defined as a multidimensional but interconnected system that looks at how learning occurs as one engages in the social practices of a community (Lave & Wenger, 1991). Legitimacy will be observed from the perspective of the power relations that are part of social structures. Legitimate peripheral participation suggests that members of the community may experience empowerment or disempowerment. This could be interpreted as some members of the community have positive professional learning trajectories enabling a

greater engagement in communities of practice, while other members may feel disempowered. This notion enables the monitoring of these intricate interactions that play out when dealing with topics such as external student assessment data. The notion of legitimate peripheral participation offers a lens through which to see the complex interactions between school leaders and teachers in school environments.

It is worth revisiting the definition of a community of practice, namely "an activity system about which participants share understandings concerning what they are doing and what that means in their lives and for their communities" (Lave & Wenger, 1991, p. 98). If a community of practice disempowers participants by preventing the access to or recognition of certain knowledges, participants may be reluctant to engage and therefore be situated on the peripheral of the community. This lens will be applied to the separate accounts of school leaders and teachers as it relates to their experiences of NAPLAN and their access to NAPLAN data in the context of their own school communities and as the accounts play out across nine schools. An individual's identity within a community is important in terms of how engaged they feel as partners and active contributors. Wenger suggested that identity is important to "characterise social participation as a process of learning and of knowing" (Wenger, 1998, p. 4). The valuing of involvement in communities of practice is a shared enterprise, where individuals assess their contribution in terms of how it is recognised as competence and therefore evaluate how they see themselves as participants in the learning and knowing context of the community (Wenger, 1998).

How an individual perceives their value in the community has implications for participation and whether they understand and feel supported in new learnings. Wenger suggested that communities need to understand that "learning is an issue of refining their practice and ensuring new generations of members" (Wenger, 1998, p. 7). This suggests that it is essential for communities to be open, so that all members of the community, both new and existing members, feel welcome to the community and valued for their contribution. This is particularly important in school environments where it is common for new staff to be entering at various stages of the school year.

The theoretical framing of Lave and Wenger (1991) and Wenger (1998) outlined in this chapter provides an opportunity for exploring and understanding learning and participation in the practices of communities (Wenger, 1998) and provides a starting point to examine the school leaders' and teachers' accounts in relation to the utility and access of NAPLAN data as part of their practice. The focus on the relationship between school leaders' and teachers' perspectives in relation to NAPLAN and use of NAPLAN data are

at the heart of the analysis, which specifically looks to both groups' experiences of NAPLAN as enacted policy as well as their perspectives on access to NAPLAN data as a conduit to student improvement.

The explanatory power of knowing, understood to refer to assessment as a situated socio-cultural practice (Murphy & Hall, 2008), permits scrutiny in this study of NAPLAN and teachers' hitherto private accounts of the value they attach to NAPLAN as it impacts their practice, student learning, engagement with data and wellbeing. Further, the potential of adopting a sociocultural perspective in this investigation is that it enables consistencies and differences between the accounts of school leaders and classroom teachers to be examined. Of special interest, is what is revealed from both school leaders and teachers in relation to access to and use of data, how NAPLAN is valued and whether it contributes to next-step teaching in the classroom.

As discussed in Chapter 2, the notion of identity is important for all members. If individuals do not see themselves as legitimate participants, then there may be a reluctance to engage with their community. Wenger (1998) stated that, if those who have an identity within the community do not "abandon their claim to ownership of meaning" (p. 270) and open their minds to redefine the roles of all members, then there is a risk that the community will only serve those who already have an identity.

This reiterates the importance of inclusion with the sharing of knowledge critical for the development of all participants and ultimately for the benefit of students. It also connects to the idea that participation generates feelings of empowerment and engagement of a legitimate functioning community. Wenger also claimed that once communities are truly functioning, genuine opportunities open, and learning will occur, suggesting that once this happens there is a "profound difference between viewing educational design as the source or cause of learning and viewing it as a resource to a learning community" (Wenger, 1998, p. 271).

The aim of this study is to provide an analysis of both school leaders' and teachers' accounts that looks at their perspectives of NAPLAN and the subsequent use of these data, that is, an examination of the differences and consistencies within each group and across both groups. The exploration of accounts will also "reproduce and rearticulate cultural particulars grounded in given patterns of social organisation" (Silverman, 1993, p. 105), reflecting on school leaders' and teachers' accounts of access to data.

The study explores how both school leaders and teacher members engage with NAPLAN, including with students as test takers and their relationship with NAPLAN data once results are available to them. My main research question is:

What is the utility of NAPLAN for teachers and members of the school leadership team in informing teaching and improving learning?

The question aligns with the theoretical framework discussed to explore how curriculum, pedagogical priorities and school value systems work as part of the school culture and how they are voiced through the accounts of school leaders and teachers. Through this socio-cultural lens, examination of leaders and teachers reported accounts of their experiences of NAPLAN enacted as policy in the school environment and what barriers to access and use of data can be examined.

3.3 Research Methodology: A Qualitative Approach

This study examines the school leaders' and teachers' talk about pedagogical practices in preparing students for sitting annual NAPLAN tests and their insider accounts of its impact on and impact for their teaching. A qualitative approach is utilised with an open-ended interview question, which is supported by question prompts. The approach was designed to explore how "members of a culture construe the significance and nature of educational practices" (Freebody, 2003, p. 132).

The analysis of transcripts draws on Freebody's methods and approaches to exploring qualitative data, specifically interview transcripts and how "considerations such as social order, work, individual differences, human and cultural development" (Freebody, 2003, p. 132) emerge from transcripts. Drawing on the notion of memberships through Freebody's MCA (2003, p. 156) encourages the researcher to consider the analysis as part of an educational order relating to social order and cultural practice. The participants presented in this study are categorised based on common sense knowledge of the work roles within a school and the research questions connect to Freebody's views that educational qualitative analysis needs to consider the purpose, aims and procedures of education and ultimately "who has the right to it, the responsibility for it and who does it well" (Freebody, 2003, p. 156). This orientation was used to understand the distinction that participants made between the roles and to elucidate findings that were distinctive to the talk of members of these two groups of school leaders and teachers.

3.4 Research Design

The study draws on 68 interview transcripts for school leaders (n = 21) and teachers (n = 47) from the ARC Discovery Project that set out to investigate how schools and teachers use NAPLAN outcomes, at a school, class and individual level, to improve student learning and how well NAPLAN has served the original purpose stated in national policies that introduced literacy and numeracy testing in Australia (Cumming al., 2016).

The interview consisted of one open-ended question, 'If I say NAPLAN, what would you say?' This question was supported by prompts that might be used for stimulus as needed. These prompts were:

1. General view of NAPLAN
2. NAPLAN fit with overall school policies
3. Impact on teachers
4. Teaching practice in testing years
5. Emotional impact (students and teachers)
6. Impact on curriculum in the classroom for Years 3, 5, 7, and 9: prior to and directly following testing
7. Analysis of and access to NAPLAN outcomes
8. Following NAPLAN outcomes
9. Use of NAPLAN data (whole-school/individual teacher/team teaching groups)
10. Schools representation in the public domain (My School)
11. Impact of NAPLAN on students
12. Parental engagement with NAPLAN

The open-ended question embraced Freebody's (2003) notion of allowing "latitude in the breadth of relevance" (p. 133). This enabled the core of the interviews to align with the ARC's focus areas and ensured that the participant had the freedom to explore their personal response in relation to their lived experience of NAPLAN. The interviews were conducted by one researcher or at times two researchers and were recorded with an audio

recording device at the participants' respective schools, they were fully transcribed. The interview data corpus is 38 hours approximately, producing transcripts in excess of 900 pages.

3.4.1 Participant Selection

Permission was granted to use data from an ARC Discovery Project from the Chief Investigators, Professors Joy Cumming and Claire Wyatt-Smith. Specifically, data have been collected from the ARC Discovery Project in 2013 and 2014, which included interviews undertaken in nine case study schools in Queensland (n = 7) and NSW (n = 2). These represent a range of schools (size, sector, primary/secondary, classroom organisation, student characteristics), and geographic (metropolitan, rural) and socio-economic factors. Six schools were primary (PY-7), one was secondary (8-12) and two provided all years of schooling (PY-12). Three schools were state, four were independent and two were Catholic. The 68 interviews were undertaken with Principals, Directors of Curriculum, Deputy Principals, Heads of Primary and Middle school and Subject Heads, Literacy Coordinators (LC), and Classroom (CT) and Learning Support Teachers (LST) in nine schools in Queensland and NSW (Table 3.1). The gender ratio of the sample: overall (males=14, females=54); school leaders (males=6, females=15); teachers (males=8, females=39).

Letters of invitation were sent to education sector authorities, including state, catholic and independent schooling to advise of the study's aims and participant involvement. Discussions were then held with school leaders and teachers consistent with ethics requirements for informed consent.

3.5 Ethical Considerations and Limitations

Ethics was approved through an ethics modification application (201624N) to access data from the ARC Discovery Grant (Project ID DP110104319) An Investigation of School and Teacher Use of National Assessment Program Literacy and Numeracy (NAPLAN) for Student Learning Improvement. Chief Investigators Professor Cumming and Wyatt-Smith gave permission to use the total corpus of non-identifiable transcripts, as indicated in 3.4, and artefacts from the ARC Discovery Grant for this study. The scale of this corpus and the inclusion of school leader and teacher experiences of the utility of NAPLAN data were essential in achieving the study's aim to examine previously unpublished accounts of how data are accessed and used to support student learning and improvement. In addition to this design to achieve trustworthiness in the investigation, the study took a systematic,

iterative approach to analysing the talk data (see 3.4) to achieve fidelity. Ethics Approval from Australian Catholic University for this study is provided in the Appendix.

Confidentiality is addressed through the ethics application. All participants completed a consent form and all transcripts were de-identified to remove names of participants and schools. Pseudonyms were given to participating teachers and school leaders during initial coding and as part of the analysis in Chapter 4.

There were a few limitations to the present study. Firstly, it is acknowledged that the scale of the participant school sample was relatively small, and no claim is made about the generalisability of the data beyond the sites where the data were collected.

Secondly, as a qualitative study, it is also acknowledged that the school leader and teacher accounts are talk data, not observed practice. The voice of students and parent/caregivers have also not been addressed in this study.

Table 3.1

Collation of School Leaders and Teachers per School

Positions	**School 1 (P-7)**	**School 2 (P-7)**	**School 3 (P-7)**	**School 4 (P-12)**	**School 5 (8-12)**	**School 6 (P-12)**	**School 7 (P-7)**	**School 8 (P-6)**	**School 9 (P-6)**	**Total**
School Leaders										
Principal	1	1	1		1	1	1	1	1	
Deputy Principal	1		1				1	1		
Director of Curriculum				1				1		
Head of Middle School						1				
Head of Primary				1						**21**
Head of English				1						
Head of Maths/Science				1	1					
Head of Humanities					1					
Head of Year/Learning						1				
Teachers										
Literacy Coordinator					1					
Year 3/5/7/9	3	1x 4/5 1x 5/7 1x 3/4	4	3	4	4	3	4	1x3/4 1x3/4 1x5/6	**47**
Year 4/6/8	2		1	1		1	2	2		
Year 8/ 10/11/12 LST	1			2		1	1	1		
Total	**8**	**4**	**7**	**10**	**8**	**9**	**8**	**10**	**4**	**68**

3.6 Data Analysis

Interview transcripts were analysed using a process for coding qualitative information called thematic analysis. Thematic analysis is a method for identifying, analysing and reporting patterns or themes within data that may be presented as interpretations of qualitative data. The purpose of thematic analysis is to find "broad units of information that consist of several codes aggregated to form a common idea" (Creswell, 2013, p. 186) of significance across a suite of data (in this case, school leader and teacher accounts) that may connect to or support clarification for the research question being addressed. This inductive approach to analysis of data allows the jigsaw pieces to be identified through a rigorous process of preparing and organising, coding and condensing the codes, developing the themes that come from the suite of data followed by revision, evaluation and representation of data in figures, tables or discussions (Creswell, 2013). As Creswell (2003) states, examining qualitative data, the interaction is social as the researcher interacts "with a human community" (p. 9) as part of the inductive, interactive process.

Thematic analysis sits within a socio-cultural framework as the accounts of both school leaders and teachers can be analysed looking within and across the talk looking to the similarities and differences within and across the two categories of participants. The analysis of the data in relation to the themes provides a way to explore the socio-cultural accounts that emerge and then link these themes with the wider literature as part of the analysis.

The notion of Freebody's MCA (referred to in 3.3) is used as an approach for exploring the memberships and documenting accounts in order to ensure that the analysis stays true to the raw material of the interview transcripts (Freebody, 2003). The notion of MCA used as a method ensures the accounts are viewed and reflected from the perspective of how a social order is enacted and when considering NAPLAN data, "who has the right to it, [and] the responsibility for it" (Freebody, 2003, p. 156). This can be taken to mean, who has responsibility for using NAPLAN data for analysis and next-step teaching and understanding the membership category that defines those who have greater access to data.

A new lens has been taken to the secondary data analysis through the exploration of school leaders' and teachers' accounts, looking to the similarities and differences within and across the two categories of participants. Secondary analysis of data talk creates

an opportunity to examine new research questions adding further value to the original research by exploring, “specific problems through the analysis of existing data which were originally collected for another purpose” (Glaser, 1963, p. 11). This study has also involved cross-checking the coding and data analysis with the two Chief Investigators of the original ARC project (readers are advised to see Chapter 1). This involved regular review meetings to address the application of the codes to the teacher talk first and then to the school leader talk. Following this, cross-perspectival analysis was undertaken to discern similarities and differences between the two groups. This process involved applied member checking of the talk by the writer of this study initially alone and subsequently with the two Chief Investigators of the original ARC project to ensure the legitimation of the analysis as separate from the initial study.

3.6.1 Codes and Themes

It is important from the outset to provide clarification for the terms “codes” and “themes”. Coding, according to Creswell (2013) is taken to mean the process of “aggregating the text or visual data into small categories of information, seeking evidence for the code from different databases being used in a study, and then assigning a label to the code” (p. 184).

The starting point for coding was to read through the transcripts, memoing or making margin notes on a printed copy, engaging the process of analysis, recognition of patterns of regularities or repetition of concepts and language (Creswell, 2013). This initial coding or open coding, as described by Boyatzis (1998), breaks down the qualitative data into distinct parts whilst beginning to reflect on the accounts and take ownership of winnowing the analysis, that is, making a decision from the coding of what passages within the qualitative accounts are most relevant. This initial coding is tentative before moving into the next more descriptive phase of coding.

Descriptive coding relates to the action where labels are manually attached to passages of the qualitative accounts. The coding at this point starts to discard some information and correlate others into clear codes or combining smaller codes into larger ones. Once the codes have stabilised, the generation and classification of general themes occurred. The descriptive coding was completed using NVivo software.

3.6.2 The Process of Analysis

The initial treatment of the school leaders' and teachers' transcripts was to read and re-read each complete transcript multiple times, with the intent to identify topics and emphasis in all reflections. Notes were made in the margins of the transcripts, highlighting reoccurring topics or new concepts in a systematic fashion across the entire data set.

The text segment was coded first before deciding on a theme. The themes of data were generated as a result of trawling over the transcripts multiple times and re-reading the accounts, as mentioned, to ensure all the themes related to the research questions were appropriately coded (Wyatt-Smith, 1999). This approach reflects the understandings that all codes from the school leaders' and teachers' transcripts were temporary until a final apportionment was made to a theme. That is, "the codes could be changed and reassigned where necessary" (Wyatt-Smith, 1999, p. 200). The initial list of all themes and codes allocated to both school leaders' and teachers' transcript data is provided in Table 3.2 below.

My readings started initially with school leaders and teachers as a single group as seen in Table 3.2. As a group, patterns of discussion centred on: preparation for NAPLAN; views of NAPLAN; access to NAPLAN data; utilisation of data to improve literacy learning for students and experiences of NAPLAN. The patterns were consistent with the open-ended question and question prompts (Chapter 3) conducted as part of the interview. What became apparent from the researcher's immersion in the accounts however, was a demarcation between the school leaders' and classroom teachers' perspectives relating to NAPLAN preparation as well as differing perspectives relating to access and use of NAPLAN data. The talk from school leaders and teachers suggested that there were different power relationships between school leaders and teachers in their community of practice. Distinctions became apparent through two main themes, firstly the varying levels of access to NAPLAN data within the school community, and secondly the perspectives of how NAPLAN policy was enacted in schools. These differing perspectives supported the categorisation of school leaders and teachers into separate membership groups, with examination within and across these groups to be explored.

This initial coding uncovered the different power relationships between teachers and school leaders' communities of practice, and that some of the members, such as teachers, were in some cases only able to engage in peripheral participation when it came to access and use of NAPLAN data in their schools. The demarcation of social groups, or

the way they are peripherally engaged in a community of practice, affords the opportunity to examine NAPLAN as a social practice in these communities and enables the exploration of the research question, namely what is utility of NAPLAN for teachers and members of the school leadership team in informing teaching and improving learning? This new knowledge supported the next phase of the analysis using NVivo as this lens was applied to the next stage of coding.

Table 3.2

Initial Opening Coding after Initial Examination of Data

Initial Coding
Theme 1: Preparation for NAPLAN
General explicit teaching of basic skills Test Preparation Problems with the wording of the questions
Theme 2: School leader/Teacher views of NAPLAN
Pressure on teachers to have great results Regions expectations of schools for improved student results Setting expectations of staff for improved student results
Theme 3: Using Data
General opinion Access to Data Discrepancies with Data v Classroom assessment Reading Mathematics Spelling Writing Using other Data/Standardised testing Programs Using NAPLAN reports as an entry requirement into school Collaboration with other staff
Theme 4: Student Voice
Theme 5: External Pressure for results (on students/teachers)
Media Commercial Public perception
Theme 6: Parent perspectives about NAPLAN
Theme 7: My School
Theme 8: Extended comments on Writing
Theme 9: Interesting comments

3.6.3 NVivo

To ensure reliability in the identification of the codes and themes, data were re-explored and organised, coded and analysed using NVivo software. The software supports the management of complex collections of data and the development of ideas and theories through annotations and memos. Coding in NVivo can occur at multiple levels from the whole document to a single word and different layers of coding can be applied to the same text. This software enables data to be organised in differing groupings while maintaining control of the analytic process.

Using NVivo 11, phases of data analysis were conducted. A new project database (.nvp) was created and twenty-one school leaders' (n = 21) and forty-seven teachers' (n = 47) interview transcripts were imported separately into NVivo 11 first as "internal sources". Based on previous open coding, "nodes" were created in the NVivo system. A node as defined by QSR is "A collection of references about a specific theme, place, person or other area of interest" (QSR International, 2015, unpaginated). Transcripts were read through again, firstly school leaders and then teachers. Talk segments from each group were manually coded into relevant nodes. A node hierarchy (e.g., parent node, first-level child node, second-level child node, etc.) became apparent as frequencies from the talk aligned more to some nodes than others. The node hierarchy is evident in Table 3.3 school leaders and Table 3.4 teachers below with parent nodes identified as: NAPLAN enacted policy, Access to data and Using the data and multiple child nodes identified below each parent node.

Table 3.3

Initial Coding Node Hierarchy - School Leaders

School leaders (n:21)				
NAPLAN as enacted policy				
	Sources	**Total No.**	**Percentage**	**Frequencies**
Expectation of school staff	14	21	67%	23
Regions expectations	9	21	43%	24
Impact on Students	15	21	71%	29
MySchool	9	21	43%	14
Negative perceptions of NAPLAN	15	21	71%	22
Positive perceptions of NAPLAN	15	21	71%	21
Preparation for NAPLAN	20	21	95%	42
Problems with NAPLAN	1	21	5%	1
Access to Data				
	Sources	**Total No.**	**Percentage**	**Frequencies**
Access to Data	18	21	86%	42
Data examined at faculty and individual level	5	21	24%	6
School leaders analyse-pass analysis to teachers	11	21	52%	19
School leaders only use the data	8	21	38%	10
School - teachers lack skills to use data	4	21	19%	5
Whole school access	10	21	48%	14
Using the Data				
	Sources	**Total No.**	**Percentage**	**Frequencies**
Collaboration with other staff	10	21	48%	19
NAPLAN data confirms what we already know	5	21	24%	6
NAPLAN data does not support learning	2	21	10%	2
NAPLAN data is better used for whole school rather than individual	4	21	19%	4
Negative use of data	1	21	5%	1
Not using NAPLAN data	1	21	5%	1
Problems with collaboration from sectors communicating data	1	21	5%	1
Struggling to be able to use the data - time	1	21	5%	1
Teachers expected to use the data	1	21	5%	1
Using data to inform standards referenced judgement	1	21	5%	1
Using the data to inform parents	1	21	5%	1
Work with it at a regional level	1	21	5%	3
NAPLAN v Classroom Assessment	7	21	33%	7
Support student learning	14	21	67%	31
Using other standardised tests	10	21	48%	25
ACARA	5	21	24%	6

Table 3.4

Initial Coding Node Hierarchy - Teachers

TEACHERS (n:47)				
NAPLAN as enacted policy				
	Sources	**Total No.**	**Percentage**	**Frequency**
Pressure for results	21	47	45%	41
Impact on Students	39	47	83%	79
MySchool	11	47	23%	11
Negative perceptions of NAPLAN	23	47	49%	29
Positive perceptions of NAPLAN	31	47	66%	55
Preparation for NAPLAN	39	47	83%	94
Problems with NAPLAN	2	47	4%	3
Access to data				
	Sources	**Total No.**	**Percentage**	**Frequency**
Access to Data	39	47	83%	74
Data examined at a faculty and teacher level	10	47	21%	11
Difficulties accessing the data	3	47	6%	3
Don't have access to the data	6	47	13%	9
Don't use the data at all	14	47	30%	15
School leaders analyse - pass analysis to teachers	20	47	43%	29
School leaders only access the data	5	47	11%	6
School - teachers lack the skills to analyse data	3	47	6%	2
Whole school access	4	47	9%	5
Using the data				
	Sources	**Total No.**	**Percentage**	**Frequency**
Collaboration with other staff	16	47	34%	20
Domains	3	47	6%	4
Do not use NAPLAN data	11	47	23%	13
Guessing - some students guess answers	1	47	2%	1
Helps clarify standards - NAPLAN	2	47	4%	2
Item level analysis	1	47	2%	1
NAPLAN data confirms what we know	4	47	9%	5
NAPLAN data is better used for the whole school analysis	5	47	11%	6
NAPLAN data is very helpful for teaching	4	47	9%	4
NAPLAN data was passed onto other teachers	3	47	6%	3
NAPLAN website is really helpful	1	47	2%	1
Needs to be used with other data	1	47	2%	1
No time to look at data	4	47	9%	4
Only look at NAPLAN data	1	47	2%	1
Political - NAPLAN	1	47	2%	1
Too Late to use the data effectively	5	47	11%	5
NAPLAN v classroom assessment	12	47	26%	19
Support student learning	28	47	60%	51
Using other standardised tests	22	47	47%	30

Based on the node hierarchy, that is, frequency of references to particular nodes, themes were consolidated and provided the initial coding framework. Word frequency and text search queries were conducted using the node terms to ensure correlation to the manual coding. All contextually inappropriate or irrelevant nodes, from the initial and additional assessment processes within this phase, were disregarded. The process for analysis can be seen in Figure 3.1. The final, reduced theme and sub-theme hierarchy can be seen in Figure 3.2.

