

READING TO LEARN



Report for

Western NSW Region

NSW Department of Education and Training

Implementation and outcomes of the
professional learning program, 2010

Contents

Contents	1
Acknowledgements	2
Background	3
Reading to Learn	3
Assessing students' growth	4
The 2010 results	5
Overall student growth rates	6
Closing the gap	7
Outcomes of standard and R2L teaching in the first years of school	10
Outcomes of standard and R2L teaching in other years	13
Proportions of students achieving different growth rates	21
Growth rates by classes	22
Teachers' feedback	23
Recommendations	25
Bibliography	27

Joint Rewriting of a factual text in Yr3/4

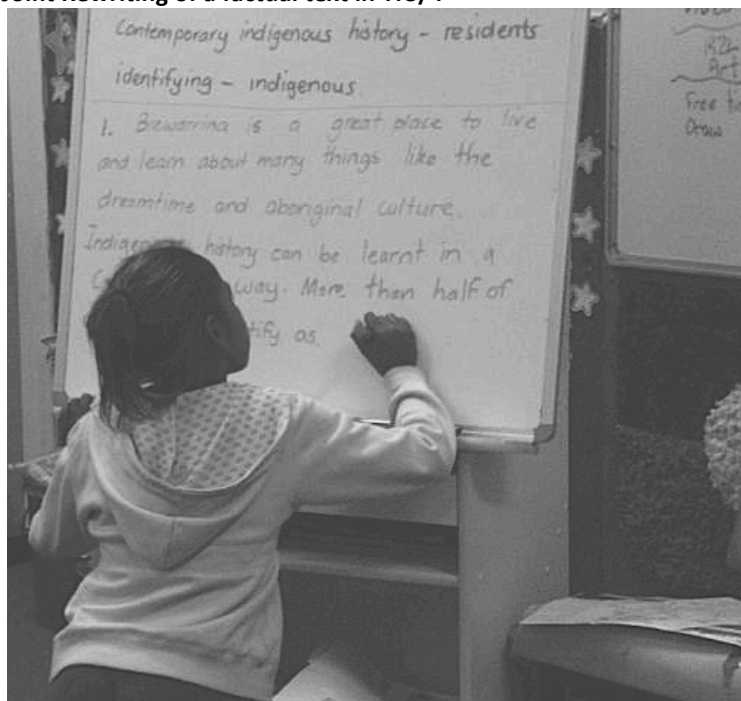


Photo: Melissa Kirby

Acknowledgements

Carole McDiarmid
Director NSW Western Region

Trish Webb
School Education Director for Literacy NSW Western Region

Cheryll Koop
Literacy Programs Facilitator National Partnerships
NSW Western Region

Teachers and executives in Western NSW Region schools

DET consultants supporting Western NSW Region schools

Barb (Mitchell) Cook

Leanne Dransfield

Helen Dwyer

Robyn Mitchell

Donna Quinn

Michelle Simkin

Narelle Power

Janet Westcott

Rosalee Whiteley

Other consultants supporting the R2L program in Western NSW Region schools

Lyndall Harrison

Sandra Hill

Reading to Learn workshop Dubbo 2010



Photo: Cheryll Koop

Background

Reading to Learn commenced work with NSW Western Region schools in 2005, with a professional learning program organised by Lyndall Harrison of the Orange regional office. In 2006 Jane Cavanagh, School Education Director for the Bourke Schools Group secured Commonwealth funding for the Reading to Learn in Murdi Paaki project, covering 23 schools in the north west of the region, with high proportions of Indigenous students (Koop & Rose 2008). The success of this project culminated in a national Reading to Learn conference held at Dubbo in 2009.

As a result of its success, the Director of Western NSW Region, Carole McDiarmid, decided to make Reading to Learn a preferred professional learning program in literacy for the region. This coincided with the Commonwealth/State National Partnerships program in which Reading to Learn was nominated as an option for literacy programs for NSW schools.

Approximately 400 teachers participated in the Reading to Learn professional learning program in 2010, from 80 primary and secondary schools, including 10 schools in the region that were part of the National Partnerships literacy program. Training programs were conducted in Dubbo, Bourke, Broken Hill, Orange and Bathurst.

Reading to Learn

Reading to Learn (R2L) is a methodology designed to enable teachers to engage every student in their class in reading and writing texts at the level expected for their grade and subject area. Its principles include:

- Explicitly supporting all students to practise at the same high level
- Engaging all students equally in classroom learning activities and discussion
- Integrating reading and writing skills with curriculum learning at all year levels
- Integrating foundation literacy skills with reading and writing curriculum texts.

The R2L professional learning program provides teachers with post-graduate level skills in:

- Selecting and analysing texts that are appropriate for the grade and subject area
- Planning and implementing lessons that enable all students in their classes to read and write high level texts
- Assessing students' growth in reading and writing.

The R2L methodology includes three levels of support, through carefully designed sequences of teaching strategies, that can be applied in any learning context in primary and secondary school. Its motto is 'accelerating learning and closing the gap'.

Assessing students' growth

Students' growth is assessed by teachers in the R2L program, through formative testing of reading comprehension in each lesson unit, and through summative testing of writing each term. The writing assessment developed in R2L is designed to accurately reveal the language resources that each student brings to the writing task. Teachers identify these language resources in students' writing, using 14 criteria that are each scored from 0-3. Students' texts are compared with writing exemplars for each school stage. This scoring system gives a very accurate measure of students' progress in relation to the standard at their school stage.

The Reading to Learn writing assessment was used as the basis for the NAPLAN writing assessment. Comparison of the R2L and NAPLAN criteria are shown in Table 1.

Table 1: Criteria and scoring in NAPLAN and R2L writing assessments

NAPLAN		R2L	
Audience	0-6	Purpose	0-3
		Tenor	0-3
Text structure	0-4	Staging	0-3
		Phases	0-3
Ideas	0-5	Field	0-3
Character & setting	0-4		
Vocabulary	0-5	Lexis	0-3
		Appraisal	0-3
Cohesion	0-4	Conjunction	0-3
		Reference	0-3
Sentence structure	0-6	Grammar	0-3
		Mode	0-3
Paragraphing	0-2	Presentation	0-3
Punctuation	0-5	Punctuation	0-3
Spelling	0-6	Spelling	0-3
TOTALS	47		42

Although NAPLAN has followed the R2L model quite closely, the original R2L assessment continues to be used in the R2L professional learning program for these reasons:

- It enables teachers to accurately analyse students' language resources
- It is correlated with school stages, so students' progress can be measured against the standard for their stage, in different subject areas and text types
- It introduces teachers to the metalanguage that is used in R2L to discuss language in the classroom, and in teachers' text selection, analysis and lesson planning.

Teachers are asked to assess the writing of students from low, middle and high achieving groups, in order to show the growth of each group in the class. Samples of these students' independent writing are assessed each term, using the 14 criteria on a score sheet, illustrated in Figure 1.

Figure 1: Sample score sheet for writing assessment

Student names	Jayden				Ada				Corrine				Dean				Robin				Vivian			
	Pre writing	Term 2	Term 3	Term 4	Pre writing	Term 2	Term 3	Term 4	Pre writing	Term 2	Term 3	Term 4	Pre writing	Term 2	Term 3	Term 4	Pre writing	Term 2	Term 3	Term 4	Pre writing	Term 2	Term 3	Term 4
PURPOSE	0	1	1	2	0	1	2	2	2	2	2	2	1	2	2	2	2	2	3	3	2	3	3	3
STAGING	0	1	1	2	0	1	2	2	1	1	2	2	1	2	2	3	2	2	3	3	2	3	3	3
PHASES	0	1	1	2	1	2	2	2	0	0	2	2	1	2	2	2	2	2	2	2	2	2	2	2
FIELD	0	1	1	2	0	2	2	2	1	2	2	1	1	2	3	3	2	2	2	2	2	2	2	3
TENOR	0	1	1	1	0	1	1	2	1	2	2	2	1	2	2	3	2	2	2	2	2	2	2	2
MODE	0	0	1	1	0	0	1	2	1	1	1	2	1	1	2	3	1	1	2	3	2	2	3	3
LEXIS	1	1	2	2	1	2	2	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	3
APPRAISAL	0	0	1	1	1	1	1	2	1	1	2	3	1	2	2	3	2	2	2	2	2	2	2	2
CONJUNCTION	1	2	2	2	1	1	1	2	0	0	0	3	1	0	2	3	0	1	2	3	2	2	3	3
REFERENCE	0	2	2	2	1	2	2	2	1	1	1	2	1	1	2	3	1	2	2	3	2	3	3	3
GRAMMAR	0	2	2	2	1	2	2	2	1	1	2	2	2	2	2	2	2	2	2	2	2	3	3	3
SPELLING	1	1	2	2	2	2	2	2	1	1	2	1	2	2	2	2	2	2	2	3	2	2	3	3
PUNCTUATION	0	1	1	2	1	2	2	2	1	1	1	1	0	1	1	1	1	2	3	3	2	3	3	3
PRESENTATION	0	0	1	2	0	0	1	2	1	1	1	2	0	1	2	3	1	2	2	3	2	2	3	3
TOTAL	3	14	19	25	9	19	24	28	13	15	22	27	15	22	28	35	22	26	31	38	28	33	37	40

The totals on the score sheet give a clear indication of each student's progress through the year. They also clearly show the rate of progress of the whole class, and of the low, middle and high achieving groups in the class. The total possible score is 42 points.

