Catholic Education Office Melbourne

LEARNING TO READ
READING TO LEARN
A Middle Years Literacy Intervention Research Project

Research Report
2003-2004

Prepared for the Catholic Education Office Melbourne
by
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**Dr David Rose, Consultant to the CEOM Learning to Read:Reading to Learn Project**

Dr David Rose leads a literacy research program with school and university programs across Australia and internationally, entitled Learning to Read:Reading to Learn. This program develops and trains teachers in strategies for scaffolding reading and writing across the curriculum, at all educational levels from early childhood to undergraduate study. Dr Rose also holds the position of Principal Research Fellow with the Koori Centre, University of Sydney. His work is particularly concerned with Indigenous Australian communities, languages and education programs, with whom he has worked for over twenty years. He has published extensively in the field of Indigenous language and literacy, as well as in the field of technical and scientific literacies.

**Schools Involved in the CEOM Learning to Read:Reading to Learn Project**

2003
- Sacré Coeur College, Glen Iris
- St Peter's School, Epping
- Santa Maria College, Northcote
- De La Salle College, Malvern
- St Joseph's School, Springvale
- St John's School, Thomastown East

2003-2004
- St Paul's School, Bentleigh
- Caroline Chisholm Catholic College, Braybrook
- Mercy College, Coburg
- St John's Regional College, Dandenong
- St Gerard's School, Dandenong North
- St Monica's College, Epping
- Nazareth College, Noble Park North

2004
- St Peter's School, Bentleigh East
- St Elizabeth's School, Dandenong North
- St Monica's School, Footscray
- Catholic Regional College, Melton
- St Catherine's School, Melton West
- St Francis of Assisi School, Mill Park
- Mazenod College, Mulgrave
- St Francis de Sales School, Oak Park
- St Simon's School, Rowville
- Holy Saviour Parish School, Vermont South
- St Justin's School, Wheeler's Hill

In 2004, St Monica’s College, Epping, won one of three Excellence Awards in the National Literacy Week Awards (Non-government Schools Category) for their achievement in the CEOM Learning to Read:Reading to Learn Project.
Executive Summary

The middle years (Years 5-9 in Victoria) are a crucial stage of schooling where the range in student achievement widens, and progress for some students slows significantly (Cairney et al. 1998; Hill & Russell 1999). Despite recent moves towards middle school reform and improved literacy standards, there has remained a gap in literacy provision for adolescent learners, particularly those defined as ‘educationally disadvantaged’ or ‘at risk’ (Masters & Forster 1997; DEETYA 1998). Many literacy intervention programs offered to underachieving adolescents fail to articulate to mainstream curriculum and assessment practices, or to scaffold students adequately in meeting the literacy demands of an increasingly abstract and specialised curriculum. Often attributing literacy failure to individual deficit, many intervention programs, albeit well-intentioned, lead to a differentiated curriculum which potentially compounds educational disadvantage and maintains stratified outcomes.

A number of middle years studies emphasise the need for literacy intervention programs to take account of the particular educational needs of adolescent learners, and to be firmly connected with the mainstream curriculum and assessment practices. The Successful Interventions research carried out in Victoria between 1997 and 2001 (ACER 2000; Deakin University 2001) identified these as priorities among its ten key principles for successful literacy intervention programs and strategies. More recently, the national report Beyond the Middle (Luke et al. 2003) found that

...many schools have instituted various forms of withdrawal programs as interventions aimed at students at risk of poor literacy achievement in the middle years. Many of these remain focussed on deficit or remedial approaches, drawing heavily from dated special education materials with an emphasis on individual worksheets, levelled texts and base-line decoding of printed text....Characteristic of these pullout programs was a mismatch with the practices and pedagogies of the mainstream classroom. (Luke et al. 2003: 116)

It is within this context that, in 2003, the Catholic Education Office Melbourne (CEOM) established a two-year Middle Years Literacy Intervention Research Project aimed at improving literacy outcomes for students considered to be educationally disadvantaged or at risk in the middle years of schooling. The CEOM Learning to Read:Reading to Learn project aimed to measure the impact of the particular approach to scaffolding the literacy development of underachieving adolescents in the middle years of schooling known as Learning to Read:Reading to Learn.

The Catholic Education Office Melbourne has a significant history of responding to national language and literacy policies, of contributing to state-wide literacy research initiatives, and of maintaining levels of support for language and literacy education personnel and programs in schools. As a Middle Years Literacy Intervention Research Project, the CEOM Learning to Read:Reading to Learn project can be seen as a system response to the call for ‘a new wave of research’ (Luke et al. 2003) into sustainable improvements through mainstream pedagogic reform. The project was highly congruent with reform frameworks and recommendations informing CEOM early and middle years initiatives, including the general design for a whole school approach to school improvement (Hill & Crévola 1997), the recommendations from the Middle Years Literacy Research Project (Culican, Emmitt & Oakley, Deakin University 2001) and the goals and priorities outlined in the most recent major national report on the middle years of schooling in Australia, Beyond the Middle (Luke et al. 2003).
This Final Report documents the outcomes of this systemic initiative carried out over 2003 and 2004 in Catholic primary and secondary schools in the Archdiocese of Melbourne. The project involved school teams of middle years teachers trialling the scaffolding approach in Learning to Read: Reading to Learn and monitoring the progress and achievement of a group of ‘target’ students using a variety of strategies designed to collect both quantitative and qualitative data. Schools and teachers in the project received support through ongoing professional development and school-based consultancy. Accreditation for teachers involved in the project was available through the University of Sydney.

Consultancy and professional development for the CEOM Learning to Read: Reading to Learn project was provided by Dr David Rose, Principal Research Fellow in the Faculty of Education at the University of Sydney and key developer of Learning to Read: Reading to Learn as a professional development program for teachers. The scaffolding approach which underpins Learning to Read: Reading to Learn was developed initially by Brian Gray, David Rose and Wendy Cowey from work in Indigenous education programs in Central and South Australia and at the University of Canberra (Gray, Rose & Cowey 1998). Since its inception, Learning to Read: Reading to Learn has been taken up and implemented in a number of non-Indigenous settings in Victoria and other states and territories where it has been shown to accelerate the progress not only of underachieving students but in scaffolding all students in accessing the academic-literate discourses of schooling.

The CEOM Learning to Read: Reading to Learn project involved approximately 60 middle years teachers from 24 primary and secondary schools working with approximately 400 target students. Of the 24 schools, 14 were primary schools and 10 were secondary schools. These schools were located across the Melbourne Archdiocese and collectively represented a broad cross-section of the cultural and socio-economic contexts within the Catholic education sector. A number of these schools currently receive, or have received, funding based on student factors such as language backgrounds other than English, socio-economic status or numbers of Aboriginal or Torres Strait Islander students.

Key elements of the CEOM Learning to Read: Reading to Learn project were

- Teacher professional development
- Selection of target students and model of delivery
- School-based consultancy and support
- Collection of school, teacher and student data
- Development of print and video resources
- Establishment of email contact
- Teacher reflection and evaluation
- Accreditation through the University of Sydney

Key instruments and strategies used to collect data on project outcomes for teachers and students were

- Teacher reflections and evaluations (ongoing)
- Developmental Assessment Resource for Teachers (DART) Reading assessment (pre and post)
- Running Records (pre and post)
- Student writing samples (pre and post)
The project confirmed the effectiveness of the Learning to Read: Reading to Learn (LRRL) literacy pedagogy for students in the middle years of schooling, particularly those identified as educationally disadvantaged or at risk. The LRRL approach was highly successful in accelerating the literacy performance of over 95% of the target students underachieving in literacy. However teachers also reported that at the same time it extended the learning of more able students and increased the engagement and participation of all students.

Analysis of pre and post DART scores, and corresponding CSF-rated scores, showed that average literacy gains across all schools and classes, and among students from all backgrounds and ability ranges, was consistently more than a CSF level in improvement within approximately three school terms, or approximately double the expected rate of literacy development. Furthermore, 20% of students made gains of two or more CSF levels, or four times the expected rate of literacy development. The student gains evident in DART and CSF-rated scores were also supported by the results of miscue analysis of reading and analysis of student writing samples.

The findings of the project indicate that the LRRL pedagogy, if adopted across Years 5 to 9 provides a common approach to literacy built around shared approaches, materials, and methods that challenges the ‘remediation ethos’ and equips mainstream teachers with the knowledge required to teach explicitly to the literacy demands and learning expectations of the middle and secondary years curriculum. These advantages address the concerns identified in the Beyond the Middle, including the ‘pull out and remediate’ approach as distinct from ‘fix the mainstream pedagogy’ approach, and ‘fragmentation’ of target group interventions for ESL students, Indigenous students, weaker readers, and students with disabilities and special needs, where there was ‘no consistent and coherent patterns of approaches, materials or methods used’ (p. 136). In contrast, LRRL offers a powerful set of strategies that address the needs of all students within the context of normal classroom teaching practice.

Key criteria recommending Learning to Read: Reading to Learn for students in middle schooling include

- Appropriate pedagogy for adolescent learners
- Inclusive of students from diverse cultural and linguistic backgrounds
- Effective in both mainstream and intervention contexts
- Linked to mainstream curriculum and assessment practices
- Flexible and adaptable to different models of delivery
- Supportive of different levels of literacy development, including reading, writing, spelling, punctuation and grammar
- Capable of extending the learning of more able students as well as students underachieving in literacy
- A common literacy pedagogy that promotes continuity in literacy provision and builds partnerships between middle years teachers in primary and secondary schools

The results of the research project confirm that, as a literacy intervention, Learning to Read: Reading to Learn has an important contribution to make to a comprehensive, system-wide strategy that addresses the literacy needs of adolescent learners in the middle years, particularly those identified as educationally disadvantaged or at risk. In the context of Catholic education, it is important that the theory and principles underpinning the scaffolding approach in Learning to Read: Reading to Learn are closely aligned with the educational mission of the Church, with social justice values and with democratisation of the literacy curriculum (Rose 2005a).
The following are key findings from the CEOM Learning to Read: Reading to Learn Middle Years Literacy Intervention Research Project carried out in 2003 and 2004.

1. Significantly improved literacy outcomes and student engagement.
2. Advantages of the Learning to Read: Reading to Learn literacy pedagogy.
3. Gains most significant in whole class delivery.
4. Equally successful for male and female target students.
5. Greater gains where teachers worked collaboratively.
6. Variation in student gains between teachers and schools.
7. Gains for students with ‘learning disabilities’ exceeded expectations.
8. A model for monitoring the progress of at-risk students.
9. Developing teachers’ professional knowledge about language.
10. Sustained support for pedagogic change in middle years literacy.
Introduction

This Final Report documents the outcomes of the CEOM Middle Years Literacy Intervention Research Project Learning to Read:Reading to Learn. This research project was initiated by the Catholic Education Office Melbourne in 2003, through consultancy with Dr David Rose, Principal Research Fellow in the Faculty of Education at the University of Sydney. The project involved teams of teachers participating in a professional development program led by Dr Rose and trialling an approach to scaffolding literacy, with a particular focus on improving the outcomes of students considered to be underachieving in the middle years of schooling.

Section 1 of this report locates the research project within the wider context of national literacy policy, the agenda for middle years reform and the CEOM Middle Years Literacy Project, a component of the CEO Literacy Advance strategy. It also outlines the theory and principles underpinning the scaffolding approach in Learning to Read:Reading to Learn and highlights key features of the practice. Section 2 provides an overview of the design of the research project and a description of the project components, the schools, teachers and students involved in the research. Section 3 provides a summary and analysis of project results. Section 4 provides a discussion of key findings emerging from quantitative and qualitative data from the research.

In this report, the term ‘CEOM Learning to Read:Reading to Learn project’ (or ‘CEOM LRRL project’) refers to the project as a whole, while the term ‘Learning to Read:Reading to Learn’ is used to refer to the specific scaffolding methodology, including the knowledge about language, the discourse pattern and the lesson sequences that comprise the approach in Learning to Read:Reading to Learn.

Section 1: Background and Context

The Catholic Education Office, Melbourne (CEOM) has a significant history of responding to national language and literacy policies, of contributing to state-wide literacy research initiatives, and of maintaining levels of support for language and literacy education personnel and programs in schools. Over the last few decades, the CEOM has provided continued support for schools developing effective language and literacy programs for those students considered to be educationally disadvantaged or at risk.

Since the mid 1980s, these programs have focussed on the educational needs of a wide range of students, including ESL and Indigenous students. Since 1997, as part of the Literacy Advance strategy, the CEOM has offered consistently high quality professional development in language and literacy education to middle and secondary years teachers and co-ordinators. These programs have focussed on improving literacy provision in both mainstream classroom and literacy intervention contexts and on building teacher professional knowledge about text and language across curriculum learning areas.

Responding to the call for middle years reform, the CEOM developed the Middle Years Literacy Project. This project embeds the literacy goals and ‘strategic actions’ outlined in the national language and literacy policy, Literacy for All: The Challenge for Australian Schools (DEETYA 1998), within a focus on best practice in the middle years of schooling, with particular attention to individuals and groups of students performing at lower than expected standards.
While the CEOM had offered training in literacy intervention to middle years teachers in previous years (notably in programs such as Making a Difference, Furniss & Green 1994), the foundation for establishing Learning to Read:Reading to Learn as a Middle Years Literacy Intervention Research Project was partly established in 2002. Teachers from a number of Catholic primary and secondary schools participated in a four-day professional development program with Dr David Rose titled Supporting Struggling Readers in the Middle Years (5-9). An earlier version of Learning to Read:Reading to Learn, this program gave preliminary indication that the theory and practice of the scaffolding approach met a number of important ‘middle years’ criteria. These included the fact that it was an inclusive approach, designed to support all students in accessing the academic-literate discourses of schooling using quality, challenging and age-appropriate texts linked to mainstream curriculum and assessment practices.

Learning to Read:Reading to Learn was established as a CEOM Middle Years Literacy Intervention Research Project in 2003 with design features shaped by the preceding program in 2002 and by other pilot programs in Victorian schools (eg Milburn & Culican 2003). These features included spaced professional learning, access to school-based consultancy and a focus on collection and analysis of data. On the basis of the preliminary findings, the research project was continued in 2004 and linked more directly to the wider CEOM Middle Years Literacy Project.

1.1 The CEOM Middle Years Literacy Project

The CEOM LRRL project was a component of the wider CEOM Middle Years Literacy Project initiated in 2001 as part of the CEOM Literacy Advance strategy. Key components of the CEOM Middle Years Literacy Project are as follows:

- Enhancement of teacher knowledge about language and literacy
- A focus on genre and curriculum literacies
- Literacy intervention for students considered to be ‘at risk’
- Support for ESL and Indigenous students

The development of the CEOM LRRL project as part of the CEOM Middle Years Literacy Project was firmly situated within the commitment in Catholic Education to supporting schools and teachers in delivering improved literacy outcomes for students in Years 5 to 9, particularly those considered to be educationally disadvantaged or at risk. As such, the project represented a significant component of the overall strategic plan for middle years literacy provision in Catholic schools in the Melbourne Archdiocese in 2003 and 2004. In 2004, steps were taken to develop stronger links between the CEOM LRRL project and the wider CEOM Middle Years Literacy Project.

1.2 The Focus on Literacy in the Middle Years

In recent years, the stage of schooling now described as ‘the middle years’ has become a site for increased research and policy activity. Since the early 1990s, major studies and key reports emerging from Australia and other western developed countries have demonstrated growing awareness and concern about declining performance in the middle years of schooling (Braggett 1997), and particularly in the transition from primary to secondary school (Green 1998; Cairney et al. 1998). This is increasingly linked with student disengagement and alienation in what is now being regarded as a critical period in the education of young adolescents. These middle years studies call for the redesign of educational provision for this stage of schooling in ways that meet the
unique educational and developmental needs of learners in late childhood and early adolescence.

Since the early 1990s, Australian reports such as In the Middle: Schooling for Young Adolescents (NBEET 1992) and From Alienation to Engagement (Cumming & Cormack 1996) have identified key issues, recommendations and strategies for reform in the areas of student retention, engagement, performance and transition. These reports propose strategies for improving attendance and retention, for enhancing wellbeing and resilience and for designing curriculum, structure and pedagogy to cater more effectively for adolescent learners.

At the same time, the standards-based reform agenda in Australia has placed increased emphasis on measurement of progress and improvement of learning outcomes, particularly for those students considered to be educationally disadvantaged or at risk. This is particularly relevant to the middle years, where student progress has been shown to slow significantly (Cairney et al. 1998; Hill & Russell 1999). This reform agenda is reflected in national policy, in educational research and in systemic reform initiatives developed by education authorities in government, Catholic and Independent sectors of schooling.

In 1997, the findings of the National School English Literacy Survey (Masters & Forster 1997) drew attention to the range of developmental levels among students in the middle years, and to the factors potentially impacting on the literacy outcomes of particular individuals and groups of students:

- students from higher socio-economic backgrounds out-perform students from lower socio-economic backgrounds
- girls perform better than boys in literacy tasks
- students from an English speaking background perform better than students from a non-English-speaking background
- non-Indigenous students perform better than Indigenous students

(Masters & Forster 1997)

Subsequently, the Ministers of Commonwealth, State and Territory Education agreed to a National Literacy and Numeracy Plan. This plan included a goal, which highlighted the needs of students commencing secondary school education:

That every child leaving primary school should now be numerate, and be able to read, write and spell at an appropriate level. (MCEETYA 1997)

The national plan and its associated goal were reiterated in the national literacy policy Literacy for All: The Challenge for Australian Schools (DEETYA 1998). This policy outlined a number of imperatives for literacy, including an explicit focus on literacy education in the middle years of schooling, particularly for students performing at lower than expected standards:

If children have not achieved appropriate literacy and numeracy skills by the end of primary school, they are unlikely to make up the gap through the rest of their schooling. (DEETYA 1998)

In 1998, the national report Shaping Middle Schooling in Australia (Barratt 1998) called for targeted projects in literacy and numeracy in the middle years. This call was echoed in Victoria in Rethinking The Middle Years of Schooling: A Report to the Minister for Education of the Victorian Years 5-8 Research Project (Kruse with Maxwell & Spooner 1998).
Since 1998, a number of Commonwealth and state-funded initiatives have enabled education systems, including the Catholic Education Office Melbourne, to direct increased resources towards research and training in middle years literacy education. A significant example was the Commonwealth-funded project Successful Interventions: A Literacy and Numeracy Initiative. Carried out in three phases, between 1998 and 2001, this project was the result of collaboration between the Government, Catholic and Independent education sectors in Victoria. The Successful Interventions research investigated effective literacy practice in both intervention and mainstream educational settings and documented the findings in two main reports: Successful Interventions Research Project: An investigation of literacy programs and strategies in forty-four Victorian secondary schools (ACER 2000) and Literacy and Learning in the Middle Years: Major report on the Middle Years Literacy Research Project (Culican, Emmitt & Oakley, Deakin University 2001).

