CESA Schools demonstrating
above average gains in NAPLAN scores
2014 to 2016
and / or
2015 to 2017

REPORT

on a research project contributing to improved student learning and wellbeing in Catholic Schools in South Australia

Introduction

The research reported in this paper was conducted during the past two years among Catholic Education South Australia (CESA) schools identified by the Australian Curriculum, Assessment and Reporting Authority (ACARA) for significant achievement improvements in the National Assessment Program – Literacy and Numeracy (NAPLAN). The purpose of the research was to identify strategies in these schools that are contributing to outstanding improvements in student performance. The qualitative data collated and analysed through the research will inform the initiatives designed to improve student learning and wellbeing in Catholic Schools in South Australia.

Since 2008, all Australian schools have been required to participate in the annual NAPLAN tests conducted and reported by ACARA. Students sit these tests every second year, when they are in Years 3, 5, 7 and 9. Student scores at each year level are reported on a common NAPLAN scale between 0 and 1000 points. Student progress or growth can be tracked in terms of the gain in scale scores between tests.

In recent years, ACARA has published details of schools whose students have demonstrated 'substantially above average NAPLAN gains' in either reading or numeracy, as students progressed from Years 3 to 5, or from Years 7 to 9.

ACARA publicises schools that achieve high gains, as an indicator of the value-adding that school programs provide to student learning outcomes and also to provide alternative measures of comparison for year-by-year score fluctuations, which are subject to variations in student cohorts.

Identified high-gain schools demonstrated substantial NAPLAN improvement in reading and/or numeracy as follows:

1. an overall gain that exceeded the national average by more than one standard deviation unit; and
2. an overall gain higher than the average of students with similar Index of Community Socio-Educational Advantage levels, by more than one standard deviation unit; and
3. an overall gain higher than students with the same starting score, also by more than one standard deviation unit.

Note: The calculation of growth relies on matching student results in successive tests, which is not always possible when students change schools. Hence, ACARA does not publish lists of schools with gains for students between Years 5 and 7, largely because this transition corresponds with many students transferring from primary to secondary schools, in all states

except South Australia. For the same reason, South Australian schools are under-represented in the list of schools with substantially above average gains between Years 7 and 9.

CESA schools identified by ACARA

For the period 2014–16, ACARA identified seventeen CESA schools that demonstrated high NAPLAN gains. For the period 2015–17, ACARA identified fifteen CESA schools that demonstrated high NAPLAN gains. Details of these schools are listed in Figure 1a (for 2014–16) and 1b (for 2015–17) and their NAPLAN gains are represented in Figures 2a and 2b for Reading and 3a and 3b for Numeracy.

For the period 2015–17, five schools demonstrated substantially above average gains from Years 3 to 5 in Numeracy, three schools from Years 3 to 5 in Reading and four schools showed high gains in both Reading and Numeracy from Years 3 to 5. One school was recognised for gains from Years 7 to 9 in Numeracy and another for significant gains from Years 7 to 9 in Reading.

Notably, five schools had been identified for substantial gains between 2014–16—St Joseph's School, Clare; St Joseph's School, Ottoway; St Joseph's School, Murray Bridge; St Therese School, Colonel Light Gardens; and Caritas College, Port Augusta.

Methodology

This report provides insights from a research project conducted in two phases with school leaders during 2017–18 to identify factors that they attribute to be influential in students' demonstrated substantial gains. Semi-structured interviews were conducted with principals from each school using the base set of questions provided in Appendix A. Questions used in 2018 were adapted from those used for the first phase of interviews in 2017, to sharpen the focus of the research.

Interviews were conducted by senior education advisers and consultants in the CESA Religious Identity Leading Learning team. In some cases, principals were accompanied by key teachers and leaders from the school.

Based on the first phase of research, interviewees in 2018 were prompted to reflect on whether learning improvements were related to the following topics, drawn from recent research in school improvement:

- teaching strategies
- leadership initiatives
- school structures
- school cultures
- strategic school priorities
- staff collaboration
- student engagement and wellbeing
- parent and community engagement
- use of data to inform practice.