Assessments are correlated with national and state standards for each grade level, by using writing exemplars from widely used assessments, such as the Australian National Literacy Profiles and NSW Board of Studies ARC. A score of around 35 at the end of each school stage is equivalent to a B range in the national A-E literacy scales. Students' progress through each stage is also measured against these standards.

Standard average growth for all students is equivalent to approximately 7 points per year, or 16.6% of the total. So for example, high achieving students need to grow at 7 points or 16.6% per year to stay in the B range. However, low achieving students would need to improve at more than double this rate (>35%) to move up from E to D to C.

The 2010 results

To measure overall trends for the region in 2010, teachers' score sheets were collected and the total scores were recorded for analysis. Scores were analysed from approximately 100 classes, randomly selected from the whole 2010 cohort. As students targeted for assessment in each class were selected from low, middle and high achieving groups, the scores are representative of results for these groups in whole classes, minimising bias.

The sample thus represents a large set (~400 classes x 20-30 students per class, or ~8-12,000 students). Objectivity of the assessment is attested by a proportion of classes and students whose growth was around standard average growth rates (discussed below).

Overall student growth rates

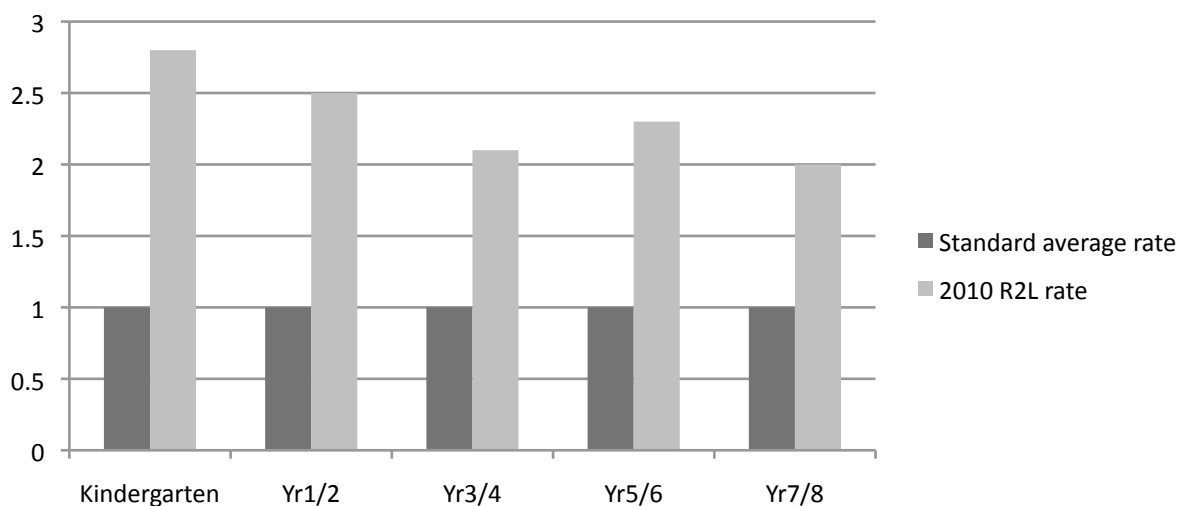
Average growth rates across all classes in each school stage are shown in Table 2. Figures show the magnitude above standard average growth rates. For example, the growth rate for Yr7/8 students was 2 times (double) the standard average growth rate. The growth rate for Kindergarten is 2.8 times (almost triple) the standard average growth rate.

Table 2: Average growth rates for each school stage

Kindergarten	2.8 times	standard average growth rates
Yr1/2	2.5 times	
Yr3/4	2.1 times	
Yr5/6	2.3 times	
Yr7/8	2 times	

The overall growth rate for the region, for all students at all year levels was 2.34 times standard average growth rates. Chart 1 shows the trend across year levels (standard average growth rate = 1).

Chart 1: Average growth rates



These growth rates are unparalleled by national and international standards.¹ However they are consistent with independent evaluations of R2L programs, using a range of measures, that show average growth at 2 to 4 times expected rates (Culican 2006, McCrae et al 2000).

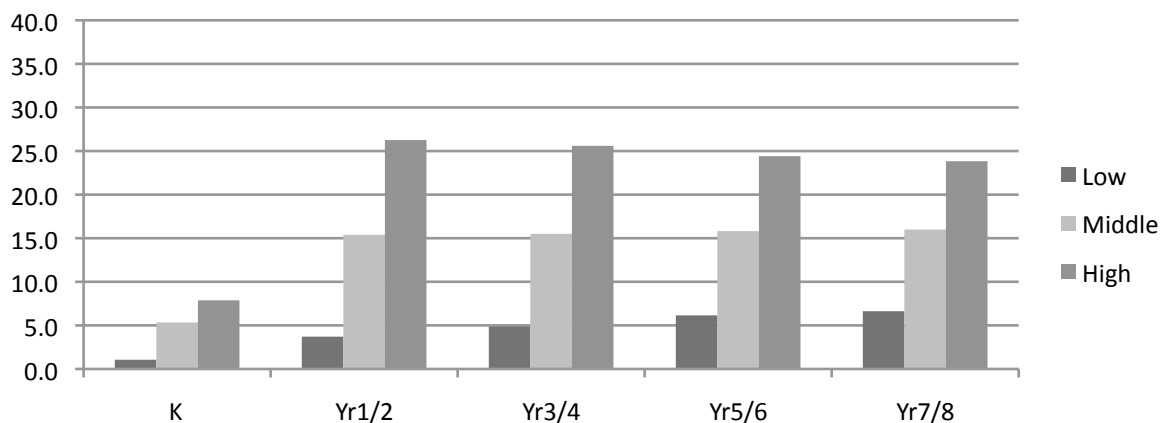
The results are also concordant with NAPLAN results for classes and schools that have consistently implemented R2L (see pg 11 below for examples). However, a minority of teachers in the region have been trained in R2L. Therefore NAPLAN results for most schools are likely to differ from the growth rates in Chart 1.

¹ Other literacy programs claim growth at percentage points above standard average rates, but 2 or 3 times average rates across whole grade levels is higher by an order of magnitude.

Closing the gap

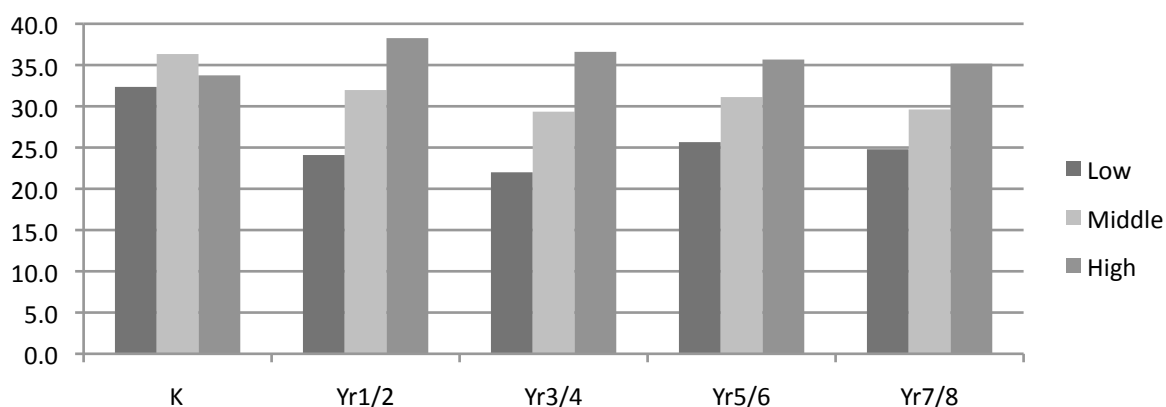
Charts 2 and 3 below show the gap between low, middle and high achieving student groups, before and after R2L teaching. Chart 3 shows the 'Pre' scores for each student group and school stage in Term 1, before R2L teaching. Chart 4 shows the 'Post' scores for each student group and school stage, after 3 terms of R2L teaching.

