Report of the Evaluation of the NSW Literacy and Numeracy Action Plan 2012 - 2016

Executive Summary

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Executive Summary

1. Introduction

This report presents the findings of the evaluation of the NSW Literacy and Numeracy Action Plan (Action Plan). The Action Plan was implemented in targeted schools in NSW over the five-year period, 2012-2016, with an independent evaluation being conducted over this period. The evaluation reports on the extent to which student literacy and numeracy performance improved, factors that may have led to any improvement and the extent to which any improvement achieved was cost-effective.

The NSW Literacy and Numeracy Action Plan, 2012-2016

Through the Action Plan, the NSW Government progressively allocated $261 million to meet the needs of some 41,392 Kindergarten to Year 2 students in 448 targeted schools over the period 2012 to 2016 (see Table ES1).

The schools targeted were serving communities characterised by aggregated social disadvantage, and were among the lowest-achieving in NSW. Schools were selected by the government, Catholic and independent sectors, using an agreed methodology which included factors such as NAPLAN results, level of socio-educational advantage and school readiness for participation. They represent approximately 20 per cent of the total number of primary schools in NSW. In addition to targeted schools receiving support, the NSW Government supported The Exodus Foundation in its attempts to deliver targeted literacy interventions to students at risk over the period 2012-2014.

Table ES1: Number of schools and students targeted by the Action Plan in 2012-2016

|	Government		Catholic		Independent		Total	
	Schools	Students	Schools	Students	Schools	Students	Schools	Students
2012	59	6,708	98	7,067	15	2,007	**172**	**15,782**
2013	92	9,751	98	9,366	29	1,922	**219**	**21,039**
2014	199	17,829	109	10,834	29	1,853	**337**	**30,516**
2015	310	21,620	109	10,486	29	1,899	**448**	**34,856**
2016	310	28,527	109	10,651	29	1,930	**448**	**41,392**

Source: Sector Annual Reports 2013-2016.

Targeted schools were provided resourcing to:
- support the explicit assessment of the learning needs of students especially on entry into Kindergarten
- provide classroom-based professional development for teachers in personalised learning and diagnostic assessment
- adopt the use of a three-tiered response to interventions for those children who need special attention
- focus on whole school instructional leadership, including the appointment of Instructional Leaders, Literacy and Numeracy, within the government school system, and equivalent positions in the Catholic school sector.

The Action Plan, as represented in Figure ES1 aimed to increase the literacy and numeracy outcomes for students in the targeted schools, and to reduce the influence of socio-economic status as a key determinant of students' academic performance. This aim is in accordance with an important goal of Australian education: that educational achievement should be a function of the ability and application of the student, rather than a function of inequalities of opportunity arising from that student's background. It should be noted that Figure ES1 is a conceptual representation and is not intended to necessarily reflect a linear relationship between student outcomes and socio-educational advantage over the period of the Action Plan. Similarly, no time scales are specified within the Figure relating to the time required to be taken by schools to enhance student achievement outcomes, irrespective of their socio-educational advantage score.

Figure ES1: Conceptual representation of the goals of the Action Plan
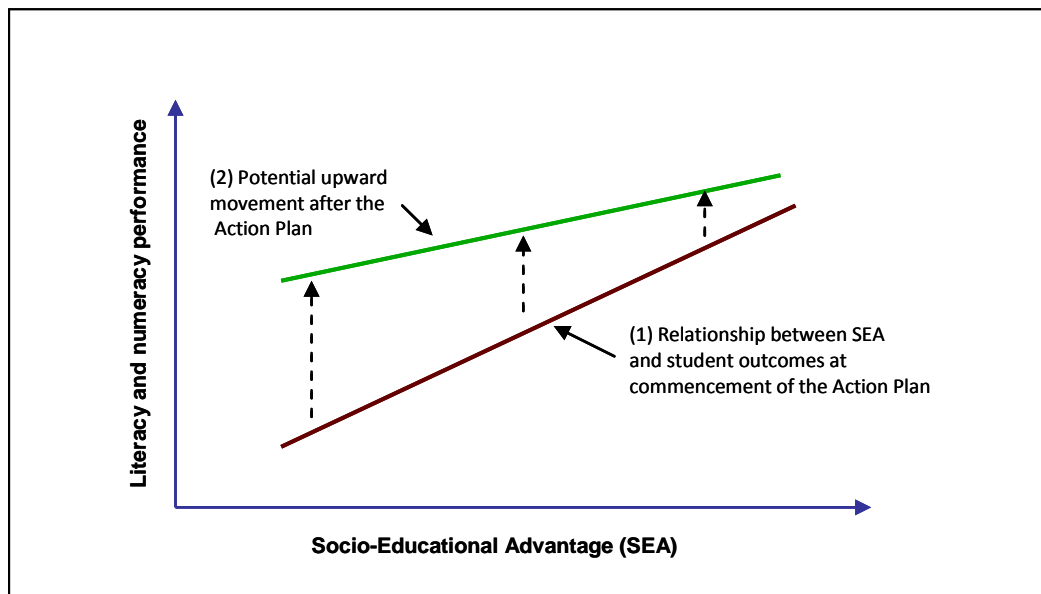
The concept of the Action Plan, as represented in Figure ES1, was to attempt to move the red line (1) closer in slope to that of the green line (2). The red line, reflecting the *status quo* before the Action Plan, is sometimes referred to as the socio-educational gradient.

2. Evaluation Design

Objective of the evaluation

The evaluation was informed by an Evaluation Plan, initially developed in 2013, and revised annually to take account of emerging issues and associated data needs. The objective of the evaluation was to provide comprehensive responses to three key questions:

1. *To what extent has student literacy and numeracy performance improved?*
2. *What specific factors led to the outcomes achieved?*
3. *To what extent were the outcomes achieved cost-effective?*

In seeking answers to these three questions, the conduct of the evaluation was guided by a series of nine contributing questions:

1. *How has the Literacy and Numeracy Action Plan been implemented?*

2. *In what ways have the sectors and schools interpreted and acted on each of the key elements of the Literacy and Numeracy Action Plan: personalised learning; diagnostic assessment; tiered interventions; instructional leadership; teacher professional learning?*

3. *What improvements in literacy and numeracy outcomes are being achieved for students in the targeted schools? How are they measured? If improvements are being made, to what extent can they be attributed to different approaches to literacy and numeracy teaching in the context of changing student and school characteristics?*

4. *What literacy and numeracy interventions have been chosen for implementation by schools? Why? Which interventions (or combinations) are effective in lifting literacy and numeracy outcomes of students? Why?*

5. *What operational arrangements and policies are being put in place to support improved student outcomes in literacy and numeracy? How effective is implementation at school/system/sector level/s, both in terms of organisational arrangements and on student performance in literacy and numeracy? What plans are in place to continue support for the improvement of literacy and numeracy outcomes at a school, sector or system level?*

6. *What are the costs associated with implementation? How cost-effective is the implementation?*

7. *What role are instructional leaders playing in all targeted schools? Is the appointment of instructional leaders an effective strategy? Why or why not? (Government schools only)*

8. *In what ways and to what extent has the capacity of teachers increased to meet the needs of low performing students? Has the quality of instruction in literacy and numeracy teaching been improved? How is this measured?*

9. *What other factors have impacted on the implementation of the Literacy and Numeracy Action Plan?*

Data gathering methods

Data gathering for the evaluation included annual document analyses of school and sectoral data, annual key stakeholder interviews with key representatives from each of the three sectors and Exodus Foundation and Macquarie University staff co-ordinating the administration of Multilit in schools. Six longitudinal case studies were visited annually from 2012 to 2016, with in-school interviews and focus groups being conducted in 66 different schools across the three sectors from 2013 to 2016. Online surveys with 1,005 responses from instructional leaders and 1,159 responses from principals were conducted. Analyses of Kindergarten to Year 2 performance data for Reading (Aspects of Text), Comprehension, Writing and Numeracy, as measured by teacher benchmarking against the NSW Literacy and Numeracy Continua were undertaken. Year 3 NAPLAN Reading, Writing and Numeracy data are also reported as a lagging indicator of student learning outcomes. In addition, 10,791 responses were received from online student attitude surveys, conducted from 2013-2016.

Limitations of sources of data

Each of the forms of data gathering used in this evaluation had potential for limitations and sources of error. The evaluation mitigated against the potential limitations by using a process of triangulation when interpreting the significance of findings from the data sources.

A number of limitations were identified in relation to the design and metrics of the Literacy and Numeracy Continua used by teachers for reporting K- 2 literacy and numeracy data. In addition,

teachers in the Catholic and Independent sectors had limited or no previous experience in using the Continua for reporting purposes. The 2015 and 2016 data may have had greater consistency and reliability, as teachers in all sectors had developed greater expertise with the use of the Continua to enable more consistent teacher judgments. Interpretation of changes over time, and differences between cohorts should be made with reference to standard statistical procedures for establishing significance, as raw results may be impacted by differences in sample size, as well as measurement error.

In relation to the principal, Instructional Leader, and student survey data, the responses were the product of self-reporting by participants. As with any survey, the basis on which respondents made their judgments may not be equivalent.

A further caveat on interpretation of survey data arose from potential differences in the cohorts of respondents each year. Cohorts of principals and instructional leaders (and students) were not equivalent each year, reflecting the additional schools joining the Action Plan in 2013, 2014 and 2015. Therefore, tabular and graphic data may reflect compositional effects as well as program effects.

The schools nominated for school site visits and for longitudinal case study visits could also potentially have given rise to skewed perceptions of what "typical" implementation of the Action Plan looks like in practice. Schools nominated by systems/sectors were broadly representative in terms of location, school size, and student composition. They were not a random sample of all schools from which statistically valid quantification of practices could be derived.