While these topics were used to guide discussions, school leaders were also encouraged to freely convey what they thought were key drivers of student gains.

From the analysis of responses, commonly occurring features across the school communities were identified as generating school improvements that could help the South Australian Catholic school sector achieve its strategic priorities.

Cohort	ACARA_SML_SchoolName	Suburb	Result	simple_gain_Reading	simple_gain_Numeracy	big.schl small if 15<enr<30 big if enr>30	ICSEA
Year 3-5	St Joseph's School	OTTOWAY	Both	126	124	small	957
Year 3-5	St Therese Primary School	COLONEL LIGHT GARDENS	Both	106	123	small	1100
Year 7-9	Caritas College	PORT AUGUSTA WEST	Numeracy	43	61	big	1019
Year 3-5	Holy Family Catholic School	PARAFIELD GARDENS	Numeracy	96	105	big	972
Year 7-9	Marymount College	HOVE	Numeracy	36	49	big	1083
Year 3-5	St John Bosco School	BROOKLYN PARK	Numeracy	98	127	small	1021
Year 3-5	St Joseph's School	CLARE	Numeracy	101	136	big	1086
Year 3-5	St Joseph's School	RENMARK	Numeracy	53	112	small	1008
Year 3-5	St Margaret Mary's School	CROYDON PARK	Numeracy	78	118	big	1039
Year 3-5	St Michael's College	HENLEY BEACH	Numeracy	95	105	big	1061
Year 3-5	St Patrick's School	MANSFIELD PARK	Numeracy	82	120	small	981
Year 3-5	St Teresa's School	BRIGHTON	Numeracy	76	117	small	1094
Year 3-5	Christ the King School	WARRADALE	Reading	97	98	small	1059
Year 3-5	St Brigid's School	KILBURN	Reading	86	86	small	900
Year 3-5	St Francis School	LOCKLEYS	Reading	102	87	big	1067
Year 3-5	St Joseph's School	MURRAY BRIDGE	Reading	102	91	big	1014
Year 3-5	St Thomas More School	ELIZABETH PARK	Reading	108	100	big	942

Figure 1a: CESA schools identified for substantially above average NAPLAN gains 2014–16

Cohort	ACARA_SML_SchoolName	Suburb	Result	simple_gain_Reading	simple_gain_Numeracy	big.schl	ICSEA
Year 3-5	St Joseph's School	OTTOWAY	Both	89	118	small	958
Year 3-5	St Augustine's Parish School	SALISBURY	Both	90	119	big	983
Year 3-5	St Gabriel's School	ENFIELD	Both	97	117	small	1021
Year 3-5	St Therese Primary School	COLONEL LIGHT GARDENS	Both	139	132	small	1136
Year 3-5	St Raphael's School	PARKSIDE	Numeracy	67	124	small	1126
Year 3-5	St Mary's Memorial School	GLENELG	Numeracy	70	118	small	1117
Year 3-5	Rosary School	PROSPECT	Numeracy	80	116	big	1091
Year 3-5	St Joseph's School	CLARE	Numeracy	84	118	small	1081
Year 3-5	Christian Brothers' College	ADELAIDE	Numeracy	120	118	big	1072
Year 3-5	Stella Maris Parish School	SEACOMBE GARDENS	Reading	102	90	big	1081
Year 3-5	St Joseph's School	MURRAY BRIDGE	Reading	104	99	big	1005
Year 3-5	Caritas College	PORT AUGUSTA WEST	Reading	121	119	small	1008
Year 7-9	St Joseph's School	PORT LINCOLN	Numeracy	36	53	big	1041
Year 7-9	Samaritan College	WHYALLA	Reading	42	41	big	1008