Chart 2: Pre scores show gap between student groups before R2L teaching



In Pre scores, the gap between low and high achieving students at the start of Kindergarten is 16% of the total possible score. By the start of Yr1/2, average scores have risen by 25% of the total, but the gap between low and high students has increased to over 50% - the high group have gone up but the low group is still near zero. This gap then continues throughout the years, decreasing slowly. The low group improves very slowly from Yr1/2 to Yr7/8, the middle group remains steady, and the high group falls slightly.

Chart 3: Post scores show growth and reduction in gap after R2L teaching



In Post scores, average growth in Kindergarten is 70% above Pre scores, and the gap between low and high achieving groups is reduced to 9%. In the other year levels, growth is 30-40% above the Pre scores (double the standard growth rate), and the gap is reduced to 20-30%.

In terms of national A-E scales, Pre scores for the high group are in the C range, middle group in the C-D range, and low group in the E range. Post scores for the high and middle groups are B-C and low group C. High achieving students have accelerated towards the top range for their years, but low achieving students have grown even faster, up to the middle range for their years.

These are average scores for each group. The middle group includes some students who may be achieving at low C levels, and the high group includes some students who may be achieving at B or A levels.

The Pre and Post data in Charts 2 and 3 are combined as trend lines in Chart 4 below. The bottom two lines are Pre scores for low and high groups (i.e. without R2L teaching) and the top two lines are the Post scores for low and high groups (after R2L teaching).

Chart 4: Pre and Post data combined

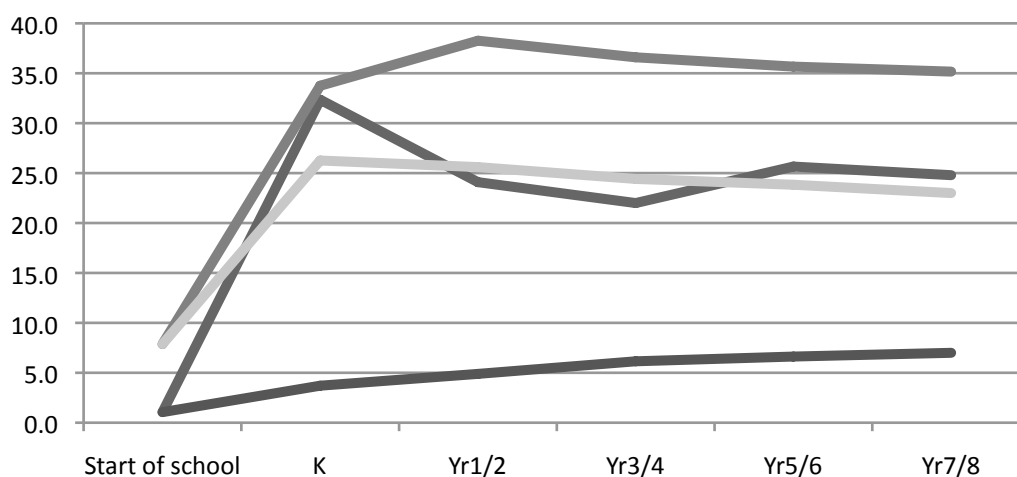


Chart 4 clearly shows the contrast between outcomes with and without R2L teaching, for low and high achieving student groups. Without R2L, the low group improves slowly each year, but stays within the E range (~5 points). The high group improves faster in Kindergarten and then stays in the C range (~25 points), falling slightly.

With R2L teaching, both low and high groups improve rapidly in Kindergarten to a B range (~35 points). In other school stages, the low group improves to around the same level as the high group without R2L, i.e. a high C range (~25 points), and the high group improves to an average B level (~35 points). This average includes some students at an A level (~40 points).

We should note that the Post data do not show longitudinal growth rates from year to year. Rather these are improvements within just 3 terms of R2L teaching, as the teachers were being trained in the 2010 R2L program.

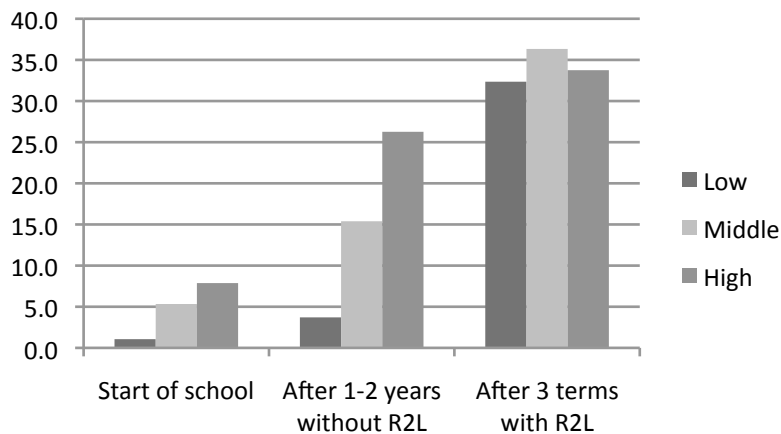
These data provide an unusual opportunity to compare the outcomes of different approaches to teaching and learning, from a large set of students, classes and schools. What is compared in Charts 2, 3 and 4 are the outcomes of standard practices in each stage of school, with the outcomes of carefully designed strategies in R2L. The Pre scores in each stage represent the outcomes of the preceding 1-2 years of standard teaching practices. This data is unusual in that it compares these outcomes with those of a large scale teaching intervention.

We should emphasise that this is not a comparison between teachers, because it is averaged across a large set of schools and classrooms. Rather it is strictly a comparison between teaching approaches. The comparison is between the standard practices in each stage of school, with the strategies of R2L, that WNSWR teachers were trained in during 2010.

Outcomes of standard and R2L teaching in the first years of school

The Pre scores for Yr1/2 represent the outcomes of one to two years of standard teaching practices in Kindergarten and Yr1, without R2L. In terms of growth, this outcome is an improvement of 25% on students' skills at the start of school. In terms of the gap between high and low achieving students, it has tripled from 16% to 54%. The Post scores for Kindergarten represent just three terms of teaching using R2L. Chart 5 below restates the growth rates and gap between students in Kindergarten, with and without R2L.

Chart 5: Growth rates in K-Yr1, with and without R2L teaching



There are two commonly cited explanations for the gap between students at this stage of school, (i) that they start school with different home experiences, and (ii) that they have different levels of 'learning abilities'. It thus seems natural that students would have different levels of skills at the end of Kindergarten, and at the end of Yr1/2, because of differences in their innate abilities, and in the experience they bring from home.

The data in Chart 5 contradict this point of view. Firstly, they show that the explicit teaching strategies of R2L in Kindergarten actually close the gap between students, from 16% to just 9%. This outcome discounts the view that the gap is an inevitable product of differences in home experience or innate abilities, as it can be overcome with effective teaching. We can also note that the middle group at the start of school actually achieved highest in the Post scores after R2L, overtaking the students who achieved higher at the start of school. This suggests that the skills that students start with can have negligible relevance for their outcomes, if effective teaching strategies are used.