3. To what extent has there been an improvement in student learning outcomes 2012-2016?

Impact on student learning outcomes

This section of the report responds to the key contributing question *"What improvements in literacy and numeracy outcomes are being achieved for students in the targeted schools? How are they measured?"*

The data on student outcomes gathered during the course of the evaluation provided a mixed view of the impact of the Action Plan on student learning outcomes. On the one hand, the K-2 assessment data showed incontrovertibly across all three sectors that a substantially greater proportion of students involved were reaching the expected end of year standards in targeted schools in 2016 than at the commencement of the Action Plan (see Table ES2). In the government sector, where reliable data are available since 2013, the percentage of students at or above the expected end of year standard has increased in Reading by 24 percentage points in Kindergarten, 27 percentage points in Year 1 and 20 percentage points at Year 2 level between 2013 and 2016. A similar rate of improvement was observed in the non-government sector. While these results are encouraging, the data was not able to be compared against data from non-Action Plan schools.

Likewise, the observations of principals and instructional leaders reflected their beliefs that the Action Plan has contributed to growth in students' engagement in learning, enjoyment of learning and positive attitudes towards literacy and numeracy. The vast majority of principals also reported that they have observed measured growth in students' literacy (94% great or moderate improvement) and numeracy (87% great or moderate improvement), basing these observations not only on the K-2 Continua data but also against a range of standardised tests and school based assessments. The great majority (94%) of instructional leaders also believed the Action Plan had brought about positive changes in K-2 literacy and numeracy teaching and learning in their school in 2016.

The importance of the increase in student engagement should not be under-estimated as a precursor for later improvement in learning outcomes. Indeed, as several recent Australian Council for Educational Research (ACER 2016) reports illustrate, poor student engagement appears to be a significant factor contributing to the declining performance of Australian students in international assessment programs. Student engagement has improved in many Action Plan schools because of the more appropriate learning tasks that are now provided to individual students that has resulted from the professional learning provided by instructional leaders. Engagement has also improved in many instances because of the stronger emphasis on scaffolding learning so that students better understand the purpose of their learning and the specific reasons why they are undertaking particular activities. It has also improved as a function of the closer support given to students by more appropriate deployment of paraprofessional staff and other learning support teachers.

Table ES2: Change in the percentage of students at or above Continua standards 2014-2016

	Reading (Texts)			Writing			Numeracy		
	K	Yr 1	Yr2	K	Yr 1	Yr2	K	Yr 1	Yr2
Change between 2014-2016 (percentage point difference)									
Government	+4	+15	+10	+9	+15	+11	+1	+4	+5
Catholic	+13	+13	+7	+5	+7	-1	+4	+5	+10
Independent	+17	+17	+14	-1	+3	+4	0	+7	+9
Per cent of students at or above end of year standard in 2016									
Government	68	71	68	63	46	35	97	90	88
Catholic	76	74	68	64	48	36	98	89	85
Independent	53	53	56	58	37	31	99	97	94

In contrast to the results from the Literacy and Numeracy Continua, the Year 3 NAPLAN results (see Table ES3), as a lagging indicator of student outcomes, showed no significant change over time for the full cohort of participating schools, and no significant closing of the gap between targeted and non-targeted schools.

Table ES3:   Summary of Year 3 NAPLAN Mean scale score results, LNAP schools vs Rest of State, 2012-2016*

	Reading		Writing		Numeracy	
	LNAP	Rest of NSW	LNAP	Rest of NSW	LNAP	Rest of NSW
2012	391	429	401	427	370	408
2013	388	428	395	425	369	407
2014	381	428	376	413	370	412
2015	385	438	391	429	363	409
2016	385	436	398	428	366	413

*   This Table shows the *status* of the LNAP population in terms of NAPLAN achievement 2012-2016. Data shown is the mean score for the cohort of students present in the schools in the LNAP population each year. The number of schools and students is not the same each year. Students in the LNAP sample will therefore have been exposed to different lengths of exposure to the Action Plan

To investigate further whether the Action Plan had a measurable impact on student NAPLAN outcomes, the Centre for Education Statistics and Evaluation (CESE) conducted two analyses using multilevel mixed-effects regression models. The first of these models investigated whether the 2016 Year 3 NAPLAN outcomes for students at Action Plan schools were different from the outcomes for students at non-Action Plan schools after several important differences between the two groups had

been taken into account. The results showed that once the pre-existing differences had been taken into account, the outcomes for the students at the Action Plan schools were approximately the same as those for the students at the non-Action Plan schools. These results were observed for both reading and numeracy outcomes and are consistent with the Action Plan having no measurable impact on student NAPLAN outcomes.

The second model investigated whether the performance gap in NAPLAN achievement between Action Plan and non-Action Plan schools was smaller in 2016 than in 2014. While the results showed that the performance gap had closed somewhat in 2016, the difference was quite small and was not statistically significant. These results were observed for both Year 3 NAPLAN reading and numeracy.

The Year 3 NAPLAN results were by no means a perfect reflection of the Action Plan's impact, and it must be remembered that more than one-third of the targeted schools in 2016 did not commence until 2015, and therefore had only limited exposure to the Action Plan. However, the multilevel mixed-effects model showed no significant differences between the 2016 outcomes for students at schools that started the Action Plan in 2012/13 and the outcomes for student at non-LNAP schools once the pre-existing differences between the two groups had been taken into account. This suggests that the Year 3 literacy and numeracy outcomes for the schools that were in the Action Plan the longest were approximately the same as those for the schools that had never been in the Action Plan, all else being equal. Similar findings were observed for the schools that started the Action Plan in 2014 or 2015, suggesting that length of exposure to the Action Plan was not a contributing factor to the null findings.

The apparent disparity between the improving K-2 results and the static NAPLAN results requires further consideration in the implementation of the *Literacy and Numeracy Strategy, 2017 – 2020*.

Schools visited during the evaluation posited several explanations as to why their NAPLAN results had not improved in line with their K-2 results. Some attribute it to a high degree of student anxiety about the NAPLAN tests themselves, unfamiliarity with the test genre, and changes in the school demographic composition. None of these factors would appear to be an adequate explanation at a cohort level.

One possible explanation is that NAPLAN and the Continua measure different concepts in different ways, particularly in relation to Numeracy. The Numeracy strand reflecting Place Value of the Numeracy Continuum may be more closely aligned to the demands of the Year 3 NAPLAN test than the Early Arithmetic Strategies strand that was used as the measure of Numeracy performance in Action Plan (2012-2016).

The more likely explanation is contained in deeper analyses of the Continua results thus far. In 2016 there was still more than one third of the student cohort behind the Reading (Aspects of text) Year 2 end of year standard, nearly 40 per cent below the Reading Comprehension standard, and two-thirds of the cohort not achieving the Year 2 Writing standard. While a significant number of students in targeted schools have improved in literacy and numeracy across K-2, there is still a significant number who are "below average" in K-2, and who remain below average in terms of Year NAPLAN results. The proportion of students who were more than one cluster behind the expected standard has decreased. For example, 26% of Kindergarten students in government schools were at risk in 2013, reduced to 11% in 2016. At Year 2 level in 2013, 52% of students were more than one cluster behind expectations, and this was reduced to 17% in 2016. This suggests that that more students are acquiring the basic skills of phonics and phonemic awareness than in previous years. However, there has not been a corresponding sustained increase in the percentage of students rated as above expectations in the same time period.

Examination of what those achieving below expectations cannot do suggests that it was the more difficult skills, requiring application of contextual knowledge, inference, and critical and analytical skills that they had not yet acquired. The same issue is seen when examining the change in distribution of students NAPLAN scores over time. There has been a tendency, although not statistically significant, for fewer students in targeted schools to score in the very bottom percentile bands of NAPLAN in targeted schools, but at the same time, there has been a decrease in the percentage of students scoring in the top three percentile bands. This trend is particularly evident in relation to Writing and Numeracy, and is easily overlooked if only mean scores are considered.

It is also possible that two other factors have impacted on the results. First, while teachers believe they were differentiating instruction for all their students, in reality they may be focussing more of their attention and resources on students at the lowest performance levels. Second, because there tended to be few students at the higher end of the performance spectrum in targeted schools, teacher expectations of what "strong" performance looks like may in fact have been lower than that accepted as "normal" in more advantaged areas. In either case, continuance of the status quo will not be likely to lead to vastly improved student learning outcomes. There needs to be a conscious effort and an explicit focus on the development of the kinds of higher-order skills not currently exhibited by significant numbers of students in the targeted schools, as well as a continuing effort to build the basic foundational skills represented in the early clusters of the learning Continua.

The definition and measurement of socio-economic status, and indeed, socio-educational advantage and disadvantage are open to debate. In fact, different models are used within the NSW education systems and sectors to operationalise the concept as well by various researchers. This evaluation had available to it, three different indicators commonly used as proxy measures of socio-economic status: parent occupation, parent education, and a measure of school-level SES based on community characteristics (Index of Community Socio-Educational Advantage or ICSEA).

Regardless of which indicator is used, a clear relationship between socio-economic status and Year 3 NAPLAN performance exists, both across NSW as a whole and within Action Plan schools. The Action Plan has not yet had sufficient time to impact on NAPLAN results as it has taken some time for the intervention model to become embedded. More than half of the cohort have only had one year of exposure to the enhanced pedagogy made possible by the Action Plan. As an illustration of this point, Figure ES2 compares the relationship between Year 3 NAPLAN results and school ICSEA scores, Students from schools in the lowest ICSEA national quartile perform significantly lower than those in the highest ICSEA quartile. The same pattern is seen no matter what measures of socio-economic status are considered, at either school or student level.