A strong principle in both these reports was the need for a cohesive approach to literacy education across both intervention and mainstream settings. This is crucial in avoiding curriculum fragmentation and in ensuring that intervention programs and strategies articulate to mainstream classroom curriculum and assessment practices. This principle was also reiterated in the national report Beyond the Middle (Luke et al. 2003) which found that

...many schools have instituted various forms of withdrawal programs as interventions aimed at students at risk of poor literacy achievement in the middle years. Many of these remain focussed on deficit or remedial approaches, drawing heavily from dated special education materials with an emphasis on individual worksheets, levelled texts and base-line decoding of printed text....Characteristic of these pullout programs was a mismatch with the practices and pedagogies of the mainstream classroom. (Luke et al. 2003: 116)

As demonstrated in research into literacy intervention in Victorian schools (VATE 1999; ACER 2000), the range of literacy intervention programs and strategies delivered to adolescent learners is diverse and encompasses both commercially marketed, or ‘packaged’, programs and school-designed initiatives, with many schools creating programs that draw on an eclectic mix of commercial and teacher-generated materials. However, many approaches to literacy intervention fail to produce sustained improvement in the literacy performance of underachieving students (Luke et al. 2003).

Significant to this Final Report is that the scaffolding approach which forms the basis of Learning to Read:Reading to Learn was identified in the final report on the Successful Interventions research (Culican, Emmitt & Oakley, Deakin University 2001) as meeting a number of criteria generally regarded as important in middle years literacy intervention. Key strengths of this scaffolding approach are its capacity to provide explicit support to students in accessing the academic-literate discourses of schooling, and at the same time to build teacher knowledge about text and language across curriculum learning areas. Other features making the approach particularly suitable to middle years students are its flexibility of delivery - approach can be applied equally in a range of learning contexts such as one-to-one, small group or whole class settings – and its applicability to both narrative and factual texts. A focus on factual reading and writing is crucial in the middle and secondary years where students are increasingly expected to learn independently from texts.
1.3 The Scaffolding Approach in Learning to Read: Reading to Learn

The scaffolding approach which underpins Learning to Read: Reading to Learn was developed initially by Brian Gray, David Rose and Wendy Cowey from work in Indigenous education programs in Central and South Australia and at the University of Canberra (Gray, Rose & Cowey 1998). One project based on this approach in an Adelaide secondary school in the late 1990s was independently evaluated by DETYA as ‘a most important resource for the teaching of English to Indigenous students (that) should be adopted more widely’:

Significant increases in student achievement have been measured...the average improvement in reading and writing was 2.5 levels... At the same time, teachers have noted a range of student learning outcomes that are more difficult to measure, like an increased level of student engagement in their learning. Video and anecdotal evidence reflects much higher levels of student participation - especially in terms of the quality of dialogue between students and teachers, as well as students themselves. (McRae et al. 2000)

Since the early 2000s, Dr Rose has developed the scaffolding approach as a teacher professional development program titled Learning to Read: Reading to Learn. Training in Learning to Read: Reading to Learn provides teachers with careful demonstration and supported practice, using a series of workshops, training videos and print resources. Since its inception, Learning to Read: Reading to Learn has been taken up and implemented in a number of non-Indigenous settings in Victoria and other states and territories where it has been shown to accelerate the progress not only of underachieving students but to scaffold all students in accessing the academic-literate discourses of schooling (eg Milburn & Culican 2003). The program has been the focus of a number of projects in the government and Catholic education sectors in Victoria which, collectively, have trained several hundred teachers across metropolitan and regional Victoria. Teachers involved in these projects have implemented the scaffolding approach in both intervention and mainstream settings.

Learning to Read: Reading to Learn differs in significant ways from traditional approaches to literacy pedagogy, and from many literacy intervention programs or strategies offered to adolescent learners underachieving in the middle and secondary years. It is a literacy teaching program that aims to enable all learners to read and write at levels appropriate to their age and area of study. Developed with teachers of primary, secondary and tertiary students, across Australia and internationally, it supports reading and writing across the curriculum, and has been proven to enable even the weakest readers to rapidly learn to read and write at age appropriate levels (Rose 2004a; Rose, Gray & Cowey 1999; McRae et al. 2000). Importantly, the strategies can be used both as part of mainstream classroom practice and also to provide additional support for students with literacy needs.

The scaffolding approach in Learning to Read: Reading to Learn builds on three major theoretical bases: on the theory of scaffolded learning developed by Bruner (1986), after Vygotsky (1978); on functional grammar (Halliday 1994) and genre theory (eg Martin 1985; Martin, Christie & Rothery 1987; Cope & Kalantzis 1993); and on a theory of the structuring of pedagogic discourse (Bernstein 1990, 1996). Importantly, the approach is firmly located in a view of literacy as social practice and a view of schooling as cultural learning. In this context, the academic-literate discourses of schooling are seen as culturally acquired, the gap in student achievement having more to do with differing degrees of scaffolding or support in acquiring school literacies than with individual cognitive ability.
The rationale given for this is that, in the context of school learning, children from literate, middle class, school-oriented homes typically come to school already familiar with the language features of written texts, and already inducted, or ‘acculturated’, into the particular discourses that take place around such texts (Rose 2004a; Rose et al. 1999; Gray et al. 1998). These students are therefore prepared both to participate actively in and learn from the patterns of teacher talk, or pedagogic discourses, governing classroom activity around texts. As these students progress through school, the discourses, or discursive practices, of home and school tend to be aligned, and ‘mutually reinforced’ (Rose 2004a, p.64).

By contrast, children from less advantaged backgrounds frequently experience a gap between home and school literacy practices which poses a significant barrier to learning. While these children may indeed bring diverse oral and literate knowledges, skills and capabilities to school, these do not necessarily match with those that schooling both requires and rewards (Gee 1996). For these children, the gap between home and school literacy practices, between what they bring to school and what schooling requires, creates a barrier in accessing the literate discourses of schooling (Heath 1983; Rose 2004a). Research indicates that this gap in achievement widens as these students approach adolescence and progress through the middle and secondary years of schooling (Cairney et al. 1998; Hill & Russell 1999). As the curriculum in these years becomes more abstract and specialised so too do the literacy demands and learning expectations (Christie 1990; Cumming et al. 1998).

The developers of the scaffolding approach argue that one way in which the cycle of unequal outcomes for Indigenous students in institutionalised schooling is perpetuated is through traditional patterns of classroom discourse (Rose 2004a; Rose et al. 1999). Traditional patterns of classroom discourse – particularly those that take place around texts – have evolved in ways that are often unsuccessful for Indigenous students, and remain a barrier to participation and learning. The notion of a ‘cultural’ gap between home/community and school literacy practices is central to the rationale for the establishment of Learning to Read:Reading to Learn as a middle years literacy intervention research initiative of the Catholic Education Office Melbourne. While perhaps more obvious in the case of Indigenous students, this ‘cultural gap’ is seen as equally significant in impacting on the learning outcomes of other groups of students identified as ‘underperforming’ in literacy in national literacy surveys (eg Masters & Forster 1997) and in the national literacy policy, Literacy for All: The challenge for Australian schools (DETYA 1998). Among these groups are students from language backgrounds other than English and students from low socio-economic backgrounds.

Traditional classroom discourse patterns are cultural texts that have evolved over a period of time. As forms of interaction, they are inextricably interwoven in the identities and subjectivities of teachers and students, and continually reproduced as part of institutionalised schooling. While the respective epistemologies and pedagogies associated with different subject disciplines may reveal some variation, these patterns appear to be a universal ‘template’ for talk in educational settings, and so intuitive or naturalised in teacher talk as to be largely invisible and unconscious, hence Cazden’s phrase ‘the usually transparent medium’ (1988). Thus, they are rarely obvious to teachers or students, much less recognised as a determinant of academic success or a mechanism of exclusion.
One feature that makes the scaffolding approach in Learning to Read:Reading to Learn innovative yet at the same time challenging is that it asks teachers to change, or rewrite these traditional discourse patterns in favour of a new ‘instructional’ pattern designed to engage all learners at a high level and to equip them with the knowledge resources needed to participate successfully in classroom reading and writing activities. Through this new pattern, students are ‘scaffolded up’ to reading and writing high quality, age-appropriate texts that are essential to the curriculum and which provide access to important features of literate language.

This discourse pattern, referred to by Rose (2003) as the ‘Scaffolding Interaction Cycle’ provides students with the prompts or cues they need to understand sequences of meanings at the level of the whole text, paragraph, sentence, wording and sound/letter patterns. The pattern is repeated (hence ‘cycle’) through each activity in the sequence that makes up the scaffolding approach.

The Scaffolding Interaction Cycle underpins a series of activities in two carefully structured pedagogic routines, or ‘lesson sequences’ – one for narrative texts and one for factual texts. Each activity in these lesson sequences draws on the discourse pattern to provide the degree of support students require to understand and recognise patterns of meaning in the text at a number of levels: the genre of the text and the way meaning unfolds, the sentences and wording of the text, and the sound/letter or spelling patterns in the text.

Rather than starting students writing from their own experience, the scaffolding approach in Learning to Read:Reading to Learn begins with reading as ‘a literate context in which to develop writing’ (Rose et al. 1998, p.65). And rather than beginning with low level texts limited to a few phrases or sentences per page (in the belief that such texts make it easier for struggling adolescent learners to progress in small incremental steps), this approach begins with high quality, challenging, age-appropriate texts that are essential to the curriculum, and which provide access to features of literate language. This is based on the rationale that, in the same way that teachers in the early years of schooling provide students with explicit information about the graphophonic features of writing (such as letter-sound correspondences, spelling and punctuation), higher level literate language features can also be made explicit, along with the metacognitive skills for recognising and employing these in their own texts (Rose et al. 1998).

Texts selected for scaffolding in Learning to Read:Reading to Learn differ from the ‘remedial’ variety found in many literacy intervention programs in that they are high quality, age-appropriate, challenging and provide a model for students’ independent writing. Fiction texts are selected for the literate language features they contain; factual texts are selected for their key information. Models or samples of writing tasks students are expected to produce for assessment, such as argumentative essays or text responses, can also be scaffolded in order to make aspects of structure and language explicit, and to support students in producing similar texts independently. The approach can also be used effectively with questions from examination papers and with worded problems in mathematics.

In the commonly used, and often over-simplified, description of approaches to teaching reading as ‘bottom up’ or ‘top down’, Learning to Read:Reading to Learn represents a top-down approach, which presents a sequence of activities designed to support students reading classroom texts at a level beyond what they could achieve independently. Once familiar with the sequence of meanings in the text, the ‘cognitive load’ on students is reduced and they are more able to attend to aspects of the structure and language of the text. This expands the linguistic knowledge and resources that students bring to reading, and which they later incorporate into their own writing.
The applicability of the approach across the spectrum of one-to-one, small group and whole class learning and teaching contexts gives literacy specialists and mainstream teachers a shared approach to literacy pedagogy. For teachers, this provides a foundation for shared dialogue about literacy practice, and shared professional knowledge about texts and language in curriculum learning areas. For students, this builds links between literacy practices in intervention and mainstream contexts, and ensures that tasks and texts encountered in intervention settings are congruent with mainstream curriculum expectations.

The teaching strategies that comprise the narrative and factual lesson sequences in Learning to Read: Reading to Learn are outlined in detail in a brochure compiled by Dr Rose (2004) and included as Appendix A of this report.
Section 2: The Project Design

This section provides an overview of the design of the CEOM Learning to Read:Reading to Learn Middle Years Literacy Intervention Research Project. It outlines the aim and various components of the project and the schools, teachers and students involved.

2.1 The Aim of the Project

The aim of the middle years literacy intervention research project was to measure the impact of Learning to Read:Reading to Learn as an intervention strategy for students struggling with literacy in the middle years of schooling (Years 5-9). The project involved school teams of middle years teachers trialling the scaffolding approach in Learning to Read:Reading to Learn and monitoring the progress and achievement of a group of ‘target’ students using a variety of strategies designed to collect both quantitative and qualitative data. Schools and teachers in the project received support through ongoing professional development and school-based consultancy. Accreditation for teachers involved in the project was available through the University of Sydney.

2.2 The Components of the Project

The CEOM LRRL project was designed to combine principles of best practice in teacher professional development programs and classroom-based action research. The project components were as follows:

- Teacher professional development
- Selection of target students and model of delivery
- School-based consultancy and support
- Collection of school, teacher and student data
- Development of print and video resources
- Establishment of email contact
- Teacher reflection and evaluation
- Accreditation through the University of Sydney

These components are briefly described below and summarised in Table 2.2 which follows.

2.2.1 Teacher professional development

As key consultant on the CEOM LRRL project, Dr Rose provided 8 days of professional development to teachers in the project in 2003 and 2004. Teachers were expected to participate in all 8 days of professional development. These days were evenly distributed in four blocks of two in each year to provide a model of spaced learning, allowing time for trialling the approach with students, collecting and analysing data, monitoring and evaluating student progress and reflecting on outcomes.

Each two-day block combined expert input from Dr Rose with opportunities for participants to work in small groups to practise the approach on texts they were using, or planning to use, with their students. At the conclusion of each two-day block, participants were asked to complete a one page evaluation form (see Section 3) asking them to identify successful aspects of the program and areas requiring further support. This information was used to shape the content of forthcoming professional development days.
In 2004, a small number of teachers continuing with the research project from 2003 were invited to act as ‘experts’ or ‘mentors’ for new teachers from their own or other schools. These teachers met as a group for additional professional development with Dr Rose and CEO staff. The aim was to equip these teachers with deeper knowledge and expertise in the theory and practice of the scaffolding approach in Learning to Read:Reading to Learn. These more experienced teachers worked with small groups in the professional development program, leading other teachers through text activities.

### 2.2.2 Selection of target students and model of delivery

Teachers participating in the project were each asked to nominate a minimum of six students (to be referred to as the ‘target’ students) with whom to trial Learning to Read:Reading to Learn. Target students were usually selected using one or more of the following sources of information:

- existing student information and profiles
- standardised measures/tests such as DART, TORCH, PROBE etc
- transition procedures and documents
- teacher referrals

Once students were selected, teachers were asked to nominate one of the following models of delivery to be used with the target students:

- small withdrawal group containing the target students
- target students working as a separate group within the whole class
- target students working as part of the whole class
- combination of the above

For the purposes of this project, a ‘withdrawal group’ was defined as a group of students coming out of mainstream classes several times per week (usually for between two and four sessions) to work with a teacher. These students may have come from one class, or be drawn from several classes at that year level. Where a group of students formed a parallel class (parallel to, for example, a mainstream English or LOTE class), or where students were offered additional literacy support as an elective, this was considered to be a class in its own right, rather than a withdrawal group. Where target students worked as a ‘separate group within the whole class’, this occurred mostly in primary schools and in group rotation activities involving different student groupings participating in different activities simultaneously. Where students worked as ‘part of the whole class’, this was where all students in the class, including target students, participated in the scaffolding approach at the same time.

### 2.2.3 School-based consultancy and support

Ongoing consultancy support was provided to schools through scheduled school visits of at least two per school and telephone contact to deal with particular queries. This consultancy was seen as an important part of building relationships with teachers and schools and creating a sense of research partnership. It was also important in ensuring a consistent approach to implementation of the scaffolding approach and to data collection, especially where this involved teacher assessment of student work. In this sense, the school-based consultancy also provided additional layer of informal professional development.

### 2.2.4 Collection of school, teacher and student data

An emphasis on data collection and analysis was important in establishing the CEOM LRRL project as a research initiative. Teachers were briefed on the professional development days about processes and timelines for data collection. The email group was also used to issue guidelines to ensure consistency in collecting and reporting data.
Once teachers had selected their target students, they completed an Initial Questionnaire seeking information about the school profile, the professional background and experience of the teacher and a profile of each of the target students, and the reasons for their selection into the project.

Further data was requested from teachers at two points during the project (pre and post): an Initial Data Collection (pre) and a Final Data Collection (post). In 2003, these took place in June/July and in November/December. In 2004, they took place in April and November. These stages of data collection required schools to submit

- scores on the DART Reading assessment for target students and for a representative group of students at the same year levels as those being targeted in the project
- approximate year levels of texts students were able to read with 90% accuracy and with comprehension
- samples of scaffolded and unscaffolded narrative and factual writing from target students
- copies of the Teacher Reflective Journal, Record of Scaffolding Sessions and Timetable of Scaffolding Sessions

The Reading component of the Developmental Assessment Resource for Teachers, or DART, (Forster, Mendelovits & Masters 1994) was selected as one means of collecting quantitative data on student progress. This instrument had been used and evaluated by teachers in the Successful Interventions research (Culican, Emmitt & Oakley, Deakin University 2001). It was also used in the Middle Years Research and Development (MYRAD) project, a research partnership between education authorities and the University of Melbourne.

The DART Reading assessment was selected as suitable for this middle years project because it

- reflects the wide range of developmental levels that exist in the upper primary and junior secondary years
- articulates to the Victorian CSF, thus enabling both literacy specialists and key learning area teachers to interpret and use the results to inform curriculum, teaching and learning
- uses tasks commonly set for students as part of mainstream curriculum and assessment practices
- can be used to measure the performance of both whole classes and small groups of students

2.2.5 Development of print and video resources
Two schools, one secondary and one primary, participated in the production of video material for the project. This provided support material for teachers participating in the project but also as a resource for future programs organised by the CEOM.

2.2.6 Establishment of email contact
Email contact was envisaged both as means of disseminating information from the CEOM to schools, but also as a means of professional dialogue and ‘question and answer’ between participants and Dr Rose and/or program convenors. The email contact was used more for project administration than as a site for professional interaction between participants, owing perhaps to the short timeframe for the research and factors such as teachers’ level of use of electronic communication.
2.2.7 Teacher reflection and evaluation
Teachers in 2003 were given a blank exercise book to use as a journal and encouraged to make entries as often as possible. In the latter half of the project, they were also given a Record of Scaffolding Sessions proforma (see Appendix B) on which to record details periodically of scaffolding sessions. Teachers were invited to comment widely in their journals on the following aspects of the project:

- Planning: organisational issues, text selection, frequency/regularity of sessions/support from wider school community
- Implementing: sequence of activities, student issues, teacher issues
- Evaluating: data gathering and assessment

In 2004, teachers were requested to complete the Record of Scaffolding Sessions on an average of once per fortnight as an occasional and random ‘window’ on their practice and on the strengths and challenges experienced in implementing the approach with students.

2.2.8 University accreditation
Accreditation for participation in the CEOM LRRL project was negotiated through Dr Rose with the University of Sydney. The unit is part of the Professional Learning Portfolio and can be undertaken at two levels – individual or leadership. It is equivalent to 1/8 of a Masters of Education degree at the University of Sydney. Participants can also arrange accreditation as a non-award certificate, which can be later accredited to a degree.