Figure 1b: CESA schools identified for substantially above average NAPLAN gains 2015–17
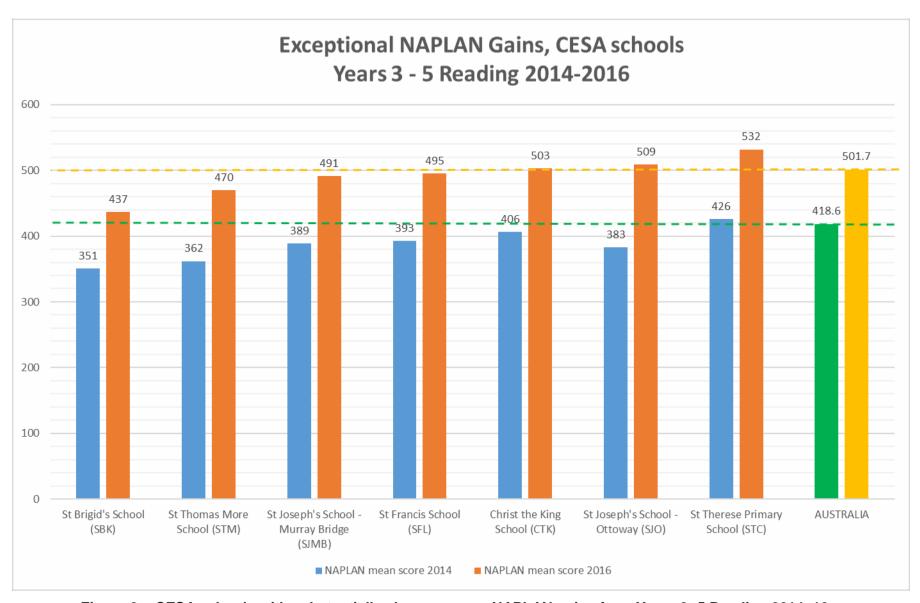
Figure 2a: CESA schools with substantially above average NAPLAN gains from Years 3–5 Reading 2014–16
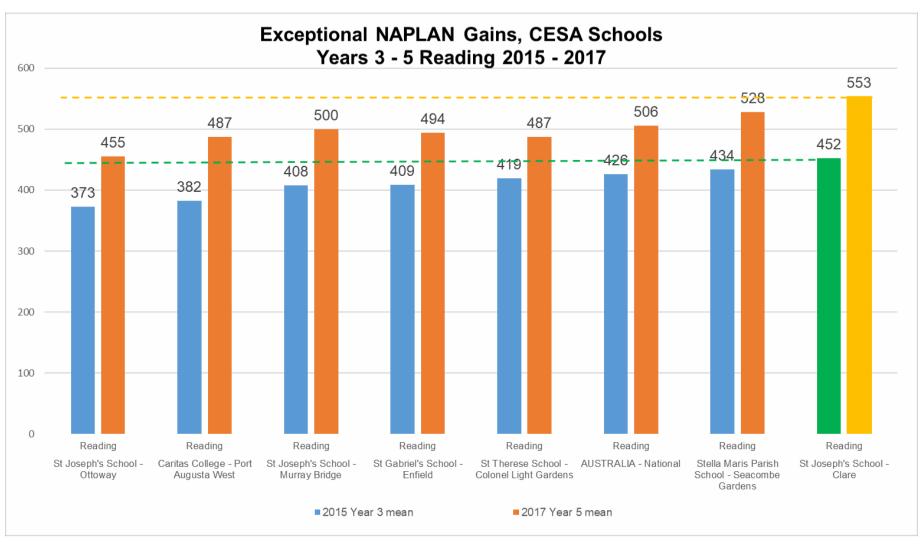
Figure 2b: CESA schools with substantially above average NAPLAN gains from Years 3–5 Reading 2015–17
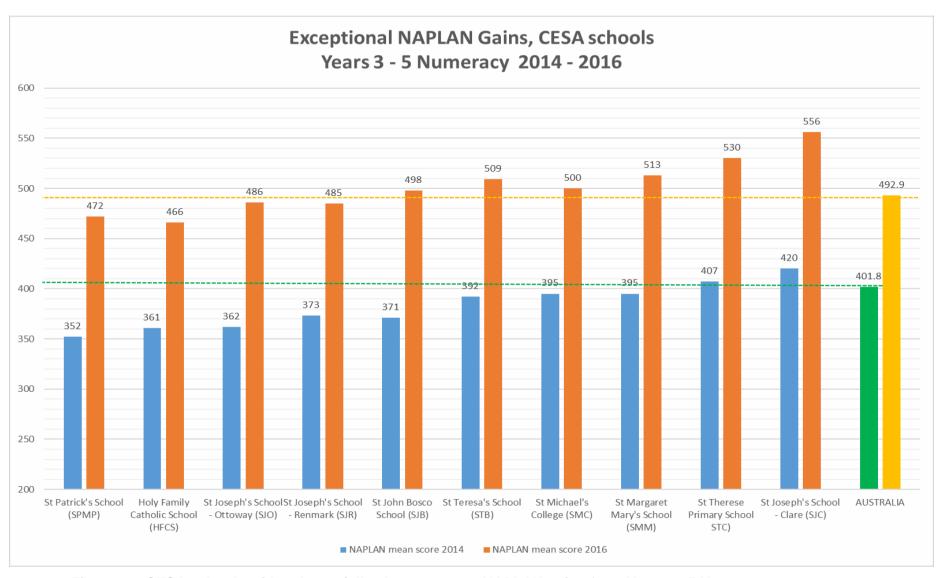
Exceptional NAPLAN Gains, CESA schools
Years 3 - 5 Numeracy 2014 - 2016