Figure ES2: Relationship between school ICSEA scores and NAPLAN outcomes, 2016*
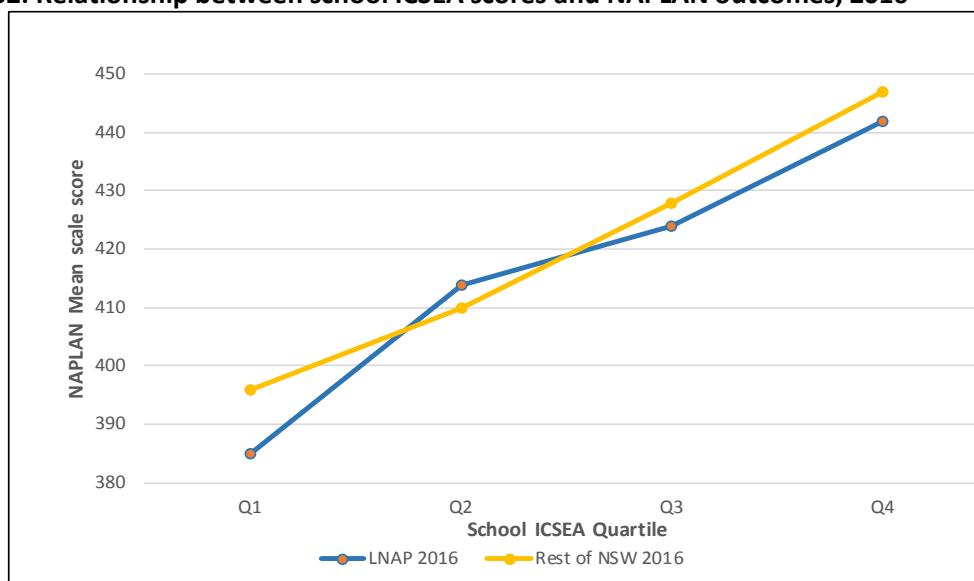
The performance of the students in the very bottom ICSEA quartile in Action Plan schools improved in Reading on average by 19 scale points between 2012 and 2016, compared to an 8-point improvement by the same cohort in non-targeted schools. The results for students in the highest ICSEA quartiles in Action Plan schools were better on average than those for students in the lowest quartiles in non-targeted schools, indicating that the effects of SES are pervasive across NSW and remain a significant contributor to students' NAPLAN performance.

The same patterns were also evident in relation to Year 3 NAPLAN Writing and Numeracy. The aim of the Action Plan, to flatten the socio-educational gradient reflected in Figure ES1, will take time to be realised. The continuing strong relationship between school average socio-economic status and student outcomes, and the strong additional effects of concentrations of disadvantage suggests that the initial targeting of schools for participation in the Action Plan was appropriate and addressed an area of genuine need. It also shows that continuing effort and investment are necessary in not only more effectively providing students with the opportunities to acquire literacy and numeracy skills, but also to address issues of attitudes towards learning, motivation and expectations that are associated with higher achievement. This is a continuing challenge that concerns all schools, not only those targeted by the Action Plan to date.

4. What specific factors led to the outcomes achieved?

Implementation of the NSW Literacy and Numeracy Action Plan 2012-2016

This section addressed the key research question "How has the Literacy and Numeracy Action Plan been implemented?" In considering the answers to this question, it should be noted that over the period of the Action Plan 2012-2016, a number of initiatives designed to enhance literacy and numeracy have been implemented at system/sector and local levels, in non-targeted schools. Some of these initiatives have themselves been inspired by the perceived impact of the Action Plan in targeted schools. This situation further complicates interpretation of improvements in teaching and learning in targeted schools.

Implementation of the Action Plan over the period 2012-2016 in targeted schools was guided by sectoral advice regarding focus areas and priorities of the Action Plan. Sectoral support was a critical

ingredient in facilitating the implementation of the Action Plan in participating schools. Each sector approached the task in a way that reflected its own context, resources and background experiences.

How sectors have supported the implementation of the Action Plan

Sectoral authorities have different characteristics and contexts, with each having played a critical role in supporting the Action Plan. Sectors have had an important role to play in providing professional learning support for school staff and instructional leaders. They also have established accountability processes to monitor the achievement of targeted schools and provide ongoing feedback and advice. The various sectoral authorities have also supported the targeted schools financially, and have an ongoing role in relation to the support of intervention programs and personnel. A number of schools visited posited that high turnover rates of teachers and school leaders in targeted schools contributed to the results achieved from the Action Plan. Sectoral authorities have a critical role to play in addressing the factors that contribute to rates of high turnover of teachers and school leaders in targeted schools.

The Government Sector

The *Early Action for Success* strategy was the means by which the Action Plan was implemented in the government school sector. Within this strategy, the appointment of an Instructional Leader to targeted schools (or small cluster of schools) was a key element.

The nature and extent of support provided by the government sector over the course of the Action Plan 2012-2016 was shaped by both wider government and departmental reforms including *Local Schools, Local Decisions,* and departmental restructuring.

The Department of Education established a small management team operating from State Office in mid-2013 to provide overall coordination of the Early Action for Success program and support for participating schools. Principals and Instructional Leaders, in both survey responses and interviews, identified the professional learning provided by this team, through face to face visits, regional and state workshops, regular webinars, and phone calls and emails to individuals, with making a major contribution to building the capacity of Instructional Leaders and school executive over the course of the Action Plan.

The role of the State Office team in placing strong demands for accountability on schools for students' literacy and numeracy results was a key ingredient in the implementation of the government sector model, providing the mixture of pressure and support, which is seen in the research literature to be critical for achieving lasting school improvement. The use of the Literacy and Numeracy Continua as the vehicle for accountability had an even more beneficial effect on ensuring that schools developed a stronger understanding of the data analysis process and strengthened schools' use of evidence-based planning and programming. The Department's PLAN software greatly facilitated the sector's ability to provide five weekly specific feedback, targeted to address student growth including those students who required specialist assistance.

In addition to the small team of expert personnel in State Office, across the state, thirteen literacy and numeracy trainers, regularly provided Early Action for Success schools with on-going access to departmental K-2 intervention initiatives including Targeted Early Numeracy (TEN) and Language, Learning and Literacy (L3).

The Catholic sector

Over the period of implementation of the Action Plan, the nature and intensity of support intensified in all participating Dioceses. The decision was made by several diocesan leaders that all schools within

their Diocese, rather than just the Action Plan schools, would begin to follow the key principles underpinning the Action Plan for teaching literacy and numeracy. In 2016 the pervasive impact of this decision became evident in more extensive use of the Literacy and Numeracy Continua not just by targeted schools but by the majority of schools within particular Dioceses.

The diocesan consultants supported schools in a wide range of ways, including:

- at the elbow support of classroom teachers,
- development of case management approaches (and similar high yield strategies) to address student learning needs,
- diocesan developed provision of a wide range of targeted resources and tools (e.g., Writing) designed to assist teachers in their pedagogy in identifying students' needs and providing appropriate ideas to address those needs,
- provision by diocesan staff of targeted professional learning experiences for instructional leaders as well as classroom teachers in areas of identified need.

The Independent sector

The approach adopted by the Association of Independent Schools evolved from their initial emphasis on *Principals as Literacy Leaders* (PALL) in 2012, to a broader-based effort focussed on Action Plan priorities in both literacy and numeracy. In 2016, schools received ongoing support from AIS consultants providing professional learning opportunities for teachers to analyse data and information from diagnostic school-based assessments designed to track student progress. This was supplemented by a range of activities designed to enhance the reliability of teacher judgments in making use of the Literacy and Numeracy Continua.

Changes in teaching and learning of literacy and numeracy resulting from the Action Plan

The data collected in 2016, clearly demonstrated the many changes in the approach towards teaching and learning of literacy and numeracy that occurred in targeted schools. Instructional leaders reported that in 2016 teachers' participation in the Action Plan has resulted in a very positive change (over 95 per cent of schools, based on "great extent") in their approach towards teaching literacy and numeracy in the early years. This change focused, in particular, on teachers' more systematic use of data for tailoring teaching and learning opportunities for students. In the vast majority of schools, teachers' classroom pedagogy was clearly challenged in a range of ways, from how they used data to their overall organisation of students in the classroom to tailor the teaching and learning process, according to student needs.

Over time, principals in more than 70 per cent of schools have broadened the focus of the Action Plan from K-2 to K-6. Practices encouraged in schools included "learning walks", classroom observations and lesson study. As a consequence of the perceived success of the Action Plan approach, in 2016, it was also increasingly common for principals in larger government schools to use part of their own Resource Allocation Model (RAM) funds to employ an executive, similar to their existing Instructional Leader to ensure continuity of the changes happening in K-2 to Years 3-6.

Changes in principal practices in implementing the Action Plan

As principals' understanding of the purpose of the Action Plan developed, their leadership has become increasingly underpinned by an emerging set of values. A sense of "moral imperative" pervaded the leadership approach adopted by principals in many schools across the three sectors. This leadership style was characterised by what some principals referred to as a "no excuses policy" regarding learning

for all students. Such a statement reflected the belief that, irrespective of the students' background and learning challenges, they not only had the *right to learn* but it was also the school's responsibility to ensure that every student had the *opportunity to learn*.

In the schools visited, principals understood that building high expectations for student learning involved more than setting higher targets for achievement or exhorting teachers and students to work harder. It was a matter of changing both mindsets and ways of working and an agreed understanding about the expectations for student learning.

Table ES4 highlights some of the ways in which principal leadership behaviour was enhanced as a consequence of the Action Plan.

Table ES4: Impact on principal leadership as a result of participation in the Action Plan

	2013 Baseline (%)	End 2013 (%)	End 2014 (%)	End 2015 (%)	End 2016 (%)
More collaborative in decision making	51	62	59	65	70
Adopted a whole school approach	60	72	59	81	80
Developed greater understanding of the uses for Literacy and Numeracy data	65	83	81	86	85
Developed more specific targets and goals	69	71	70	75	73
Built a stronger culture of evidence-based decision making	75	83	79	88	87
Increased leadership empowerment	66	79	67	63	66
N=	**83**	**117**	**212**	**224**	**420**

Not only have principals had the opportunity to directly impact on the implementation of the Action Plan through their leadership, they also benefited directly from their participation in the Action Plan.

Changing use of paraprofessionals

The "look" and "feel" of classrooms in Action Plan schools in 2016 was typically very different from that initially observed in 2013. Planning and reorganisation of classrooms and the use of resources were seen to be more appropriate for addressing individual student learning needs. A key aspect of the reorganisation of the learning context for teachers has been the way that they have made use of additional adults in the classroom, including paraprofessionals, support teachers and parents trained for the task. During literacy and numeracy blocks paraprofessionals played a key role in assisting students' learning, in both small group and individual locations within the classroom while the classroom teacher engaged in more intensive instruction with those requiring the greatest assistance. The impact of the paraprofessionals' role was also recognised by principals in many participating government schools, who had made use of both the Innovation Grant and their own Resource Allocation Model (RAM) funds to increase the number of paraprofessionals assisting teachers in classrooms.