Table 2.2 Overview of the project components

<table>
<thead>
<tr>
<th>PROJECT COMPONENT</th>
<th>AIM/PURPOSE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher professional development</td>
<td>To provide comprehensive professional development and training for teachers in the scaffolding approach in Learning to Read:Reading to Learn</td>
<td>The professional development component drew teachers together for off-site training with Dr Rose and CEO staff. Where teachers were from local area clusters, they were encouraged to work together to build relationships and continuity of literacy provision both within and between associate schools.</td>
</tr>
<tr>
<td>Selection of target students and model of delivery</td>
<td>To enable teachers to trial the scaffolding approach in Learning to Read:Reading to Learn with a group of at-risk learners</td>
<td>Selection of a minimum of 6 at-risk students per teacher to be targeted and monitored. Students were selected using one or more of the following sources of information: existing student information and profiles, standardised measures/tests such as DART, TORCH, PROBE etc, transition procedures and documents, teacher referrals</td>
</tr>
<tr>
<td></td>
<td>To give teachers and schools maximum flexibility in embedding the research project into existing school structures</td>
<td>Nomination of one of the following models of delivery: small withdrawal group containing target students, target students working as a separate group within the whole class, target students working as part of the whole class, combination of the above</td>
</tr>
<tr>
<td></td>
<td>To encourage trialling of the scaffolding approach in Learning to Read:Reading to Learn in a variety of learning contexts or settings</td>
<td></td>
</tr>
<tr>
<td>PROJECT COMPONENT</td>
<td>AIM/PURPOSE</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------------</td>
<td>-------------</td>
</tr>
</tbody>
</table>
| School-based consultancy and support | • To provide ongoing professional support and advice in all aspects of the project  
• To assist with resolving any issues or difficulties arising during implementation | The focus of school visits was to  
• provide ongoing support and address issues arising from implementation  
• observe and provide feedback on videotapes of classroom lessons  
• check Initial and Final Data Collection |
| Collection of school, teacher and student data | • To gather general profile data about schools, teachers and students participating in the project  
• To collect initial baseline data on students and their literacy needs  
• To measure progress and achievement of target students in the project  
• To measure progress and outcomes of target students in the project against the wider cohort  
• To gain a picture of the frequency and duration of scaffolding sessions and of student attendance | Initial Data Collection:  
• Initial Questionnaire  
• Developmental Assessment Resource for Teachers (DART)-Reading assessment  
• Running Records  
• Student writing samples  
Final Data Collection:  
• Developmental Assessment Resource for Teachers (DART)-Reading component  
• Running Records  
• Student pre and post scaffolding writing samples  
• Teacher Reflective Journals  
• Record of Scaffolding Sessions  
• Timetable of Scaffolding Sessions |
| Development of print and video resources | • To produce resource material to support teachers currently involved in the project  
• To generate resources for use in similar CEOM projects in the future | Print Resources:  
• Preparing for Reading/Writing booklets  
• Assessing and Selecting Texts for Reading  
Video resources:  
• St Monica’s College, Epping  
• St Joseph’s School, Springvale |
| Establishment of email contact | • To facilitate ongoing communication between CEOM and teachers involved in the project  
• To provide a site for professional interaction, and dialogue on aspects of the approach | • Details of professional development component  
• Requirements for Initial and Final Data Collections  
• Information exchange, resource sharing and problem solving |
| Teacher reflection and evaluation | • To record issues arising from, and impacting on, implementation  
• To provide a random window on teacher practice | • Teacher Reflective Journals  
• Record of Scaffolding Sessions (see Appendix B) |
| University accreditation | • To provide formal recognition of the professional learning involved in the project  
• To encourage teachers to participate in further study in the area of language and literacy education  
• To promote partnership between CEOM and the University of Sydney through Dr Rose | The project could be accredited through the University of Sydney two ways:  
• Accredited as 1/8 of Master of Education degree as part of the Professional Learning Portfolio (Individual or Leadership levels)  
• Accredited as a non-award certificate, which could later be accredited towards a degree |
2.3 The Schools in the Project

In March 2003, as part of the Middle Years Literacy Project, the CEOM invited all Catholic primary and secondary schools in the Melbourne Archdiocese to express interest in the middle years literacy intervention research project, Learning to Read:Reading to Learn. When it was agreed that the project should continue for a further year in 2004, schools were again invited to express interest. A total of 24 schools were involved in the two years of the project. Of these, 14 were primary schools and 10 were secondary schools. Of this total, 8 schools (2 primary and 5 secondary) were involved in the project across both 2003 and 2004.

A number of the schools had participated in other middle years initiatives prior to their involvement in the project. These included the CEOM Middle Years Literacy Project, a cluster-based professional development program offered to Catholic primary and secondary schools and the Middle Years Research and Development (MYRAD) research conducted through partnership with the University of Melbourne.

In 2004, the Catholic Education Office gave preference to those schools with demonstrated commitment to middle years strategies and reform initiatives, as evidenced through active involvement in middle years local area clusters as part the CEOM Middle Years Literacy Project.

All primary schools in the project had participated in the Children’s Literacy Success Strategy (CLaSS), a system-wide literacy initiative of the Catholic Education Commission of Victoria aimed at improving literacy performance of students in Years Prep to 2. Several schools in the project had also participated, or continued to participate, in the CEOM professional development program Building Literacy 3 to 4.

Table 2.3 below illustrates the numbers of primary and secondary schools that participated the CEOM LRRL project in 2003 and 2004. Schools shown with asterisks are those that continued from 2003 into 2004.

Table 2.3 Schools in the project

<table>
<thead>
<tr>
<th>Year of Project</th>
<th>Primary schools</th>
<th>Secondary schools</th>
<th>Primary/Secondary schools</th>
</tr>
</thead>
</table>
| 2003            | *St Paul's School, Bentleigh  
                 *St Gerard's School, Dandenong North  
                 St Peter's School, Epping  
                 St Joseph's School, Springvale  
                 St John's School, Thomastown East | *Caroline Chisholm Catholic College, Braybrook  
                 *Mercy College, Coburg  
                 *St John's Regional College, Dandenong  
                 *St Monica's College, Epping  
                 Nazareth College, Noble Park North  
                 Santa Maria College, Northcote | Sacre Coeur College, Glen Iris  
                 De La Salle College, Malvern |
As shown in the above table, schools in the project were spread across the Melbourne Archdiocese, and represented a broad cross-section of the cultural and socio-economic contexts in the Catholic education sector. A number of these schools currently receive, or have received, additional funding based on student factors such as language backgrounds other than English, socio-economic status or numbers of Aboriginal or Torres Strait Islander students. Among the schools that participated in the project in 2003 was a secondary school with the highest concentration of Indigenous students in the Melbourne Archdiocese.

### 2.4 The Teachers in the Project

In order to maximise the effectiveness of the research, and broaden the foundation of support in each school, schools were asked to nominate two teachers per school to participate in the project. As shown in Table 24 (a) below, the total number of teachers involved in the project was 58. In 2003, 25 teachers – 12 primary teachers and 13 secondary teachers – completed the research project. In 2004, 33 teachers – 22 primary and 11 secondary – completed the project.

<table>
<thead>
<tr>
<th>Year of Project</th>
<th>Primary schools</th>
<th>Secondary schools</th>
<th>Primary/Secondary schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>St Peter's School, Bentleigh East</td>
<td>Catholic Regional College, Melton</td>
<td></td>
</tr>
<tr>
<td></td>
<td>St Elizabeth's School, Dandenong North</td>
<td>Mazenod College, Mulgrave</td>
<td></td>
</tr>
<tr>
<td></td>
<td>St Monica's School, Footscray</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>St Catherine's School, Melton West</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>St Francis of Assisi School, Mill Park</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>St Francis de Sales School, Oak Park</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>St Simon's School, Rowville</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Holy Saviour Parish School, Vermont South</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>St Justin's School, Wheeler's Hill</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>14</td>
<td>8</td>
<td>2</td>
</tr>
</tbody>
</table>
At the beginning of the project each year, all participants were asked to complete the Initial Questionnaire seeking information on their professional backgrounds and experience. This questionnaire asked teachers to give details of:

- their current role/position in the school
- teaching methods/subjects they were trained in and other subjects taught
- prior teaching experience related to literacy intervention
- additional specialist language and/or literacy qualifications or certificates

The descriptors in Table 2.4(b) below indicate the range of teaching roles and/or positions of responsibility among primary and secondary teachers in the project.

Table 2.4(b) Positions and roles of teachers in the project

<table>
<thead>
<tr>
<th>Primary</th>
<th>Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literacy Co-ordinator</td>
<td>English teacher/co-ordinator</td>
</tr>
<tr>
<td>CLaSS Co-ordinator</td>
<td>Individual Differences Co-ordinator</td>
</tr>
<tr>
<td>Special Education/ Special Needs Co-ordinator</td>
<td>Literacy teacher</td>
</tr>
<tr>
<td>Year 6 teacher</td>
<td>Head of Literacy</td>
</tr>
<tr>
<td>Years 5/6 teacher</td>
<td>Head of Special Education/ Individual Differences</td>
</tr>
<tr>
<td>Year 7 Co-ordinator</td>
<td>Literacy teacher</td>
</tr>
<tr>
<td></td>
<td>ESL/Indigenous support teacher</td>
</tr>
</tbody>
</table>

2.5 The Students in the Project

At the commencement of the project, teachers were asked to select a minimum of six students to target using the scaffolding approach in Learning to Read: Reading to Learn. In selecting students, teachers were asked to use the instruments and strategies they (or their schools) would normally use to identify students performing at lower than expected standards in literacy. Teachers used a range of resources and strategies to identify and target students for the intervention. These included teacher recommendations and referrals, transition information, results from assessment instruments (e.g., usually those available through ACER such as DART, TORCH, and PROBE), data from educational assessments, and informal/anecdotal evidence.

As shown in Table 2.5(a) below, the total number of target students involved in the project was 410. This total was made up of 119 students in 2003 and 191 students in 2004.

Table 2.5(a) Number of students in the project

<table>
<thead>
<tr>
<th>Year of Project</th>
<th>Number of Target Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>119</td>
</tr>
<tr>
<td>2004</td>
<td>191</td>
</tr>
<tr>
<td>TOTAL</td>
<td>410</td>
</tr>
</tbody>
</table>
Teachers in the project were not provided with any standardised codes or descriptors to use in summarising reasons for selecting target students. They were requested instead to provide a brief prose description for each student. This was partly intentional as an aim of the research was to include a broad sample of students in the project, based on teacher judgement, and to gain an overview of the range of factors impacting on student literacy performance. Table 2.5 (b) below gives a broad indication of the reasons given for selecting students into the intervention. For the purposes of this table, these are grouped into several broad categories. However, one target student may be represented within one or more categories at any one time.

Table 2.5(b) Reasons for selecting students for the project

<table>
<thead>
<tr>
<th>General literacy difficulties</th>
<th>ESL and Second language difficulties</th>
<th>Learning Difficulties</th>
<th>Learning Disabilities and Language Disorders</th>
<th>Social and Emotional Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low DART results</td>
<td>ESL background</td>
<td>Finds it hard to stay on task</td>
<td>Intellectual disability</td>
<td>History of school refusal</td>
</tr>
<tr>
<td>Low literacy</td>
<td>ESL, lacking confidence in English</td>
<td>Low concentration</td>
<td>Severe language disorder</td>
<td>Psychology Assessment</td>
</tr>
<tr>
<td>High literacy needs</td>
<td></td>
<td></td>
<td>Speech Pathology Assessment</td>
<td></td>
</tr>
<tr>
<td>History of literacy difficulties</td>
<td></td>
<td></td>
<td>Educational assessment</td>
<td></td>
</tr>
<tr>
<td>Poor oral reading/fluency</td>
<td></td>
<td></td>
<td>Short term auditory memory problems</td>
<td></td>
</tr>
<tr>
<td>Low comprehension and reading for meaning</td>
<td></td>
<td></td>
<td>Integration student</td>
<td></td>
</tr>
<tr>
<td>Poor spelling and written expression</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problems with grammar and spelling</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good decoding but poor comprehension</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 3: The Project Results

A variety of instruments and strategies were used to collect both qualitative and quantitative data on students and teachers in the CEOM Learning to Read: Reading to Learn project. These were:

- DART Reading assessment (pre and post)
- Running Records (pre and post)
- Student writing samples (pre and post)
- Teacher reflections and evaluations

Quantitative data on student performance were collected and initially entered into a combination of an Access database and Excel spreadsheets. These data were then converted into numeric form and uploaded the Statistical Package for the Social Sciences (SPSS) for analysis. The full set of quantitative data collected by each teacher at the beginning of the project (pre), and again on completion of the project (post) is as follows:

- Scores/ CSF levels on DART Reading for a representative sample of students
- Scores/ CSF levels on DART Reading for target students
- Text levels target students could read to 90% accuracy and with comprehension

This section provides a summary of the results and outcomes of the research for both students and teachers. However, as the project differed from 2003 to 2004 in both duration and scope, the results are reported as follows:

- Section 3.1: Outcomes of the Project for Students in 2003
- Section 3.2: Outcomes of the Project for Students in 2004
- Section 3.3: Outcomes of the Project for Teachers

3.1 Outcomes of the Project for Students in 2003

This section reports on the results for target students involved in the project in 2003. The results refer to two sets of students involved in the research in 2003. The first group were the students selected to be targeted for the intervention. The second set was a representative sample of students against which the progress of target students could be measured.

In selecting target students, each teacher was asked to use their usual school procedures and instruments to identify a minimum of six students achieving at lower than expected standards. Though the total number of students targeted in the project in 2003 was 119, the number for whom full set data were provided was approximately 70. Factors such as student absenteeism, non-attendance at scaffolding sessions, timetable clashes and changing schools were problems impacting on teachers’ capacity collect data on the entire cohort of target students.

In selecting the representative sample of non-target students, each school was asked to nominate a group (usually a class) of students at the same year level as the target students to serve as a ‘year level comparison group’ against whose rates of progress, the gains of target students could be measured. Though there were occasions where some target students were also in the comparison group (particularly where students were withdrawn simultaneously from a number of classes), teachers were encouraged, to select a random non-target group for the purposes of comparison.
3.1.1 Analysis of student progress on the DART Reading assessment

The DART Reading assessment was administered with the majority of target students in mid-2003 (pre assessment) and then again in November/December 2003 (post assessment). Tables 3.1.1 (a) to (g) below give a general analysis of the progress of the overall sample during the research project, and then examine trends in specific factors such as gender, year level and individual school performance.

The data for this analysis derives from converting students’ raw scores on the DART Reading assessment (DART gains) to the corresponding CSF levels (CSF-rated gains) according to the scale provided in the DART Descriptive Assessment. As the DART scores are not necessarily comparable across all the DART Reading assessment materials, converting the DART scores to CSF levels is an important step to gain comparability. Therefore, where the discussion of student data refers to CSF levels, it is important to note that these are calculated based on students’ initial DART scores. In order to make it clear that what are referred to in this report as ‘CSF gains’ derive from students’ pre and post DART scores, CSF gains are referred to in this section as ‘CSF-rated gains’. Though it is based on typical curriculum learning activities and pedagogic routines, it is also important to note that the DART represents only one measure of students’ reading proficiency and only one measure against the Victorian CSF.

The following chart was given to teachers to assist them in converting students’ raw scores on the DART to approximate CSF levels. Because CSF levels are fairly broad, each level was divided by into 3 sub-levels. Both here and in the scattergrams that appear later in this section, these are represented using the descriptors Beginning (B), Consolidating (C) and Established (E), where Level 1 Beginning is represented as 1B, Level 2 Consolidating as 2C and so on. Where CSF-rated gains are shown as numeric data, it is important to note that a growth of one CSF level will be shown by a growth of 3.

### Chart for Converting DART Scores to Corresponding CSF Levels (Beginning, Consolidating and Established)

<table>
<thead>
<tr>
<th>'Danny's Egg Form C' DART Raw Score</th>
<th>Approximate corresponding CSF Level</th>
<th>'Space Things' DART Raw Score</th>
<th>Approximate Corresponding CSF Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-4</td>
<td>Level 2E</td>
<td>1</td>
<td>Level 2B</td>
</tr>
<tr>
<td>5-6</td>
<td>Level 3B</td>
<td>2</td>
<td>Level 2C</td>
</tr>
<tr>
<td>7-10</td>
<td>Level 3C</td>
<td>3-4</td>
<td>Level 3B</td>
</tr>
<tr>
<td>11-12</td>
<td>Level 3E</td>
<td>5-7</td>
<td>Level 3C</td>
</tr>
<tr>
<td>13-15</td>
<td>Level 4B</td>
<td>8-10</td>
<td>Level 4B</td>
</tr>
<tr>
<td>16-19</td>
<td>Level 4C</td>
<td>11-13</td>
<td>Level 4B</td>
</tr>
<tr>
<td>20-21</td>
<td>Level 4E</td>
<td>14-18</td>
<td>Level 4C</td>
</tr>
<tr>
<td>2</td>
<td>Level 5B</td>
<td>19-20</td>
<td>Level 4E</td>
</tr>
<tr>
<td>23-26</td>
<td>Level 5C</td>
<td>21-22</td>
<td>Level 5B</td>
</tr>
<tr>
<td>27</td>
<td>Level 5E</td>
<td>23-26</td>
<td>Level 5C</td>
</tr>
<tr>
<td>27-29</td>
<td></td>
<td>27-29</td>
<td>Level 5E</td>
</tr>
<tr>
<td>30</td>
<td></td>
<td>30</td>
<td>Level 6B/6C</td>
</tr>
<tr>
<td>31</td>
<td></td>
<td>31</td>
<td>Level 6E</td>
</tr>
</tbody>
</table>
In order to make it clear that what are referred to in this report as ‘CSF gains’ derive from students’ pre and post DART scores, CSF gains are referred to in this section as ‘CSF-rated gains’.

Table 3.1.1 (a) below gives DART scores for the target students in 2003 for whom a full set of data is available. The figures in the minimum and maximum columns show the range of performance in the assessment. The results range from a loss of 3 (i.e. the minimum gain was -3), to a gain of 15, with the average gain between the pre and post Reading assessment being 5.0. This dispersion of the sample across the figures -3 to 15 indicates that the majority of students in the project made progress, though a minority appear to have moved backwards.

Table 3.1.1 (a) Progress of target students according to DART scores

<table>
<thead>
<tr>
<th>Total Number</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>72</td>
<td>DART Gain</td>
<td>-3</td>
<td>15</td>
<td>5.0</td>
</tr>
</tbody>
</table>

The DART and CSF results for the target students are also shown in graphic form in Table 3.1.1 (b) and (c) below. These scattergrams (or scatterplots) enable a comparison of students’ DART scores and CSF-rated scores, both at the commencement of the project (horizontal or x axis) and at the conclusion of the project (vertical or y axis), the line from left to right representing the average progress across the total sample. In these scattergrams, the code Beginning (B) Consolidating (C) and Established (E) is used, where, for example, Level 1 Beginning is represented as 1B, Level 1 Consolidating as 1C, Level 1 Established as 1E and so on. Table 3.1.1 (b) shows students’ pre and post DART results. Table 3.1.1 (c) shows students’ pre and post CSF-rated scores.