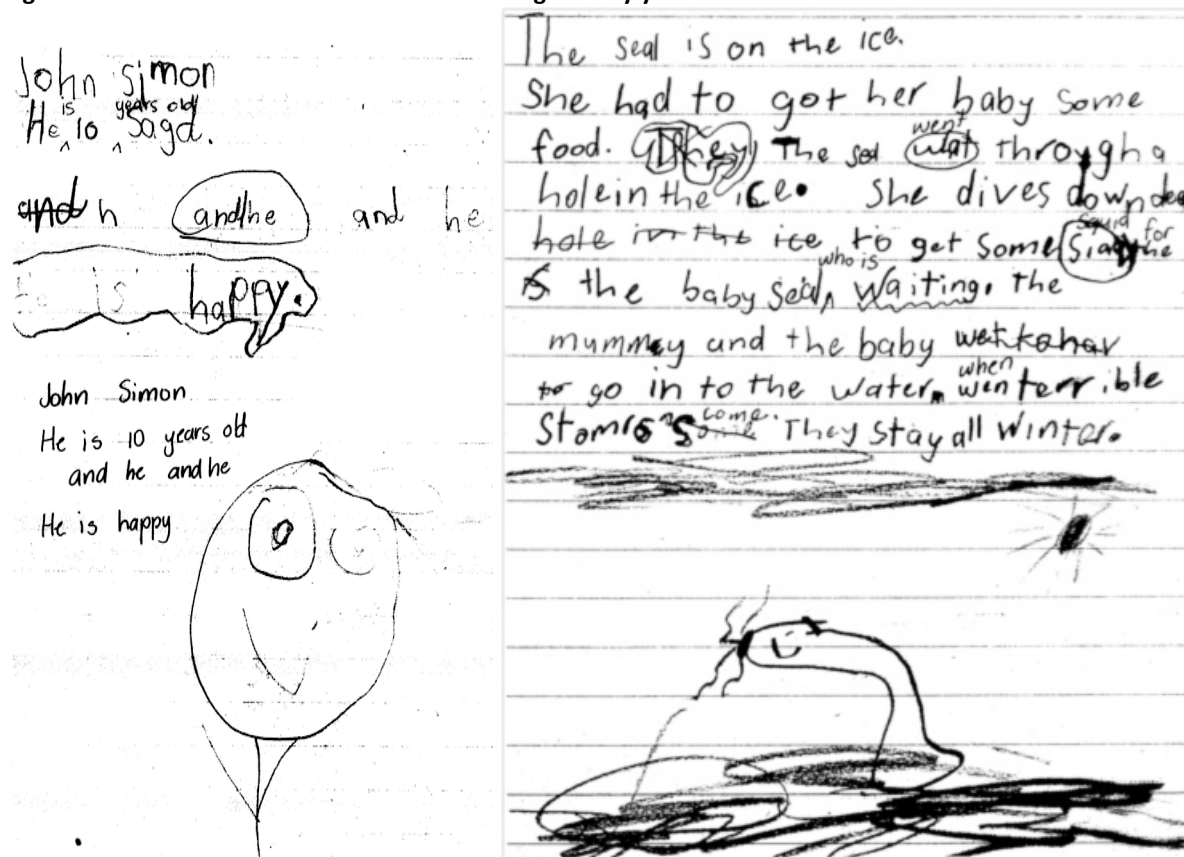
Secondly, the data show that the gap triples with standard early years practices. The contrast between this outcome and the narrowing of the gap with R2L actually reverses the explanation for the gap, from students' home experience and abilities to the practices of the school itself. That is, if the gap can be closed with effective teaching strategies, but widens with standard early years practices, then the cause of the gap lies not with the children, but with the early years teaching practices.

Thirdly, the data show that the R2L early years strategies are almost three times as effective, for accelerating the growth of all students, as standard early years practices. They show that all students can achieve in the top range for Kindergarten, by means of effective teaching

strategies, at the same time as the gap between them is closed. These outcomes are further evidence that differences in rates of learning are not a product of differences in home experience or innate abilities, but of ineffectiveness of standard early years practices.

The contrast between the outcomes of R2L and standard early years practices are illustrated in Figure 2. The left hand text was written and drawn early in Yr1 (with teacher's translation), after a full year of standard early years practice in Kindergarten. The text on the right is by the same student 2 months later, after R2L teaching.

Figure 2: Outcomes of standard and R2L teaching in early years



The Pre writing sample is a typical standard for the low achieving student group at the start of Yr1/2, as shown in Charts 2 and 5 above (<5 points). This student's reading level would be similarly very low. Without R2L intervention, this student would have continued in the E range throughout primary school, as shown for the low achieving group in Chart 2.

Within 2 months of R2L teaching, the same student has independently written a detailed, coherent and legible description on a topic the class has studied, has self-corrected while drafting it, and has incorporated key elements in the illustration, including the mother seal, the hole in the ice with a line for the direction of her dive, and the storm gathering in the sky above. This text is already well above the expected standard for Yr1 (shown in the NSW Board of Studies ARC site).

Again this is not a comparison between teachers, because it is averaged across a large set of schools and classrooms. Rather it is strictly a comparison between teaching approaches. The comparison is between the standard 'balanced approach' to literacy teaching in the early

years, with the integrated approach of R2L. The NSW state literacy policy (2006) defines a balanced approach as “phonemic awareness; phonics; vocabulary knowledge; comprehension; concepts about print; grammar; punctuation; spelling and handwriting”. The R2L early years strategies also include all these elements, but they are integrated in a carefully designed teaching sequence that starts with children’s engagement in quality texts, and works on all these components of reading and writing in this context, using carefully designed strategies. It may be claimed that standard early years practices also do this, but the data show that they do it one third as effectively as the R2L approach.

Furthermore, the R2L early years strategies are designed to be implemented from the first weeks of school. They do not wait until children are ‘settled’ in school, or until they know their letters and sounds before teaching them to read and write, but start at the beginning with explicit teaching. Western NSW Region consultants report that Kindergarten teachers who implemented R2L strategies right from the start of Term 1 2010 showed greater improvement than teachers who waited until Term 2 or 3 to start (source: Cheryl Koop).

The contrast between the effectiveness of R2L and standard early years practices is also supported by other assessments in Western NSW Region schools. For example, in Terms 3 and 4, 2008, Glenroi Heights PS conducted a comparative study of Yr1/2 classes using and not using R2L (by the teachers’ choice). Both classes had 18-20 students of the same cohort. Both had used standard early years literacy practices in Terms 1 and 2. At the end of Term 4, the percentage of students reading with 80-100% accuracy was three times higher in the R2L class (source: Principal Jane Cameron). Moreover, consistent implementation in the early years shows even higher growth. Following consistent implementation of R2L in Yr1/2 during 2008-9, Aboriginal students at Calare PS improved from below state averages for Aboriginal students in reading, writing and spelling, up to the state average level for all students in these measures by Yr3, 2010. This improvement was 10 times for reading and 20 times for writing above the state average growth over the same period, as measured by NAPLAN trend data (source: Assistant Principal Philippa Hughes).

We should also note at this point that the Pre scores for Yr1/2 and Yr3/4 include the results of other all the literacy interventions implemented in the region over the years, including commercial and departmental programs. The results without R2L, shown in Chart 5, include all these interventions. By comparison with early years growth rates using R2L, these programs appear to have had little or no impact on the growth rate and gap between students, despite major funding invested over many years in these programs by the state, region and schools. The NSW Auditor General (2008) found that there had been no growth in literacy and numeracy in the preceding decade using these interventions. The same result was also found by the Victorian Auditor General (2009).

With the results achieved by Kindergarten teachers in the region, using R2L teaching strategies, all these other interventions and their associated costs would appear to become redundant.

Outcomes of standard and R2L teaching in other years

As Charts 2 and 4 show, the gap that begins in Kindergarten continues throughout the following stages of school, decreasing slowly as low achieving students gradually improve, while remaining in the E range, the middle group stays steady in the D-C range, and the average scores of students in the high group gradually decline within the high C range.

The maintenance of low achieving students in the E band remains an intractable outcome of standard teaching practices in the primary and secondary school. In order for high achieving students to maintain their position in the high C range, they must keep developing at the standard average rate. In terms of the R2L assessment, this means about 7 score points per year, or 16.6% of the total possible score. However for low achieving students to get out of the E range, up to a passable C range, they must develop their skills at more than double the rate of the high achieving students. This simply does not happen with standard teaching practices. Nor does it happen with targeted interventions such as phonics and phonemic awareness programs, withdrawal reading programs, leveled readers, leveled reading groups or special education programs (Hattie 2009, Reynolds & Wheldall 2007, Rose, Gray and Cowey 1999).