The contribution of target setting for literacy and numeracy

The frequency with which principals set specific targets in implementing the Action Plan increased by 24 percentage points during the implementation of the Action Plan, from around 67 per cent in 2013 to around 91 per cent in 2016. Furthermore, the consistently high percentage of schools setting specific targets over the last two years of the Action Plan also reflected their commitment to improving

literacy and numeracy and being prepared to have progress in implementing the Action Plan directly measured.

Increased teacher collaborative planning

Since commencing implementation of the Action Plan, many principals and instructional leaders worked to build and nurture a culture of trust and mutual respect among the teaching staff within the school. Whether this transition took the form of "instructional walks" or "one-off lesson observations" with a specific purpose, the consequence of increasing the transparency of teaching has been a significant contributor to the openness and collaboration that was evident in 2016 among many teaching groups in participating schools.

Key Elements of the NSW Literacy and Numeracy Action Plan

Section 4 addresses the key evaluation question: In what ways have the sectors and schools interpreted and acted on each of the key elements of the Literacy and Numeracy Action Plan: personalised learning; diagnostic assessment; tiered interventions; instructional leadership; teacher professional learning?

Use of diagnostic assessment

Prior to the commencement of the Action Plan, there was no systemic measurement tool in common use in K-2 classrooms across New South Wales. Through the Action Plan, targeted schools have been required to use the Literacy and Numeracy Continua to both monitor and report on student achievement, and as a key tool in diagnosing student progress. Teachers' use of student data represents a significant change in their practice since the commencement of the Action Plan. Table ES5 highlights the increasing frequency with which principals perceived that teachers were using data for tailoring teaching more directly to student needs.

Table ES5: Principals' perceptions of how data are used by K-2 teachers (great extent) 2013-2016, all sectors

	2013 Baseline	2013 (%)	2014 (%)	2015 (%)	2016 (%)
Use of data for tailoring teaching and learning for individual students	65	75	78	80	82
Identifying students at risk	70	78	82	80	81
Informing planning and programming	62	64	70	76	83
N=	84	114	208	188	346

Towards the end of 2013 and in 2014, teachers' familiarity with the process of moderated judgments about the extent to which student work samples matched the Continua cluster standards had improved. Increasingly, the school-based professional learning provided by instructional leaders began to focus on the development of teachers' capacity to more accurately identify students' specific learning needs. The Continua and accompanying data walls provided a vehicle for staff in many schools to contribute collaboratively to conversations about students' learning needs in literacy and numeracy. These developments represent a fundamental shift in teacher practice and a major achievement of the Action Plan.

Across all sectors, the use of standardised tests and other classroom based assessments have continued to be used as a means of further informing teacher judgments and providing diagnostic information. In 2016 there was abundant evidence in both the government and Catholic sectors of the use of student data, essentially derived from the Continua, for appropriately planning student learning

needs based on what appears to be systematic collection and comprehensive analysis of student data. The variations in practice observed in 2016 school visits demonstrated that not all teachers and schools were as yet capable of the same depth of analysis. This was both a function of experience and training. This is an area that will need to be further addressed in future. Cultural change in the use and analysis of data on such a wide scale must be deliberately planned and supported. The Action Plan has demonstrated that such change is possible and that enhanced instructional leadership is a vital component of this process.

Evidence based decision making

No discussion of the teacher use of diagnostic data is complete without referring to the growing use of evidence as a source of informed decisions by both leaders and teachers. One of the most important learnings by school leaders and teachers during the Action Plan was that the term "evidence-based", when applied to their own practice, referred principally to the evidence that they collected and used in relation to the impact of their activities. In the past, many principals and teachers believed that particular programs or approaches were "evidence-based" because they had been recommended or advocated for by particular "experts" or researchers.

The steady growth of an evidence-based approach is evident over the past five years from the responses provided by instructional leaders (or their equivalents), relating to the extent to which instructional leaders built a stronger culture of evidence-based decision making as part of teachers' pedagogy. There was evidence that the principal and the leadership team were increasingly employing evidence-based strategies in making whole school decisions about school priorities and the most effective strategies for achieving them. In fact, the growing use of evidence by teachers to inform decision-making about teaching, has been a key outcome of the implementation of the Action Plan.

Implementation of personalised learning (and differentiated teaching)

As shown in Table ES6, teachers' understanding of the importance of targeted teaching and differentiating lessons to cater for the varied needs of students in their classes increased considerably during the Action Plan. This has been an outcome of the explicit focus of professional learning provided by instructional leaders. Providing differentiated teaching and learning was perceived to occur in 99 per cent of schools in 2016, compared to only 62 per cent of schools in 2013, an increase of 37 percentage points.

Table ES6: Extent to which principals believe K-2 teachers are demonstrating application of the following strategies since commencement of the Action Plan, 2013-2016 (great extent and some extent combined)

	2013 (%)	2014 (%)	2015 (%)	2016 (%)
Providing differentiated teaching and learning	62	67	93	99
Hands-on learning activities	59	71	95	95
Encouraging student ownership of their work	43	56	91	95
Teaching explicitly and systematically	70	80	98	99
More appropriate use of other specialist staff and services	50	46	88	91
N=	114	214	188	346

These developments in teacher pedagogy occurred as a direct result of greater recognition of the need for teachers to more effectively address students' diverse learning needs, if results were to improve. The role of the Instructional Leader or equivalent has been pivotal in supporting staff to organise classrooms in a manner that facilitates the differentiation of their teaching to maximise learning opportunities for all students in the classroom.

The link with explicit teaching

The Action Plan has facilitated greater uptake of the concepts of differentiated teaching and personalised learning. The evaluation found that important aspects of a more explicit approach to teaching literacy and numeracy were being adopted in 2016 by an increasing majority of teachers in schools across the three sectors. Explicit teaching requires every lesson to have a clear goal that is understood by both teacher and students. More frequent opportunities were being provided for students to practise key concepts or skills and to receive direct feedback on their results towards the incremental achievement of their goals. Teachers consistently reported that this approach is having a positive impact on student engagement during learning. In 2015 and 2016, classroom observations provided examples of students using language that demonstrated their experience of personalised learning in a wide range of settings at all grade levels. In relation to literacy and numeracy, it was increasingly common for teachers to specifically articulate the "learning intention" of a particular lesson, or series of lessons, and to ensure that the students also understood the criteria by which they could measure their mastery of the key concepts or skills involved. Increasingly in 2016, technology in the form of iPads were providing a useful vehicle for students to capture not only their learning goal but evidence that the goal was progressively being achieved.

Effectiveness of implementation of tiered interventions

The evaluation investigated the processes that schools used to implement intervention programs for students. The evaluation was not designed to investigate the effectiveness of particular intervention programs. A key priority of the Action Plan was for schools to more effectively implement the *Response to Intervention* model (RTI) as the framework for conceptualising and organising school's provision of learning opportunities in a more systematic way. Throughout the period of the implementation of the Action Plan, the implementation of tiered interventions has grown in momentum as the focus on the importance of differentiated teaching and personalised learning has similarly grown. The adoption of a tiered approach to interventions has become a fundamental strategy in targeted schools, directly influencing student outcomes in both literacy and numeracy.

In 2016 the delivery of Tier 1 lessons most commonly involved whole class, small group or individual activities, depending on the nature of the lesson and the timing of the lesson, but generally occurring simultaneously within a block period of about one and a half hours. Tier 1 teaching was regarded as having more clearly identified learning intentions, to be appropriately assessed, and more varied in the activities undertaken. This development has continued to occur as teachers' capacity has increased over the period of their participation in the Action Plan. Table ES7 highlights most common modes of delivery that were being employed for Tier 1 delivery in 2016.

Table ES7: **Frequency of mode of delivery employed for the implementation of Tier 1 interventions across participating schools in the three sectors (drawn from case study discussions and survey responses, 2016)**

Mode of delivery	Number of responses		
	Government schools	Catholic schools	Independent schools
Whole class, team teaching, small groups	35	39	3
Whole class, small groups	29	29	6
Whole class	26	14	8
Whole class, team teaching	22	31	6
Intervention teacher working across all groups	14	1	0

Tier 2 interventions were most commonly implemented by the class teacher in combination with the Intervention teacher in government schools (funded by the Action Plan), or a range of other specialist and support teachers, paraprofessionals and parent trained for the purpose. The situation is similar in the Catholic sector. The resources employed to deliver Tier 2 are detailed in Table ES8.

In 2016 Tier 3 intervention support continued in a generally similar manner to 2015 for students experiencing severe learning difficulties and requiring one-on-one assistance. However, in 2016 the nature of the delivery of this support varied in accordance with expertise residing in the school as well as the available resources to be tapped. Most commonly, Tier 3 intervention support occurred outside the conventional classroom and was delivered by a specialist teacher on a regular and consistent basis generally over a limited period before re-assessment of student need occurred. Specialists included Interventionists (in the government sector), SLSOs, support teachers, Reading Recovery teachers, speech therapists and occupational therapists. The relevant programs for these students were negotiated by the classroom teachers with the direct assistance of the relevant specialist.

Table ES8: **Frequency of reported use of Tier 2 interventions across participating schools in the three sectors (drawn from survey responses and confirmed by case study discussions), 2016**

Program/resource	Number of responses
	Schools across the three sectors
School developed response	246
TEN (Numeracy)	242
L3, L2	202
Reading Recovery	146
MultiLit	98
MiniLit, PreLit	67
Number of responding schools	**309**

*Other programs used by individual schools include Write On, Spelling Mastery, Reading Naturally Fluency, Number Worlds, Maths Blast, Reading Tutor program.

As with Tier 2 interventions, the most common form of Tier 3 interventions was a school developed approach, commonly combined with additional intervention programs such as MiniLit, Reading Recovery, speech therapy or occupational therapy.

Even though the language of tiered interventions became integral to the pedagogy of classroom teachers in targeted schools, there can be no guarantee that this will result in enhanced student learning outcomes in both literacy and numeracy. However, as many principals and teachers have attested, the application of a tiered intervention approach to teaching has ensured that teachers were more consistently addressing the learning needs of students in both literacy and numeracy in a way that was uncommon prior to the targeted schools' participation in the Action Plan.