When the student sample is analysed on the basis of gender, the similarities in the mean and range between the males (29 students) and females (43 students) suggest only minor variation in gains of the project, with both groups of students appearing to benefit equally from the intervention. This can be seen in Tables 3.1.1 (c) and (d) below which indicate the rates of progress separately for male and female students.
Table 3.1.1 (c) Progress of target students according to gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>DART Gain</td>
<td>29</td>
<td>-3</td>
<td>14</td>
<td>4.8</td>
</tr>
<tr>
<td>Female</td>
<td>DART Gain</td>
<td>43</td>
<td>-1</td>
<td>15</td>
<td>5.1</td>
</tr>
</tbody>
</table>

The range of rates of progress of male and female students can be seen visually in Table 3.1.1 (d) below.

Table 3.1.1 (d) Progress of male and female target students

When the student sample is analysed on the basis of students’ year levels, the trend data indicate different rates of progress across Year 5 (23 students), Year 6 (11 students) and Year 7 (36 students). Table 3.1.1 (e) below gives an overview of the rates of student progress by year level.

Table 3.1.1 (e) Progress of target students according to year level

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>CSF-rated Gain</td>
<td>23</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>DART Gain</td>
<td>24</td>
<td>14</td>
<td>0</td>
<td>14</td>
<td>6.5</td>
</tr>
<tr>
<td>6</td>
<td>CSF-rated Gain</td>
<td>11</td>
<td>7</td>
<td>0</td>
<td>7</td>
<td>2.7</td>
</tr>
<tr>
<td></td>
<td>DART Gain</td>
<td>11</td>
<td>14</td>
<td>-1</td>
<td>13</td>
<td>5.0</td>
</tr>
<tr>
<td>7</td>
<td>CSF-rated Gain</td>
<td>36</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td>1.8</td>
</tr>
<tr>
<td></td>
<td>DART Gain</td>
<td>37</td>
<td>18</td>
<td>-3</td>
<td>15</td>
<td>4.0</td>
</tr>
</tbody>
</table>

The rates of progress of target students in Years 5, 6 and 7 can be seen in Table 3.1.1 (f) below.
Table 3.1.1 (f) Progress of target students by year level

Though the smaller numbers in Year 6 may account for some of the variation, these scattergrams indicate that target students in Year 5 made greater gains in the project, than those in Years 6 and 7, with results tending to taper off. In addition, some students in the junior secondary years appear to make rapid gains, while others appear to make less progress. This may be due to factors such as increase in age, primary to secondary school transition, increased complexity of the curriculum or a combination thereof.

Table 3.1.1 (g) gives a school-by-school breakdown of data, where sufficient data was available for this analysis. Schools not reported here (eg Schools 2, 4 and 5) may have had incomplete data due to a range of factors such as student absence. The figures on the table below suggest considerable variation in the outcomes of the project for target students, with the range in DART gain from 3.8 up to 9.3 and the range in CSF gain from 1.7 up to 4.0. These data suggest that there is a number of ‘in school’ factors, or differences between schools, that contribute to variance in outcome, and which therefore have the capacity to impact both on the outcomes of target students and on the effectiveness of the approach.
Table 3.1.1 (g) Progress of target students according to school

<table>
<thead>
<tr>
<th>School ID No.</th>
<th>Number</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CSF Gain</td>
<td>9</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td>1.7</td>
</tr>
<tr>
<td></td>
<td>DART Gain</td>
<td>10</td>
<td>8</td>
<td>0</td>
<td>8</td>
<td>3.8</td>
</tr>
<tr>
<td>3</td>
<td>CSF Gain</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1.3</td>
</tr>
<tr>
<td></td>
<td>DART Gain</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>6</td>
<td>3.0</td>
</tr>
<tr>
<td>6</td>
<td>CSF Gain</td>
<td>11</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>DART Gain</td>
<td>11</td>
<td>14</td>
<td>0</td>
<td>14</td>
<td>6.5</td>
</tr>
<tr>
<td>7</td>
<td>CSF Gain</td>
<td>12</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>DART Gain</td>
<td>12</td>
<td>8</td>
<td>-1</td>
<td>7</td>
<td>3.0</td>
</tr>
<tr>
<td>8</td>
<td>CSF Gain</td>
<td>10</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td>2.7</td>
</tr>
<tr>
<td></td>
<td>DART Gain</td>
<td>11</td>
<td>10</td>
<td>-1</td>
<td>9</td>
<td>3.8</td>
</tr>
<tr>
<td>9</td>
<td>CSF Gain</td>
<td>12</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>DART Gain</td>
<td>12</td>
<td>18</td>
<td>-3</td>
<td>15</td>
<td>5.6</td>
</tr>
<tr>
<td>10</td>
<td>CSF Gain</td>
<td>7</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>DART Gain</td>
<td>7</td>
<td>6</td>
<td>3</td>
<td>9</td>
<td>5.8</td>
</tr>
<tr>
<td>11</td>
<td>CSF Gain</td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>7</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>DART Gain</td>
<td>6</td>
<td>9</td>
<td>4</td>
<td>13</td>
<td>9.3</td>
</tr>
</tbody>
</table>

3.1.2 Progress of target students on running records

Teachers in the project carried out running records on target students at the beginning (pre) and at the completion (post) of the project. To assist them in assessing students’ reading performance, teachers used texts guidelines prepared by Dr Rose including a list of texts ‘benchmarked’ at approximate year levels (Years 4-5, 6-7, 7-8 etc) and sample extracts from fiction texts. For example, these guidelines benchmark Emily Rodda’s novel *Rowan of Rin* at approximately Years 6-7, while they benchmark John Marsden’s novel *Tomorrow When The War Began* at approximately Years 7-8.

Table 3.1.2 below uses data from pre and post running records to show rates of progress of target students in different year levels in 2003. A number of variables impacted on teachers’ implementation of running records in the project, including availability of suitable texts, and varying degrees of teacher familiarity with the process. For many secondary teachers the procedure of taking a running record was entirely new and, though it was generally seen to be a valuable professional skill, was also one in which they were still developing confidence and expertise.

Though teachers in the project reported universally that students’ decoding skills as assessed by running records far exceeded their ability to understand the meaning of texts, or to discuss inferred meanings, nevertheless, the ‘pre’ results in the table below show some students to be reading at levels considerably higher would normally be expected to among underachieving students. This suggests that these students have been assessed on their decoding skills only rather than on their decoding skills in conjunction with their understanding of the meaning of the text. This highlights the need for literacy projects or professional development programs to provide support for teachers in administering literacy assessments and in interpreting results as a way of maximising consistency across classrooms and schools.
However, even making allowances for variables, the trends in the data support the view that the CEOM LRRL project has been a positive intervention for the majority of target students. Of the 69 students represented in the table below, the running record results show that, while 17 remained on the same level for both, 27 progressed to reading texts benchmarked at the next year level (eg moving from a text at year level 5-6 to one at year level 6-7), and 25 progressed by more than one year level of text. Of these students, several made more dramatic progress across a number of year levels (eg moving from reading a text at year level 3-4 to one at year level 7-8). It is also important to note the small number of students who appear to have slipped backwards, highlighting the need for regular and ongoing monitoring of student progress and investigation of factors impacting on literacy outcomes.

Table 3.1.2 Progress of target students according to running records

<table>
<thead>
<tr>
<th>Rates of progress in reading texts benchmarked at approximate year levels</th>
<th>No. Year 5 students</th>
<th>No. of Year 6 students</th>
<th>No. of Year 7 students</th>
<th>No. of Year 8 students</th>
<th>Total no. of students</th>
<th>Gain by year level (according to text benchmarks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>From year level 2-3 to 3-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>From year level 3-4 to 4-5</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td></td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>From year level 3-4 to 6-7</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>From year level 3-4 to 7-8</td>
<td>2</td>
<td></td>
<td></td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>From year level 4-5 to 4-5</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>From year level 4-5 to 6-7</td>
<td>3</td>
<td></td>
<td>8</td>
<td></td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>From year level 4-5 to 7-8</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td></td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>From year level 5-6 to 5-6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>From year level 5-6 to 8-9</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>From year level 6-7 to 6-7</td>
<td>2</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>From year level 6-7 to 7-8</td>
<td>3</td>
<td>1</td>
<td>13</td>
<td></td>
<td>17</td>
<td>1</td>
</tr>
<tr>
<td>From year level 6-7 to 8-9</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>From year level 7-8 to 7-8</td>
<td></td>
<td></td>
<td>4</td>
<td></td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>From year level 7-8 to 8-9</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

3.1.3 Recommendations for the Project in 2004

Preliminary trend analysis of the data that emerged from the research project in 2003 indicated that it was worthwhile continuing the project into a second stage in 2004. This enabled preliminary trends to be confirmed and consolidated. It was agreed that, while the scaffolding approach in Learning to Read:Reading to Learn produced positive results for target students, a number of variables clearly impacted on the capacity of the approach to effect improvement on students’ literacy outcomes. Qualitative data from teachers in Section 3.3 of this report is instructive in highlighting the range of variables that may account for the degree of variance between schools shown in the table above, and in the project in general. These variables may include:

- frequency and regularity of scaffolding sessions
- nature and needs of students
- size and dynamics of student groupings
• model of delivery  
• teacher knowledge and experience

The continuation of the project in 2004 provided an opportunity to investigate some of these variables more closely and to collect more systematic and comprehensive data on factors such as student attendance, model of delivery as well as the frequency, duration and focus of scaffolding sessions.

Therefore, at the end of 2003, it was recommended that the project be continued in 2004 and a number of aspects refined. These were outlined in six recommendations covering the following areas:

• continuation of the project into a second stage in 2004 with professional development and consultancy with Dr Rose
• invitation to teachers continuing in 2004 to become ‘experts’ or ‘mentors’ to new teachers from their own and other schools
• extension of the project over a longer period of the school year
• more comprehensive and systematic data collection focussing on variables identified in 2003, such as models of delivery and frequency of scaffolding sessions
• encouragement of teachers to use the email contact for sharing issues, experiences and resources and as a means of engaging in dialogue with each other, with CEO staff and with Dr Rose
• enhanced support for accreditation of teachers’ work in the project through the University of Sydney

3.2 Outcomes of the Project for Students in 2004

This section reports on the results for target students involved in the project in 2004. The research project in 2004 involved a different, and larger, sample than in the previous year. Moreover, the research in 2004 was carried out over a longer period of time, factors which render the outcomes of the research in 2004 more significant.

The following results refer to two sets of students involved in the research in 2004. The first group were the students selected to be targeted for the intervention. The second set was a representative sample of students in each school against which the progress of target students in that school could be measured.

In selecting target students, each teacher was asked to use their usual school procedures and instruments to identify a minimum of six students achieving at lower than expected standards. The total number of target students in the research was 191.

In selecting the representative sample of non-target students, each school was asked to nominate a group (usually a class) of students at the same year level as the target students to serve as a ‘year level comparison group’ against whose rates of progress, the gains of target students could be measured. Though there were occasions where some target students were also in the comparison group (particularly where students were withdrawn simultaneously from a number of classes), teachers were encouraged, to select a random non-target group for the purposes of comparison.
While a total of 191 target students were involved in the research, the size of the sample on which a full set of data exists is 171. The lower number of students on whom a full set of data exists was due to a number of factors including student absenteeism, non-attendance at scaffolding sessions, timetable clashes and students changing schools. The results reported in the remainder of this section refer to a sample of 171 target students.

In 2004, the same instruments were used to collect data on students in the research project as 2003:
- DART Reading assessment (pre and post)
- Running Records (pre and post)
- Student writing samples (pre and post)
- Teacher reflections and evaluations

Quantitative data on student performance were collected and initially entered into a combination of an Access database and Excel spreadsheets. These data were then converted into numeric form and uploaded the Statistical Package for the Social Sciences (SPSS) for analysis. The full set of quantitative data collected by each teacher at the beginning of the project (pre), and again on completion of the project (post) is as follows:
- Scores/ CSF levels on DART Reading for a representative sample of students
- Scores/ CSF levels on DART Reading for target students
- Text levels target students could read to 90% accuracy and with comprehension

The remainder of this section provides summary and analysis of data for both target and non-target students and then examines trends in specific factors such as gender, year level and individual school performance.

### 3.2.1 Overview of DART and CSF-rated gains for target and non-target students

The DART Reading assessment was administered with target students and the year level comparison group in each school in Term 1 of 2004 (pre assessment) and then again in November/December 2004 (post assessment). Tables 3.2.1 (a) to (c) below give a general analysis of the progress of both samples of students in the research project.

The data for this analysis derives from converting students' raw scores on the DART Reading assessment (DART gains) to the corresponding CSF levels (CSF-rated gains) according to the scale provided in the DART Descriptive Assessment. As the DART scores are not necessarily comparable across all the DART Reading assessment materials, converting the DART scores to CSF levels is an important step to gain comparability. Therefore, where the discussion of student data refers to CSF levels, it is important to note that these are calculated based on students' initial DART scores. In order to make it clear that what are referred to in this report as 'CSF gains' derive from students' pre and post DART scores, CSF gains are referred to in this section as 'CSF-rated gains'. Though it is based on typical curriculum learning activities and pedagogic routines, it is also important to note that the DART represents only one measure of students' reading proficiency and only one measure against the Victorian CSF.
The following chart was given to teachers to assist them in converting students’ raw scores on the DART to approximate CSF levels. Because CSF levels are fairly broad, each level was divided by into 3 sub-levels. Both here and in the scattergrams that appear later in this section, these are represented using the descriptors Beginning (B) Consolidating (C) and Established (E), where Level 1 Beginning is represented as 1B, Level 2 Consolidating as 2C and so on. Where CSF-rated gains are shown as numeric data, it is important to note that a growth of one CSF level will be shown by a growth of 3.

**Chart for Converting DART Scores to Corresponding CSF Levels**

**(Beginning, Consolidating and Established)**

<table>
<thead>
<tr>
<th>'Danny's Egg Form C' DART Raw Score</th>
<th>'Space Things' DART Raw Score</th>
<th>Approximate Corresponding CSF Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-4</td>
<td>1</td>
<td>Level 2E</td>
</tr>
<tr>
<td>5-6</td>
<td>2</td>
<td>Level 3B</td>
</tr>
<tr>
<td>7-10</td>
<td>3-4</td>
<td>Level 3C</td>
</tr>
<tr>
<td>11-12</td>
<td>5-7</td>
<td>Level 3E</td>
</tr>
<tr>
<td>13-15</td>
<td>8-10</td>
<td>Level 4B</td>
</tr>
<tr>
<td>16-19</td>
<td>11-13</td>
<td>Level 4C</td>
</tr>
<tr>
<td>20-21</td>
<td>14-18</td>
<td>Level 4E</td>
</tr>
<tr>
<td>22</td>
<td>19-20</td>
<td>Level 5B</td>
</tr>
<tr>
<td>23-26</td>
<td>21-22</td>
<td>Level 5E</td>
</tr>
<tr>
<td>27</td>
<td>23-26</td>
<td>Level 5C</td>
</tr>
<tr>
<td></td>
<td>27-29</td>
<td>Level 5E</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>Level 6B/6C</td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>Level 6E</td>
</tr>
</tbody>
</table>

Significantly, analysis of the DART scores and the corresponding CSF-rated scores indicate that Learning to Read: Reading to Learn was highly successful in improving the literacy performance of almost all students targeted for the intervention. Of the 171 target students reported on for 2004, over 95% made progress as a result of Learning to Read: Reading to Learn. Almost half the target students (83 students, or 48.54%) progressed by one CSF level, while a number (35 students, or 20.47%) made gains of two or more CSF levels. Only a small number of students (4.68%) appeared to make no progress.

Table 3.2.1 (a) below indicates the DART and corresponding CSF-rated scores for the two sets of students – target and non-target, or ‘year level comparison group’. The figures in the ‘minimum’ and ‘maximum’ columns show the range of performance of both groups. These results demonstrate that the mean gains were greater for target than for non-target students in the project. The gains achieved by the target students were significant in both the DART scores (t = 2.88, p < .01) and the CSF-rated scores (t = 3.38, p < .001), which indicates that Learning to Read: Reading to Learn was a successful literacy intervention for students identified as underachieving in the middle years.
Table 3.2.1(a) DART and CSF gains for target and non-target students

<table>
<thead>
<tr>
<th>Students</th>
<th>Number of Students</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-target students</td>
<td>DART Outcome</td>
<td>377</td>
<td>-5</td>
<td>19</td>
<td>5.99</td>
</tr>
<tr>
<td></td>
<td>CSF-rated Outcome</td>
<td>377</td>
<td>-4</td>
<td>7</td>
<td>2.36</td>
</tr>
<tr>
<td>Target students</td>
<td>DART Outcome</td>
<td>171</td>
<td>-8</td>
<td>21</td>
<td>7.18</td>
</tr>
<tr>
<td></td>
<td>CSF-rated Outcome</td>
<td>171</td>
<td>-8</td>
<td>7</td>
<td>2.90</td>
</tr>
</tbody>
</table>

The DART results for the target students are shown in graphic form in Table 3.2.1 (b). This scattergram enables shows the comparison of students’ DART scores at the commencement of the project (horizontal or x axis) and at the conclusion of the project (vertical or y axis), the line from left to right representing the average progress across the total sample. The pre assessment was carried out in Term 1 of 2004 and the post assessment at the end of Term 4, 2004.

Table 3.2.1(b) Progress of target students on DART scores

<table>
<thead>
<tr>
<th></th>
<th>DART Pre Score</th>
<th>DART Post Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>-10</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>-20</td>
<td>-10</td>
</tr>
<tr>
<td></td>
<td>-30</td>
<td>-20</td>
</tr>
</tbody>
</table>

The level of improvement evident from the pre and post DART targeted for the intervention would be evident also in the CSF data, as this as calculated using DART scores as a basis. The remainder of this section analyses the progress of target students according to a number of factors.

### 3.2.2 Progress of target students according to gender

The following table shows the break-up of gender in the sample of target students.

Table 3.2.2(a) Gender of target students

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number of Students</th>
<th>Percentage of Target Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>105</td>
<td>61.0</td>
</tr>
<tr>
<td>Female</td>
<td>66</td>
<td>39.0</td>
</tr>
<tr>
<td>Total</td>
<td>154</td>
<td>100.0</td>
</tr>
</tbody>
</table>

As shown here, the sample of target students was made up of approximately one third more male students than female students. Table 3.3.2 (b) below analyses the gains of the target students in terms of gender. This analysis indicates some variation between males and females in the sample. The range is slightly greater among male students in the sample, and males appear to have made greater gains than females, with both groups...
still making gains in excess of non-target students in the year level comparison group. While female students appear to have a more consistent rate of achievement, the results indicate that, overall, the intervention is equally successful for male and female students, with the average gains among both groups being statistically matched. This suggests that Learning to Read: Reading to Learn has a significant role to play as part of middle years literacy provision in both single-sex and co-educational environments.

Table 3.2.2(b) Progress of target students according to gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number of Students</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>DART Gain Male</td>
<td>105</td>
<td>-7</td>
<td>21</td>
<td>7.24</td>
<td>4.95</td>
</tr>
<tr>
<td>CSF-rated Gain Male</td>
<td>105</td>
<td>-8</td>
<td>7</td>
<td>2.86</td>
<td>1.98</td>
</tr>
<tr>
<td>DART Gain Female</td>
<td>66</td>
<td>-8</td>
<td>17</td>
<td>7.09</td>
<td>4.78</td>
</tr>
<tr>
<td>CSF-rated Gain Female</td>
<td>66</td>
<td>-2</td>
<td>6</td>
<td>2.97</td>
<td>1.62</td>
</tr>
</tbody>
</table>

3.2.3 Progress of target students according to year level

The following table shows the spread of the total number of 171 target students per year level.