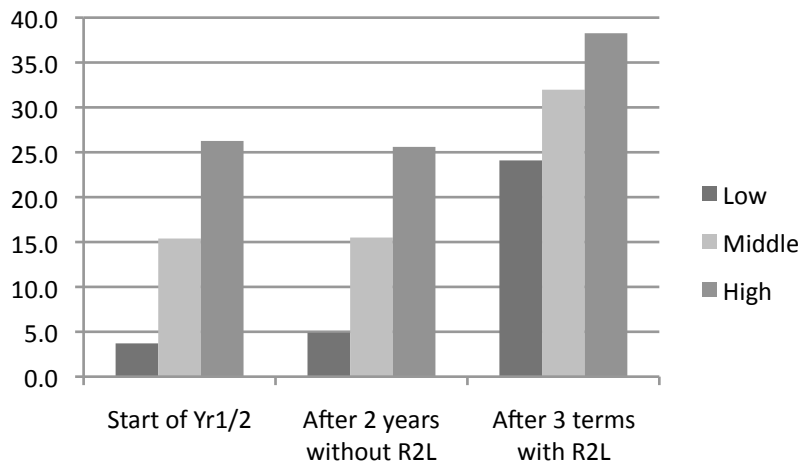
A key reason that these interventions have little significant long term effects on the growth rates of low achieving students is that they do not work with the curriculum texts that the class is studying. Instead they use low level texts and activities that are targeted at the assessed 'ability levels' of the low achieving students. It is logically impossible for students who are learning more slowly, with low level texts and activities, to ever catch up with their peers who are learning faster with higher level texts and activities.

A critical difference with R2L is the use of high level quality curriculum texts, which teachers select and prepare, and carefully designed strategies that teach every student in the class to read and write them at the same time. These are whole class strategies, in which the teacher is the expert guide. R2L also includes intensive strategies that are used with whole classes, as well as with small groups and one-on-one for additional support. But these intensive strategies also use the same high level texts that the whole class is studying. There are no withdrawal sessions for low achieving students using low level texts and activities. Independent research has shown that better results are obtained with whole class teaching using R2L than with withdrawal sessions using R2L (Culican 2006).

Years 1/2

Chart 6 below restates the growth rates and gap between students in Yr1/2, with and without R2L.

Chart 6: Growth rates in Yr1/2, with and without R2L teaching



The data at the start of Yr1/2 and after two years of standard teaching (i.e. at the start of Yr3/4) show little change in the proportions of high, middle and low achieving students, but with a slight improvement in the scores of the low group. In this stage of school, standard early years practices continue, with the difference that most children can now read and write to some extent. At this point the standard practices of leveled reading groups, and individual silent reading become more central, as well as writing stories from personal experience. In these practices, students read books at their assessed 'ability levels', the teacher may listen to each child read and may discuss the books with them, and then move them up to the next level of books when they are assessed as ready.

The practice of leveled reading books has been encouraged for whole classes by educational publishers. These sets of leveled reading books are generally not high quality stories, particularly at the lower levels. Thus high achieving students may read quality children's fiction, while low achieving students read poorly written picture books, with little or no interest value.² This practice further contributes to maintaining the gap between high and low students.³

With respect to writing, the most common writing activity at this stage is to write stories from personal experience. These may be termed 'recount' or 'narrative' with reference to the text types in the NSW K-6 syllabus. Whereas high achieving students are able to draw on their experience with reading to produce passable stories, low achieving students generally produce very short texts that are either recounts or observation/comments. Figure 2 shows a typical example of an observation/comment by a Yr3 student, after two years of standard practice in Yr1/2.

² Disturbingly, the strong results achieved with R2L in Yr1/2 by at least one WNSWR school appear to have been ignored, and new sets of leveled reading books have reportedly been purchased instead.

³ Hattie (2009:89) reports that ability grouping is a very common practice in primary classes, but has very low benefits for the learning of any group ($d = 0.16$, where $d = 2.0$ is considered a small improvement).

Figure 2: Recount by low achieving student in Yr3

TheSwimming
Carnival.
I Went in The race 4 race
and fun Thursday

In contrast, after three terms of R2L teaching, the low group in Yr1/2 are almost at the level the high group normally achieves with standard practices, up from E to C grade. This growth rate is 17 times the growth of the low group under standard early years practice. This rate is similar to the NAPLAN writing results reported above for Indigenous students at Calare PS. For the high achieving students, the growth rate after R2L teaching is 30% above the high group's achievement without R2L.

These growth rates are attained by explicit teaching of foundation literacy skills, in the context of reading high level quality texts by the whole class, with the teacher's expert guidance. These strategies are applied not only to stories in R2L, but also to factual and persuasive texts in Yr1/2. Figure 3 shows an example of a factual report independently written by a Yr1/2 student following R2L teaching.

Figure 3: Narrative writing after R2L

The Honey Bee

Honey bees are a insect.

The honey bees are a bright yellow and orange. It is 12mm long and the bee has six legs and, the bee has three separate parts to its body.

The bee Lives in all parts of Australia.

The bee collects nectar to make honey. It dance on the honey comb so the other bees know where the best flowers for honey are. The bee mite hat to fly 20,000km to collect enough nectar for 500g of honey.

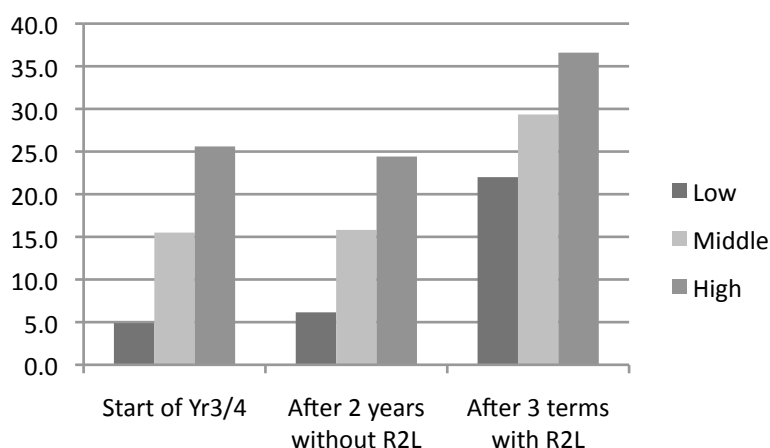
Most people like honey that the bees work so hard to make.

Despite the growth using R2L, the gap between high and low achieving students in Yr1/2 remains at 34%. While this is an improvement on the 49% gap without R2L, it demands further work. One reason for the gap is that this group includes students at the end of Year 1 and the end of Year 2. As explained above, this difference of a year equates to an average 16.6% growth. Therefore the gap of 34% is still about double what it should be if all students were equal. The gap for this cohort of students should reduce further in following years, given consistent R2L teaching. For students coming from R2L Kindergartens, starting with a reduced gap, it is likely that the gap at the end of Yr1/2 will also be much less.

Years 3/4

Chart 7 restates the growth rates and gap between students in Yr3/4, with and without R2L.

Chart 7: Growth rates in Yr3/4, with and without R2L teaching



After 2 years without R2L (i.e. at the start of Yr5/6), there has been a slight improvement in the scores of low achieving students, and a slight decrease in the high group. By this stage of school, the early years practices give way to a stronger focus on learning the contents of the curriculum, and writing to evaluate what has been learnt. However the practices of leveled reading books, leveled reading groups and individual silent reading continue, along with writing stories of personal experience.

One reason the low group has improved slightly without R2L, despite the reduction in teaching of foundation literacy skills in Yr3/4, may be explicit teaching of text types in the NSW K-6 syllabus. The typical practice with text types is to show students model texts of the text type, with labels or boxes for their stages (such Orientation, Complication, Resolution for narratives). Students are then expected to write texts of their own using these models. This is a very different practice from the strategy first developed for teaching genre writing, which is known as Joint Construction (Martin & Rose 2005). In this strategy the class first constructs a new text together, using the model with the guidance of the teacher. Only after this joint practice are students expected to write texts of their own. The standard practice with text types in NSW schools is a corruption of this strategy, that places the onus on individual students to use the models on their own.

After 3 terms with R2L, the growth is not quite as strong as it was in Yr1/2. The growth for the low group is 13 times what it was without R2L, and the high group has improved 26% more than without R2L. Figure 4 is an example of factual writing in Yr3/4 after R2L teaching.

Figure 4: Explanation by Yr3/4 student

Explanation of how a torch works

A torch is a light that runs by batteries. The electricity flows from the batteries through the metal spring which is use to keep the batteries together.

Therefore from the reflector electricity flows into the side of the bulb and then into the filament. The electricity continues from the filament to the base of the bulb and into the battery.

The filament glows when the electricity flows through it. As a result the torch bulb lights up.

When the switch is on the electricity circuit is completed. Electricity now flows through the metal strip to the reflector.