While such a targeted approach to addressing students' needs cannot ensure enhanced learning, the potential for improved outcomes is certainly enhanced. Given the importance of sectoral support for schools' choice of specific intervention programs, there is a need for schools and sectors to ensure that the effectiveness of such intervention programs has been independently evaluated and have proven effectiveness in NSW school settings. It is also important that school choice of supported programs is based on the best available evidence.

The role of the Instructional Leader in targeted schools

Enhancing instructional leadership was a key strategy through which the Action Plan sought to improve the quality of teaching and learning, and ultimately to impact on student learning outcomes. While each sector took a different approach as to how they enhanced instructional leadership, the evaluation found that overall, the various approaches had contributed to improvements in teachers' pedagogical capacity. As discussed below, the scope and scale of change observed in teaching and learning, as well as school management, would not have occurred without this investment in enhanced instructional leadership. While the principle of enhanced instructional leadership has demonstrated continuing relevance, the quality of the leadership provided and the identified personnel themselves (in terms of their expert knowledge and interpersonal capacity) remain a crucial determinant of the extent to which successful outcomes will be achieved.

Role of the Instructional Leader in the implementation of the Action Plan

In the government sector, Instructional Leaders were generally appointed at deputy principal level, with major responsibilities to build confidence and competence of classroom teachers in teaching literacy and numeracy ultimately to enhance student learning outcomes. To ensure their focus on this task, they were relieved of other operational responsibilities normally expected of other senior executive in the school.

Within the Catholic sector the initial approach involved appointment of classroom teachers identified as having particular expertise or experience in Literacy or Numeracy to work with teachers in classrooms to model and provide feedback on aspects of teachers' classroom practices that would ultimately improve learning outcomes. These appointments were typically made from within the schools' existing staff. Such teachers were most commonly referred to initially as facilitators or coordinators by their Diocese and in-school colleagues. The initial emphasis on provision of additional intervention support by "instructional leader equivalent" positions changed over time to include a greater level of responsibility for providing professional learning to other teachers.

In the independent sector, the in-school role was initially undertaken through the funded *Principals as Literacy Leaders* (PALL) initiative, supplemented by the targeted support provided by consultants in literacy and numeracy from the AIS. When this initiative concluded, principals, or their delegate (most commonly senior school executive) adopted the in-school role of mentor or coach. The ongoing targeted assistance of consultants from the AIS continued throughout the implementation of the Action Plan and remained a pillar of support for participating schools.

Irrespective of the specific organisational structure or appointment process for the instructional leader, the quality of relationship established between the instructional leader and the principal, and with classroom teachers, was a key ingredient in facilitating uptake of enhanced teaching and learning practices. Considerable time was required to establish these relationships in many schools. The responsibilities of instructional leaders have evolved over time and are shown in Table ES9.

Table ES9: Major responsibilities of Instructional Leaders, Government and Catholic schools, 2013-16

	2013 (%)	2014 (%)	2015 (%)	2016 (%)
Leading all aspects of Action Plan	66	75	81	79
Provide/facilitate staff professional learning	86	93	83	86
Build an evidence based culture within the school	78	87	82	86
Challenge and refined existing classroom pedagogy	91	89	87	89
Monitor and report on student progress in K-2 Literacy/Numeracy	91	94	87	90
Contribute to the development of plans in both Literacy and Numeracy that focus on student performance	51	62	46	82
Facilitate/share effective practice in Literacy and Numeracy	90	92	84	87
Mentor and coach staff	82	87	93	91
N=	82	202	283	304

Contribution of different models of instructional leadership to Action Plan implementation

Over the past two years of the implementation of the Action Plan, data was specifically sought in relation to the model(s) of instructional leadership being employed in schools. The choice of the model of instructional leadership employed in schools was influenced by a variety of factors including the following:

- the particular perspective of instructional leadership held by the local school principal
- the identified roles and responsibilities of the Instructional Leader
- decisions concerning the most efficient way to use the available resources to maximise the impact of the role of Instructional Leader on one school site or several school sites
- school enrolment
- the geographic location of the school
- skill set of the instructional leaders.

While a variety of models of deployment of instructional leaders was initially adopted in the government sector, a clear preference emerged for appointment of a single Instructional Leader to individual schools, although it is acknowledged that this was not always possible for small schools. Not only did this model enable a deeper and more consistent engagement over time between Instructional Leader and teacher, but more importantly, allowed trusting professional relationships to be established and nurtured, enabling the teacher to have added confidence to adopt the range of different reforms of advice being provided by the Instructional Leader. Continuous employment of a dedicated instructional leader also assisted maintenance of the momentum of change over time. Principals in schools visited for the evaluation suggested that three key determinants ultimately influenced the success of the Instructional Leader:

- general experience in schools with a particular focus on leadership
- deep understanding of classroom pedagogy and whole school cultural change and
- the ability to build trusting reciprocal relationships with colleagues.

The evidence continued to be clear that it was this latter set of factors that had the most positive potential impact on teacher capacity building and ultimately student learning outcomes, rather than the model by which the instructional leaders were employed.

Impact of instructional leaders

Irrespective of the model employed, the Instructional Leader in schools played a direct role in impacting on the teaching/learning process during the implementation of the Action Plan. The positive working relationship between instructional leaders and principals, has been singularly powerful in driving the cultural change process in schools, where leadership roles were most commonly complementary, yet still designed to achieve the common goal of enhanced instructional leadership in the school. After five years of participation, in the vast majority of schools, both principals and instructional leaders believed that the impact has built momentum and culminated not only in changed teacher practice but also impacted on student learning outcomes, especially in K-2.

Table ES10 highlights the range of impacts on teachers that have occurred due to the actions of instructional leaders since 2013.

Table ES10: Extent to which instructional leaders believe they have assisted teachers to undertake the following activities 2013-2016 (Great extent only)

	2013 (%)	2014 (%)	2015 (%)	2016 (%)
Use data for tailoring learning experiences for individual students	65	76	78	79
Use data for tailoring learning experiences for whole class programming and planning	62	64	71	75
Provide opportunities for sharing of ideas with other teachers	53	60	66	69
Undertake peer observation and reflection	31	28	32	42
Engage parents in the learning process	5	6	8	14
Personalise learning for individual students	64	64	69	65
Identify interventions for teacher to implement	51	62	95	66
N=	**101**	**195**	**274**	**306**

Principals in the vast majority of targeted schools believed that the appointment of instructional leader and equivalent positions had been effective in building teacher capacity, challenging existing teachers' pedagogy and facilitating staff to make the transition towards evidence-based decision-making in their planning and practice.

Was the appointment of instructional leaders an effective strategy?

The evidence suggests that the Action Plan's focus on enhancing instructional leadership was appropriate, and that the appointment of instructional leaders was an effective strategy in facilitating the implementation of the Action Plan's priorities. While the effectiveness of individual instructional leaders may have varied, the importance of system/sector support to ensure ongoing quality of delivery is paramount. The fact that in 2016 government schools continued to use their RAM to appoint internally their own Instructional Leader for Years 3 to 6 reinforced the importance and influence of this role in the early years of schooling and the motivation of many government school principals to extend their positive influence into the primary school years.

Instructional leaders have driven the uptake of the processes by which the regular analysis of individual student achievement can be monitored, resulting in ongoing changes by teachers in focus and direction. The personal style or manner adopted by Instructional Leaders is an important determinant of their success. Instructional Leaders need to clearly understand their role as a change

agent, not just as an expert teacher of literacy and numeracy. They need to be strongly supported by their principal and system/sectors as a valued and legitimate resource in the school.

Instructional Leaders have also been pivotal in the provision of targeted professional learning opportunities for both school executive and classroom teachers through a wide range of approaches including peer observation, structured feedback on lesson observation one-on-one mentoring and coaching in specific aspects of pedagogy including the use of data for planning targeted learning experiences for students. They need, therefore, to have in-depth theoretical knowledge of the pedagogical principles underpinning the Action Plan as well as the ability to translate these principles into practice within their schools' contexts. Systems and sectors have an important role to play in ensuring the ongoing professional development of instructional leaders.

Building the capacity of teachers and school executives to meet the needs of low performing students

The Action Plan has had a direct impact on the capacity of principals, instructional leaders and particularly teachers to more effectively meet the diverse needs of schools with low performing students.

The way that professional learning is targeted, provided and accessed by teachers

The Action Plan recognised as one of its key pillars that improving student learning was dependent on the quality of teaching they received, which in turn depended on the teacher's capacity to consistently deliver high quality lessons targeted at students' individual learning needs. Building teachers' capacity was, therefore, a fundamental focus of the Action Plan. Teachers consistently reported that the professional learning provided by the Action Plan equipped them with the knowledge and skills to more effectively address the literacy and numeracy needs of students in their care. Principals across all sectors reported that the scope and scale of professional learning enabled by Action Plan funding would not have otherwise occurred and would not have been possible within their existing resources.

Importantly, across all sectors, there has been a substantial shift in the locus of delivery of professional learning. In the 2014 the evaluation noted that attendance by teachers at one-off professional learning programs away from the school was becoming less frequent than in 2013 when baseline data were collected. In 2015 and 2016 this has continued to be the case, and in 2016 the vast majority of professional learning undertaken in targeted schools related directly to priorities identified within an overall school plan, with the aim of directly equipping teachers to address the immediate learning needs of students.

These learning needs have been identified through the enhanced use of diagnostic assessment and student evidence samples as the basis of informed decision making about teaching and student learning. The process by which these needs are now identified and in turn become the focus of teacher professional learning may be one of the most profound legacies of the Action Plan. In Action Plan schools, it has become standard practice for teachers to meet on a regular basis with their Instructional Leader and executive as a stage or grade group to consider data about their students' learning on a regular basis (often using the Continua and data walls as a tool to focus discussion), and to identify strategies for addressing the students' needs.

Throughout the life of the Action Plan, instructional leaders and system/sector consultants have taken a lead role in providing "point of need" professional learning to improve teachers' classroom practice. This professional learning has taken a variety of forms, including, for example, modelling or demonstrating a particular strategy in a team-teaching situation, providing feedback following a lesson observation, or directing teachers towards a particular resource.