School	NAPLAN mean score 2014	NAPLAN mean score 2016
St Patrick's School (SPMP)	352	472
Holy Family Catholic School (HFCS)	361	466
St Joseph's School - Ottoway (SJO)	362	486
St Joseph's School - Renmark (SJR)	373	485
St John Bosco School (SJB)	371	498
St Teresa's School (STB)	392	509
St Michael's College (SMC)	395	500
St Margaret Mary's School (SMM)	395	513
St Therese Primary School STC	407	530
St Joseph's School - Clare (SJC)	420	556
AUSTRALIA	401.8	492.9

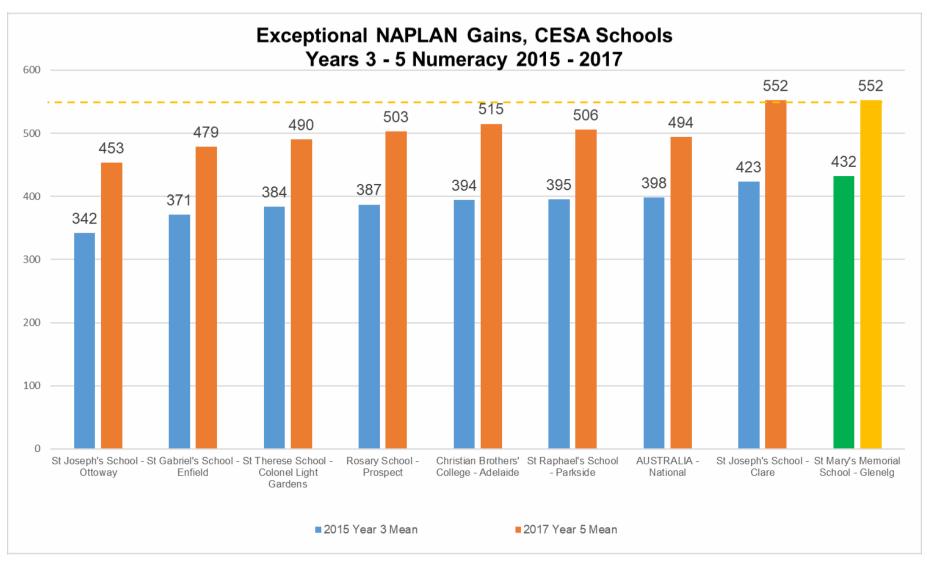**Figure 3a: CESA schools with substantially above average NAPLAN gains from Years 3–5 Numeracy 2014–16**

Figure 3b: CESA schools with substantially above average NAPLAN gains from Years 3–5 Numeracy 2015–17

Key effective practices

No single common approach, strategy or program was present in all schools that were identified by ACARA for exceptional gains.