Table 3.2.3(a) Number of target students in each year level

<table>
<thead>
<tr>
<th>Year Level</th>
<th>Year 5</th>
<th>Year 6</th>
<th>Year 7</th>
<th>Year 8</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>70</td>
<td>43</td>
<td>53</td>
<td>5</td>
</tr>
</tbody>
</table>

This table shows that the number of target students in Year 8 was significantly lower than numbers of target students at other year levels, the highest number being in Year 5. Table 3.2.3 (b) below shows the gains made by target students at each year level. These results indicate positive gains in all year levels with the most substantial gain evident in Year 5, a finding similar to 2003 where the most dramatic gains were also among Year 5 students. However, despite the strong findings evident in the mean figures in this table, it is important to note that a small number of students that did not appear to gain from the intervention. This points to the need for close monitoring of student progress. The mean gains were greatest for students in Year 5 and Year 8, however, the low numbers of target students in Year 8 make it difficult to make comment regarding the gain figure achieved.

Table 3.2.3(b) Progress of target students according to year level

<table>
<thead>
<tr>
<th>Year Level</th>
<th>Number of Students</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>DART Gain</td>
<td>70</td>
<td>-7</td>
<td>21</td>
<td>8.10</td>
</tr>
<tr>
<td></td>
<td>CSF-rated Gain</td>
<td>70</td>
<td>-8</td>
<td>7</td>
<td>3.17</td>
</tr>
<tr>
<td>6</td>
<td>DART Gain</td>
<td>43</td>
<td>-8</td>
<td>14</td>
<td>5.86</td>
</tr>
<tr>
<td></td>
<td>CSF-rated Gain</td>
<td>43</td>
<td>-2</td>
<td>5</td>
<td>2.47</td>
</tr>
<tr>
<td>7</td>
<td>DART Gain</td>
<td>36</td>
<td>-1</td>
<td>17</td>
<td>6.91</td>
</tr>
<tr>
<td></td>
<td>CSF-rated Gain</td>
<td>36</td>
<td>0</td>
<td>6</td>
<td>2.83</td>
</tr>
<tr>
<td>8</td>
<td>DART Gain</td>
<td>5</td>
<td>3</td>
<td>16</td>
<td>8.60</td>
</tr>
<tr>
<td></td>
<td>CSF-rated Gain</td>
<td>5</td>
<td>2</td>
<td>6</td>
<td>3.60</td>
</tr>
</tbody>
</table>
3.2.4 Progress of target students according to model of delivery

The following table shows the spread of students across the different models of delivery. Teachers and schools selected their model of delivery from a number of options, which included the following:

- Small withdrawal group containing target students
- Target students working as a separate group within the whole class
- Target students working as part of the whole class
- Combination of the above

The main difference between the ‘separate group within whole class’ model and the ‘part of whole class’ model is that, in the former, students worked as a separate, self-contained group on the scaffolding activities in Learning to Read: Reading to Learn while their classmates were usually engaged in other learning activities. In the latter, the teacher implemented the scaffolding activities with the whole class and tracked the progress of a group of target students in those activities.

Table 3.2.4(a) below shows the total number of students in each model of delivery. In analysing data, the category ‘Combination’ was added as a number of teachers indicated that they were working with students simultaneously in more than one of the settings described above.

Table 3.2.4(a) Percentage of target students in each model of delivery

<table>
<thead>
<tr>
<th>Model of Delivery</th>
<th>Number of Students</th>
<th>Percentage of Target Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small withdrawal group</td>
<td>36</td>
<td>21.0</td>
</tr>
<tr>
<td>Separate group within whole class</td>
<td>35</td>
<td>20.5</td>
</tr>
<tr>
<td>Part of whole class</td>
<td>29</td>
<td>16.9</td>
</tr>
<tr>
<td>Combination</td>
<td>57</td>
<td>41.6</td>
</tr>
<tr>
<td>Total</td>
<td>171</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 3.2.4(b) below shows the number of males and female students in each year level in each model of delivery. These figures suggest that it is not only more usual for students in primary school to be targeted within the whole class setting, but also more common for primary students to work as a separate group within the mainstream class. This may be due in part to the common practice in the upper primary years of organising classes into groups that rotate through a number of literacy activities. In the secondary context, it is more common for students experiencing difficulties with literacy to work with a small group withdrawn from the mainstream class for additional support in literacy. Though among the target students, boys outnumbered girls in the project by approximately one third, it is significant that more boys feature in the ‘small withdrawal group model’ than girls.
Table 3.2.4(b) Numbers of target male and female students in each year level in each model of delivery

<table>
<thead>
<tr>
<th>Year level</th>
<th>Small withdrawal group</th>
<th>Separate group within whole class</th>
<th>Part of whole class</th>
<th>Combination</th>
<th>Total number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M  F</td>
<td>M  F</td>
<td>M  F</td>
<td>M  F</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>15  9</td>
<td>5  1</td>
<td>20  20</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>5  6</td>
<td>1</td>
<td>20  11</td>
<td>43</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>28  8</td>
<td>8  9</td>
<td></td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>3  2</td>
<td></td>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>28  8</td>
<td>20  15</td>
<td>17  12</td>
<td>40  31</td>
<td></td>
</tr>
</tbody>
</table>

In 2004, deliberate efforts were made to collect more comprehensive data regarding the particular conditions most likely to lead to improved literacy outcomes for adolescent students underachieving in the middle years of schooling. Tables 3.2.4 (c) and (d) below show the gains of target students compared with gains of non-target students in different models of delivery. The results of analysis of DART and CSF-rated gains for the target and non-target students indicate differential gains for the target students based on the particular model of delivery of the intervention. The average rate of growth, or mean, for the year level comparison group was 5.99. DART gains for the target students were only significant in the ‘part of whole class’ model of delivery ((t = 2.73, p < .05) though gains in the ‘combination’ model approached significance. Similarly, in relation to the CSF-rated scores, only gains in the ‘part of whole class’ model (t = 2.58, p < .05) and the ‘combination’ model (t = 2.37, p < .05) were significant.

Of the 12 schools nominating the ‘combination’ model, 7 combined ‘small withdrawal group’ and ‘separate group within whole class’, while the remaining 5 combined ‘separate group within whole class’ with ‘part of whole class’. Differences in outcomes of the various models are discussed in greater detail following this set of tables.

Table 3.2.4(c) DART gains of target students in different models of delivery compared with DART gains of non-target students

<table>
<thead>
<tr>
<th>Model of Delivery</th>
<th>Test Value = 5.99</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T</td>
</tr>
<tr>
<td>Small withdrawal group</td>
<td>DART Gain</td>
</tr>
<tr>
<td>Separate group within whole class</td>
<td>DART Gain</td>
</tr>
<tr>
<td>Part of whole class</td>
<td>DART Gain</td>
</tr>
<tr>
<td>Combination</td>
<td>DART Gain</td>
</tr>
</tbody>
</table>
Table 3.2.4(d) CSF gains of target students in different models of delivery compared with CSF gains of non-target students

<table>
<thead>
<tr>
<th>Model of Delivery</th>
<th>CSF-rated Gain</th>
<th>Test Value = 2.36</th>
<th>T</th>
<th>Significance</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small withdrawal group</td>
<td>.165</td>
<td>.871</td>
<td>.06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Separate group within whole class</td>
<td>1.284</td>
<td>.208</td>
<td>.53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part of whole class</td>
<td>2.587</td>
<td>.015</td>
<td>.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combination</td>
<td>2.375</td>
<td>.021</td>
<td>.57</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.2.5 Progress of target students according to teacher and school influence
When analysed in terms of teacher and school factors, the results of the target students indicate evidence of both within-school and across-school variation. Table 3.3.5 (a) below gives a school-by-school analysis of target student data. On this table and those that follow, schools are identified by code numbers, where P1 = Primary School 1, S1 = Secondary School 1 etc.

Table 3.2.5(a) Teacher and school influence according to DART gains

<table>
<thead>
<tr>
<th>School</th>
<th>Teacher Code</th>
<th>Number of Students</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1 8</td>
<td>DART Gain</td>
<td>7</td>
<td>6.71</td>
<td>3.86</td>
</tr>
<tr>
<td>P1 9</td>
<td>DART Gain</td>
<td>5</td>
<td>8.00</td>
<td>4.18</td>
</tr>
<tr>
<td>P2 20</td>
<td>DART Gain</td>
<td>6</td>
<td>9.00</td>
<td>3.28</td>
</tr>
<tr>
<td>P3 6</td>
<td>DART Gain</td>
<td>7</td>
<td>8.14</td>
<td>5.30</td>
</tr>
<tr>
<td>P3 7</td>
<td>DART Gain</td>
<td>8</td>
<td>15.63</td>
<td>3.77</td>
</tr>
<tr>
<td>P4 18</td>
<td>DART Gain</td>
<td>6</td>
<td>5.00</td>
<td>3.63</td>
</tr>
<tr>
<td>P4 19</td>
<td>DART Gain</td>
<td>8</td>
<td>8.38</td>
<td>5.68</td>
</tr>
<tr>
<td>S1 3</td>
<td>DART Gain</td>
<td>6</td>
<td>8.83</td>
<td>4.53</td>
</tr>
<tr>
<td>S1 4</td>
<td>DART Gain</td>
<td>5</td>
<td>4.40</td>
<td>1.94</td>
</tr>
<tr>
<td>S1 5</td>
<td>DART Gain</td>
<td>6</td>
<td>9.17</td>
<td>5.94</td>
</tr>
<tr>
<td>P5 16</td>
<td>DART Gain</td>
<td>5</td>
<td>6.60</td>
<td>4.15</td>
</tr>
<tr>
<td>P5 17</td>
<td>DART Gain</td>
<td>5</td>
<td>7.20</td>
<td>4.76</td>
</tr>
<tr>
<td>S2 26</td>
<td>DART Gain</td>
<td>6</td>
<td>7.50</td>
<td>3.01</td>
</tr>
<tr>
<td>S2 27</td>
<td>DART Gain</td>
<td>6</td>
<td>6.50</td>
<td>4.50</td>
</tr>
<tr>
<td>S2 28</td>
<td>DART Gain</td>
<td>5</td>
<td>8.40</td>
<td>3.05</td>
</tr>
<tr>
<td>S3 12</td>
<td>DART Gain</td>
<td>6</td>
<td>5.17</td>
<td>3.60</td>
</tr>
<tr>
<td>S3 13</td>
<td>DART Gain</td>
<td>7</td>
<td>7.71</td>
<td>5.40</td>
</tr>
<tr>
<td>P6 23</td>
<td>DART Gain</td>
<td>2</td>
<td>3.50</td>
<td>3.53</td>
</tr>
<tr>
<td>P6 24</td>
<td>DART Gain</td>
<td>5</td>
<td>10.20</td>
<td>4.08</td>
</tr>
<tr>
<td>P7 21</td>
<td>DART Gain</td>
<td>7</td>
<td>4.57</td>
<td>6.07</td>
</tr>
<tr>
<td>P8 10</td>
<td>DART Gain</td>
<td>6</td>
<td>7.83</td>
<td>4.535</td>
</tr>
<tr>
<td>S4 23</td>
<td>DART Gain</td>
<td>6</td>
<td>9.33</td>
<td>5.086</td>
</tr>
<tr>
<td>P9 22</td>
<td>DART Gain</td>
<td>7</td>
<td>4.00</td>
<td>2.828</td>
</tr>
<tr>
<td>P10 14</td>
<td>DART Gain</td>
<td>5</td>
<td>1.40</td>
<td>1.517</td>
</tr>
<tr>
<td>P10 15</td>
<td>DART Gain</td>
<td>5</td>
<td>.40</td>
<td>4.722</td>
</tr>
<tr>
<td>P11 1</td>
<td>DART Gain</td>
<td>6</td>
<td>7.33</td>
<td>4.033</td>
</tr>
<tr>
<td>P11 2</td>
<td>DART Gain</td>
<td>7</td>
<td>9.57</td>
<td>3.409</td>
</tr>
<tr>
<td>S5 25</td>
<td>DART Gain</td>
<td>6</td>
<td>4.17</td>
<td>2.401</td>
</tr>
</tbody>
</table>

That teacher and school influence is a factor impacting on the gains of target students is confirmed when this factor is analysed according different models of delivery. Table 3.2.5(b) below indicates that differential gains were evident within schools, even where the model of delivery used by two or more teachers was the same.
Table 3.2.5(b) Teacher and school influence according to model of delivery on DART and CSF gains

<table>
<thead>
<tr>
<th>School</th>
<th>Teacher ID</th>
<th>Model of Delivery</th>
<th>DART Gain</th>
<th>No. of Students</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>8</td>
<td>Combination</td>
<td>DART Gain</td>
<td>7</td>
<td>6.71</td>
<td>3.86</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CSF Level Gain</td>
<td>7</td>
<td>2.43</td>
<td>1.27</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>Combination</td>
<td>DART Gain</td>
<td>5</td>
<td>8.00</td>
<td>4.18</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CSF Level Gain</td>
<td>5</td>
<td>3.20</td>
<td>1.64</td>
</tr>
<tr>
<td>P2</td>
<td>20</td>
<td>Part of Whole Class</td>
<td>DART Gain</td>
<td>6</td>
<td>9.00</td>
<td>3.28</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CSF Level Gain</td>
<td>6</td>
<td>2.67</td>
<td>1.03</td>
</tr>
<tr>
<td>P3</td>
<td>6</td>
<td>Separate Group in Whole Class</td>
<td>DART Gain</td>
<td>7</td>
<td>8.14</td>
<td>5.30</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CSF Level Gain</td>
<td>7</td>
<td>3.57</td>
<td>2.07</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Combination</td>
<td>DART Gain</td>
<td>8</td>
<td>15.63</td>
<td>3.77</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CSF Level Gain</td>
<td>8</td>
<td>5.50</td>
<td>1.19</td>
</tr>
<tr>
<td>P4</td>
<td>18</td>
<td>Combination</td>
<td>DART Gain</td>
<td>6</td>
<td>5.00</td>
<td>3.63</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CSF Level Gain</td>
<td>6</td>
<td>2.33</td>
<td>2.25</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>Combination</td>
<td>DART Gain</td>
<td>8</td>
<td>8.38</td>
<td>5.68</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CSF Level Gain</td>
<td>8</td>
<td>3.13</td>
<td>1.88</td>
</tr>
<tr>
<td>S1</td>
<td>3</td>
<td>Part of Whole Class</td>
<td>DART Gain</td>
<td>6</td>
<td>8.83</td>
<td>4.53</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CSF Level Gain</td>
<td>6</td>
<td>3.33</td>
<td>1.75</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Part of Whole Class</td>
<td>DART Gain</td>
<td>5</td>
<td>4.40</td>
<td>1.94</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CSF Level Gain</td>
<td>5</td>
<td>2.00</td>
<td>.70</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Part of Whole Class</td>
<td>DART Gain</td>
<td>6</td>
<td>9.17</td>
<td>5.94</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CSF Level Gain</td>
<td>6</td>
<td>3.67</td>
<td>2.16</td>
</tr>
<tr>
<td>P5</td>
<td>16</td>
<td>Separate Group in Whole Class</td>
<td>DART Gain</td>
<td>5</td>
<td>6.60</td>
<td>4.15</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CSF Level Gain</td>
<td>5</td>
<td>3.40</td>
<td>1.94</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>Separate Group in Whole Class</td>
<td>DART Gain</td>
<td>5</td>
<td>7.20</td>
<td>4.76</td>
</tr>
<tr>
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<td></td>
<td>CSF Level Gain</td>
<td>5</td>
<td>2.80</td>
<td>1.64</td>
</tr>
<tr>
<td>S2</td>
<td>26</td>
<td>Withdrawal Group</td>
<td>DART Gain</td>
<td>6</td>
<td>7.50</td>
<td>3.01</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CSF Level Gain</td>
<td>6</td>
<td>3.17</td>
<td>.75</td>
</tr>
<tr>
<td></td>
<td>27</td>
<td>Withdrawal Group</td>
<td>DART Gain</td>
<td>6</td>
<td>6.50</td>
<td>4.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CSF Level Gain</td>
<td>6</td>
<td>2.67</td>
<td>1.03</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>Withdrawal Group</td>
<td>DART Gain</td>
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<td>8.40</td>
<td>3.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CSF Level Gain</td>
<td>5</td>
<td>3.40</td>
<td>1.14</td>
</tr>
<tr>
<td>S3</td>
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<td>Withdrawal Group</td>
<td>DART Gain</td>
<td>6</td>
<td>5.17</td>
<td>3.60</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CSF Level Gain</td>
<td>6</td>
<td>2.33</td>
<td>1.63</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>Withdrawal Group</td>
<td>DART Gain</td>
<td>7</td>
<td>7.71</td>
<td>5.40</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CSF Level Gain</td>
<td>7</td>
<td>3.29</td>
<td>1.79</td>
</tr>
<tr>
<td>P6</td>
<td>23</td>
<td>Combination</td>
<td>DART Gain</td>
<td>7</td>
<td>8.29</td>
<td>4.88</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CSF Level Gain</td>
<td>7</td>
<td>3.14</td>
<td>1.57</td>
</tr>
<tr>
<td>P7</td>
<td>21</td>
<td>Separate Group in Whole Class</td>
<td>DART Gain</td>
<td>7</td>
<td>4.57</td>
<td>6.07</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CSF Level Gain</td>
<td>7</td>
<td>1.43</td>
<td>4.35</td>
</tr>
<tr>
<td>P8</td>
<td>10</td>
<td>Separate Group in Whole Class</td>
<td>DART Gain</td>
<td>6</td>
<td>7.83</td>
<td>4.53</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CSF Level Gain</td>
<td>6</td>
<td>3.50</td>
<td>1.37</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Separate Group in Whole Class</td>
<td>DART Gain</td>
<td>5</td>
<td>6.40</td>
<td>3.43</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CSF Level Gain</td>
<td>5</td>
<td>2.80</td>
<td>.83</td>
</tr>
<tr>
<td>S4</td>
<td>23</td>
<td>Part of Whole Class</td>
<td>DART Gain</td>
<td>6</td>
<td>9.33</td>
<td>5.08</td>
</tr>
</tbody>
</table>
Differential outcomes in student gains within the one school, particularly where the same model of delivery was used by both teachers, suggest that other variables have impacted on student progress in the literacy intervention. These variables may include number and frequency of scaffolding sessions, the amount of collaboration between teachers in one school and the years of teacher experience and confidence in using the scaffolding approach.