The role of the instructional leader remains at the heart of the implementation of the Action Plan. Instructional leaders have been instrumental in guiding the cultural change process in schools as well as directly influencing professional development of teachers in participating schools. Their in-school leadership is demonstrably a key influential factor in enhancing teacher capacity and ultimately increasing student learning outcomes.

Other factors impacting on the implementation of the Literacy and Numeracy Action Plan

Two other factors have impacted on the implementation of the Action Plan. First, increased parent engagement was anticipated to be a key outcome of the Action Plan. The second focus relates to the sustainability of the impact of the implementation of the Action Plan.

Impact of the Action Plan on parent and community engagement in participating schools

Throughout the period of the Action Plan evaluation, it was evident among principals and executives that the majority understood the importance of engaging with parents as a means of facilitating students' acquisition of Literacy and Numeracy skills in the early years of schooling. About 40 per cent of principals surveyed each year 2013-2016 said that increased engagement of parents was one of the measures by which they judged the success of their implementation of the Action Plan. Each year, more than half of the principals and instructional leaders interviewed also indicated that increasing the engagement of parents had been a lower priority for them than building teacher and executive capacity and changing classroom pedagogy.

While the priority given to substantially altering the way that the school engaged with parents and the community may not have been high in Action Plan schools generally, some notable exceptions were observed among the schools visited, particularly in schools that had large Aboriginal student enrolments including some Connected Communities schools. In these schools, principals had initiated some specific activities to involve parents more fully in the life of the school. These included hosting barbeques and picnics as a way of attracting parents to the school during which some aspects of learning were discussed informally, strategies for increasing attendance at parent/teacher meetings in which the students gave a presentation on their learning rather than traditional teacher-led dialogue, and more widespread employment of Aboriginal people as paraprofessionals (SLSOs in government schools).

The kinds of "new" strategies reported each year have tended to be similar over time, with the percentage of schools adopting such strategies also remaining similar. The most frequently used strategies included the following:

- introducing strategies to support home Literacy and Numeracy practices,
- providing training workshops in Literacy or Numeracy for parents and community members,
- conducting information sessions, including guest speakers,
- introducing innovative communication strategies,
- introducing new opportunities for parents to assist delivery of literacy interventions and numeracy interventions, and
- increasing opportunities for parents to participate in classroom observations.

Another avenue by which schools were attempting to engage with parents and the community was through enhanced transition-to-school programs and outreach to local pre-school programs. The motivation for this enhancement was only partially related to enhancing literacy and numeracy skills of students, and was as often motivated by the schools' need to secure enrolments, but did provide a means by which teachers knew the needs of incoming students more fully than in the past.

A small number of the schools visited had established more structured on-site school familiarisation programs using Action Plan funds in a quasi-pre-school environment in unused classrooms, which were reported to be mutually beneficial for students and teachers. Likewise, a small number of schools had used some Action Plan funds to extend existing community outreach programs. Parents who had accessed these programs spoke positively about them, but the numbers of such parents were small and not necessarily representative of all parents. From 2014, several government schools have implemented the *Parents as Teachers and Classroom Helpers* (PaTCH) program which attempts to not only engage parents in classrooms in Literacy and Numeracy but to concurrently provide them with a range of skills that enhanced their contribution in classrooms and enabled them to develop qualifications through TAFE.

The overall conclusion to be drawn was that while some progress had been made in enhancing parent engagement in their children's learning, there was scope for further development in this area. It was evident that increasing parent engagement remained an area with which many schools found challenging, and in which traditional approaches may no longer be relevant. There may also be opportunities for sectors to identify examples of good practice in parent engagement and disseminate these more widely. It was noted that the Department of Education's "Class Movies" resource already provided some examples of how this has been achieved.

Sustainability of the impact of the Action Plan post-2016

The focus on whole-school cultural change has been an important characteristic of Action Plan implementation. Changing school culture was a long-term process that required explicit planning. By 2016, the majority of principals reported that either comprehensive strategies or some strategies fostering sustainability were in place in their school. The percentage of schools with sustainability strategies in place has increased substantially since 2014, indicating that the need to sustain impact was an increasingly important aspect of schools' implementation of their Action Plan strategy.

The vast majority of schools identified building teacher and school executive capacity as a key strategy for sustaining impact. Case management meetings, lesson study and other classroom observations, once formerly led by the instructional leaders were similarly more frequently led by class teachers or executive in 2016. A further strategy used in an increasing number of schools to sustain (and extend) the Action Plan has been the appointment of additional instructional leaders (with a variety of titles) from the school's own funds (and in several Catholic Dioceses, additional pedagogical leadership positions have been funded by the Diocese). Usually these additional instructional leaders focussed on Years 3-6 or whole school improvement rather than K-2, which remained the particular focus of the Action Plan.

It should be noted that since the commencement of the Action Plan, government schools involved in the Action Plan received additional funding through the RAM, which was calculated on the extent to which the school community experienced socio-economic disadvantage. These RAM funds have most frequently been the source from which the school-based Instructional Leaders have been employed. Further, in schools visited whose RAM funding was of a size that could support independent employment of an Instructional Leader, the majority of principals indicated that they would seek to continue to employ an Instructional Leader should external funding cease.

The experience of participation in the Action Plan has helped many principals to become more aware of the need to link their expenditure to educational outcomes. Action Plan implementation has therefore increased principals' capacity for strategic budgeting and evaluative thinking, however, as

this style of management was relatively new for many, additional support in this area may continue to be needed for some time.

Ultimately, changing school culture to become more focussed on student needs has been the result of a combination of factors, each of which needs to be present in any future change strategies. The Action Plan experience has highlighted the importance of ensuring a multi-faceted approach to implementation. The combined impact of effective school leadership, with high quality instructional leadership, targeted teacher capacity building and explicit strategies for addressing individual student learning needs through evidence based decision making, cannot be underestimated.

5. To what extent were the outcomes achieved cost-effective?

Costs associated with implementation of the Action Plan

The actual allocation and expenditure of Action Plan funds, as reported by each of the three sectors in their Annual Reports is shown in Table ES11.

Table ES11: Action Plan allocations and expenditure by sector (2012-2016) and Average Annual per Student Cost across three sectors

	Government	Catholic*	Independent	NSW
Total budget allocation	$204.252m	$38.782m	$15.557m	$258.591m
Total funds allocated to schools	$196.390m	$37.593m	$11.540m	$245.523m
Per cent of funds allocated to schools	96%	97%	74%	95%
No. of schools	310	109	29	448
Average allocation per school (2012-2016)	$633,516	$344,890	$397,931	$548,042
Number of students (2012-2016)	84,719	48,337	8,216	141,272**
Average per student expenditure	$2,472	$815	$1,924	$1,830
Average annual per student expenditure across NSW Action Plan schools	**$1,737**			

*Average per student expenditure is calculated as the total expenditure 2012-2016 divided by total number of K-2 students for that period advised by sectors. Students may receive more than one year of funding.

There were considerable differences in the average per student expenditure between sectors. Part of the explanation of the differences between sectors arose from the ways in which funds were allocated within sectors. In the government sector, the individual school grants earmarked separate allocations for professional learning and innovations, as well as instructional leader salaries. Catholic schools were provided funds solely for employment of instructional leader equivalent positions. Within the Independent Sector schools had to allocate funding across the four priorities to be eligible to receive the funds. Funds not allocated to schools were spent on instructional leadership in the form of AISNSW consultants. Across all sectors, the per-student costs, based on K-2 student enrolments, is an over-estimation of the true per-student cost, as the Action Plan impacted on students in Years 3-6 as well as K-2.

How schools have used funding from the Action Plan

The most frequent uses of Action Plan funds across the three sectors have been hiring of additional staff, purchase of resources, and implementing specific programs. While expenditure on staffing and release days has remained relatively constant across 2013-2016, other areas of expenditure showed no clear trends. Purchase of classroom resources was less frequent in 2016 than in previous years. Relatively fewer schools have used Action Plan funds for community engagement activities or purchasing services from non-government agencies in all years.

There were some specific differences in how principals in the various sectors reported they were using Action Plan funds. The number of schools in the Government sector reporting use of Action Plan funds to hire additional staff (usually for intervention support and teacher release time) has increased. This was over and above the appointment of Instructional Leaders. In the same period, the percentage of Catholic principals reporting that they had purchased additional staff declined from 96 per cent in 2013 to 66 per cent in 2016. The explanation for this decline is not obvious, as instructional leader equivalent positions continued to be funded by the Action Plan. In the Independent sector, there continued to be a relatively strong reliance on the purchase of specific programs and expertise as the key methodology for addressing quality teaching and learning issues (96% of Independent schools compared to 39% of Government schools).

What area of expenditure has had the greatest impact on students?

Principals believed that enhanced staffing, including the employment of specialist intervention support staff, and the more appropriate deployment of staffing resources to better address the identified learning needs of students had provided the greatest benefit for students. Also important was the greater capacity of staff to deliver quality pedagogy, reflecting the considerable expenditure in this area over the life of Phase 1 of Action Plan implementation.

Principals in Government schools were asked in the 2016 survey if, in retrospect, they would have used their Early Action for Success funds differently. Overwhelmingly, the response was "No", with 94 per cent of the 246 principals who responded to this question indicating that they believed their expenditure decisions were justified. Of the 6 per cent of principals who indicated they would use their funds differently, the most frequent comments concerned earlier or increased employment of specialist interventions (including Speech Therapists). Individual principals mentioned employing a dedicated rather than shared Instructional Leader, increased parent engagement, and earlier transformation of learning spaces.

Cost Effectiveness of the Action Plan

Very few educational studies are able to report on the cost effectiveness of an educational program or initiative, and those that do have significant limitations. To address the key evaluation objective in relation to the cost-effectiveness of the Action Plan, this evaluation has proposed a methodology for testing the cost effectiveness of the Action Plan, using the approach adopted by the Center for Benefit-Cost Studies of Education, Teachers College, Columbia University as a guide.

Most cost-effectiveness studies attempt to quantify the individual costs of each of the "ingredients" necessary to implement the program in question. In 2015, the evaluation tested the feasibility of gathering data about the true cost of implementing the initiative in the 31 schools visited and at the system/sector level. The results revealed that across the three sectors, implementation of the Action Plan did not necessitate major additional expenditure in the schools concerned. Those that did identify additional expenditure from their own funds recorded sums between $1,000 and $30,000. The smaller amounts cited were generally used to purchase reading or numeracy resources, while the larger amounts were used most commonly to increase a part-time intervention or support teacher's time to a full-time position.