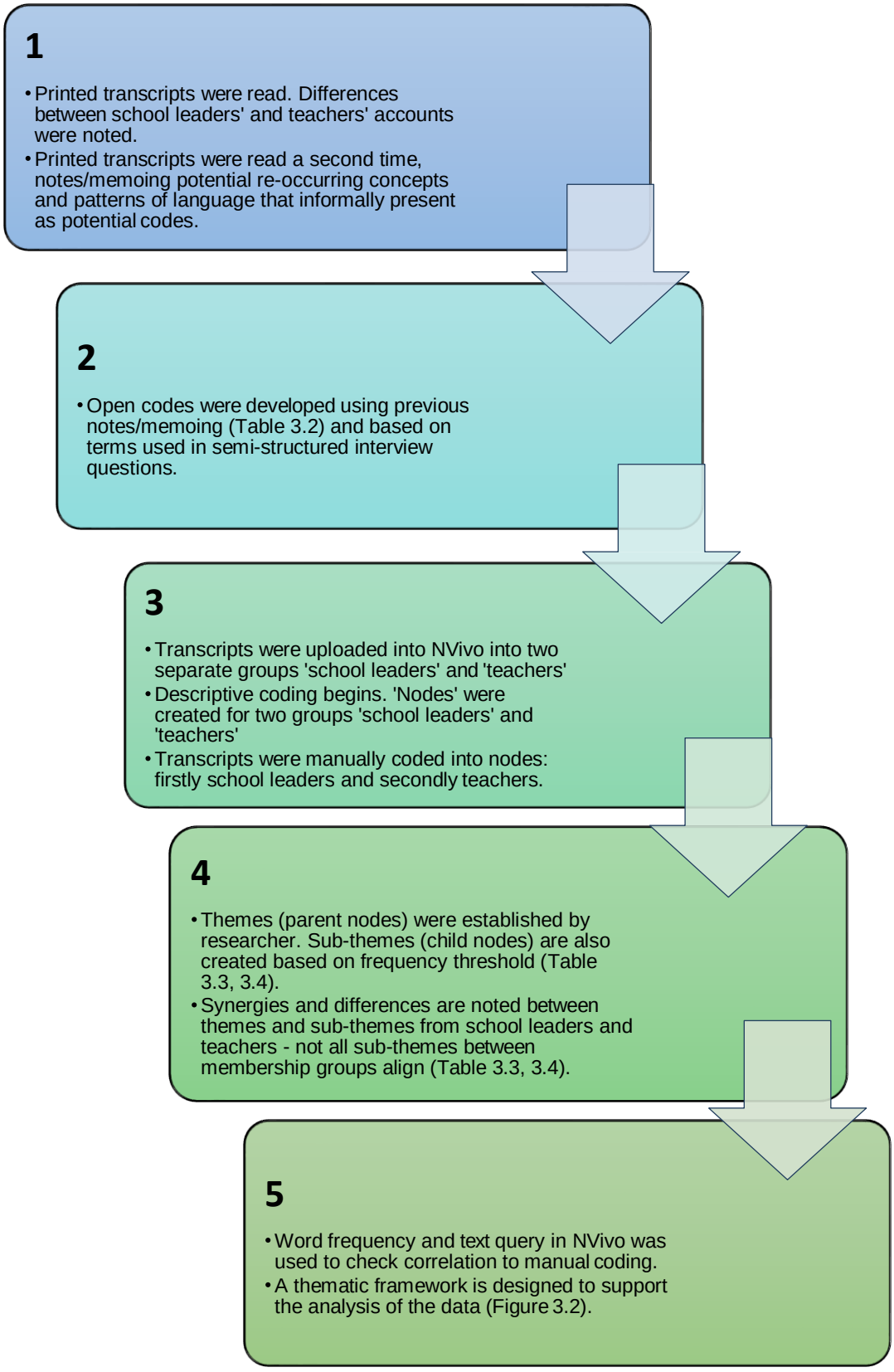

Figure 3.1. Process for analysis of school leader and teacher transcripts.

3.6.4 Identifying Themes and Sub-themes

Two distinct themes were established resulting from the analytic process discussed in Figure 3.1. The first theme is Access to the NAPLAN data and secondly, NAPLAN: How policy is enacted in practice.

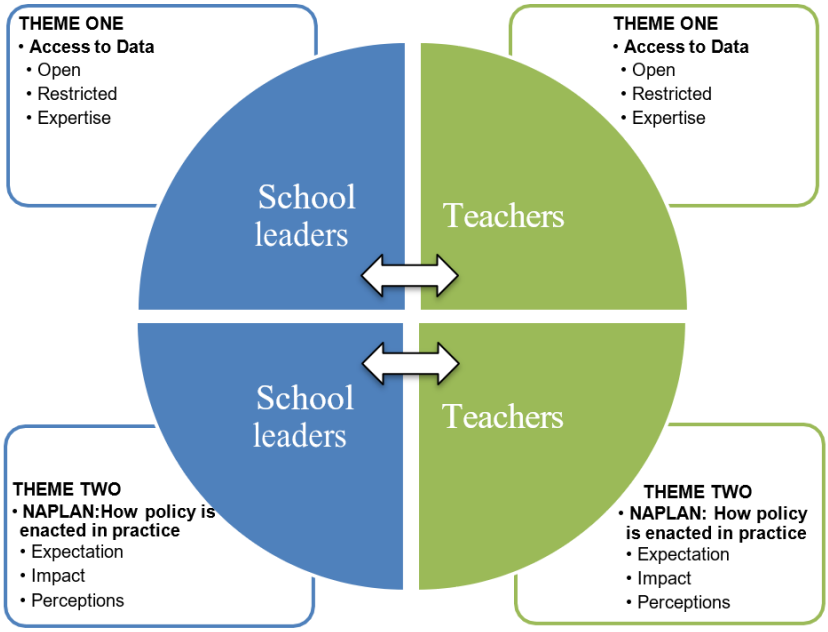

Figure 3.2. Final themes and sub-themes for analysis.

Within the themes identified were sub-themes that sometimes were common to both school leaders and teachers but were at times different, reflecting the difference in practices each group adopts as it relates specifically to their identities as school leaders and teachers in their school communities.

The talk in each theme centred on those aspects that relate directly to school leaders' and teachers' experiences according to their roles in the school and the system. For example, in the sub-theme *Expectations,* school leaders referenced their experiences of *Expectations* from the Regional and Diocesan offices relating to NAPLAN results and performance. From the teacher accounts, there was no talk relating to personal expectation or accountability from Regional and Diocesan offices, however, teachers discussed the *Expectations and pressure for results* as it related to their own school environments relating to students in their own classroom. The analysis

of the school leaders' and teachers' accounts in the context of these themes will be examined in Chapter 4.

3.7 Summary

This chapter has outlined the theoretical framework of the study, including research methodology, research method (interview), participant selection, data analysis and ethical considerations.

The theoretical framework applies conceptualisation of assessment as a social practice together with the social theory of learning and nature of knowledge as a shared enterprise in a community of practice. Chapter 4 will analyse how both school leaders and teacher members engage with NAPLAN, and their relationship with NAPLAN data. The research question *What is the utility of NAPLAN for teachers and members of the school leadership team in informing teaching and improving learning?* will be explored in Chapter 4 by looking at how school leaders and teachers access and use national test data to improve learning for all students and whether NAPLAN data are useful or beneficial for school leaders and teachers to inform their teaching and improve learning.

Chapter 4: Analysis

4.1 Introduction to NAPLAN Data

This chapter presents the analysis of the school leaders' and teachers' accounts of the utility of NAPLAN for improving teaching and learning in the context of two themes, firstly, Access to Data and secondly, NAPLAN: how policy is enacted in practice. The views regarding NAPLAN demonstrated commonalities and differences both within the group of school leaders and group of teachers and across the groups and warranted separate analysis to explore the talk before a comparative analysis of both groups was explored at the end of each theme. The analysis of the transcripts will take into consideration the research question *What is the utility of NAPLAN for teachers and members of the school leadership team in informing teaching and improving learning?* across both themes.

Theme one, Access to Data examines school leaders' and teachers' accounts relating to their access to and use of NAPLAN data. It is structured to address three parts i) Open access to data ii) Restricted access to data and iii) Expertise. The accounts are analysed separately—firstly school leaders' accounts, followed by teachers' accounts. A comparison of the school leaders' and teachers' accounts is presented at the end of theme one.

Theme two, NAPLAN: how policy is enacted in practice, follows the same format, examining school leaders' and teachers' accounts of their experience of NAPLAN in the setting of their school communities. It is structured to address three parts i) Expectation ii) Impact and iii) Perceptions. This is followed by a comparative analysis of school leaders and teachers at the end of theme two.

4.2 Theme One: Access to Data

This theme examines the school leaders' and teachers' accounts of their access to NAPLAN data and how, or whether these data were used for next-step teaching, that is, having clarity of where student learning is headed based on the engagement with the data. The talk from both school leaders and teachers provided an opportunity to look at the socio-cultural environment of the school and provided insights into individuals' constructed social worlds in patterns of social organisation (Silverman, 1993). The accounts evoked an exploration into how school leaders and teachers looked

at the significance and nature of educational practices in the context of access to NAPLAN data and found commonalities within the two groups regarding some sub-themes, however there was often disagreement across the two groups in relation to opportunities to view data.

Access to data as reported by the school leaders formed part of discussions for 86% (n = 18) of the 21 leaders interviewed (Table 3.3). Of the teachers interviewed, 83% (n = 39) of the 47 teachers reported or referenced their personal experiences relating to access to NAPLAN data (Table 3.4). These discussions will be further analysed as part of the sub-theme coding in the sections below.

4.3 School Leaders' Accounts

An overview of the sub-themes and related sources, percentages and frequencies based on NVivo coding analysis are outlined in Table 4.1 below. Table 4.1 provides a visual framework to the breadth of the accounts of NAPLAN and an overview of the sub-themes, open access to data, restricted access to data, and expertise.

Table 4.1

Access to data: School leaders' accounts

School Leaders (n = 21)				
Access to Data				
	Sources Number of school leaders who made reference to the sub-theme	**Total Number** of school leaders	**Percentage** Of school leaders made reference to the sub-theme	**Frequency** Total number of references made to the sub-theme
Open access to data				
Data examined at faculty or individual level (supported)	5	21	24%	6
Whole school access	10	21	48%	14
Restricted access to data				
School leaders analyse-pass analysis to teachers	11	21	52%	19
School leaders only use data	8	21	38%	10
Expertise				
School leaders and teaching staff "lack skills" to use data	4	21	19%	5

4.3.1 Open Access to Data

The focus of the first sub-theme was school leaders' accounts of the operational processes for accessing, disseminating and using NAPLAN data. School leaders' accounts segmented into two strands in this sub-theme, firstly the examination of NAPLAN data either at faculty or an individual level (24%), and secondly NAPLAN data accessed as a whole school community of practice (48%). It should be noted that from the 21 school leaders interviewed, 24% represents 5 school leaders.

4.3.1.1 Data examined at faculty or individual level (supported)

Of the school leaders who reported that data were examined at faculty or individual level, a conflict between perceptions of "whole school access" and controlled access and analysis of NAPLAN data by school leader's is revealed in the comment below. While the Head of Middle School's talk reports that data are owned by the "whole school," the head of the faculty is given the data before teachers are engaged. While the form or 'ownership' of data is reported as "whole school data", it appears that the analysis of the data follows a managed process of analysis. It points to a situation of knowledge management rather than instituting a community of practice where ownership is shared, and identities are redefined (Wenger, 1998).

Value of data is attributed to opportunities to "alter the planning" where data has been examined and school leaders have identified skills where students have achieved "above" expectation compared to skills "where they have achieved below". The distinctive point is that the examination of the data involves stages of access, firstly starting with the head of middle school who then shares the data with the Heads of Department (HoDs) and then the HoD supports the teachers analysis by "work[ing] with the teachers to alter the planning". No mention is made of students' individual learning needs.

P: There were some spatial questions where they achieved above, but there were particular ones where they achieved below. And identifying 2D and 3D shapes, I think that's important. To me that was valuable data from NAPLAN.
I: And so, then you would share that with your…
P: Yes.
I: …HoDs, is it HoDs here?
P: Well here, yeah. It should be the HoDs, yes.
I: And then they work with the teachers to alter the planning?
P: Yes, that's right. So, I see that as useful. Again, it's whole school data.

Head of Middle School Principal, P-12 Independent Girls' School

Comments by school leaders relating to all school staff having open access to NAPLAN data were connected primarily to meeting targets. While teachers were able to access NAPLAN data, the clear directives for its utility were to "identify your patterns, then do a course of action, evaluate how you go, review it". In this school, the teachers have access to data and the expectation is for them to use it as a means to achieve the school "targets".

I: And so how do you work, do, how does it work in the school with the, looking at the data in terms of going down to the classroom level or the cohort level or the whole school strategy formation for the school? So how do you work with the data?

P: So that's, [Principal] will be the better one to say, to articulate. We have what we have **that's not on the wall**, it's actually sitting up there, so we have **targets**. All the data is looked at and then the classes look at the data so that we help set the **targets** of where we want our other two bands to be, where we want to move the tail up those bands and look at that. So, **targets are set there**…So, we look, you know, identify **your patterns**, then do **a course of action**, evaluate how you go, review it.

Deputy Principal, State Primary School P-7

The suggestion is that the access to data in the school is a "we" or collective process, that is, implying the involvement of both teachers and school leaders as a united professional community of practice, "so that we help set the targets of where we want our other two bands to be, where we want to move the tail up those bands and look at that. So, targets are set there. So, it is detailed". However, the shift in pronoun from "we" to "your," indicates that school leaders are in fact evaluating the teachers' performance on NAPLAN rather than the students. The talk segment, "So we look, you know, identify your patterns, then do a course of action, evaluate how you go, review it" suggests that the teachers are the ones who are held accountable by the school leaders about their students' results and data are spoken about in the context of targets, patterns and "a course of action". Once again, learning improvement for individual students is not explicitly mentioned, rather the value of "targets" is the articulated notion, reflecting the tension between the goal of measurement and the goal of improvement as discussed in Chapter 2.

Changing teachers' perception of data is reported by the school leader's comments below to be the reason behind greater teacher engagement with NAPLAN

data. In the following segment, the principal is “proud” of the changing attitudes to data revealing that data initially was seen as “a little bit of a dirty word”. Now teachers do “their own colour grades” and personally analyse NAPLAN data with the use of excel software to track “shifts” in student results. Greater access to data enabled teachers to engage and analyse individual student results and look to progression or “shifts”.

> Data is something that has been probably a little bit of a dirty word. A lot of staff have been concerned in the past. You say data and people will vague out and say, “I don’t understand it. I don’t want to know about it”. They’re getting, I’m very proud with what the spreadsheets are that they put together.
>
> I’ve got a couple of teachers in Year 5 and they sat down and they do their own colour grades and bring their laptop to me and say “Look, look at **the shift**” and that is the one thing that I say to the staff, if you’re doing the test readings over and over again, have a look if there’s **shift**. If we’ve got band one, okay, it is what it is, but **if you’ve practiced** and **you’ve worked** and **you’ve done explicit** teaching and there’s **shift** and it’s band two and it’s still below NMS, that’s okay. There’s **been a shift**. They will probably still say, “But they’re below NMS, [Principal], we don’t want anybody on that”.
>
> Principal, State Primary School P-7

In this talk, the reference to “you” provides an opening to consider the notion of whose NAPLAN performance is being evaluated. The principal states that if “you’ve practiced and you’ve worked and you’ve done explicit teaching”, then provided there is a shift, the principal will be happy. It once again raises the question about the role of “practise” in explicit teaching and who is being tested — who needs to “practise” — the students or the teachers?

4.3.1.2 Whole school has access to data

Forty-eight percent (n = 10) of school leaders revealed that all teachers had access to NAPLAN data. The principal’s comment below reveals that whole school access has been available for the “last three years”. How the school approached analysis was collaborative by engaging with “what the trends are” and engaging in a broad sense before drilling down to focus on more pertinent issues with specific classroom teachers.

The platform “One School”, a Queensland Department of Education software suite that provides individual student information to “meet its duty of care to all students, and to

administer and plan for providing appropriate education and support services" (Queensland Government Education, 2019, para.3), was available to teachers to look specifically "at their own class reports" however, the principal is unsure as to whether the teachers access NAPLAN data or if they use NAPLAN data for next-step teaching and learning. The principal suggests that there is not much need to access NAPLAN data because "there's enough other data from within our school that they can use," and the school has "small cohorts" implying that the school data are more valuable and useful for teachers compared with NAPLAN data.

> Yep. The other thing we normally do, we've done for the **last three years now**, is, once we get our data, we'll have a look at it as a **whole school, see what the trends are**, see what's red, what's green **–** which is, you know, the very general, broad information – then we'll drill down. I normally have a meeting with **the learning support teacher**, that class teacher – say the Year 5 teacher – and myself and we'll go through and pick an area, like, if we're focusing on writing or reading, and then drill down into the questions and see **what the state did really well at or what questions the nation did really well at and which ones did we absolutely bomb out and try and come up with a dirty dozen, we call it; so sort of 12 key areas that we haven't done well in.**
>
> Yeah, from **One School they can have a look at their own class reports**. They can generate them. They can, using Excel, **you know, or whatever they want to do with the data.** But generally, because we've only got such small cohorts, they **probably** don't do heaps of that because there's **enough other data from within our school that they can use.**
>
> Principal, State Primary School P-6

There are similarities between the comment from the deputy principal below to the previous comment; NAPLAN data are "everyone's" emphasising that all teachers had access to NAPLAN data, not just teachers from Year 3 and Year 5. What the school leader could not articulate was "how much they actually do and don't access it I can't actually tell you".

> I think that the ownership of data is, is everyone's. It's not just that year level so if there's a trend over time you need to look at that and say well okay, why and question the data.
>
> Anyway, but that was originally how we used it, but now it's much more concentrated, so every teacher has a password to access the data. **Now how**

much they actually do and don't access it. I can't actually tell you, although I know that we have had professional learning meetings where they are actually shown how to use it, given their passwords, and then actually encouraged to look at it in that particular medium with their grade partners.

Deputy Principal, Catholic Primary P-6

The deputy principal's comments below emphasised the whole school strategic intent in their approach to analysing NAPLAN data and situated access to data as a shared responsibility, and a valued professional activity. The role that the school leaders play is one of guidance, engagement, education and support but the ownership and access are shared. Software platforms such as SunLANDA, "a software application available to schools to assist with NAPLAN data analysis" (Queensland Curriculum Assessment Authority, 2016), are utilised as part of whole school presentations of NAPLAN data and subsequent individual analysis by the teachers follow, as indicated in the comments below. The deputy principal leads teachers through the assorted options within the software to support their understanding and identify areas where classes were having difficulties. Teachers were also encouraged to look for patterns across the school that merited discussion.

P: Yep. Okay, we have, not last year, but the year before, we took the SunLANDA data and each teacher in a staff meeting was assigned a grade and a strand. **And they sat and analysed that, the data to see where the gaps were, were there common areas of misunderstanding, common areas of learning that weren't coming up on the data?** And we just then put that on a great big chart and collated so, across **the whole school we had an analysis of all of the data** just picking out all the areas where that class was having difficulty, and then looking for patterns across the school.

I2: And did you, how did the teachers know what to do with the data? Did somebody help them with that?

P: **Yes, I led them through that process …**

Deputy Principal, Independent Primary School P-7

4.3.2 Restricted Access to Data

The accounts indicate main pathways for NAPLAN data dissemination within a school. Figure 4.1 below presents a framework to show three different approaches to the dissemination of NAPLAN data based on school leaders' accounts.

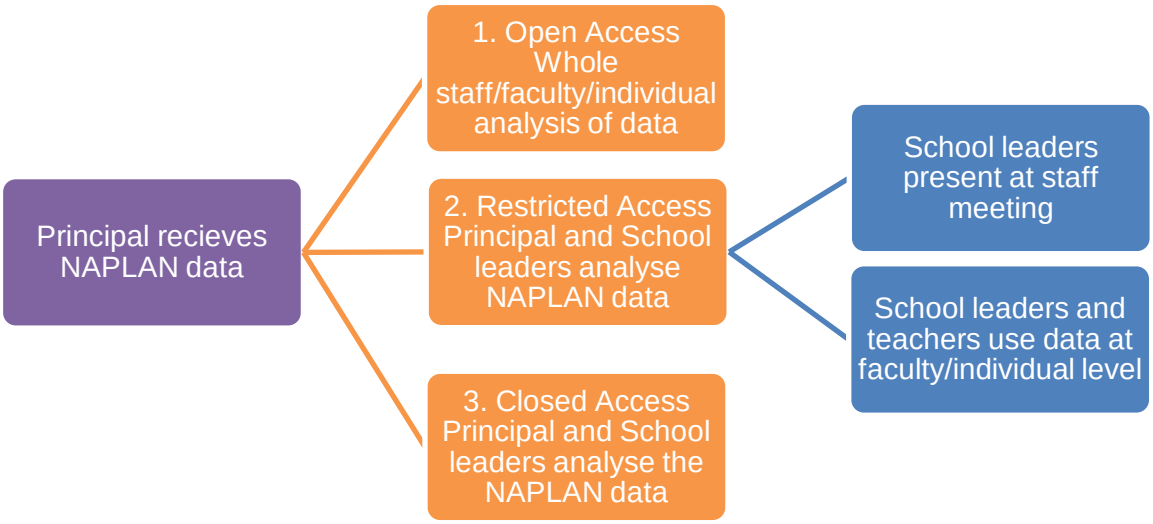

Figure 4.1. Pathways of NAPLAN data dissemination.