In the first phase of research, regarding the 2014–16 cohort of high-gain schools, the most common practices were:

- active leadership of learning
- teacher collaboration
- purposeful data usage
- priorities for students with English as an additional language
- wellbeing priorities
- targeted approaches.

For the second research phase, regarding the 2015–17 cohort, the refined set of interview questions led to the identification of the following key effective practices for improved student achievement:

- setting whole-school goals and strategies for change
- developing an environment that promotes learning and wellbeing
- setting high expectations for student achievement
- effective staff collaboration
- data-informed teaching and learning
- effective targeted teaching strategies.

Setting whole-school goals and strategies for change

Among the CESA schools identified for high NAPLAN gains, school leaders had invariably established shared goals for whole-school improvement and undertaken strategic actions to achieve their goals. In some cases, school leadership teams had developed and articulated these goals to teachers and the school community, whereas other schools co-created their improvement goals and actions with teachers.

Regardless of the goal-setting process, the outcome for each school was a consistent set of expectations involving collaboration for improvements in literacy and numeracy.

A collaborative approach to learning and teaching created a common understanding, shared responsibility and consistent language with teachers, education support officers, students and parents.

Following development of school goals, these schools allocated human and financial resources to provide opportunities and structures for collaborative planning, coaching, mentoring and professional learning. In nearly all schools, there were structural elements of school organisation designed to support teachers and support officers to be consistent in their practices and to have common understandings about differentiating and personalising learning experiences for students.

Examples of these structural features included:

- coaching and mentoring approaches involving leaders or peers
    - cognitive coaching
    - classroom observations and walkthroughs, with structured debriefing
    - mentoring conversations
- rolling release of year level teaching teams for collaborative planning, assessment, moderation and data analysis
    - sharing of teachers' own expertise and effective practices
- professional learning communities of teachers
    - developing common pedagogical understandings
    - using literacy and numeracy data to inform targeted learning and teaching
    - action research using teachers' own observations of their students' learning
    - intervention strategies
- repurposing the use of staff meeting times for data analysis, sharing of effective practice and designing future teaching and learning experiences.

Another common structural feature was the practice of whole-school blocks of time for literacy and numeracy learning activities. The existence of these blocks prioritised learning in those areas by devoting a committed portion of the school day and allocating specific time for extra teaching for students with specific needs.

In a number of the schools with high gains, a literacy and numeracy coach or coordinator was appointed to support teachers, students and families. These learning leaders had overarching responsibility for the schools' improved literacy and numeracy strategies. Their role was to build teacher capacity and efficacy to lead change within their classrooms.

Several of the schools acknowledged the financial commitment necessary to enact these structural approaches for literacy and numeracy improvements, which required that these structural features align with their school strategic plans.

Developing an environment that promotes learning and wellbeing

In a number of cases, the organisational structures within the high-gains schools were designed to enable staff to know students better. These schools emphasised the role played by a focus on improving school climate and developing students' emotional resilience, with multiple teacher–student relationships, for students to feel more positive about themselves and comfortable in relating to other students and adults in the school community.

In small schools, and also in some larger schools, interviewees conveyed a sense of teachers thinking in terms of 'our students' not 'my students'. Space was given at staff meetings for conversations about individual students, with all staff keeping an eye out for students and collaboratively troubleshooting when issues arose.

School leaders perceived the importance of establishing relationships across year levels and classes, as well as participating in programs designed to monitor and support student wellbeing. Some examples of approaches, programs and tools cited by schools as influencing teachers' attention to student wellbeing included:

- positive psychology/PERMA
- restorative practices
- growth mindsets
- Program Achieve
- Flying Start
- Friendly Kids
- Kids Matter
- Trauma Sensitive Program
- Classroom climate questionnaire
- Wellbeing and engagement collection.