In several schools implementing similar models of delivery, the gains were fairly consistent. For example, School P1, School P5 and School P11 show similar student gains against both teachers, though in School P11 the gap is slightly greater. Informal data indicate that in each of these schools, there is a culture of collaboration where teachers work together to plan and implement curriculum programs. Slightly lower gains were achieved by students in Schools P7 and P9 where the teachers were not only new to the project in 2004 but were also the only teacher in their schools implementing Learning to Read:Reading to Learn with students in the classroom. These teachers may not have had access to the same level of collaborative planning or lesson preparation and co-critique as colleagues in other schools who were able to plan and work as a team. Though primary teachers implementing the approach on their own tended to have high support from Literacy Co-ordinators in their schools (who attended the professional development also), this suggests that greater and more consistent gains are achieved where teachers are mutually supported in implementing pedagogic change and curriculum reform. Exceptions to this are Schools P2, P6 and School S4 where teachers were implementing the approach on their own and showed student gains that ranked among the top six schools. Two of these schools, P2 and S4, used the ‘part of whole class’ as their model of delivery. The results from P2 are significant in that this was the only primary school where ‘part of whole class’ was the only model of delivery. Where this model was used by other primary schools in the project, it was combined either with the ‘separate group within whole class’ model or with the ‘withdrawal group’ model. This reinforces the effectiveness of supporting underachieving students within the mainstream class environment as a means of improving literacy outcomes.

It is interesting to compare results of teachers both new to the project in 2004 and also implementing the approach on their own (Schools P6, P7 and P9) with results in School P3, where a teacher also new to the project in 2004 achieved a student gain of 8.14. In this case, the new teacher (Teacher 6) attended the project with her colleague (Teacher 7) who had participated in the project in 2003. This colleague, who was an experienced literacy co-ordinator in the school, acted as a mentor for the new teacher. This suggests
that, along with teacher collaboration, access to a more experienced practitioner of the scaffolding approach in one school may lead to enhanced student outcomes for that school, a factor which is consistent with the body of research on peer coaching and peer mentoring.

Analysis of the results in School P3 also highlights other teacher and school factors that may impact positively on student gains. These relate to model of delivery and frequency of scaffolding sessions. For example, the two teachers in School P3 were using different models of delivery – one ‘separate group in whole class’ and one ‘separate group in whole class’ combined with ‘small withdrawal group’. The DART gains were different for students in these two groups: 8.14 compared with 15.63 in the combination model delivered by Teacher 7. Data from this school indicates that students working in the combination model implemented by Teacher 7 had access to more scaffolding sessions than those working with Teacher 6. This was made possible by the structure of her role as school literacy co-ordinator which allowed her the time and flexibility to work with students both in class and as a small withdrawal group.

Number and frequency of scaffolding sessions may also be a factor impacting on results in Schools P4 and P8 where teachers used the same model of delivery and student gains within schools were fairly consistent. However, in both cases, informal school data reveals that, where student DART gains were higher, the teachers delivered more scaffolding sessions. In School P4, the gains for Teacher 19 were higher at 8.38, while in School P8 the gains for Teacher 10 were higher at 7.83. As with P3, this suggests that, for underachieving students, student gains increase in proportion to the number and frequency of scaffolding sessions. This is significant, and suggests a need for vigilance, particularly in secondary schools where program interruptions, timetable changes and target student absences impact negatively on the capacity of any literacy intervention program to deliver improved outcomes. Again, in School P10, where the two teachers used the same model of delivery and student gains were lowest, number and frequency of scaffolding sessions may be a factor impacting on results. Though the model of delivery at this school was similar to that used in Schools P3 and P4 – a combination of the ‘separate group within whole class’ and ‘withdrawal group’ models – the results of P10 were dramatically lower than either of these.

In the secondary school context, teachers in each of School S1, S2 and S3 used the same model of delivery. School S2 which achieved the most consistent gains used the ‘withdrawal’ model but adopted a unified and co-ordinated approach to planning and implementing the project with underachieving students in Year 7, where the withdrawal groups were timetabled to operate as small independent classes. In this school, there was a high degree of support for Learning to Read:Reading to Learn as a key component of the school’s literacy strategy and ongoing communication and collaboration between teachers implementing the approach with students. The two teachers in School S3 also used the same model of delivery, though the student gains are less dramatic than for School S1 and S2. Informal data from secondary teachers or schools where the results are lower suggests that teacher and school variables may have impacted to produce differential student gains. These may include number and frequency of scaffolding sessions, teacher effectiveness and other factors. Interestingly, three of the secondary schools – Schools S1, S3 and S5 – are all situated in the same geographical area of Melbourne and have student populations that are broadly similar in terms of cultural background and socio-economic status. Across-school differences in student gains may be due in part to chosen models of delivery.
Though target students have made progress in each of the models of delivery, research data indicate that the ‘part of whole class’ model used in S1 leads to more significant gains than the ‘withdrawal’ model used in S3 and S5. The decision to implement the scaffolding approach as part of routine classroom practice may have some bearing on the number and frequency of scaffolding sessions teachers are able to schedule. In spite of the pressure, oft cited by teachers in their evaluations, to cover a certain amount of content within a particular time, embedding the scaffolding approach in mainstream classroom practice gives may well give teacher greater autonomy over where, when and how often they use it. The ‘withdrawal’ model, by contrast, is generally subject to a set timetable and hindered by frequent program interruptions and issues surrounding student co-operation and willingness to attend. The emergence of the ‘part of whole class’ model as effective for middle years students is reinforced by School S4 which used the same model as S1 with similar, though slightly higher, student gains. This suggests that, for adolescent students underachieving in the middle years students – and particularly for those in secondary settings – a model that provides support for literacy development within the whole class environment, is likely to produce the best outcomes. This has implications for the training and professional development of mainstream classroom teachers and subject specialists as well as literacy specialists approach in Learning to Read: Reading to Learn.

Of the teachers that continued with the CEOM LRRL project into 2004, thus completing a second year of professional development and training in the scaffolding approach, five collected and submitted a full set of student data. Of these five teachers, three achieved results that ranked them among the top eight sets of student DART and CSF gains. This indicates that, as teachers develop knowledge, confidence and familiarity with the scaffolding approach, student gains are likely to be enhanced. It also reinforces the value of professional learning that combine expert input with classroom-based research that is sustained and supported over an extended period of time.

3.2.6 Numbers of students in previous literacy intervention programs
A number of the target students were known to have been targeted for other literacy intervention programs, notably Reading Recovery, which operates widely in Victorian primary schools with students in Year 1 and Corrective Reading which tends to be used in the upper primary years and junior secondary years. However, the data collected as part of the project showed significant gaps in school or teacher records on underachieving students’ previous ‘histories’ of literacy intervention. Where no information was supplied, it was not clear whether a student had no previous history of literacy intervention or whether the previous history was unknown to the teacher or school supplying the information. Hence, the category ‘none’ in the following table may represent both scenarios - those with no history, and those whose history is not known – and needs to be read as indicative of some students’ profiles only rather than as representing the total proportion of target students participating in previous literacy intervention programs. This gap in the data highlights the need for more systematic, comprehensive and longitudinal tracking of underachieving students, particularly in the transition from primary to secondary school.
### Table 3.2.6(a) Numbers of target students in previous literacy intervention programs

<table>
<thead>
<tr>
<th>Form of Literacy Intervention</th>
<th>No. of Students</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>None/not known</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DART Gain</td>
<td>80</td>
<td>-1</td>
<td>19</td>
<td>6.99</td>
<td>4.39</td>
</tr>
<tr>
<td>CSF-rated Gain</td>
<td>80</td>
<td>0</td>
<td>7</td>
<td>2.93</td>
<td>1.56</td>
</tr>
<tr>
<td><strong>Reading Recovery</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DART Gain</td>
<td>37</td>
<td>-8</td>
<td>21</td>
<td>8.16</td>
<td>6.44</td>
</tr>
<tr>
<td>CSF-rated Gain</td>
<td>37</td>
<td>-2</td>
<td>7</td>
<td>3.27</td>
<td>2.20</td>
</tr>
<tr>
<td><strong>Corrective Reading</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DART Gain</td>
<td>18</td>
<td>-7</td>
<td>12</td>
<td>6.44</td>
<td>4.92</td>
</tr>
<tr>
<td>CSF-rated Gain</td>
<td>18</td>
<td>-8</td>
<td>4</td>
<td>2.22</td>
<td>2.79</td>
</tr>
<tr>
<td><strong>Making a Difference</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>DART Gain</td>
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<td>8</td>
<td>8</td>
<td>8.00</td>
<td>.</td>
</tr>
<tr>
<td>CSF-rated Gain</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>3.00</td>
<td>.</td>
</tr>
<tr>
<td><strong>THRASS</strong> (Teaching Handwriting, Reading and Spelling Skills)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DART Gain</td>
<td>1</td>
<td>8</td>
<td>8</td>
<td>8.00</td>
<td>.</td>
</tr>
<tr>
<td>CSF-rated Gain</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>3.00</td>
<td>.</td>
</tr>
<tr>
<td><strong>SAISO</strong> (Strategic Assistance for Improving Student Outcomes)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DART Gain</td>
<td>4</td>
<td>1</td>
<td>6</td>
<td>3.00</td>
<td>2.16</td>
</tr>
<tr>
<td>CSF-rated Gain</td>
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<td>1</td>
<td>3</td>
<td>1.50</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Language Support (non-specific)</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DART Gain</td>
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<td>-2</td>
<td>16</td>
<td>8.00</td>
<td>4.573</td>
</tr>
<tr>
<td>CSF-rated Gain</td>
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<td>0</td>
<td>6</td>
<td>3.00</td>
<td>1.706</td>
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<tr>
<td><strong>Individual Learning Plan (ILP)</strong></td>
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<td>DART Gain</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1.00</td>
<td>.</td>
</tr>
<tr>
<td>CSF-rated Gain</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1.00</td>
<td>.</td>
</tr>
</tbody>
</table>

#### 3.2.6 Analysis of student progress on running records

Teachers in the project carried out running records on target students at the beginning (pre) and at the completion (post) of the project. To assist them in assessing students’ reading performance, teachers used texts guidelines prepared by Dr Rose including a list of texts ‘benchmarked’ at approximate year levels (Years 4-5, 6-7, 7-8 etc) and sample extracts from fiction texts. For example, these guidelines benchmark Emily Rodda’s novel *Rowan of Rin* at approximately Years 6-7, while they benchmark John Marsden’s novel *Tomorrow When The War Began* at approximately Years 7-8.

Table 3.2.6 below uses data from pre and post running records to show rates of progress of primary and secondary target students in 2004. As with 2003, a number of variables impacted on teachers’ implementation of running records in the project, including availability of suitable texts, and varying degrees of teacher familiarity with the process. For many secondary teachers the procedure of taking a running record was entirely new and, though it was generally seen to be a valuable professional skill, was also one in which they were still developing confidence and expertise.

Though teachers in the project reported universally that students’ decoding skills as assessed by running records far exceeded their ability to understand the meaning of texts, or to discuss inferred meanings, nevertheless, the ‘pre’ results in the table below show some students to be reading at levels considerably higher would normally be expected to among underachieving students. This suggests that these students have been assessed on their decoding skills only rather than on their decoding skills in conjunction with their understanding of the meaning of the text. This highlights the need for literacy projects or professional development programs to provide support for teachers in administering literacy assessments and in interpreting results as a way of maximising consistency across classrooms and schools.
However, even making allowances for variables, the trends in the data support the view that the scaffolding approach in Learning to Read: Reading to Learn has been a positive intervention for the majority of target students. Of the 79 students represented in the table below, the pre and post running record results show that, while 16 students (14 primary and 2 secondary) remained on the same level for both, 43 students (29 primary and 14 secondary) progressed to texts benchmarked at the next year level (eg moving from reading a text benchmarked at year level 5-6 to one benchmarked at year level 6-7) and 27 (20 primary and 7 secondary) progressed by more than one year level of text.

The majority of students who made gains gained two year levels or more, with 60 students out of 79 making gains of one year level and 35 of those 60 making gains of 2 year levels or more. It is also important to note the small number of students who appear to have slipped backwards, highlighting the need for regular and ongoing monitoring of student progress and investigation of factors impacting on literacy outcomes.

Table 3.2.6(b) Progress of target students according to running records

<table>
<thead>
<tr>
<th>Pre and post running records on texts benchmarked at approximate year levels</th>
<th>Primary: Year 5/6 students</th>
<th>Secondary: Year 7/8 students</th>
<th>Total number of students</th>
<th>Gain by year level (according to text benchmarks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>pre 2-3, post 3-4</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>pre 2-3, post 4-5</td>
<td>5</td>
<td>1</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>pre 2-3, post 8-9</td>
<td>1</td>
<td>9</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>pre 3-4, post 2-3</td>
<td>1</td>
<td>1</td>
<td>-1</td>
<td></td>
</tr>
<tr>
<td>pre 3-4, post 3-4</td>
<td>9</td>
<td>9</td>
<td>18</td>
<td>2</td>
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<td>pre 3-4, post 4-5</td>
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<tr>
<td>pre 3-4, post 5-6</td>
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<td>2</td>
<td></td>
</tr>
<tr>
<td>pre 3-4, post 6-7</td>
<td>2</td>
<td>2</td>
<td>-1</td>
<td></td>
</tr>
<tr>
<td>pre 4-5, post 3-4</td>
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<td>4</td>
<td>8</td>
<td>0</td>
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<td>0</td>
</tr>
<tr>
<td>pre 4-5, post 5-6</td>
<td>16</td>
<td>19</td>
<td>35</td>
<td>2</td>
</tr>
<tr>
<td>pre 4-5, post 7-8</td>
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<td>1</td>
<td>2</td>
<td></td>
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<tr>
<td>pre 5-6, post 5-6</td>
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<td>1</td>
</tr>
<tr>
<td>pre 5-6, post 6-7</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>pre 6-7, post 6-7</td>
<td>6</td>
<td>4</td>
<td>10</td>
<td>1</td>
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<tr>
<td>pre 6-7, post 7-8</td>
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<tr>
<td>pre 7-8, post 7-8</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Overall, the results from the project in 2004 confirm trends emerging from the project in 2003 and are all the more significant, given the larger sample of target students and the longer period of time involved.
3.2.7 Analysis of selected samples of student writing

In addition to teacher observation and professional judgement of student progress in writing in Learning to Read: Reading to Learn, teachers were encouraged to gather qualitative data through analysis of student writing samples. A comprehensive comparison and analysis of target students’ pre and post writing samples is beyond the scope of this report. However, the samples included in this section are indicative of the gains in writing made by many students in the project, and provide some evidence for claims made by teachers as to the impact of the intervention on student literacy performance.

The following writing samples are indicative of improvements in factual writing from target students in the project. These samples are from students in a Year 5 class at a primary school.

Sample 1 shows the kinds of factual texts that target students were writing before the LRRL intervention. The specified task was to choose an item of technology and explain how it works.

**Sample 1: Target student’s factual writing before intervention**

![Sample 1: Target student’s factual writing before intervention](image)

Target students such as this were unable to use appropriate genres for factual writing tasks, such as explaining how technology works. Instead they tend to fall back on their oral experience of simple procedures. Even if they have some understanding of a topic, they are unable to explain it clearly. This student mixes a very simple procedure and explanation, followed by a brief list of equipment and types of bikes familiar to him. The struggle to write this simple information means that the student can only produce a very short text, and the language is entirely drawn from oral experience.

Sample 2 shows the degree of improvement in target students after one Learning to Read: Reading to Learn lesson sequence. The class has explored a topic about the moon, and done some detailed reading on texts in the topic. The specified task was to describe the moon.

![Sample 2: Target student’s factual writing after intervention](image)
After one intervention, target students in this class were able to choose an appropriate genre for the task, a descriptive report about the moon. This student begins by classifying the phenomenon and displays a relatively high level of control over the technical field, clearly explaining phases of the moon, the orbits of the moon and the earth, gravitational pull, reflection of light, meteorites and moon craters, distance from the earth and astronauts on the moon. Sentence grammar and spelling of technical terms is generally accurate, with some problems spelling words that have not been studied in class. Overall, the student has been able to write a longer coherent text. However there are problems with the text’s organisation. The initial classification should ideally have been followed with the information about orbits and distance, then reflected light, then moon phases, finishing with information about astronauts.

Sample 3 is from the same student after one more LRRL lesson sequence. The class has explored a topic about breathing, and done some detailed reading and joint writing on the topic. The specified task was then to explain how breathing works.
Sample 3: Target student’s independent factual writing after two LRRL lesson sequences

How do we breath

The respiratory system is made up of three important organs that are the nose, trachea, and lungs. The exchange of gases (oxygen and carbon dioxide), which are necessary for us to survive are enabled by this system.

Breathing is controlled by the brain. It provides messages by transmitting them through the nerves in the spinal cord to the intercostal muscles. They are located between the ribs and the diaphragm. Please finish.

Air is first brought in to the body by the nose or mouth. It then goes in the throat. (The pharnyx) then through to the voice box (the larynx). The voice box has a cover call the epiglottis.

When a breath is taken, the cover opens. Food is been out but air can go down to the trachea.

After the air passes down the trachea, it goes into the lung down either side of the bronchus, passing by the bronchus and then into small air sacs they are called alveoli. These air sacs are covered in blood vessels they are called capillaries. From here the oxygen is fully taken into the blood stream and carbon dioxide comes back to the lungs.

Your intercostal muscles push the rib cage inwards. So then your pressure rises. Pushing forces your carbon dioxide out the lungs.

This student is now able to independently write a highly competent explanation of natural processes, using extensive technical terms, sophisticated sequencing of cause and effect, and well-planned organisation. The explanation begins with the overall structure and function of the respiratory system, and each paragraph then explains a different aspect of the breathing process, with a clear sequence within each paragraph. Sentence grammar and spelling of numerous technical terms are generally accurate.

The Learning to Read: Reading to Learn literacy pedagogy thus resulted in significant improvement, not only in students’ ability to comprehend texts across the curriculum, but also in their capacity to control both the field knowledge and the written genres required by the curriculum in the middle and secondary years of schooling.
3.3 Outcomes of the Project for Teachers

Throughout 2003 and 2004, qualitative data were collected from the 58 teachers involved in the project through

- written evaluations on each professional development component
- written evaluations as part of the Final Data Collection for each year
- Teacher Reflective Journals or Records of Scaffolding Sessions collected as part of the Final Data Collection

This section provides a summary of written teacher evaluations and comments on Learning to Read: Reading to Learn. These are organised thematically in order to summarise information and to reveal trends or patterns evident in teachers' responses to the project. They are included in this report in the expectation that they may be useful to schools and teachers in providing some insight into both the successes and challenges involved in implementing Learning to Read: Reading to Learn with students.

3.3.1 Written teacher evaluations of the professional development component

Teachers participating in the CEOM LRRL project attended eight professional development days organised in four sets of two days per term. At the completion of each set of two professional development days, they were asked to complete a written evaluation form, which could remain anonymous if they chose. These forms typically asked teachers to

- rate the effectiveness of the program on a likert scale of 1-4 where 1 is 'Not effective' and 4 is 'Most effective'
- reflect on the program and note any comments, strengths/weaknesses, suggestions for improvements etc
- note any issues/questions/concerns you have at this stage of the research project.
- rate the venue and catering arrangements

Feedback from these evaluations provided an opportunity to monitor the success of the program and to continue to shape it to respond to participants' needs. Evaluations from each set of two professional development days were shared and discussed as a basis for forthcoming days.