The common starting premise evident in the talk is that NAPLAN data start with the school principal (still included by definition as school leaders) then three operational processes are:

1. Open: The reflective stance of the principal is that analysis of the data is a whole school process that has collective engagement by staff in whole staff meetings or directly with staff groups and individuals.
2. Restricted: The principal and school leaders analyse the NAPLAN data and then take several courses of action; they present their analysis of data at staff meetings, pass their analysis of data to the faculty where it is examined from a faculty perspective down to individual class analysis or do a combination of both.
3. Closed: The principal and school leaders analyse the data and do not pass the findings on to teachers.

The first operational pathway of how data are accessed has been examined in 4.3.1.1 and 4.3.1.2, attention now turns to the second and third NAPLAN data dissemination pathways.

4.3.2.1 School leaders analyse NAPLAN data and then pass to teachers

Fifty-two percent (n = 11) of school leaders indicated the pathway for disseminating data was firstly through school leaders who analysed data before passing this analysis to teachers in the school. The school leader may be one specific person designated with the role of analysing data or, alternatively, the school leadership group. The school leaders have the first pass at analysis, positioning them as experts and teachers as recipients of this expert analysis. Skills of analysing and interpreting data reside with the role of master, without engaging the apprentice in the process.

This is evident in the account below. The expert in the participating school was a school leader with official responsibilities connected to the analysis and reporting of NAPLAN data. The analysis is completed by the expert, with the information disseminated to teachers to inform their programs. The principal's comment reports that the head of middle school is the analyst of NAPLAN data and leader in this space. His role is to provide expert analysis to teachers to inform their programs. The principal makes it clear that "all of the teachers are involved in that," however this is only after data has been analysed by the head of middle school.

> [Head of middle school] who is an excellent statistician. And his responsibility, in terms of our operational and strategic plans, is the **leadership** of our programs. So, he's doing excellent reports and analysis. And we talk about that as an academic team in "What does this analysis tell us and how does it inform our programs?" **And all of the teachers are involved in that.**
>
> Principal, P-12 Independent Girls' School

The pathway for NAPLAN data dissemination is confirmed by a comment from the head of middle school. He reiterates that teachers "individually don't work with the data" and while he suggests that data are not given to the teachers, he indicates they are welcome to it, though the accompanying suggestion is there is no reason for them to engage with it after they have been "provided with an overview".

> The **teachers individually don't work with the data**. Again, they're **provided with an overview** and with, say for example, the situation with numeracy, areas that NAPLAN have highlighted as a school that we need to probably spend more time and relook at our programs to make them **produce better outcomes**. But **we don't give the data**, I mean the teachers are welcome to it, but there's no,

occasionally you get the English teachers particularly, even though it's not just English of course, asking for a copy of their NAPLAN writing task.

Head of Middle School Principal, P-12 Independent Girls' School

This suggests that the analysis by the school leaders is seen to provide sufficient information for the teachers. There is no joint experience of learning for the teachers with the leaders; the suggestion is that there is no real reason for the teachers to have access to data as the information is analysed and provided for them and their role is clear, to look at their programs to "produce better outcomes".

The comment from the principal below reports the pathway for data dissemination in the school community. "We" (the school leaders) look at the NAPLAN data and the school leaders analyse the areas of concern that the teachers need to address. The comment reveals the school leaders make the connections to the curriculum for the teachers and indicate what the teachers "should be teaching" by showing them "a link to the curriculum teaching strategies" in order to address the problems highlighted from the NAPLAN data.

We also use the data with staff in going and having a look at, say, where **we** [school leaders] found some areas of concern in particular questions, and we'll go down as close as that, have a look at particular questions and show them [teachers] the links to the curriculum and so on and so forth, and say, you know, "**This is what you should be teaching to address this particular area of the curriculum**". So that, for the smart data, is excellent, when you're able to say, "**We haven't done well here, but here's a link to the curriculum teaching strategies that can address this**". And that's, in particular, **what I ask staff to have a look at.**

Principal, Catholic Primary School P-6

While it could be argued that focusing teachers on addressing aspects of the curriculum and shining a spotlight on pedagogical practices are helpful for teachers, the above comment also shows that potentially the directives from the principal to the teachers limit professional agency and decision making of teachers, "And that's, in particular, what I ask staff to have a look at".

The school leader's comments below reveal the pathway for NAPLAN data dissemination, within the competitive, pressured environment that exists in the school in relation to NAPLAN. The first analytic pass of the NAPLAN data resides with the

school leaders or the “working group”. The school leaders then meet with teachers to look at their “cohort, their class” before working with them on planning. According to the school leader, the teachers all take part in the process due to the “pressure that’s on them” and the “stigma” attached to being labelled “a problem teacher”.

P: So, we focus, we focus our efforts on those areas where there’s likely to be most improvement. So, when some of the kids can do something or most of the kids and it’s really just a matter of upskilling, you know, you’re pretty confident they’ve actually ran it before, and maybe there’s been some investment or money, so it’s been remitted or something like that.

I: Yep. And so, when, after you’ve done all this with your HoD group, the working group, do you then meet with individual teachers and look at their cohort, their class …

P: Yeah.

I: … and work with them about their planning?

P: Yep.

I: And they’re quite receptive to that?

P: Oh yeah, I mean ’cause, basically because of **the pressure that’s on them**. They don’t want to be singled out as being, you know, **a problem teacher** or whatever else. It has a certain …

I: Stigma.

P: Yeah. It’s quite competitive actually, and I think it makes things worse than it needs to be.

Head of Department, Maths/Science, State High School 8-12

In the comment above, NAPLAN results are presented as creating a stigma for teachers if students do not do well. It also reveals how the school environment has also become competitive, which the school leader considers negative. Teachers are receptive to advice from the HoD with regards to their planning because of the “pressure that’s on them” for students to do well so they are not labelled a “problem teacher”. The level of “Strengthen[ed] accountability and transparency” (MCEETYA, 2008, p. 10) has developed into judgement of the quality of teaching and the potential for stigmatisation of those who are not performing.

The following school leader’s comment reported a demonstrated “change” in their data dissemination pathways. Initially, school leaders would be the only people to access NAPLAN data, however subsequently, all teachers had access to data. The ‘expert or master’ role is the “Diocese,” playing the role of educating and informing teachers about NAPLAN data and how to use it. In this case the Diocese organises an

in-service for teachers, however only school leaders attend, reinforcing the notion that the expertise of NAPLAN data analysis resides with the school leaders, and teachers are not offered the opportunity to learn to analyse the data.

I: So, in working with the data you said originally it was the Assistant Principal, Principal, Exec, and that's sort of moved, and now teachers all have their password to look at the data and everything like that. Do you use any specialist to look at the data or help you understand the data, or is there a set role in the school for someone who does that?

P: There is an **in-service each year that the Principal and one other member will attend**; this year it was, who was it, it was either, I don't think it was the additional needs teacher; I think it might have been **the curriculum coordinator**. So, they go to the conference and they all look at all of the data [laughs] and throughout the Diocese or whatever, and then they know what to come back to bring. Or it might have even been our **leader of pedagogy**…

I: So that's an in-service run by the Diocese?

P: The Catholic Schools Office (CSO), yes. So that's the initial input into it, so that happens every year.

Deputy Principal, Catholic Primary School P-6

The deputy principal states that their school is now in a position to "re-look at data" and can be "more strategic about who looks at data and who it's informing (sic)". The understanding is that the Diocese is now looking closely at all schools' data and has created an "online business intelligent tool" to produce visuals about student progress. The data analytic tool therefore provides the first pass of analysis removing this process and potentially, expertise from the school. This does not concern the school leader. In fact, this is seen as positive by the deputy principal as "they put the NAPLAN data in there for us" and the program essentially does the work.

> Now we're in the new phase where we are now ready to re-look at data, because we see it for what it is. And we can now be **more strategic about who looks at the data and who it's informing.** Fortunately [the Diocese] **has come online with a business intelligent tool**, which actually **provides that in visual form**, **so they put the NAPLAN data in for us**, and it **tracks,** it puts the children's faces and **shows you where they are**, and now we're about to begin engaging with the data in that way where we put a **child's face to where they are sitting on their NAPLAN band, and we can compare it from two years ago to now,** and actually look at it, keeping our humans as the focus of "Why is that, gee, he did

really well there, but in class he doesn't, or in class he does really well, why didn't he do it here" and do a little bit more analysis.

Deputy Principal, Catholic Primary School P-7

The talk from school leaders around pathways of data dissemination indicate that half of the respondents report that school leaders were the first to look at data before presenting this information, or their interpretation to the wider staff. This process goes to the heart of who has authority to interpret and ascribe meaning and action to the data: who owns the data? If data are owned by all members of the school, then the analytical processes need to have greater transparency as the Melbourne Declaration endorses, so that all members play an active part in the analysis to improve student performance and schooling quality.

The role of statutory authorities such as the Region or Diocese in the analysis of the NAPLAN data is an important consideration. Further advancements in technology from the Region or Diocese simplify the data analysis cycle and present an analytic picture for schools, but the issue is when ownership of data is transferred to statutory bodies for analysis there is a danger of diminishing data literacy skills and encouraging a passive reception of information or lack of "mutual engagement" (Wenger, 1998, p.74). It is vital that school leaders and importantly, teachers have knowledge and active involvement in how to analyse data, so they are informed and can connect their knowledge to next-step teaching and student improvement.

4.3.2.2 School leaders only use the data

The third data dissemination pathway identified from the interviews were school leaders as primary users of the NAPLAN data. Thirty-eight percent (n = 8) of those interviewed indicated that while the NAPLAN data were not kept from teachers, in the main, school leaders indicated that they mostly utilised data, or that it was not necessary for the teachers to use data.

The deputy principal's comment below reports that there was no expectation for teachers to integrate NAPLAN data as part of their "classroom outcome data" or as part of their practice. The Deputy Principal clearly expresses that NAPLAN data did not provide any added value to teachers' understanding of students in their class. NAPLAN data were exclusively examined by the school leaders as teachers were not "expected to integrate NAPLAN data", and the only reason NAPLAN data would be explored was if there was a "major discrepancy" between NAPLAN results and school-based

assessment data. In this instance, there are clear roles for participants in this school as they relate to NAPLAN data, and in this community of practice, teachers are not expected to engage with NAPLAN data in the context of their classrooms or for next-step teaching.

I1: So, are teachers **expected to integrate NAPLAN data with their classroom outcome data**?

P: **No**.

I1: No?

P: No.

I2: They're not, basically the focus is on the classroom data, not the NAPLAN data?

P: Yes, yeah. Well if they, like **we do look at the NAPLAN data as it comes in and we look at each student**. If there was to be a **major discrepancy between the NAPLAN data and what we have noticed here at school**, then obviously **some questions would be asked** as to why the student either performed so poorly or so well on NAPLAN and yet our data is not showing that….

Deputy Principal, Independent Primary School P-7

Closed access to NAPLAN data was also experienced by school leaders as well. As reported in the account by the HoD below, he was given "summary data" and the HoD only engaged with data if the results were concerning or the faculty was deemed to be "going backwards". The HoD indicated that he had no access to individual student data and access to student data was forthcoming if they were a "support kid" in which case the information came from the learning support team.

I: So, and there's two things to talk about, and you can talk about both roles, both as your head of department as, and as a teacher in Year 9, how you actually work with NAPLAN data when you get it back.

P: We don't get a lot of it back. We get our results, as a head of department, we get, I don't get access, I don't have **the passwords** or **the program** to play with that stuff and on that, from that area. We get our **summary data** that's given to me by either R_____ or B_____ or something saying, "Here's our numeracy Year 9 maths stuff" and as, **provided it's not going backwards**, and we're maintaining what we're doing, that's kind of all we look at it for, as a validation, as a yeah, we're doing sort of okay and…

I: So, you get individual student results there, student records?

P: **No, I don't get access to those, I don't get to see those no.**

I: Not the individual students.

P: No, **not unless it's a support kid**, if it's a kid that we really have a concern of we'll pull those up. And that comes through the learning support as well.

Head of Maths, Independent School P-12

The director of curriculum from the same school as the HoD above explains the pathway of dissemination in his comment below. He reports that the school had an operational process of dissemination of data which involved school ancillary staff collating data and then passing it onto HoD. There was a clear statement that there were no meetings to engage with NAPLAN data, nor was there any "expectation" for teachers to engage with collated data. The main process work with data was passing it to the HoD.

I: And you collect your data, you have ancillary staff who pull it out and they pass it on to Heads of Department?
P: Yes.
I: That's your main process work with your data?
P: At the moment.
I: Do you have school meetings looking at the data?
P: No, we don't, not at this point.
I: Do you **expect teachers to access NAPLAN data themselves** now for the year level?
P: **Not at the moment.** We make it available.
I: Yeah, we'll be talking to teachers, we can find out if they do. It's not the school's expectation?
P: No, and they, at the moment **we haven't sufficiently trained them up to interpret the data**.

Director of Curriculum, Independent School P-12

This conversation ended with the director of curriculum acknowledging that professional development to use data had not been explored, suggesting that this would be needed before teachers would be able to interpret the NAPLAN data.

4.3.3 Expertise: School Leaders and Teaching Staff "Lack the Skills" to Use Data

This sub-theme examined the reported lack of data literacy expertise by school leaders in their respective schools. Nineteen percent of school leaders (n = 4) reported the difficulties that teachers, and in some cases, school leaders themselves faced in understanding NAPLAN data.

The principal's account, below, reported that teachers did not "fully understand" NAPLAN data and school leaders themselves had "trouble" understanding NAPLAN data. The principal reported that teachers did not particularly care about NAPLAN data, as they did not see it as defining their role as a teacher in the context of their school environment. The principal revealed there was minimal value attached to NAPLAN data as it was "not the be-all and end-all of their world".

> Yeah. I **don't know that they actually really understand it because I know sometimes we have trouble understanding the data ourselves**, so I don't know that they fully understand it but I don't think they care about it overly. **It's not the be-all and end-all of their world**.
>
> Principal, State Primary School P-6

The principal revealed, in the comment below, that lack of data literacy expertise was not restricted to teachers above. The principal reported that school leaders such as HoD and deputy principals were "not very strong on data" suggesting expertise in leading the school in data analysis was not evident in the school. The lack of expertise in disseminating data was evident as the principal reported that the team "muddle [their] way through" rather than applying a strategic approach to shaping programs and next-step teaching using NAPLAN data.

> There's English, S_____ who's the English HoD and P_____. P_____'s very good with data. S_____, it's not her strength but yeah, we, and P_____ who's the deputy for junior school **– he's not very strong on data either**. You know, **we don't have a strong data team,** so we just **sort of muddle our way through** really.
>
> Principal, State High School 8-12

The school leader's comment below also reports how other leadership staff lack expertise to analyse NAPLAN data. The director of curriculum indicates problems with the pathway of dissemination, describing the process with ancillary staff charged with "filter[ing]" NAPLAN data based on the requests from HoDs in the school. The "lack of skills" from the ancillary staff means that the extraction of data is not presented in "a way that is meaningful". The director adds to the comment by suggesting that he is not confident that HoDs in the school "know what they are asking" when requesting the filtering from ancillary staff.

> It is, and until we can do that, you can just really look at NAPLAN data but it's taking a good, probably a good 100 hours for one of our ancillary staff to try and filter through and pull data out, **but they lack the skills to pull it out [the NAPLAN data] in a way that is meaningful.** So, they're just plucking numbers and names and the Heads of Department are trying to work with that because they're asking for it, **but I'm not sure that they know what they're asking.**
>
> Director of Curriculum, Independent P-12

A cautionary note of ignoring data "at our own peril" is reported by the acting head of primary in the comment below. The acting head reveals teachers are "emotionally-based creatures" with strong connections to students. The evolution of the education system means that use of data to inform next-step teaching is a critical part of the landscape and consideration of how data can be utilised is important. Expertise in data literacy will become critical so that teachers understand "what to do with that information" in order to use data "wisely".

> I think, with the information we're able to gather about learning and how kids learn and **what to do with that information, we ignore data gathering at our peril**. I think **teachers have taken a bit of time to get on board** with that because **we tend to be emotionally-based creatures where you just want to be with kids and teach kids**. But I think we've moved into a **different kind of teaching era** and **we need to start really accessing the data that we can and using it wisely**.
>
> Acting Head of Primary, Independent P-12

This comment suggests an insight into the situated practices of staff in the professional learning community in the school. The school leader aligns with the broader focus of data as critical to teaching and learning. However, the teachers' main priority is "be[ing] with kids and teach[ing] kids", as though these interactions are taken as independent of engaging with data. The challenge for the professional learning community is to bridge the gap of valuing the data to inform the teachers' pedagogical practices with the ultimate benefit of improving student outcomes.

4.4 Teachers' Accounts

Of the 47 teachers who were involved in the semi-structured interviews 83% of teachers (n = 39) revealed some comments relating to access to data. An overview of the sub-themes and related sources, percentages and frequencies based on NVivo coding analysis, are outlined in Table 4.2. The table provides a visual framework to the

breadth of the accounts of NAPLAN and an overview of the sub-themes, open access to data, restricted access to data and expertise.

Although the sub-themes for both school leaders' and teachers' accounts were common when commenting on open access to data, the nature of comments for Restricted access to data, differed between teachers and school leaders. As for school leaders, the teachers' comments are explored in relation to the pathways to NAPLAN dissemination (Figure 4.1) discussed previously to explore whether the pathways of access to data are also evident in the school leaders' accounts.

Table 4.2

Access to Data: Teacher Accounts

Teacher (n = 47)				
Access to data				
	Sources Number of teachers who made reference to the sub-theme	**Total Number** of teachers	**Percentage** of teachers who made reference to the sub-theme	**Frequency** Total number of references made to the sub-theme
Open access to data				
Data examined at a faculty and individual level (supported)	10	47	21%	11
Whole school access	4	47	9%	5
Restricted access to data				
School leaders analyse data before passing to teachers	20	47	43%	29
School leaders only access data	5	47	11%	6
Difficulties accessing data	3	47	6%	3
Don't have access to data	6	47	13%	9
Don't use data in teaching practice	14	47	30%	15
Expertise				
Teachers "lack the skills" to analyse data	3	47	6%	2

4.4.1 Open Access to Data

Thirty percent (n = 14) of teachers revealed that they were able to access NAPLAN data in some capacity in their respective schools, either individually or through their faculty (21%, n = 10) or as part of the whole school (9%, n = 4). The teachers below, who reported accessing and using NAPLAN data independently, had clearly articulated purposes for analysis of NAPLAN data in the context of their class.

4.4.1.1 Data examined at a faculty (year level groups) and individual level (supported)

The teacher's comment below demonstrates her preferred pathway to analysing the NAPLAN data. The teacher is using the analysis for understanding the gaps in the students' knowledge through analysing and synthesising the information into graphs. While the principal values the staff and their ability to use data as part of their professional practice, the teacher reports that "we have to put it together and do an analysis" before they have to "hand it in" to the principal, as a student would, in order to have their work checked.

I: Okay. So, in terms of the data you've mentioned a couple of times that you do like looking at it.

P: I do.

I: So, do you access it yourself or is it given to you in the school, or how's that work?

P: Yeah, **we all get, well it gets sent, a copy gets sent to the parents, and a copy gets sent to the school.** So, what I do is I **get the NAPLAN results back, and I analyse them and then I put them into a graph. And I work out exactly where my kids are and who really, it is useful.** It's confirmation and I look at it as a whole. As I said, **I get all the NAPLAN tests out** and **we have to put it together** and **do an analysis and hand it in to the Principal.** So, I can, language conventions, oh we need to focus on grammar or spelling or we need to go back and look at fractions and decimals. It's good in that way, because **you can see maybe where there are (sic) gaps**.

Year 3/4 Classroom Teacher, Independent Primary School P-6

The triangulation of student NAPLAN data with student reports and teacher comments was the strategy used by the teacher, according to the comments below. This practice was seen as beneficial in planning for a new cohort to gain an understanding of the strengths and weaknesses of individual students in the class.

I: When you say at the beginning of the year, **you go and download the data**, so is that the Year 3 data? Because that's what you have.

P: Well, that's all I've got. So, and I mean it's hard. I find it difficult if you've got a child that hasn't been at the school in grade 3 and so you don't have that so, I feel like you're going in a little bit blind. **I also put with that their reports**, so I go in and look at their report cards as well, and any comments and things like that, so I try to get a bit of a picture of.

Year 5 Classroom Teacher, State Primary School P-7

According to the Year 7 teacher's comment below, the individual use of NAPLAN data was primarily for monitoring "at risk" students. The process for analysis is to take note of any students whose results are "lower" than anticipated and who may be at risk. The next stage is to alert other teachers at regularly conducted "at risk" meetings as part of a monitoring strategy for students.

I go through them. I put them into classes and I have a quick flick through and I look and I say, you know, **is there anybody here who's lower than I would have thought** from what I've received because **I do an at risk,** we monitor our students and we have what we call **at risk meetings once a term** and so academically, socially and so on.

Year 7 Classroom Teacher, Independent Girls School P-12

The teacher's comment below reports how NAPLAN data were accessed and analysed independently. Data analysis was seen as a collaborative process with comments relating to working with other classroom teachers integral to the analysis and next-step teaching.

I just **basically get the results** and on the back of the sheet they've got every question the kid's got wrong, **so it's a long process.** I don't know of a quicker process, but it's just a **matter of basically having all your twenty-eight sheets and going right question one, they got it wrong. We just tally it up and look for a pattern** and go gosh, fifteen of those kids didn't know that one right that's one we have to work with. So that's how I do it. And then obviously I talk to the Year 5 teacher and again if she needed, if she identified something that the kids need more then we'd go with that. With, **I'd work with her and work with the kids that she's identified from NAPLAN if we hadn't already got them.**

Learning Support and Year 3/4 Classroom Teacher,
Independent Primary School P-6

The reference to the term "patterns" from the Learning Support teacher suggests there is an underlying value for data and the information it can provide for the students in her class. This process is also used by the other "Year 5 teacher" and together they

engage in a cross-analysis of the item level data for the year group. NAPLAN data inform next-step teaching based on “patterns” of data, the term also used by school leaders, that indicate problems with certain domains and questions. There is evident energy directed to the “long process” of “sheet” analysis which clearly delivers “pattern” results but the process itself seems at odds in a 21st Century technological environment. The teachers do not appear to have access to software that can present this information systematically and quickly.