The discussions with schools and sectors demonstrated the difficulties in attributing costs to a particular source in circumstances where funds from multiple sources (e.g., schools' recurrent and equity funding) were combined as a global budget to address students' targeted learning needs. Schools for example, may have chosen to purchase additional reading resources from general funds rather than Action Plan funds, even though this may have been possible for reasons other than

necessity. Indeed, there were numerous examples where principals purchased resources using school funds, where Action Plan funds could have been used, and vice versa. The reasons for this appeared to be idiosyncratic.

At the sector level, the templates completed by the sectors in 2015 reflected similar issues to those identified at the school level. First, in the government school sector no expenditure above those allocated in the Action Plan budget was identified. In other words, all systemic expenditure had been accommodated from within DoE share of the Action Plan budget allocation. In contrast, the Independent sector reported additional expenditure at sector level of $193,056.50 and additional time of 250.7 hours. This equated to the equivalent of 1.65 FTE per annum. In the Catholic sector, Dioceses may have interpreted the request for data in different ways. The raw data indicated additional expenditure incurred by Dioceses in supporting the Action Plan in a range between $17,650 and $1,638,000. In their 2016 Annual Report to the Minister on Action Plan implementation, the Catholic sector identified $4.6 million of additional in-kind funding to support the Action Plan.

These data also highlighted another important issue, which would ordinarily not be captured in a cost effectiveness calculation; that was the issue of how the Action Plan has leveraged change (and therefore expenditure) on a wider scale. For example, as a result of the Action Plan experience, Catholic Dioceses developed a range of resources initially for Action Plan schools, but which have now been made available to other schools in Dioceses and beyond. Another example concerned the fundamental changes to the way in which professional learning was offered and supported to all schools in at least one Diocese in line with the Action Plan model. In another Diocese, an established approach for teaching Literacy and Numeracy has been implemented in all schools, including relevant training for principals. In yet another example, some Dioceses have mandated the Action Plan model for all schools in the Diocese, supporting this from within their recurrent budgets. Each of these examples illustrated the far-reaching benefits that have accrued from Action Plan implementation but were not accurately and comprehensively reflected in current costing data.

While the validity of some systems' estimates of additional expenditure necessitated by the Action Plan might, in some cases, have been questionable, the totality of system and sector expenditure was still small relative to the totality of funding. The additional costs invested by systems and sectors estimated in the quantitative calculation can be accommodated by the same method as for schools' contributions, that is, by estimating the costs within a band of +/- 5% of the funds allocated to the Action Plan.

Using the data from Table ES11, the cost of the Action Plan, expressed as an average annual per student cost (the metric used in Levin *et al*., 2013) resulted in an amount of $1,737 per student, and the "true" cost being in the range of $1,650 to $1,823. Using the categorisation provided by the *Australian Teaching and Learning Toolkit (2016) Technical Appendix* as a guide, the Action Plan would be described as a moderate to high cost approach.

The second part of the cost-effectiveness equation required a measure of effectiveness. The effectiveness of complex initiatives like the Action Plan was difficult to distil as a single numeric value. In the model for calculation of educational cost effectiveness proposed by Levin and colleagues, effectiveness was defined as "change in students' learning outcomes relative to that of a control or comparison group, usually expressed in terms of an effect size".

The Australian Teaching and Learning Toolkit converted these effect sizes into a measure of "month's growth" in expected student learning. The toolkit provided one of the few sources relevant to Australian education that provided data on the cost and effectiveness that were usable as a source of

comparison for the NSW Action Plan. Both the calculation of costs and effectiveness in the toolkit were estimations and the ratings given to various approaches were open to debate (given the wide variance acknowledged within approaches considered). The toolkit itself discussed a number of caveats, including the risk of under-estimation of the effects of large scale initiatives like the Action Plan.

For the purpose of this exercise, change in student outcomes was defined in terms of students' growth against the Literacy Continuum. The literacy score was calculated as the average growth on the Aspects of Text Reading scale, averaged for Kindergarten, Year 1 and Year 2 students in the government schools with longest exposure to the Action Plan (non-government schools were not included because of concerns about the accuracy of their early K-2 data). The control group has been defined as the "expected" growth within a particular year. The definition of the expected cluster level for each grade level was based on the Continua developer's expert view of the syllabus outcomes that could be reasonably expected to have been achieved by a typical student by the end of each grade level. The expected growth by students in this sense represents the "average" growth of each grade cohort. This method was necessary as the evaluation did not have access to data about the "real" growth achieved by students in non-targeted schools across NSW.

The impact or effect of the Action Plan was calculated as the difference between achieved growth in 2013 compared to achieved growth in 2016. The Continua were not an equal interval scale, (there are more clusters at Kindergarten than Year 2 level for example), but each cluster can be roughly equated to "months growth" using weightings for each year cohort based on the difference between the defined expected mid-year standard and end of year standard. This allowed comparison to the "effectiveness" metric used in the Toolkit, as reported in Table ES12.

Table ES12: Achieved growth 2013-2016 (as a fraction of a year) in LNAP 2012 cohort Government schools

Year level	Achieved growth 2013-2016
Kinder	0.13
Year 1	0.23
Year 2	0.22
Total for K-2 cohort	**0.58**
Average per year level	**0.19 years**

This calculation suggests that the Action Plan thus contributed to an average growth in Reading (Aspects of Text) across the cohort equivalent to about 2.4 months. This positive growth suggests the Action Plan has had beneficial. Using the Table in the Australian Teaching and Learning Toolkit, this gave an equivalent effect size of between 0.10 and 0.18, which was classified as "low impact". This estimation should be treated with a great deal of caution, given the caveats above. In comparing the impact of the Action Plan with other approaches listed in the Toolkit, it must also be appreciated that the methodologies for estimating the effects of omnibus approaches like the Action Plan are very different from those that are appropriate for specific treatments, measured in controlled studies. The calculated impact of the Action Plan above may in fact significantly under-estimate its "true" impact.

Has the Action Plan provided value for money?

Cost-effectiveness as discussed above was a technical measure of efficiency, and had a meaning that was distinct from the more general question of whether an initiative or program has provided value for money. When asked why they considered the Action Plan had been value for money, the majority of principals replied that it had produced a level of change in teacher capacity that would not

otherwise have been achieved. Analysis of the survey comments revealed that more than 75 per cent of principals believed the appointment of instructional leaders had provided focus and accountability for this increase in teacher capacity. They believed that the time and expertise to build the capacity of staff provided by the appointment of instructional leaders was the primary benefit provided by the Action Plan funding.

Principals also believed that the Action Plan had provided value for money because it had been a catalyst for transforming the culture of learning in their school. A separate but important issue was the question of how the Action Plan has leveraged school funds to support Literacy and Numeracy in different ways than in the past, e.g. using RAM funding in government schools to purchase an Instructional Leader at Years 3-6 level in the government sector. This point cannot be ignored. Many principals indicated that they had become more strategic in how they were using available school funds.

6. Discussion and Conclusions

The need for the Literacy and Numeracy Action Plan

The Literacy and Numeracy Action Plan was developed to address the widespread inequalities in learning outcomes known to exist from the earliest years of schooling in NSW schools serving low socio-economic status (SES) communities. The NSW NAPLAN data, and the Basic Skills Test data before that, have demonstrated over many years the existence of wide disparities in student learning outcomes for students from different socio-economic backgrounds. The student outcomes data collected during the evaluation showed that achievement levels for Aboriginal students, those from non-metropolitan areas, and those from low socio-economic communities have continued to lag behind those of their more advantaged age-peers. There continue to be substantial gender differences in achievement as well, with boys on average achieving lower literacy outcomes than girls, but with girls performing less well than boys in numeracy.

The focus of the Action Plan on enhancing teacher capacity and on ensuring alignment of classroom pedagogy with known best practice has been a most appropriate strategy and again, consistent with the approaches adopted in countries which do perform well in the international arena. The Action Plan acknowledged that achieving the level of improvement necessary required a change in the way that the schools operate as well as change in individual teacher practice. It involved not only change in structures but a change in the way people conceptualised teaching and learning in the school to ensure that student learning was at the heart of the decision-making process. The focus of the Action Plan on creating cultural change within the targeted schools was therefore appropriate in establishing the pre-conditions for more effective learning. Addressing the root causes of under-performance, rather than applying a band-aid after it occurred, also logically provided a more appropriate long-term solution.

How successful has the Action Plan been in achieving its objectives?

Considering the totality of the evidence available to the evaluation, the success of the Action Plan in addressing its primary objective of reducing the disparities in student learning outcomes, and reducing the impact of socio-economic status on learning outcomes was mixed. The K-2 assessment data clearly showed that in all sectors, across all year levels K-2, and across all domains measured, at a cohort level, the proportion of students not reaching the expected end of year standard was substantially less than it was at the commencement of the Action Plan. This was an encouraging outcome, and has resulted largely from achievement of greater consistency and continuity of instruction across

classrooms K-2, as well as a stronger linkage between the curriculum expectations and teaching practice as a consequence of the capacity building provided by instructional leaders. The focus on early identification of student learning needs and more targeted intervention has also undoubtedly contributed to these improved student learning outcomes.

At the same time, the K-2 results, particularly at Year 2 level, also indicated that considerable further work is necessary. While more students were leaving Year 2 with a stronger foundation in Reading, in terms of Aspects of Text and in Early Arithmetic Strategies, there was still an unacceptably high number of students in targeted schools who were not achieving grade expectations, particularly in terms of comprehension and writing skills. While the overwhelming majority of students, even those who were below expectations, did achieve some progress each year, the rate of progression of those who were falling behind remains a concern. In these circumstances, it is not surprising that average Year 3 NAPLAN results have not substantially improved at a cohort level.