Throughout the year, the majority of teachers rated the program consistently as 3 or 4 on a likert scale where 1=least effective and 4=most effective.

3.3.2 Final teacher evaluations of the overall impact of Learning to Read: Reading to Learn

The total number of 58 teachers involved in the project in 2003 and 2004 were asked to rate the impact of Learning to Read: Reading to Learn on their own professional knowledge and practice. In a separate question, they were asked to rate the impact of Learning to Read: Reading to Learn on the literacy performance of their students. A summary of teachers' responses to these two questions is shown in Tables 3.1.2(a) and 3.1.2(b). The figures in brackets and bold type represent the totals of teachers giving each response.
Table 3.3.2(a) Teacher ratings of the impact of *Learning to Read:Reading to Learn* on their professional knowledge and practice

<table>
<thead>
<tr>
<th>Rating</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - No impact</td>
<td>(2)</td>
</tr>
<tr>
<td>2 - Some impact</td>
<td>(18)</td>
</tr>
<tr>
<td>3 - Considerable impact</td>
<td>(10)</td>
</tr>
</tbody>
</table>

The majority of respondents rated the project as having had considerable or high impact on their professional knowledge. The following comments are a representative sample of responses accompanying these ratings from the 2003 cohort of teachers.

...it has given me a clearer and more tangible way of understanding how language works/gave me tools/strategies to reach all students in a way which empowers them and gives them confidence.

...it has had a positive effect on my teaching practice/traditional comprehension practices not helpful for struggling readers/general and detailed preparation of text enables students to identify language features; this assists both fluency and comprehension/ scaffolding also improves student writing and gives a good context for teaching linguistic structures and features.'

...it has challenged the way I ask questions in class and opened my mind to the idea that it is okay to give answers at the beginning, rather than have students guess what’s in the teacher’s head/increased my confidence in literacy teaching.

...it has increased my understanding of grammatical features of texts/better use of text for reading (comprehension) and writing (modelling).

...different style of questioning on the text utilises prior skills and knowledge from ESL and Literacy training/it provides explicit teaching which supports low achievers and extends higher achievers.

...it has shown me the importance of general preparation-explaining and exploring the field in detail and being able to give clear elaborations of main concepts/importance of text highlighting supports students/structure of scaffolding at each stage of the process.

...students gain confidence by owning the text through highlighting words and responding correctly to prompts.

...it has alerted me to the wide range of language features and how they are used in text/modelling ‘good’ writing has highlighted ‘good’ techniques for effective writing.

...it improves comprehension through using substitute and commonsense wordings/students able to rephrase text without changing the meaning/improved vocabulary and helped teach grammar in context, rather than through separate exercises.

Table 3.3.2(b) Teacher ratings of the impact of *Learning to Read:Reading to Learn* on students

<table>
<thead>
<tr>
<th>Rating</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - No impact</td>
<td>(4)</td>
</tr>
<tr>
<td>2 - Some impact</td>
<td>(4)</td>
</tr>
<tr>
<td>3 - Considerable impact</td>
<td>(20)</td>
</tr>
<tr>
<td>4 - High impact</td>
<td>(8)</td>
</tr>
</tbody>
</table>
As demonstrated, the majority of respondents rated the project as having had considerable or high impact on the literacy abilities of students. The following comments are a representative sample of responses accompanying these ratings:

... can see progress through DART results/ increased confidence of weaker readers.

... pre and post writing samples showed really positive results/ improved writing skills noticed by other teachers/observed transfer of skills from scaffolding approach.

... all students reading with greater understanding of texts/noticeable improvement in writing after scaffolding/all students (even the weaker ones) able to participate with confidence and enjoyment.

... higher degree of engagement through close attending to text/improved comprehension and writing students themselves feel they have made significant improvement.

... students own their words and enjoy expanding their meanings. Sense of ownership is powerful and fun.

... the interactive nature of the text marking and discussions have made it possible for students to be more able to participate, rather than being overwhelmed by the text.

... all children made progress and are more confident in their abilities.

... the greatest impact was on students' interest and engagement in discussing language features and how they are used in text. This may not be evident in DART results as students were very weak and the time in the project did not allow for substantial gain/in one session, students took control of in the sentence making and debated and discussed for nearly 50 minutes over re-ordering of the text.

... DART results show clear progression in target students.

Where teachers gave a score of less than 3 on the likert scale in Table 3.3.2 (b), most cited timetable constraints and constant interruptions as factors preventing the approach from having more impact on student performance. Most also indicated that, where the approach could be implemented in more favourable conditions, they would expect more significant outcomes. The following are some examples:

... definitely had some impact in the tasks we focused on/limited time and access to students prevented more impact/can see how approach applied consistently and regularly would be of great benefit.

... needed more time, especially to implement the approach across all key learning areas/close attention to text.

... increased students' confidence but extremely difficult to get consistency in the teaching of this approach due to interruptions (eg excursions, school events, assessment tasks, absenteeism etc).

Where teachers in the project were able to implement the approach more consistently and regularly with their target group of students, outcomes were seen to be highly successful. For example, one primary teacher, who worked with students almost on a daily basis, wrote the following:

> Working intensively with small cohort of students (ie 6 students 4 times per week for 30-45 minutes) the constant contact - little but often per week - made a great deal of difference to the successful results.

This suggests that, for at-risk students, frequency and regularity of contact is a factor impacting on the success of the approach. Regular contact with students also provides greater continuity and cohesion, as students are able to work through the scaffolding sequence within a shorter timeframe.
3.3.3 Final teacher evaluations of strengths of the approach
The following information is a collation of teacher judgements of the strengths of the scaffolding approach in Learning to Read: Reading to Learn organised under key headings.

On inclusiveness/engagement:
- all students able to experience success
- can be used with students with a range of literacy abilities
- very non-threatening and empowering
- all students in the class can work on the same text
- the weakest students can experience success
- raises self-esteem and confidence
- builds confidence as students achieve success at each stage
- based on students’ needs
- students gain confidence in their own abilities
- allows all students to engage and participate actively
- greater level of engagement in text

On access to texts:
- makes all texts accessible to all students
- provides greater access to text for all students
- scaffolding provides all students access to reading
- uses complex, challenging and age-appropriate texts used in the mainstream curriculum

On the general effectiveness of the approach:
- scaffolds texts students are expected to produce
- meaningful and relevant reading and writing tasks
- targets both reading and writing
- strategies transferable across all key learning areas
- intensive training builds new skills
- explicit teaching
- covers reading, writing, sentences, grammar, spelling and oral skills (while many other programs or approaches do not)
- improvement on teaching grammar skills in isolation which has shown disappointing results in the past
- unpacking of grammar in context
- students able to see their own progress
- methodical/manageable
- not reliant on costly resources
- can see results

On the effectiveness of particular strategies/activities:
- explaining meaning of the text at the beginning and highlighting
- text highlighting and giving commonsense meanings; in writing, using the text to develop understanding of structure, punctuation, spelling
- differentiating between important and trivial information
- notemaking assisted with summarising
- tackling genre first contextualises reading
- text marking of key information helped students to summarise text
- students learn new vocabulary and use it in their own writing

On lesson structure/sequence:
- each stage of lesson builds the foundation for the next stage
• structured, staged, step-by-step nature of the program assists students, especially ESL students
• students respond well to lesson structure

On models of delivery:
• can be used with small group and whole class
• works with individuals, small groups or with a class

3.3.4 Final teacher evaluations of limitations of the approach
The following information is a collation of teacher judgements of the limitations of the scaffolding approach in Learning to Read: Reading to Learn organised under key headings. It is worth noting here that many of the factors cited by respondents as ‘limitations’ refer to organisational issues concerning program implementation and delivery, and many of these were a result of timetabling, scheduling of other activities and other structural constraints, particularly in secondary schools.

On inclusiveness/engagement:
• difficult with wide range of students
• can be tedious and slow
• boring and repetitive for more able students

On time:
• time needed to implement the program fully
• time required for training other staff members
• requires great deal of preparation time
• time consuming (though it pays off)

On the general effectiveness of the approach:
• requires regular and consistent application
• room allocation and timetable constraints can impact on effectiveness of the approach
• possible resistance from other KLA teachers
• more difficult in secondary school context
• difficult to implement without support from leadership/other teachers/mentors/
• needs staff commitment
• need lots of photocopies for text marking
• can impact on pace of the curriculum and pressure to ‘complete the course’
• constant interruptions to sessions/timetabling constraints
• unsure of transfer of skills to other key learning areas
• children work better only when cued and given elaborations than when left on their own
• linguistic knowledge required in order to prepare texts

On the model of delivery:
• disadvantages of withdrawal
• more suited to small target group than whole class
• small group very successful, not sure about whole class
• difficulty applying it to whole class
• working with a small group within the whole class context can be distracting for both target students and teacher and make it difficult to concentrate on students’ needs
• prefer to implement the approach with a small group rather than whole class because it is more centred on the needs of students with language difficulties
• no limitations in small group setting - working intensively with small cohort of students (ie 6 students 4 times per week for 30-45 minutes) the constant contact - little but often per week – made a great deal of difference to the successful results
on the project design:
- more ‘hands on’ practice needed in PD sessions
- short notice of requirements for research project

3.3.5 Teacher Reflection
As described in Section 2.2.7, in 2003, teachers were asked to keep ongoing records and notes on their observations and experiences (see Appendix B). Teachers’ comments covered many dimensions of the project, including their own developing mastery of the scaffolding approach, individual and collective responses of students to the sequence of activities and organisational and other issues impacting on teachers’ capacity to implement the approach on a consistent basis. The following extracts indicate selected recurring themes and issues:

From a teacher working with a small group of Year 8 ESL students:
I was thrilled to see the students get so much enjoyment from the lesson. This enjoyment came largely from the confidence they gained from really understanding what it was all about.

I was struck by how important it is to word your questions carefully so that you don’t stress the students by making them infer an answer from knowledge they may not have.

Student 1 was away due to health and personal problems. Raises the question: what do you do when students are absent for a major component of the process?

From a teacher working with a small group of Year 7 students:
Students who are usually ‘invisible’ in the mainstream class are confident and engaged in the process.

It is great to have positive results and examples to show parents of students who have always struggled with literacy.

The plastic strips, highlighters and laminated boards are really successful with the target students.

From a teacher working with a whole class of Year 7 students:
My students loved working on ‘Round the Twist’ and then watching the video. One student commented that he’d never read a short story before.

I scaffolded a poem and got some excellent responses, some of which are being published in the school magazine.

From a teacher working with a small group of Year 7 Indigenous students:
I noticed some significant changes. The students were less inclined to want to highlight large chunks of text but instead highlighted key words... this led to a discussion about note-taking.

Next time we meet I will extract the highlighted notes and show the students that, once you have done this, you no longer need the original text.
I wish my lessons could be timed better to allow for greater flow in students' learning. This term we are at Week 4 and I've only been able to see them twice!

**From a teacher working with a whole class of Year 5/6 students:**
Having sets of sentence strips so that students could work in small groups to re-order the text worked really well.
The structure and information the students used in their post-scaffolded writing, compared with their pre-scaffolded writing was excellent.

**From a teacher working with a small group of Year 6 students:**
I enjoyed every session and could see the progress made by students.
I also worked in a secondary school for several weeks where I worked with teachers to prepare texts for scaffolding from across the key learning areas.
I can't wait to return to full time teaching so I can continue this process with a whole grade. My first literacy lesson will be a scaffolded text so that students can experience success from the outset.

**From a teacher working with a small group of Year 5/6 students:**
All six children were able to reconstruct the text with most of the information included. The final results were surprising and showed evidence of the impact of the lesson sequence on their factual writing.
We jointly constructed the first paragraph and then I allowed students to continue on their own. I realise we needed to reconstruct the whole text first as a group.

### 3.3.6 Teacher Recommendations for Learning to Read: Reading to Learn in 2005 and Beyond

Towards the end of the project, participants were asked to comment on whether the project should continue as a system-wide professional development initiative in 2005 and beyond. Of the total number of 24 respondents, 22 indicated 'yes', 2 indicated 'undecided' and none indicated 'no'. They were also asked to give reasons for their response. The following is a representative sample of comments from those who answered 'yes' organised under key headings.

**On student progress and achievement:**
I have seen a big improvement in my focus and the whole class.
I have seen non-readers achieving through this project which other methods have not achieved.
There has been a development in the target groups reading abilities and general confidence as learners.
Proven to be successful in improving the writing skills of target students.
Ongoing data collection proves that this approach supports students with reading difficulties
While I was not completely convinced at the start I have increasingly discovered the benefits of the program. Students have really begun to enjoy the approach. I have had to vary the pace quite a bit but the benefits in terms of results have been excellent in the quality of their writing and understanding.
Note taking has been highly successful because it is a specific problem in regard to all KLA's

**On the suitability of the program for the middle years:**
Focuses on middle years learners and is quite distinct from other programs.
Should be used as a platform for transition.
For the middle years intervention programs have been not age appropriate. This one allows those students who struggle to access texts at the right level. It prepares them for the challenge they will have in secondary school.

Excellent way to address the issue of struggling learners within the classroom reduces need for withdrawal and purchased programs.

If secondary schools and their feeder schools are both using the method there would be consistency. Incentive for primary/secondary collaboration in clusters is an added benefit that should bring wider benefits.

Transition from primary to secondary school becomes easier when secondary schools teachers have an understanding of strategies children have learnt (and vice versa).

This project gives very specific strategies for teaching reading and writing. The assumption that all student can read at their age level if given enough support is important the middle years.

Can be used as a whole-school Years 7 and 8 approach to literacy in most key learning areas.

**On intervention/mainstream:**

Give teachers a wider range at tools they can use in both mainstream classes and withdrawal groups.

Highly effective and desirable mainstream classroom strategy across KLAS/whole school – STOP calling it an ‘intervention’ as this can send limiting messages to staff

All secondary schools should have a part of their literacy charter that all students are continually taught to learn to read throughout their school career Y 7 – 12 as a consequence all teachers of all subjects at all levels are active literacy teachers i.e a holistic, mainstream strategy, not an intervention.

Excellent way to address the issue of struggling learners within the classroom reduces need for withdrawal and purchased program.

High value in secondary context especially if ‘intervention’ students [i.e. withdrawal group] focus on ‘real’ classroom texts e.g. prior to meeting same/similar texts in mainstream classroom.

Offers a successful intervention program. Our school is replacing our current reading intervention program with this strategy.

**On specific advantages of the approach:**

It fits in with scaffolding and four resources model and allows children to make more connections between their reading and writing.

It allows the teaching of grammar and sentence/word level within the context of reading.

Links beautifully with genre.

It prevents the ‘dumbing down’ and labelling of kids who struggle with language as ‘weak’.

Holistic approach to addressing and challenging all students needs across all subject areas.

Most effective reading/writing literacy program for middle years I have come across in 30 years teaching. Highly recommended for the middle and senior secondary years.

Excellent Professional development for teachers who are forced to consider their teaching practices- I learned that I was excluding some students from class activities because they did not understand the content of the text.

The two respondents who were ‘undecided’ cited the following as reasons for their responses: organisational issues, lack of support at the school, the investment of time and differences between the school philosophy regarding how children learn.
Section 4: Key Findings

This section outlines key findings from the CEOM Learning to Read: Reading to Learn Middle Years Literacy Intervention Research Project carried out in 2003 and 2004. The project involved approximately 60 middle years teachers from 24 primary and secondary schools in the Melbourne Archdiocese working with approximately 400 students. Though some teachers continued involvement over the two years, the two cohorts of schools, teachers and students in the research differed between 2003 and 2004. The findings summarised here are based on quantitative and qualitative data analysis conducted throughout the project.

4.1 Significantly improved literacy outcomes and student engagement

The project confirmed the effectiveness of the Learning to Read: Reading to Learn (LRRL) literacy pedagogy for students in the middle years of schooling, particularly those identified as educationally disadvantaged or at risk. The LRRL approach was highly successful in accelerating the literacy performance of over 95% of the target students underachieving in literacy. However teachers also reported that at the same time it extended the learning of more able students and increased the engagement and participation of all students.

Analysis of pre and post DART test scores, and corresponding CSF-rated scores, showed that average literacy gains across all schools and classes, and among students from all backgrounds and ability ranges, was consistently more than a CSF level in improvement within approximately three school terms, or approximately double the expected rate of literacy development. Furthermore, 20% of students made gains of two or more CSF levels, or four times the expected rate of literacy development. The student gains evident in DART and CSF-rated scores were also supported by the results of miscue analysis of reading and analysis of student writing samples. A small number of students (4.68%) appeared to make no progress, which teachers considered primarily due to non-attendance.

Teachers’ evaluations of the project’s impact on both the literacy performance of students and their own professional knowledge was highly positive. Key outcomes that teachers identified for students were improved confidence, increased engagement, active participation and better quality reading and writing of texts across the curriculum learning areas. Teachers also acknowledged the valuable links created between primary and secondary schools, and between literacy specialists and mainstream teachers.

Gains in literacy outcomes and engagement were made in no more than a few lessons per week, despite interruptions to learning programs, including classes missed as a result of timetable and staffing changes or the scheduling of other school activities during LRRL lessons as well as fluctuating rates of school attendance among at-risk students. Gains for target students were greatest where LRRL sessions were organised on a regular and consistent basis, and where they occurred frequently enough to impact positively on students’ literacy performance over the duration of the project.

The correlation between student gains and consistency of program delivery suggests that gains for at-risk students in LRRL are likely to be highest in schools where the program is a priority, where interruptions and distractions are minimised and where there is a culture of informed support among school leadership teams and the wider school community.
4.2 Advantages of the Learning to Read:Reading to Learn literacy pedagogy

LRRL has a number of distinctive features that make it highly suitable as a literacy intervention for students in the middle years of schooling. These include:

- Appropriate pedagogy for adolescent learners
- Inclusive of students from diverse cultural and linguistic backgrounds
- Effective in both mainstream and intervention contexts
- Linked to mainstream curriculum and assessment practices
- Flexible and adaptable to different models of delivery
- Supportive of different levels of literacy development, including reading, writing, spelling, punctuation and grammar
- Capable of extending the learning of more able students as well as students underachieving in literacy
- A common literacy pedagogy that promotes continuity in literacy provision and builds partnerships between middle years teachers in primary and secondary schools

Lesson sequences and teacher-learner interactions are carefully planned to provide a high level of support for reading and writing texts of all kinds across the curriculum. The strategies provide underachieving students with maximum support as they develop the knowledge and language resources required to read and write texts independently.

4.3 Gains most significant in whole class delivery

The LRRL strategies are designed to be implemented as part of normal teaching practice in whole classes, and can also be used for additional support in small groups. The target students made gains in excess of those of the year level comparison groups in all models of delivery, whether in a small withdrawal group, in a group working separately on LRRL activities within the mainstream class setting, or in a group working on LRRL activities along with their peers in the mainstream class setting. This indicates that LRRL is effective as a literacy pedagogy in both intervention and mainstream learning environments and that it is flexible and adaptable to different student groupings.