4.4.1.2 Whole school has access to data

The opportunity for the whole school to have access to the NAPLAN data was reported by 9% (n = 4) of teachers interviewed. The number of teachers citing whole school access to data was significantly lower than school leaders. Almost the majority (48%, n = 10) of school leaders suggested that all staff had access to NAPLAN data. Of the teachers who revealed whole school access, accounts referred to their ability to access the data directly and initiate their own individual and small teacher group analysis of the NAPLAN data. Some revealed how data were presented in staff meetings and the school leaders demonstrated to the staff how to analyse NAPLAN data, encouraging staff to look at NAPLAN data post the meeting.

The opportunity for a deeper engagement with NAPLAN data in the school’s Professional Learning Community (PLC) is discussed in the comment below. The teacher reports that the data are explored as part of a whole school staff meeting where certain domains or areas are highlighted. The teacher is also given further opportunity to look closer at data in smaller meeting groups and then to access it beyond the meetings.

> I’m probably more focused on the assessments that I’m doing there and then. I would certainly be aware of the kids coming into my class from Year 3. We will **spend some time, a meeting, a staff meeting or a PLC, at the beginning of the year**, _____ has done, **has taken us through the NAPLAN data at the beginning of the year, just so that she can highlight certain areas**. We might even focus on a **particular concept** or problem that there might be across the grade, but it’s certainly there for us to access.
>
> Year 4 Classroom Teacher, Catholic Primary School P-6

A whole-school approach is reiterated in the teacher’s comment below, reporting that school leaders demonstrate how to analyse the NAPLAN data and how to “read

the progression between Years 3 to 5". They were also encouraged to independently engage with data beyond the staff meeting, however whether this was taken up by the teachers in "a Year 5-6 class" was not reported.

> We had a staff meeting on it last year, after the results came back where the LOP and the principal presented the staff meeting on the data on how to read it, on **how to read the progression between Year 3 to 5, et cetera, et cetera.** And of course, the request is that **we would use the data individually if you were in especially a Year 5-6 class.**
>
> Year 3 Classroom Teacher, Catholic Primary School P-6

The teacher's comment below reported that access to the NAPLAN data was available on the school's "G drive". The teacher reported being enthusiastic about accessing and using the data and had initiated her own "mapping", demonstrating the benefits that the NAPLAN data contributed to her own understanding of what questions the students could answer and who has "potential".

> One school, sorry. So, it's all there for us. **A lot of the data that we need is like loaded down to G drive so we can access it through there.** And I quite like data. **I like playing with the data**. I recorded it all, looked at who can, potential. So, **we had it all mapped out**, who could move and who knows if they moved them?
>
> Year 5 Classroom Teacher, State Primary School P-7

4.4.2 Restricted Access to Data

4.4.2.1 School leaders analyse the data before passing to teachers

Nearly half of the teachers interviewed (43%, n = 20) indicated that NAPLAN data were provided to them only after a school leader had firstly analysed data. The accounts from teachers were similar to the school leaders with 52% in agreement of this dissemination pathway. The flow of data is important as the first analytic pass was undertaken by the school leader and their interpretation pervaded the teachers' programming and next-step teaching. This flow of data aligns with the pathway explored in Figure 4.1.

The teacher's comment below reveals a passive engagement with NAPLAN data. The comment reports that the school leader mostly did the analysis and "explain[s] to me what they do but I couldn't sit down and do the analysis". The school

leaders are engaging with the teacher, but the teacher reports lacking the expertise to understand how to analyse the data herself.

I: You meet with B_____? [Principal]
P: Yep, and the other support teacher we all sit down together.
I: An LST to look at data?
P: Yep.
I: **Do they do the analysis, or do you?**
P: **They do it mostly** and then while I'm …
I: Talk to you?
P: **Yeah, they explain to me what they do but I couldn't sit down and do the analysis** I haven't known that so they do that mostly.

Year 4/5 Classroom Teacher, State Primary School P-7

The teacher's comment below reveals a disengagement from the analytical process and shows the teacher handing responsibility of NAPLAN data to the school leader. The teacher reports that the school leader is the "expert". The teacher's comment indicates that time is a factor in the ability to engage with NAPLAN data, implying the principal has more time to "understand it".

P: But our, the official Principal, he's very much into data. Data's been his big thing.
I: **So, when you say, work with data, what do you do?**
P: **We sit, and we look, and we** …
I: Unpack.
P: Unpack it. We think about it.
I: As a whole group?
P: It's been as a cohort. The Four, Fives together.
I: Okay. Yeah, I'm just checking the program.
P: Yeah, so he's …
I: With the Principal?
P: Yes. **Yeah, he's done it with us, which has been helpful, because that is, he's had the time to understand it more, get into it more, so he could guide us more in what we were sort of looking at, and why we were looking at it.**

Year 4 Classroom Teacher, State Primary School P-7

This talk segment reveals a type of passivity where teachers dutifully listen to the analysis but do not actively participate in the analytic process. The teacher, while present at the meeting, is not a contributing member, attributing lack of time to any opportunity for meaningful engagement with the data, resulting in a disengagement from the analytical process and the community.

A passive engagement with data is also demonstrated in the teacher's comment below. The teacher has relinquished all responsibility of her role in the analytic process, citing that "we don't even have to interpret data, because [the principal] does it for us".

I: Do you look at My School?

P: Not really, no. **B_____, see our principal loves data**, so he'll take the data from NAPLAN and he'll just, he'll send it in, this is how well our school did in comparison, this is, this and this. **So, we don't even have to interpret the data, because B_____ does it for us.**

Year 4 Classroom Teacher, Independent School P-12

Why teachers disengage with data is discussed in the teacher's comment below. The teacher's comment on disengagement stems from an experience in another school where a role was allocated purely for the analysis and dissemination of data. The Math teacher identified that the potential of data is not being realised in practice, acknowledging the place of data as part of the teaching and learning cycle, but highlighted the issue of holding all the information with school leaders and not engaging the wider teacher population. Professional development would go some way to support teachers' understanding of data and what this means "in the whole scheme of things".

So, oh yeah, they're at some schools, some private schools, I even worked in a private school where they had a **Dean or a Director of reporting and statistics, basically.** And his **sole job was to try and interpret this data and let teachers know. I think it was pretty ineffectual, honestly speaking.** But really, we need, I think **we need some professional development** on what these mean, these numbers and graphs, what do they all mean in the whole scheme of things? Because I think there'd be little regard for those, all these, all this data.

I don't think it's a lack of time. I think it's just a lack of knowledge.

Year 8-10 Maths Teacher, State High School

In this section the math teacher can be heard identifying that if teachers are to be active legitimate participants as part of the school framework, then teachers need a greater access to professional development to engage with and understand how to analyse data and to integrate findings into the teaching and learning cycle. Given the requirements of the AITSL 5.4 Standards to "Demonstrate the capacity to interpret student assessment data to evaluate student learning and modify teaching practice" (AITSL, 2016), this is a skill that appears to be lacking for most of the teachers in this sample. As suggested by the math teacher above, "I don't think it's a lack of time. I think it's a lack of knowledge".

4.4.2.2 School leaders only access data

Eleven percent of the teachers (n = 5) interviewed indicated that NAPLAN data were accessed primarily by school leaders rather than by the teachers in the school. What happened to the data once the school leaders had access to it was not always clear according to teachers' accounts.

The teacher's comment below reported that access to data was not forthcoming in the school. The teacher had requested access to NAPLAN data, but had not received it and was not clear who to speak to or where to access the information. The interviewer pursued the question relating to access a couple of times, but each time the response was clear, namely, that it does not proactively "filter down" and the teacher's perception was that one person (a school leader) holds this information exclusively.

I: So, in terms of preparation, oh no, we'll talk about data first. So how do you work with NAPLAN data?

P: **Well I don't really see it.** We have, **I think one person in this school gets it. I believe it's R_____** and **we don't get that information to us, we don't get it.**

I: **Does it filter down at all to your classrooms?**

P: **No.**

I: So, do you not join at a cohort level and talk about it or ...

P: No.

I: Nothing?

P: I've asked for it and I've got it when I've asked but I ...

I: **But it's not something that's provided** ...

P: **It's not, no.**

I: ... **proactively?**

P: **No, not at all.**

Year 7 Classroom Teacher, Independent School P-12

The comment below reports that the teacher does not access NAPLAN data and her confusion as to where to access NAPLAN data is indicated through her comment, "gets it on My School, on that thing". Once data are accessed by the school leader the data are then discussed at a staff meeting before being progressed for further analysis by the management team, where the analysis goes next is not reported.

I: Okay. So, do you access the data? Do you yourself, or how does it work in the school?

P: No. I think E_____ **gets it on My School**, on that thing, and then we get it and we talk about it at a staff meeting and **then it goes to the management team and they all discuss it and, yeah.**

Year 5-6 Classroom Teacher, Independent School P-6

The teacher accounts above report that there was not a clear pathway of dissemination and transparency; instead, if teachers wanted to engage with data they needed to actively seek it out from school leaders and it may or may not be provided.

4.4.2.3 Difficulties accessing data or rights to access data

Some teachers expressed difficulty with either accessing NAPLAN data (6%, n =3) or in some cases reported having no access (13%, n = 6). Problems accessing NAPLAN data varied considerably. Accounts from some teachers indicated that NAPLAN data were available, however in their experience it was difficult to locate the information from within the school. Other teachers indicated that there were barriers to their access of NAPLAN data despite requesting the data. Teachers also reported challenges with accessing data from portals such as One School, coupled with a general lack of awareness of how to access the data.

Barriers to accessing the data were reported in the teacher's account below. The indication is that only "one person in this school gets it" (school leader). While the school values professional development for data literacy, the NAPLAN conference that teachers were sent to was about how to use the platform "SunLANDA". The conference however, was a wasted opportunity as the teachers could not access the software once they returned to their school community. This was not an unusual experience for the school with another colleague also challenged by an inability to access the software to utilise the NAPLAN data, one in particular asked for the software and, "the person responsible wasn't helpful at all".

I: So, in terms of preparation, oh no, we'll talk about data first. So how do you work with NAPLAN data?

P: **Well I don't really see it.** We have, **I think one person in this school gets it.** I believe it's R_____ and we don't get that information to us, **we don't get it.** Well there's, what program is it that, **I went to a NAPLAN conference.**

I: SunLANDA?

P: **SunLANDA, we weren't able to get that as teachers to actually, to manipulate the data, so not useful at all, I didn't get that. It would have been useful if I'd been able to get it,** yeah.

I: So, you could ask for it do you think and get down to the …...

P: Difficult to get that information. **I know a colleague of mine asked for it and the person responsible for that wasn't helpful at all.**

Year 7 Classroom Teacher, Independent School P-12

Technological issues were the primary reason for lack of access to data according to the account from the secondary teacher below. Restriction of access to data centred on the platform "One School". The "cumbersome" nature of trying to access the data became a barrier to deeply engaging with NAPLAN data. Instead the teacher uses One School to "get background info" and a brief examination of "where the kids are and where their gaps are" was cited. The implication is that the challenging nature of using the One School portal negated any real engagement with analysis of NAPLAN data.

> But it's just, yeah, I mean normal classroom practice you just, **it's cumbersome trying to get all the data too out of the One School**. So, we use it to get the **background info** to find out about the **facts about where the kids are and where their gaps are,** but that's all really, I use it for.
>
> Year 9 English Teacher, State High School 8-12

The following teacher's comment demonstrates that while NAPLAN data were provided to the teacher, it was only provided in "paper" format. The method used would be to "sit with my highlighter and I go through them". While the teacher could analyse data independently, the bigger question is why in the twenty-first century an online provision of access was not made available to the teacher. Gate-keeping of NAPLAN data reflects clear barriers in the culture of the school. By only allowing some "members" access to information and not others, had the effect of reinforcing a delineation between school leaders and teachers, with information only provided peripherally to teachers on school leaders' terms (i.e. a paper copy of NAPLAN data).

I: Okay, thanks. **So, you access NAPLAN data yourself for your students?**

P: **No, my Head of School prints it out and it's given to me, so I have paper copies.**

I: And then what do you do with those?

P: **I sit with my highlighter and I go through them.**

Learning Support, Independent Girls School P-12

4.4.2.4 Don't use the data in teaching practice

Approximately a third of teachers (30%) (n = 14) who were interviewed indicated that the NAPLAN data remain detached from their teaching practice. The reasons for not using data were varied and comments reported a lack of time as a primary reason for the lack of engagement with data.

Being "time poor" was a reason for a lack of engagement with NAPLAN data according to the teacher's comment below. The comment listed the growing expectations on the teaching profession and perceived engaging with data as more "play[ing] with data". The low priority of data engagement compared with the other more immediate issues speaks to the value that was placed on NAPLAN data. Accessing this information seems more of a burden than the value it may have in informing teaching planning and practices.

> When you're in Year 5 generally we find ourselves in modern school **time poor**. Information rich and time poor. You are battling, let alone the data, so no, you don't sit down, some people may, **you don't sit down and play with data**, you are flat out preparing lessons, assessing, running your behavioural problems, organising modern teaching, being asked to account for, accountability. **Outcomes, accountability, differentiation, everyone's knocking on your door, you don't have spare time to go and look up the data.**
>
> Year 3 Classroom Teacher, Catholic Primary School P-6

The value of NAPLAN data compared with the school's internal assessment processes was revealed in the teacher's comment below. The teacher's comment clarifies that NAPLAN data are not "any more important" than the teacher's assessment. The teacher's comment below sees NAPLAN as "another piece of data" implying that while the information is available, it is filed away and not utilised.

> I've gone in this year, I went in, and I've had a look at my students' Year 3 NAPLAN. When I said that to my grade partner yesterday, when we were moderating our assessments for reporting, I said, "Oh, and I've also got NAPLAN". She said, "NAPLAN, how'd you get that?" And I went, "no no, that's Year 3 NAPLAN". And I had it in my grading folder to also **be another piece of data at the beginning of the year, when you get your kids.** Even though it was two years old, but I had it there. NAPLAN's a bit of, I suppose it's like, I think this,

what did they do on that day? **It's another piece of data, but it's not as, not any more important than what we do.**

Year 5 Classroom Teacher, Catholic Primary School P-6

Using NAPLAN data was not prioritised and was more "probably on the lists of things I should do", according to the teacher's comment below. The comment reports that the teacher understands the importance of data, however, active engagement with NAPLAN data was by-passed in favour of other work that the teacher prioritised for completion.

I: Have you ever gone and looked at it yourself online?

P: First time a couple of weeks ago, I was in looking for something else, and I thought, oh, okay, there's the NAPLAN stuff**, so I actually did look at it for whatever student I was looking at**. But that's been it, yes.

I: And have you ever used it to identify for a student, a particular student, so from Year Three, their needs?

P: I haven't yet. **It's probably on the list of things I should do.**

Year 4 Classroom Teacher, State Primary School P-7

Teaching a non-NAPLAN year (all years other than Year 3, 5, 7 and 9) was reported as a reason for lack of engagement with the data. The comment below reports that interest in NAPLAN data has greater utility for teachers of "Year 5 or …Year 7". This suggests that the teacher only sees data as part of a preparation cycle, not for informing teaching and learning beyond Year 5 and Year 7 or as an integral part of a long-term improvement strategy.

I: Have you ever had direct access to the NAPLAN data yourself? You're saying you used to look at it.

P: I think, but, yes, it used to be printed off and I think we used to have it in pigeonholes. So, I think all staff members had that, well I got copies, so yes, I must have been given the website or found it myself and I printed it off and I'd highlight all these things and the problem areas and which questions. I haven't done that for a year or two gone past.

I1: Why? Just asking about your change in practice. Was it a change in school policy or you didn't find utility in it?

P: Perhaps because I haven't had Year 5 for a couple of years. I think if I was still Year 5 or if I was Year 7 **and I knew it was a NAPLAN year I'd be a bit more focused on NAPLAN and say at the beginning of the year, ah these are the**

problems and I would focus on them. That's what I used to do, and **I'd probably still do that if I was 5 or 7, yeah.**

Year 6 Classroom Teacher, State High School

4.4.3 Expertise: Teachers Lack the Skills to Use Data

Of the 47 teachers interviewed, only 3 teachers stated that they lacked skills to use the NAPLAN data. Two of the statements indicated a willingness to engage and learn about NAPLAN data and seek to understand what the implications of using data could mean for them and their students.

Professional development in how to interpret NAPLAN data in the context of individual student performance and whole school performance was seen as an important skill to have, according to the comments by the Math teacher below. While the teacher indicated that a background in numeracy skills has helped his ability to "interpret the numbers," he reported the need to engage with professional development in order to have a deeper understanding of what the numbers "mean".

So, like as a math teacher I can interpret the numbers, I think I can. The problem is we've had no **formal professional development** on what do these numbers **mean as a school**? What do they **mean individually** and what do they **mean individually, as for me**, the teacher? And what do they mean, **most importantly, what do they mean for the kids**?

Year 8-10 Maths Teacher, State High School

The teacher's comments below revealed a willingness to engage with the analysis of NAPLAN data, recognising that data are not utilised effectively and is an area of weakness for the school. The teacher indicated that there needs to be an institutional change starting with giving teachers access to the data and then working towards engaging with the data. The school has started the process of change, but "hasn't got there yet".

P: **Don't work with the data, I'd love to.** I'd love to be able to do, I think it's **a big weakness in our school** is data and I think we've, people have identified that and are working towards rectifying that.

I: Yeah, giving access to the data.

P: **Given access to data or even working with data**, collecting data from one location and having it accessible and then using that data. I think that's where the school's going **and the school hasn't got there yet.**

The limited references to this theme indicates that some teachers see professional development as a way forward to engaging with data but given the lack of comments relating to learning about how to analyse NAPLAN data, the majority do not see this as a way forward or perhaps even necessary as part of their professional practice.

4.5 Access to Data: A Comparison of School Leaders' and Teachers' Accounts

The accounts of both school leaders and teachers demonstrated some similarities and also distinct differences when discussing the theme of access to data. The accounts were analysed in the context of the sub-themes below:

1. Open access to data
2. Restricted access to data
3. Expertise

The accounts revealed some commonalities in some sub-themes between school leaders and teachers regarding access to data, however, there was often inconsistency from school leaders compared with teachers, relating to how much opportunity there was to view data. Discussions around the first sub-theme of "Open access to data" had collective agreement around examination of data at a faculty or individual level; that is school leaders would often analyse NAPLAN data before presenting or passing it to teaching staff. However, discussions relating to all teachers having access to data presented differing accounts, with school leaders suggesting greater access to NAPLAN data than was the experience of teachers.

Forty-eight percent of school leaders indicated that all teaching staff could access the NAPLAN data, while only 9% of teachers indicated that the whole school could access NAPLAN data. While nearly half of the school leaders reported that data were accessible to all teachers, comments related to whether teachers needed NAPLAN data or whether it was in fact accessed. While there were certainly examples of teachers engaging with the data for analysis of student performance, reference to "target" setting was reported as linking accountability with performance which will be explored further in theme 2. What was missing in most responses, however, were discussions about connecting data with what happens in the classroom or individual

teachers having first-hand access to analyse data, such as the provision of customised data analytic tools for teacher use.

Those school leaders who reported that the whole-school had access to data saw teacher access as a normal operational process for their schools. What was not readily quantifiable was the extent of engagement from those teachers with NAPLAN data for their own purposes or strategic goal setting for next-step teaching. While some schools offered access and professional development to teachers, this did not necessarily assure the analysis of their students' data, and there were minimal references to how access and professional development played out as part of next-step teaching and student improvement.

Those teachers who reported open, whole-school access revealed a positive engagement with data and also reported opportunities to engage with data beyond staff meetings in a reflective, diagnostic context. The teachers' involvement with data and their engagement with its potential in terms of analysis speak to their active participation, demonstrating their contribution to meetings with their new knowledge as participants of the community (Wenger, 1998). This utilisation of data to support improvement relates to the Melbourne Declaration and assessment for next-step teaching, "enabling teachers to use information about student progress to inform their teaching" (MCEETYA, 2008, p. 14) as discussed in Chapter 2.

The "Restricted access to data" sub-theme demonstrated a difference in the experiences of school leaders compared to teachers. The real point of delineation was that in the main, school leaders accessed data independent of teachers and teachers often were unable to access the data.

Thirty-eight percent of school leaders reported that school leaders were the only ones who routinely used NAPLAN data, with some stating that it was not their expectation that teachers use it, suggesting that it was not "the be all or end all of their worlds". This statement was reinforced by 30% of the teachers who indicated that they did not in fact use the NAPLAN data as part of their teaching and learning.

Six percent of teachers cited difficulties accessing data and 13% were denied or were unable to access data. This created frustration for some of these teachers as they genuinely wished to engage with data for planning purposes. The difficulties around downloading the information were also cited as a barrier to engagement; one teacher

was only given paper copies of the data and then tried to analyse using a highlighter – a challenging approach considering the technological platforms available in the 21st Century. If NAPLAN data are too challenging to access, teachers reported not having the time to keep pursuing its retrieval, leading to disengagement and devaluing the utility of the information, or a missed opportunity to use data to inform next-step teaching.

Lack of time was the primary reason for a lack of engagement with NAPLAN data as reported by teachers. They also valued more highly, other school assessments as significant contributors for informing next-step teaching. The time available for teachers to analyse data was also cited as being problematic. The value of NAPLAN data in light of internal assessment processes was reported with some teachers indicating, “It’s another piece of data, but it’s not as, not any more important than what we do”.

Not all comments from school leaders in this sub-theme indicated that teachers were deliberately denied access to the NAPLAN data; however, a dominant viewpoint was that there was no expectation for teachers to use data beyond the school leaders’ initial analysis; this viewpoint at times even existed within the leadership group. The lack of data literacy skills was often attributed to a lack of expertise, however there were no accounts indicating that professional development for teachers would be progressed to address this issue.