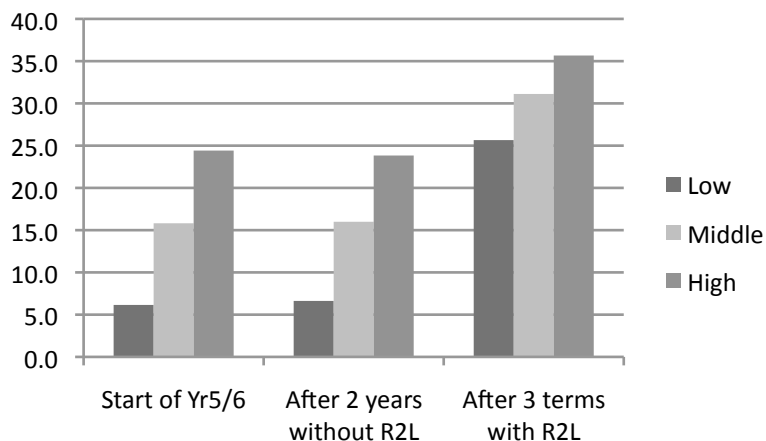
One factor in this kind of writing after R2L is that teachers are trained in the Joint Construction strategy, along with the other strategies used in R2L for teaching reading and foundation literacy skills.

However the gap between the high and low groups in Yr3/4 is the same as in Yr1/2 (35%). Again, this group includes students at the end of Year 3 and Year 4, but the gap is still double what it should be if all students were equal. As for Yr1/2 this needs further work to reduce this gap.

Years 5/6

Chart 8 restates the growth rates and gap between students in Yr5/6, with and without R2L.

Chart 8: Growth rates in Yr5/6, with and without R2L teaching



After 2 years without R2L (i.e. at the start of Yr7/8), the growth is very similar to Yr3/4 - there is a slight improvement in the low group, and a slight decrease in the high group, so the gap is reduced to 41%. At this stage the focus is more strongly on teaching and learning curriculum content, particularly through reading, and writing to evaluate what has been learnt. There is now relatively little focus on foundation literacy skills, except for remedial teaching and tutoring for students at risk. However the practice of leveled reading groups continues into Yr5/6, as there is such a wide gap in the reading skills of high and low achieving students. Again the slight improvement in the low group may be related to explicit teaching of text types as outlined above.

However at this stage, the consequences for the low achieving students become more serious, as they do not have anywhere near the literacy skills needed to cope with the secondary curriculum. They can neither independently learn from reading, nor write to demonstrate what they have learnt. This will become a major problem for their secondary teachers. In primary school this problem is alleviated by valuing all students for what they can do at their own levels, but in secondary school this is suddenly no longer possible, as all students must learn the curriculum in each subject area. This problem is partly dealt with by having a two-tier curriculum in some subject areas – a high level curriculum that is studied by reading for successful students, and a dumbed down curriculum that is learnt more by doing for less successful students. The middle group of students who achieve at D-C levels by the end of Yr5/6 may be able cope with the dumbed down secondary curriculum. But the low group of students who are still at an E level cannot cope even with that.

In contrast, after 3 terms with R2L, the low group is now achieving above what the high group achieved without R2L. This improvement for the low group is 49 times what it was without R2L. The high group has improved 28% more than without R2L. Excitingly, the gap between the high and low groups is reduced to just 24%. Again this includes students at the end of Year 5 and Year 6, but this is now closer to the 16.6% gap expected between Year 5 and Year 6 if the students were all equal.

This extraordinary improvement in the low group's scores, and closing of the gap, are certainly related to the explicit teaching of foundation literacy skills in the context of curriculum texts. As suggested above, foundation skills are rarely taught in standard Yr5/6 practice with whole classes. Remedial withdrawal teaching for the weakest students uses low level texts and activities that are unrelated to the curriculum. Consequently the low group cannot make sufficient gains. The combination of (i) explicitly teaching reading of curriculum texts, (ii) using Joint Construction for writing text types, and (iii) integrating foundation skills in curriculum teaching, accelerates the growth of the low group at unprecedented rates.

As these students are achieving what the high group achieved without R2L, they are now in the strong position to cope with reading and writing the secondary curriculum. Furthermore this may obviate the need to stream either low or middle groups into low level curriculum, as both are achieving above what the high level students formerly did.

Years 7/8

Chart 9 restates the growth rates and gap between students in Yr7/8, using R2L.

Chart 9: Growth rates in Yr7/8 using R2L

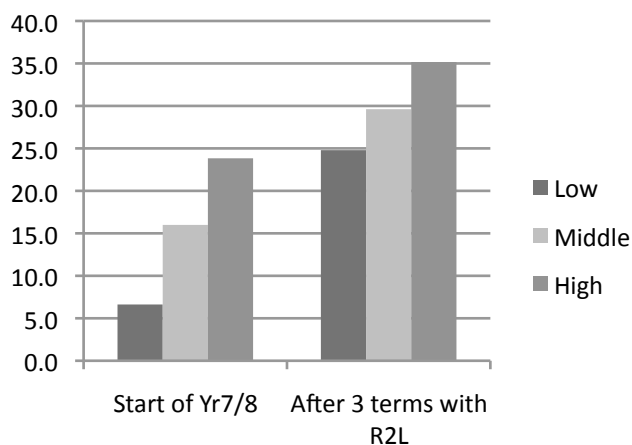


Chart 9 does not compare the 2010 growth rates in Yr7/8 with and without R2L teaching.⁴ However given the consistent trends we have seen without R2L from Yr1/2 to Yr7/8, it may be assumed that a similar trend continues into the secondary school years. That is, the low group remains at an E level, the middle group at D-C, and the high group at an average C.

Nevertheless, after 3 terms with R2L the low group is now achieving above what the high group achieved at the start of Yr7/8, and the high group has improved 28%. This is a similar pattern to that in Yr5/6. Likewise the gap between the high and low groups is just 25%.

⁴ Insufficient assessments were returned for Stage 5 (Yr9/10), see below for discussion.

Factors in this improvement include the explicit teaching of foundation skills within curriculum teaching, along with explicit teaching of reading and writing. For many secondary teachers this is the first time they have received training in literacy teaching. Yet most of their students cannot independently read and write the texts and language expected of their subject areas at a secondary level. Some standard practices to cope with this problem in the secondary school include:

- Abandoning textbooks in favour of low level handouts and texts copied from the internet
- Writing summary notes of the content on the board for students to copy into their workbooks
- Using worksheets with activities for students to write short answers (typically comprehension and memory tests)
- A high proportion of hands on manual activities.

In contrast, R2L trains secondary teachers to teach all their students to (i) read the texts and language of their subject areas at the same time as they teach the content, (ii) make notes from their reading, and (iii) use their notes to write successful texts. R2L has a strong focus on the language of specific subjects areas in the primary and secondary school. Teachers come to recognise that learning the content of their subject also involves learning the language and texts in which it is expressed. The R2L strategies are also designed for secondary teachers to fit the teaching of skills within their weekly timetables, along with teaching the content.

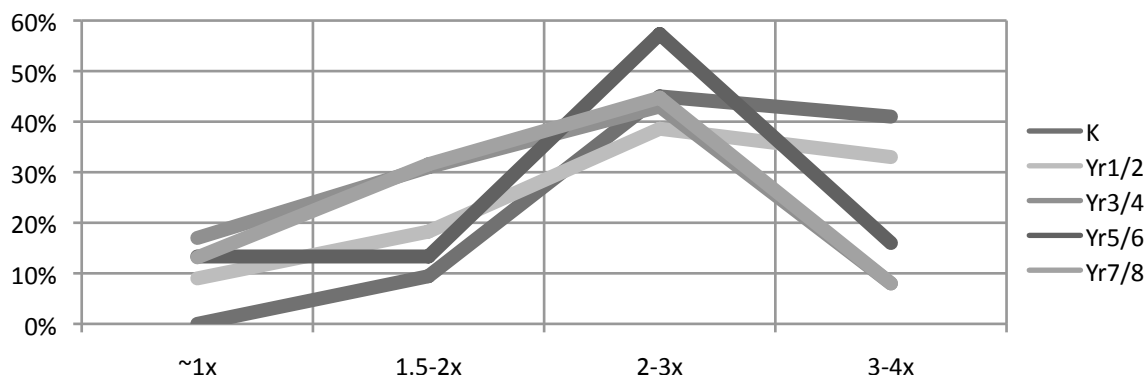
In addition, the R2L program is also the first time that many secondary (and primary) teachers have engaged in training that explicitly addresses Aboriginal education in terms of successfully integrating Aboriginal ways of learning into everyday classroom practice (Yunkaporta 2009).