To ensure that students are happy at school, want to keep coming and are in a 'good head space' for learning effectively, one school leader typified the approaches, observing that 'students won't learn when they don't want to be at school'.

Setting high expectations for student achievement

The high-gains schools understood that creating a culture of high expectations for students was essential for improving student performance. These schools maintained a culture of building educational aspiration and supporting students' learning by valuing partnerships between teachers, students and parents.

Teachers continually monitored students' academic progress using formative and summative assessment data. The schools structured time for staff to meet and discuss student performance data to inform targeted curriculum planning. This practice communicated high expectations of teachers to enact high expectations for each student across a range of abilities.

There was a focus on engagement, wellbeing and academic outcomes. Some examples of how high expectations were cultivated within these high-gains schools included:

- Using available data to know the student and differentiating the curriculum, pedagogy and assessment for each student
- Meeting in professional learning teams to further collective understandings of literacy, numeracy and student wellbeing to inform targeted teaching
- Rolling release of groups of teachers for blocks of time to share work samples among the teachers, to ensure that assessments were moderated, and practices were consistent, to build and promote a culture of high expectations across the school
- Focusing on curriculum extensions to support higher level growth in very capable students, explicit teaching and 'digging deeper' for understanding
- Targeting interventions using evidenced-based programs
- Displaying explicit learning progressions (e.g., Literacy and Numeracy Continua) in classrooms to show students what performance benchmarks are and to encourage them to pursue higher levels of achievement
- Students leading conferences with teacher and parents, in which they discuss their learning and wellbeing goals
- Engaging with families in learning and wellbeing to ensure wrap around support for students, through participation at review meetings and in-class activities
- Following a common set of guidelines across a school that reward positive behaviour and having a transparent set of procedures for responding to challenging behaviours.

Effective staff collaboration

A collaborative approach to planning, designing and assessing learning was instrumental to developing a culture of improvement in these high-gains schools.

Where teachers were given time to share resources, expertise and learning, this was viewed as a critical driver of whole-school improvement. In these schools, shared planning occurred within and across stages and faculties, resulting in consistent programming and sequencing

at a school level and a common approach to teaching as students moved between years and subjects. This shared approach to teaching and planning was also evident in supporting students with additional learning needs, including those at-risk of falling behind and those excelling beyond their year level. A number of schools used education support officers as co-educators and they were involved in this planning to ensure consistent pedagogical practices for students across classrooms.

The presence of structured transition meetings, with CEO Inclusive Education team members working with teachers, were seen as a contributing factor to consistency of approach for students with disabilities and learning needs, which meant that teachers at each year level had a shared understanding of individual students' specific needs.

Schools also reported that whole-school planning days and regular staff meetings focused on professional learning were seen as effective in building a collaborative culture and creating shared goals. Schools recognised that having a whole-school focus, such as the development of literacy and numeracy skills, led to increased community cohesion, agency and strategic change. It was believed that once there were a consistent set of expectations across the school, student performance and wellbeing would improve.

There was an emphasis on staff learning and development in the high-gains schools, including promoting a culture of self-evaluations and peer evaluations to improve teaching practices. Within each school, professional learning time was allocated, which enabled teachers to learn from and with each other about a range of teaching-related topics. Although schools differed in their approach to professional learning, the goal was the same across schools—to improve quality teaching practices.

Overall, principals felt that collaboration in planning and teaching, differentiating learning, creative use of resources, space, expertise and professional inquiry had significantly contributed to improvements in student performance and wellbeing.

Data-informed teaching and learning

The schools identified by ACARA for high NAPLAN gains all ascribed some importance to the use of student assessment data to inform the planning of students' learning programs, with common practices across the whole school. Interestingly, the perceived value of NAPLAN datasets varied across schools.