Of greatest alignment was the discussion around expertise. It should be recognised that the number of school leaders and teachers discussing this sub-theme was smaller by comparison. The notion of demystifying data and how it can be utilised to look to gaps in student knowledge was acknowledged as situating teachers as engaged thinkers and analysts of their own class data, rather than passive recipients of information that they feel is independent of teaching and student learning. However, the lack of school leader and teacher references to the need for professional development to improve data literacy is also an indication that this is not a priority for teachers or school leaders.

It is no longer possible to ignore NAPLAN data and as one school leader commented, “muddle our way through the analys[es]”. Moving towards a more sophisticated culture of data use in schools requires attention to professional development in data literacy and data use, by not only teachers but also school leaders.

AITSL Standard 5.4 highlights the need for teachers to “demonstrate the capacity to interpret student assessment data to evaluate student learning and modify teaching practice” (AITSL, 2016), but the Standard is inclusive of Lead teachers co-ordinating student data to support the professional development of teachers to improve teaching practice (AITSL, 2016).

Empowering teachers and school leaders (as reported by some school leaders) with new knowledge will allow both groups to become active participants and “masters/experts” in data analysis rather than recipients of other people’s analysis. This may go some way to enable teachers to have ownership of whole school and student data rather than the imposition of school leaders directing the teachers where they should target teaching and learning goals. This is not to suggest that whole-school goals are not relevant. Rather the goals to target and shift across bands as directed by school leaders, may not be directly relevant to the learning needs of students in the respective teachers’ class. The teacher needs to have a clear role in the utilisation of NAPLAN data in teaching and learning cycles, and importantly the opportunity to be active, informed and fully participatory community members in their school environments.

4.6 Theme Two– NAPLAN: How Policy is Enacted in Practice

This section presents the analysis of the three sub-themes: expectation, impact, and perceptions of NAPLAN as enacted in policy. Attention first turns to the school leaders’ accounts. Within these three main subthemes, separate categories featured in both school leader and teacher accounts. For example, within the sub-theme of expectations, school leader talk data related to Regional and Diocesan expectations and expectations of staff, whereas teacher talk data centred more on a prevailing “pressure for results”. Accounts from members from both groups and within groups were not always aligned in perspectives with the variation creating moments of differentiation and some commonality.

4.7 School Leaders’ Accounts

An overview of the sub-themes and related sources, percentages and frequencies based on NVivo coding analysis, are outlined in Table 4.3 below.

Table 4.3

NAPLAN: How Policy is Enacted in Practice – School Leaders' Accounts

School leaders (n = 21)				
NAPLAN: How policy is enacted in practice				
	Sources Number of participants who made reference to the sub-theme	**Total Number** of school leaders	**Percentage** of school leaders who made reference to the sub-theme	**Frequency** Total number of references made to the sub-theme
Expectation				
Staff	14	21	67%	23
Region/Diocese	9	21	43%	24
Impact				
Students	15	21	71%	29
My School (ACARA)	9	21	43%	14
Perceptions				
Negative perceptions of NAPLAN	15	21	71%	22
Positive perceptions of NAPLAN	15	21	71%	21
Preparation	20	21	95%	42

4.7.1 Expectations

The sub-theme of expectations was a recurring topic of discussion from school leaders (n = 21). The accounts predominantly fell into two categories, firstly, school leaders' expectations of staff in the context of NAPLAN and secondly, the expectations of school leaders from Regional/Diocesan staff regarding action in response to NAPLAN results.

4.7.1.1 Staff

Sixty-seven percent (n = 14) of the 21 school leaders interviewed referred to the type of expectations that NAPLAN had engendered in terms of expectations from and of staff in their schools. Expectations varied in nature and type, as well as the school leaders' approaches to handling these expectations. Accounts from school leaders differed, with some recognizing the pressure of NAPLAN on staff, sometimes leading to assurances that employment was not dependent on student NAPLAN results. Conversely, other school leaders established clear targets for student results, explaining that accountability in meeting targets was part of a teacher's role.

Segments of talk from school leaders revealed an awareness of the accountability felt by some teachers regarding NAPLAN and the consequential pressure that followed to ensure students are achieving positive results. This pressure is alluded to in terms of stress and the number of extra hours that some teachers spend on preparation and planning. Managing this stress became a priority for some school leaders, who saw the need for conversations to reinforce to staff that their jobs were secure, as evident in the following segment.

> Well from, from administration perspective. I think the way that we handle that is by taking the pressure off our staff and **reinforcing to them that your job does not depend on the children's NAPLAN results….**
>
> Principal, Independent Primary School P-7

The deputy principal's comment below discussed how the reason for teachers' stress could be attributed to fears that performance appraisal connected to student NAPLAN results. The school leader's comment below stated the need to manage these fears by providing clarification to teachers that NAPLAN results were not connected to pay, and the school did not "attach any kind of teacher appraisal to the standardised results".

> And I did allude to it or say before, **we do not attach any kind of teacher appraisal to the standardised results.** I think that makes a big difference. The teachers know that when they're administering this, it is purely for the students' benefit, not for any kind of stick to be wielded over their head. I'm wondering if the whole thing with NAPLAN and the media and teachers don't want to do it – well, no, they don't because if **your pay is potentially going to be tied to this and you're teaching in a school like this where you're never going to get the fantastic results that you do at the elite, private schools, it is a scary thing for teachers**.
>
> Deputy Principal, Independent Primary School P-7

The above comment indicated that the reluctance for teachers to engage proactively with NAPLAN stems from the conflicting messaging regarding its intent. Instead of being a diagnostic test "purely for the students' benefit", it has metaphorically become a "stick to be wielded over their head", with the suggestion that the media potentially contributes to the negativity and confusion. An unintended consequence of NAPLAN is the perception that teachers' pay may be "potentially" tied to results through comparisons of their students' results with those in "elite, private schools" results.

Conversely, targeted performance setting is presented as a priority in the school leader's comment below. The deputy principal used visual targets on common data walls to highlight expectations for student results and ultimately of teachers. Class data are displayed, and staff encouraged to set targets for their classes in terms of NAPLAN band improvements. In this case, a specific focus was moving the "tail up two bands". The repetition of the word "target" presents a clear message of the expectation, not only for students, but also more particularly for teachers in this school. The accountability message from the deputy principal could suggest connection to a wider system policy message of school improvement in literacy and numeracy.

> We have what we have that's not on the wall, it's actually sitting up there, **so we have targets**. All the data is looked at and then the classes look at the data so that we help **set the targets of where we want our other two bands to be**, where we want to **move the tail up those bands** and look at that. So, **targets** are set there. So, it is detailed.
>
> Deputy Principal, State Primary School P-7

The messaging of "targets" continues in the talk of the principal from the same school.

> Yes, and I guess that's something that I share with the staff. **This is what it is. These are the targets.** We will do our very best. **I know teachers get exceptionally anxious** because they, as very caring, committed, considerate teachers, they look at every single child and every single child as a person with a name and a personality and they will say I can't meet these **targets.**
>
> Principal, State Primary School P-7

The comments seem to indicate an emphasis on targets as an approach to the wider national policy objective of improving students' literacy and numeracy results, with schools having "primary accountability" (MCEETYA, 2008, p. 16) through target setting. The expectation associated with target setting seems to create pressure and anxiety for those teachers with suggestions to the principal that the targets are unrealistic, audible in the statement, "I can't meet these targets". While the principal acknowledged that these targets can engender emotions such as anxiety in teachers, the message regarding targets remains consistent, "This is what it is. These are the targets".

Staffing NAPLAN years has become a focus for strategic planning, according to the school leader's account below. The HoD indicates how NAPLAN results have become "high-stakes data," which has changed the approach to class allocations. Allocation of staff had now become strategically aligned to efforts to improve NAPLAN results: in some sites, experienced teachers were reported to be placed with junior classes as well as senior classes in a bid to ensure favourable NAPLAN results,

P: High-stakes data. Definitely it's a change in the way we're seeing junior studies. We're definitely putting on our more experienced team. **Like you know how traditionally you'd have your experienced team on senior, we absolutely have to now…**

I: Moving it.

P: Mmm hmm. We have to make sure that we've got people that can handle both.

Head of Department Humanities, State High School 8-12

The HoD explains that experienced teachers were "traditionally" allocated to senior classes, however it now seems that the level of accountability and expectation of NAPLAN has forced schools to re-think staffing for junior classes ensuring a cross section of experience teachers are timetabled for both junior and senior classes.

4.7.1.2 Region/Diocesan expectations

Forty-three percent of school leaders (n = 9) reported that messaging regarding expectations for improved NAPLAN results comes from the Federal Government, State Government, Regions, Dioceses and the wider community. These insights contextualise how accountability has become an integrated part of school culture and the wider cycle of government, statutory body, school, teacher and student targets. Connections between large-scale testing and policy (MYCEETYA, 1989, 1999, 2008) have evolved over time as highlighted in the literature discussed in Chapter 2. The impact of these connections is revealed in the school leaders' accounts.

The school leaders' accounts identify the origin of expectations for NAPLAN improvement. Statutory authorities appear to closely monitor the NAPLAN results of schools in their immediate jurisdictions and some regional directors personally acknowledge the efforts of school leaders, if there is an improvement in results. The leaders at Regional/Diocesan levels analyse the data and engage in positive personal interactions, where results are strong or demonstrate improvement. However, interactions between senior policy officers and leaders at these other levels were

reported to be, different in tone where the results were below what was expected The following talk segment is an example of the latter and shows the pressure that Regions are reported to be under for improved NAPLAN results.

> "NAPLAN test, NAPLAN results, they were shocking, you've got to do better" and I just thought "How rude", you know like, I was really stunned, you know, that she spoke to my supervisor like that.
>
> Principal, State High School 8-12

Strategic uses of good NAPLAN results are outlined below. The principal's comment indicated how NAPLAN results are used to promote the schools' success to the wider community through school newsletters. The recognition of the value of good NAPLAN results is discussed through the phone call from the regional director, confirming the success of the school. The principal, in turn, promotes the success of the NAPLAN data by "put[ting] it in the newsletter" for the wider community,

> And it's the same as, you know, last year we were as teachers really excited about how we did with our data. We got a **phone call from the regional director saying, "Well done". We put it in the newsletter.**
>
> Principal, State Primary School P-7

Regional offices also focus on NAPLAN through strategic and "targeted projects" for schools, as discussed in the deputy principal's comments below. As the deputy principal states below, the "Region looks at the data" and initiates conversations with school leaders to target specific students. The intent of the "targeted project" is to use data as part of an "intensive strategy put into place" with the ultimate goal of "moving the students up" in the reported NAPLAN test data rather than "moving the students up" as part of individual literacy and numeracy achievement,

> Strategically **across the Region so that would be a targeted project** where we'd look at the data, the **Region looks at the data** and says well okay**, these students, you know, with some intensive**, the NAPLAN tests and questions are analysed to look at where the students' weaknesses are and so there's an intensive, sort of might be problem solving but then that's where there's an **intensive strategy put into place to support those students and schools to, you know, to move those students up.**
>
> Deputy Principal, State Primary School P-7

The re-current use of the word “target” in the talk is worthy of highlighting. Once again, there is a “targeted project” in this deputy principal’s “Region”, where these data are analysed by the Region and the findings are reported to the school. The message from the Region drills down to the performance of individual students and the “intensive” strategy that is needed to “move these students up”. The level of expectation is made clear to the school leader and this is then communicated to the teachers. The agenda is clearly to drive improvement, as suggested by the NAP website (ACARA, 2018).

Comparability of NAPLAN results between schools was an approach noted in the deputy principal’s comment below, highlighting the emphasis on “good [NAPLAN] results” from the Catholic Diocese. The deputy principal creates an analogy between school results and sport, to contextualise the competitive environment, however messaging of expectation is clearly articulated from the Diocese. The audible laughing at the end of deputy principal’s talk segments seems to indicate that the stance of the sectors expectations and use of league tables in the meeting, is not problematic from the school leader’s point of view.

> From the **Diocese**? …….. **they do like to see good results**, and that’s part of that day where the principals go, they actually show which schools are performing better and all the rest. So, there’s **always a bit of competition with the local Catholic schools. [laughs]**
>
> Deputy Principal, Catholic Primary P-6

The HoD below commented on the use of NAPLAN results to measure principals’ and schools’ performance. The school leader suggests that accountability starts with the Education Department and is transferred to principals. The HoD then suggests a cyclical “push” from principals to teachers is inevitable, stemming from pressure placed on principals to perform “Well they push the principal and the principal pushes”. The implication is that NAPLAN results are one of the principal’s key performance measures:

I: So, the Government push for improved outcomes?
P: Oh yeah. Well they push the principal and the principal pushes, yeah.
I: Yep, yep. So, do you get that feeling from media or from …
P: Oh no, it’s just from Education Department, yeah.
I: The Education Department.

P: They're all after measuring data and measuring schools and preparing schools and measuring the principal's performance by using the data from these schools. I mean it's just, I think it's silly.

Head of Department, Maths/Science, State High School 8-12

The repetition of the term "measuring" highlights the expectation for good NAPLAN results that exist beyond the school environment and are now a part of the education system. The word "target", as defined by the Oxford dictionary refers to, "a person, object, or place selected as the aim of an attack" or equally as "an objective or result towards which efforts are directed" (Oxford dictionary, 2018). It is difficult at times to separate the context of the word as reported by the school leaders' accounts. The word target, in the context of NAPLAN discussions, could be heard as part of an attacking strategy in the battle to improve student results, as well as directing efforts towards an improvement objective.

4.7.2 Impact

4.7.2.1 Students

Seventy one percent of school leaders (n = 15) reported that there was an impact from NAPLAN on students in the school. The comments reported differing perspectives of the nature of this impact. The majority of participants revealed that some students felt anxious leading up to and during NAPLAN. These students tended to be in Year 3 or students with learning difficulties who found the test particularly challenging. Conversely some school leaders indicated that some students thrived on the challenge of NAPLAN or "take it in their stride". One school leader indicated that stress on students could be traced to enrolment pressures from some secondary schools that required the submission of NAPLAN results as part of their application process. This coupled with parental pressure on their children to do well in the NAPLAN test to secure placement in their preferred secondary schools created impact on students and teachers equally.

The deputy principal's comment identified younger students, particularly those in Year 3, as being more susceptible to becoming stressed about NAPLAN, according to school leaders. The reason for this stress was often attributed to no prior exposure to large-scale testing and students' ability to access the particular demands of the test. The NAPLAN writing test was reported as being particularly problematic, with concerns relating to whether students would be "proficient enough" to be able to sit and write for

45 minutes. Whether the students are “proficient enough” to successfully write a narrative/persuasive task, or “proficient enough” for test conditions is unclear. The approach to addressing exam stress was to look to solutions in targeted pedagogical practices to alleviate this pressure, as can be heard in the segment below and specifically the influence to direct teaching and need to integrate these practices into school programming: “How can we put some of that direct teaching into our planning, so it becomes part of what you do?”.

> So, I think the **3s become stressed** from term one **trying to get maximum learning and teaching time in before May to help children who are developing writers be able to be proficient enough to sit a written test for 45 minutes in May** and get their thoughts across without going into shutdown mode and panicking because they don’t know what to write. That’s something they get no heads up on, and hits them in the morning of, and they’re expected to write pages. So, I think Year 3 stresses start early, and I try to support them by saying **“How can we put some of that direct teaching into our planning, so it becomes part of what you do?”**
>
> Deputy Principal, Catholic Primary School P-7

In the segment below, the principal indicated that the impact of NAPLAN was variable, depending on the cohort of students. The principal attributes “fantastic NAPLAN results” to a specific cohort that was “so academically focused” and “loved a challenge” and enjoyed the “opportunity to really push themselves”. Conversely, other cohorts in the school “weren’t ready to be tested” and NAPLAN “was really hard for them”. Reasoning relating to this cohort’s struggle with the test was rationalised as relating to the type of feeder education system that the cohort had come from, specifically the lack of experience in large-scale type testing.

> Yes, and as I’ve said then, you know, it really depends on the stage that you have, that year level. You can have, a number of years ago we had fantastic NAPLAN results because **we had a group of kids who were so academically focused and who loved a challenge, and who took that as a real thriving opportunity to really push themselves to do the best they could**. And then the year after that we had kids who weren’t ready to be tested**, they were worried about, and a huge number that year had come from _____ who were just learning about our kind of education, and it was really hard for them.**
>
> Principal, State High School 8-12

In the principal's comment below NAPLAN testing was approached with an "It's part of life" philosophy. The comments states that testing in general naturally engenders "raised emotional levels" in some students but posited that testing is one of the many challenges that children will face. Managing this process through open communication was how "we" approached dealing with any stress or impact on students, although whether the "we" referred to school leaders or teachers was not made clear.

> It's really **not a huge issue here in terms of anxiety or stress for the students**. I mean, as for any assessment program, we all talk to the girls, engage with the girls "How are things going? How are you feeling about things?" **There's a sense of raised emotional levels with some students in testing** but, if they are very comfortable in what they're doing, they take it in their stride. **It's part of life. We all have challenges in life. And really that's how we approach it.**
>
> Principal, P-12 Independent Girls' School

The deputy principal comments below related to how competition for places in some secondary schools had an impact on students' approaches to NAPLAN. The school leader's comment identified that when NAPLAN results were valued as part of application processes, the unintended consequence was a pressure to achieve good NAPLAN results. This in turn, was seen to have the effect of turning parents into NAPLAN 'cheerleaders' as they place pressure on their Year 3 children to succeed by gaining a "good NAPLAN score".

> So, some of our schools place, rightly or wrongly, and whether or not it is their intention, [place] a level of importance on that NAPLAN result. That, rightly or wrongly, is then perceived by the parents as the way to get entry into the [secondary] school for their child. We are [up to Year] seven, but many of our boys will choose to go to our religious institute schools in Year 5, so that Year 3 NAPLAN testing becomes quite important for the parents. So, the pressure that they place on their children around "We need a good NAPLAN score, and you need to, come on mate, you can do this".
>
> Deputy Principal, Catholic Primary School P-7

Specific groups such as children with special needs were reported by 2 school leaders as having had "horrible experience[s]" when sitting NAPLAN. One of the school leader's comment below indicates that NAPLAN created a negative environment and schools needed to intervene to create separate "small group atmosphere[s]" so that students didn't feel "quite so upset".

> Well having just administered it last week it is **actually a very horrible experience for our children**. And particularly I see we, I usually administer to a group of special needs students because we like to give them **a small group atmosphere** for NAPLAN administration **so that they're not feeling quite so upset.**
>
> Deputy Principal, Independent Primary School P-7

4.7.2.2 My School

The impact of My School on parents and the wider community was noted by 43% (n = 9) of school leaders. How My School affected school leaders, their school or their prospective and current parent body was the most reported topic, generally with a range of viewpoints regarding its impact and influence.

The three main opinions from school leaders were: (a) My School had had no impact at all on the community; (b) parental acknowledgement of My School existed but did not play out in any personal engagement about results; and (c) an acknowledgement that My School had impacted the education landscape.

While some school leaders reported that parents engaged with the My School website when deciding on secondary schools for their children, other school leaders indicated that parental interest in My School was minimal and did not impact the choice of school for their children. The principal's comment below indicates that the parents they had interviewed were not so interested in NAPLAN data and My School but were looking for other indicators of quality schooling.

> And to be honest parents don't look at it, parents do not look at NAPLAN data to compare schools, that's not what they're looking for. I interview parents all the time and that's not what they want.
>
> Principal, Independent Primary School P-7

Another principal's comment indicated that parents were aware the results were published on My School, but the principal had not participated in any direct conversation regarding the school's results. While the school results are "good", the "conversations" with parents are minimal, but if the school were to produce poor results, there "would probably be more conversations" and potentially pressure for improved results.

> Yes, most of them are quite aware of it. The results on My School for our school are quite good, so a lot of parents look at that. They go good. **If it was poor,**

then there would probably be more conversations. I guess it depends upon how they look at it.

Principal, State Primary School P-7

The deputy principal's comment below states how sites such as My School have changed how schools are managed. The deputy principal stated that My School has changed the nature of schooling, making "schools into a business". The deputy principal reported that in some cases, students have been denied access to some schools due to "their NAPLAN data". The school leaders also comment on the impact of the My School website providing publicised data on schools, raising concerns of the ability of the general public to analyse this information with adequate knowledge in understanding what the data mean.

My School has been definitely the thing that has made the major difference, because we, **it's made schools into a business** I think, **and it's made NAPLAN into a business.** We have parents who come to us from other schools and they have stories of schools that exclude children or tell them not to come to school or, you know, have all sorts of, or don't accept them in the first place. We actually get quite a few parents who come to us because in Grade 5 or 7, because other schools won't accept them because of their NAPLAN data. And to me that is just frightening, and the My School website I think has done that because it's publicised with very little, people read it without knowledge of what it really is, and so they're just looking at raw data.

Deputy Principal, Independent Primary School P-7

In the comment below, the head of year discussed the selection of schools based on the My School website. The school leader was concerned with the limitations of attaching too much value to the information on My School, at the cost of looking at the school for other sources of value.

Yeah. And it would seem the most use of it is on the My School website for selection of schools. But the reality is that even in that environment, people, if they know nothing, will go to that, you know, if they have no parameters on which to base their decision making, they will go to the My Schools and view it. But to what other value? What other value is that, you know?

Head of Year and Learning Support, Independent School P-12

4.7.3 Perceptions

4.7.3.1 Negative perceptions of NAPLAN

Most school leaders (71%) (n =15) indicated some type of negative response to NAPLAN. The negative comments showed the pressure of “accountability”, as school measurement, concerns around connection to “funding” in the future, issues relating to the time-consuming nature and timing of NAPLAN and how irrelevant the test is as part of the schools’ wider assessment policy.

The public nature of NAPLAN league tables was also considered to place unnecessary pressure on schools and was “damag[ing]” for teacher confidence, according to the school leader’s comments below. The transparent, public nature of NAPLAN results inadvertently sets up the premise of league tables, therefore creating a competitive environment that is not on an even-playing field.