However, the project results demonstrate that the whole class model of delivery produces better outcomes for underachieving adolescents than withdrawal groups, whether the classes were mixed ability, or dedicated for 'low literacy' students. Advantages of implementing LRRL within a whole class model are that it becomes part of the usual classroom pedagogic routine, rather than creating a differentiated curriculum for underachieving students. This may also give teachers greater flexibility and autonomy over where, when and how often they use the strategies and helps to avoid some of the shortcomings of the withdrawal model, which often compounds some of the difficulties facing underachieving students and can impact negatively on adolescent self-esteem and peer relationships. This finding is supported by evidence from other middle years studies (eg Luke et al. 2003; ACER 2000; VATE 1999) that, while the withdrawal model may suit the structure and resources of schools, it may not deliver sustained improvement in literacy outcomes for those students who are educationally disadvantaged or at-risk.

Implementing LRRL within a whole class model also guarantees that texts used are curriculum-linked and those from which students are expected to learn independently.
In schools where a combination of approaches were used, the most successful combination occurred where the strategies were used with a whole class, then followed up in small-group work on the same text. This enabled teachers to provide additional levels of support to groups of students, whether students worked separately as a group within the classroom or in a withdrawal setting. In schools where specialist teachers worked with small groups to provide additional levels of support on mainstream classroom texts, teachers reported increased communication and collaboration between mainstream and specialist staff.

4.4 Equally successful for male and female target students

The intervention was equally valuable for all students underachieving in the middle years, whether in single-sex or co-educational school environments. The gains for both male and female students in the project were greater than those of the comparison groups at each year level. The gain for boys in LRRL, however, is a significant achievement in an educational environment where teachers are being called upon to design special programs that recruit boys’ subjectivities and combat disengagement and alienation from schooling. The emphasis in LRRL on high quality, challenging, age-appropriate texts and on pedagogic routines involving active participation and physical manipulation of the text engage the interests of all students equally. Also significant is that the approach ensures that all students experience success and receive affirmation and praise. Teachers consistently reported increased engagement of previously disengaged and struggling students as a result.

4.5 Greater gains where teachers worked collaboratively

The project was set up with the expectation of peer support and teachers were requested to videotape, observe and critique their own and colleagues’ practice. The project demonstrated better results where there was mutual support for pedagogic change and curriculum reform. This helped to overcome within-school inconsistencies in program delivery – lack of shared planning time, student absences and timetable clashes – factors often beyond the control of the individual teacher. This is consistent with research identifying peer support and peer coaching as successful models of teacher professional learning (eg Joyce & Showers 1996).

Where teachers were able to share key learnings from LRRL, to prepare lessons jointly, to clarify questions and issues regarding implementation and to moderate results from assessment instruments, they reported greater personal achievement and greater progress with their students. Teachers new to the project in 2004 often showed higher student gains where they were partnered with teachers who commenced the project in 2003 than those who implemented the approach on their own.

4.6 Variation in student gains between teachers and schools.

Where other factors such as the model of delivery were the same, teacher and school factors appear to have produced differential outcomes for underachieving students. Project findings suggest that, even where the model of delivery used by teachers in one school was the same, a number of other variables impacted on levels of student achievement in the intervention. These include factors such as rates of student attendance, the number and frequency of scaffolding sessions and teacher effectiveness in implementing the approach. This is consistent with findings of other research literature (eg. Hill et al. 1996; Ainley et al. 2002) that within-school variation is as significant as across-school variation.
4.7 Gains for students with ‘learning disabilities’ exceeded expectations

The project results demonstrate that the gains made by students defined as having a learning disability, often in the form of a ‘severe language disorder’, were significantly higher than teachers expected. This group included numbers of ‘integration students’ receiving government funding through the program which until recently was called Strategic Assistance for Improving Student Outcomes (or SAISO). However, also included in this group of target students were many students who, though not eligible for SAISO funding, were in need of increased levels of support in literacy. Teachers reported higher than usual levels of engagement and participation from these students, and more sustained writing as a result of the scaffolded writing activities.

These outcomes suggest that boundaries separating ‘low literacy’, ‘language difficulty’, ‘learning difficulty’ and ‘learning disability’ are ill-defined. Yet this lack of definition in characterising the cause and nature of literacy difficulties can have material effects on the approaches and strategies offered to underachieving students. This finding is consistent with other middle years reports investigating underachieving adolescents identified as having learning difficulties or learning disabilities. A national study of literacy intervention programs and strategies carried out by Louden et al. (2000) found that the terms ‘learning difficulties’ and ‘learning disabilities’ are used and interpreted differently, not only from one state and territory to another, but also between different education systems and schools.

Establishing uniform categories and a common terminology for defining or characterising literacy difficulties will assist schools to better target program resources and tailor programs and strategies to suit particular literacy and learning needs and to develop a model of literacy provision that integrates support for students defined as having literacy or learning disabilities.

The CEOM LRRL project provided a foundation for working towards more uniform and consistent ways of defining and categorising different types and levels of literacy difficulty among literacy specialists, Special Education teachers and ESL teachers in order to ensure that the design and delivery of literacy intervention programs meets student needs.

4.8 A model for monitoring the progress of at-risk students

The project provides a foundation for systematic, longitudinal tracking of underachieving students, particularly in the transition from primary to secondary school where the literacy demands of an increasingly complex, abstract and differentiated curriculum can compound the difficulties facing struggling students.

Concern about a lack of school and system data on the progress and achievement of students at risk is echoed in the findings in other middle years studies (eg Luke et al. 2003). Where information exists, it is not always accessible to teachers in a format that enables it to be used to inform decisions about teaching and learning.

In outlining their reasons for the selection of target students, many teachers in the project reported having to rely on their own personal knowledge of students, or on anecdotal information about students’ literacy ‘histories’. In some cases, especially where a student was new to the school, teachers reported that no information was available. The most significant gap in student information concerned target students in Year 7, the first year of secondary school. Despite being encouraged to draw on transition information,
teachers targeting students at this year level often reported difficulty accessing information about students’ experiences prior to attending the secondary school.

More comprehensive and systematic data on students as they progress from one year level to another, and from one stage of schooling to another, assists education systems and schools both to monitor the progress and achievement of underachieving students and to evaluate the effectiveness of literacy intervention. The project established a foundation for the long-term tracking of at-risk students, particularly from primary to secondary school.

However, the project was also consistent with the claim in Beyond the Middle that what is needed is not more tests but rather systematic attention to the ways tests and other forms of literacy assessments are used (Luke et. al 2003). The project brought primary and secondary teachers together to engage in professional dialogue about literacy assessment and moderation of student work. This enabled teachers to work towards greater consistency, both in conditions governing the administering of literacy assessments and also in the interpretation and analysis of results. Teachers reported increased awareness of the parameters and relative merits of various assessment tools and strategies, and the importance of using assessment information to inform literacy teaching and learning.

4.9 Developing teachers’ professional knowledge about language

The LRRL inservice program has been designed to provide teachers with high levels of professional knowledge about text and language, as well as classroom pedagogies that best communicate this knowledge to students. Explicit knowledge about language is crucial in the middle years where the reading and writing demands of the curriculum increase both in amount and complexity, and where students are expected to learn from texts independently.

The project results showed that LRRL was successful in equipping teachers with literacy knowledge and skills that apply to all aspects of their practice, whether in small groups or the mainstream classroom, and for the benefit not only of at-risk students but for all learners. In particular, the project provided teachers with a language to talk about language (or metalanguage). Teachers in the project reported increased metalinguistic awareness of the complexity of texts across the curriculum and the ability to deconstruct texts at more sophisticated levels to make them accessible to all students.

Many expressed the view that LRRL provides a pedagogy that not only makes texts accessible but also enables students to produce more complex and sophisticated texts themselves. This is important for students as they move up through the middle and secondary years of schooling, where writing is increasingly assessed as the product or evidence of student learning, and where being a competent writer of age-appropriate texts impacts positively on learner identity and self-esteem.

4.10 Sustained support for pedagogic change in middle years literacy

A key strength in the design of the project was the sustained support participants received in the form of ongoing professional development and school-based consultancy. Teacher evaluations from the project confirmed that a major factor enabling participants to enhance their knowledge about text and language was the spaced-learning model of professional development which has been designed specifically to build teachers’ confidence and expertise over time. This model combines
expert input with opportunities to implement the approach and to critically reflect on practice in a highly supportive collegial environment.

Teachers continuing into their second year in the project reported higher levels of confidence as practitioners and a wider range of curriculum texts and contexts for implementing the approach with students. In many cases, the increased confidence and knowledge of second-year teachers was evident in the gains made by their students. This reinforces the importance of giving teachers sustained support in mastering the pattern of carefully planned teacher-learner interaction that underpins LRRL approach, and in developing the knowledge about text and language needed to maximise the benefits of the approach for all students.

The emphasis on involving schools already actively participating in the wider CEOM Middle Years Literacy Project also ensured that LRRL was supported by a growing middle years culture and mindset among local area clusters of associate primary and secondary schools.

**Conclusion**

Results of the research indicate that the Learning to Read:Reading to Learn literacy pedagogy has an important role to play as a component of comprehensive middle years literacy provision at system and school levels. As a Middle Years Literacy Intervention Research Project, the CEOM LRRL project can be seen as a system response to the call for ‘a new wave of research’ into sustainable improvements through mainstream pedagogic reform. The project was highly congruent with reform frameworks and recommendations informing CEOM early and middle years initiatives, including the general design for a whole school approach to school improvement (Hill & Crévola 1997), the recommendations from the Middle Years Literacy Research Project (Culican, Emmitt & Oakley, Deakin University 2001) and the goals and priorities outlined in Beyond the Middle (Luke et al. 2003), the most recent report of national significance on the middle years of schooling in Australia.

The findings of the project indicate that the LRRL pedagogy, if adopted across Years 5 to 9 provides a common approach to literacy built around shared approaches, materials, and methods that challenges the ‘remediation ethos’ and equips mainstream teachers with the knowledge required to teach explicitly to the literacy demands and learning expectations of the middle and secondary years curriculum. These advantages address the concerns identified in the Beyond the Middle, including the ‘pull out and remediate’ approach as distinct from ‘fix the mainstream pedagogy’ approach, and ‘fragmentation’ of target group interventions for ESL students, Indigenous students, weaker readers, and students with disabilities and special needs, where there was ‘no consistent and coherent patterns of approaches, materials or methods used’ (p. 136). In contrast, LRRL offers a powerful set of strategies that address the needs of all students within the context of normal classroom teaching practice.

Moreover, the project was the result of a productive partnership between CEOM and the university sector, through the consultancy of Dr David Rose of the University of Sydney. Dr Rose is the principal designer of the pedagogy, and delivered the inservice training in collaboration with the expertise in teacher professional development provided by Claire Acevedo and Sarah Jane Culican of CEOM.
As a component of the broader CEOM Middle Years Literacy Project, the LRRL project involved CEOM staff providing ongoing support to teachers at a number of levels: as individual practitioners and classroom researchers, as members of literacy-focused professional learning teams and as participants in middle years clusters of associate primary and secondary schools. This support included promoting professional dialogue between primary and secondary teachers, moderation of standards of student work, modelling of scaffolding lessons and teacher shadowing and teacher exchange.

The model of teacher professional learning underpinning the CEOM LRRL project is congruent with the call in Beyond the Middle (Luke et al. 2003) for ‘a strong multi-partner professional development focus on middle years curriculum and pedagogy’ (p.137). The report suggests that such partnerships involve teachers, researchers, consultants and teacher educators ‘working together and training each other in school and cluster-based activities, teacher moderation of standards of student work, staff exchanges and classroom modelling activities’ (p.138).

Finally, the results of the research confirm that, as a literacy intervention, LRRL has an important contribution to make to a comprehensive system-wide strategy that addresses the literacy needs of adolescent learners in the middle years, particularly those identified as educationally disadvantaged or at risk. In the context of Catholic education, it is important that the theory and principles underpinning the LRRL literacy pedagogy are closely aligned with the educational mission of the Church, with social justice values and with democratisation of the literacy curriculum (Rose 2005a).
REFERENCES


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National Board of Employment, Education and Training (1992) In the Middle: Schooling for Young Adolescents, Compulsory Years Project Paper No. 7, AGPS, Canberra.


October 2005


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'Learning to Read: Reading to Learn is a literacy teaching program that aims to enable all learners to read and write at levels appropriate to their age and area of study. It has been developed with teachers of primary, secondary and tertiary students, across Australia and internationally, to support reading and writing across the curriculum, and has been proven to enable even the weakest readers to rapidly learn to read and write at age appropriate levels. It draws on principles of scaffolded learning, functional linguistics and genre approaches to writing, in a form that is accessible, practical and meets the needs of teachers and students.

**Literacy scaffolding across the curriculum**
The program trains teachers in scaffolding strategies that support students to read texts that are expected of their level of study and curriculum area, with fluency and comprehension. The ability to read these texts then forms the basis for learning to write texts at similar levels. The strategies enable teachers to actively engage all students in a class in recognising, interpreting and using the language of texts in their area of study. They can be used as part of normal classroom practice, and as additional support for students in need.

**Reading and writing at all levels of schooling**
For beginning readers the program focuses on recognising, comprehending and spelling words, and reading and writing stories. In the middle school years it includes techniques for teaching reading and writing of both stories and factual texts. In senior secondary and tertiary study, the program focuses on reading and writing technical and academic texts.

**How the strategies work**
Teachers support students to read a high level text, firstly by preparing them to understand it as it is read aloud, and then by giving them meaning cues to recognise and understand wordings within each sentence. These reading skills are transferable to other texts because students are actively recognising wordings for themselves. Once students can read and understand a text, they prepare to write by spelling words and writing sentences from it, or by taking notes from it. Students then practise writing a new text that is patterned on the one they have learned to read. Students’ skills and experience broaden as more texts are studied in this way.

**Training teachers in Reading to Learn**
The Reading to Learn in-service program provides teachers with two sets of skills: firstly in supporting learners to recognise and use literate language patterns in texts, and secondly in analysing the language patterns in these texts, and planning lessons and programs. The discussion used to scaffold all students in a class, including weaker readers, is different from the practices that most teachers are used to, and the analysis of language patterns to discuss with students is unique. The program provides careful demonstration and supported practice over time for teachers to take on these skills, using a series of workshops, training videos and print resources’.
Three Sets of Strategies for *Learning to Read: Reading to Learn*

The following, also taken from the brochure written by Dr David Rose, describes three sets of strategies, which form the basis of the scaffolding approach in *Learning to Read: Reading to Learn*. These strategies are illustrated in photographs in Appendix A of this report.

**Reading and Writing Factual Texts**

*Reading to Learn* strategies for factual texts support students to practise key skills of reading technical and academic language, finding key information, and using this information in their own writing. These skills are practised in four stages. First the teacher prepares before reading the text aloud, with background knowledge that students will need to understand the text, and by summarising the topic and sequence of meanings in the text, in words that the students can comprehend easily. Secondly, in a detailed reading of a short passage, the teacher prepares students to recognise and understand wordings within each sentence, using meaning and position cues, so that students know what each group of technical or literate words mean, and where to find it in the sentence. Students identify and highlight these words and the teacher then elaborates by defining, explaining or discussing them in more depth. This enables all students to read the text with full comprehension. Thirdly, students take turns to scribe the word groups they have highlighted, as notes on the classroom board. Fourthly the teacher guides them to write a new text using these notes, but in words that are closer to the level they would write themselves. Students then practise writing texts independently.

**Reading and Writing Stories**

Strategies for reading and writing stories are similar to those for factual texts, although the focus is on literate wordings, rather than technical information in each sentence, and the goal for writing is to invent a new story, using the literate language patterns they have learnt in reading. Here additional support can be given by writing out sentences or paragraphs on cardboard strips and using these to practise reading, spelling and writing. (This extra support can also be used with factual texts.) First the teacher prepares before reading the text aloud, with background knowledge and summarising the topic and sequence of meanings. Secondly, in the detailed reading of a selected passage, the teacher prepares students to identify and highlight wordings and then elaborates by defining, explaining or discussing them. Thirdly, selected sentences or paragraphs are written on cardboard strips and students cut up and re-arrange words in the sentences until they can read and understand them fluently. Fourthly, students learn to spell these words by practising to write their letter patterns on small whiteboards. Fifthly, they can practise re-writing whole sentences or paragraphs, using the words they have learnt to spell. And finally the teacher guides them to write a new text using the overall structures and language features of the passage they have learnt to read.
Reading and Writing Factual Texts

1 Preparing before Reading
Teacher discusses topic and sequence of the text with students, and then reads aloud.

Students and teacher discuss and interpret the text at each stage of reading and writing.

2 Detailed Reading
Teacher prepares students to identify and highlight wordings in each sentence.

3 Note Taking
Students scribe highlighted words on the board as notes.

4 Rewriting from Notes
Teacher guides students to write a new text using text structures and information from notes.

Students first write the text together and then independently.
Reading and Writing Stories

1 Preparing before Reading
Teacher summarises topic and sequence of the text, and reads aloud.

2 Detailed Reading
Teacher prepares and students identify and highlight wordings in each sentence.

3 Sentence Making
Students cut up and re-arrange sentences on cardboard strips.

4 Spelling
Practice writing words from the text on whiteboards.

5 Sentence Writing
Practice rewriting sentences from the text on whiteboards.

6 Text Patterning
Writing a new text using the structure and language patterns from the reading text.
Early Reading and Writing

1 Shared Reading
Read a story until children can say all the words.

2 Recognising Words
Children point at each word as they say it.

3 Cutting up Words
Cut off each main word in the sentence.

4 Making Sentences
Mix up words and put the sentence together.

5 Spelling
Practise spelling words from the sentence.

6 Forming Letters
Show children how to form letters as they spell.
CEOM Learning to Read, Reading to Learn Project: Record of Scaffolding Sessions 2003/4

<table>
<thead>
<tr>
<th>Date</th>
<th>Your Name</th>
<th>Year Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Who did you work with?

- Whole class [ ]
  Context (eg KLA/unit of work/task etc) _______________________________
- Small group [ ]
- Individual [ ]

2. What text did you use? (attach a photocopy of text and your notes if possible)

_____________________________________________________________________________________________
_____________________________________________________________________________________________

3. Which of the sequence of scaffolding activities did you use?

_____________________________________________________________________________________________
_____________________________________________________________________________________________
_____________________________________________________________________________________________

4. How long did you spend on

   Preparation __________________
   Delivery __________________

5. How did your students respond?

_____________________________________________________________________________________________
_____________________________________________________________________________________________
_____________________________________________________________________________________________

6. What worked well? Why?

_____________________________________________________________________________________________
_____________________________________________________________________________________________
_____________________________________________________________________________________________

7. What did not work well? Why?

_____________________________________________________________________________________________
_____________________________________________________________________________________________
_____________________________________________________________________________________________

8. What would you do differently next time?

_____________________________________________________________________________________________
_____________________________________________________________________________________________
_____________________________________________________________________________________________

9. Other Comments

_____________________________________________________________________________________________
_____________________________________________________________________________________________
_____________________________________________________________________________________________