Although the data in Chart 7 demonstrate the power of R2L strategies to accelerate the learning of all students in the secondary school, few secondary teachers in 2010 applied the strategies consistently beyond Yr7/8. The major factor cited by teachers that prevents them from teaching literacy skills is the volume of curriculum content they are expected to cover. Yet all teachers are aware that the majority of their students do not successfully acquire this curriculum content with the teaching practices they currently use.

Proportions of students achieving different growth rates

Chart 10 shows the proportions of students achieving different growth rates. The bottom axis shows the rate in relation to average growth rates. For example, ~1x means that these students' growth was around the standard average growth rate.

Chart 10: Proportions of students achieving different growth rates



These proportions are stated as percentages in Table 3.

Table 3: Percentages of students achieving different growth rates

	~1x	1.5-2x	2-3x	3-4x
K	0%	9%	45%	41%
Yr1/2	9%	18%	39%	33%
Yr3/4	17%	31%	43%	8%
Yr5/6	13%	13%	57%	16%
Yr7/8	13%	32%	45%	8%
Average	10%	21%	47%	22%

In Kindergarten, Yr1/2 and Yr5/6, 70-80% of students achieved gains of 2-4 times average growth rates. A smaller proportion of Yr3/4 and Yr7/8 students achieved these gains (~50%), and a slightly larger proportion in Yr3/4 achieved only average growth (17%).

The 10% of students achieving around the average growth rate helps to confirm the objectivity of the assessment; it is not claimed that all students have accelerated regardless of other factors. However, as 90% of students achieved at 1.5 to 4 times average growth rates, the potential of the methodology is clear.

Slightly weaker proportions for Yr3/4 are undoubtedly related to the large gap between students at the end Yr1/2. The middle primary years is a period when teachers have to guide students from the early years practices into learning the curriculum in upper primary. The large gap between students is a major challenge in this respect.

Slightly weaker proportions for Yr7/8 are related to limited time in the secondary timetable for teaching reading and writing skills. Given this constraint, these growth rates for Yr7/8 are a strong achievement.

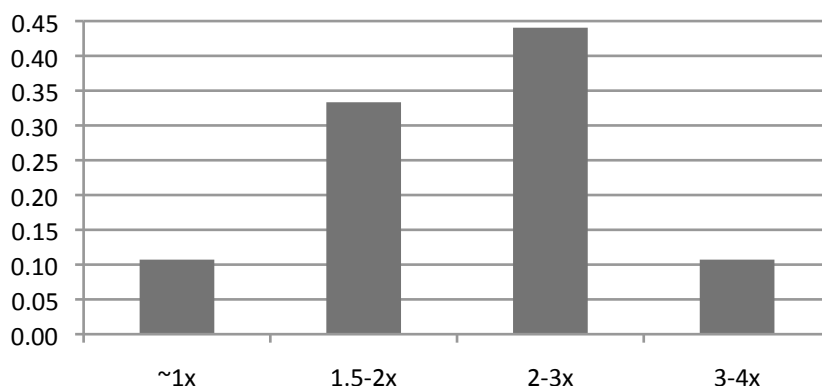
Growth rates by classes

Reading to Learn is both a teaching methodology and a professional learning program. The professional learning program has been designed over a decade of working with teachers across all education sectors and states, to provide teachers with complex high level knowledge about language and pedagogy, as effectively as possible.

The program brings together teachers in two day training workshops four times over a year. Teachers consolidate their learning by completing course tasks between workshops, while they put into practice what they have learnt in each workshop. Their regular application of the methodology in classrooms, and continual professional reflection on their teaching practice provides a platform for each successive workshop. Having a series of workshops spaced throughout the year takes into account teachers' continuum of learning, as teachers vary in the rate at which they learn and implement the methodology.

Chart 11 shows the outcomes for NSW Western Region teachers of the 2010 professional learning program, in terms of their students' achievement.

Chart 11: Growth rates by classes



11% of teachers achieved around the standard average growth rate for their classes.⁵

33% of teachers achieved around 1.5-2 times average growth rates for their classes.

44% of teachers achieved 2-3 times average growth rates for their classes.

11% of teachers achieved growth for their whole classes of 3-4 times standard average growth rates.

These outcomes for whole classes are an extraordinary achievement. They are a testament, not only to the teachers and the R2L professional learning program, but to the regional consultants who provide expert support and guidance to teachers between training workshops.

⁵ In contrast to the growth in other classes, it is likely that R2L was not implemented consistently in these classes. Factors cited by teachers and consultants for this problem include inexperience, resistance to change, and pressures or lack of support from school executives. These results could be improved with targeted support by consultants and school executives to meet the needs of this group of teachers.

Teachers' feedback

In the R2L professional learning program, teacher's feedback and is recorded and discussed in each training workshop. The following are written comments by teachers at the conclusion of the 2010 program. These comments address many common concerns of teachers and are worth close reading.

- Thank you. You have challenged my thinking and inspired me to embrace R2L wholeheartedly.
- I am convinced that R2L is a fantastic methodology, and I hope that I always get to teach in schools that value children's literacy by valuing R2L and not streaming classes for ability.
- I will take away:- a commitment to improving students' writing through explicit teaching as shown.
- Thank you for giving me a clearer understanding of the R2L learning cycle.
- Where was all of this ten years ago? This has been extremely valuable. The workshops have been intense (occasionally draining...) but FULL of valuable ideas. The resources (R2L books and DVD's) that we now have forever, is extremely valuable as well. Thank you.
- Thank you for challenging how I teach and my methods in the classroom. There is still room for growth, but I feel I have come a long way. Thank you - you have made me THINK! Regards, LB
- I feel that the fog has finally lifted and I'm ready to confidently teach the reading to learn cycles. Thanks. MW.
- Thank you for this wonderful opportunity. I feel like this has been the single-most important professional development I've ever had! I am now planning and developing explicit and systematic lessons with specific purpose and focus. I have a much better understanding of how to narrow the gap between my students. Kind regards, CT
- I have been challenged to think more about choice of text and not to assume that children have a good background knowledge of text types; vocabulary; etc. - context on commonly known books, to be more explicit.
- Thank you so much for providing your extensive knowledge about R2L. It is a very valuable, worthwhile teaching tool.
- Finally as a teacher I have been given 'tools' to effectively teach my students skills needed to comprehend and understand information, text types and particularly HOW 2 WRITE. Thank you very much XO. L.
- I am very pleased to have engaged with R2L to enhance my professionalism as a NST. Many of my students have difficulties with literacy and comprehension and as yet I had no concrete way of remedying this situation. May change this!. Thank you, FD.
- Thank you for the R2L workshops which have been really inspiring. I have found it challenging to implement the ideas, but am finding the process very worthwhile. Thank you, CC.
- Thank you! I'm so happy to have had the experience - to see my low achievers engaged!
- I hope I'm able to fully implement R2L cycles because I truly believe in the R2L philosophy. I feel inspired and I hope I can do the methodology justice. Thank you MA.
- Thank you for giving me an effective and engaging structure to use in my classroom. I'm sure that my students will benefit immensely from my involvement in R2L. Thank again.