While there are clear differences to the general trends at individual student and individual school levels, on the whole, the pervasive influence of socio-economic factors, coming from a Aboriginal or a Torres Strait Islander background, gender differences, and other sources of inequality continue to be evident. While some small improvements are likely as further capacity is built in schools that only recently commenced participation in the Action Plan, it would seem that neither the K-2 results nor NAPLAN results will improve to the extent necessary to reduce the socio-educational gradient in results, without a specific focus on the kinds of skills represented in higher-level performance on these assessments. These skills include, for example, analysis and synthesis of information, making inferences, drawing conclusions, and solving problems.

Schools cannot continue to dismiss their NAPLAN results as an aberration, but need to become more sophisticated in analysing the causes of underachievement and more importantly, how to effectively respond to this diagnosis. The processes introduced to Action Plan schools for identifying student needs and planning a response is undoubtedly appropriate. The challenge for schools is, as it always has been, to ensure that diagnosis of student needs is accurate, and that the responses are effective.

While the improvement in student learning outcomes from the Action Plan may not have been as great as desired, this does not mean that the Action Plan did not provide a range of benefits for students, teachers and schools. Rather, when its impact on the quality of teaching and learning and school culture is considered, the evidence demonstrates widespread impact on a range of school practices, including:

- Evidence-informed practice, personalised and student-centred learning.
- Enhanced teacher capacity to tailor learning experiences according to identified student need.
- Greater sense of collective responsibility for student outcomes.
- More tailored use of interventions for students at risk.
- More appropriate use of specialist and paraprofessional staff.
- Stronger accountability for outcomes and understanding and acceptance of critical reflection on the effectiveness of practice.

The importance of these changes should not be under-estimated, nor should the difficulty in shifting entrenched school and community attitudes and expectations about what "normal" practice should be. The school visits clearly demonstrate that successful Action Plan schools look and feel very different to what they were in the past, as are relationships within the school and between staff members and the community. They have undoubtedly become places where learning is purposeful, productive and valued, something that cannot always be said to have been characteristic of all

targeted schools prior to the Action Plan. Teachers, school leaders and parents have always wanted the best from their students and for their students, but sometimes the weight of accumulated decisions and practices have become counter-productive. The Action Plan has been an effective catalyst for schools to examine their practices and adopt more appropriate ways of working.

What can be learned from the Action Plan 2012-2016?

A number of important lessons for schools and sectors can be gleaned from the initiatives undertaken by successful LNAP schools, identified over the period of the evaluation.

The importance of targeted sectoral support

The seeds for success in Action Plan schools are sown well before the schools begin to participate in the Action Plan. The chances of success are greatly enhanced when the sectoral authorities prepare the principal and staff for participation in the Action Plan by making clear what is expected of them, not only in terms of compliance with accountability requirements but also the outcomes that are intended. The role of the sectoral authority in setting the clear expectation that the participation in the Action Plan requires fundamental cultural change in the way the school operates cannot be underestimated. The sectoral authority also has a critical role in ensuring that both the principal and key staff have a sound understanding of the research base that underpins the Action Plan, including contemporary views on what constitutes best practice pedagogy in the early years of schooling. Well prepared schools have a clear understanding of the role of the instructional leaders and their place within the school's executive.

In successful Action Plan schools the commitment of the sectoral authority is reflected in the involvement of relevant senior personnel, including within the government sector, the Director, Public Schools, in the appointment of the instructional leader and other staff, in conjunction with the school principal. In successful schools, an ongoing relationship between the sectoral authority personnel and principal and key staff, through targeted professional learning opportunities and formal review processes as well as frequent and regular monitoring of progress against targets on both a formal and less formal basis can be observed. Successful Action Plan schools are underpinned by a level of sectoral authority support that effectively "closes the loop" between provision of data for accountability purposes and provides feedback that allows the school to more effectively plan for the next stage in the implementation cycle.

One of the indirect benefits of the Action Plan experience has been the increase in cross-sectoral collaboration that has occurred, particularly at the senior executive level of the three sectors. There is scope for further cross-sectoral collaboration at the operational level, for example in shared professional learning. The Action Plan has provided a valuable catalyst for future joint endeavours.

Empowering school leadership to drive cultural change

System/sector empowerment of principals to make informed staffing decisions when necessary and to redeploy resources and change existing school structures and operations are also fundamental to effecting change. Successful schools understood why they had been targeted for assistance, and why they needed to fundamentally change what they were doing to break their long-standing patterns of under-achievement. The principal has a fundamental and active role in ensuring teachers and other members of the school community clearly understand the specific goals of the Action Plan.

Successful Action Plan schools were characterised by principal leadership that was inclusive and supportive. Both qualitative and quantitative data about student achievement were used by

successful principals as irrefutable sources of evidence, providing a persuasive case for adopting new practices.

In successful Action Plan schools, principals actively championed the Action Plan, and set the expectation that changed pedagogy was a high priority for the school. These principals understood that the Action Plan was not a program or set of prescriptions to be undertaken that could be "ticked off" as complete. They understood that the implications of the theories underpinning the Action Plan required a different way of doing business, not simply adding to what their school was already doing.

Successful principals also understood the need for transparency of decision making, underpinned by evidence. They developed the notion of the school staff as a team with collective responsibility for whole school direction and achievement. They understood the importance of developing "leadership density", by devolving authority and responsibility to others rather than carrying the burden of change by themselves. They understood the importance of staff "ownership" of the change process, celebrating its successes and identifying and addressing shortcomings. At the same time, they made clear that participating in the change process is not an option for their staff, and took action when necessary to overcome active and passive resistance to change.

Successful principals understood the necessity of supporting the Action Plan implementation with strategic budgeting and personnel decisions. They understood that effective pedagogy in early literacy and numeracy learning requires different staffing models, organisational arrangements, and physical structures than had been the norm in the past.

The pivotal role of instructional leaders

Instructional leaders have been successful because they have had the time and expertise to focus solely on building capacity of both school executive and classroom teachers in early learning in literacy and numeracy, while ensuring that student data are the enduring source of evidence upon which informed decisions are made about teaching and learning.

Effective instructional leaders do not simply tell, or even show, teachers what to do; instead, they empower them to identify the most appropriate solutions by encouraging research, exploration and reflection. Instructional leaders need to be strongly supported by their principal and sectoral authority as a valued and legitimate resource in the school. Instructional leaders have also been pivotal in the provision of targeted professional learning opportunities for both school executive and classroom teachers through a wide range of approaches including peer observation, structured feedback on lesson observation one-on-one mentoring and coaching in specific aspects of pedagogy including the use of data for planning targeted learning experiences for students.

Ensuring a focus on quality teaching and learning in classrooms

Successful Action Plan schools implicitly accepted that it was the quality of teaching and learning that "makes the difference" in students' outcomes, rather than blaming poor results on the students' backgrounds. In successful schools, the executive, the instructional leader and classroom teachers worked with student achievement data honestly, openly and collaboratively.

The pervasive impact of classroom teachers on student learning achievement

Successful Action Plan schools understood that improving student learning often required a completely different way of doing business. Building teacher confidence and competence needs to remain a high priority. Teachers in successful Action Plan schools understood how to effectively differentiate lessons to address student needs. Effective teachers understood that it is their pedagogical and management skills, rather than the resources available that have the greatest impact

on students' learning. Teachers in successful Action Plan schools understood that not only did teaching need to be different from the past, but learning needed to be different as well. They appreciated the importance of students taking greater responsibility for their own learning, thereby deliberately building a culture of self-regulation among students.

A significant change that occurred in successful Action Plan schools was readily evident in the organisation of human and physical resources in classrooms. There were multiple learning spaces located throughout the room, some for small group learning opportunities, while others are for one-on-one intensive teaching. In each case, there was a variety of adults including the classroom teacher, commonly instructional leader, as well as teacher support staff, other paraprofessionals and in some cases, speech pathologists and parents supporting the teaching and learning process.

Teachers in successful Action Plan schools understood that not only did teaching need to be different from the past, but learning needed to be different as well. They appreciated the importance of students taking greater responsibility for their own learning, thereby deliberately building a culture of self-regulation among students. Teachers therefore needed to understand what explicit teaching really meant and how this could be used to empower students to develop deeper understand the purpose of their learning and the standards that are associated with and expected of successful learning at their stage of development.

Increased focus on data as the basis of planning and pedagogy

One of the strongest outcomes for teachers and school executives across all sectors has been a substantial increase of focus on data analysis as the basis for planning at whole school, grade/stage and classroom levels. Importantly, formative assessment and analysis are integrated into teachers' normal practice, rather than an add-on to it. Further, the increased focus on data analysis has increased teachers' sense of collegiality, collective responsibility for student performance, and acceptance of transparency and accountability for student learning. The emphasis on student learning data has undoubtedly helped many schools to move closer to a stage where evidence-based practice is the norm in many targeted schools. However, there is scope for further development of teachers' skills in deep analysis of student learning data. The use of the Literacy and Numeracy Continua, despite their acknowledged flaws, has led to greater emphasis on the concept of learning progressions, and prompted the commencement of work to develop new tools aligned with the Australian Curriculum, and which have stronger psychometric properties.

Conclusion

The Action Plan demonstrated that improving the quality of teaching and learning in the classroom can be achieved through enhancing teacher and school leader's capacity to implement the key priorities areas emphasised during the Action Plan, including enhanced diagnostic assessment, greater application of differentiated teaching and personalised learning, and tiered interventions when required. The focus on building teacher and executive capacity has been fundamental to the successful implementation of the Action Plan.

In this regard, the following seven points summarise the key lessons learned from the Action Plan that have relevance to future initiatives:

- School improvement requires changing school culture, not simply adding additional programs.
- Achieving enhanced teacher quality requires a different approach to teacher professional learning: it must be focussed on developing the teachers' confidence and competence to address identified student needs.

- Structured reflection on instructional practice must become routine, and not an add-on to teacher's work but an integral part of it.
- The strong focus on enhanced instructional leadership K-2 has been essential for enhancing the quality of teaching and learning in classrooms.
- The additional time given for collaborative teacher planning and the additional expertise for intervention in classrooms are necessary for successful implementation.
- The strong support and accountability provided as a result of the Action Plan have been essential for providing consistency and coherence to schools' efforts.
- The provision by sectors of tailored pressure through accountability for student results and simultaneous professional support, in accordance with school needs, continues to be a key ingredient in each school's ongoing success both in the short and mid-term.

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