> Yes, so it's all very well if you're one of the top performing schools. But it does have the potential to damage schools and damage confidence of teachers and take away from the great work they're doing when the results are made public knowledge in league table forms, I don't think those who make those decisions are making wise decisions when they're trying to play one school off against another.
>
> Principal, P-12 Independent Girls’ School

The comment from the principal above speaks to the potential for “damage” to the professional identity of teachers when results are published as “league tables”. Despite the clear messages presented by ACARA that school results are compared to “like” schools nationally on My School, however, from a local level, when results are published in “league table forms” it has had the effect of “play[ing] one school off against another”. The experiences of some of the school leaders connect to the notion of transparency of data from the Melbourne Declaration (MCEETYA, 2008), however it seems that transparency has increasingly focused attention on comparisons between schools.

Conversely in the words of the director of curriculum below, his school had regularly received “good results” in NAPLAN and this success created a sense of complacency amongst staff. This complacency was of concern and resulted in the creation of professional learning teams to ensure a sustained priority on literacy and numeracy ensued beyond NAPLAN testing.

> The negative is because we do a good job and we do get good results, it sort of leads to a bit of complacency on our part. It can lead to that, and that's why we're going down the path of professional learning teams and so on.
>
> Director of Curriculum, Independent School P-12

For schools that "get good results", consideration for how to best challenge these students and present clear messages of aspiration beyond NAPLAN standards was seen as a concern.

The redundancy of NAPLAN data due to the timeframe in which it is received was seen as a barrier to its potential use. The principal indicated that supplementary data sources were used during the year that are potentially more beneficial for understanding student learning. Some benefit of NAPLAN data was to "pick holes in children's…learning in a particular test", however, NAPLAN data was seen to be more useful as trend data.

> …we have so much data that we collect anyway along the way so **by the time NAPLAN actually gets to us at the end of the year** and we're looking at the end of that child's, you know, at the end of grade five, the only thing that we do get some benefit for is we can pick holes in children's, you know, learning in a particular test where, you know, **we might see a trend across a couple of years.**
>
> Principal, Independent Primary School P-7

4.7.3.2 Positive perceptions of NAPLAN

Seventy-one percent (n = 15) of school leaders reported positive experiences with NAPLAN. Accounts brought to light several benefits of NAPLAN, first as a diagnostic tool that enabled schools to look to deficiencies and successes of students in subject domains. Secondly, was the extension by some school leaders that NAPLAN results clarified their understanding of benchmark standards, particularly those school leaders from small schools or more rural locations. Lastly was the potential for using the data for next-step teaching.

In the principal's comment below, the use of NAPLAN data to diagnostically address areas of need and directing energy and resources to supporting those areas, was perceived as a positive effect of NAPLAN. NAPLAN results had "force[d]" the analysis of student data and set up a "platform" for goal-setting and improving students' results by aiming for a "large percentage of our kids [to be] moving up bands".

> I mean, there are some really positive impacts of it in that it forces us to really **analyse our students** and their student performance closely and **forces us to analyse what we do to improve our student performance**. And the other thing about it is, it does give us a platform to set **goals for improvement**. So, we can sit there and say, "Well, we want to move a percentage of our kids from band 3 into band 4. We want to see a large percentage of our kids moving up bands".
>
> Principal, Catholic Primary School P-6

The principal's comment above suggested the value of data for informing next-step teaching. The tone of the comment in this account is different from previous references to targets and accountability, instead replaced by references to undertaking analysis in order to set "goals for improvement". The principal reports the use of NAPLAN as a data-informed strategy and discusses the goal of moving "large percentage[s] of our kids" up bands demonstrating a clear alignment with the intention of policy (ACARA, 2018) as discussed in Chapter 2.

In the deputy principal's comment below, NAPLAN data have also allowed schools to become "better informed" and to analyse their data for next-step teaching, creating a greater awareness of "where you need to go, what you need to do".

> It certainly allows you to **see your successes**. Positives, also, it allows you to see where you need to go, what you need to, you know, look at. It may not have been a success. May be those weaknesses but a positive is that we get to look at that. **We're better informed.**
>
> Deputy Principal, Catholic Primary School P-7

In the comment below, the principal stated that small schools saw NAPLAN as an opportunity for clarity around benchmarking and the ability "to see how we are travelling against national standards". The comment from the principal suggests the benefit of NAPLAN is the confirmation of standards. Teachers in small schools at times question their judgement of standards given their smaller cohort and see the benefit of NAPLAN in benchmarking their own assessment against national standards for comparability and to ensure that there are suitable learning challenges for students. Also of benefit is the ability to look to other small "like" schools as a point of reference against their school's performance,

> I also see it as a chance for a small school to see how we are travelling against national standards, which I quite like because sometimes I worry. The longer people have been in small schools, our perception of what is a C may not be; so,

> I think it's really good for our teachers to say, "Well, actually, really, I'm a bit out of sync here or something is out of kilter," or, "Yes, they are really bright and we need to look at something more". So, I can see, I guess, that strategic kind of stuff of why we're doing it and what my role is. But I can see some benefit in it for the school as well, just to be able to keep some consistency and see how we're travelling against other schools
>
> Principal, State Primary School P-6

4.7.3.3 Preparation for NAPLAN

Ninety-five percent (n = 20) of the school leaders interviewed indicated their school participated in some type of NAPLAN preparation, meaning that every school interviewed indicated some degree of preparation for NAPLAN. The time spent preparing and the type of preparation varied between schools. Most school leaders indicated that NAPLAN preparation was along the lines of test familiarisation and a focus on literacy and numeracy was an embedded part of their school's programs and pedagogy.

Preparation was reported as a period of 4 weeks "getting ready for the NAPLAN" according to the director's comment below. The key preparation time seemed to focus primarily at the "very end of Term 1 and the start of Term 2". Weekly spelling tests were modified to ensure the preparation aligned for the anticipated NAPLAN test items.

> The way that we usually do it is that we focus on that **very end of Term 1 and the start of Term 2** as a getting ready for the NAPLAN, so it's probably, I don't think, I know that we do spelling tests every week, and so they have, but even that's done differently. [laughs] But it's really that **four weeks in particular that we do that focus on getting ready for NAPLAN.**
>
> Director, Independent School P-6

NAPLAN was described by the principal in the comment below to be part of the "educational landscape now". Learning programs integrated literacy and numeracy as part of regular teaching and learning negating the necessity to do anything extra or special or to "drill the students about NAPLAN",

> Yes, we accepted it's a given of the educational landscape now. So, we make it part of our learning program. We certainly don't drill the students about NAPLAN and do special things. We just make sure that our teaching and learning program covers our literacy and numeracy education for the students really.

Principal, Independent Girls School P-12

The accounts from school leaders are important in light of ACARA's communication which states, "NAPLAN is not a test that children can prepare for in the same way they might prepare for an end of term test… These are skills that should be continuously developed throughout the year and not just in the lead-up to NAPLAN" (ACARA, paragraph 1, 2018d). The comment from the principal situates policy and practice, cognizant of the need for messaging relating to NAPLAN to be clearly a point-in-time assessment, and literacy and numeracy already a priority in teaching and learning programs. The school leader's comment below also reflects ACARA's communication, reiterating that the teaching of the curriculum is the priority for the school, not teaching NAPLAN.

> Yes, we do the test, they practise the test, so that they know what the test looks like, to get a feel of it, so that's not strange. But as to the materials in it, they're in our program, **so we teach our program, we don't teach NAPLAN.**

> I certainly would be involving that the children have been exposed to the input in terms of the writing task and probably some of them have had some experience from the filling out the bubbles and those, things like that, which takes some level of angst out of it. I'm certainly not expecting booklets of practice questions.

Principal, Catholic Primary School P-7

The principal's comment above highlighted the expectation of preparation centred more on preparing for the skills needed in the writing task and some test familiarisation. It was clear that the principal did not want "booklets of practice questions" consistent with the distinction he can be heard making between "we teach our program" not the test: "we do not teach NAPLAN".

The school leader's account below starts by suggesting that their school focuses more on "test readiness". While the account starts with simple notions of "test readiness" in terms of "sifter analysis of questions", however the degree of expectation in terms of what test readiness looks like moves to, "but I just ask that they at least give their children a couple of opportunities to sit with pen and paper to shade in the bubble". The principal goes on to indicate that the writing domain also needs to be practised "at least a couple of times". The tension in the comments is the challenge of "readiness" and "familiarisation" slipping into drill and practice in order to "set them up for [test] success".

I guess from an operational perspective, **we really look at just test readiness**. My biggest discussion around teachers has been avail yourself the opportunity and we put a lot of pre-tests up on the, either the interactive whiteboard. Some teachers have a preference to just do a bit of a sifter analysis and pull questions out and do them as a whole class, **but I just ask that they at least give their children a couple of opportunities to sit with pen and paper to shade in the bubble.** The other thing is also in the **writing component that they do writing on demand tasks at least a couple of times,** because again for a lot of those children, writing to a time limit is again quite foreign. The philosophy is to try and **set them up for success.**

Principal, State Primary School P-7

The influence of NAPLAN on teachers' professional identity is explored by the HoD in the comment below. The school leader considers preparation of students for NAPLAN "part of the job now really". Preparation for NAPLAN is no longer optional, with the school leader reporting that if there is no preparation, then students will be disadvantaged. Accountability for good student NAPLAN results rests with teachers, as evident in the segment below.

How important is it? **It's important because I have to do it**, so I'll do it well. If I didn't have to do it, I wouldn't do it. If it was an optional thing, I probably wouldn't do it, so. **But yeah, it's something that we want to, we will do, we're accountable for it**, so we make sure we do it well, make sure our kids aren't disadvantaged, they're well prepared. **And it's just part of the job now really, basically.**

Head of Department, Maths, Independent School P-12

The deputy principal in the comment below reported a concentration of teachers' work on preparing students for the NAPLAN writing task. Her comment relates the expectation that "students will have to write a persuasive text for NAPLAN" with the associated idea that students need to "know how to do that, which I don't like". Teaching writing and preparing students to write is cited as relational to NAPLAN outcomes, not as a skill required for a curriculum outcome. The focus on a "high concentration on persuasive text" suggests a monopolising of instruction for one genre, limiting time for other writing genres in the curriculum.

Well, sadly, **we** have a fairly high concentration on persuasive text at the moment, and that seems to be right across the school because people, not because **we** have said **you must do it**, but because people recognise that the **students will**

> **have to write a persuasive text for NAPLAN.** So, they make sure that they know how to do that**, which I don't like,** but they're doing it because they **don't want to stress the students,** not because they want to do particularly well with NAPLAN. We really don't care about NAPLAN results.
>
> Deputy Principal, Independent Primary School P-7

The principal's comment below discusses the amount of time that is spent preparing students for NAPLAN writing instead of teaching regular classroom programs. The school leader's comment reports that preparing students to be able to write for an extended period was a "foreign concept" for most students. The school leader indicated that it was important to prepare students by practising timed writing to "set them up for success".

> The other thing is also in the writing component that they do writing on demand tasks at least a couple of times, because again for a lot of those children, writing to a time limit is again quite foreign. The philosophy is to try and set them up for success.
>
> Principal, State Primary School, P-7

4.8 Teachers' Accounts

Attention now turns to teacher experiences with NAPLAN in relation to expectations, impact and whether their perception of NAPLAN was positive or negative. An overview of the sub-themes and related sources, percentages and frequencies based on NVivo coding analysis, are outlined in Table 4.4 below. While there are some direct similarities to the school leaders, some commonalities to school leaders' accounts were not evident, for example, Regional and Diocesan expectations. The table below provides a visual framework to the breadth of the accounts of NAPLAN and an overview of how they sit in the sub-themes of expectation, impact and perceptions.

Table 4.4

Perceptions of NAPLAN: Teacher Accounts

Teacher (n = 47)				
NAPLAN: How policy is enacted in practice				
	Sources Number of teachers who made reference to the sub-theme	**Total No.** of teachers	**Percentage** of teachers who made reference to the sub-theme	**Frequency** Total number of references made to the sub-theme
Expectation				
Pressure for results	21	47	45%	41
Impact				
Students	39	47	83%	79
My School (ACARA)	11	47	23%	11
Perception				
Negative perceptions of NAPLAN	23	47	49%	29
Positive perceptions of NAPLAN	31	47	66%	55
Preparation	39	47	83%	94

4.8.1 Expectations

4.8.1.1 Pressure for results

Forty-five percent (n = 21) of teachers interviewed indicated that NAPLAN testing created some degree of pressure for improved student NAPLAN results. Accounts from teachers reported the pressure in the context of their school or pressure on teachers in general. In the main, teachers reported that the source of pressure often stemmed from principals, parents or in some cases statutory authorities.

The comment from the teacher below starts with the notion of expectation to demonstrate student growth. While valuing growth in students' results, the teacher reports a pressure to "answer to someone" about students in her classroom. While not clear who the "someone" is that the teacher is answerable to, the comment indicates the pressure to play a role in the school team to achieve good NAPLAN results in order to demonstrate student growth.

> It is important to me because **there's expectations that we see growth** and that we do well and I know **lots of people** check over our **data** and **we have to answer to someone** about why our kids are or are not **improving** and **I feel pressure** that I need to help them to achieve on that.
>
> Year 5 Classroom Teacher, State Primary School P-7

The teacher's comment below revealed the pressure for "teachers to perform". The teacher reports that some students are performing to the best of their ability and are not capable of achieving the "top two bands" and questions whether NAPLAN is fulfilling its initial intention that of ensuring students achieve minimum standards. The teacher reports that the "goalposts have changed" and that NAPLAN is more about improved teachers' performance rather than supporting students below benchmark in literacy and numeracy. The comment reiterates the tensions that appear to exist between the goal of measurement and the goal of improvement.

> I think that **the pressure on teachers to perform, to turn children into something that maybe they're not capable of,** … when NAPLAN first started, I was at a school where we, one of my classes, we were a trial for the NAPLAN which was many, many, many years ago, and it was about the minimum standards, **but I think the goalposts have changed**. The goalposts are now about being competitive. They're about getting children up into the top two bands within that level.
>
> Year 5 Classroom Teacher, State Primary School P-7

Expectations for 70% of students to be in the top two bands were displayed on signs in classrooms, according to the teacher's comment below. The pressure for 70% of students to be in the top two bands is described as an "impossibility" drawing on assessment of her students to date. The signs are a reminder of her accountability, and for the students, a visual reminder of the pressure for results that seems to be statistically unachievable.

> Like with my class, I have a sign on my door that says that my goal is going to be 70% of my students are going to be in the top two bands, and like that is an impossibility because when I look at the NAPLAN data from grade three and I look at the testing that I did the first week of school this year on an old NAPLAN and balance that data up, this was saying to me I had 17% of my children who were going to get into the top two bands, and to me that's the bell curve. That makes sense statistically. You're not going to get all those children into those bands and if you do, well the tests must be too easy.

Year 5 Classroom Teacher, State Primary School P-7

The teacher indicated in the comment below, that there was “extreme pressure” for both students and teachers to “perform”. Accountability to perform is attributed to “head office” that in turn, shifts the pressure to the next membership group, that is, principals, then teachers and students.

> Extreme pressure. It is, it makes the first half of the year incredibly stressful. I think there is a pressure on students to perform and, which is a pressure on teachers to perform which I know comes from the principals who are getting it from head office. But it does make it difficult.

Year 5 Classroom Teacher, State Primary School P-7

The teacher’s comment below indicates that the “complexities” of all schools need to be taken into consideration when looking at success and that the priority given to judgement against NAPLAN data was short sighted. The comment from the teacher suggests that schools are judged by a narrow definition of success, tied to data instead of the “amazing programs” that they may be delivering.

> I think so. I think it's very easy just to say "Well, I want my kids to go to that school because the data there is really great". Well, what about if the teacher down in school Z over here is doing an amazing job with these kids but these kids just aren't intellectually there? They don't have the same academic rigour as, say, the kids over here. Well, **it's not to say that the schools aren't trying to deliver amazing programs** at the same time. **But I think too often, yeah, schools are judged for those low results without taking into consideration all those complexities.**

Year 3 Classroom Teacher, Independent Primary School P-7

The unintended consequence of NAPLAN becoming high-stakes is when it is used as a selection tool for some secondary schools. Commenting as a parent, the learning support teacher in the comments below suggest that NAPLAN results are a more valid comparative tool for these schools rather than using school report cards. The pressure for students to perform in NAPLAN heightens when results are used as the basis for enrolment into secondary schools. Parents may contribute to the pressure for their children to perform so their child can attend a secondary school of their choice. This discussion aligned with the school leader’s view in 4.7.2 which revealed the need to perform in NAPLAN, so results can be used to vie for admission into secondary schools.

> I know for my children NAPLAN was used as a means for selection into high schools and so forth. So, it becomes really high-stakes then. I understand why those schools do it; it's something which everybody does, which we can actually compare; report cards vary so much. I understand all of that side, but on the flip side it really does create pressure and changes life choices for many children. You know, have a bad NAPLAN results and you don't get offered a spot on the high school that your family were hoping for you to go to. For our girls here, that's not an issue. But it certainly is an issue for parents, the NAPLAN results. I think it's less so for the girls, and I really plug it…
>
> Learning Support Teacher, Independent Girls School P-12

4.8.2 Impact

4.8.2.1 Students

Of the 47 teachers interviewed, 83% (n = 39) reported a range of experiences regarding NAPLAN impact for students. Teachers revealed some students were unable to engage with NAPLAN due to anxiety, while other teachers suggested that some students benefitted from NAPLAN and gained confidence and a sense of achievement. In some instances, it was reported that the test had no impact on students at all.

The teacher's comment below revealed that test conditions were markedly different from classroom conditions and impacted some students, particularly in the domain of writing in NAPLAN. Students were accustomed to interaction and feedback as part of the classroom writing practice, when this process was removed in a test environment some students panic. NAPLAN's validity becomes contestable in these situations when students were reported to be unable to engage with the test due to anxiety and the ability to "gain detailed information about how they are performing" (ACARA, 2018c) from NAPLAN becomes negated.

> And so, for me, this year there have **been a lot of kids with anxiety**. It doesn't matter how you box it up about the fact we're doing NAPLAN and make it seem not so daunting, there are still quite a few kids that, when they get into the test, **you can see them panicking**. I had one boy that got the persuasive task last week. It broke my heart because he said to me "Mrs……, I don't know what to write". I said "Darling, I'm really sorry but I can't help you with that". **And he just cried. He cried the whole time. And he didn't write anything down.** And I just thought that was so heartbreaking because, for me, this is a child that I would,

in other testing situations, just in the class I would sit down with them and I'd have discussions with them.

Year 3 Classroom Teacher, Independent Primary School P-7

Conversely according to the teacher's comment below was the "confidence boost" that NAPLAN gave some students, particularly higher achieving students. The teacher's comment suggests that some students who are high achievers may have a more positive experience as they see their results relative to the state or national average. The comment also suggests that students' individual NAPLAN results can point out the need for teachers "to do something more for this child" thereby using the data to support next-step teaching.

Well, the positives I guess some kids so perform really well in it and that's a really big confidence boost for them to see that their dot is like a mile above the average dot that's a big confidence boost for them and I guess that, when they perform really well it really points out to us we need to do something more for this child he's way above even though we see that in our day to day thing if it's way above it shows us a bit more the positives.

Year 4-5 Classroom Teacher, State Primary School P-7

According to the teacher's comment below, NAPLAN has become part of the cultural landscape and a normalised experience for the student. The teacher's comment indicates that there is no anxiety in the classroom with the "resilien[ce]" of students about "their own work" reported as how "modern kids of today" deal with testing.

No. No. **There was no, there was no anxiety in the classroom doing them**. Modern kids of today are resilient, they sit, they do it, they hand it up, and they hope they got a great mark. **The kids today are very resilient** on their own work.

Year 3 Classroom Teacher, Catholic Primary School P-6

4.8.2.2 My School

Most of the teachers who commented on My School (23%, n = 11) indicated minimal interactions with parents regarding the My School platform in relation to schools' results. Most of these teachers cited several reasons for this, some speculating that good school results negated any discussion from parents about NAPLAN. One teacher indicated that they were instructed not to engage in any discussion regarding NAPLAN with parents.

According to the teacher's comment below, the lack of parental engagement with My School was inferred as an indication that parents were happy with the school. The teacher reported that "I don't get anyone talking about My School much" and that an indication of "happ[iness]" was measured through tangible factors such as the continuation of the students' enrolment in the school.

I: Do parents ever talk to you about My School?

P: **No. No, I don't get anyone talking about My School much**. They're, yes, they, I mean, the parents I see here, they're here, they're happy with the school. Their kids are moving on next year, or whatever. So, they don't have particular issues.

Year 4 Classroom Teacher, State Primary School P-6

The teacher's comment below reveals that staff had been told not to discuss NAPLAN with parents or "engage in discussion". The principal impressed upon staff the need for caution when discussing NAPLAN which had the effect of impacting this teacher quite significantly and may "get the sack" for mentioning this reflection. The transparency of NAPLAN data had created a culture of fear and secrecy within the school community where the teachers were unable to discuss schools' results and felt they were disempowered and lacked "freedom of speech".

I: **Do they bring up My School with you?**

P: **No.**

I: No?

P: No because **we're told we're not to engage** in discussion because it's so, I mean, you don't even have freedom of speech, you know. **We're told from the principal, at meetings we need to be very cautious, we need to be very, you know, like I could get the sack if you took that out to somebody**.

Year 3 Classroom Teacher, State Primary School P-7

4.8.3 Perceptions

4.8.3.1 Negative Perceptions of NAPLAN

About half of the teachers interviewed (49%, n = 23) reported feeling negative about NAPLAN. Many of the comments centred on the added stress placed on students and specifically the time that was wasted preparing students for NAPLAN and the redundancy of the data once it is received as it is at the end of the year. Discussions connected to the effect of NAPLAN on students with disabilities are particularly poignant as a teacher questions the relevancy of NAPLAN for children with cognitive delays.

As is evident in the comment below, the time spent preparing for NAPLAN was a key reflection for the teacher below. When discussing NAPLAN some comments indicated a feeling of “anger”, as a lot of time was spent preparing for NAPLAN with the balance between teaching the curriculum and preparing for NAPLAN becoming lost in the quest for good results. The curriculum at best was “crammed in” post the test. The teacher’s comment below also reported potential “brand[ing]” in her school if students do not perform well.