- Thank you for giving me a better understanding in the R2L cycle. I taught R2L for a year before coming to the training and it makes so much more sense now I have been here. I am getting improved results in the classroom and it's due to R2L so thank you !!!
- I learnt a lot although the grammar is heavy-going! My children look forward to reading the texts we study each week/fortnight.
- Thank you for sharing your knowledge of R2L with me. My knowledge of literacy teaching has improved along with my understanding of R2L. Gladly, it is showing through the results of my students. Thanks again.
- I love the fact that by coming here someone has finally acknowledged this lack of 'readiness/skills' on the larger part of our client base. I have felt this for years and been at a loss as to how to address this until now.
- Thank you for exposing me to the R2L cycle and deepening my understanding of the cycle.
- My students are now more regularly producing higher quality writing. Thank you. Thanks Lyndall for your practical application of R2L.
- One key message that I have taken from R2L is ... * use complex texts to challenge children. Thank you.
- I feel much more competent in teaching and planning the R2L cycle. I am very happy with the 2 week cycle timetable, although time is a major factor!
- Thank you for hard work and interest shown for such a great program. I now have a deeper understanding of the total process. Many thanks.
- It is always interesting to see "new" programmers – thanks for your time. A positive aspect of R2L was that it affirmed the usefulness of my own training and practice as an English teacher – I already scaffold and it is good to see this being utilised across the system. A special thanks for Lyndall and her practical understanding of the need to mould R2L to particular settings. Ta.
- Consolidated much of my current pedagogy/knowledge and gave more tools for explicit literacy teaching. Thanks.
- Reading to Learn really involves students.
- Thank you for sharing your knowledge and expertise.
- Thanks for all you input. It's great to have a way of lifting the expectations for our lower performing students and giving them access to stage appropriate texts.
- Thank you for your valuable knowledge over the past 8 sessions on a different way of teaching English. However, I have learned not to eliminate good practice in the classroom and incorporate R2L into my current teaching practice. Thanks.
- Thank you for all your effort. R2L is great and I hope I continue to improve and become more confident. I can already see results in my class!
- For enthusing me about the Read To Learn program and the results at all levels of schooling and skill levels.
- Thanks for the explicit teaching and redirecting and refocusing my teaching of the literacy outcomes.
- The information report technique is most useful. XOXO.
- I now have a deeper understanding and knowledge on my literacy sessions.
- My students and I are enjoying the program and also I am seeing an improvement in participation and outcomes. I look forward to more achievements for my students and my teaching practice.
- See you next year for accreditation!

Recommendations

The assessment results above clearly show the benefits of the R2L methodology for students and teachers in Western NSW Region. The following recommendations are offered to extend and enhance these benefits to the region.

1. Targeting training programs for junior primary (K-Yr1/2), middle-upper primary and secondary teachers.

The teaching contexts and learning needs of these 3 groups of teachers are very different in several respects. Specific R2L strategies are designed for implementation at each of these levels. However training programs currently include all of these teacher groups together, with little opportunity for meeting their specific needs.

Secondary teachers need to integrate reading and writing skills in their specific subject areas, within the limited time available in the secondary school program. These teachers need specific knowledge about the language demands of their subject areas, and strategies they can use for teaching literacy within their curriculum programs. A smaller proportion of secondary teachers than others have consistently implemented the methodology, and fewer beyond Yr7/8. However the literacy needs of students are just as serious at all secondary levels as in the primary years. Secondary teachers need specific attention in the training program for their context.

Junior primary teachers also have specific needs, to bridge their students from early childhood into learning the school curriculum through reading and writing. Their needs are not for the specific language demands of subject areas (as in the secondary), but in strategies for guiding young children into the tasks of reading and writing.

A manageable solution for R2L training in the region is for these teacher groups to split off in the second day of each training workshop, to address their specific needs in separate sessions. The regional consultants (acknowledged on page 1 above) have sufficient expertise to run these separate sessions on Day 2 of the workshops. In addition, ongoing training for teachers who have completed their initial R2L workshops has been scheduled for these two separate groups (K-6 and 7-12).

2. Training programs for tutors and parents

Very successful training programs have been conducted in the region for tutors and parents, in the R2L intensive support strategies. Intensive strategies training follows a standard program for 4 hours, broken into three sessions. Schools typically host a number of these training days each year. All regional consultants who have undergone R2L training have the capacity for running these programs, so they could be expanded at minimal cost.

The R2L intensive support strategies integrate foundation skills with reading and writing texts from the curriculum at each year level and subject area. The training provides support staff with the skills to use age and stage-appropriate texts within the classroom, with students with high literacy support needs. This has been far more effective than intervention

programs that drill foundation skills in isolation, using low level texts and activities. The R2L intensive support strategies are also far more cost effective, as regional consultants have the skills and knowledge to train teachers, tutors and parents in these strategies.

3. Executive information sessions

Executive support is critical for the success of teachers in schools. When school executives attend the training sessions, they have far greater knowledge of the approach and expectations of the methodology, and can make greater impact on the consistency of practice across their school.

Further training days for school executives to build their capacity for leading the implementation of R2L in their schools could be run by regional consultants towards the start of each year.

4. Sharing of resources

A great many teachers in the region are developing resources, including texts and lesson plans, that could be shared by teachers across the region, if an effective system were in place. Currently a WNSWR Moodle has been established for sharing of information and resources (by Cheryl Koop). However this needs to be adequately resourced and publicised for teachers in the region to benefit properly.

Such a resource is both cost-saving and educationally effective, as high quality resources are accumulated rather than duplicated by individual teachers, and they have an opportunity to build networks with other teachers across the region. Teachers consistently state that preparation time is the biggest single issue for implementing the R2L methodology.

5. Specialist maths training

Highly successful strategies have been developed in the R2L program for teaching the language of maths. In particular, Glenroi Heights PS and associated schools have developed these strategies to a high degree, with a large range of teacher resources. These strategies are introduced briefly in the R2L training workshops, giving teachers the option for using them.

However secondary maths teachers have specific needs. They do not need to attend the whole R2L 8 day training program, but would benefit from a separate program, consisting of just 1 day per term. This type of program is currently being organised in the Western Sydney region.

6. Focus on early years

The results achieved by Kindergarten and Yr1/2 teachers in the region, using R2L teaching, are orders of magnitude above those of any other early years method or program, including all current interventions in the region.

If the region chose to put support towards R2L training for early years teachers across the region, it could reduce instead of widening the gap, and so have major long term benefits for the achievement of all students. As regional consultants already have the knowledge to train early years teachers in the R2L early years methodology, such a training program could be conducted at minimal cost,.

Bibliography

- Adams, M.J. (1990) *Beginning to read: Thinking and learning about print: A summary*. Urbana-Champaign: University of Illinois
- Reynolds, M. & Wheldall, K. (2007) Reading Recovery 20 Years Down the Track: Looking forward, looking back, *International Journal of Disability, Development and Education* Vol. 54, No. 2, June 2007, pp. 199–223, <http://education.qld.gov.au/literacy/lit-research.html>
- Culican, S. (2006) *Learning to Read: Reading to Learn, A Middle Years Literacy Intervention Research Project*, Final Report 2003-4. Catholic Education Office: Melbourne, <http://www.cecv.melb.catholic.edu.au/Research and Seminar Papers>
- Hattie, J.A.C. (2009) *Visible Learning: a synthesis of over 800 meta-analyses relating to achievement*. London: Routledge.
- Koop, C. and Rose, D. (2008) Reading to Learn in Murdi Paaki: changing outcomes for Indigenous students. *Literacy Learning: the Middle Years* 16:1. 41-6, <http://www.alea.edu.au/>
- McRae, D., Ainsworth, G., Cumming, J., Hughes, P., Mackay, T. Price, K., Rowland, M., Warhurst, J., Woods, D. and Zbar, V. (2000) *What has Worked, and Will Again: the IESIP Strategic Results Projects*. Canberra: Australian Curriculum Studies Association, 24-26, <http://www.acsa.edu.au>
- Martin, J.R. & Rose, D. (2005). Designing literacy pedagogy: scaffolding asymmetries. In R. Hasan, C.M.I.M. Matthiessen and J. Webster (eds.) *Continuing Discourse on Language*. London: Equinox, 251-280, <http://www.readingtolearn.com.au>
- NSW Auditor-General (2008) *State of literacy and numeracy in NSW*, <http://www.audit.nsw.gov.au>
- Rose, D. (2005) Submission to the *National Inquiry into the Teaching of Literacy*. Canberra. Department of Education, Science and Training, http://www.dest.gov.au/nitl/submission_index.htm
- Rose, D. (2010). *Reading to Learn: Accelerating learning and closing the gap*. Teacher training books and DVD. Sydney: Reading to Learn, <http://www.readingtolearn.com.au>
- Rose, D., Gray, B. & Cowey, W. (1999). Scaffolding Reading and Writing for Indigenous Children in School. In P. Wignell (ed.) *Double Power: English literacy and Indigenous education*. Melbourne: National Language & Literacy Institute of Australia (NLLIA), 23-60, <http://www.readingtolearn.com.au>
- Victorian Auditor-General (2009) *Literacy and Numeracy Achievement*, <http://www.audit.vic.gov.au>
- Williams, G. (1995) *Joint Book Reading and Literacy Pedagogy: A Socio-semantic Examination*. PhD thesis, Macquarie University
- Yunkaporta, T. (2009) *Aboriginal pedagogies at the cultural interface*. PhD Thesis, Charles Cook University, <http://8ways.wikispaces.com/>