Some schools undertook extensive analyses, 'pulling NAPLAN apart collectively' for areas of growth or decline, to clarify areas for improvement, in terms of gaps in knowledge and skills or to address misunderstandings. In such cases, the information was used to improve

performance, leading to interventions when required and informing teaching approaches and emphases in literacy and numeracy.

However, it seems that the delay between NAPLAN testing and the receipt of analysable assessment information influences how other schools are using NAPLAN data, as they only refer to NAPLAN superficially, to monitor trends across years and student cohorts.

The Progressive Achievement Tests (PAT) in Mathematics and Reading, provided to schools by the Catholic Education Office, were widely acknowledged by the high-gains schools as affording timely opportunities to identify trends and individual students with particular learning needs in Mathematics or Reading. PAT results were perceived as usable by all teachers to record strengths and weaknesses for classes and individual students, identifying students at higher and lower ends of understanding and focusing on areas for improvement for particular students. In one case, data were recorded in students' and teachers' programs as learning intentions. PAT data also informed practice and the composition of in-class groupings and targeted teaching groups within and across classes. In several cases, PAT data contributed to transition and handover data between year levels.

Other data sources often mentioned by schools included early assessments of literacy and numeracy in the first years of schooling, running records and classroom assessments by observation of behaviours and performance.

As with other effective contributing factors, the modes of analyses across schools seem to have most impact when whole-school approaches exist. Making sense of data seems most effective when opportunities exist for teachers to collaborate in the process, exchanging interpretations and understandings of results. In a few schools, this took the form of a leadership team or literacy and numeracy coaches, who analysed the data and shared with staff, sometimes using data walls in secure locations, to monitor performance trends for individual students and groups.

Most common was the practice of collaborative data analysis during professional learning times or learning team meetings, with a focus on particular data and 'drilling down' on data to inform teaching practices. This enabled year level teachers to share their data, identify focus areas for improvement for particular students and discuss possible actions with literacy and numeracy coaches or leadership team members.

A few schools referred to the repurposing of staff meetings to enable a greater focus on the connection between data and learning design. For example, one school held a 'data day' before the start of the school year, which was devoted to collaborative engagement with

NAPLAN and PAT data in learning teams, to inform specific emphases on in-class and individual students' learning programs. It was perceived as important that reception and junior primary teachers participated in these processes as well, to establish better whole-school understandings.

Using effective targeted teaching strategies

There were three themes that emerged regarding teaching strategies that have been key drivers of school improvement: use of data to identify and respond to students' needs; consistent approaches to teaching and learning across classes and year levels; and differentiation and intervention strategies for improved learning and self-efficacy.

Although there was wide variation in the adopted strategies across the high-gains schools, they shared the general principle of placing students at the centre of any decision-making process relating to learning and wellbeing. As such, teaching strategies were targeted according to collation and analysis of student data. To ensure consistent practice, structured opportunities were provided for collaborative planning across teaching teams. From an individual student's perspective, in knowing that different teachers utilise the same approach, this increases that student's agency as an active participant in the learning process.

There were several instances of schools adopting commercial programs to support improvement in student learning, although commercial programs were not used exclusively. These programs complemented the learning activities designed by teachers using pedagogical approaches based on using student learning and wellbeing data.

One school principal commented, 'We invest in people not programs', while acknowledging that some work was based on elements of various reading programs, selected by the teachers to address specific learning needs. Examples of programs being used in this set of schools include: Multi-Lit, Reading Recovery, Reading to Learn, Jolly Phonics, Fountas & Pinnell, Guided Reading, and QuickSmart.

Significantly, the high-gains schools have used commercial programs and other more general approaches to pedagogical improvement—such as Visible Learning, appreciative inquiry and classroom walkthroughs—to develop sets of agreed practices and consistency of language across their schools, in year levels or learning area teams.

Some of the schools with high gains in Numeracy credited part of the learning improvements to the increased language proficiency of their students, which resulted from attention to reading comprehension and providing support for students to interpret and respond to information in different formats.