> I just think that I’m surprised at the amount of anger I feel in speaking to you. I wasn’t aware that that was there but the amount of extra hours that I’ve given up on weekends marking practice tests, seeing where “Oh, they haven’t quite got that, well no, they haven’t got that because we haven’t had time to teach it and then trying to cram in the curriculum”. It’s asking the impossible and then, if your class doesn’t do really well, you get branded so, you know, I’m surprised at how angry I feel.
>
> Year 3 Classroom Teacher, State Primary School P-7

An extension of time issues was the redundancy of the NAPLAN results for next-step teaching due to the timeframe in which the results are received. The teacher’s comment below cites the issue of the timing of NAPLAN testing and the distribution of NAPLAN results. On the one hand, there is limited time left in the year to use the results diagnostically to identify problems and progress next-step teaching, and on the other hand, the results may no longer reflect student’s ability accurately as “they could’ve made so much progress between then and when we get the results”.

> And also, by the time you get the results, it’s such a long time by the time we get all the feedback from it, so you do the test in May and we don’t seem to get the results until October-ish. So, **by the time you get them back when you’re looking at analysing those you’re only going to have the kids for a couple of weeks or months more**, in our case we’re lucky because we do get them into year four. But so that time period it’s, **that could’ve made so much progress between then and when we get the results, so it’s not a true indication of where they’re at at the time that the NAPLAN comes back.**
>
> Learning Support Teacher and Year 3/4 Teacher, State Primary School P-6

The relevance of NAPLAN for students with cognitive delays was highlighted in the teacher’s comment below. The teacher reported that parents would prefer to look at “individual growth on their IP [Individual Programs]” as this provided information that

is more reflective of their child's achievements than NAPLAN results. In the teachers talk the test is positioned as a negative instrument of assessment compared with the growth model that an IP provides. NAPLAN therefore is at odds with the benefit according to the NAP website that is to "map student progress, identify strengths and weaknesses in teaching programs and set goals" (ACARA, 2018c).

> But the majority of parents that I work with that have the **children with cognitive delay**, and they usually have other disabilities as well, like cerebral palsy or language, the classic comment I hear from the majority of parents is "I don't need, my child and **I don't need reaffirming with what we already know**. This particular test is only going to tell us what we already know. **I would much prefer to look at their individual growth on their IP**".
>
> Additional Needs Teacher, Catholic Primary School P-6

4.8.3.2 Positive perceptions of NAPLAN

Of the 47 teachers interviewed, (n = 31) 66%, reported positive comments in relation to NAPLAN. Teachers revealed that NAPLAN had given them greater clarification of NAPLAN benchmark standards and also identified the positive impact NAPLAN had on students once they recognised that they are performing well, compared with students in high-performing schools. Teachers also indicated that NAPLAN was beneficial to the teaching profession as it provided a level of accountability that has "lifted the game", utilising teaching time more efficiently to ultimately benefit student learning.

According to the teacher's comment below, NAPLAN "as a whole" was seen as having its place in the educational landscape. The data from the test are seen as providing valuable evidence for future planning and informing decisions. This account from an additional needs teacher clarifies that NAPLAN is not for all students, particularly those with cognitive delays alluded to earlier, however there is value in the test data "mak[ing] informed decisions" to benefit students in the future.

> NAPLAN as a whole package has its place. It's not for all students, but it **definitely provides information** that teachers and schools and parents evaluate and **make informed decisions in regard to the data.**
>
> Additional Needs Teacher, Catholic Primary School P-6

The secondary teacher's comment below suggests that students are entitled to have "basic skills" and that NAPLAN has forced this issue to be addressed. The teacher

reports that the benefit of a national test is that students are able to contextualise their performance against a national standard. The perspective allows them to compare their performance to higher performing schools, which has the effect of "boost[ing] their morale" as they have a national standard with which to compare their performance to other schools.

> I feel if we look at, yes, and I know people have a problem with the school identity and if the school doesn't do well and ra, ra, ra all that, I take that out of the equation and actually **feel that forcing people to actually address basic skills that kids should have** is with them. And I feel that the kids, **if the kids see that they have performed well** and they see that **everybody else in this country is doing at the same level as they do, that really boosts their morale**. And I've had kids getting [Bands] 10s and 9s and 8s every year, and the kids are there going, oh I'm as good as kid now at "Grammar", I'm as good as a kid now in the ACT.
>
> So that's why I like NAPLAN, that's why I like that, yeah, I do.
>
> Year 9 English Teacher, State High School 8-12

The teacher's comments below reveal that, as an accountability tool, NAPLAN has forced teachers to "simply lift their game" and become more focused and not "waste time in the same way". The teacher revealed a benefit from NAPLAN was improved student standards in "fundamental skills" and evidenced this through improved standards of skills from Year 6 students entering the school. The suggestion was that students were at a "better level" or higher educated.

> But when we look at schools across the board I think sometimes there are a lot of people who **simply lift their game** because they know they're going to be watched, that there is **accountability** here in some shape or form. Whether it's the best, I don't know, but the mere fact that there is means **you can't waste time in the same way**. And so, I think there is an element of benefit there. When we were talking about this one of the Year 6 teachers said, she actually mentioned because this year we have taken in two classes of extra Year 6, so 50 girls from outside, and she said that **her view is that the girls coming in from outside are at a better level now than what they used to be**, with some of those **fundamental skills**, as she said, "You know, you can't be teaching division and so forth when they still don't know their number facts". And that was her perception of it, **that the standard has lifted in terms of the kids coming in from outside, which is beneficial.**
>
> Learning Support Teacher, Independent Girls School P-12

4.8.3.3 Preparation

Eighty-three percent (n = 39) of teachers interviewed indicated that they prepared for NAPLAN to some degree. This could be termed as "test familiarisation" or more extensive preparation that started from as early as Year 1. Test preparation was not the experience of all teachers, some indicating that they did not prepare for NAPLAN at all. The range of approaches to preparation will be examined below.

Familiarisation was the only type of NAPLAN preparation for some teachers. The account from the teacher below indicated that her school does not "teach to the test", but instead "familiarises" students with the structure of the test,

> It's something at this school that we don't get over excited about, as in **we don't teach to the test.** We give the kids the opportunities to be **familiar with the structure of the test**, but we don't spend a term **going over everything that we think's going to be in the test**.
>
> Learning Support Teacher and 3-4 Classroom Teacher,
> Independent Primary School P-6

This comment aligns with most school leaders' comments, where "test familiarisation" was the main type of preparation for NAPLAN. In this comment, the teacher stated that they did not "teach to the test". This phrase has become a common colloquial reference that is regularly used in the talk to situate what is perceived to be an undesirable pedagogical practice.

However, it seems that "teaching to the test" does occur in schools. The teacher's comment related to another school and suggests the extent that some schools prepare students prior to the "NAPLAN years". Teachers at this particular school were expected to start preparing students from Year 1, allocating "half an hour to an hour" in a week for students to complete NAPLAN-style testing.

> I guess with this school and the last school I was at, NAPLAN was held as high as maybe some other schools it might be. For instance, my sister's teaching at a primary school at the moment. She's teaching Year 1**. And for her at her school they're starting kids doing NAPLAN-style testing from Year 1.** Like **it's drilled into them to do half an hour to an hour… Half an hour to an hour a week she was saying**.
>
> Year 3 Classroom Teacher, Independent Primary School P-7

NAPLAN preparation as a part of a regular cycle of teaching was revealed in the teacher's comment below. The teacher reported how Curriculum into the Classroom (C2C)[6] programs were "abandoned" to prepare for NAPLAN. The teacher below discusses how staff were "told" to abandon the C2C to prepare for NAPLAN, which almost seemed like a covert mission as the teacher felt compromised even mentioning this by suggesting that "I probably shouldn't be saying this".

> Yeah, in preparation in the classroom. So about two months in advance we do a lot of practice in NAPLAN, and I probably shouldn't be saying this, but we have a C2C programme that we have to follow by, and sometimes we are told not to worry about the C2C but to focus on NAPLAN.
>
> Year 8-9 and 11-12 Maths and Science Teacher, State High School, 8-12

According to the teacher's comment below, people are "tak[ing] a term out from doing C2C" suggesting a pressure to "teach NAPLAN" because "everyone else does it". The language used to describe NAPLAN preparation indicates that the test itself seems to be taking on the role of a de facto curriculum. The language highlights the tension between system validity and school validity. She stated that the teacher is "not supposed" to take a term out of doing C2C to "pump NAPLAN" however "everyone does it" and posits that "I don't know how you do it [prepare students for NAPLAN] otherwise". The comment point to the system priority of improving NAPLAN results impacting the site through superseding the teaching curriculum in order to focus primarily on teaching to the test.

> People are **teaching NAPLAN** and so that's why we are too and I know **you're not supposed** to teach NAPLAN, you're not supposed to **take a term out from doing C2C and pump** NAPLAN but everyone does it and I don't know how you do it otherwise.
>
> English and Music Teacher, State High School, P-12

Sending resources to teachers to support them in preparing students for NAPLAN was reported by the teacher in the comments below. The teacher stated that the school leaders sent resources or specifically the "Principal does send us things for

[6] State Schools Division supported Queensland state school teachers to implement the Australian Curriculum through the development of the *Curriculum into the Classroom* (C2C) resource, which delivers a comprehensive set of whole-school and classroom planning materials for single level and multi-level classes, students with disability and for students who study through the schools of distance education (Queensland Department of Education, 2018).

it", although the teacher only utilised the resource, "depending on what it is, how useful it is".

> Yes. We, ……., **the Principal does send us things for it**, so depending on what it is, how useful it is, Maths is an easier one, because you can put some problems on the board, okay, let's have a go at these, and then you work through them and see how we can do it. English is not as clean cut.
>
> Year 4 Classroom Teacher, State Primary School P-7

NAPLAN preparation extending into homework practice was highlighted by some teachers as part of the cycle of preparation. The teacher's comment below indicates that NAPLAN preparation extended into a structured "NAPLAN sort of book," created by teachers for students to complete at home on weekends,

> Then we **sent home this homework every week for those five weeks**. It would be from a **NAPLAN sort of book** with a maths aspect and, you know, a grammar and a writing task. So, for five weekends they would have **NAPLAN-style homework.**
>
> Year 5 Classroom Teacher, Catholic Primary School P-6

According to the middle school teacher's talk below, the NAPLAN writing test needed the most time to prepare students compared with the other domains. The teacher's comment reveals that the whole of term one covered narrative and persuasive writing. In comparison, further preparation for "test familiarisation" of other NAPLAN domains were primarily focused on for 2 weeks in term two. The writing domain clearly holds the greatest concern for teachers in terms of ensuring students are prepared,

> So, the preparation I do is in term two, I'll make sure that I've covered narrative and persuasive writing in term one so at least the kids will know what the genre is and how to do it, and then I won't do any specific NAPLAN work until term two, and then the first two weeks of term two we'll do how to do the NAPLAN test.
>
> Year 5-6 Classroom Teacher, Independent Primary School P-6

The teacher's comment below also reports that "a lot" of time is spent on teaching students persuasive writing but the time spent on this is justified as being "also in the curriculum anyway". The teacher reveals, however, that the teaching of writing has changed due to NAPLAN. The suggestion is that teaching persuasive writing

connected to the curriculum is separate to teaching students persuasive writing for NAPLAN.

> We do spelling all the time and I use past NAPLAN tests for that because I figure, whatever, even though I don't know if you're supposed to do that and, yeah, **the same persuasive thing**. **Like I really do a lot on persuasive but that's also in the curriculum anyway so it's fine** but **I teach differently now because I know what NAPLAN expects**, so with the persuasive stuff.
>
> English and Music Teacher, State High School, P-12

This raises the issue of the formulaic nature of teaching writing when accountability is attached to large-scale testing. Teachers feel the need to game the system rather than teach beyond the structure to the nuances of language and engaging the audience. The danger with the strategy of teaching to what NAPLAN expects is a generation of students who robotically follow a formula of writing without flair or creativity as noted by Exley, Woods & Dooley (2013).

The teacher's comment below revealed the amount of time that is spent preparing students for the writing task, in this case much time was spent on the persuasive genre by the teacher below and her "partner teacher". The teacher also questions whether the preparation is meeting the writing needs of the students in her class. The pressure to teach the specific genre of persuasion for the NAPLAN test has superseded her instincts about what her students actually need to learn and where her teaching should be directed.

> …. So, I find that **most of our time** is filled up with **persuasive genre**, or we were told persuasive narrative. So, myself and my partner teacher, 'cause I co-teach, we took one each. And we just taught that as we normally would. And then towards the end we did the same thing, give them "Well, this is what it will look like, okay. You will be given some writing for you to be imagine, like you to do from" and that type of stuff Yeah, but I just find that sometimes **we get so caught up in doing that we're not really focused on what they need**. That's all. That's probably my downfall though
>
> Year 5 Classroom Teacher, Catholic Primary School P-6

The teaching of writing, particularly persuasive writing, has opportunity for integration in multiple subjects and a variety of text formats, not just in a single term and context. Indications from NAPLAN writing data would suggest that there are

significant numbers of students who are below national minimum standard in the writing domain (Wyatt-Smith & Jackson, 2016) as highlighted in Chapter 2. The conflict is that despite a concerted focus on teaching particular genres relating to NAPLAN in highly structured ways, the increased emphasis is not contributing to improved results.

4.9 NAPLAN: How Policy is Enacted in Practice – A Comparison of School Leaders' and Teachers' Accounts

The theme of NAPLAN and the sub-themes of expectation, impact and perceptions presented similar and differing accounts within and across school leadership teams and teachers. Recognition of how NAPLAN was enacted in practice was represented in the talk revealing both negative and positive consequences to education and schools. Some school leaders revealed how the rising accountability directly affected teachers but saw this pressure as an inevitable responsibility of an education system, while others were mindful of how the accountability for results affected the teachers in their school. This accountability as school measurement had the effect of changed practices in the amount of time invested in preparing students for NAPLAN according to the teachers, despite clear messages of 'test familiarisation' stated by school leaders.

Expectations of improved literacy and numeracy results in NAPLAN as a national policy objective have played out in the school environment in many ways. How school leaders have approached this expectation has varied depending on their individual viewpoints of the value of the test to their respective schools. Some school leaders talk emphasised the welfare of the staff and students, while others aligned themselves directly with policy and instituted targets for improved NAPLAN results for teachers and students. Expectations for good NAPLAN results were central for most of the school leaders, the pressure often enhanced through Regional and Diocesan expectations.

Through the talk there were recurring references to words such as "targets" and "measuring performance", highlighting the expectation placed on school leaders and subsequently placed on teachers and students. This accountability expectation reiterated the tensions that appear to exist between the goal of measurement and the goal of improvement, where the prioritisation seems to be placed on measurable targets such as moving students into the top two bands rather than the intent of using

NAPLAN data, that is to inform teachers about their students' skills and understanding and "identify how to support the learning needs of students" (ACARA, 2017, p.4).

Expectation for good NAPLAN results stemmed from a variety of sources, according to teacher reports. In some cases, the source of pressure stemmed from the school leaders and the "target-setting" environment that was created. Some teachers revealed that the pressure attached to performance was at times symptomatic of wider system-led expectations. Some of the teachers indicated that the role parents played in placing pressure on their child to perform contributed to pressure on teachers for good NAPLAN results. Primarily this related to entry requirements from some secondary schools. These comments from teachers aligned with similar statements from the school leader accounts.

Both school leaders and teachers agreed that NAPLAN impacted students to varying degrees. School leaders and teachers acknowledged that it created a level of anxiety, particularly for younger Year 3 students who had not engaged with this type of testing before, and heightened levels of anxiety were also seen in students with learning difficulties. Equally, teachers suggested that testing had become part of what one school leader referred to as "the educational landscape" and some indicated a growth in students confidence particularly if they received positive results.

The impact of My School was reported by 43% of school leaders. Most of these school leaders who spoke directly about My School cited a variety of responses regarding how its impact on their schools. While some indicated that the use of My School amongst the parental community was minimal, others stated that it had changed the way that schools were managed, and that the information was directing parents for school choice with reduced understanding of all the other "valu[able]" opportunities inherent within schools. In some cases, there was an acknowledgement that parents were aware of the schools' results, but in most cases, school leaders reported that this had little to no impact on parents' choice of schools, and the majority cited no direct anecdotes of parents questioning them in relation to school results.

The negative perceptions of NAPLAN for both school leaders and teachers aligned with issues relating to the accountability premise attached to NAPLAN results. School leaders revealed concerns such as NAPLAN's potential connection to funding, salary and performance, while teachers raised issues relating to stress, time spent preparing students for NAPLAN instead of engaging with the curriculum, and questions

relating to the real benefit for students with cognitive delays. When time spent on NAPLAN compared to the curriculum became unbalanced in favour of NAPLAN preparation, it generated an emotive response from the teachers, who felt pressure for students to perform well in practice tests. One of the teachers suggested that if her students performed poorly or poorly in the context of the schools' goals, this would "brand" her negatively in the eyes of her peers and school leaders. Her identity as a successful teacher, it seems, was inextricably bound up with her students' success in NAPLAN.

Positive perceptions aligned predominantly with NAPLAN giving both school leaders and teachers a greater understanding of NAPLAN benchmark standards. School leaders reported the benefit of understanding how their school was tracking, particularly for the smaller and Regional schools. Positive reflections from teachers spoke to the accountability of NAPLAN as facilitating a priority of equity for all students to have basic literacy and numeracy skills. The comments also reported the confidence of students in more remote, small schools to be able to compare their results to a national standard and gave teachers an opportunity to have comparable data about literacy and numeracy standards (ACARA, 2018c) of other Australian schools. School leaders particularly referenced the benefit of being able to look at results diagnostically to focus on areas of concern, which ultimately was for the benefit of students and their learning.

Ninety-five percent (n = 20) of school leaders reported that their schools prepared for NAPLAN. How this preparation was viewed, and the time spent preparing, varied. Some indicated quite specific timeframes, while other school leaders revealed some "test familiarisation" took place. Others stated that preparation for NAPLAN was unnecessary as the teaching of literacy and numeracy was embedded in the school programs. Overall, how school leaders position NAPLAN preparation at times seems to be at odds with the teachers' accounts. Most school leaders indicated that NAPLAN preparation focused on "test familiarisation", while teachers stated that they abandoned their teaching programmes to "focus on NAPLAN". Of particular note was the reference to the preparation for the NAPLAN writing task compared to other domains. Preparation for NAPLAN testing for the majority was seen as a necessary part of the landscape, though the nature and extent of preparation varied from school to school.

The majority of teachers interviewed (83%, n = 39) indicated some type of preparation for NAPLAN. Teachers presented a range of experiences, indicating that test familiarisation was a part of the preparation, but the work would often go beyond this into drill and practice and homework booklets. The time that teachers spend preparing for the NAPLAN writing task was reported by some of the teachers as being the primary focus for preparing students for NAPLAN sometimes as a “core” focus over several weeks. Talk focused on the conflict of the need to address specific learning needs; however, the pressure to prepare students for the writing task was prioritised instead. While the extent of preparation varied depending on the school, discussions relating to an obligation to enact this practice in order to maximize the outcomes for students were presented, revealing the conflict between the goal of measurement versus the goal of improvement mentioned earlier.

4.10 Summary

The chapter has presented an analysis of how both school leaders’ and teachers’ access and use data for teaching and learning and their lived experiences of NAPLAN as enacted in practice. This chapter, guided by the theoretical framework that looked at assessment as a social practice and a shared enterprise in a community of practice, has explored the analogous and different perspectives of NAPLAN and the subsequent use of these data, examining the differences and consistencies with each membership group and across both groups in professional communities of practice.

In Chapter 5 Discussions and Conclusions are presented that consider the analysis of the school leaders’ and teachers’ accounts in the context of the literature and the latest policy documents. Directions for future research are also presented.

Chapter 5: Discussion and Conclusion

5.1 Introduction

This study has examined scholarly literature, relevant national education policy, and school leader and teacher accounts to inquire into the utility of NAPLAN data to inform teaching and improve learning outcomes for all students within a socio-cultural framework. Both school leader and teacher accounts were considered in the context of the utility of NAPLAN in teachers' hands, and how the tests come to be stitched into the classroom practices of teachers in the learning periods before and after testing episodes. This study looked at how first-hand accounts of literacy policy came to be enacted in the classroom and wider school context, including the similarities and differences within and across school leadership teams and teachers regarding NAPLAN data within the school context.

The theoretical framework of the study has looked at assessment as a social practice (Broadfoot & Black, 2004; Elwood & Murphy, 2015), with the complementary notion of Wenger's (1998) social theory of learning and nature of knowledge as a shared enterprise in a community of practice. The construction of this theoretical framework served the study's focus for exploring school leaders' and teachers' legitimate participation in their school communities of practice, and afforded the opportunity to examine the practices that school leaders and teachers adopted through their talk and their interaction in implementing these, including at times, with students and parents.

Chapter 4 has presented the analysis of school leaders' and teachers' views of NAPLAN and the utility of data to improve the literacy learning for all students. This chapter draws together findings, conclusions and recommendations that are aligned with the literature and current policy documents. Directions for further research are also presented.

5.2 Barriers and Enablers: Conditions for successful engagement with NAPLAN data in a community of practice

The aim of the study was to determine whether school leaders and teachers used NAPLAN data to inform teaching and improve learning outcomes. Its aim was to look at schools' communities of practice and investigate how school leaders and teachers

interacted with NAPLAN data and whether there was a shared engagement with new knowledge as it specifically relates to the use of NAPLAN data for next-step teaching purposes. The study was shaped by the following question:

What is the utility of NAPLAN for teachers and members of the school leadership team in informing teaching and improving learning?

The focus of this question was on the sociocultural understanding of assessment as a social practice and looked to what opportunities school leaders and teachers fostered in their community of practice as part of their examination of NAPLAN data and the issues of access to existing knowledge about student performance and sharing of new knowledge that may come from the data.

The study found that access to data resided predominantly with school leaders, with most teachers not given direct access to NAPLAN data, or if they were given access, it was after it had been analysed and interpreted by the school leaders in the first instance. The utility of the data therefore resided primarily with the school leaders who saw their role as experts and guides of where the data should be used. The interpretation from school leaders for the most part, was accepted as truth by the teachers. The study found that there were three distinct operational processes for dissemination of the NAPLAN data as highlighted in Figure 4.1 in Chapter 4. NAPLAN data was to be accessed first by the principal (still included by definition as school leaders), and then three operational processes followed:

1. Open: The principal positions that analysis of data is a whole school process that has collective engagement by staff in whole staff meetings or directly with staff groups and individuals.