For Numeracy gains, some schools cited their emphasis on numerical fluency and automaticity of simple calculations and directed instruction prior to problem solving, whereas other schools believed their inquiry-based approach was a significant factor in developing students' mathematical thinking and application capabilities. What these different schools had in common was the presence of consistent language and pedagogical approaches. Mathematics teachers also played a significant role, as they were able to tap into local issues and topics relevant to young people to design engaging, authentic learning activities.

The practice of dedicating blocks of time to literacy and numeracy across the school also cannot be underestimated in terms of prioritising literacy and numeracy as foundational to learning in other areas. A whole-school approach supported the strategic vision of improvement for the school through the allocation of financial, human and physical resources. Literacy and numeracy blocks do not achieve improvements in student learning and wellbeing simply by their existence; they must be underpinned by the presence of whole-school pedagogical and assessment strategies.

Schools used a variety of approaches to address identified gaps in students' literacy and numeracy learning, including:

- Groups, such as for reading and writing, facilitated by a literacy support teacher during the whole-school literacy block, with students across year levels, grouped according to assessed reading and writing skill levels
- Fluid in-class groupings informed by diagnostic assessments, catering for students needing extension and those requiring extra support, with targeted teaching to differentiate learning
- Differentiated teaching resources and assessments created by teachers during collaborative planning sessions
- Small withdrawal groups for intensive targeted teaching by the literacy coach.
- Structured transition meetings, in which the Inclusive Education team work with teachers at transition points.

Conclusion

The CESA schools identified by ACARA for high NAPLAN gains in Reading and Numeracy vary in terms of location, size and student demographics. Drivers of school improvement were complex and context-specific. As a consequence, the approaches taken to improving students' literacy and numeracy achievements demonstrate a range of strategies across this set of schools.

However, the predominant factors emerging from this research project are:

- Each school has implemented agreed, whole-school practices based on a common understanding of evidence-based pedagogical and assessment practices
- Leaders and teachers have a shared responsibility to improve student performance, with consistent language to create a culture of high expectations
- Collaboration opportunities exist for all teachers and education support officers, in professional learning, data analysis and the planning of learning and teaching programs
- Assessment datasets are used to inform teaching and learning programs for individuals and groups of students.

The Catholic Education Office Religious Identity Leading Learning team members express their appreciation to those schools involved in this project and trust that their generous involvement will contribute to system improvements in literacy and numeracy.

Appendix A. Basic set of questions used in semi-structured interviews

What factors would you say have contributed most to the exceptional NAPLAN gains for the 2015-2017 cohort? How are you intending to build these factors into your school's Learning Improvement Plan?
What would you prioritise next to further improve students' learning and wellbeing?
In what ways do you believe that active leadership of learning is evident at this school? How has this been influential on NAPLAN gains?
What structures or agreed practices for learning and wellbeing are in place within year level / band groupings that have had an impact on NAPLAN gains?
How many minutes per day are committed to the intentional teaching of literacy and numeracy? (What form(s) do these commitments take?)
In what ways have staff developed their pedagogical understanding and leadership in literacy and numeracy?
What are the structures for team collaboration around pedagogical inquiry? (For example, do you have professional learning communities or collaborative teams in place for planning, reflection and moderation? How do these operate?)
What specialist teachers / coaches / coordinators have you employed? What training have support officers (ESOs) been provided?
Are you using any particular pedagogical approaches and / or commercial programs? And how are they integrated in teachers' teaching repertoire?
What CESA or other projects have you engaged in that may have had an impact on the 2015-2017 cohort?
How do the teachers differentiate their teaching approaches to meet the needs of a diverse class? Do you have any targeted approaches for individuals or groups of students?
What priorities or strategies do you give to improving students' English language proficiency and comprehension? (How has this contributed to better NAPLAN results?)
How are teachers accessing and using student data to inform practice and whole school improvement? (NAPLAN, PAT, Assessments as, for, of learning, Wellbeing, Attendance, Student, teacher, parent perception data, Retention)
Are there any particular approaches to improving students' wellbeing that you have seen to be beneficial for student learning?