2. Restricted: The principal and school leaders analyse NAPLAN data and then take a number of courses of action, they present their analysis of data at staff meetings, pass their analysis of data to the faculty where it is examined from a faculty perspective down to individual class analysis or do a combination of both.

3. Closed: The principal and school leaders analyse NAPLAN data and do not pass on to teachers.

This observation is not uncommon. Renshaw et al. (2013) found a similar definitive line between principals' and teachers' use of data. In some schools they found

that access to and use of data in some cases was related to authority structures within schools, with classroom teachers being denied the same access and option to engage with and understand data, as compared to key leadership roles in the school.

The study found that when teachers were not directly involved in the analysis of data, there was a tendency to become reliant on the expertise of others rather than trusting their own understanding. This finding is evidenced also in Hardy's study (2014) where he found that "some teachers expressed reliance upon the principal and other members of the leadership team to 'translate' NAPLAN data, and the confidence placed in the principals to assist with this work" (p. 15).

This study's findings would suggest that socio-cultural practices of shared learnings relating to NAPLAN data are not evidenced in the respective communities of practice in the schools in this study. Primarily this observation relates to sharing knowledge between school leaders and teachers, but there is also evidence that the restricted access to data at times happened within the school leadership team. This finding is not uncommon in the literature as other researchers (such as Hardy, 2014, and Renshaw et al., 2013) have also found that there is an imbalance in the power relationships between school leaders and teachers as it relates to levels of access to NAPLAN data dependent on leadership levels within a school. In most cases, those in authority make a decision about who needs to use the NAPLAN data and for what purpose. These school leaders also make related decisions regarding who has the expertise to disseminate and educate colleagues as to how the data are to be used, which in most cases is by the school leaders.

Some sites appear to have engendered teacher passivity as it relates to analysing and using the data for next-step teaching. These teachers are not engaged in the data analysis process as they often are required to sit through someone else's analysis of school data where they cannot see the relevancy of the NAPLAN data in the context of students in their own classrooms. This is a missed opportunity. Matters (2009) stated, there are prospects to use "assessment information to improve student achievement" and further occasions to use feedback from data analysis to support student learning along with the "enhancement of teachers' pedagogical repertoires" (p. 209). Personal engagement for teachers in the process of dissemination is critical to the attribution of value in using NAPLAN data as part of next-step teaching and improving student learning outcomes. Pierce and Chick (2011a) found similar barriers for teachers

engagement with data in their research. The pilot study identified that the majority of teachers did not have access to NAPLAN, and often it was in a form that did not allow teachers to do the analysis they required, where they ultimately lacked guidance on how to interpret the data.

For these barriers to be addressed, a new set of conditions needs to be enacted to engage teachers in the possibilities of using NAPLAN data and to create a holistic community of practice around such data. Timperley (2009) outlined the need for professional development as "many teachers' previous training and approaches to teaching practice did not require them to interpret and use these kinds of data, because assessment information was about labelling and categorising students, and not for guiding and directing teaching practice" (p. 22). Where teachers have had an opportunity to engage in professional learning relating to how to interpret data in a community of trust and relevancy, there has been evidence of changing teachers' perception of the value of using data to contribute to change pedagogical practices and improved student learning, as demonstrated in Cook's Data Club (2005). The Data Club provided opportunities for teachers to come together as legitimate participants to help demystify data use and discuss opportunities for next-step teaching.

A challenge for the provision of professional development is the need for data to 'speak' directly to classroom practitioners. According to the NAPLAN national report (2008), NAPLAN data have the diagnostic capability to inform next-step teaching and there is value in addressing what skills students need to work on to improve learning outcomes. How professional development is situated is also critical. Datnow and Hubbard's (2016) review found that "a climate of trust" (p. 23) was essential when working with teachers and school data. While professional development can be well intentioned, Datnow and Hubbard (2016) found in their review that despite efforts to build teacher data literacy capability, some of the training offered to teachers was "often limited to information on how to access a data management system" (p. 23) rather than training that could offer teachers "more fine-grained information about student achievement that will allow teachers to address students' individual needs" (p. 23).

Another condition needed to enable data use is changing teacher's assessment identities. School leaders play a critical role in shaping how teachers engage with NAPLAN data and consequently how it is used in a community of practice. In this study, some school leaders saw the utility of NAPLAN data as a strategic approach to school

improvement, inclusive at times of “targets” and looking to gaps and patterns in data. However, school leaders did not always value data as a diagnostic tool for teachers to connect results to strategic goal setting or next-step teaching. While some school leaders and teachers recognised the benefits of data literacy and the value of professional development to enact this pathway, most teachers did not and in some cases saw the data as a reminder of how their success as a teacher was measured.

In order for school leaders to enable the use of NAPLAN for informing teaching and improving student learning, greater stewardship is needed from school leaders to build a school culture of data literacy, and a greater collaboration between school leaders and teachers to build professional capability. Cumming et al. (2016) assert that learning communities need to be built in schools, with school principals playing a critical role in “establishing a quality assessment for learning culture” (p. 234) that utilises data to inform learning acknowledging that “assessment is for learning; that is, all assessments contribute to understanding student progress in learning and assisting further learning” (p. 232).

To enable this change at a policy level, there needs to be recognition of the need for professional development in data literacy. If teachers and schools have “primary accountability for improving student outcomes” (MYCEETYA, 2008, p. 16), then teachers need greater access to NAPLAN data and professional development to improve their expertise in analysing NAPLAN, and other data. This was once a policy priority of the NLNP which emphasised the importance of “Professional development for teachers to support the key elements of the plan” (DEETYA, 1998, p. 10) however, public acknowledgement of the priority of professional development has been omitted from more recent national policy documents. If data use and accountability are stated professional expectations, then valuing data literacy for next-step teaching needs to be acknowledged as an essential professional capability that needs to be enabled at a policy level, but also prioritised by school leaders and teachers.

5.3 Value and accountability: conditions for use

NAPLAN was introduced in 2008 as part of the move towards evidence-based education policy, with the dual benefits to “help drive improvements in student outcomes and provide increased accountability for the community” (ACARA, 2018c). These two purposes, improvement and accountability, present as a working alignment, with the intended beneficiaries to be students and the community.

The study found that while NAPLAN provided a mixture of benefit and usefulness to both school leaders and teachers, it found that a significant amount of preparation took place engendered by a sense of NAPLAN accountability to the school, students and wider system. A thornier issue however is whether NAPLAN was in fact "valued" as a diagnostic tool to support next-step teaching, with the study finding that there was a demonstrated lack of engagement with or use of NAPLAN data by teachers in particular.

While ACARA (2018d) clearly outlines NAPLAN as a test that cannot be prepared for in the same way as a summative test, reiterating that the skills tested should be continually developed through the year, this official stance did not stop school leaders and teachers allocating time to NAPLAN preparation. While school leaders stated that the time spent preparing was more 'test familiarisation', this study found that teachers presented conflicting reports, indicating that preparation would often become drill and practice and in some cases, homework books. While the extent of preparation varied depending on the school, overall, teacher talk emphasised an obligation to enact this practice to maximize the outcomes for students, once again highlighting the conflict between the goal of measurement versus the goal of improvement.

The contentious notion of time, as it relates to NAPLAN is also evident in this study. On a school level, investment in the time to prepare students for NAPLAN is in conflict with the amount of time allocated to analysing the results, an issue raised by both school leaders and teachers, with one teacher summarising the conundrum as living in a time where we are "Information rich and time poor". On a system level, time delays for NAPLAN results had the effect of disengaging teachers and a common perception of the redundancy of the data for next-step teaching, this observation was raised by both school leaders and teachers. Time is a value and when NAPLAN testing and reporting do not sit in the curriculum assessment cycle, teachers are challenged as to how to best utilise the diagnostic potential of the data.

When viewed as a reflective sharing and knowledge building exercise within an environment of trust in a community, data have the potential to be a positive experience. However, if it is seen as accountability narrowly understood as measurement for comparative purposes, values can shift to data for validating personal worth or a measure of success or failure as a teacher (Hardy & Lewis, 2016). Therefore, how schools facilitate data dissemination and analysis from tests such as NAPLAN as a community

can be critical in shaping teachers' identity as participants in a community or alternatively, feeling the need to "validate one's worth as a teacher" (Hardy & Lewis, 2016, p. 6).

The study demonstrated there is a greater need to work within and across career stages to ensure that Standard 5.4 is enacted in practice in schools. For teachers to use NAPLAN data more effectively for informing teaching and improving student learning, they need to see the value in the NAPLAN data in building expertise to inform their practice; but to do that they firstly need to have access to data. Those teachers who had access to and used the NAPLAN data spoke of the benefits for their teaching and student learning.

This points to the potential for high system validity for NAPLAN and use of data. However, the analysis of the school leaders and particularly the teachers at the time of this study, would indicate that there is low site utility of the NAPLAN data. Four reasons for the low site utility for teachers could be attributed to the lack of value that teachers ascribe to the data for next-step teaching, low levels of data literacy reported by teacher, delays in receiving the data stated by both teachers and school leaders, and the lack of time to engage with NAPLAN data.

5.4 Limitation of the Study

There were a number of limitations to this study. Firstly, it is acknowledged that the scale of the participant school sample was relatively small, and no claim is made about the generalisability of the data beyond the sites where the data was collected. The sample of participating schools is relatively small, (six primary, one secondary and two P-12), drawn from two Australian states. A subsequent study could build on this work to include teacher from the remaining states and territories with an emphasis of the participation of secondary schools. Such research with a broadened participation involving all sectors and phases of schooling would be timely giving the continuing disquiet about NAPLAN in policy and the community (Thompson, 2013). A particular focus of this work could address the reported declining performance of students in middle school.

Secondly, as a qualitative study, it is also acknowledged that the school leader and teacher accounts are talk data, not observed practice. The voices of students and parent/caregivers have also not been addressed in this study. Subsequent research could focus on students' experiences of engagement with NAPLAN and their

perspectives of how it contributes to learning growth. Parent/caregivers perspectives could also be examined regarding their insights into the impact of NAPLAN data on student learning and improvement.

This study did not address the most recent developments of NAPLAN testing, specifically machine scoring. A future study could examine human and machine scoring and an examination of the two on how the data is produced in the first instance and the timing of the return and how it is received in schools by school leaders, teachers, parents and students. This study could be situated in the global context of large-scale testing of writing which is a matter of intensifying interest in research policy and practice.

5.5 Emerging Questions: Opportunities for Further Research

Through the analyses of the corpus of literature several gaps in existing knowledge about the impact of NAPLAN on student learning, classroom and school practices, several questions emerged that present a warrant for further investigation of both impact and NAPLAN data use. Some of the findings suggest that the genesis of student improvement, equity and opportunity for all, evident in the Adelaide Declaration (MCEETYA, 1999) and the NLNP (1998), has been superseded by a strengthening accountability agenda with the introduction of NAPLAN. The shift of emphasis between the historically recognised competing goals of measurement and goals of improvement play out on the NAP website and this was also explored through the literature. The literature observed that the improvement and accountability premise in Australia, through the introduction of NAPLAN, had in some cases resulted in a narrowing of the curriculum by focusing on test content knowledge, rehearsing test-taking, teaching transmissively or making little use of results to assist student learning.

5.5.1 Communities of Practice: Evidence of Data Use in the Field

Leadership could be a strengthened focus in efforts to build school cultures of data literacy with professional collaboration between school leaders and teachers. This is inclusive of a deliberate goal of building a sustainable culture of legitimate participants in a community of practice that acknowledges the importance of using assessment evidence as a valued professional capability. Wenger (1998) states that authentic engagement in a community of practice is not synonymous with a characteristic or being part of a group but, rather, functions effectively through mutual engagement, “Membership in a community of practice is therefore a matter of mutual engagement. That is what defines the community” (p. 74). Equally all members within this community

need to have an identity in this community and a “claim to ownership of meaning” (pp. 269-270) in order to function effectively.

The literature reviewed revealed a lack of research relating to how principals and teachers come together as a community to infer meaning from NAPLAN data and how data are used in ways intending to inform teaching and learning. While some literature (Cook, 2005; Johnston, 2017) reported projects that investigate data use in schools, previous literature relating to principals and teachers coming together as a community to analyse and inform teaching and learning were not found.

Data analysis from Chapter 4 also revealed limited examples where both teachers and school leaders came together with the common focus of using NAPLAN data as part of a strategy to support next-step teaching and learning in the classroom. Rather the scaffolding and pre-analysis of data from school leaders to teachers was a more common pathway. This is problematic in a school community environment in which it is routinely teachers and learning support teachers who work directly with students and whose pedagogy could be informed by the data. These teachers had limited direct access to and engagement with data, rather principals had the notable claim to ownership of the meaning of the data. As Wenger (1998) stated, if those who have an identity within the community do not “abandon their claim to ownership of meaning” (p. 270) and open their minds to redefine the roles of all members, then there is a risk that the community will only serve those who already have an identity. This is an area that warrants further investigation.

5.5.2 What Opportunities are there for Professional Development to Improve Data Literacy?

There is opportunity to research how best to support the development of school leaders’ and teachers’ data literacy to inform goal setting and decision-making for next-step teaching. Longitudinal tracking over time is desirable with NAPLAN data being part of the picture.

The literature review found that teachers and principals have differing views about NAPLAN data. This related to access to NAPLAN data, the ability to interpret data and how data are valued in the context of teaching and planning, and formative assessment. These findings resonated in the school leader and teacher accounts and warrant further investigation into how barriers relating to value can be challenged so

that there is a shift in perceptions of data literacy as an essential skill. This shift would enable a collaborative assessment culture, so all members of the community can come together as legitimate participants.

The intention of data provided to schools is to "interpret student assessment data to evaluate student learning and modify teaching practice" (AITSL, 2016, p. 9). However, this was at odds with the findings from the study, that showed considerable emphasis on preparing for the test but far less emphasis on analysing data for next-step teaching. Further, the study highlighted the lack of access to data and an acknowledgement of a gap in data literacy to enable teachers to confidently make use of NAPLAN data.

From a policy perspective, the decline in emphasis of the need for professional development was noted, acknowledging the shift from the NLNP whose focus was to "implement strategic professional development initiatives to support best practice professional development" (DEETYA, 1998, pp. 26-27) to the notable absence of reference to professional development in the current Melbourne Declaration (2008). If governments are serious about student improvement, then investment in professional development and subsequent research into building capacity directly addressing teachers' beliefs and data literacy is needed.

5.5.3 Are There Other Options for Presenting Data and Testing Students?

School leaders and teachers at times presented competing and contradictory accounts, on the one hand viewing NAPLAN as a narrow representation of student ability while also revealing the claimed benefit of having national data to understand the standards of student basic skills.

The *Review to Achieve Educational Excellence in Australian Schools* (Gonski et al., 2018) views NAPLAN as providing a "useful 'big picture' view of student learning trends across Australia and the world but hav[ing] limitations at the classroom level" (p. 62). The review also acknowledges that

> This means teachers need significant time and expertise to assemble and assess data on student growth. Once these data are assembled, teachers need support to understand the evidence and determine the most appropriate teaching response. Teachers need to have useable data. (p. 62)

Research needs to be undertaken to create intuitive IT platforms that provide greater accessibility for both teachers and school leaders and present data that is both engaging and meaningful to inform and impact next-step teaching. As shown, there is a need for professional development to improve teachers' data literacy.

The Education Council meeting on Friday 22nd June 2018 was heralded in by calls from both Liberal and Labor parties for a review of the National Assessment Program – Literacy and Numeracy (NAPLAN) (Koziol, 2018). The concern from the ministers as highlighted in the article is the need for a broader review that looks at the tests' content and methods. The Communique released post the meeting (Education Council, 2018) acknowledged the need for a review, however this was not on NAPLAN testing. Instead, the review looked at how NAPLAN data are presented through My School, exploring school, system, sector and jurisdiction performance data, in the context of the initial (2009) principles and protocols for reporting on schooling.

In the context of My School and more specifically 'Using achievement data to inform teaching' the NAPLAN Reporting Review (Louden, 2019) found that "Many submissions distinguished between the use of NAPLAN data to inform teaching and the use of My School to access data for this purpose" (p.78) with teachers and schools tending to access information regarding NAPLAN provided on their state's curriculum authorities systems rather than the My School website. The review indicated that schools use a variety of ways to manage NAPLAN data inclusive of locally developed spreadsheets, state-specific software, and commercially available data analytic tools. Louden's findings were similar to the findings in this study.

What becomes apparent in the review is the multiple platforms available in each state, territory and all sectors to report NAPLAN data to schools. The variance in platforms to present national data seems at odds with the intent of a national large-scale test, as each state and sector is not aligned with a national purposeful approach to reporting data to schools and teachers. As the independent school sector authorities and principals' associations mentioned, "they would support the development of a comprehensive, common national school data dashboard" (p. 80). While the review discussed whether NAPLAN data were used to inform teaching, what was missing was commentary on the level of access and use of NAPLAN data from all members of the school community, inclusive of school leaders and teachers.

5.5.4 The Teaching of Writing as Policy Priority

The analysis of the 2016 NAPLAN Writing data from the NAP website demonstrated a concerning percentage of students who were falling below the NMS for the writing domain from Year 3 to Year 9 (Wyatt-Smith & Jackson, 2016). This trend was also evident in the top bands as highlighted in Chapter 2.

While this study did not have the scope to investigate the issue of NAPLAN writing with depth, the analysis of data into teachers' preparation for NAPLAN revealed a more prominent focus on the teaching of writing genres compared to any other domain. Despite this concerted focus on preparing students for the NAPLAN writing task, the writing domain is not yielding improved results, according to NAPLAN data, and is worthy of further exploration into the teaching practices associated with writing pedagogy, and the time teachers engage with feedback and feedforward behaviours as part of the assessment cycle.

A strengthened priority of writing in policy and further research into whether teachers are making connections across curriculum, pedagogy and assessment in the teaching of writing in subject areas, and more specifically how teachers use assessment practices and data to support writing and writer development are needed.

5.6 Conclusion

This study has sought to explore how both school leaders and teachers engage with NAPLAN and their relationship with data once results are available to them. This study is set against the policy backdrop of rising accountability that has gradually strengthened from the Hobart Declaration (MCEETYA, 1989) through to the NLNP (DEETYA, 1998), Adelaide Declaration (MCEETYA, 1999), Melbourne Declaration (MCEETYA, 2008) and currently the NAP website (ACARA, 2018c).

It is hoped that this study has highlighted the pressure that school leaders and teachers feel about NAPLAN and more specifically, improving student results, but has equally highlighted how preventing access to data or the necessary skills to interpret data is undermining improvement efforts. As Hargreaves and Shirley (2009) observed, data that we have available to us deserves "intelligent interpretation". Highlighted in this study are conditions that will enable a greater engagement of all staff to be involved in professional development to improve their data literacy and for schools to operate as communities of practice when engaging with NAPLAN data.

This study has also highlighted the need for challenging school communities of practice to look to new forms of identification and negotiability in order to create meaningful membership experiences for all groups (both school leaders and teachers). Ownership of knowledge, in this instance NAPLAN data, "serves only those whose identity is already established" (Wenger, 1998, p.42), meaning that all membership groups need to identify and share in the negotiability of NAPLAN data analysis and next-step teaching. The challenge for some school leaders is to redefine their assumptions about data use and how it is to be used. School leaders are in a position to "offer new forms of identification and negotiability" to create "meaningful forms of membership and empowering forms of ownership of meaning" (Wenger, 1998, p.269). Sharing ownership and supporting professional development of meaningful use of NAPLAN data will go some way to reassert the value of NAPLAN data as a tool for next-step teaching at the site level.

Repositioning of NAPLAN data as a valuable and viable resource needs to also be re-addressed by the system to be clearly prioritised in "a spirit of curiosity and inquiry rather than in a climate of panic and fear" (Hargreaves & Shirley, 2009, p. 39). There is a need to create opportunities to develop school leaders' and teachers' data literacy to inform goal setting and decision making with innovation for next-step teaching and learning. Through greater stewardship, building sustainable cultures of inclusion that improve professional capability in data literacy have the potential of creating a value and utility of NAPLAN data to inform teaching and impact through student learning improvement.

> If an institutional setting for learning does not offer new forms of identification and negotiability – that is, meaningful forms of membership and empowering forms of ownership of meaning – then it will mostly reproduce the communities and economies of meaning outside of it. It will not open new trajectories of participation unless they are already opened somewhere else. (Wenger, 1998, p.269)

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Appendix: Ethics approval for study

AUSTRALIAN CATHOLIC UNIVERSITY

PERSON ETHICS APPROVAL REPORT

Jackson, Christine (0000052624)

Ethics Approvals

ECODE	ETHICS APPLICATION TITLE	STATUS	APPLIED DATE	APPROVED DATE	START DATE	END DATE	RISK
2016-24N	How NAPLAN is enacted: Issues of impact and data use	Approved	2/23/2016 12:00:00 AM	3/7/2016 12:00:00 AM	3/8/2016 12:00:00 AM	12/31/2018 12:00:00 AM	Deidentified Data

Ecode	Full Name	Type	Position	School / External Org Name
0000035121	**Professor Joy Cumming**	Internal	Chief Investigator	Institute for Learning Sciences & Teacher Education
0000052624	Jackson, Christine	HDR Student	Doctoral Student	Institute for Learning Sciences & Teacher Education

Key dates

No.	EVENT NAME	Category	Action Date	STATUS
1	**Progress Report Due- Jan 2017**	Progress Report	10/01/2017	Completed 10/02/2017
2	**2016-24N Extension approved**	Extension approved	3/03/2017	Completed 3/03/2017
3	**Title change** *How NAPLAN is enacted: Issues of impact and data use*	Modification	3/03/2017	Completed 3/03/2017
4	**Ethics Progress Report Due- Feb 2018**	Progress Report	12/02/2018	Completed 8/03/2018
5	**2016-24N Extension approved**	Extension approved	8/03/2018	Completed 8/03/2018

Ethics Documents

NO.	DOCUMENT TYPE	FILENAME	UPLOADER FULLNAME	DOCSOURCE
1	Research Proposal*	Christine Jackson Application for MEd Research _Proposal_final.pdf		Backoffice
2	Permission letter**	Christine Jackson ethics modification permission letter (1).pdf		Backoffice